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Research Priorities Panel

[National Science and Research Priorities Review](#)

Australian Research Council (ARC)

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MTAA Submission to ARC re Discussion Paper on Implementation of the National Science and Research Priorities under National Competitive Grants Program

Introduction

The Motor Trades Association of Australia Limited ([MTAA](#)) appreciates the opportunity to make this submission to ARC regarding the Discussion Paper (**ARC DP**) on *Implementation of the National Science and Research Priorities (NSRPs) under the National Competitive Grants Program (NCGP)*. **MTAA** is a federation of various state and territory motor trades associations (ie four MTAs) and automobile chambers of commerce (ie two ACCs). MTAA represents, and is the national voice of, the 69,365 automobile sector businesses which employ over 379,000 Australians and contribute around \$37.1 billion to the Australian economy equating to about 2.2% of GDP. MTAA member constituents include automotive retail, service, maintenance, repair, dismantling recycling and associated businesses that provide essential services to a growing Australian fleet of vehicles fast approaching 20 million by 2020.

1. Scope of the review

The **ARC DP** states on page 5 under this heading that: “This review is focused on the ARC’s implementation of the [NSRPs] and associated Practical Research Challenges [PRCs] under the NCGP. The detail and content of the [NSRPs] and associated [PRCs] themselves is out of scope for this review.” It is unclear to **MTAA** precisely the nature and level of granularity of “detail and content” that “is out of scope for this review”.



2. National Science and Research Priorities

Page 6 of the **ARC DP** notes under this heading that: “The Australian Government announced the [NSRPs] (and their associated [PRCs]) on 26 May 2015. ... There are nine cross-disciplinary [NSRPs]—food, soil and water, transport, cybersecurity, energy, resources, advanced manufacturing, environmental change, and health—and [thirty] associated [PRCs] (three or four per Priority area).” **MTAA’s** main area of interest is, of course, “transport”. Not only does that include motor vehicles (MVs) using traditional fuels but also hybrids, electric and hydrogen along with the infrastructure to support all of these. Regarding the latter, there is strong interest in the potential use of existing service stations for electric recharging and hydrogen refueling. Other potential interest areas include “energy”, “resources”, “advanced manufacturing” and “environmental change”.

3. ARC support for research

The **ARC DP** states on page 6 under this heading that: “The ARC’s purpose is to grow knowledge and innovation for the benefit of the Australian community through funding...highest-quality...applied research...through...the Linkage Program, which links university researchers to industry and other partners.” The DP also states on page 7 under this heading that: “The NCGP has a budget of \$766.45 million in 2018–19, which is approximately 8.0 per cent of the Australian Government’s direct investment in research.” Page 7 of the DP under this heading adds: “NCGP funding recommendations are based on quality, as assessed through a competitive process involving rigorous peer review. The majority of ARC funding is not driven or limited by any particular research focus, subject matter or policy imperative. ... The ARC relies on applicants self-identifying the area of their research against the [NSRPs], and does not independently assess that identification.” **MTAA** intends to explore seeking “applied research” “funding” under the NCGP regarding NSRPs. This will include exploring “links” with “university researchers” at perhaps [Applied](#), [ANU Enterprise](#) and/or [Automotive Australia 2020](#).

4. ARC support for research in Australian Government priority areas

The **ARC DP** highlights on page 7 under this heading that: “In addition to the [NSRPs], the NCGP targets funding to support a number of thematic and structural priority areas [such as] Industrial Transformation Priorities under the ARC Industrial Transformation Research Program (ITRP) [which] align with the Government’s Industry Growth Centres and underpin the specific objective of the ITRP to support industry focused research [as well as] [r]esearch training in industry through the Industrial Transformation Training Centres (ITTC) scheme.” **MTAA** intends to explore seeking “ITRP” and “ITTC” related “funding” as well.

5. ARC implementation of the National Science and Research Priorities

The **ARC DP** points out on pages 7 and 8 under this heading that: “Reflecting the Government’s advice that the Priorities were not intended to be exhaustive or exclusive, the ‘Project quality and innovation’ [PQI] criterion also allows applicants to reference other aspects of the proposal, including the innovative nature of the proposal, the problem being addressed, the advancement of knowledge and international collaboration. ... The ARC also does not allocate a dedicated score for alignment with the [NSRP] areas—it is one of the components of the selection criterion [PQI].” **MTAA** finds this elaboration useful and encouraging, particularly given that our CEO has recently spent a few weeks in the UK strengthening our “international collaboration”.

The **ARC DP** also points out on pages 7 and 8 under this heading that: “[T]he ARC does not specifically direct funding to research in the [NSRPs]. ... The ARC does not target a specific proportion of funding to research in the [NSRPs]—the ARC leaves it to individual applicants to determine whether to undertake research in the areas outlined in the [NSRP] areas.” **MTAA** believes that the sort of research needed in auto transport is either directly or indirectly related to the NSRPs such as: 1. 10-year auto-sector blueprint; 2. addressing skills shortages; 3. vehicle end-of-life recycling; 4. efficient alternative fuels; 5. lowering government burdens (eg [tax and red-tape](#), [regulatory dark matter](#), [money and credit inflation](#), etc).

The **ARC DP** asks on page 8 under this heading: “Are there other challenges or areas of priority that you consider require focus in ARC funding (by being included in NCGP research priorities) to (i) achieve the ARC’s purpose of growing knowledge and innovation for the benefit of the Australian community; (ii) support an appropriate balance of research in across disciplines within the ARC’s funding remit; and (iii) complement and maximise the benefits from overall existing government support for research?” **MTAA** would remind that “innovation” includes the many under-the-radar improvements that are common in small-to-medium sized enterprises that dominate the Australian auto sector. And “innovation” requires above-all the freedom to innovate.

6. Your understanding of the National Science and Research Priorities

The **ARC DP** asks on page 11 under this heading: “What is your understanding of the implementation of the [NSRPs] in relation to Australia’s broader research system?” **MTAA** would welcome greater clarity on the boundaries between the likes of [ARC](#), [Business](#), [Cooperative Research Centres \(CRC\)](#), [GrantConnect](#), [Industry](#) and other Commonwealth Government research grants.

7. Review process and timeline

The **ARC DP** states on page 12 under this heading that: “Public consultation will...collect stakeholder views on the questions posed in the Discussion Paper [DP]. ... In addition to public consultation,



targeted consultations with individuals may be undertaken depending on the nature of the feedback received.” **MTAA** would welcome the opportunity to be considered for “targeted consultations”.

The **ARC DP** lays out the following “timeline” on page 8 under this heading:

Month	Activity
March/April	Consultation
May	Compilation of consultation results; preparation of draft advice
June	Consideration of draft advice
July	Provision of advice to Minister

MTAA notes that best practice consultation by Australian government agencies and regulators, like the Australian Competition and Consumer Commission (ACCC) or Productivity Commission (PC), provide stakeholders with multiple opportunities for input, both written and verbal, as well as both formal and informal. This usually involves the opportunity for at least two rounds of formal written submissions, one to an initial issues document and one to a draft position document. In addition, this often involves the opportunity for at least one round of formal hearings and/or other style of face-to-face engagement with key/interested stakeholders like conferences.

8. Attachment A

The **ARC DP** asserts on page 13 under this heading that: “Australia depends on science and research to increase productivity, achieve sustainable economic growth, create jobs, and improve national well-being.” **MTAA** largely agrees with this.

The **ARC DP** discusses “transport” on page 15 under this heading including: “Research will be critical to developing low cost, reliable, resilient and efficient transport systems that meet the needs of businesses and enable sustainable mobility, while lowering carbon emissions and other pollution. Departments and agencies should give priority to research that will lead to: low emission fuels and technologies; improved logistics, modelling and regulation; [and] effective pricing, operation, and resource allocation.” **MTAA** largely agrees with this but suggests that more balance is required when it comes to say “lowering carbon emissions” versus “improved regulation”, “effective pricing, operation, and resource allocation”. Thus, ARC should consider adopting some sort of [‘Red versus Blue Team’](#) approach in this and future consultations and processes – eg bottom-up research v top-down research, market planning v central planning, disruptive science v consensus science, etc. Such a *Red v Blue* approach is currently being explored by the US Federal EPA, as the ‘new wave’ of world best practice for evidence based policy.

9. Attachment B

Table 4 on page 21 of the **ARC DP** under this heading shows the following “funding” percentages below:

Table 4: Proportion of total funding in National Science and Research Priority areas, by Program and National Science and Research Priority area (2015 to 2019)

National Science and Research Priority	Discovery Program	Linkage Program	Total NCGP
Advanced manufacturing	15%	45%	26%
Cybersecurity	3%	1%	2%
Energy	6%	4%	5%
Environmental change	14%	16%	14%
Food	4%	5%	4%
Health	11%	14%	12%
Resources	3%	3%	3%
Soil and water	2%	4%	3%
Transport	2%	3%	2%
No Priority	40%	6%	29%
Total	100%	100%	100%

MTAA suggests that more balance is required when it comes to say “advanced manufacturing” versus “transport”, “energy” and “environmental change”.

Table 5 on page 22 of the **ARC DP** under this heading shows the further “funding” percentages below:

Table 5: NCGP, number of funded projects, by National Science and Research Priority area and 2-digit Field of Research (2017 to 2019, by project commencement year)

Primary FoR2D	No NCGP	Advanced manufacturing	Cyber-security	Energy	Environ-Mental change	Food	Health	Resources	Soil and water	Transport	Grand Total	Pct with no NCGP
01 Mathematical Sciences	109	7	4	4	9	1	14	4	1	3	156	70%
02 Physical Sciences	115	78	10	11	2	0	2	0	0	0	218	53%
03 Chemical Sciences	41	97	0	21	5	1	17	2	5	1	190	22%
04 Earth Sciences	23	0	1	0	60	0	1	31	20	0	136	17%
05 Environmental Sciences	3	0	0	2	71	1	1	0	10	0	88	3%
06 Biological Sciences	225	15	0	4	131	64	42	1	12	0	494	46%
07 Agricultural and Veterinary Sciences	2	0	0	0	1	26	3	0	0	0	32	6%
08 Information and Computing Sciences	42	59	58	2	6	6	26	1	1	21	182	23%
09 Engineering	33	214	6	113	37	4	26	43	37	32	545	6%
10 Technology	13	71	7	13	3	4	10	0	3	3	127	10%
11 Medical and Health Sciences	54	2	0	0	1	1	55	0	0	2	115	47%
12 Built Environment and Design	7	1	0	1	10	0	5	1	0	3	28	25%
13 Education	50	1	0	0	1	0	10	0	0	0	62	81%
14 Economics	50	11	0	1	5	1	8	0	1	1	78	64%
15 Commerce, Management, Tourism and Services	21	1	0	1	1	0	1	0	0	5	30	70%
16 Studies in Human Society	117	9	4	4	30	7	37	0	1	4	239	51%
17 Psychology and Cognitive Sciences	105	0	0	1	0	0	41	0	0	2	149	70%
18 Law and Legal Studies	30	1	0	1	6	2	10	1	1	0	52	58%
19 Studies in Creative Arts and Writing	22	1	0	0	1	0	5	0	0	0	29	76%
20 Language, Communication and Culture	60	1	3	0	5	0	12	0	0	0	81	74%
21 History and Archaeology	81	0	0	0	15	0	11	1	1	0	109	74%
22 Philosophy and Religious Studies	30	0	3	0	1	1	9	1	0	0	53	72%
Grand Total	1241	525	96	179	401	119	366	86	93	77	3183	39%
Proportion	39%	16%	3%	6%	13%	4%	11%	3%	3%	2%	100%	

MTAA suggests that more balance is required within “transport” when it comes to say “engineering” and “information and Computing Sciences” versus “technology”, “design”, “education”, “economics”, “commerce”, “law” and “history”. The latter grouping should include statistics which was not in the list. And “economics” should include: business cycles and inflation; business structures and supply chains; competition and law; cost-of-living and cost-of-doing-business; entrepreneurship and innovation; pricing, valuation and cost benefit analysis (CBA); as well as sector-specific red-tape, subsidies and taxes.

10. Attachment C

Page 25 of the **ARC DP** under this heading makes reference to: “instructions to applicants”; “grant guidelines objectives”; and “grant guidelines assessment criteria”. **MTAA** has so far found it somewhat difficult to navigate the ARC website to find these and other documents and, therefore, suggests that this website could be improved in terms of new-user ‘friendliness’.

Conclusion

Please accept this MTAA submission on the **ARC DP** regarding the important issue of *National Science and Research Priorities under the National Competitive Grants Program*. **MTAA** looks forward to being consulted further as the process unfolds. Any questions or comments regarding this submission may, at first instance, be directed to Mr Darren Nelson on 0479 001 040 or Darren.Nelson@mtaa.com.au. Darren is based in Canberra as MTAA’s Director of Policy and Industry Relations.

MTAA Ltd

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End of Submission

