## U of S, IMII announce research project shortlist from North America's first AIMday™ initiative

SASKATOON – Six research teams from Saskatchewan post-secondary institutions have been shortlisted to advance to the next stage of a University of Saskatchewan-led partnership initiative aimed at fostering innovative solutions to provincial mining industry issues.

The six research proposals were shortlisted by industry members of the International Minerals Innovation Institute (IMII) following the March 22<sup>nd</sup> AIMday (Academia Industry Meeting day), a U of S initiative led by Innovation Enterprise (IE) in partnership with IMII, University of Regina (U of R), and Saskatchewan Polytechnic (Sask Polytech).

The finalists were chosen from among 12 preliminary proposals that emerged from 55 ideas presented at AIMday. Each team will receive \$5,000 from Innovation Saskatchewan and IMII to help prepare full proposals for a September deadline. The projects approved to go ahead are expected to be announced in December.



IE holds the licensing agreement with Uppsala University in Sweden for AIMday (<u>http://aimday.se/about-aimday/</u>), a novel approach to matching corporate needs for new knowledge with relevant academic expertise.

"All six preliminary project proposals accepted by IMII's industry members offer an opportunity to advance innovation in and the sustainability of Saskatchewan's minerals industry by improving upon information available to operators and companies undertaking work," says IMII's Executive Director Al Shpyth.

"These potential innovations may contribute to improvements in mineral development, extraction, production, closure and reclamation, as well as workplace health and safety, environmental performance and efficiency/optimization in operations, and to the sustainability of the industry."

The finalists and their potential innovations are:

- Travis Wiens of the U of S Department of Mechanical Engineering and Doug Milne of the U of S Department of Geological Engineering—an innovative method to determine the safety of traveling over a potash tailing pile potentially containing cavities or voids not visible from the surface.
- Stephanie Young of the U of R's Department of Environmental Systems Engineering—an exploration of alternative reagents that can improve the potash flotation process and recovery of potash.
- Travis Wiens and fourth-year students of the U of S Department of Mechanical Engineering feasibility of improving mine safety by evaluating "automation" of scaling bars to assess the structural safety of a mine roof.

- Terry Peckham and Cyril Coupal of Sask Polytech's Computer Systems Technology department and Paul Hughes of the U of S Department of Civil and Geological Engineering—a potential automated positioning system for underground mining machines that could improve safety for potash mine workers and knowledge of how well mining machines follow potash seams.
- Shahid Azam of the U of R's Faculty of Engineering and Applied Science—a potential new method for reducing the amount of water associated with fine-grained particles in tailings which could reduce tailings storage volume requirements and reduce use of freshwater in milling operations.
- Terry Peckham and Cyril Coupal of Sask Polytech's Computer Systems Technology department—a new approach to optimizing process conditions in a mill and improving environmental performance and mill throughput.

The proposals will be considered in the fall under two of the IMII's new research, development and demonstration funding programs: *Exploring Innovations* and *Developing Innovations*. *Exploring Innovations* projects are meant to advance innovations for the "next generation" and "future mines" of the minerals industry. IMII's *Developing Innovations* program aims to advance applied research and development with the objective of having the essential characteristics of a solution to an industry need described and ready for technology development.

"It is exciting to see the new collaborations formed between researchers and mining companies as a result of our AIMday event," said Johannes Dyring, IE Managing Director. "This is exactly what the AIMday concept is about—bringing the right skills and resources together in the right way to make a difference in strategic areas, in this instance, Saskatchewan's minerals sector."

Following the success of AIMday Minerals, IE plans to host AIMdays targeting challenges faced by variety of sectors. IE is organizing the next AIMday for the fall of 2017 focussed on imaging and the research questions that companies in that sector need to have addressed. In addition to U of R and Sask Polytechnic, IE will partner with the Canadian Light Source at the U of S on AIMday Imaging.

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## About Innovation Enterprise:

The U of S Innovation Enterprise (IE), formerly the Industry Liaison Office, manages a wide variety of intellectual properties arising from the university's comprehensive research enterprise. In striving for excellence and engaging in growing the local and global entrepreneurial ecosystem, IE maximizes the impact of knowledge-intensive innovations. For more information, visit: <u>research.usask.ca/ie</u>

## About IMII:

The International Minerals Innovation Institute (IMII) is a unique innovation supporting network of mining companies, government departments and agencies, post-secondary institutions, research institutions, and supply chain companies, jointly funded by industry and government through Innovation Saskatchewan. It exists to deliver innovations that matter to mining in Saskatchewan. For more information, visit: <u>www.imii.ca</u>.

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