

IMII adds new industry innovation needs for DEMOday 2022

January 14, 2022

The IMII is inviting applications for its **2022 DEMOday** and Innovation Award being held on April 25th in association with the 14th Annual Saskatchewan Mining Supply Chain Forum.

Seven new categories have been added to the list of industry innovation needs. For 2022, innovative ideas or solutions are being sought in the following areas:

- Technologies/instrumentation which would allow the potash industry to better characterize rock mass deformation over time
- Technologies which would allow the potash industry to “see forward” 10 to 100 metres in front of the mining machine without drilling to improve safety
- Technologies which would allow the potash industry to contain/eliminate area dust in the potash drying process
- Technologies which could assist the minerals industry in tracing, tracking, and reporting on ESG indicators and position Saskatchewan’s minerals as among the most sustainable in global markets
- Technologies or processes which would allow the industry to effectively utilize low-grade heat or heat sources with low/no GHG emissions for mine and/or mill processes or air/space heating
- No emissions technologies for back up power generation or storage/distribution at industry scale (i.e., MW)
- No emissions locomotives for use on site (i.e., assembling rail trains and moving rail cars)
- Technologies which would automate core chemistry analysis (of solids and/or brine micro-fluidics) underground to inform mill processing and/or underground potash layer geology
- Technologies which could fully automate conveyor belt and/or mine face sampling of potash
- Technologies which could advance employee safety if adapted from other/adjacent industries, from the automation of existing manual processes or the deployment of new technologies to solve root problems such as real-time location tracking in the minerals industry
- The development or demonstration of a non-amine dedust agent or collector for the potash sector
- The development or demonstration of a non-petroleum based anti-cake agent for the potash sector
- Technologies for the automated measurement of ore or product stockpiles that provides real tonnages (and not volumes based on assumed densities)
- The development or demonstration of a suitable online particle size analyzer for potash slurry
- The development or demonstration of a dry solids flowmeter for potash

- Technologies for online moisture detection for potash
- The development or demonstration of air emission abatement equipment that minimizes water and energy inputs for either the potash or uranium sectors
- Alternative technologies (including processes) to improve (e.g., addition of different centrifuges) or transform (e.g., removal of centrifuges) the debrining process in potash

IMII's **DEMOday** is an open innovation opportunity for existing suppliers with new ideas, new companies with new solutions, researchers with a desire to move their ideas out of a lab and into a start-up, developers, data scientists, inventors, entrepreneurs, and other innovators wanting to help make Saskatchewan's minerals industry more safe, productive, and sustainable.

Innovators wanting to be part of **DEMOday 2022** and be considered for IMII's **Innovation Award** are invited to complete and submit the application form – available at [DEMOday \(imii.ca\)](https://www.imii.ca) by February 18th.

Innovations selected for further development, demonstration or deployment will be eligible to receive up to \$250,000 in funding from IMII and to partner with one or more of IMII's minerals company members in a collaborative technology project to demonstrate or trial their solution in a supportive mining environment.

For more information:

Al Shpyth, Executive Director, IMII

Phone: (306) 668-2057

al.shpyth@imii.ca

www.imii.ca

About IMII:

The International Minerals Innovation Institute (IMII) is a unique innovation supporting network of mining companies, government departments and agencies, and post-secondary and research institutions, jointly funded by its minerals industry members and the Government of Saskatchewan through Innovation Saskatchewan. It exists to deliver innovations that matter to mining in Saskatchewan.