Prime Minister's Prizes for Science 2024 – Additional advice for responding to assessment criteria

Strong applications will include specific examples of nominee activities, which demonstrate how the achievement meets the assessment criteria. We encourage nominators to utilise the full breadth of the assessment criteria to demonstrate how the nominee profoundly impacted their respective field.

Prime Minister's Prize for Science

Assessment criterion 1 (10 points)

Demonstrated original and in-depth research effort

You should demonstrate this by identifying the originality and depth of the research effort involved in the nominated achievement.

For team nominations also describe:

- each member's contribution
- the benefits of the collaboration
- why the prize should be jointly awarded.
- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) the significance of the research effort and demonstrate contribution of original knowledge to the scientific field.
- Detail the reasons explaining why you, the nominator, believe that the nominee(s) should be considered for the Prime Minister's Prize for Science. Clearly outline the context, challenges and beneficial outcomes of the nominees' achievements that have contributed to the advancement of scientific knowledge.

Assessment criterion 2 (10 points)

Demonstrated impact

You should demonstrate this by identifying the achievement's impact on its field of science and, where appropriate, more broadly.

- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) significant impact, that has been transformational to the field of science. The response will also provide specific examples of outcomes and benefits of the nominees' scientific achievements and where possible the resulting broader positive impact on society. Where appropriate, the response will outline any strategies the nominee(s) used to maximise scientific impact.
- If the scientific achievement resulted in a broader societal, health, environmental or economic impact, provide specific examples, and outline any potential the research has to address societal challenges.

Prime Minister's Prize for Innovation

For this prize, nominees are required to address different assessment criteria at each stage.

Stage 1 Assessment Criteria

Assessment criterion 1 (10 points)

Demonstrated commercialisation

You should demonstrate commercialisation by identifying the key research and development efforts involved in innovatively translating scientific knowledge into a commercially available product, process or service that has had substantial economic, social, and where relevant, environmental benefits.

For team nominations also describe:

- each member's contribution
- the benefits of the collaboration
- why the prize should be jointly awarded.
- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) the actual/realised commercialisation outcomes and benefits of the innovation. This may include descriptions of forged partnerships, market impact, commercial products, intellectual property licences and revenue.
- Detail the reasons explaining why you believe that the nominee(s) should be considered for the Prime Minister's Prize for Innovation.

Assessment criterion 2 (10 points)

Demonstrated value and benefit to Australia

You should demonstrate this by identifying the direct and indirect benefits of the innovation to Australia and its public good value.

- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) realised value and unique benefits of the innovation the transformative nature of the product, process or service to the economy and society.
- Detail, where relevant, any economic, health and wellbeing, social or environmental benefits to society resulting from the innovation.

Stage 2 Assessment Criteria

Assessment criterion 1 (10 points)

Demonstrated commercialisation through innovation

You should demonstrate this by identifying:

- the key research and development efforts involved in innovatively translating scientific knowledge into a commercially available product, process or service that has had substantial economic, social, and where relevant, environmental benefits
- b. the research and innovation pathway to the final product, process or service and its successful commercialisation, including:
 - the roles and contributions of those involved
 - any patents granted or applied for.

For team nominations also describe:

- each member's contribution to the development of the innovation and its commercialisation
- the benefits of the collaboration
- why the prize should be awarded jointly.

- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of the realised commercialisation outcomes.
- Where appropriate detail and provide compelling evidence of any partnerships and networks established, impact from intellectual property licences and any resulting revenue and outline where the product, process or service has been proven at scale.

Assessment criterion 2 (10 points)

Demonstrated value and benefit to Australia

You should demonstrate this by identifying:

- a. the direct and indirect economic, social and, where relevant, environmental benefits of commercialisation, such as:
 - capital investment and employment outcomes for Australia
 - the value of sales
 - tax revenues
 - royalty streams to the host research organisation
 - new partnerships and synergies
 - the value of its public good.
- b. other benefits of the innovation process such as:
 - pathways for further research and development on both the commercialised product, process or service and other potential outcomes
 - the number of PhD students involved in the research programs
 - any unexpected outcomes realised through the innovation and product, process or service development processes.
 - Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) realised commercial outcomes and directly related tangible benefits.
 - Detail, where relevant, any economic, health and wellbeing, social or environmental benefits resulting from the innovation and outline how the product, process or service has or has the potential to transform societal challenges Australia faces.

Malcolm McIntosh Prize for Physical Scientist of the Year and Frank Fenner Prize for Life Scientist of the Year

Assessment criterion 1 (10 points)

Nature of the research achievement

You should demonstrate this by identifying the originality and impact of the achievement within its field of science.

- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) the significance of the research achievement and impact or potential future impact on the current state of scientific field.
- Compellingly justify why you believe that the nominee should be considered for the Malcolm McIntosh Prize for Physical Scientist of the Year or the Frank Fenner Prize for Life Scientist of the Year.
- Clearly state the impact or potential impact the nominee's achievements, most significant publications or patents have on the relevant field of science.

Assessment criterion 2 (10 points)

Benefit, or potential for benefit, to human welfare or society

You should demonstrate this by identifying the application of the research achievement, particularly to Australia.

 Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) realised or probable tangible benefits that have the potential to transform and benefit the wellbeing of society. These benefits may include economic, cultural, health, social or environmental resulting from the nominee's research achievements.

Prize for New Innovators

Assessment criterion 1 (10 points)

Nature of the innovation achievement

For this prize, you should demonstrate the commercial or translational viability of the innovation, including any progress towards commercialisation or integration into practice.

You should demonstrate this by identifying the research and development and innovation involved in translating scientific knowledge into a commercial product, process or service including:

- the pathway leading to the development and commercialisation or translation of the product, process or service
- the role of the nominee in the process
- whether any patents were granted or applied for
- the originality and impact of the achievement within its field of science.

We will consider the innovation, underlying research and trial pathway equally important.

- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) the originality and viability of the product, process or service.
- This should also include descriptions of established partnerships and outline the potential for the innovation to make a significant contribution to addressing a realworld challenge.
- Detail the reasons explaining why you believe that the nominee(s) should be considered for the Prize for New Innovators.

Assessment criterion 2 (10 points)

Value and benefit to Australia

You should demonstrate this by identifying the application of the innovation and its benefits, including substantial progress towards commercialisation or translation and any direct and indirect economic, societal and environmental benefits.

- Strong responses to this criterion will clearly and convincingly outline (and provide compelling evidence of) realised or probable tangible value and benefit.
- Detail how this innovation has the potential to transform and benefit the wellbeing of society. These benefits may include economic, cultural, health, social or environmental resulting from the nominee's achievements in innovation.