

The [deal announced](#) by Prime Minister Malcolm Turnbull today that the French have won the A\$50 billion contract for supplying Australia's 12 future submarines is very good news for Australia.

Ensuring the submarines are built in country rather than overseas will save Australian taxpayers an estimated A\$28 billion (at an exchange rate of US\$0.74) as compared to building overseas, according to [analysis from the Economic Development Board of South Australia](#). The net cost to the country will still be around A\$12 billion since a submarine is an unproductive asset.

Turnbull says the submarine project will generate an additional 2,800 jobs and "the spin-offs to the rest of the economy will be immense".

Now the economic objective must be to ensure industry and research spillovers generate a benefit well in advance of A\$12 billion for the country over the lifetime of the project.

To do so, the strategy must include as a minimum the following elements:

1. A list of state strengths

An in-depth analysis of the economic complexity of each of Australia's states with identification of the products and services where they have comparative advantages and that also have a high contribution to the states' opportunity value and opportunity gain. This would enable a strategy by which the future submarine project could be leveraged to accelerate and facilitate the economic contributions of these products and services.

2. A plan for building capability

A detailed strategy, developed together with the winning bidder DCNS, for how to upgrade the capability of local firms that are potential participants in the future submarine supply chain. This upgrading would cover the digitalisation and automation of activities as well as the development of technical capabilities. This strategy will be dynamic and informed by the insights and planning that goes with the technology and skills transfer enabled by the collaboration with France.

How to make sure Australia's submarines pay for themselves

Written by The Conversation USA

Each of the firms targeted would have to develop a plan for how these new capabilities will be deployed to grow the firm in supply chains outside the submarines supply chain and with an export focus.

As Chief of Navy [Tim Barrett has said](#) , industry partners should use the opportunity to enhance their readiness for future projects.

“Industry needs to understand technology growth paths and the long-term implications of systems and technology providing operational availability at an affordable cost. And industry needs to invest in itself; not just invest for the next project. ... This means taking advantage of new technologies and systems, whether they are domestic or from the global market so that they can be integrated into both the build and sustainment activities.”

3. Identification of gaps

Both DCNS and Defence should articulate the problems that are not yet solved but that have to be solved in order to design and manufacture the future submarine in Australia. This could form the basis for a research program where the IP would be transferred to Defence for further use by the firms involved in the future submarine supply chain. Again these firms will then have to articulate how this IP will be leveraged to grow the business outside the submarine supply chain.

Defence should also articulate a strategy of how this IP can form the basis for the creation of new firms with activities outside the defence sphere. A key lesson from the Collins experience was that ultimately the Commonwealth cannot leave it to suppliers to solve problems in major defence acquisition projects. In a lengthy acquisition it is the Commonwealth alone that maintains an [abiding interest](#) in reaching a successful outcome.

The enormity of the task to design, build, support and evolve a major platform such as the future submarine over the life of 40 years [should not be underestimated](#) .

Speaking to the [Senate Economics References Committee](#) retired Commodore Paul Greenfield said in order “to be able to effectively modify, upgrade and enhance our submarines,

our industry must be intimately involved with the design, philosophy and designer's intent, to truly understand the submarine and what can and cannot be done to it".

"When companies who support our submarines are getting phone calls in the middle of the night or the middle of the day from a submarine at sea saying, 'Help, we can't diagnose the fault and it's a serious one,' they do rely on our industry. Our industry is there all the time to support our boats. Submarines of the type that we have, the big heavy submarines, probably spend about half their time in maintenance. There is no getting away from that...You also cannot get away from the fact that you will suffer some defects and you need instant access to people who understand and can diagnose and fix them. You will not get that from overseas." (Committee Hansard, 30 September 2014, p. 25).

It is accordingly critical that Australia is intimately involved in the design phase of the new class of submarines and in all the build issues, so that any spillover effects do not accrue to France only.

4. A skills plan beyond shipbuilding

An in depth skills plan, building on the excellent [Future Submarine Industry Skills Plan](#) produced in 2013 but also looking at skills required in an industry 4.0 world. This is critical since the future submarine program supply chain will have to take the place of the automotive supply chain. It will now be the advanced manufacturing sector supplying, to the rest of the industrial landscape, capable managers trained in the latest techniques and skills enabling firms to operate at the productivity frontier.

Our task is to increase the economic spillover effects. These vary around the world from about 1 to about 3, and for the Collins-class subs was an estimated 1.4. Getting it closer to 3 requires coordination and civic leadership from government at all levels.

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