



Patent Box Policy Design

16 August 2021

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ABN: 71 626 822 845



To the Treasury,

Thank you for the opportunity to offer feedback on the design of the patent box as outlined in the [Patent Box discussion paper on policy design](#).

Science & Technology Australia broadly supports the introduction of a patent box in Australia for the biomedical and clean energy sectors.

STA recognises the importance of creating an innovation ecosystem that supports the translation of Australia's research into new and novel products.

The patent box will align Australia with similar economies which already have such policies in place. Together with a Research Translation Fund, and the Research & Development Tax Incentive a patent box will be an important pillar in Australia's research translation system.

STA's response to the patent box design paper is based on the questions asked.

STA makes the following recommendations on the design and implementation of the patent box:

- Apply the patent box to inventions with a patent priority date from July 1, 2016;
- Peg the concessional tax rate at 60% of the average corporate tax rate in Australia to create a stable investment setting into the future;
- Include technologies filed under the patent cooperation treaty for the first five years of the patent box as well as the Australian general patent;
- Use a patent-level test rather than an income streaming test to target the medical and biotechnology sector;
- Carefully consider how biomedical AI might be included; and
- Expand the patent box swiftly to clean energy technologies amid the urgent challenges of climate change.

We would welcome the opportunity to discuss our recommendations further.

Yours sincerely,

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Priority date

STA strongly urges the Australian Government to set a 'priority date' of 1 July 2016 and onwards for inventions covered by the patent box scheme. This would ensure highly valuable medical and biological technology patented in Australia in the past five years is manufactured here - and not lost offshore.

The proposal in the policy design paper to set a priority date from 11 May 2021 onwards risks seeing medical and biological technology either commercialised overseas or not pursued at all.

Commercialisation of a product in the biomedical technology sector typically takes 3-5 years. These timeframes are often even longer for implantable medical technologies. This means any technology patented but not fully commercialised in that timeframe risks being manufactured overseas unless the patent box creates the incentive to continue the activity onshore. STA is concerned that limiting the coverage of the patent box to patents filed after 11 May 2021 will result in a shorter revenue lifetime for a company with patents already filed.

Moving the priority date to include patents from the past 5 years (to apply from July 01, 2016) would make patented, but uncommercialised technology, viable to be manufactured in Australia.

Extending the coverage of the patent box to include patents from the last five years would also boost short-term benefits to the Australian economy. Given the time it typically takes to commercialise biomedical technology, the Treasury's proposed priority date of May 2021 would be unlikely to deliver strong economic returns until several years into the future. Delivering a stronger short-term boon from the patent box will be key to Australia's urgent goals to strengthen supply chain security and build momentum for further global investment.

STA recommends: Apply the patent box to inventions with a patent priority date from July 1, 2016.

Concessional rate

STA agrees the patent box concessional tax rate of 17% is optimal under the current tax system.

There is a broader ongoing policy debate in Australia about the right level for the corporate tax rate - and an ongoing global discussion on a minimum international corporate tax rate. Given the potential for the wider Australian general corporate tax rate to change in the future, it would be prudent to build long-term surety into the patent box to strengthen investor confidence.

Rather than setting a flat concessional tax rate of 17%, STA proposes the Government peg the patent box concessional rate to the prevailing corporate tax rate. Given there are currently two Australian company tax rates depending on the size of a business (25% and 30%), it would be prudent to peg the patent box concession to 60% of the average prevailing corporate tax rates. This would set the current concessional tax rate to approximately 17% currently, but also signal strongly to industry that the patent box concession will always be valuable regardless of changing corporate tax rates. This will support long-term investment.

STA recommends: Peg the concessional tax rate at 60% of the average corporate tax rate in Australia to create a stable investment setting into the future.

Are patents applied for by medical and biotechnology companies with domestic R&D operations generally Australian standard patents?

Generally, Australian companies file patents under the Patent Cooperation Treaty. This allows protection in multiple regions rather than just in Australia. In the past, there has been limited encouragement for companies to manufacture their products in Australia so local-only patents were of less use.

The implementation of the patent box in Australia will be a much stronger incentive to manufacture, source materials and develop technology onshore. This may lead to more Australian standard patents becoming the primary focus for technologies covered by the patent box.

However, biomedical technologies take up to 5 years to commercialise. We need to maximise benefits for Australia and encourage companies with current patents to manufacture their technologies onshore. To that end, appropriate technologies patented under the Patent Cooperation Treaty (with priority date after July 1, 2016) should also be included for the first 5 years of the patent box.

STA Recommends: Include technologies filed under the patent cooperation treaty for the first five years of the patent box as well as the Australian general patent.

What is the best approach to provide certainty around access to the regime for the medical and biotechnology sectors?

A patent-level test based on primary use or classification would deliver the greatest level of certainty for the sector. A patent-level test means the tax concession is only applied to the patented products or applications which fall within the definitions of the biological and medical technologies or applications.

A patent-level test would also help to ensure patents are filed in a strategic way and prevent patent hoarding/slicing. It would do this by making the patent box only valuable to companies who make use of the patents.

STA is concerned with the proposed income streaming approach to the patent box. Income streaming creates too much ambiguity in a company's finances. It would also make tax reporting more complex for both the company and the Australian Government. It has the potential to create a lot of ambiguity around eligible items - an ambiguity challenge that has beset the Research and Development Tax Incentive over many years.

STA Recommends: Use a patent-level test rather than an income streaming test to target the medical and biotechnology sector.

What are the core concepts/applications that need to be covered by any definition of the medical and biotechnology sectors for the purpose of defining access to the patent box?

Any definition of the medical and biotechnology sectors would have to include:

- Screening, diagnostic, and treatment tools;

- Imaging and sensing technologies;
- Drug, pharmaceutical, and vaccine discovery and development; and
- Digital health integrated technologies.

These applications would be key priorities, but this is not an exhaustive list.

One important consideration in defining the medical and biotechnology sector for the patent box is the emerging deployment of Artificial Intelligence (AI) in medtech or biotech. This area is less clear than the other applications outlined above.

As it currently stands, the applications of Artificial Intelligence can be protected in Australia's patent system. A recent High Court ruling also established [that technologies resulting solely from Artificial Intelligence](#) are also able to be protected. What is not currently protected is the code of the Artificial Intelligence itself. This grey area needs to be considered in the design process to protect the intellectual property of Australian software development.

STA recommends: Carefully consider how biomedical AI might be included.

Businesses that would benefit from low emissions tech inclusion

Australia has been a world leader in developing low emissions technologies for decades - including in solar, batteries, and optics (mirrors). However, we have yet to capitalise on opportunities to manufacture these technologies onshore. STA strongly encourages the Australian Government to include clean energy technologies in the patent box scheme. This would be a clever strategic move by the Australian Government amid the growing drive across the global community to transition to a net zero emissions future as swiftly as possible. Adding clean energy technologies to the patent box can build a strong stream of Australian export income from Australian-made clean energy products.

STA recommends: Expand the patent box swiftly to clean energy technologies amid the urgent challenges of climate change.

What sort of businesses own patented inventions relating to low emissions technologies, and would introducing a tax concession through a patent box support the clean technology energy sector?

STA considers the low emissions technology sector includes:

- Renewable energy;
- Battery technologies;
- Printing companies for low-cost manufacture;
- Optics manufacturers for glasses and mirrors;
- Energy and grid management devices; and
- Supercapacitor technologies including materials and devices.

Each of these fields should be included in an expansion of the patent box to low emissions technologies, while noting there may also be other fields that should be covered.

What factors drive decisions about the location of clean technology R&D?

One of the driving forces in decisions on where to locate clean technology R&D is the location of

founders and investors. Investors and founders are readily available in Australia, however, there has been a lack of incentives historically to ensure they focus on Australia.

Australia has a deep well of scientific talent that could be turned into company founders with the right training, networks, and opportunities. STA has proposed Australia train a new generation of “bench-to-boardroom scientists”. There is a prime opportunity here to encourage investors to buy into the low-emission technology companies created by such “bench-to-boardroom scientists” and develop a much bigger cohort of Australian-focused founders.

Australia’s research-intensive university sector produces world-leading research that has strong urgent potential for stronger translation and commercialisation. This is the focus of the Australian Government’s current work to shift the dial on university research commercialisation. An ability to translate technology into products in close proximity to the inventors is appealing to investors and companies.

Investors can also drive decisions on location - with major investors often more willing to buy into local innovations and products. A patent box will help encourage a greater Australian focus for investors as manufacturing will be significantly more likely to occur onshore.

Would a patent box be an effective way of supporting the clean technology sector? Are there other options available to encourage growth in this sector?

A patent box would be a powerful driver of growth in Australia’s clean energy technology sector. Many innovative ideas are produced in Australia, and often result in companies founded here. At the moment, there is limited incentive for them to keep their business in Australia and to manufacture in Australia.

A patent box would ensure local clean energy technology companies stay in Australia - boosting investment in local manufacturing, translation, and commercialisation. It would strengthen the development of advanced manufacturing here - and boost the sovereign capability of Australia’s manufacturing, biomedical, and clean energy technology sectors.

Adding clean energy technologies to the patent box could be complemented by other policies. One is to invest in the skills, training, and commercialisation networks of a new generation of “bench to boardroom scientists”. Providing skills to a scientific workforce that takes the technologies they have developed and turn them into commercialisable clean energy technology solutions has a dual benefit. First, it maximises the returns to Australia of research on the cusp of commercialisation and creates a new generation of Australian company founders. STA has proposed this approach in our submission to the Government’s public consultation on [university research commercialisation](#).

A further complementary measure to turbo-charge the development of Australia’s clean energy technology would be to significantly boost [research translation funding](#). Complementary measures through the patent box and a new Research Translation and Commercialisation Fund would turbo-charge clean energy technology growth in Australia to make us a global power in clean energy technology. This would generate vast economic returns to Australia and to our national tax base.