

Improving Innovation Indicators – IRU Submission

The Consultation Paper coherently outlines the problems and limitations of current metrics for innovation performance, and the IRU supports the key messages outlined from the targeted consultations. The Paper rightly questions the validity of international innovation performance rankings based on composite measures (e.g. the Global Innovation Index and the World Competitiveness Index). Australia's strength in key product export sectors (mining, agriculture) are lost in composite measures that aggregate performance across all industries. They also say little about trends in innovation performance.

The challenge for the Review is to identify existing and potential metrics that are domestically relevant and internationally comparable. Achieving both will be difficult because the most relevant metrics tend to be fine-grained and require considerable contextual understanding. However, the idea of a roadmap for how to understand and improve performance (particularly in key industries), rather than simply benchmark, may prove fruitful and there is scope for refining existing metrics to support these purposes.

Issues which have not been raised in targeted consultations to date

Higher education sector as an innovation case study

The Consultation Paper focuses its attention on innovation in product markets, financial services and users of innovation. Limited reference is made to universities as creators and suppliers of innovators, or their key role in innovation systems. Commercialisation of university research and engagement with research end-users is important, but the contribution of education and adoption of innovative technologies is far broader and Australia's world leading performance in education services needs greater recognition. For example, Australian universities have been early adopters of online education, data analytics for supporting student learning and engagement in lifelong learning through micro-credentials. The massive increases in teaching and research productivity, extremely high by world standards, are indicative of the technological and human resource management innovations within universities over the past decade.

Along with mining, agriculture, health services and financial and insurance services, higher education would offer a strong case study as a key industry generating innovation that is currently not being adequately measured.

Broader concept of innovation and impact

The Consultation Paper states that stakeholders view 'innovation is a means to an end' and lists five ends: 'higher living standards', 'higher productivity', 'job growth', 'increased exports' and 'social and environmental benefits'. There is a risk of overemphasis on the economic effects when evaluating potential innovation metrics and discounting the contribution of innovation in community and public sector organisations, and less technologically focused disciplines and industries.

Where the Review should focus its efforts

Industry and firm-level metrics

The Review should focus its efforts on refining and developing metrics that can be disaggregated to an industry or firm level. Meaningful international comparisons depend on comparing, as best as possible, like for like industries. For example, the innovative performance of Australia's key sectors, such as the resources sector, is more meaningful when compared to other highly developed resource-based economies, such as Canada and Norway. Firm-level comparisons would be even more meaningful, given the complex role of public ownership and intervention in resource sector companies in other countries.

Regional-level metrics

The contribution of research infrastructure to innovation hubs and the spill-over effects from these activities have important impacts on communities and enabling industries within each region. Being able to disaggregate data to a regional level would improve the ability to measure the outcomes of innovation over time.

Data availability and collection frequency

Making indicators available quickly and increasing the frequency of ABS administration of surveys to annual collections should be a priority.

Improving access to and linking of existing data sources.

Removing barriers to access existing data sources and improved linkages between government administrative datasets will improve utilisation from the research community. Where detailed, linked or disaggregated data are available only by request, the cost of access should be minimised in order to support public access, scrutiny and replicability of analyses.

The range of metrics analysed

The Consultation Paper refers to a wide range of sources which were assessed on key performance criteria (relevance, timeliness, accessibility and clarity, accuracy and validity, reliability and precision, coherence, and comparability). Publication of these assessments in the final report (or as an online supplement) would assist researchers and future policy reviews into innovation performance.