RNA Platform

NEWSLETTER

No 2
September 2023

About the Platform

The RNA Platform is a national consortium of collaborative scientists and state-of-the-art facilities committed to researching, developing, and manufacturing industry grade RNA products. The Platform will leverage existing scientific expertise and invest in new resources and talent. Platform activities will be guided by international experts while upholding the principles of Te Tiriti and respecting Matauranga Māori.

The primary goal of this platform is to establish a robust technology pathway that supports both RNA production and bio-delivery, enabling advancements in basic research and development. Furthermore, it aims to achieve a scalable manufacturing capability for Aotearoa/New Zealand.

A mature RNA platform will position the country on the international stage, fostering resilience, self-sufficiency, and preparedness against future infectious diseases, biosecurity threats and other medical conditions.

In essence, the RNA Platform seeks to unite experts, resources, and innovation to drive RNA research and development, ultimately benefiting the nation's plant, animal and human health and well-being.

We have been making rapid progress. This Newsletter will highlight where the RNA platform is currently and what to look out for over the coming few months.

Victoria University of Wellington Te Herenga Waka | Te Kāuru Ferrier Research Institute | University of Auckland Waipapa Taumata Rau New Zealand | University of Otago Te Whare Wānanga o Otāgo New Zealand | Malaghan Institute

Contents

For full scale document see Newsletter No.1 >>

The Platform Plan has been approved!

We are very proud to announce the Assessment Panel recommended and MBIE has approved the Platform Plan, as well as our conceptual framework around the Pillars.

They felt the platform plan was well positioned and gave consideration to both technical and non-technical aspects.

An independent and skill-based steering group will be established to guide the Platform in a rapidly changing landscape.

We are now entering the contracting phase with MBIE and can formally start on some of the platform launch activities.

Link to MBIE's announcement >>

MBIE Platform Assessment Panel members:

- Danette Olsen, General Manager Science System Investment and Performance (Chair)
- Dr Willy-John Martin, Director Māori Research Science and Innovation (MBIE)
- Dr Trevor Drage, Manager Strategic Investments (MBIE)
- Landon McMillan, Manager Science Policy (MBIE)
- Professor Pall Thordarson, Director UNSW RNA Institute (University of New South Wales)
- Professor Sally McArthur FTSE, Director, Institute for Frontier Materials (Deakin University)

RNA Platform Structure and Leadership

From the very earliest stages, all design of the Platform has been towards a lean structure that will enable the Directors to shape and adjust the Platform as required in this rapidly developing space. Over the coming month we are expecting to start the hiring process for the permanent RNA Platform Directors.

The Directors of the RNA Platform will be expected provide leadership and direction for the Platform. They will be responsible for the delivery to agreed strategies, mission and vision outlined in the Platform Plan. The Directors will be expected to ensure that the platform becomes a successful, cross-organisational consortium to develop and maintain RNA production and manufacture in New Zealand, from laboratory research through to GMP manufacture.

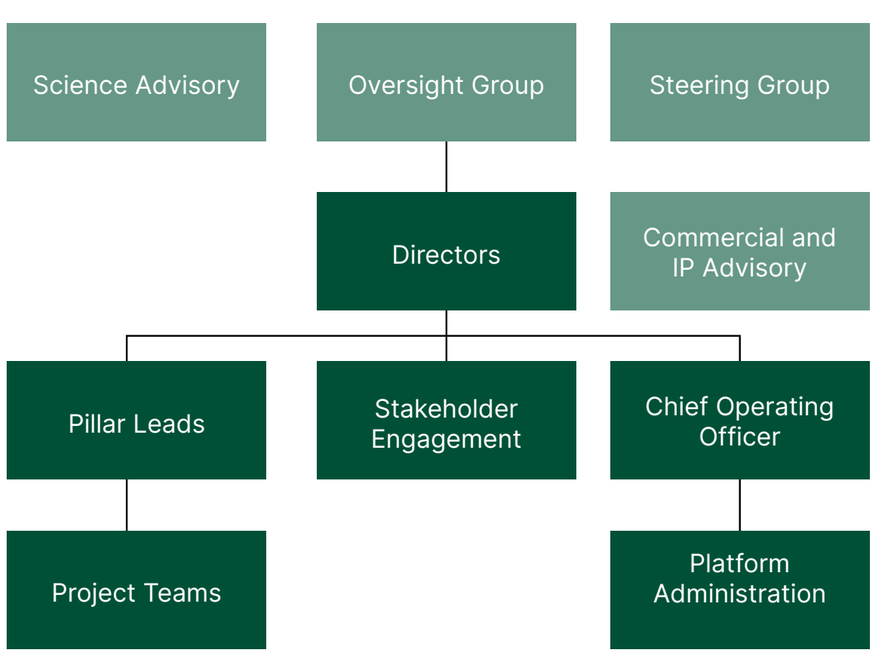


Figure 1. Proposed governance structure

While the Platform will be largely driven by the Directors, the following groups will play a key role in supporting the Directors in delivering on the Platform Vision and Mission.

The Co-hosts and partners are in the process of forming an Oversight Group at the DVCR level to help with the hiring of permanent Directors, and provide institutional support where required.

The Directors will have more direct input and guidance from the MBIE Appointed Steering Group, which will be an independent and skill-based group.

An Independent Science Advisory Group will be formed to help the Directors assess and prioritise research funding activities

A Commercial and IP Advisory Group will be formed to further develop the commercial model. This group will also be consulted regularly on commercial pathways and market opportunities.

A Stakeholder Engagement function will be created in the platform to support the Directors in working with Māori and other stakeholders and develop an engagement plan for the Platform.

Platform Pillars and the role of the Pillar Leads

As previously described, the Platform will be shaped by seven Pillars – Target Selection, Payload Design, Formulation, Preclinical Testing, Quality Control, Process Development and Manufacture and Clinical Testing.

The Assessment Panel endorsed the conceptual framework of the Pillars for the platform. While all Pillars are essential to and required for a fully functional Platform, some of the Pillars will initially be a higher priority than others in terms of delivering to the Platform vision and outcomes.

The next step is to appoint Pillar Leads who will develop a fully fleshed–out work programme and budget that will address gaps identified in the country's ability to produce RNA technologies at scale. We will start a recruitment process for some Pillar Lead roles over the coming month.

The role of Pillar Leads, will be to provide science leadership, direction, and coordination of one or more of the pillars of the Platform in order to successfully deliver Platform outcomes. The Pillar Leads will develop work programmes for their pillar/s that will strengthen the pillar and lift capability in that area, according to Platform Outcomes. They will be responsible for the programme/s of work, identifying issues and risks and reporting them to the Co-Directors, managing their work programme according to an agreed budget.

The Pillar Leads will work closely with the Co-Directors to ensure that the overall platform becomes a successful, cross-organisational consortium to develop and maintain RNA production and manufacture in New Zealand, from laboratory research through to GMP manufacture.

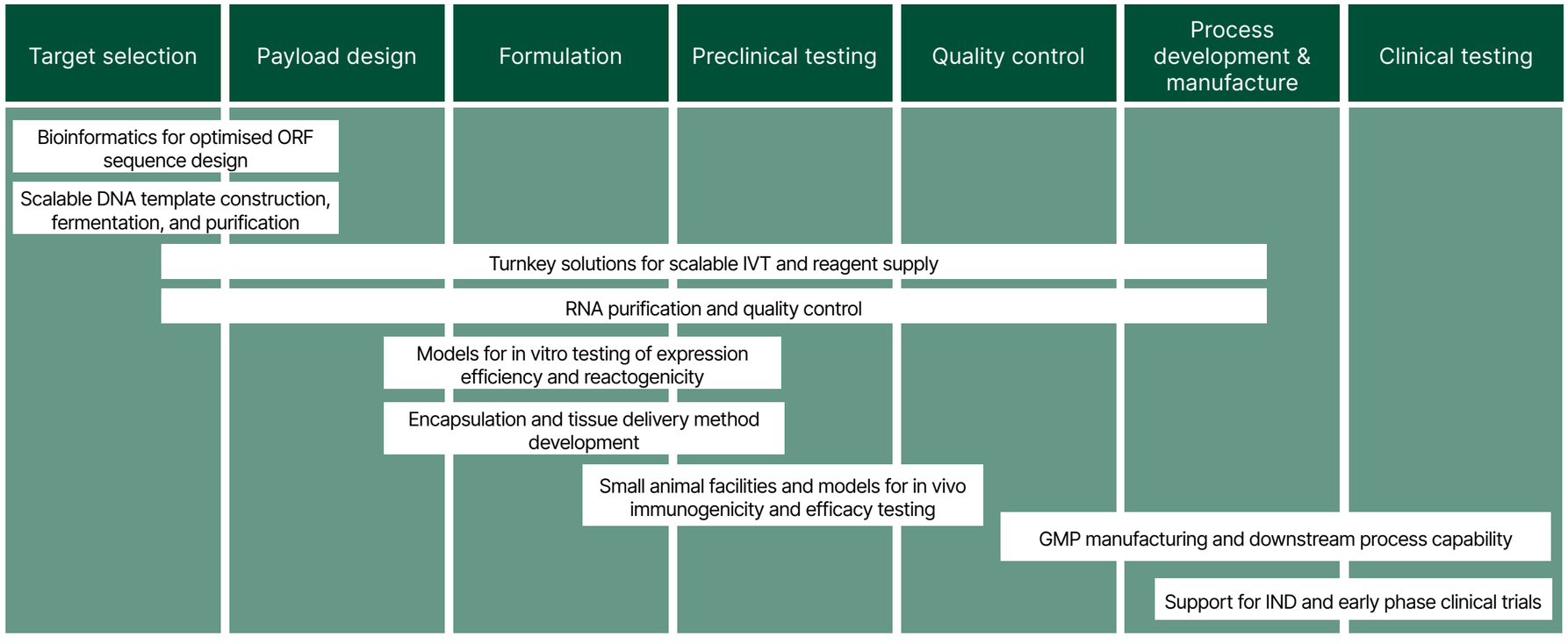


Figure 2. Example activities that span multiple Pillars

The Pillar Leads will be expected to hold the level of academic and/or technical expertise to design and run effective work plans to advance scientific and capability development of their Platform Pillar. They will advise the Co-Directors on the direction of their Pillar, and will maintain significant domestic and international connections in their field. The Pillar Leads should bring prior experience of involvement in major multi-party collaborations.

The Pillar Leads will also need to ensure successful collaboration between all Platform Partners and will grow and maintain new relationships with platform stakeholders including research organisations, industry partners and relevant Government agencies.

Fast Start Projects

Over the past 12-18 months we have been collecting information on advanced projects in the RNA space in New Zealand.

As we launch the Platform, we will be looking to support a handful of well-aligned fast-start projects with some bridging funding while we are recruiting permanent Directors, Pillar Leads, and establishing work programmes.

These will be 6-12 month projects commencing late 2023 until mid-late 2024.

We are intending to directly reach out to research groups in the coming month to invite them to prepare a concept note and present to a panel.

The key criteria for consideration will be:

- Well established team and collaborations
- Equipment and infrastructure in place
- Proof of concept experiments complete
- Project already has had significant funding
- Immediate requirement for research grade RNA production (up to 10mg in total)
- Preliminary market/competitive intelligence completed
- Special relevance to Māori
- Will lift and test capability in multiple pillars
- Project will result in benefit or assets for the Platform

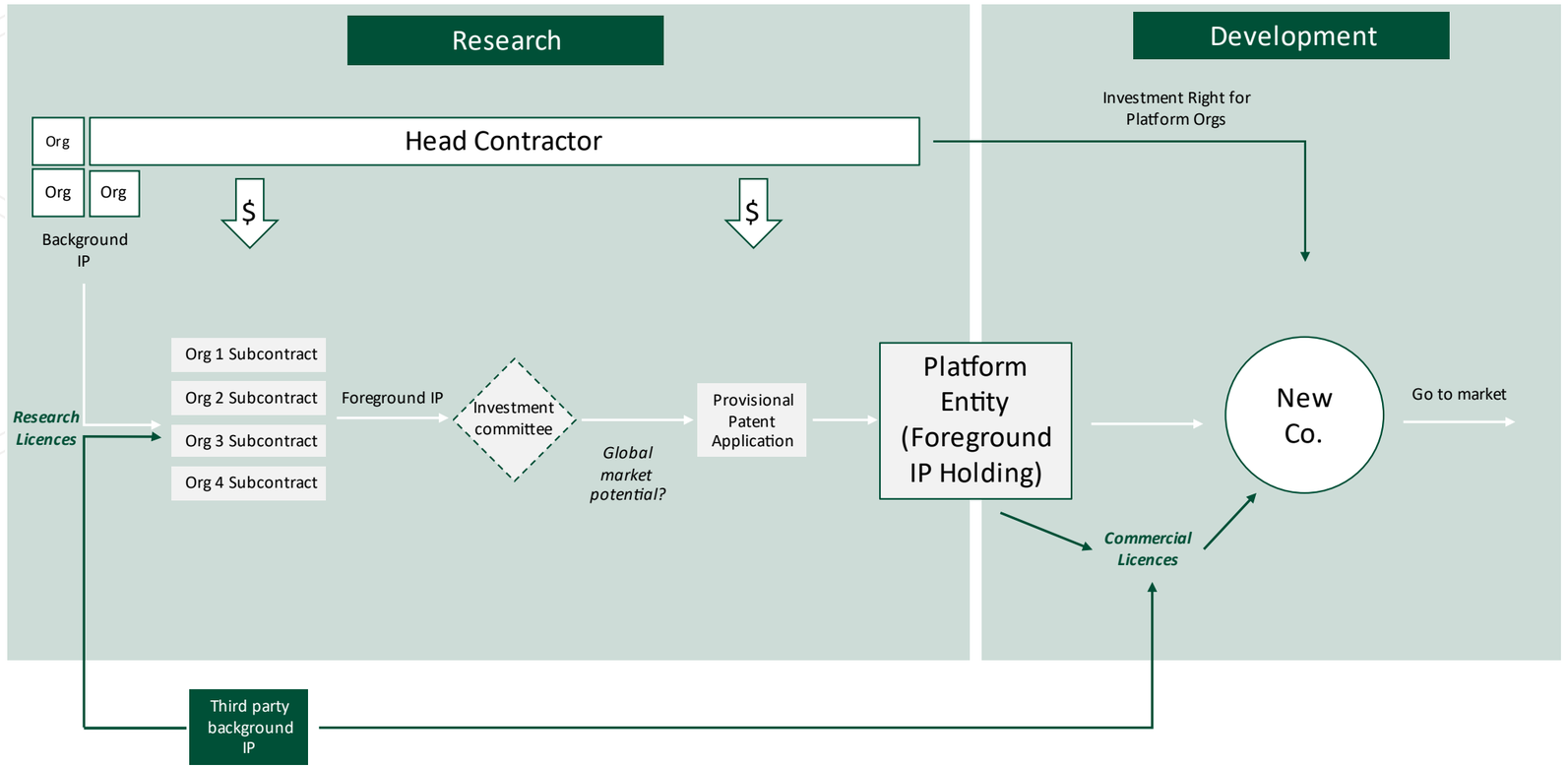
The above criteria will be mapped against a ranking scale, and a panel will assess the relative strength of each criterion.

If you haven’t already engaged with the Platform and you have a project that you feel is sufficiently advanced and fits the criteria, please reach out to our co-directors.

Commercial and IP Principles: an update

Based on discussions with the Commercial teams from host institutions and industry partners, a draft IP and Commercialisation model has been prepared. This requires some refinement over time but has the following intent:

- The need for agreed principles and operational processes to facilitate efficient and rapid IP development
- Streamlined decision making for potential licensing negotiations
- The need for an effective development/go-to-market structure for emerging IP
- The purpose of the platform is to accelerate research into commercialisation of IP for the benefit of NZ, not to own it
- Benefits from platform generated IP will flow to members through investment and returns recycled into ongoing research funding



This is an area that is still being developed and refined, and we will provide further updates in the next newsletter as we progress through the contract negotiations stages.

Through the acceleration of research into companies, we hope to foster the growth of the NZ biomedical industry and RNA ecosystem.

The development of focused companies around emerging IP will attract investment into NZ and generate ongoing jobs to sustain the workforce developed through Platform funding.

As well as the generation of a pipeline of therapeutics, IP around reagents, process and manufacturing may emerge that can be formed into contract service organisations that are sustained by the local industry the platform has seeded, and with potential for international revenues.

Collateral benefits may include an uplift in clinical trial activity and reliable local provision of reagents and preclinical models for adjacent areas.

Next steps as agreed with MBIE (First 6-12 months)

The immediate priority for Platform implementation is the appointment of permanent Director(s) and key personnel, including Pillar leads and a Chief Operating Officer.

The detailed work plans for each Pillar and identification of initial Flagship projects can be initiated, in conjunction with appropriate Platform KPIs.

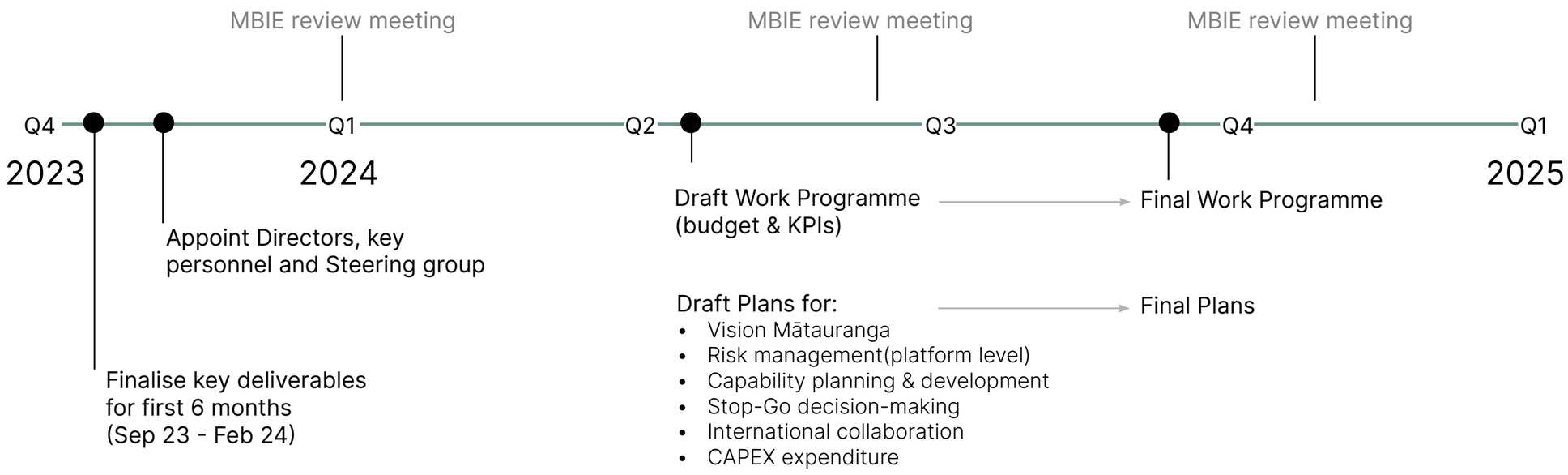
People are the most important investment in terms of capability to respond to a pandemic or outbreak. A capability plan will be formulated that includes development of technical staff alongside post-docs and post-grad students who will be vital for many Platform functions. Thought will be given to permanent as well as fixed–term roles, plus deployment within private sector to build stability of the Platform.

Alongside the above, further refinement of budgets will be completed, including CAPEX allocation. Both plans will evolve over time.

A Platform level Risk Management Plan that covers capability and employment risk, as well as other high-level process-related risks needs to be consolidated.

The Platform team will build a plan detailing how it will build international connections and partnerships. The Platform Director(s) will target and build those relationships that will most benefit the goals of the Platform as we progress, leveraging existing connections where appropriate. Landscape and freedom to operate analyses will also drive this engagement.

The Platform will focus initial efforts on further building a specific Vision Mātauranga plan, leveraging knowledge from other nationally funded programme networks. In particular, this will focus on developing social licence for RNA technologies and data sovereignty, seeking to build knowledge and understanding of these aspects from an early stage.



What to Expect Next

The RNA platform will be a catalyst for progress, innovation, and self-reliance in RNA-based therapies, empowering New Zealand to contribute to global health efforts while safeguarding its own population and the broader Pacific community.

Recruitment

We are currently preparing recruitment materials for the roles of Director, Pillar Lead - Process Development & Manufacture, Pillar Lead - Formulation, Pillar Lead - Quality Control, and the Chief Operating Officer.

Look out for the adverts if you are interested in joining the RNA Platform team!

Fast Start Projects

We will run a process for inviting Fast Start projects to the platform.

We will set up a link on the Platform Website for a high level Project Summary that matches the selection criteria. The link will be live from the 20th of September until the 20th of October.

The projects will then be shortlisted and invited to a discussion with a selection panel, before a funding decision is made.

If you have a project in mind that fits the fast start criteria, please reach out to our Directors, and check the website from the 20th of September.

Contact us:

If you'd like to contact us, please visit our website.

Engage with the Platform

If you are interested in engaging with the RNA Platform, we encourage you to reach out to us.

Our team will be delighted to provide further information, answer any questions, and guide you through the process of getting involved in this exciting initiative.

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https://www.wgtn.ac.nz/ferrier/research/rnaplatform