

# OCGC Seminar

## Exploring for the Future-Data and Innovation for Mineral Exploration

**Dr. Karol Czarnota**

Director of the Mineral Potential of Australia Section  
Geoscience Australia

Tuesday, December 18<sup>th</sup>, 2018 11:30 AM

Natural Resources Canada

601 Booth Street

Room 177

Mardi le 18 décembre 2018, 11h30

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Chambre 177

In mid-2016 the Australian Government initiated a four year \$100 M Exploring for the Future initiative to boost investment in minerals, energy and groundwater resource exploration. In this talk, I will provide an overview of this program with an emphasis on the minerals component of pre-competitive data collection and knowledge generation to reduce the technical risk of exploration. A key challenge and focus is to promote, and improve the success of exploration through sedimentary cover that overlies ~80% of the Australian continent. I will emphasize national, cross-disciplinary and integrated aspects of this program, which span across the fields of remote sensing, geochemistry, geology, geophysics and data science. I'll also highlight new insights into mineral system processes with global implications.

**Biography:** Dr. Karol Czarnota is director of the Mineral Potential of Australia Section at Geoscience Australia, Australia's national geoscience agency. Karol graduated from the University of New South Wales in Sydney with a BSc and 1st class honors in Applied Geology and joined Geoscience Australia as a graduate structural geologist. He went on to complete an MSc in Petroleum Geoscience at Royal Holloway University London and a PhD in geophysics and geology from the University of Cambridge. He has worked across a wide range of fields such as Archean structure, mineral potential mapping, mantle and basin dynamics, shallow and deep earth geophysics as well as machine learning.

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