UQ Rare Earth Minerals Consortium

An opportunity to forge partnerships between academia, government and industry

THE CONSORTIUM

In May 2013 The University of Queensland launched a research Consortium to bring together leading international academics, industry practitioners, and policy makers to discuss the full product cycle of rare earth minerals. A project of the Sustainable Minerals Institute’s NextMine™ Initiative, the Consortium draws together research capabilities from four of the Institute’s seven research centres. Experts in social responsibility, geology, minerals processing and environment will identify and address factors that could limit the growth of the mining industry and its capacity to contribute to sustainable development.

THE PROBLEM

As rare earth minerals are critical to the development of materials and technologies required in today’s society, there is unprecedented demand and serious pressure on supply. Consequently, there is an extraordinary prospect to diversify how these minerals are recovered and harnessed, and to do so in more environmentally, socially and economically beneficial ways.

THE OPPORTUNITY

The Consortium will investigate innovative outcomes for the sustainable extraction and application of rare earth minerals by examining their complex economic, social, political and environmental dimensions. The proposed research priorities will be in four key themes:

- International governance and security concerns
- From mining to recycling – closing the loop utilising industrial ecology
- Perceived and real radiation risks and social conflicts
- Economic determinants and future contributions

Research undertaken as part of the Consortium will have direct application for companies working with rare earth minerals, addressing issues from the mine to the market.

MEMBER BENEFITS

Members of the UQ Rare Earth Minerals Consortium benefits include:

- Setting research agendas for leveraged outcomes to benefit member organisations
- Driving evidence based research that will inform policy making
- Establishing connections with leading edge researchers working on the next wave of minerals issues
- Accessing research at the forefront of knowledge in the extractive industries
- Gaining access to world class training and education programs
THE STEERING COMMITTEE

The Consortium is establishing a research fund targeting international organisations, industry and other institutions interested in research in this area. The fund will be administered by the Consortium Steering Committee.

Members will nominate a representative for the Consortium who will articulate their company’s or organisation’s interests on the steering committee meetings. Quarterly meetings will enable members to receive research project updates and to set the future research agenda.

Membership is open for up to 20 organisations and will include companies mining, processing, or manufacturing rare earths as well as companies producing products that use rare earths elements.

The proposed annual membership fee is AUD$50,000 (exclusive of GST) for companies and free for non-commercial organisations, higher education providers and state owned research institutions.

Expected research outcomes will include:

- **Development of critical metrics** to guide Consortium companies and organisations on the optimal technical and economic mix of mined and recycled rare earths to meet regional and global demands
- **Identification of the economic pathways and drivers** for the extraction and application of rare earth minerals to minimise risk and contribute to the sustainability of the sector
- **Detailed analysis of the environmental and social impacts** of rare earths along the value chain to enable the quantification of potential economic consequences of these impacts and development of practical strategies to minimise negative impacts which could result in significant costs
- **Key policy recommendations** applicable across multiple jurisdictions to encourage a hybrid approach to materials sourcing to enhance security of supply and mitigate crucial consequences from international conflicts

Register your interest with Gillian Cornish – rareearths@uq.edu.au

ABOUT SMI

The Sustainable Minerals Institute at The University of Queensland is the world’s leading research institute dedicated to finding knowledge-based solutions to the sustainability challenges of the minerals industry. The Institute is unique for the diversity of disciplines, which it has brought together to work on these challenges. Seven centres undertake research in corporate social responsibility, safety and health, mineral processing, mining and geology, energy, environment and water management.

Over 350 engineers, scientists, economists, social scientists and geologists are dedicated to innovation in sustainability, sharing values and a commitment to quality objective research and distribution of knowledge. SMI’s total revenue in 2012 was AUD$44 million.

CONSORTIUM LEADER

Leading the Consortium is Professor Saleem Ali, Director of CSRM. His most recent book is titled *Treasures of the Earth: Need, Greed and a Sustainable Future* (Yale University Press). Professor Ali received his doctorate in environmental planning from MIT.