



Press Release

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# Survey findings grim news for geoscience

A new survey of high school and university students released today has revealed an alarming lack of knowledge of earth sciences and geoscience as areas of university study.

The Australian Geoscience Council – the peak body representing the nation's major geoscience organisations – says urgent action must be taken to address the dearth of knowledge, particularly among high school students.

AGC President Sandra Occhipinti said the lack of interest in earth science disciplines from high school students was directly linked to poor university enrolment rates for geoscience courses and a major reason for course closures.

"We need more geoscientists, not less, particularly now when we understand how important science education is for the future development of resources and manufacturing in Australia," Dr Occhipinti said.

"Science is not only important for those who choose to work in it after their education, it provides the critical evaluation, curiosity and analytical skills it takes to understand the fast-changing world around us and can help people make well-grounded and informed decisions that will stand the test of time."

The survey of high school and university students was conducted by consultants fiftyfive5 for the AGC to determine issues contributing to poor university enrolments, which have been on a general decline over the past 10 years.

The survey of 211 high school students and 159 university students was part of broader research involving graduates, career advisors, and high school and university students nationally.

The survey found that 42 per cent of respondents were unaware of earth sciences as an area of study, and 55 per cent were unaware of geosciences. In a concerning trend for the mining sector more broadly, 67 per cent were unaware of mineral processing as an area of study.

The survey found there was little understanding of the breadth and contemporary relevance of geoscience among school students. Some of the comments and impressions captured included:



The Council of Earth Science Societies in Australia





- Some only see it as a study of rocks
- It's about the past, not the present
- It's like geography. Can be off-putting for those who weren't interested in or didn't enjoy geography at school
- It's a mix of geology/geography and science

The lack of knowledge flowed through to uncertainty around career and job opportunities, with an assumption geoscience is a niche industry with limited career choices anchored in mining, or perhaps construction. Whereas it is also directly related to understanding underground water resources and risks of geological hazards such as landslides or faulting.

Other barriers to involvement in earth science or geoscience included a stigma attached to mining, a perception of boring content, and that it is not future focused.

Dr Occhipinti said that, ironically, the survey also found that sustainability, the environment, and climate change were rated as important by students.

"These issues relate directly to earth sciences and geoscience studies," Dr Occhipinti said.

She said more could be done to engage high school students as early as possible.

Year 10 was considered the "sweet spot" for engagement ahead of subject selection for Years 11 and 12, although study and career aspirations can begin as early as Year 8.

The AGC and other bodies are looking at ways of increasing community awareness of the geosciences before students enter university.

"Groups including CoRE, AusEarth Ed, the Teacher Earth Science Education Program, Geoscience Pathways and others are helping and doing a great job, but there is no national effort or co-ordination, and funding is largely through sponsorship. It's a difficult model to sustain," Dr Occhipinti said.

"No-one can force students in high school to enrol in a geoscience or mining engineering degree. They need to want to do it.

"The mining sector might have to ask, 'Why are there so few students attracted to work in the mining sector and what can we do to change that?'

"Some mining companies are doing this and have clearly changed their messaging, with advertising campaigns across a range of media. However, there's still some poor press. Only recently there was a class action against one of the big miners, related to harassment."









Complicating the challenge further was that there was a disconnect between Federal government policies, national objectives and needs, community perception, and university budgeting.

"Universities do not and are not required to take into account the strategic significance of courses to Australia's future, although the Federal Government has recently intervened to support nuclear sciences and engineering in preparation for AUKUS," Dr Occhipinti said.

### Ends

A summary of the research is available here.

# ABOUT AGC

The <u>Australian Geoscience Council (AGC)</u> is the peak council of geoscientists in Australia. It represents eight major Australian geoscientific societies with a total membership of over 8000 individuals comprising industry, government and academic professionals in the fields of geology, geophysics, geochemistry, mineral and petroleum exploration, environmental geoscience, hydrogeology and geological hazards.

## FURTHER INFORMATION

## AGC

Sandra Occhipinti President Australian Geoscience Council M: +61 (0)435 828 698 E: president@agc.org.au

## MEDIA

Chris Manly Media Manager <u>chris@platformcommunications.com.au</u> +61 (0)434 308 552

