



DMTC Ltd
Level 2, 24 Wakefield St
Hawthorn, VIC 3122
Australia
Ph: +61 (3) 9214 4447
www.dmtc.com.au

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Department of Education, Skills & Employment (DESE)
Higher Education Commercialisation Review - IP Framework

DMTC welcomes the opportunity to provide some brief observations, and looks forward to opportunities to discuss issues in more detail in the coming months.

Overall Comments

DMTC is an industrial innovation partner for the defence and national security agencies of Government, and works at the intersection of government, research and industrial contributions to sovereign defence capability.

DMTC's model is founded on open engagement and achieving "capability through collaboration". This is achieved through:

- The involvement of the 'customer' (in this case, Defence and national security agencies) at each stage of the process to ensure ongoing relevance to the end-user;
- The early identification of capable industry partners to ensure that research outcomes and technologies have one or more clear paths to adoption and commercialisation; and
- Intensive management of both background and foreground Intellectual Property and tracking of project outcomes using technology readiness assessment frameworks.

Observations in relation to matters raised in the consultation paper

Tailored approaches

While standardisation of IP agreements is a laudable aim, DMTC would be concerned about the utility and practical challenges of implementing a 'one size fits all' model. This is particularly relevant in two of the main areas of research in which we work – that is, in the defence and health and medtech/biotech sectors. The requirement to take account of national security policy and associated implications of the defence sector, and the high levels of regulation in the health and related sectors, would require careful and intentional tailoring of approaches.

Shared goals and metrics

DMTC focuses on facilitating and catalysing early industrial engagement in innovation and technology development activities. In this respect, DMTC would contend that technology adoption (or utilisation) is a more accurate and meaningful measure of the output of university research than commercialisation. To illustrate the point, the current posture of the defence industry sector in Australia points to a need for tangible action to ensure the industrial relevance of research outcomes in contributing to enhanced security and diversity of supply. DMTC's own work on technology transfer and supply chain development – the premise of which is to build a critical mass of defence-ready suppliers – is offered as an exemplar in this regard.

By contrast, a focus solely on financial outcomes from commercialising research, or on the number of startup companies, distorts the view of 'what success will look like' and risks driving a very different (and sub-optimal) set of behaviours within the University sector.

A broader approach remains entirely consistent with measures of financial return but also inherently encompasses a broader, more holistic understanding of research impact and national benefit from taxpayer investment. Furthermore, DMTC contends that policies geared towards supporting a narrow commercial return definition often restricts flow-on benefit and cross-sector seeding of innovation, technology and ideas which can have significantly greater impact.

The recent COVID-19 experience offers two salutary lessons. The first is to highlight the importance of a truly end-to-end view of solutions to emerging industrial challenges, taking account of the entire pipeline from fundamental research through to finished product. The role of University research, while critical, is just one contributor to this pipeline and cannot be seen as an end in itself.

The second is particularly relevant to some of the unique and challenging characteristics of defence-related research, where national governments are often the sole customer and, as such, hold the keys to both demand and sovereign supply. The impact of COVID-19 and the looming challenge of anti-microbial resistance, across both military and public health contexts, underscore the truism that *profit* (or financial return) is not always synonymous with true *value*.

Early industrial engagement is key to success

DMTC would welcome the opportunity to share examples of success with the review team, particularly around research-industry collaborations with companies like RUAG Australia, MacTaggart Scott Australia and BAE Systems Australia, to name but three. Hallmarks of our engagement with both companies have included:

- Intensive, early engagement to ensure that every aspect of the collaboration is fit-for-purpose rather than enforcing adoption of a cookie-cutter, one size fits all approach;
- a model for identifying and codifying intellectual property rights and prescribing 'fields of use' that works for the research sector, small and large industry companies alike;
- a strong appetite for new technology adoption and insertion, underpinned by world-leading Australian research;

- an emphasis on, and willingness to invest in the development of, PhD and postdoctoral researchers to the betterment of the individuals, their 'parent' Universities and the industrial outcomes that can be achieved; and
- an appropriate balance between 'R' and 'D' in order to successfully bridge the divide that often exists between the industrial and research sectors.

DMTC's experience is that the early engagement of industry in the definition and scoping of R&D activity is absolutely fundamental to success.

The industrial partner's understanding of the customer requirements (in areas such as development pathways, milestones and acceptance criteria) guards against what is often referred to as the technology 'valley of death' by ensuring the alignment of scientific research objectives with the end user's requirements.

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