



Australian UK SpaceBridge Webinar Outstanding Slido Question Responses

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1. For projects that are identified, is there a list of Australian funding bodies, or an Australian call for proposals (equivalent to UKRI)?

This question is best answered by our colleagues at the UK Space Agency and DIT. We have contacted them for a formal response and will share this soon.

Catapult perspective:

The projects identified have been conceptualised through conversations with industry partners and end users and will need further scoping and qualification.

At present no formal arrangements have been made with third party funding bodies to support such activities, this will form part of the next steps and something the Catapult would support / facilitate industry with or partner with to secure the opportunities.

UKSA, in partnership with CSIRO, has already launched one Anglo-Australian funding opportunity under IPP3 (Call 3B) for projects to support Small Island Developing States in the South Pacific. The deadline for proposals was the 2nd February.

<https://www.gov.uk/government/publications/apply-for-funding-through-the-international-partnership-programme-call-3>

2. Excellent initiative but what are the plans to minimise the environmental impact of the space bridge considering the geographical distribution of AU and UK?

The Catapult is committed to minimising its carbon footprint and are in the process of assessing the most appropriate method of offsetting. Where possible the Catapult will always look to minimise the requirement for travel and will maximise on interactions when travel is deemed necessary.

In terms of activities by industry participants involved in ongoing SpaceBridge activity, minimising and offsetting policy remains a responsibility for the companies concerned.

Australia itself has a vast geography. As such they are adept at remote interactions, maximising communications technologies to assist commercial dialogue.

Did you offset CO2 for the flights?

Not on this occasion. The Catapult is in the process of assessing the optimal offsetting scheme to incorporate into a carbon offsetting policy to ensure that our increasing strategic international engagement is being conducted sustainably. Flights and trips will be minimised by using video conferencing facilities and other remote working techniques as much as possible.

Napier Meridian (David Livingstone's company - contractor to the Catapult) offsets its own carbon footprint via donations to the UK's Woodland Trust.



3. RE "What, specifically, are you counting as 'space'?" : the traditional space sector + downstream applications (e.g. geospatial intel, navigation, satcomm)

The Space Bridge concept aims to be as inclusive as possible. The Catapult has been engaging with both upstream traditional space sector and the downstream applications tech capabilities and believe the opportunity would provide benefit to both. Furthermore, it is the Catapult's perspective that adjacent tech/ supply chain should also be considered, including but not limited to:

- Manufacturing to support space craft development
- Remote sensing technologies which play a critical role in Geospatial Intelligence – a key application of space and satellites
- Antenna / RF technologies to support satcomms / navigation
- Integration of space technologies with ground and airborne sensor and communications platforms

4. What effects do you anticipate for business that are already engaged with Australian space industry and have collaborative plans, or agreements with state govt?

It is not the intention for this activity to hinder or interfere with businesses already engaging within Australia, these should continue business as usual. It is hoped that the Space Bridge will support and even reinforce any existing engagements. For the Space Bridge to maximise its support to any existing engagements it might be helpful in the future to have as much visibility as possible of the nature of the engagements and to understand what / who, so we can support your ambitions and activities.

5. If you have an existing footprint and offices in Australia, will the various state authorities be more open to these joint ventures

Proximity is always useful when establishing new relationships and business engagements but our experience in Australia really highlighted their strong desire to partner internationally regardless of location.

If you are a company considering developing a presence in Australia and looking for guidance, we would be happy to support with making the relevant connections. Austrade, the equivalent of DIT, has been fully engaged in the development of the Bridge and would be keen to support UK companies possible entry into Australia. The Catapult is able to make that introduction and also into specific states which are also keen to grow their space sector offering via Foreign Direct Investment.

Conversely, we will also be looking for Australian companies that would like to create a presence in the UK and, with DIT and others, will ensure the relevant opportunities are developed. Catapult has a national reach and is linked into to UK space clusters in Scotland, Leicester and London to name a few.



6. *Are trade missions planned for UK business to go and interact with our Aus counterparts?*

This question is best answered by our colleagues at the UK Space Agency and DIT. We have contacted them for a formal response and will share this soon.

Catapult perspective:

DIT already fund trade missions to Australia. For example, Innovate UK are supporting a Trade Missions for Agriculture and Space in Digital Agriculture in February 2020.

It is hoped that there will be an increase in these types of missions as part of the Bridge and the Catapult will engage further with DIT on intensifying the trade mission programme. We will work to ensure that any planned missions are advertised as widely as possible and these would certainly be distributed through the Interest Group as a result of this webinar.

7. *How dependent is the spacebridge on Government to Government and Regulator to Regulator actions and how much of this is planned?*

This question is best answered by our colleagues at the UK Space Agency and DIT. We have contacted them for a formal response and will share this soon.

Catapult perspective:

Catapult is not a government entity although maintain a close relationship. We are therefore not best positioned to comment on the the status of G2G dialogue. However, the political declaration between the two Space Agencies in September 2019 and the identification of Australia in HMG's 'early wave' in potential Free Trade Agreements would indicate that this is type of activity is beneficial to UK Government objectives.

The Government to Government engagement on the Space Bridge is key to ensure that the business activities are better supported and enabled by regulation and policy.

As discussed in the Webinar, it is acknowledged that the machinery of government will likely move at a different pace to industry, and this is necessary as the complexities of the negotiations and discussion require greater scrutiny. It is the belief of the Catapult however that the business level interactions can continue *in parallel* to the trade, policy and regulation discussions thus maintaining momentum and building influence / information to assist government level discussions.

Slightly concerned about the top-down thinking presented, with government 'going at its own pace'. The market is moving a lot faster than that.

Similar question to 7 please refer to response to question 7 above



8. *How can the SpaceBridge help UK companies get involved in the larger space programmes under the Australian Defence Forces budgets?*

This question is best answered by our colleagues at the UK Space Agency and DIT. We have contacted them for a formal response and will share this soon.

Catapult perspective:

Defence is a large user of space-based capabilities and a large investor in space-based R&D. It is therefore critical that is considered within the SpaceBridge. Owing to alignment of defence with government the defence interaction within the SpaceBridge is being managed by the UKSA and the MoD in the UK. Following our recent visit to Australia it is clear that the Australian defence industry engage fairly readily with civilian based companies and universities so it is hoped that the creation of the SpaceBridge will support the recognition of UK companies in engaging with these larger Space programmes under Australian Defence Forces budgets.

It should be noted that Australian security clearances take time (up to three years on occasions), and this should be factored into business planning.

Will there be a defence bolt on to the space bridge to the more civilian / commercial focus?

Similar question to 8 please refer to response to question 8 above

9. *What's the role of Catapult in execution of opportunities? Pure hands-off facilitation between relevant entities or SAC workshare participation & involvement?*

There are many mechanisms for how the Catapult engages with industry and is usually developed on a case by case benefit to determine the value and benefit that we bring.

The over-riding purpose of the Catapult and the SpaceBridge is to open up new opportunities for UK companies. Some of the mechanisms that can be employed are as follows:

1. A hands-off pure facilitation role if the relevant entities don't require any additional support or advice
2. Support through our business support teams to provide focus to commercial ventures, identify opportunities and optimise development
3. Representing industry in Australia for the purposes of developing opportunities
4. Engagement to be part of a commercial venture to lower risk to industry
5. Project workshare in order to provide heritage to smaller entities when securing funding or providing access to large primes for project opportunities or to provide technical expertise and plug a gap in a consortium
6. Act as a thin prime to remove the burden of consortium management from entities that cannot or do not want to assume that role.
7. Contracted by industry to provide technical expertise / plug a technical gap

Catapult engagement has to provide impact / benefit back to UK industry in some form and this is assessed internally before committing to any activities. Therefore, the degree to which we are engaged is dependent on requirements of a particular project. There is no fixed expectation of our involvement in the execution of projects.



10. Are the Catapult aware of other nations such as China or Japan looking at similar frameworks with Australia ?

Other nations space sectors are engaging with Australia and are formalising their engagements in various ways, notably Japan and USA but there are others also in discussions. We are not aware of another SpaceBridge concept (it is considered a World First)

11. Is the funding already secured for the activities you outlined?

No. Activity to date has been funded by the FCO, Oxfordshire LEP and the Satellite Applications Catapult (contribution in-kind) to validate the concept and obtain in principle buy in from both government and industry. This has been achieved in both Australia and the UK. The next steps will be to create appropriate business cases to secure third-party funding to manage the business activities between the UK and Australian space sectors and also funding for specific project opportunities.

12. SPACE: The Sky is NOT the limit... ;-)

😊 Thank you, we quite agree! - Shoot for the Moon, even if you miss you'll land among the stars!

13. Have you looked at joint innovation with Australia?

Yes. The fundamental concept of the Bridge is to encourage joint innovation and hopefully establish joint innovation programmes. Whilst in Australia we held various discussions with a commercial organisation for activities of this nature and will be pursuing these conversations.

14. Traditionally Australia has focused on local issues such as mining or marine security. Has this changed at all?

Australia still maintains a strong identity in the areas mentioned here as these are still considered major pillars of the Australian economy. This has attracted significant funding to support R&D and tech capacity development in these sectors. As a result some of their business challenges do still have a bent towards these market areas but they are considered on a national level (with some global application) rather than locally.

However, the R&D and innovation ecosystem in Australia has diversified significantly particularly in the past 5 years. Space is one particular sector that is receiving a lot of attention and funding with the Australian Coalition Government investing \$12Bn over ten years and the broader downstream applications are also being recognised as part of this.



15. Will the space bridge support inbound and outbound space sector workshops in order to help offset the obvious costs involved in engagement with Australia?

It is hoped that as part of a SpaceBridge we can provide multiple mechanisms (platforms, events, workshops, missions etc.) to support and facilitate inbound and outbound activities and interactions. The purpose of these activities under the SpaceBridge is to lower the barriers to entry for the UK to collaborate with Australia, recognising the costs and time required to engage with a country geographically different to ourselves.

16. How does this tie in with the Catapult's existing work and relationships with Australia, especially in GI? This has not been mentioned in the talk.

Catapult has ongoing engagement and activity in Australia particularly in Geospatial intelligence. Good relationships have been established with CSIRO, GeoScience Australia and Frontier SI (formerly CRC SI) to name a few. The webinar has been focused on the FCO-funded validation project rather than existing Catapult GI projects to date. This latter activity will continue as business as usual and it is hoped that the SpaceBridge will help to establish more relationships of this nature. If you are interested in understanding more about these specific activities with Australia in GI please get in touch and we can put you in touch with the owners of those relationships and the technical leads for these areas.

17. How much direction did you take from industry, as well as DIT, FCO etc, for the engagements you made in Australia?

Catapult used a mix of its own connections and advice from stakeholders to develop the Australian agenda in this project. The purpose of the trip was to maximise engagement with industry to understand the Space sector tech landscape, identify pipeline opportunities, and obtain in principle government support. We decided that a mix of meetings, and workshops would help achieve this.

Having created a 'wish list' of engagements, we used our connections to help facilitate the meetings. In some cases, we were advised by State specific connections (the Agents General stationed at Australia House London, whom we have a good relationship with) as to whom we should prioritise.

The FCO was absolutely integral to the success of the agenda with the UK Consul General, along with numbers of officials in the Science Innovation Network and DIT actively engaged in the discussions in-country. Their presence at the meetings signified HMG government support to the agenda.



18. To what extent has the Catapult been liaising with other UK stakeholders to inform approach?

The visit to Australia was a fact-finding mission to enrich the UK's understanding of the Australian space sector landscape. Until the 31st January webinar the UK industry engagement was thus purposefully restricted. Before energising UK industry, we wanted to ensure that there were two sides to a potential Bridge and associated government support, and this was validated during the December 2019 visit to Australia. Given the attendance at the UK industry Webinar on the 31st January (195 registrations) it appears as though UK industry is also primed to increase its interaction with Australian Space sector.

Outside of UK industry the Catapult has engaged broadly across Whitehall and gathered the support of government stakeholders, UKSA and DIT recognising their value in delivering the upper layers of the proposed Bridge eco-system. Similarly, Austrade and the Australian Space Agency have been engaged in the Bridge development since its origins.

Other UK government stakeholders consulted have included HMT (including UK Export Finance), the FCO, BEIS, InnovateUK, the Intellectual Property Office, and the Meteorological Office.

19. Will a similar framework be leveraged for other priority space markets e.g. USA?

This question is best answered by our colleagues at the UK Space Agency and DIT. We have contacted them for a formal response and will share this soon.

Catapult perspective:

Adoption of Bridge-type frameworks is a matter of national economic policy. The Catapult will stand ready to assist with development of other Bridges, advising as necessary on its findings at the B2B level in the Australian instance. The SpaceBridge initial concept was to design it for maximum transferability such that it could be taken to other nations with minimal rework.

20. If Scotland devolves ..will UK launch throw more focus on Australia as a launch site

This question is best answered by our colleagues at the UK Space Agency and DIT. We have contacted them for a formal response and will share this soon.