MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

2022 Investment Round
Endeavour Fund Roadshow

Mihi

Ko te tūmanako he āwhina i roto nei

Nā mātou o Hīkina Whakatutuki ki a koutou

We hope this will be of assistance. From us at MBIE, to you.

Agenda

- Introductions
- Science system update
- 2021 Endeavour round wrap-up
- 2022 Endeavour round
- Assessment and decision-making processes
- Tips for applicants
- Other MBIE funding opportunities
- Questions (Use Q+A function, not Chat)

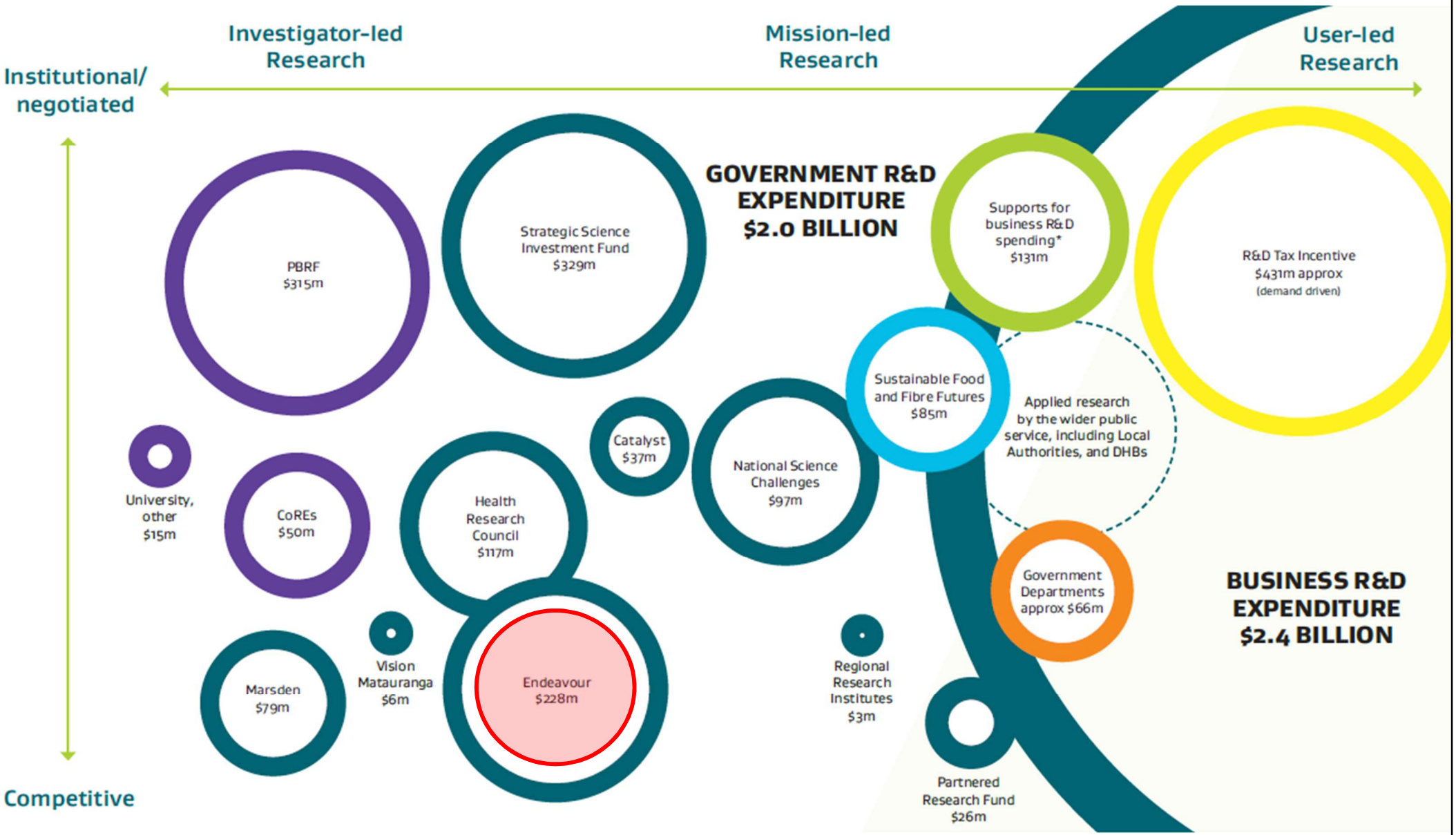
Government priorities

- **Recovery from COVID**
  - Science continues to be used for advice and communications
  - MBIE aims to keep funding flowing, and ensure processes are fair and transparent
- **Climate change/emissions reduction plan**
  - Zero Carbon Act requires publication of an Emissions Reduction Plan
  - Agencies and ministries are setting out what actions can be taken to bring down emissions in their sector

Key Initiatives

- **Consultation on the Science System**
  - MBIE is expecting to run an open, deliberative and wide-ranging consultation process on the future positioning of the science system
  - Consultation documents will be available soon
- **Increasing the impact of Vision Mātauranga**
  - Permanent appointment of Director, Māori RSI
  - Initiative to increase Māori benefiting from RSI

Government investment context



What is the Endeavour Fund?

Purpose: to support excellent research with the potential to positively transform New Zealand's economy, environment and society and give effect to the Vision Mātauranga policy

Science Board makes decisions in accordance with instructions in annual Gazette Notice

Funding Mechanisms

Smart Ideas are smaller investments intended to catalyse and rapidly test promising, innovative research ideas with high potential for benefit to New Zealand

- Two or three years
- $400k - $1 million (proposals outside this range are not eligible)

Research Programmes are larger investments intended to support ambitious, excellent and well-defined research ideas with credible and high potential to positively transform New Zealand's future

- Three, four or five years
- Minimum $500k per year (proposals outside this range are not eligible)

Impact Categories

- For Research Programmes, there are also two impact categories, with slightly different Impact assessment criteria
- The default is the 'Protect and Add Value' category
- Proposals in the 'Transform' category must demonstrate *both* transformative outcomes and impact

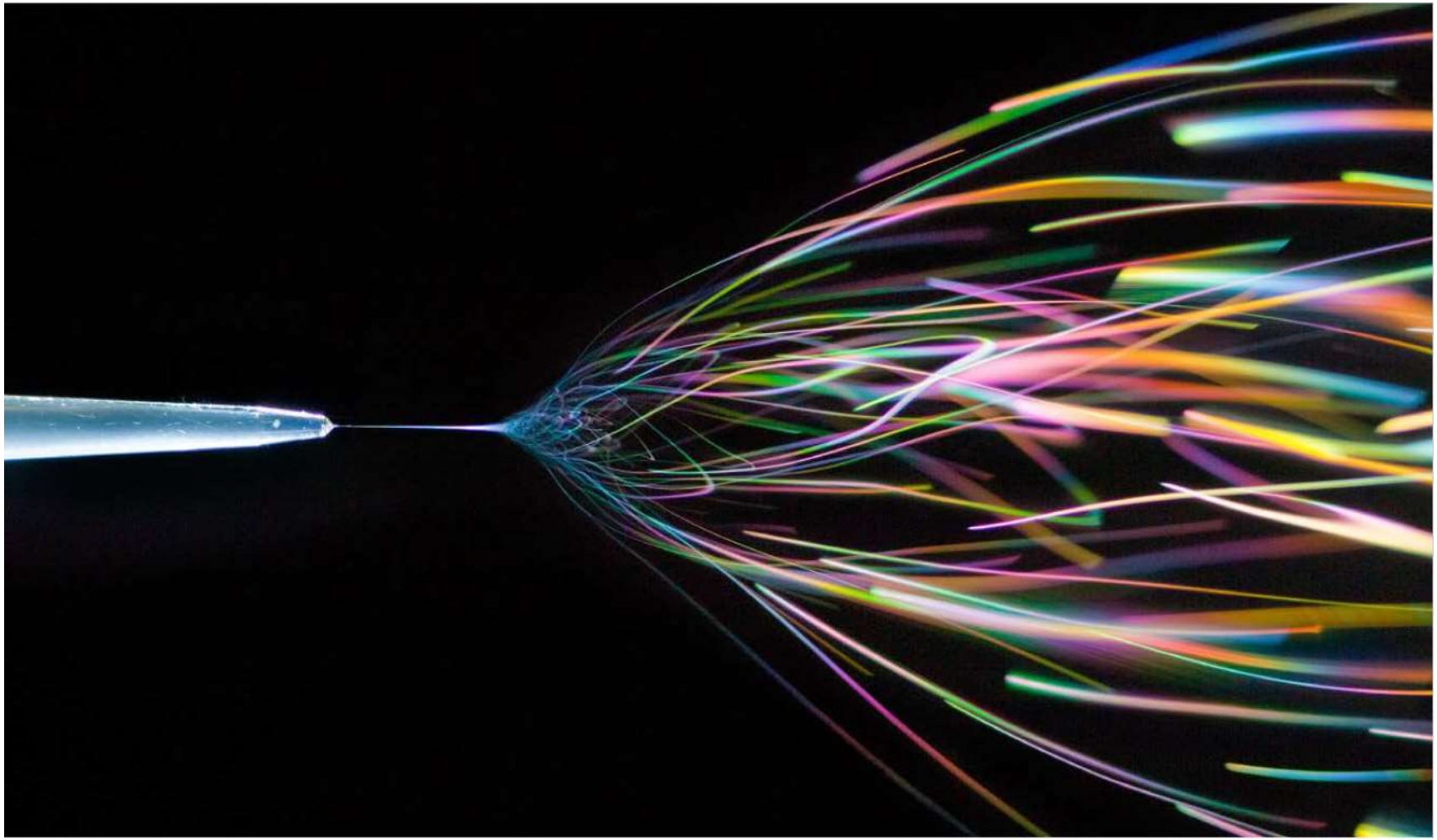
Outcomes

Is the new, or changed, technology, process, practice, business model or policy, that is enabled by the research, *a radical change and/or a leap in performance* versus the status quo?

Impact

Could the research ultimately *lead to a transformational change* within the New Zealand economy, society or environment by, for example, creating or disrupting economic activities, creating a new sustainable resource use or eliminating environmental damage, or changing the character of risks and opportunities faced by individuals and society?

2021 Endeavour Round Wrap-up



Applications received

- Quality of applications continues to be very high
- Received 544 applications, 69 were successful
- Success rate decreased to 13% overall
- Significant increase in Smart Ideas applications received in 2021
- For Smart Ideas success rate was 12.5% from 416 Concepts, compared to 17.3% from 283 Concepts when last run in 2019 investment round
- Research Programmes same number received as in the 2021 round, although average funding request was higher

Success rates

Research Programmes

- In the 2021 round, 36 proposals were assessed for Impact
- Of the proposals assessed for Impact, 19 (53%) of these were classified as ‘Transform’ projects
- 9 (53%) projects funded were ‘Transform’ projects, the balance were ‘Protect and Add Value’

	Number submitted	Number funded (success rates)	Annual value of new investment
2017	158	27 (17.1%)	$42.6 million
2018	145	23 (15.8%)	$41.3 million
2019	131	22 (16.8%)	$39.2 million
2020	128	17 (13.3%)	$38.0 million
2021	128	17 (13.3%)	$38.4 million

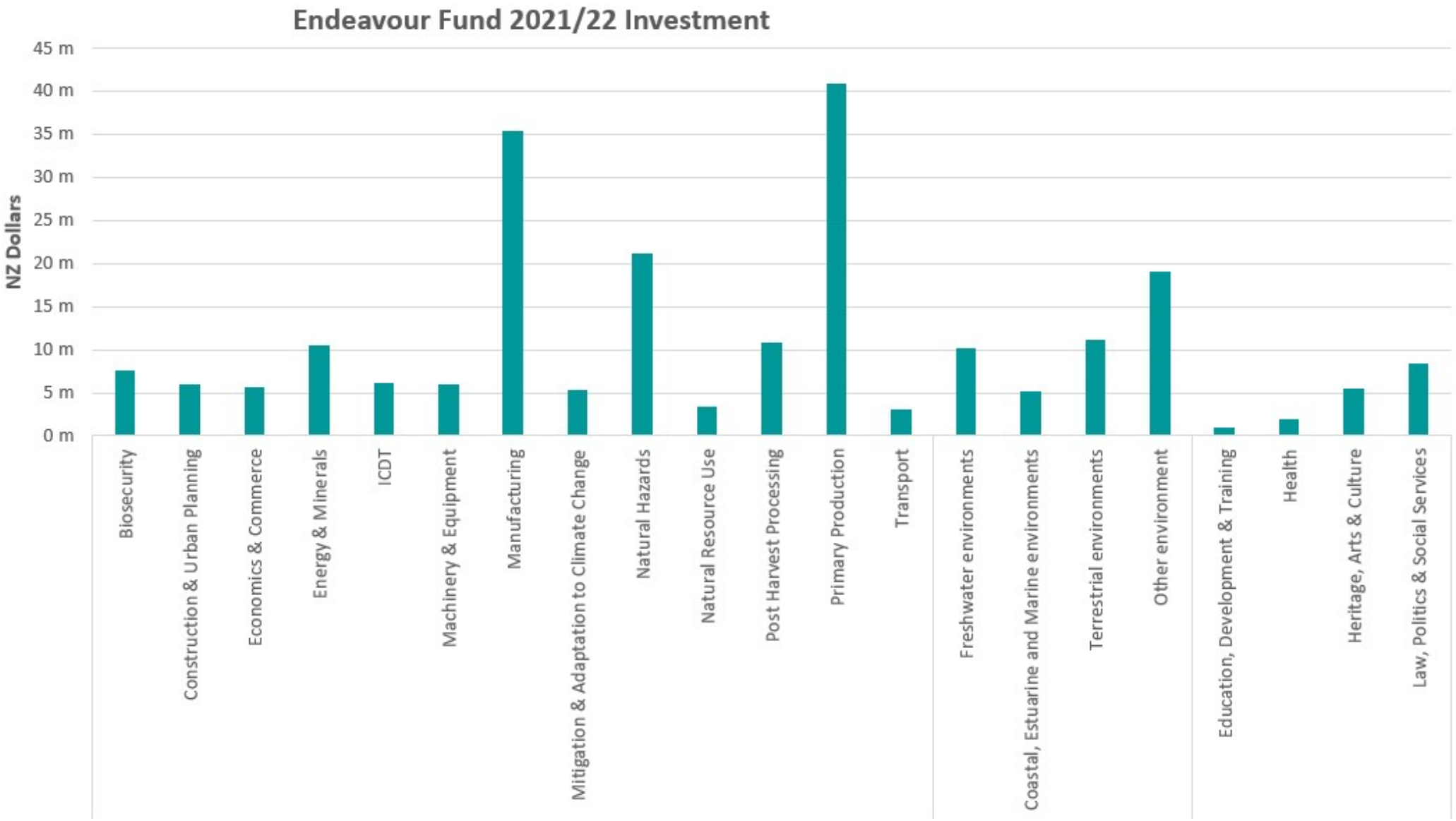
Success rates

Smart Ideas

- From Concepts, applicants are invited to submit Full Proposals
- In the 2021 round, 114 applicants progressed to Full Proposal stage

	Number submitted	Number funded (success rates)	Annual value of new investment
2017	250	41 (16.4%)	$15.4 million
2018	254	46 (18.1%)	$16.1 million
2019	283	49 (17.3%)	$17.1 million
2020	309	-	-
2021	416	52 (12.5%)	$18.5 million

SEO Operational categories (2020 ANZSRC)



Examples of Science Board Portfolio approach - decisions based on the mix of investments

- Declined due to size (a high-merit proposal declined due to size and lower value)
- Declined due to concentration (e.g, aquaculture, primary production, ecosystems)
- Preference given to those proposals meeting the signals (e.g., transition to a low-carbon economy)

Diversity information

- MBIE has a Diversity in Science Statement and a focus on diversity in order for our science system to realise its full potential
- Want to ensure that we capture the very best ideas and talent to support the highest quality research
- Important for checking any barriers to success caused by our processes
- Over time expect results to more closely reflect general population - in part, due to separate equity, diversity and inclusion initiatives
- This is not used for decision-making in the Endeavour Fund

- https://www.mbie.govt.nz/assets/95e033c7bc/diversity-in-science-statement.pdf

Where we are at currently

- Collecting this data for team members and assessors since 2018
- Data is patchy and lower completion rates compared to other funders
- Difficult to give conclusive and holistic reporting
- Please update your diversity data held in our Investment Management System (IMS)
- Research Offices, please encourage researchers to fill this out

Diversity in 2021 results

- Women are Science Leaders, Key Researchers or Key Individuals in at least 48 funded projects (70%)
- At least 2 Research Programmes and 11 Smart Ideas have a female Science Leader – similar levels to applications received

Science Leaders	Smart Ideas		Assessors who participated	Research Programmes		Assessors who participated
	Concepts received	Successful proposals		Proposals received	Successful proposals	
Gender						
Female	17%	20%	20%	15%	12%	23%
Gender diverse	1%	0%	0%	1%	0%	0%
Male	60%	59%	56%	49%	40%	53%
No information provided	23%	20%	24%	35%	48%	24%

- People identifying as Māori are Science Leaders, Key Researchers or Key Individuals in at least 28 funded projects (41%)
- 6 funded projects (9%) had a Māori Science Leader – slightly higher levels than in the applications received

Science Leaders	Smart Ideas		Assessors who participated	Research Programmes		Assessors who participated
	Concepts received	Successful proposals		Proposals received	Successful proposals	
Ethnicity						
Pasifika	0%	0%	0%	0%	0%	0%
Māori	2%	3%	4%	7%	14%	11%
Chinese	7%	2%	5%	4%	0%	3%
European	24%	32%	39%	26%	28%	37%
New Zealand European	30%	37%	25%	33%	35%	25%
Other	27%	20%	25%	16%	3%	23%

Vision Mātauranga

Smart Ideas

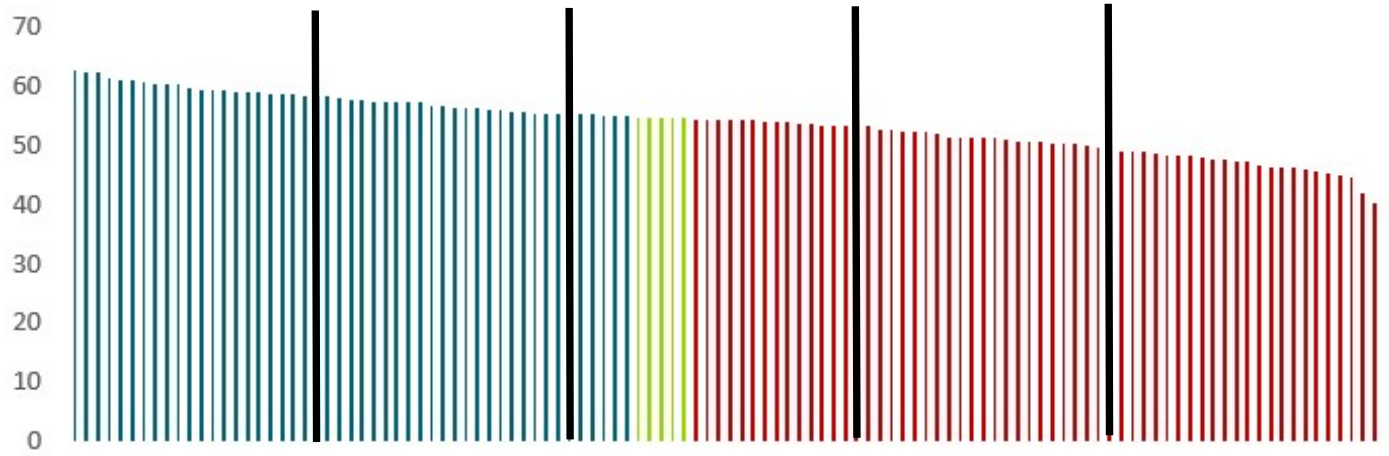
- Assessors considered that proposals gave effect to Vision Mātauranga in approximately 85% of proposals
- Of those proposals, Vision Mātauranga was considered addressed moderately well or very well in 90% of cases by Excellence assessors and in 81% of cases by Impact assessors

Research Programmes assessed for Impact

- Assessors considered that proposals gave effect to Vision Mātauranga in approximately 92% proposals
- Of those proposals, Vision Mātauranga was considered addressed moderately well or very well in 85% of cases by Impact assessors

Quintiles – how they work

- Quintiles are not used for decision-making, but provided in results letters to give a feel for relative ranking against assessment criteria
- Quintiles only relate to that stage and year, and portfolio balancing may override these
- For example at Excellence assessment only very highly ranked proposals (ie mainly quintile 1) at Excellence are assessed for Impact. But the final quintile post-Impact assessment is re-spread over 5 quintiles



2022 Endeavour Round

Key documents

- The new Investment Plan
- 2022 Gazette Notice - assessment criteria and funding available
- 2022 Call for Proposals - sets out how to apply
- 2022 Assessment Guidelines
- Available on MBIE's website (see Contact Us slide)

What hasn't changed for 2022

- Available investment: new annual investment of $57 million

  ~$18 million for Smart Ideas

  ~$39 million for Research Programmes

- Portfolio targets
  - 50:50 Protect and add value: Transform impact categories within Research Programmes
  - 70:25:5 Economic: Environmental: Societal research outcomes in portfolio
  - 20:80 Smart Ideas: Research Programmes investment in portfolio
- Exclusion for proposals that are majority health, defence and expanding knowledge – must be less than 50% of proposal

What has changed for 2022

- Investment Signals
- Vision Mātauranga information and assessment
- Targets for numbers of proposals to be funded
- ANZSRC codes
- Publishing team member details
- Profiling
- Clarification of government co-funding
- Impact terminology

Investment signals

All proposals now need to cover in body of proposal:

- demonstrate excellent, highly connected research, with high potential impact in areas of future value, growth or critical need for New Zealand
- consider the potential of Māori people, knowledge and resources and reflect genuine, fit-for-purpose approaches for enabling that potential
- be well positioned in the wider domestic and international research context, and leverage additional value from the wider research, science and innovation community
- reflect Government policy, strategy and roadmaps where relevant

Need more of these proposals

The Science Board will look for opportunities to fund proposals:

- whose primary objective is to create new knowledge pathways to support the transition to a low emissions and climate resilient economy

- that support new or existing industries to be knowledge intensive (i.e., are characterised by workforces that are predominantly highly skilled, and which have the technology, tools and resources necessary to create higher value products and services)

Signals apply to all areas across economic, environment and society

Vision Mātauranga information

- Vision Mātauranga encourages partnership, and is designed to inspire researchers to find innovative responses to opportunities and solutions to issues and needs facing New Zealand
- New questions in application forms:
  - percentage of the total personnel costs attributed to the Māori project team members
  - percentage of the project activity led or co-led by Māori as co-designers, leaders or kaitiaki
  - use of Mātauranga Māori and Kaupapa Māori in project

Giving effect to Vision Mātauranga

- Very strong applications, giving effect to Vision Mātauranga, may be Māori-led or co-led
- Strong applications may have Māori researchers or traditional knowledge holders as part of the team; or may work meaningfully with Māori communities, interest groups, businesses, or key individuals
- Strong applications enabling Māori knowledge may use kaupapa Māori approaches or draw richly on mātauranga Māori
- Other applications may incorporate Māori principles or perspectives into the research

Assessment of Vision Mātauranga

- Explicit in each assessment criterion from 2022 round
- Science: recognise the distinctive research, science and innovation contributions of Māori people, knowledge and resources, including Mātauranga Māori
- Team: the team has the appropriate Māori expertise for the project
- Benefit to New Zealand: the extent to which the project has identified and evaluated the potential impacts for Māori
- Implementation Pathway(s): whether there is sufficient input from Māori at the appropriate stage(s) of the project, that are adequately resourced, to ensure effective implementation

Targets for numbers of proposals

- New requirement for the Science Board to aim to fund a minimum number of Smart Ideas (49) and Research Programmes (19) proposals
- The largest Research Programmes proposals will be subject to additional scrutiny for value by the Science Board because of their size
- As a result, the Science Board may choose to fund some smaller proposals instead, which it considers offer better value

ANZSRC codes

- Coding using the new 2020 version will be used from this round
- The Australian and New Zealand Standard Research Classification (ANZSRC) is the collective name for a set of three related classifications developed for use in the measurement and analysis of research and experimental development undertaken in Australia and New Zealand
- A review of the classifications was undertaken in 2019 and new classifications were released on 30 June 2020
- There are three classifications in the ANZSRC:
  - Type of Activity (TOA)
  - Fields of Research (FoR)
  - Socio-economic Objective (SEO)

ANZSRC codes

- Science Board uses ANZSRC codes to balance the mix of investments
- Ensure the codes accurately match the programme content
- Usually at a level below Economic, Environment and Society

Profiling technologies of special interest

- Profiling simplified to focus on technologies of special interest
- MBIE now requires all research fund applicants to declare any technologies of special interest that may be used as part of the research methodology, in profiling
- This covers a range of historic and emerging technologies including:
  - Gene technologies
  - Live animal testing
  - Working with children or vulnerable adults
  - Developing algorithms which predict human behaviour or automate decision-making impacting humans e.g. Artificial intelligence
  - Human data mining
  - Industrial Fermentation
  - Nanotechnology
  - Xenotransplantation
  - Technologies that could have military or security applications

Technologies of special interest

- Having this declaration enables MBIE to ensure that appropriate measures can be taken to prevent or limit any direct or indirect harm that may result as a consequence of technologies of special interest being used in our investments

- This does not affect the scoring for the proposal

Technologies that could have military or security applications

- This year we are asking applicants to think about whether the technology used in their project could have potential military or security applications (dual-use) (e.g. object recognition, advanced materials or autonomous vehicles)
- NZ controls the export of military and dual-use goods and technologies: NZ Strategic Goods List (mfat.govt.nz)
- Not all technologies or their application are suitable to be included on the List (e.g. they are at an early stage of development or may be in everyday use), but still remain in scope, therefore we ask that researchers consider the possibility of a dual-use application of the technology in their proposal

- https:/www.mfat.govt.nz/br/trade/trading-weapons-and-controlled-chemicals/which-goods-are-controlled/

Technologies that could have military or security applications continued

- If your research is either on the NZ Strategic Goods List or could have potential military or security applications (even if not on the List), it may need protections around its unauthorised acquisition or transfer, i.e. to prevent the loss of your IP and to prevent it being put to undesirable uses, and should be identified
- MBIE continues to update this list as the research landscape evolves

Team member details

- Interest after 2021 round in the teams who were supported in the investments
- In 2022 we plan to pro-actively publish team member names for successful projects, similar to other research funders
- It is fine to have co-Science Leaders, (see Call for Proposals for team member descriptors)
- Consider diversity in your team, particularly the Science Leader(s)
- Think about who would make up the best team to undertake the work

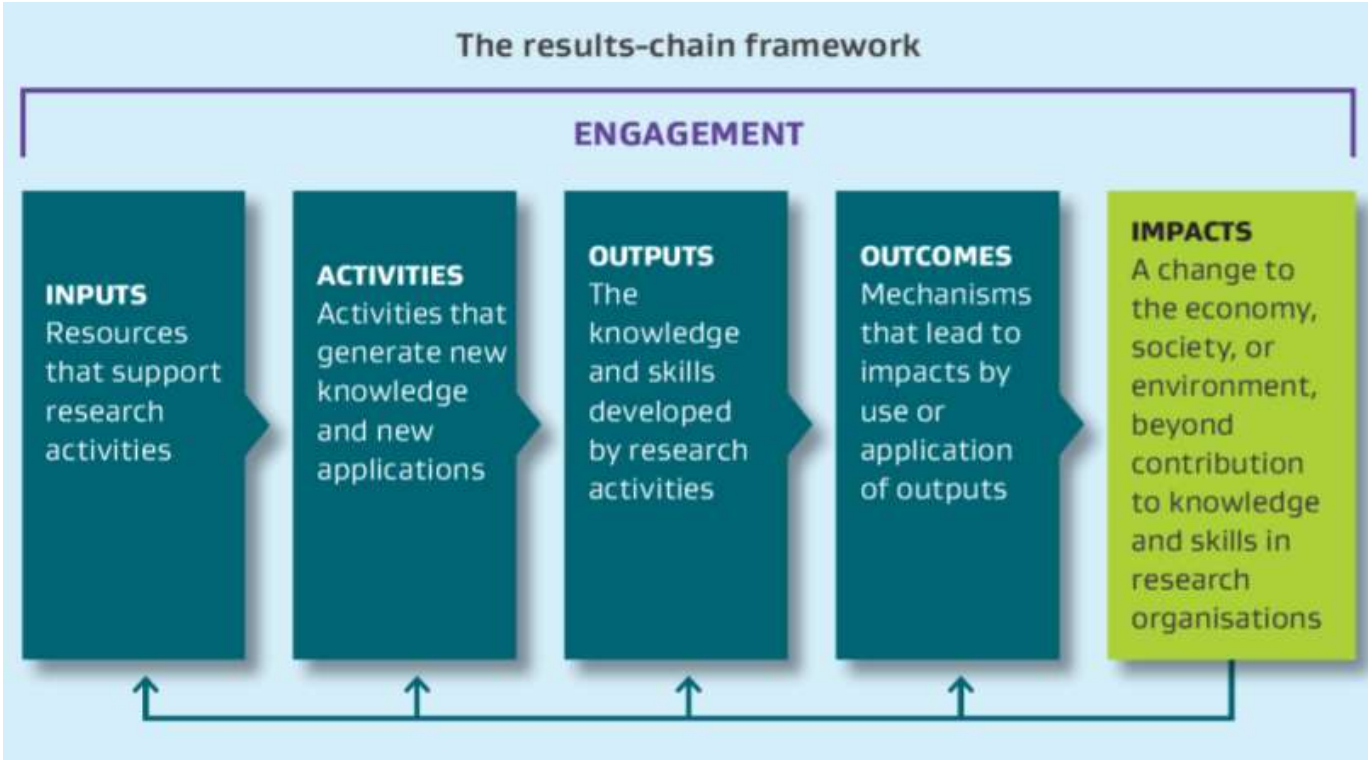
Update on Government co-funding

- Inclusion of Government co-funding clarified
- Government co-funding or co-funding from your organisation that was allocated for other purposes cannot be used as co-funding in Endeavour proposals
- Where Government is an end-user, co-funding is acceptable.

Impact terminology

Increasingly aligning terminology with MBIE's results-chain framework in *The Impact of Research* position paper

- Outcomes (previously Immediate Impact)
- Impacts (previously Ultimate Impact)
- See Investment Plan and Gazette Notice



Smart Ideas

Tuesday 2 November 2021 (12 noon)	Closing date for registration (mandatory)
Thursday 25 November 2021 (12 noon)	Closing date for Concepts
Early April 2022	Applicants notified of Science Board decisions
Wednesday 18 May 2022 (12 noon)	Closing date for Full Proposals
August 2022	Science Board makes funding decisions
September 2022	Applicants notified of Science Board decisions
1 October 2022	Contracts begin

Research Programmes

Thursday 9 December 2021 (12 noon)	Closing date for registration (mandatory)
Tuesday 1 March 2022 (12 noon)	Closing date for Proposals
May 2021	Applicants notified of Science Board decisions on Excellence
August 2021	Science Board makes funding decisions
September 2021	Applicants notified of Science Board decisions
1 October 2021	Contracts begin

Assessment and Decision Making Processes

Assessment of proposals

Two stage processes

Smart Ideas

- Submit a Concept, which is assessed for Excellence
- Applicants of the best invited to submit Full Proposals, which is assessed for Excellence and Impact

Research Programmes

- Submit a Full Proposal, which is assessed for Excellence
- Proposals of sufficient Excellence assessed for Impact

Smart Ideas

- **Concepts:** Assessment of Excellence only
- **Full Proposals:** Assessment of Excellence and Impact concurrently
- **Assessment Criteria**

  Excellence

  - Science (50%)
  - Team (15%)

  Impact

  - Benefit to New Zealand (25%)
  - Implementation Pathway(s) (10%)

Research Programmes

- One proposal submitted, two-stage assessment process

  Excellence

  - Science (25%)
  - Team (25%)

  Impact

  - Benefit to New Zealand (25%)
  - Implementation Pathway(s) (25%)

- After proposals have been assessed for both the Excellence and Impact, a Portfolio approach is used by the Science Board when making their funding decisions

Science Board decisions

Smart Ideas

- Invest in the best proposals based on a rank-order list (based on median scores)

Research Programmes

- Sufficient merit
- Take a portfolio approach
- Consider the portfolio targets
- Consider Impact categories (Transform and PAV)

Portfolio approach

- Each proposal has sufficient merit against the Impact and Excellence criteria
- Consider how the overall mix of investments meet the investment signals in the Investment Plan
- Consider value offered by the largest Research Programmes proposals
- Avoid duplication and excessive concentration in Endeavour and in the broader public science system
- Meeting policy objectives including the Vision Mātauranga policy

Value & concentration, duplication

Value

- **Not an assessment of 'value for money'**
- An assessment of the value of funding, for example, two 'small' proposals rather than one 'large' proposal
- Large proposals need to be of the highest quality to receive investment, as the Science Board pays particular attention to them

Concentration

- Sectors of the existing portfolio with high investment (check SEO chart)

Duplication

- Several proposals seeking funding for the same research

Things for applicants to consider

What are the needs?

- This is a mission-led fund, ‘Transforming New Zealand’s future’
- Design your project with the end in mind, work backwards from the desired impact
- Consider investment signals for this fund, and priorities signalled in Government strategies
- Co-design with end-users; start early
- Think about the extent to which you are giving effect to Vision Mātauranga – some topics and solutions have more potential than others
- Think early about how to position the proposal – which industry, sector and which ANZSRC codes best characterise your proposal

Describing Impact

- Describe *Benefit to New Zealand* broadly, considering spill-over benefits
- Look at all the investment signals, and address these
- The key government signals this year are to reduce emissions, address climate resilience, and build knowledge intensive industries
  - **The Science Board will look for opportunities to fund proposals in these areas**
- Co-funding is not mandatory, but potentially useful the nearer you are to market
- Ensure work programme has the activities that allow impact to be delivered
- Avoid hockey stick deliverables

What is the science?

Excellence is always assessed first, so:

- be specific to show which part of the proposal is stretchy
- give sufficient detail so assessors can understand your thinking
- manage risk with a suitable plan
- build the best team with the right mix of skills; researchers and end-users
- consider diversity and capability development
- up to 50% of funding can be used to fund offshore collaborators to achieve New Zealand impact

Little things to get right

- Executive Summary
  - Key ‘go-to’ place in proposals
  - Split into four ‘assessment criteria’ sections
  - Limited words, use wisely
- Public Statement
  - Imagine you are successful, and write what you would like the media and public to know about your project
  - Don’t include commercially sensitive information as MBIE may directly release this information at any time
- Select profiling codes with care to ensure accuracy
  - ANZSRC codes (2020 version) are used for eligibility, and portfolio balancing
  - Significance to Māori profiling helps with assessor selection for research that is >50% Māori-led and/or kaupapa Māori

Other MBIE opportunities

Other MBIE funding opportunities

Vision Mātauranga Capability Fund

- proposals are due 11 November 2021

In the next few months

- Infectious diseases research platform (SSIF)

Visit the MBIE website for more information and subscribe to the MBIE Alert e-newsletter for updates

MBIE supported infrastructure

- **New Zealand eScience Infrastructure**

www.nesi.org.nz or contact support@nesi.org.nz

- **Research Education Advanced Network NZ**

REANNZ

www.reannz.co.nz or contact help@reannz.co.nz

- **Australian Synchrotron**

www.synchrotron.royalsociety.org.nz

- **RV Tangaroa**

www.niwa.co.nz or contact rob.christie@niwa.co.nz

Want to know more about Endeavour?

We can

- explain the process
- help with use of the portal and resolve portal problems

We cannot

- interpret the Call for Proposals
- provide specific advice about your proposal

Contact us

Questions on the process, CfP or content	
Email	endeavour@mbie.govt.nz
Questions on the portal or proposal submission	
Email	IMSsupport@mbie.govt.nz
Call	0800 693 778 (8.30am – 4.30pm)
Web	See MBIE's Endeavour Fund webpage: https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-information-and-opportunities/investment-funds/endeavour-fund/

Questions?

Use Q+A function, not Chat