

# Validated Multi-Component Mineral Processing Simulator

PROJECT P3-006

The AMIRA P9Q Project is a three year program to validate and verify 12-18 mineral processing equipment models which originated from the P9P Project.

P9Q researchers will validate the models to a defined operational window and verify the outputs. The researchers will provide demonstration circuit simulations of four operational flowsheets. These will be presented in a matrix using four different ore types in the Integrated Extraction Simulator (IES) platform for uptake by sponsors at sponsor review meetings. These can be used by appropriately trained sponsors for varying ore conditions and flowsheet configurations using historic data with some additional analysis to establish operational range and capability.



UNIVERSIDADE FEDERAL DO RIO DE JANEIRO



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## Project Outcomes & Learnings

Following a six monthly release cycle, updated versions of models are published in IES for Sponsors to use and validate with data from their own operations. Annual Sponsor Review Meetings (SRM) provide in depth review and training on each model and latest functionality in IES. Additional training sessions have been conducted for a number of sponsors to extend the user community and impact of the new modelling and simulation capabilities delivered by the project.

Project Manager:	Terry Braden, AMIRA
Project Leader:	Assoc Prof Mohsen Yahyaei, JKMR
Timing:	January 2017 – December 2019
Participants:	<ul style="list-style-type: none"> <li>• AMIRA</li> <li>• Chalmers University of Technology</li> <li>• CRC ORE</li> <li>• Hacettepe University (Benzer)</li> <li>• The University of Queensland's Julius Kruttschnitt Mineral Research Centre (UQ-JKMR)</li> <li>• Universidade Federal do Rio de Janeiro</li> <li>• University of Cape Town</li> <li>• Anglo American</li> <li>• AngloGold Ashanti Limited</li> <li>• Barrick Gold Corporation</li> <li>• Beijing General Research Institute of Mining and Metallurgy (BGRIMM)</li> <li>• JKTech Pty Ltd</li> <li>• Magotteaux SA</li> <li>• Metso Process Technology &amp; Innovation</li> <li>• Newmont</li> <li>• South32</li> <li>• VALE Technology ITV</li> <li>• Weir Minerals Australia Ltd</li> </ul>

Image (top): IES models being workshoped at a Sponsors Review Meeting.