

Independent Progress Review of

CALLAGHAN INNOVATION

January 2018

An Independent Progress Review against the Performance Improvement Review Framework undertaken by the State Services Commission, the Treasury and the Department of the Prime Minister and Cabinet in 2016.

REVIEWER'S ACKNOWLEDGEMENT

This progress report was requested by Callaghan Innovation's Board and Executive Leadership Team in an effort to be proactive in reviewing their progress in responding to the last formal PIF review in 2016. While this report generally follows a PIF format, it is not a central agency PIF review but rather an independent progress assessment and direction of travel check.

The PIF methodology is interview – based and in the case of this progress review I interviewed about half the number of staff and stakeholders I would usually meet with in a full PIF review. As a result of this and a condensed time frame, this progress review is light on some areas of core business and organisational management. Specifically, it does not contain updates on the agency's core business outputs.

I have a potential or perceived conflict of interest as reviewer in that my partner is a member of Callaghan Innovation's grants team. For this reason, I have not undertaken specific interviews or made detailed comments about the grants area of Callaghan Innovation's work.

I am very grateful for the constructive and open spirit with which Callaghan Innovation's executive leadership, Board and staff entered into to this review and for the willingness of some of Callaghan Innovation's key external stakeholders to engage in interviews at a busy time of year. Everyone I spoke to was keen for Callaghan Innovation to succeed and supportive of the fact that Callaghan Innovation had itself initiated a progress check.

Finally, I have drawn heavily here on the insightful analysis provided by Dame Paula Rebstock in the earlier PIF review in 2016. Her suggestions have proved durable and remain highly pertinent. This update should in no way replace her more detailed analysis.

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AGENCY RESPONSE

Callaghan Innovation's Board and Executive Leadership Team welcomed the opportunity to assess the organisation's progress since the full Performance Improvement Framework Review in 2016. We thank our independent reviewer, Debbie Frances, for conducting this progress review of Callaghan Innovation as the feedback is beneficial in terms of reinforcing the value of much of what we do but also assisting us with our direction of travel. It also clearly identifies opportunities for Callaghan to be more relevant within the technologically dynamic and innovative environment we operate in.

While we were pleased to see the very real progress that we have made, especially over the last twelve months with our new Chief Executive and refreshed senior leadership, we remain steadfast in our commitment to growing New Zealand's innovation economy and to better serving the people, firms and companies that this comprises. We know we have come a long way, but we also know that our work is far from complete, and this review assists us in refining and confirming critical areas for future focus.

In terms of our future, we are dedicated to increasing our velocity and desire to liberate innovators by driving three key outcomes.

- Completing the co-creation of our three to five year strategy thus ensuring we are organised and aligned around the achievement of clearly articulated objectives and ensuring we have the capability and resources to deliver this in partnership with key stakeholders and partners.
- Ensuring that our work and our delivery is consistent with the mandate to lead and coalesce the people, organisations, resources and capabilities that reside within New Zealand's innovation ecosystem. We intend to be the central advocate and uniting force for commercial innovation on behalf of New Zealand both locally and internationally.
- Driving increased system collaboration and creating the platforms that provide a single, pan-government approach for our innovators and entrepreneurs.

To do this we will:

- Be a consistent and clear voice that shows New Zealand where the world is going, how we must adapt, and how innovation will drive success.
- Fuel innovation by being an exemplar of the future. Callaghan Innovation itself needs to stimulate demand for innovation and be an activist for innovators.

- Connect the ecosystem and our innovators into local and global ecosystems and collaborate to remove friction.
- Liberate innovators by partnering on their journey, offering the right service and funding support at the right time for greatest impact.

In terms of our aspirations and measures of success, we intend that by the end of 2020 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:

- New Zealand as a nation will be aware of and ready to not only embrace but lead and create economic value from the significant changes that innovation will bring to our societies. Our Government, supported by the work and insights of Callaghan Innovation will have a clear and dynamic view of this future, our country's ability to contribute internationally, and the platforms, infrastructure and capability to leverage innovation and innovative thinking.
- Callaghan Innovation will be delivering outstanding customer service and will be recognised for its ability to add value and assist New Zealand firms' technological transformations. A key element of this will be to embed reliable and repeatable systems and approaches as well as a coherency of our people development that will underwrite not only a consistency but a steady improvement in the relevance of our services. While the Grants area was not considered as part of this progress review because our reviewer declared conflict, we have invested in researching our customers' experiences with Grants, and have a strong focus on continuous improvement of our application of policy, procedures and systems. By 2020, our customers will also have successfully transitioned to the tax credit regime.
- There will be more and bigger firms doing more R&D and being successful through technology.
- New Zealand's innovation system will be enriched with connections and collaborations both national and international and Callaghan Innovation will be at the centre of many of these relationships and collaborations. We will have solid and respected relationships with all critical providers (both science and technology) and other delivery agencies.
- 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 agency for economic diversification through innovation and technology. We will have highly collaborative relationships with MBIE, NZTE and other key partners as part of our delivery to New Zealand businesses.
- Finally, the Chief Executive and Executive Leadership Team will have continued to have successful and effective relationships with what will be a relatively new Board and Chair.

The Callaghan Innovation Board and Executive Leadership Team thank Debbie Francis for her insightful and helpful evaluation of our current situation and journey, particularly since the last PIF Review. We also acknowledge and thank Debbie for her 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.

FOUR-YEAR EXCELLENCE HORIZON

In undertaking this progress review, the independent reviewer considered: “What is the contribution that New Zealand needs from Callaghan Innovation and, therefore, given what has been done since the last review, what are the next steps in its performance challenge?”

Callaghan Innovation Context

Callaghan Innovation was established on 1 February 2013 under the Callaghan Innovation Act 2012 as a Crown Agent under the Crown Entities Act 2004. Callaghan Innovation’s primary objective is to support science and technology-based innovation and its commercialisation by businesses, particularly in high value manufacturing and services (HVMS) sectors, to improve their growth, competitiveness and profitability.

The agency has a very broad range of functions, including:

- Fostering an environment for businesses to support growth through science and technology-based innovation
- Promoting networking between businesses and the providers of research, science and technology (RS&T)
- Facilitating the transfer of knowledge between RS&T providers and businesses
- Undertaking research and development (R&D) itself
- Allocating and administer R&D funding
- Providing advisory services to business related to innovation
- Investing in innovation projects or persons.

Callaghan Innovation’s role is to help HVMS businesses invest in, 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 increased export receipts.

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 393 full time equivalent staff and has offices in Wellington, Auckland and Christchurch.

For the 2017/18-year Callaghan Innovation has an operational revenue budget of approximately \$102 million — made up of \$78.1 million in Crown funding, \$21.0 million in commercial revenue and \$2.9 million in other revenue. For the 2017/18 financial year, it is expected to generate at least \$10.8 million in commercial revenue from Research and Technical Services (RTS) R&D projects. Callaghan Innovation also administers several grants programmes on behalf of the Crown to the value of approximately \$200 million (2017/18 financial year).

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 based on advice provided by the relevant policy agencies (MBIE and the Treasury).

Environment

Under the previous Government, Callaghan Innovation played a critical facilitation role in the effort to achieve the 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. The new govt is also committed to supporting business innovation and has set a target of lifting Research and Development expenditure to 2% of GDP (from the current 0.8%) in 10 years. Callaghan Innovation is expected to play a strong contributing role in achieving this.

As businesses invest more in research and development (R&D) activity they are more likely to grow in size and to improve both profitability and productivity. 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.

Supporting New Zealand businesses to turn ideas into breakthrough and market-ready products, processes and services helps grow New Zealand's economy and increases its resilience – achieving a more diverse and balanced spread of contribution from a broad portfolio of science and technology intensive sectors.

Key elements of the current context for Callaghan Innovation Innovation's mission are:

- The emergence of disruptive new business models that are driving rapid changes in markets
- Technology-led disruption of traditional technologies, supply chains, and markets

- Increased customer expectations and the impact of social media on customer voice and demand
- Demand for products and services that are environmentally sustainable and low carbon
- Fast growing creative industries and their potential for exponential expansion
- the shortening timeframe that other countries are achieving to go from intellectual property to commercialisation and market.

As a small, advanced economy, New Zealand is well positioned to leverage the results of connecting RS&T with business. It ranks highly on access to the key infrastructure needed to share knowledge, such as education, academic achievement and communications. New Zealand's 'can do' and agile culture 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 15th most innovative economy in the world (2015 Global Innovation Index).

New Zealand must utilise these strengths to grow and diversify its economy, moving from its traditional land based focus to a more balanced portfolio including high value manufacturing and services, creative industries, data and digital. 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.

To close the gaps and reduce the risks faced by small and medium-sized businesses as they grow and innovate, Callaghan Innovation must draw together the capabilities, experience and resources of a diverse range of partners, including NZTE with its export growth mission, regional economic development agencies, incubators, accelerators, universities, CRIs, NZVIF, etc. The innovation ecosystem in New Zealand is a busy and complex arena that is difficult to understand and navigate. Connecting the right Firm to the right capability at the right stage of business development requires expert knowledge of the many players in the system, as well as understanding of the market, the Firm's circumstances and current and potential customers.

Callaghan Innovation also operates in a complex NZ Inc policy environment, involving many government agencies. It needs to be influential with the Government's policy advisors so that the lessons learnt from interactions with its customers and stakeholders can inform the development of new policies or other interventions. Key NZ Inc relationships include:

- 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 Ministry of Foreign Affairs and Trade (MFAT), which has overall leadership of the export goal
- the Treasury, a critical policy and oversight agency in the system
- the Tertiary Education Commission (TEC) and the Ministry of Education, that have policy and oversight responsibility for the universities
- the Ministry for the Environment, which has lead on the current Government's push for a net zero carbon economy.

There is no other agency in the New Zealand innovation ecosystem that can play Callaghan Innovation's facilitation and connecting role. This is unlikely to change in the future. Timely and effective collaboration across the ensemble cast of agencies is critically important if New Zealand firms are to capture the economic, social and environmental rewards from the commercialisation of innovation.

Performance Challenge - Outcomes

The innovation space, almost by definition, is where one should expect to find ambition and leadership in the context of ambiguity. Confident and bold innovators are skilled at harnessing creative tension and paradox to create value.

At four years of age, Callaghan Innovation, like most of its client early stage companies, is at a key inflexion point. It is pivoting for the next phase in its organisational evolution. In doing so it is now beginning to give effect to its statutory mission - to support science and technology based innovation and its commercialisation - with greater confidence and clarity, against the backdrop of an uncertain and increasingly disrupted world.

In response to its 2016 PIF review, Callaghan Innovation undertook to focus on the following key strategic outcomes:

- Deepen understanding of current and potential customers, the innovation process and markets
- Understand, better measure and demonstrate the impact Callaghan Innovation has on businesses, sectors and the economy

- Put customers at the heart of the organisation's operating model
- Engage effectively with other players in the research and innovation ecosystem
- Go to market in a relevant way ensuring customers understand and can take advantage of Callaghan Innovation's offer
- Develop an effective innovation quarter on the Gracefield site
- Provide relevant and revenue generating science services
- Strengthen its senior leadership cadre.

Following the 2016 PIF the Board of Callaghan Innovation undertook a search for a new CEO with Vic Crone being appointed into this role in February 2017. Over the last nine months in particular, under Vic's leadership and with the full support and focus of the Board, all of these areas have now been the subject of significant improvement efforts, as outlined in the later sections of this progress review. Staff and stakeholders consistently comment positively on the changes made. In summary, these include:

- The development of a new, customer-led operating model, with customers segmented by sector
- Considerable effort on the development of improved outcome and impact measures, particularly at the firm level
- Much more proactive and open stakeholder engagement, including with other ecosystem players
- Clearer internal and external articulation of Callaghan Innovation's mission to 'liberate innovators' and the development of a 12 month strategic road map
- A plan, with variants and off ramps, to partner to develop the Gracefield Innovation Quarter
- Better cultural inclusion within the organisation of Research and Technical Services (RTS) and the Measurements and Standards Laboratory (MSL), and a clearer plan for their futures, including ambitious commercial targets
- Performance improvements in commercial subsidiary vehicles, such as GlycoSyn and Kiwistar

- The commencement of a new CEO and some strong new appointments to both the executive leadership team (ELT) and the Board.

For Callaghan Innovation to build on these recent improvements and transition to its next chapter, it will need to model many of its clients in balancing a complex array of creative tensions. While major and rapid gains have been made on each of the priorities set by the Board in 2016, the next stage of Callaghan Innovation's strategy and operating model development is likely to be focussed on continued disciplined and tenacious execution. The Board and executive are well aware of this.

The near term performance challenge can be summed up in a series of paradoxes that must be carefully balanced by Callaghan Innovation's leadership team as it enters the next chapter of the agency's organisational maturity. Together these make for a sophisticated challenge and one that will require visionary and adaptive leadership, internal tenacity and external support to meet.

PERFORMANCE CHALLENGE – AGENCY

Purpose and targets

The first test in the new performance challenge and the first paradox that will need to be balanced is between the strategic and the tactical obligations of the agency.

Managing for today and tomorrow

Callaghan Innovation must balance its strategic mission to fly high across the enterprise landscape, spotting innovation opportunities and innovative individuals and firms, while constantly scanning the horizon, with its more tactical requirements to earn revenue from science services, manage disparate subsidiaries, finalise the cultural merge of elements from legacy organisations and manage an aged asset base with ongoing health, safety and maintenance issues at its Gracefield site.

Under new leadership the persistent angst on these operational matters suffered through the start-up phase of Callaghan Innovation's history has been replaced by a more confident approach. The legacy elements are being positively and inclusively managed and placed onto a firmer commercial footing. In the meantime, however, Callaghan Innovation's strategic muscles were somewhat atrophied and staff and stakeholders are now ambitious for it to recover its strategic mojo. By being more open, aspirational and visible of late, Callaghan Innovation has stimulated a desire amongst its staff and stakeholders to 'go even harder'.

In order to do this, Callaghan Innovation needs to quickly re-articulate its medium term 'why', and this is currently underway using a co-creative process with key stakeholders and customers. It needs to find a simple, unifying, galvanising ambition for the agency that all staff and stakeholders can elevator pitch consistently and authentically and on which can be based some powerful impact targets and measures that will demonstrate progress to both internal and external audiences.

There is urgency to this restatement of purpose and ambition. In the past, strategy was unclear and confusing and Callaghan Innovation was bedevilled internally by existential discussions on the best way to reconfigure the legacy assets and teams. Now that Callaghan Innovation is moving forward with reenergised leadership, it needs to keep its eyes firmly on the horizon and not look back.

Lead without leading

The second paradox Callaghan Innovation faces is to lead though it does not lead.

As noted above, New Zealand's economic development and innovation system is complex and involves an ensemble cast of NZ Inc agencies. At present there is no clear blue print for how the 'ecosystem' works and which clearly shows who leads what. Callaghan Innovation has a complex mandate which overlaps with those of other players. The fact that Callaghan Innovation also directly sells science services and is partly self-funded makes the position even more complex.

The recent change of government and proposed changes to R&D policy provide a useful opportunity to outline the ecosystem map more clearly and develop a clear description of the roles and responsibilities of all the players. Who for example, is the lead agency with respect to start ups? Who takes the lead with regard to angel investment? How does the field intelligence gathered by Callaghan Innovation's customer facing staff feed into policy, regulatory or intervention design at MBIE? At present, questions such as these abound, even within the beltway. Beyond it, they remain confusing to partners, customers and firms.

Callaghan Innovation needs to understand and agree with its partner agencies where it overlaps with other NZ Inc players, where it has codesign responsibilities, where it must lead through others and where it has the sole lead.

Callaghan Innovation also needs to continue on its new path to becoming a committed team player within the NZ Inc ensemble and resetting many of these machinery of government relationships. These relationships may be harder work than those with customers and other external stakeholders but they must be placed on a more open and constructive footing if Callaghan Innovation is to move forward with confidence and the full support of its partner agencies.

As noted in MBIE's own recent PIF update, the presently somewhat vexed Callaghan Innovation/MBIE relationship will require considerable personal and professional investment by all the players, if it is to be reset so that both agencies can contribute their very best and deliver the excellent collective results of which they are capable.

Going forward, it will be particularly important to differentiate Callaghan's joint working relationship with MBIE on policy learning and implementation from its relationship as it pertains to MBIE's Crown entity monitoring role. The policy relationship is potentially a valuable one for the ecosystem, as Callaghan should play a vital role for MBIE in feeding it with on ground insights and commercial intelligence, that can inform the performance review

and design of the parent agency's legislative, regulatory or policy interventions. There is work to do in ensuring a more candid, open and productive working relationship between MBIE and its Crown entity.

1. Business Strategy

Balancing agility and prioritisation

The third paradox Callaghan Innovation faces is the need to take a disciplined, selective and above all focussed approach to the development of its medium term strategy while also modelling agility and innovation.

By its nature innovation, particularly in the incubator and start up space, requires many ideas and opportunities to bloom and many to fade or fail. Callaghan Innovation is too small an agency with too slender a purse to take the same approach to its own strategy. It must crack its segmentation model and pick, from amongst a wide array of strategic choices, a clear and selective path to the future. There are several aspects to this.

- First, Callaghan Innovation needs to decide, in the context of its statutory purpose, on its one or two big organising ideas and the domains in which it will apply these. For example, most stakeholders agree that the two key pillars on which strategy could rest are Callaghan Innovation's mission to 'superconnect' RTS with business and to provide thought leadership, investment and advisory services in innovation (in its CEO's words, to be a 'beacon of inspiration').
- As a part of this, Callaghan Innovation needs to pick its primary identity. Is it primarily a funder, a supplier of development expertise, a connector and broker, or a facilitator of business growth? Its statute is permissive to all of these, but which will be its *prime* lens on the world?
- Second, the agency needs to decide its key focus areas. In the current policy context, Callaghan Innovation might decide, for example, that a primary domain focus of the next 3-5 years might be New Zealand's move to a lower carbon economy. Another may be to build on the excellent work undertaken to date on the Maori economy. The agency should pick only one or two such focus areas to maximise its impact.
- Next, and based on its agreed focus areas, Callaghan Innovation needs to decide on the manner in which it will segment its markets and customers. At present this is through economic sectors: the Maori economy, health, food and agribusiness etc. This sectoral segmentation is relatively new and has worked well to focus and energise

staff outwards, around sector relationships and customers. However, for the medium term it is too unsophisticated an approach...

- While Callaghan Innovation serves the businesses and firms that comprise the New Zealand innovation economy and for some organisations this may mean digital access to a range of automated services, effort is focused on those firms who have the potential, capability and ambition to grow.
- Rigorous selection frameworks and tools will need to be applied to ensure optimal use of and access to resources, and this may include looking through more of an investor lens in which the entrepreneurialism and execution history of the founder/business leader are taken into account as key criteria.

Does this mean some businesses Callaghan Innovation works with may fail? Yes, and given that this is about innovation, some will fail. But, provided that mechanisms for organisational learning and ongoing pivoting are in place, and a portfolio performance lens is applied at Callaghan Innovation, we will be able to refine current and develop new ways to enable innovative and ambitious firms with capability and potential to grow.

These pressing strategic choices are made more challenging by Callaghan Innovation's early history of trying to do too much, in addition to inheriting a science for sale business and other commercial entities. Almost every external interviewee I spoke to rated Callaghan Innovation's leadership and its people to do *many* things well. However, they also consistently felt that it needed to 'pick its path' and stick to it, and do so in a uniquely kiwi way. A number of interviewees suggested that Callaghan Innovation needed to run itself like a start-up. Be focused, take risks, fail fast and run a tight ship.

2. Operating Model

This brings us to a number of paradoxes and tensions that relate to the new operating model that Callaghan Innovation's leadership is presently creating.

Passion and discipline

The first relates to tension between the passion of Callaghan Innovation's people and the need for internal rigour in the next stage of development.

People who work at Callaghan Innovation are fuelled by a deep passion to make a difference for New Zealand. Recent appointees in particular have sometimes come from backgrounds where business model or technological disruption are pervasive and they want to support

New Zealand businesses to create value from disruption. In some cases they feel inspired to shake New Zealand enterprises from complacency.

There are two barriers to this passion that staff talk about a lot. Lack of a focussed plan and the inherited frustratingly bureaucratic and old fashioned internal systems and processes. Callaghan Innovation's people need to put their passion into the effective execution of a clear plan and they need agile internal systems and processes.

The lack of a plan is under work. Staff comment positively on the new leadership's 12 month strategy roadmap and look forward to the early 2018 release of the 3-5 year strategy. They feel that the new 90 day plans which effect the 12 month roadmap promote clarity and are a good start towards greater discipline and accountability (more on these below).

However, Callaghan Innovation is not moving fast enough on system and process improvement. Legacy IT systems must be streamlined in the context of an enterprise plan, rather than relying on continuing the (good) point solutions of the last twelve months. Processes need to be stripped down to be more agile and contemporary.

Callaghan Innovation's leadership is well aware that it is unauthentic for an innovation agency to be burdened by internal bureaucracy of its own making. Callaghan Innovation cannot remove barriers and join the dots for science, business and innovators if it can't get out of its own way internally. Signs and symbols are important here: an agency that can't get its systems to work internally is not modelling successful innovation and technological agility.

Because of its history of being a bundle of legacy parts, Callaghan Innovation's systems and processes also tend to operate vertically in silos, as opposed to horizontally across units and teams. There is duplication, complexity and unnecessary frustration as a result. Systems and processes need to be mapped across the business to pick or design the best in class and stop the rest.

Regarding its largest and most complex asset, the campus at Gracefield, Callaghan Innovation must accelerate the proposed redevelopment of this site with clarity of vision, role and functionality of the Gracefield Innovation Quarter (GIQ). Associated with this, Callaghan Innovation must engage with its owner to understand the owner's appetite for and commitment to the ownership of separate commercial entities.

Another area in which passion must be balanced by discipline is customer account management.

Callaghan Innovation is getting a new reputation for being more outward looking and for investing in moving its key customer relationships from the tactical to the strategic.

For example, the Māori Economy Unit although small, has been making a big impression in the Maori innovation space and has built up significant credibility with key players in the Māori Economy. They have invested carefully in relationships with key individuals and entities in the Māori sector and have been able to create clusters of firms such as the highly successful Nuku ki te Puku (Māori Food Cluster), and initiatives such as the annual Māori innovators' Inspire event, Matariki X, both of which have contributed to lifting innovation from entities within the Māori Economy.

The risk at present is that this is based on good people working hard on forming good relationships on an individual basis. Long term, this will be too draining on the CEO and members of the ELT.

Customer management needs to be placed on a more systematic and repeatable footing using tried and tested account management approaches and metrics. In this way it can be durable across changes in personnel. Priority customer accounts should have clear plans and (both qualitative and quantitative) targets, and customer facing staff need to be accountable for progress in meeting these.

Customer facing staff also need excellent induction/training in and a consistent brand story and language to describe and deliver the available products and services. A structured approach, such as the 'customer way' framework used at NZTE in its earlier development, should be considered. At present customer engagement is being managed more as art than science. This is generally effective as Callaghan Innovation's people are good. It could be even more effective, consistent and sustainable if the balance was tipped a little towards more systematic approaches.

Callaghan Innovation also needs to run its account management relationships, programmes, services and products as a dynamic portfolio with a focus on results. Horizon zero programmes should be dressed for export or closure, Horizons one and two should be managed for the medium term, and formal effort should be put into scanning and development for Horizon three programmes in emergent or potential segments. Elements of the current product suite feel dated and a disciplined EPMO type approach may be beneficial.

Passion amongst staff is a precious asset, but without discipline, it is just passion and won't produce results. Discipline without passion will also fail because staff feel strangled by bureaucracy and will not give of their discretionary effort. Going forward, the two need to exist in healthy balance.

Do less and think more

Another paradox that Callaghan Innovation needs to balance is the opportunity to amplify its impact by doing less.

Callaghan Innovation has had an infusion of new talent at both Board and ELT level. Its new CEO's style is fast, visionary, decisive and high energy. New hires tend to share these attributes. Staff and stakeholders are finding the new sense of urgency, the improved listening and the willingness to act on long standing issues refreshing and exciting. They like the increased results focus and the new openness with which Callaghan Innovation is leading.

The shadow side of these positive attributes is that reflectiveness can be reduced, or that short term issues management and the adrenalin entailed in finally making progress crowd out longer term strategic investments.

Internally, staff have been hungry for action and greater agility and boldness. They are responding well to the new leadership style. This is reflecting in greatly improved staff engagement and in talent attraction. There is also much internal discourse around the need to show results, to 'earn trust', 'nail some wins' or to 'get runs on the board' to demonstrate Callaghan Innovation's credibility.

These sentiments are good, but again, passion and pressure for quick results must not displace rigorous, stewardship thinking about and planning for the long term health of New Zealand's innovation ecosystem.

It is important that the adrenalin of improvement and quick wins does not replace investment in thoughtful, focussed, long run strategy and in scanning for future trends and opportunities. Callaghan Innovation's people need to preserve the time and space to consider how they can implement strategy over multiple time horizons, or the changes currently being made will not endure. Callaghan Innovation is running a marathon, not a series of sprints.

Related to this is the need for Callaghan Innovation to continue to focus on the unsexy aspects of its statutory purpose and the hard issues it needs to crack. For example, its facilitation role between science and business necessitates close working and deep relationships with the universities and CRIs. Some of these relationships are arguably still underdeveloped and need ongoing patient investment while significant progress has been made with others.

Callaghan Innovation's leaders will need to resist the temptation to concentrate on the most exciting and positive relationships with innovative firms and science and technology providers and be patient at enrolling all players in the innovation story. Even under a possible new R&D tax credit system, the fact remains that a large proportion of science for business activity will be undertaken in New Zealand universities and CRIs.

Precise but diverse impact assessment and reporting

Another challenge as Callaghan Innovation refines its new operating model is to demonstrate impact scientifically but also holistically.

While almost all economic development agencies struggle with outcome measurement and attribution, Callaghan Innovation has been slower than most to land on a bundle of measures and targets to measure and demonstrate its impact. Measurement has in the past been input based or reliant on external reporting such as the TIN Report. These difficulties in demonstrating impact have fed unhelpfully into Callaghan Innovation's existential debates and in the past reduced confidence on the part of external agencies.

There are very promising signs that Callaghan Innovation is beginning to settle on more sophisticated outcome measures and to demonstrate the counterfactual by comparing the performance of entities it has supported with those it has not. Board reporting has stepped up significantly. A much stronger outcomes focus is flavouring internal discourse. This work needs to continue to be refined with urgency.

It also needs to be driven further down into the organisation in a cascade of metrics that are used to drive accountability for results at every level. For example, once Callaghan Innovation is clear about its medium term ambition, it must then settle on the currency through which that ambition will be measured. Then it must disaggregate this into a taxonomy of measures, right down into unit/sector/segment measures (reflected in the 90 day plans) and into individual KPIs that promote a stronger performance and accountability culture.

Measures can be a mix of qualitative and quantitative, commercial and social or environmental. While Callaghan Innovation has to date viewed its world through the lens of economic development, it needs to think about more holistic measures in the social, sustainability and decarbonisation spaces too.

Outcome or impact measures should be widely communicated and Callaghan Innovation must be seen, both internally and externally, to be holding itself to account for progress towards its key strategic ambition.

Internal performance management, like most aspects of tactical HR/OD at Callaghan Innovation, is increasingly sound. But if Callaghan Innovation is to model and engage with the country's best science, best business, best investors and best innovators it must hold the bar for individual staff performance and accountability for results very high. It's been OK to be OK while strategy and targets have been unclear. The current 'nice' internal culture may need to become a little edgier and more demanding as the way forward is firmed up. The new CEO is driving this.

Prudential risk-taking

Another tension that Callaghan Innovation must manage going forward to the balance between risk taking and the responsibilities of public management.

One of Callaghan Innovation's core values is boldness and many staff commented that this has felt somewhat inauthentic over the last few years. If Callaghan Innovation is to adopt the suggestions outlined here, it will have to continue to become a bolder and less risk averse culture.

So will its owner and shareholders. There are reasons that Callaghan Innovation was not created as a unit within MBIE, but as a Crown entity with an independent board of experts in innovation, science and technology, and one was to allow for a more permissive risk appetite than would be possible in the core.

Just as start-ups and entrepreneurs take risks, so will Callaghan Innovation. This is challenging in a publicly owned and funded context. As several interviewees put it, Callaghan Innovation needs to 'go for broke' to leverage value from innovation in a disrupted and rapidly changing world.

Adopting this approach also requires great discipline. It will require more stringent calibration of differential risk appetites for different activities, better market intelligence, more decisiveness around fast failure, and rigorous organisational processes around lessons learned.

And boldness and risk taking must also always be tempered in the public sector by agencies' obligations to act as prudent stewards of public resources and to observe both explicit and implicit public management proprieties. This is a difficult balance for Callaghan Innovation and one it needs to be open about with its fellow NZ Inc agencies. Given its necessary focus on the Auckland market, it also needs to be careful to maintain and build its ability to 'do Wellington'.

Don't stop for breath, but bring the peloton along

The final paradox for Callaghan Innovation to consider as it moves into its next chapter is the need for speed, while also bringing its people along the change journey. While palpable progress has been made in the last 12 months it is not yet embedded nor sustainable. Callaghan Innovation's new leadership should not stop for breath but they will also need to constantly check that they are bringing their internal communities and their customers and stakeholders along with them.

Indeed, if the paradoxes outlined here are to be addressed, the organisation now needs to move even faster. While true transformation of the operating model and getting it onto a sustainable basis will take 3-5 years, the next 12 months are critical for completing the current pivot and for further rebuilding internal and external confidence. The use of the 90 day plan methodology for management accountability and delivery which Callaghan Innovation is beginning to adopt will serve it well in this regard.

As part of enrolling its people and communities in its new story, Callaghan Innovation needs to continue to find innovative approaches to finding and managing talent. There is scope to extend the new recruitment and staff development model under which the agency is more porous, with more inward and outwards secondments, exchanges, adjunct arrangements and rotations through businesses, universities and CRIs. Callaghan Innovation's recruitment proposition to commercial innovation and RS & T talent might be 'come to Wellington for a year or two, learn how government works, then go back to the commercial or academic worlds.'

An agency that leads innovation needs to keep its people and teams fresh, relevant and consistently high performing. As a small agency, Callaghan Innovation can none the less foster and grow a connected community of scientists, innovators and advisors across New Zealand, some of whom periodically perch within its walls.

While rapid change will be an ongoing fact of life at Callaghan Innovation, the way to keep its middle management and staff involved, unified and positive is to continue as the refreshed leadership has begun, and codesign strategy and execution approaches with them. Callaghan Innovation has some excellent capability, and this talent needs to be constantly re enrolled in and able to tell the story of Callaghan Innovation's ambition, impact and priorities. This will take real persistence and sustained energy by leadership.

3. Implementation (including Change Capability)

As noted above, the medium term strategy which is in development and due for finalisation early 2018, must be nailed and quickly. Completing it and telling the story of it are more important than having all the analytics right.

Implementation of the plan must then move into an urgent, rigorous, predictable rhythm.

Here the 90 day plans (each a bite of the medium term elephant) are a great vehicle, but they are not yet being used to best effect. They need to shift to being cascaded top down from the medium term plan, rather than created bottom up by units in isolation. The horizontal trade offs must be agreed between tier 2 and 3 leaders. They must focus on fewer things and

measure more. They must better balance BAU and change. They must use the plans to hold their people to account.

Critical to the latter is the pause after the end of each quarterly cycle, for reflection on impact, insights into successes and failures, codesign of the next 90 days, and resetting of risks, risk appetites and priorities in the context of lessons learned.

These impact assessment pauses should be conducted inclusively with staff, to inculcate insights and to promote continued prioritisation and shared focus on results. This brings the all important middle managers of the 'pursuit team', and Callaghan Innovation's wider staff along a journey together with the ELT.

Successful execution is everything now, and while the recent dipping of the toes into 90 day planning has been useful, the approach presently lacks enough discipline, consistency and focus. Again, managers are, in the absence of a clear and focussed strategy, trying to do too much, and to do it within their silos.

Finally, then, the instructions on the tin for Callaghan Innovation are clear and unsurprising, and very consistent with the advice provided in the 2016 review. Given the new leadership and the staffs' capability and appetite for change, the agency is now well placed to deliver on them. Managing the inherent paradoxes outlined above will be critical to success. In summary, Callaghan Innovation now needs to:

- Promulgate a very focussed, clear and compelling strategy, with related targets/metrics, as soon as possible
- Adopt more sophisticated market segmentation
- Embed disciplined execution and accountability frameworks
- Hold the bar high for talent and performance
- Know its place in and play effectively with the NZ Inc ensemble cast
- Balance passion and discipline, speed and inclusion, boldness and prudence, charisma and tenacity.

WHAT WILL SUCCESS LOOK LIKE?

Four years hence, Callaghan Innovation will be the beacon of inspiration in New Zealand's innovation landscape that its CEO describes, and a world class exemplar of public and private innovation.

It will bring its knowledge of the RTSand business landscapes together to ensure that its customers connect to the innovation they need to accelerate their success and to focus investors on the right opportunities.

It will operate to an ambitious, focussed and well understood strategy and it will constantly be telling a coherent story of its progress and its impact on New Zealand's economy, society and environment.

It will understand its customers at a deep level and provide differentiated programmes and services by segment. Its products and services will be dynamically managed on a portfolio basis.

The science delivered directly by Callaghan Innovation will be niche but well connected to the wider RS&T community. It will be commercially successful and constantly evolving.

The development of the Gracefield Innovation Quarter will embody the essence of Callaghan Innovation. It will be a flagship of our leadership role in the innovation sector building and leveraging Callaghan Innovation's technology platforms around biotech, additive manufacturing and the Internet of Things. Moreover, our role in growing the Maori economy and linking Maori to R&D provides the opportunity to provide leading edge facilities, resources and people to attract current and new customers looking to resolve complex technology problems and challenges. It will also connect our customers with partner organisations and international networks. The Gracefield Innovation Quarter will be a vibrant and exciting place to be – with firms, supporting business, Universities and other R&D partners co-located and working together to grow New Zealand's HVMS firms.

Four years from now Callaghan Innovation will have had one or two spectacular successes in taking an idea from IP to IPO - it will be telling some 'Xero' type stories related to its interventions.

Its people will be trusted and respected as experts in innovation and will work as a team with other agencies, investors and providers across the NZ Inc and research and science landscapes. Callaghan's story will be much better known amongst New Zealanders. It's recruitment brand will be attractive and top talent from the science, business and innovation communities will cycle through the organisation to gain exposure to the NZ Inc system.

The key threads in Callaghan Innovation's internal culture will be EQ, collaborative working and agility. Internally, team and organisational bonds will outweigh individual judgement and Callaghan Innovation people, working as a team, will thus have an exponential impact on customers.

Callaghan Innovation will also be a team player as an agency. It will be tightly linked to NZ Inc agencies and customers, whether investors, firms or innovators, will understand its role vis a vis those of other government agencies in the idea to market value chain.

It will have clearly demonstrated its impact through a range of metrics, including time to market, profitability and productivity metrics and new jobs created.

Callaghan Innovation will be widely known as a trusted New Zealand brand and as a uniquely kiwi success story. Its door will be the first on which New Zealand's most talented entrepreneurs, innovators, business leaders, scientists and investors will knock, knowing as they will, that beyond it are all the connections and expertise they could possibly need to support their dreams to fruition.

Debbie Francis

Independent Reviewer

MANAGEMENT RATINGS SUMMARY

LEADERSHIP, DIRECTION AND DELIVERY	RATING	PEOPLE DEVELOPMENT	RATING
Purpose, Vision and Strategy		Leadership and Workforce Development	
Leadership and Governance		Management of People Performance	
Values, Behaviour and Culture		Engagement with Staff	
Structure, Roles and Responsibilities		FINANCIAL AND RESOURCE MANAGEMENT	RATING
Review		Asset Management	
DELIVERY FOR CUSTOMERS AND NEW ZEALANDERS	RATING	Information Management	
Customers			
Operating Model		Financial Management	
Collaboration and Partnerships with Stakeholders		Risk Management	
Experiences of the Public			

RELATIONSHIPS	RATING
Relationships with Ministers	
Sector Contribution	

Rating System

 Strong	 Well placed	 Needing development	 Weak	 Unable to rate/ not rated
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ORGANISATIONAL MANAGEMENT SECTION

This section updates the agency's progress on organisational management. Commentary is made against the suggestions made in the 2016 PIF Review. Final judgements and ratings are informed by the scope and scale of the newly articulated performance challenge.

Part One: Leadership, Direction and Delivery

<p>Purpose, Vision and Strategy</p> <p>How well has the agency defined and articulated its purpose, vision and strategy to its staff and stakeholders?</p> <p>How well does the agency consider and plan for possible changes in its purpose or role in the foreseeable future?</p>	
<p>Performance Rating: Needing development</p>	
<p>Leadership and Governance</p> <p>How well does the senior team provide collective leadership and direction to the agency?</p>	
<p>Performance Rating: Well placed</p>	
<p>Values, Behaviour and Culture</p> <p>How well does the agency develop and promote the organisational values, behaviours and culture it needs to support its strategic direction?</p>	
<p>Performance Rating: Well placed</p>	
<p>Structure, Roles and Responsibilities</p> <p>How well does the agency ensure that its organisational planning, systems, structures and practices support delivery of government priorities and core business?</p> <p>How well does the agency ensure that it has clear roles, responsibilities and accountabilities throughout the agency and sector?</p>	
<p>Performance Rating: Needing development</p>	
<p>Review</p> <p>How well does the agency encourage and use evaluative activity?</p>	



Purpose, Vision and Strategy

In the 2016 PIF Review, Callaghan Innovation received a 'needing development' rating for Purpose, Vision and Strategy.

That review found that, to become 'well placed', Callaghan Innovation would need 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. “*

Since 2016, Callaghan Innovation has made improvements in most of these areas. A 12-month strategy road map is in place, work has begun to refine impact measures and an initial pilot of a 90-day planning cycle has been undertaken.

As noted above however, the big ambition or purpose for Callaghan Innovation still needs more flesh on it than the tagline of 'liberating innovators'. The 12-month plan needs to morph into the richer, more rigorous and comprehensive 3-5 year strategy expected in early 2018.

Metrics, while under work, need further refinement to be more holistic, and they are not yet cascaded for alignment or accountability at team or individual levels. The 90 day plans

have been a good first effort, but need further development to ensure they are top down and carefully coordinated reflections of organisational strategy, as opposed to bottom up and disconnected plans by silos.

The portfolio approach suggested in 2016 should also be embraced as a management tool for ensuring that all the moving parts at Callaghan Innovation know exactly how they contribute to the whole effect and in order to provide a seamless service to its customers and partners.

In my view, this area must remain at the needing development stage until the new strategy and impact measures are delivered. Much has been done and the signs are very promising, but the new statement of vision, strategy and purpose is the single most critical thing Callaghan Innovation's leaders must complete. Everything else hangs off this.

Leadership and Governance

The 2016 review found that to be 'well placed', Callaghan Innovation needed 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. “*

As noted above, considerable effort has been expended in these areas and they are all still under work. In particular, the Board, CEO and ELT are now working very effectively and productively together and this positive joint working will need to be managed carefully through the upcoming changes in Board membership. Taken as a whole, I consider that this area is now well placed to deliver in future.

The two remaining areas of work here are the completion of the ELT's journey into a cohesive team and ongoing, excellent communications from them into the business.

Both staff and stakeholders felt that given the many recent changes in the ELT, it was still a work in progress as a team. Some commented that given their diversity as individuals, the potential for the ELT to act as more than the sum of its parts was great but that, at this stage the team was a little disjointed and 'still forming'.

Staff suggested the ELT as a whole could be more visible, and it has been pleasing to see recent efforts to do just this via skype report backs at the end of ELT meetings. Given the complexity of the performance challenge for the next phase of Callaghan Innovation's development, it will be vital that the team has stability and continues to work on its collective identity and on frequent, practical and authentic communications.

Another point worth considering is the future sustainability of the CEO and ELT members balancing the rigorous internal change programme required with the external customer and stakeholder management activity that is also vital to success. The Board might wish to reflect on a possible Chief Operating Officer role or another form of additional support to the CEO to help balance these demands.

Values, behaviour and culture

According to the 2016 review, to be 'well placed' here, Callaghan Innovation needed 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 Innovation's success and ensure that people who bring those behaviours and culture to life are rewarded accordingly. “*

This area is now very definitely well placed. In a really exemplary piece of change leadership, the CEO has invested significant personal energy in bringing the Callaghan Innovation values to life and in describing and holding to account the behaviours and ways of working she wants to see.

The values are a constant topic of internal discourse and are thus much more than merely posters on the walls. The CEO also talks often about the need, both internally and in customer relationships, for empathy and respect. The technical skills of Callaghan Innovation's staff should be a given; it is their EQ and their connectivity that will make the most difference to both customer experience and results.

A distinctive strength at Callaghan Innovation is the strong thread of tikanga Maori in the internal culture. The organisation has its own haka and staff are authentically engaged with and respectful of matauranga Maori.

Callaghan Innovation's leadership and the team in the People and Capability area have also worked very hard and very deliberately on team culture in an effort to break the old internal silos and make all parts of Callaghan Innovation feel like whanau. While this will require ongoing effort, the current internal culture feels warm, inclusive and optimistic. Staff are positive about the recent changes and cautiously excited about the opportunities they see ahead. Internal nay sayers still exist in pockets, but they are now in the minority.

Review

The 2016 review suggested that 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. “*

To this I would add the need for regular reviews of lessons learned from the 90 day plans, as outlined in the Performance Challenge section above. Callaghan Innovation needs improved systems for capturing organisational learning and insight and turning this into useful intelligence that drives ongoing service improvement or intervention design, both internally and across the innovation ecosystem. There is nascent ability and willingness to do so, but processes and feedback loops remain immature.

I do not believe that Callaghan Innovation is yet operating its products and services as a portfolio that is being dynamically managed. As discussed above, this needs more rigorous investment of management energy in the next stage of development.

Part Two: Delivery for Customers and New Zealanders

<p>Customers</p> <p>How well does the agency understand who its customers are and their short and longer term needs and impact?</p> <p>How clear is the agency's value proposition (the 'what')?</p>	
<p>Performance Rating: Well placed</p>	
<p>Operating Model</p> <p>How well does the agency's operating model (the 'how') support delivery of Government Priorities and Core Business?</p> <p>How well does the agency evaluate service delivery options?</p>	
<p>Performance Rating: Needing development</p>	
<p>Collaboration and Partnerships</p> <p>How well does the agency generate common ownership and genuine collaboration on strategy and service delivery with partners and providers?</p> <p>How well do the agency and its strategic partners integrate services to deliver value to customers?</p>	
<p>Performance Rating: Needing development</p>	
<p>Experiences of the Public</p> <p>How well does the agency employ service design, continuous improvement and innovation to ensure outstanding customer experiences?</p> <p>How well does the agency continuously seek to understand customers' and New Zealanders' satisfaction and take action accordingly?</p>	
<p>Performance Rating: Needing development</p>	

Customers

The 2016 report found that Callaghan Innovation needed 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 Innovation’s offerings and its future operating model.”*

Callaghan Innovation is still actively working on these areas and the commentary above remains valid.

Note my comments in the Performance Challenge section on segmentation. Current efforts have been effective in providing staff with an improved ‘outward’ focus, deeper sector understanding and in promoting improved teamwork, but to date the segmentation approach lacks granularity and is not well connected to programme portfolio management or account management disciplines. It is art rather than the science needed for the future. The CRM, while actively under work, remains in need of further development.

Callaghan Innovation is also doing some good work on understanding its brand and developing measures by which to measure its brand health. While such exercises require real care and subtlety in a public-sector context, brand health indices will be a useful way of testing Callaghan Innovation’s effectiveness and reach.

Good progress has been made. Customers, their needs, and the experience they have are front and central in the thinking of Callaghan Innovation’s leadership and staff. Customers themselves remark on a vast improvement in the level of engagement and willingness to listen. There is, however, still much more to do.

Operating model

The 2016 review recommended that Callaghan Innovation:

- *“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 the its operating model supports strategic alliances with partners to enable effective collaboration for cumulative impact for shared customers.”*

Efforts have been made to more explicitly surface the operating model and further refinements can be made to its design once the new medium term strategy is in place. The key area for focus now is the initial bullet point above: the need to cascade the evolving outcome measures down through units and teams into individual KPIs. Accountability for results is still not tight enough at Callaghan Innovation. As noted above, recent successes have been based more on good people working hard on the basis of instinct and commitment, rather than on the rigorous and sustainable processes and systems that will ensure that successes are embedded, repeatable and durable with changes in key personnel.

Collaboration and partnerships

The 2016 recipe for improvement here included:

- *“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 alliances*
- *use ‘tight-loose-tight’ techniques to keep partnerships dynamic, agile and customer-driven rather than process-driven.”*

Callaghan Innovation is investing a great deal of its leadership team’s energy in engaging more actively and listening carefully to its partners. It has enlisted them in its current medium term strategy development effort.

As noted above, the areas for future work are to clarify the respective roles and responsibilities of all partners in the NZ Inc space, especially MBIE, and the further refinement of the value proposition which will be articulated in the upcoming strategy. It will be important to invest in developing all the partnerships implied by Callaghan Innovation's statutory mission, not just the easy ones.

The partners I interviewed consistently expressed a wish for Callaghan Innovation to be very focussed on a small number of strategic priorities with a clear articulation of what success in each of them will look like. They are impressed with the new openness and the deeper investment in quality relationships, but they also want to see Callaghan Innovation pick a clear path and stick to it.

Experiences of the public

In 2016, it was suggested that, to improve its rating in this area, Callaghan Innovation should:

- *“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.”*

It is early days in the change process for real gains here. The CRM still requires development if data collected is to be turned into usable intelligence.

Callaghan Innovation also needs to further develop its internal analytic capability and ‘small p’ policy skills. While is not and should not be a policy agency, it does need to access, interpret and disseminate the products of international innovation foresighting and have the intellectual heft to be part of national discussion on a stronger innovation economy.

The agency can also tell a richer story to wider New Zealand. In spite of its distinctive ‘Sir Paul Callaghan’ brand it remains a relatively unknown player and the importance of innovation to the generation of social and economic wealth for New Zealand is not well understood. Callaghan’s new leadership understands the importance of this story telling role, but it is early days in terms of developing the systematic mechanisms for wider communications.

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	

Ministers

In 2016, Callaghan Innovation was found to be well placed in this area. With the recent change of government, it now has an opportunity to work alongside its partner agencies and help build understanding by new ministers of its mission and potential. It will need to work constructively as part of the NZ Inc team on the signalled policy change with respect to R&D tax credits and reflect on how the focus areas outlined by the new Government might play into its reset of its strategic priorities.

No ministers were interviewed as part of this progress review. Accordingly, the prior rating has been retained.

As noted above, Callaghan Innovation also has a stewardship obligation to serve successive governments. It needs to ensure that the current change process does not crowd out its ability to reflect on its longer run strategic investments.

Sector contribution

The earlier PIF suggested that Callaghan Innovation should:

- *“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. “*

These observations remain valid and are under work. The internal drive for alignment around the strategy and results continues to be particularly important. Unless all parts of Callaghan Innovation can tell the agency's story simply and consistently, (including outlining the strategic choices it did not make and thus what it does *not* do) it will be very difficult for other agencies to partner with it to amplify joint effect.

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 capability requirements?	
Performance Rating: Well placed	
Management of People Performance How well does the agency encourage high performance and continuous improvement among its workforce? How well does the agency deal with poor or inadequate performance?	
Performance Rating: Well placed	
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: Well placed	

Leadership and workforce development

This area was rated as weak in the earlier PIF Review. 2016 suggestions for improvement were:

- *“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 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.”*

Progress here has been very positive. The People Capability team, as with many agencies of Callaghan Innovation’s size, is largely tactical as opposed to having deep capability in organisational development, but it is respected internally and has worked with passion and persistence to ensure all aspects of people management support Callaghan Innovation’s plan and new operating model. Customer responsive values, behaviours and competencies have been the initial priorities, as has a tighter approach to performance management.

An important start has been made on career pathway management with the introduction of the ‘career rockwall’ for science staff. A new model has been piloted and is now being implemented, with the aim of ensuring that staff in RTS have the right balance in their development between technical expertise, project management, people leadership and relationship skills. This creates an excellent platform from which to build more in-depth career pathways across Callaghan and the ecosystem.

The next challenges relate to the enhanced accountability described above and the opportunity to continue to develop a more modern model for recruitment and staff development. The latter could include:

- the development of a clearer recruitment brand and value proposition. Callaghan Innovation needs to attract the high performers who can engage well with the innovation sector and it cannot always pay them their market value. It needs to develop a compelling story to attract the top talent it needs
- continued and extended use of adjunct staffing, inwards and outwards secondments, exchanges and rotations with partner agencies. These have been piloted with exchanges into client organisations and between RTS and other science agencies. The model thus created can now be built upon.
- a move to recruit for attributes such as EQ first, as opposed to technical skills first
- consistent training for all staff and managers in how to coach customers and staff
- more systematic talent and succession management, both to retain top talent and ensure leadership stability and bench strength
- better career pathway management for all staff.

A good example of positive progress can again be found in the Maori economy space. Key personnel from Māori entities have been seconded into Callaghan Innovation in addition to

internal secondments to and from the Māori Economy team. The Māori Economy team's commitment to a range of creative staff training and cultural development initiatives has played a key role in increasing the entire organisation's commitment and ability to work with Māori businesses.

The progress made to date demonstrates the value of a function within an agency being honest with itself and working very hard to get the basics right. Now this platform is in place, this team is well placed to step up to the next level.

Management of people performance

In this area, similarly, there has been a concerted effort to improve systems and management practices. In comparison with many of the agencies in the state sector, Callaghan Innovation is in most respects well placed.

However, I heard both staff and stakeholders suggest that there remains a small minority of staff who are not yet consistently operating at the level Callaghan Innovation needs if it is to deliver on its new strategy and who remain somewhat cynical about the agency's forward progress. Their behaviours are neither obvious nor egregious, but they do undermine top talent and may prevent fully effective strategy execution.

Callaghan Innovation is in the fortunate position of having a very capable and committed workforce. It needs to be in order to engage effectively with New Zealand's top entrepreneurial, commercial and creative talent. To get to a strong rating in this area, Callaghan Innovation should not resile from holding its standards for performance high, which will take continued persistence and courage.

It should also take a holistic view of performance. Being technically good is insufficient in a modern, customer facing agency. Empathy and good customer relationships should be modelled indoors. It should not be OK to be just OK and behaviours which are misaligned to the values should not be tolerated.

Also, Callaghan Innovation's leaders must demand performance *for Callaghan Innovation* as a whole rather than reward only good performance at the business unit or team basis. There should be recognition and reward for whole of enterprise contributions and effective team players. To be effective, super connectivity should also start at home.

The other key priority here, as noted above, is to drive down accountability and performance metrics from the new outcome and impact measures, into individual KPIs. Staff must see the alignment between their day to day efforts and the big impact Callaghan Innovation is making in the world. The 90 day plans are the critical vehicle for this.

It will important to balance giving staff plenty of autonomy to be creative about how they get results and provide them the opportunity to learn from risk taking or failure, with the need for consistently top flight performance.

Engagement with staff

Callaghan Innovation has moved from an annual engagement survey to a leading-edge Office Vibe tool that takes the temperature of staff at team and unit level on a weekly basis. This means that leaders can respond in real time as concerns surface. The tool is a good one and well accepted by staff and managers.

Engagement scores in most the teams are high as measured by the new tool, and this can be felt and observed inside the organisation and in talking with its staff. Areas that historically had weaker engagement, such as RTS, are starting to feel more enrolled and valued as part of the total Callaghan Innovation effort.

The important thing now is to promote cross Callaghan Innovation engagement at the whole of enterprise level, rather than a set of more engaged silos. Projects or initiatives that force cross entity working will continue to be very important.

Staff to whom I spoke attributed much of the lift in engagement to the leadership style of the new CEO which they saw as authentic, inclusive and people focussed. There may be something of a honeymoon effect still in play here, and this positivity and engagement can be maintained on a sustainable basis only if all of Callaghan Innovations' second and third tier leaders consistently model these values and behaviours.

Part Five: Financial and Resource Management

Asset Management How does the agency manage agency and Crown assets, and the agency balance sheet, to support delivery and drive performance improvement over time?	
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 manage its risks and risks to the Crown?	
Performance Rating: Needing development	

Asset management

Here Callaghan Innovation's challenge is very much as it was in 2016, and that is to manage the risks inherent in its ownership of aged and neglected assets on its Gracefield site and to manage its redevelopment as the Gracefield Innovation Quarter. Its efforts have been focused on addressing legacy compliance issues which have been significant

Rather than to try to be too 'loud' in its plan for the site, Callaghan Innovation's current leadership approach is to make progress in an iterative, flexible and opportunistic manner that allows a range of sensible future options to evolve in conjunction with partners. It has a masterplan of the site against which investments to date have been made. It plans to make the site quietly quirky in same manner as other, older parts of Wellington have in recent times become newly retro-cool. Careful commercial partnering and a creative approach to co-investment will be vital here.

Information Management

As outlined in the 2016 PIF review, Callaghan Innovation needs to modernise and streamline its legacy core IT systems. These frustrate the whole organisation from the Board down and restrict the agility everyone desires under the new operating model.

While it has managed some quick wins with new systems and tools in this area, moving forward requires a more systematic enterprise plan and good governance of IT assets as a total system. The bullet must be bitten on duplicate, shadow and clunky applications and systems.

More importantly still, Callaghan Innovation needs to move from having information to seeing information as an asset that can feed the 'brain' of the New Zealand innovation system and thus power the design of new interventions. Its staff need to become used to seeing data as an asset that is convertible into valuable intelligence, both for their own work and that of other ecosystem players. Callaghan Innovation has made good progress in accessing and sharing system data with other agencies and using this to good effect including Statistics NZ, the Productivity Commission and the TIN organisation.

Financial management

As noted in the 2016 review, this area appears to be steadily improving in terms of its basic hygiene and processes, even considering the difficult introduction of a new FMIS. A next step here would be to drive greater accountability by budget holders for in year variances and more maturity and confidence on the part of both the pursuit team and ELT around in year trade offs. Financial management should be the day to day responsibility of Budget holders, as opposed to wholly owned by the Finance team.

Going forward Callaghan Innovation also needs to invest in more strategic financial management and understanding its cost to serve across its programme suite. It needs an enterprise modelling tool to better understand the cost/return dynamics of different interventions and to provide better mechanisms for improved benefits baselining and tracking.

Risk management

Callaghan Innovation has embarked on developing formal, more regular and sophisticated review of actual and emergent strategic, operational and financial risks by the ELT, and more

nuanced calibration of risk appetite by product or service. This picture of risk will need to be aligned to the new strategy once that is in place.

If Callaghan Innovation is to be bolder, it must understand and be very honest about the risks entailed in its choices. It needs to be very clear about where tolerances are high, (such as in a fail fast pilot) and where they are not (such as with respect to health and safety matters). This more granular and differentiated approach is emergent rather than mature at this point (though it still compares well to many other state sector agencies in having a differentiated approach). It can be accelerated as the agency reaches the next level of strategic maturity.