

Submitter information

The Ministry of Business, Innovation and Employment (MBIE) would appreciate if you would provide some information about yourself. If you choose to provide information in the “About you” section below it will be used to help MBIE understand the impact of our proposals on different occupational groups. Any information you provide will be stored securely.

A. About you

Name:

Associate Professor JR Rowland, Deputy Dean Faculty of Science,
University of Auckland

Email address:

Privacy of natural persons

B. Are you happy for MBIE to contact you if we have questions about your submission?

Yes

No

• Are you making this submission on behalf of a business or organisation?

Yes

No

If yes, please tell us the title of your company/organisation:

Waipapa Taumata Rau, University of Auckland

C. The best way to describe your role is:

Academic/researcher

Consultant (please specify below)

Tradesperson (please specify below)

Industry group (please specify below)

Industry participant (please specify below)

Independent expert (please specify below)

Business owner (please specify below)

Student (please specify below)

Other (please specify below)

Prefer not to say

Please specify here:

D. Privacy information

- The Privacy Act 2020 applies to submissions. Please check the box if you do not wish your name or other personal information to be included in any information about submissions that MBIE may publish.
- MBIE may upload submissions, or a summary of submissions, received to MBIE's website at www.mbie.govt.nz. If you do not want your submission or a summary of your submission to be placed on our website, please check the box and type an explanation below:

I do not want my submission placed on MBIE's website because... [insert reasoning here]

E. Confidential information

- I would like my submission (or identifiable parts of my submission) to be kept confidential and have stated my reasons and ground under section 9 of the Official Information Act that I believe apply, for consideration by MBIE.

If you have checked this box, please tell us what parts of your submission are to be kept confidential.

A Minerals Strategy for New Zealand to 2040

MBIE is developing a *Minerals Strategy for New Zealand to 2040* to enable us to take a long-term, strategic approach to how we develop our mineral resources. This does not include petroleum which already has an advanced regulatory regime.

Minerals play an essential role in New Zealand's economic growth through high-paying jobs, Crown royalties, direct positive impact in the regions where mining takes place, and through export revenues. Minerals are also critical inputs into products that are necessary for other sectors to thrive, including the use of aggregates in construction and infrastructure.

Minerals will continue to play a major role in New Zealand's export-led economic growth and contribute to our economic functions, but the minerals sector faces some risks and challenges. These include lack of complete understanding about our minerals ecosystem, supply risks, social license, and a regulatory system that needs to be improved to enable investments.

These challenges require a long-term strategic approach to ensure that resource development for our economic prosperity happens in a responsible manner. Developing a minerals strategy is a fundamental first step in ensuring that we have a strategic framework for resource production.

The Minerals Strategy Discussion Document seeks feedback on the context and design of the strategy. It discusses key strategic issues, challenges and opportunities facing the minerals sector in New Zealand, and how we could address them.

The strategy is built on three key pillars, **Enhancing prosperity for New Zealanders**, **Demonstrating the sector's value**, and **Delivering minerals for a clean energy transition**, and identifies specific actions the Government could take to position the minerals sector to deliver value in an environmentally responsible manner.

Please see the Minerals Strategy Discussion Document for more information.

Questions for the consultation

1. Are the strategic pillars of the Draft Strategy (**Enhancing prosperity for New Zealanders**, **Demonstrating the sector's value**, and **Delivering minerals for a clean energy transition**) suitable or is there more we need to consider?

Yes, they are suitable No, they are not suitable Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice? Or is there more we need to consider?

We broadly support the three pillars outlined in the strategy. We note, however that the potential contribution of the Mining Equipment, Technology and Services (METS) sector is relatively muted within the strategy, despite its potential to catalyse a range of outcomes that would positively impact on socio-economic indicators for New Zealand. The strategy authors may wish to consider incorporating a fourth strategic pillar dedicated to METS-related outcomes, including export sector potential: "Leading the world in technology that supports responsible minerals extraction". This would reflect the opportunity New Zealand has to build the mining equipment, technology and services in parallel with discovery and extraction.

2. Are the key actions the right ones to deliver on our strategic pillars, and are they ambitious enough?

- Yes, the actions are the right ones and are ambitious enough
- No, the actions are not the right ones and not ambitious enough
- Not sure/no preference

If **No**, what else might we need to consider?

3. Are there opportunities for our minerals sector we haven't considered?

- Yes, there are
- No, there are none
- Not sure/no preference

If **Yes**, what are the opportunities for our minerals sectors we should consider?

We note that the strategy actions refer to the potential of innovation to progress the development of products and technology exports, over a ten-year period. We suggest that this could see further emphasis within the strategy, including steps in the intervening decade to set the stage for a vibrant and economically consequential sector. There are significant opportunities associated with advanced minerals extraction technologies that optimise discovery and development, from mining equipment through to modelling software. New Zealand firms are already active in this sector, with world-leading capability in some areas with significant value-added potential. We would like to see greater specificity on the kinds of investments that could support the growth of a Mining Equipment, Technology and Services (METS) sector.

4. Are there challenges for our minerals sector we haven't considered?

- Yes, there are other challenges not considered
- No, all challenges have been considered
- Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

We acknowledge and support the strategy's recognition of the steps needed to grow and retain a skilled workforce. However, we would also emphasise that the current starting point is one in which the geosciences and engineering materials workforce pipeline within New Zealand is acute and presents a significant risk to the viability of an expanded minerals sector in New Zealand. At present the geotechnical and infrastructure materials sector cannot fill graduate roles and demand for a scarce pool of skilled labour that continues to grow, exacerbated by pressures on retention of our existing workforce due to international competition. This extends to technical industry professionals as well as researchers in the mining and minerals sectors, with the lack of skilled

labour supply attributed to a perceived lack of opportunities and investment in the sector within New Zealand and the perceived advancement and remuneration opportunities in overseas markets. At the same time, universities, which play a key role in the education and training of the skilled workers required for the sector, are under increasing fiscal pressure and having to make hard decisions on the viability of a variety of programmes that may directly impact the ability to support more graduates with key geoscience and engineering skillsets. To turn this around will require a change of momentum and consistent backing from government over successive electoral cycles. Persistent demand for these key skillsets, and associated career opportunities, are the most effective ways to signal to industry and the research sector that there is strong demand to grow and retain these capabilities and knowledge bases here in New Zealand.

5. Are there any other things we have missed that we should include, or things we should not include?

These things could be economic/financial, environmental, health and safety related, or other areas.

We would again emphasise the imperative of a truly long-term, transformative approach to giving effect to and delivering on the Minerals Strategy. To have ‘staying power’ and provide the necessary long-term confidence for all stakeholders – from companies making strategic investments through to future engineers and geoscientists deciding what to study – the ‘how’ of implementation will be critical. The more specificity that can be given to the actions, milestones and points of review that underpin the strategy, the better. We would also note that contested approaches to land use, spanning numerous legal and regulatory regimes, and a lack of political consensus remain ongoing barriers to a joined up system. Different scientific domains – whether ecological systems, conservation, or geosciences— are also divided across administrative and legal boundaries, and can carry significant complexity. Much of this will need to be reconciled and/or resolved to allow for a smoothly functioning extractive minerals sector.

Part of this will require turning to international partners with the expertise and experience relevant to help New Zealand, including those with more mature extractive industries such as Australia. However, contextualising and adapting insights from overseas jurisdictions to suit our national conditions will be essential, as our unique geology, ecology, economy and society will present specific challenges and therefore require a bespoke model. This is where transdisciplinary, home-grown research and innovation that builds on long-standing capability and expertise in the extractive minerals sector will be a significant contributor. The need for long-term research into minerals and mineral deposits will be important, as will the capacity to explore research into minerals and mineral technologies that may not currently be of high importance for strategic or economic reasons. Research, in turn, will support future decisions on critical minerals and strategic investments in the sector.

To that end, we wish to commend the authors of the strategy for the explicit focus on fostering innovation in the sector, including through support for relevant research and through exploration of a minerals leadership research hub (or similar entity). We would recommend that such a hub be led by a New Zealand university, or network of universities, potentially in collaboration with a thematically-aligned Crown Research Institute, such as GNS Science. The rationale for this approach is underpinned by the important role that tertiary institutions play in New Zealand’s economy and society, including transdisciplinary strengths that stretch from fundamental through to applied research; nuanced and integrated approach to generating knowledge and promoting innovation; instrumental role in imparting advanced skills and knowledge and educating the future workforce; and contribution as ‘critic and conscience’ of society to fostering public dialogue and

debate backed by research evidence. A hub or network that leverages these strengths to create a 'New Zealand Inc' national capability and nexus of trusted, impartial expertise on the extractive minerals sector would generate world-leading research, support an informed public debate on minerals in New Zealand, and complement the efforts of both government and industry.

Thank you

Thanks for your feedback, we really appreciate your insight. It helps us establish a long-term strategic approach to ensure that resource development for our economic prosperity happens in a responsible manner.

To help us continue to develop a Minerals Strategy for New Zealand to 2040, we would appreciate any additional suggestions or comments you may have.

Please leave your feedback here:

The University of Auckland welcomes the articulation of a national minerals strategy and roadmap to support a whole-of-system set of measurable and achievable outcomes of the long-term. We are encouraged by the draft strategy's emphasis on a minerals sector that is future focused, adopts a long-term perspective, and emphasises the importance of taking a sustainable and responsible pathway, and underscores the need for a strategic and inclusive approach underpinned by the trust and support of New Zealanders. Building on a depth of geoscientific as well as social scientific expertise, the university sector will be valuable contributors in supporting the implementation of this strategy.