



Finding & Funding Technology



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Presentation Overview

- What is MIRO?
- MIRO's mission
- What does MIRO do?
- MIRO's structure
- The benefits of research partnerships
- Industry focussed programme management
- Key points and themes
- Conclusion

What is MIRO?

- Minerals focused independent RTD service provider
- Established 1974 by four major mineral companies: Rio Tinto, British Industrial Sands (Sibelco), Anglo American, BHP Billiton
- Owned by its members
- Develop and manage pre-competitive collaborative R&D
- Membership organisation established on 'not-for-profit' basis – **no consultants**

Member Companies

- Anglo Platinum
- Boliden Mineral AB
- British Geological Survey
- British Aggregates Association
- Camborne School of Mines
- Castle Cement LTD
- Cleveland Potash LTD
- CORUS
- ERAMET Research
- Glebe Mines LTD
- IMERYS Minerals LTD
- Johnson Matthey PLC
- Longcliffe Quarries
- Lafarge Aggregates LTD
- Mole Solutions
- National Coal Mining Museum for England
- Newcastle University
- National Physical Laboratory
- Omya UK LTD
- Outotec OY
- Pilkington Technology Centre PLC
- Rio Tinto PLC
- Rocktron LTD
- Sibelco
- Tarmac Quarry Materials

MIRO's Mission

As the leading UK collaborative research provider for the mining and minerals sectors our aim is to add value to our members' businesses through the provision of cost efficient and industrially relevant projects.

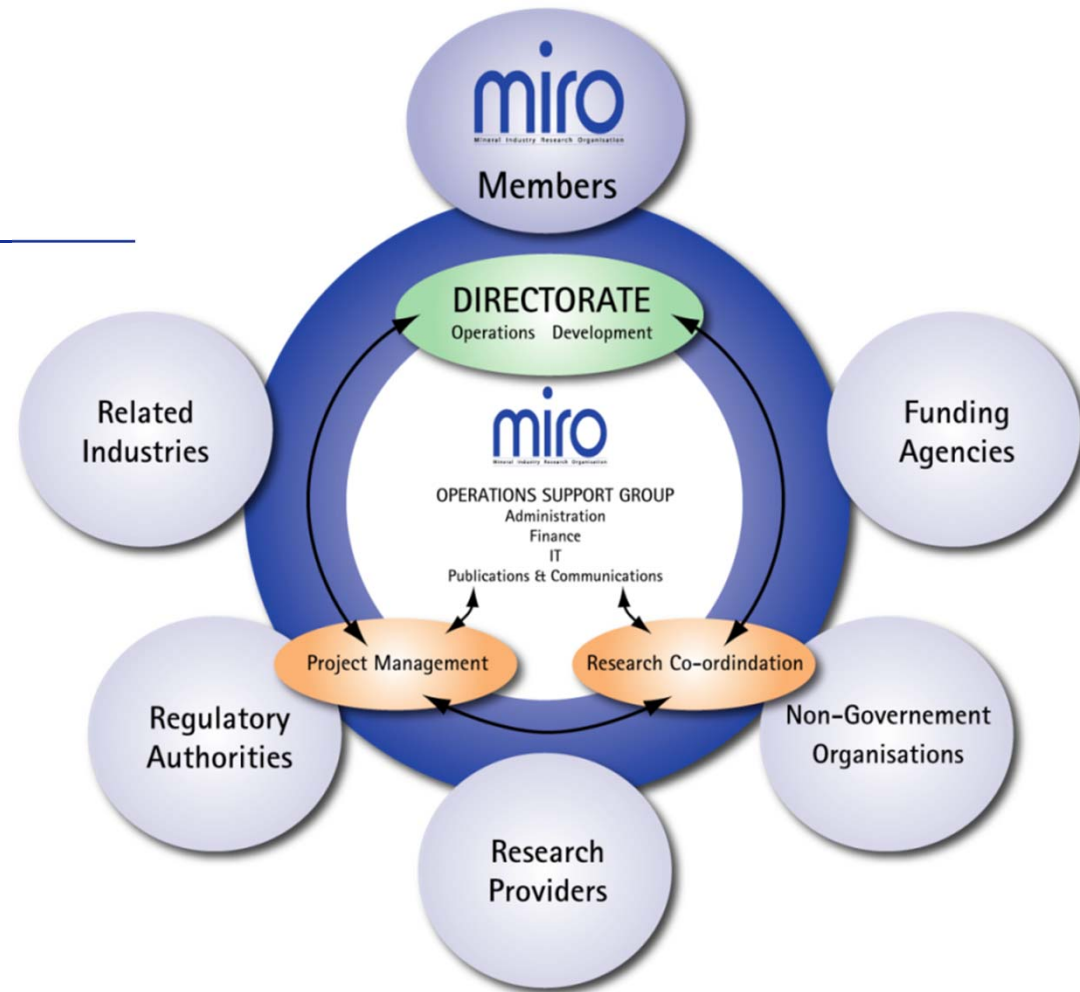
Our activities highlight industrially relevant science and technology and provide innovative solutions to key industrial challenges.

All our activities are carried out transparently, safely and ethically with due regard for the environment.

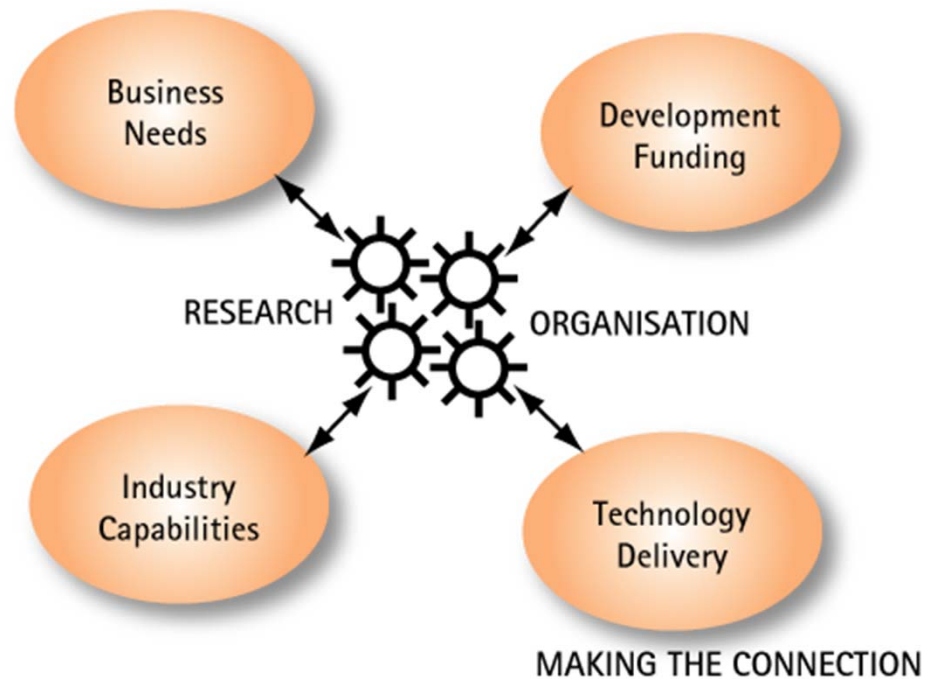
What does MIRO do?

- Provides a means for co-operation amongst its members to solve common technical problems
- Obtains information and data for the Industry and act as a point of contact between its Members and National Governments and International bodies such as the European Commission
- Provides an industry based focus for research, development and innovation

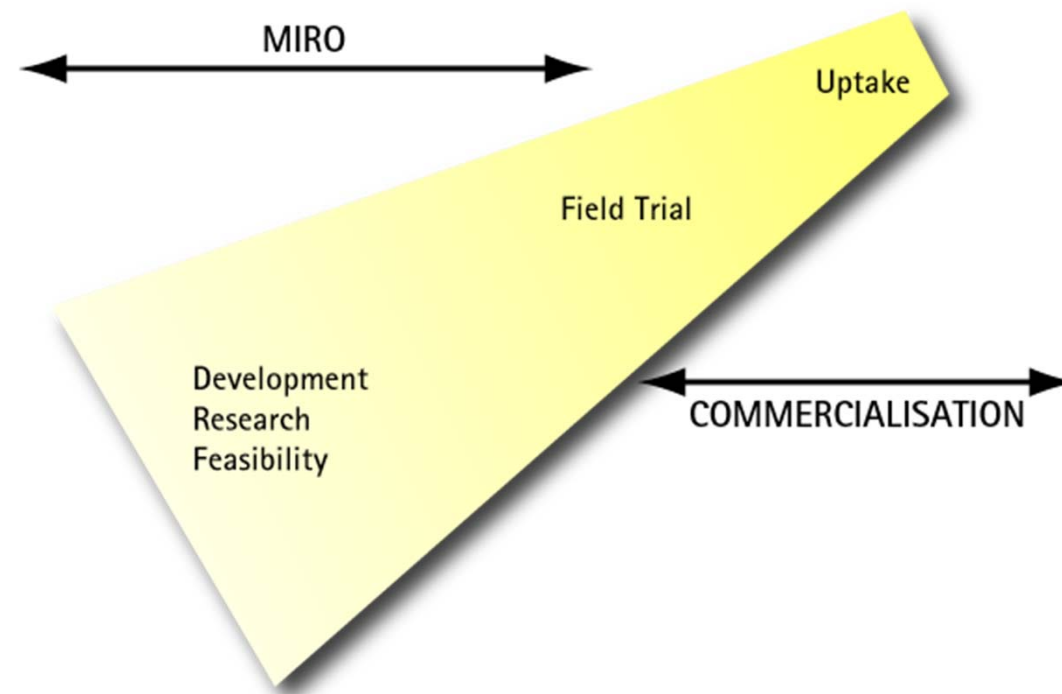
MIRO's Structure



How the MIRO Structure Delivers



MIRO in the R&D Chain



The Benefits of Research Partnerships

- Increased gearing of corporate spend (5 to 10 times)
- Increased scale of projects
- Industrial sponsors retain control of the project direction
- Improved utilisation of company resources
- Stimulation of both research and industrial personnel through interaction
- Speedier and more efficient knowledge transfer
- More effective establishment of technical priorities

Industry Focussed Programme Management

The Mineral Industry Sustainable Technology Programme is operated with funding from the Aggregate Levy Sustainability Fund (ASLF). It is managed by MIRO on behalf of DEFRA.

84 projects with a combined value of £5.9 million



Important Research Themes

Identified by the Research Advisory Panels

- Footprint free production, lowering of emissions and wastes, risk minimisation
- Energy demand reduction and sustainable water management
- Intelligent systems, automation and robotics
- Resource definition, recycled/secondary materials & markets
- Post extraction development
- Material transportation
- Intelligent image processing and navigation
- Health & Safety

Some Key Points

- MIRO is industry focused and responsive to members' needs
- MIRO aims to identify the most appropriate Centres of Expertise, either from within the membership or at other research centres
- MIRO members benefit from high quality and best value research providers
- Projects cover a diverse range of subjects
- Cross sectoral and integrated approach

In Conclusion

- MIRO is responsive to the needs of its members
- MIRO continues to improve understanding of industry priorities through contacts and meetings
- MIRO aims to add value and reduce risk through collaboration, co-funding and gearing

www.miro.co.uk