

**Joint Select Committee on Northern Australia**  
**ANSWERS TO QUESTIONS ON NOTICE**  
Department of Industry, Science and Resources  
**Inquiry into Northern Australia Workforce Development**  
31 March 2023

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**AGENCY/DEPARTMENT:** Department of Industry, Science and Resources

**TOPIC:** Forecast earnings from LNG

**REFERENCE:** Question on Notice (Hansard, 31 March 2023, Page 45)

**QUESTION No.: 3**

Senator ALLMAN-PAYNE: I just have one other question, and I'm happy for you to take that on notice as well. Similarly, the forecast export earnings from LNG—you've said from \$70 billion to \$90 billion. I'm interested to know whether that forecast has potentially changed with the introduction of the safeguard?

Ms Long: That's from our Resources energy and quarterly product, so I will take that on notice.

Senator ALLMAN-PAYNE: Thank you.

**ANSWER**

The March 2023 *Resources and Energy Quarterly* Report shows that LNG export earnings are forecast to reach A\$91 billion in FY2022-23, before easing to A\$70 billion (in real terms) by FY2023-24.

Forecasts in this report account for a range of factors related to the global and domestic economic environment. The forecasts for the March Report were finalised before the passage of *Safeguard Mechanism Amendment Bill 2023*. As such, the forecasts presented in this edition do not include the safeguard mechanism's impact on the LNG outlook.

Future reports will consider the introduction of the safeguard mechanism along with other policies and influences on investment and output decisions. These future reports will include the next release of the *Resources and Energy Quarterly* (due to be published in early July 2023), and the next release of the *Resources and Energy Major Projects* publication (provisionally scheduled for December 2023).

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**AGENCY/DEPARTMENT:** Department of Industry, Science and Resources

**TOPIC:** Information on Questacon's programs

**REFERENCE:** Question on Notice (Hansard, 31 March 2023, Page 41 - 42)

**QUESTION No.:** 4

Dr Cerini: Thank you. Questacon operates in the pre-competitive space, for developing interest in young people, particularly in STEM. Projections in industry are currently for around 1.2 million tech-related jobs over the coming decades.

Some of the challenges that we see are how to engage and excite young northern Australians into the science, technology, engineering and maths fields, in order to help build pathways into some of those emerging and future industries. Some of those challenges relate to geography, which we can address through programs that travel physically and digitally. We do see significant levels of lack of access to connectivity, still, in the northern Australian areas. Thirty to 40 per cent, depending on where you are, don't have good access at all to internet that would enable stronger digital engagement.

The diversity of opportunities and the relationship of those to learning and education experiences and then potential training pathways—what we focus on at Questacon, as do other agencies, like CSIRO, when engaging with young Australians in the north is understanding the relevant experiences available locally and who else is operating in what we call the STEM learning ecosystem, who's already there and where the ongoing opportunities are to engage, and the relevant examples that are going to excite. I have details on the programs, specifically, and I can provide those or stop here.

CHAIR: It would be really good, useful, if you could provide that to the committee, thank you. Would you provide that today or send it to the secretariat?

Dr Cerini: I can give you a brief overview today, if that's helpful, and send information through.

CHAIR: We'll do the brief overview and if there's a more detailed—

Dr Cerini: There is.

CHAIR: paper that you could provide to the committee, that would be useful.

Dr Cerini: Certainly.

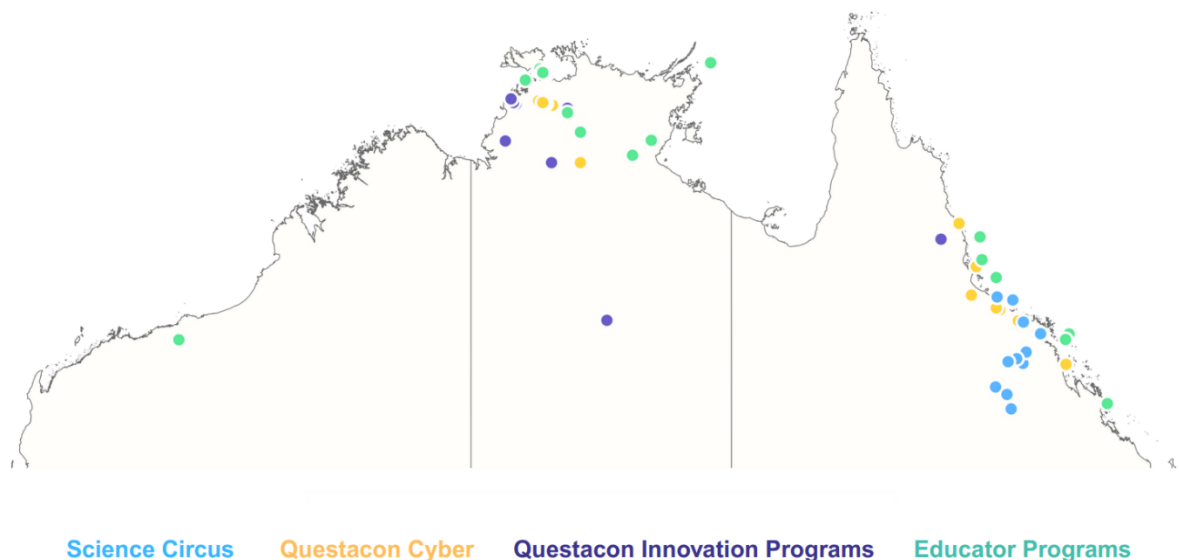
## ANSWER:

### Background on Questacon and its national touring programs

- Questacon – The National Science and Technology Centre (Questacon) has been developing and delivering national STEM engagement programs continuously since the 1980s, enabling young people, families, schools and organisations to access STEM learning experiences including those in underserved regional and remote areas.

### Questacon's national touring programs in northern Australia

- Questacon's direct program activities across northern Australia include travelling exhibitions, science shows, education workshops, classroom activities and capacity-building activities with regional organisations, delivered through face-to-face and digital engagement.
- Across northern Australia in 2022:
  - 4,637 young people attended a Questacon STEM activity.
  - 446 teachers attended a STEM professional learning workshop.



**Figure 1 (above):** Questacon's national touring activities across northern Australia in 2022.

- As part of Questacon's 2022 touring activities, free hands-on *Innovation Workshops* were delivered to high-school students in and around Darwin, Katherine and Jabiru and across Central Australia. Using simple materials and technology, students created a prototype to solve a challenge, and learnt the importance of refining their ideas using the process of innovation.
- Questacon's most recent in-person activity in the Northern Territory culminated in the *Questacon Invention Convention*, held in Alice Springs in October 2022. Over 3 days, 11 young Central Australians designed and prototyped solutions to real-world problems of importance to them while developing skills, making connections with like-minded individuals and hearing from inspiring locals who have pursued successful STEM careers.

- In late 2022, Questacon delivered a *STEM Futures* Alumni Dinner & Showcase in Darwin to facilitate and strengthen connections within the local STEM education community. Questacon was also contributed to the inaugural Professional Teachers' Association of the Northern Territory *STEMbiosis* Conference. This event was spearheaded by STEAM Teachers Association of the NT, a group that formed after the initial *Questacon STEM Futures* 2021 event in Darwin.
- Questacon has upcoming activities planned in northern Australia. For example, Questacon Cyber will deliver in-person workshops to students in Darwin and Katherine, from 5–21 June 2023. This workshop focusses on engaging students in foundational concepts and skills relevant to the growing field of cyber technologies. This includes an engaging digital design challenge using Minecraft to develop an awareness of cybersecurity.
- *Engineering is Elementary* in-person workshops will be delivered to teachers in various locations throughout the NT in late October and early November this year. Virtual workshops will also be delivered throughout 2023. These workshops build the confidence and capacity of teachers to teach STEM in their classroom with an engineering focus.