

International Minerals Innovation Institute

2016 Annual Highlights

Letter to Members

2016 was an exciting year of new project launches and renewal worth celebrating for IMII. Together with our members and funders we put more than \$3.5 million into 6 new research & development projects and one new education & training project in 2016.

IMII sponsored R&D projects went four-for-four in applications for federal funding from NSERC, raising some \$1.1 million in federal funding for industry driven projects.

We saw the first graduates from the Mining Engineering Options from the College of Engineering at the University of Saskatchewan.

We renewed our vision and mission, brought a new focus to our education & training efforts, and took our first steps toward developing an innovation ecosystem for Saskatchewan's minerals industry. With all this we were rewarded with a renewed commitment from our major mining company members for a further three years.

These achievements are yours to celebrate. Thank you for the continued opportunity to help advance innovations that matter to mining.



Dwight Percy, Board Chair



Al Shpyth, Executive Director



Let's Talk Minerals! 2016

Guest Luncheon Speaker on Building a Culture for Innovation
Bruce Good, Executive Director, Conference Board of Canada

Financial Health

- Member companies contributed nearly \$1.7 million to IMII operations and projects in 2016
- The Government of Saskatchewan, through Innovation Saskatchewan, committed \$1.2 million
- IMII spending on education & training and research & development projects totaled just over \$2.9 million in 2016
- IMII concluded 2016 with nearly \$2 million in project funding commitments from 2017 to 2019

Project Launches

On January 28, 2016, IMII announced the creation of the Mining Materials Research Cluster, a collaboration between researchers at the University of Saskatchewan and the University of Regina, with the assistance of the Canadian Light Source, and nearly \$1 million in funding from Western Economic Diversification. The first four projects under the Cluster were well underway at year's end, and one project – concrete corrosion was awarded \$338,750 from NSERC. IMII and its participating member companies are contributing \$1.2 million to the Cluster into 2019.



Al Shpyth, IMII, Hon. Jeremy Harrison, Minister Responsible for Innovation, Todd Steen, Agrium, Jim Basinger, University of Saskatchewan, David Malloy, University of Regina

On June 6, 2016, IMII announced funding for the underground safety related rebar-shear research project at the University of Saskatchewan. This project has a total budget of some \$285,000 – most which has been raised from federal and other funding agencies, and will extend to the end of 2019.

On June 29, 2016, IMII announced the deep hydrogeology project. This project, also with the University of Saskatchewan, will advance knowledge of deep groundwater systems used by the potash industry for waste water management. This project has a total budget of some \$528,000 – 60% to be funded by NSERC, and has been extended to 2018.

IMII Quick Fact:

New R&D projects started in 2016 employed 14 students and post-doctoral fellows

IMII Quick Fact:

To the end of 2016, IMII has supported ten E&T projects worth nearly \$9.8 Million

The Year in Stats

Education and Training

- Cumberland College welcomed 19 graduates from their applied electrician certificate program and 9 graduates from the industrial mechanic program, and started the fifth and second intakes respectively of these programs
- Parkland College welcomed a total of 25 graduates from their applied electrician certificate program, with 15 finding employment on graduation, including 5 in the minerals industry
- Carlton Trail College graduated 12 students, including six women, from their Introduction to Mining program, in partnership with the Kawacatoose, Day Star and Muskowekwan First Nations
- The Introduction to Mining Program concluded at both Parkland and Carleton Trail Regional Colleges in 2016 with a total of 54 students from 10 First Nations enrolled in the program, 30 graduates and 14 becoming employed upon completion
- During Mining Week and the Spring Convocation, the University of Saskatchewan and IMII saluted the first five graduates with mining engineering options – two from Geological Engineering and three from Mechanical Engineering
- North Rim, with IMII funding, offered an updated Saskatchewan Geological Short Course for geoscience professionals and students in the province
- The 2016-17 academic year opened with 38 students registered in the three mining options in engineering at the University of Saskatchewan

Left to right: Glynn Kennell, Richard Evitts, Akindele Odeshi
Mining Materials Research Cluster, University of Saskatchewan



Research and Development

- The IMII supported salinity mitigation project received federal funding from NSERC, extending its research activities into 2018
- The Mining Materials Research Cluster was awarded its first Mitacs funding for graduate student internships at two participating member sites
- The concrete corrosion project, one of four under the Mining Materials Research Cluster, was awarded funding from NSERC
- The deep hydrogeology project was awarded more than \$300,000 in NSERC funding
- The rebar shear project was awarded more than \$100,000 in NSERC funding

Strategic Plan 2017-2019

In the fall of 2016, IMII updated its vision, mission and strategic plan, and adopted five industry-focused goals that will allow it to build on its strengths and take on new opportunities to develop innovations that matter to mining.



Our **vision** is to make Saskatchewan home to the world's most innovative and sustainable mining and minerals industry.



Our **mission** is to be an industry-led catalyst, driving innovation and sustainability in minerals sector research, development, education and skills-training.

Innovation Ecosystem

In December, IMII published *Developing an Innovation Ecosystem for Saskatchewan's Minerals Industry*, which identifies the education and research capacity, business enterprises, funders and supporters willing and able to help make innovation happen and bring forward complete solutions to the industry's needs. IMII's role in the innovation ecosystem is to facilitate bringing the right partners together to advance innovative solutions from research to development to early-stage commercialization so they are available to industry.



Looking Forward

For 2017, IMII has new funding models that will support near-term commercialization and long-term transformative innovations, in addition to applied research & development. For the first time, deployment of new products and beneficial processes to the minerals industry will also be supported. Education & training funding will seek to support innovations to enhance diversity and inclusion in the minerals industry workforce.