

# SEG 2022 Conference: Minerals For Our Future

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## Metal Sourcing for a Sustainable Future

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Drastic measures are required to meet the standards of the Paris Agreement and limit the increase of global average temperatures well below 2°C compared to pre-industrial levels. Mining activities are typically considered as unsustainable but, at the same time, metals such as cobalt and lithium are essential to sustain the energy transition. Indeed, several sustainability goals defined by the United Nations (UN) require large quantities of raw materials. Exploration and extractives activities are required in order to contribute to meeting sustainability standards. Future sourcing of metals will need to implement procedures that go well beyond current ecological, economic, and social requirements and practices. In order to comprehend the barriers to acceptance we assess the usual sustainability criteria and how they apply to the extractives sector. Sustainability can only be achieved if one accepts that the natural capital can be substituted by other forms of capital (so called weak concept of sustainability). Sourcing the raw materials increasingly demanded by our societies will need transparent and inclusive stakeholder participation as well as a holistic understanding of the impact of mining activities to reach this weak sustainability status. Regardless which governance measures are introduced there will always be trade-offs between opportunities such as facilitating the energy transition or e-mobility on the one side and risks for ecosystem and social communities on the other side. Our analysis shows that the sustainability of mining cannot be reached without harmonized political instruments and investment policies that take the three pillars of environmental, economic, and social sustainability as a major priority. This submission results from research conducted within the EU funded project INFACT.