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## **William Smith Meeting 2018: Mineral resources at the frontier**

**3 July 2018**

### **Programme**

<b>Tuesday 3<sup>rd</sup> July 2018</b>	
09.00	<b>Registration &amp; tea &amp; coffee (Main foyer and Lower Library)</b>
<i>Convenor: Paul Lusty</i>	
09.25	<b>Introduction and welcome</b> Paul Lusty (British Geological Survey)
09.30	<b>KEYNOTE: Drivers of future mineral demand</b> David Humphreys (DaiEcon Advisors)
10.00	<b>Atlantis II Deposit, Red Sea – the world’s largest sea floor massive sulphide mineral resource</b> Dan Hamer (Manafai International, Saudi Arabia)
10.15	<b>A multidisciplinary approach to exploration of extinct seafloor massive sulphide (eSMS) deposits in the TAG Hydrothermal Field, Mid-Atlantic Ridge (26°N)</b> Iain Stobbs (University of Southampton, UK)
10.30	<b>Massive sulphide exploration at the Mid-Atlantic Ridge 26°N: an interdisciplinary geophysical study</b> Romina Gehrman (University of Southampton, UK)
10.45	<b>Insights into the submarine magmatic-hydrothermal Cu cycle, Brothers volcano, Kermadec arc</b> Manuel Keith (University of Leicester, UK)
11.00	<b>Deep-sea LIBS for in situ chemical analysis of mineral deposits</b> Tomoko Takahashi (University of Southampton, UK)
11.15	<b>Tea, coffee and refreshments (Lower Library)</b>
<i>Convenor: Bramley Murton</i>	
11.45	<b>KEYNOTE: Mining for the future – Are deep sea minerals really a viable option?</b> Rob Langman (Marinespace, UK)
12.15	<b>Mass wasting events and their impact on the formation and preservation of submarine ore deposits</b> Daniel Smith (University of Leicester, UK)

12.30	<b>Seamount-scale variations in ferromanganese crust surface chemistry: Implications for the controls on composition</b> Sarah Howarth (University of Southampton, UK)
12.45	<b>Instruments and methods for volumetric mapping of ferromanganese crusts using AUVs</b> Blair Thornton (University of Southampton, UK)
13.00	<b>Distribution of critical metals (REY, Co) in polymetallic nodules</b> Wycliff Tupiti (University of Plymouth, UK)
13.15	<b>Lunch (Lower Library)</b>
<i>Convenor: Teal Riley</i>	
14.00	<b>KEYNOTE: 'Potential of the high Arctic to mineral exploration: The perspective from North Greenland</b> Stefan Bernstein (Geological Survey of Denmark and Greenland)
14.30	<b>Mineral prospectivity mapping at the frontier: A case study from the Antarctic Peninsula</b> Tom Bide (British Geological Survey, UK)
14.45	<b>The governance and geopolitics of mineral exploration in the Polar Regions</b> Stuart Doubleday (Foreign and Commonwealth Office, UK)
15.00	<b>Governance and sustainable development of mineral resources</b> Ian Selby (University of Plymouth, UK)
15.15	<b>Tea, coffee and refreshments (Lower Library)</b>
<i>Convenor: Pierre Josso</i>	
15.45	<b>Critical metals for new technologies – where will they come from in the future?</b> Kathryn Goodenough (British Geological Survey, UK)
16.00	<b>Freetown Layered Igneous Complex – a significant offshore extension defined by seismic stratification and residual gravity – a potential offshore stratiform ore target?</b> Andrew Long (Subterranean Ltd)
16.15	<b>More yet to be found in the Alps? High-grade W-(Sn) skarn mineralisation close to the Felbertal mine (Eastern Alps)</b> Alexander Ordosch (University of Leoben, Austria)
16.30	<b>Potential applications of Deep Eutectic Solvent (DES) ionic liquids for metal recovery in frontier environments, including extra-terrestrial settings.</b> Gawen Jenkin (University of Leicester, UK)
16.45	<b>Microbial metal reduction to recover Co and Ni from oxide deposits</b> Laura Newsome (University of Manchester, UK)
17.00	<b>Concluding remarks</b> Andrew Bloodworth (British Geological Survey)
17.05-18.05	<b>Drinks reception (Lower Library)</b>