Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry, Innovation and Science Portfolio
2016-17 Supplementary Budget Estimates
20 October 2016

AGENCY: ANSTO

TOPIC: Beamline expansion

REFERENCE: Written Question – Senator Carr

QUESTION No.: SI-84

1. What is the potential capacity of the facility, if fully developed? How many more beamlines can be conceivably installed?
2. Does ANSTO have any current expansion plans?
3. Is the shortage in synchrotron capacity a global issue?
4. Is ANSTO engaged currently in discussions to secure funding for additional capability?
a. What is the status of these discussions with the Commonwealth Government?
b. Is ANSTO in discussions with other governments?
c. What about universities or other institutions?
d. And private corporations?

ANSWER

1. There are currently ten beamlines at the Australian Synchrotron, which can operate in parallel. For practical purposes, including floor space and space around the beamline ports, the facility is limited to a maximum of around 25 beamlines.

2. A prospectus for investment in new beamlines, titled *BRIGHT*, is publicly available on the Australian Synchrotron website. *BRIGHT* outlines a new suite of beamlines that would help meet research demand into the future.

3. Many synchrotron facilities that commenced operations at around the same time as the Australian Synchrotron have significantly expanded their beamline offerings. As a result, synchrotron capacity is not as constrained in other countries.

4. Yes.
a. The Australian Government provided $520 million in operational funding for the ten years to 2026, including operating funds for new beamlines, under the National Innovation and Science Agenda.
b. Yes.
c. Yes.
d. The Australian Synchrotron has been successful in increasing the uptake by private corporations of the facility and in demonstrating real impacts for both small to medium enterprises and large corporations. This type of access tends to focus on specific problems or opportunities. An investment in new beamlines represents a different type of engagement in long term research, and as such there has not yet been any indication of funding from the private sector for new beamlines. This is generally consistent with the experience overseas. However, the Australian Synchrotron has been successful in gaining philanthropic investment, with the Australian Cancer Research Foundation recently committing $2m towards a new detector for one of the Australian Synchrotron beamlines, which represents a major upgrade for the facility.