PROFILING INNOVATIONS IN COMPACTION TECHNOLOGIES APPLICABLE IN FERTILIZER PRODUCTION

A Major Player in the Mining Industry

The client wanted to understand the compaction technology landscape from adjacent industries to identify potential improvements to be made to their processes or to implement new ones. In addition, they were looking for technologies that used non-binder additives and quality control integration.

CHALLENGE

The client engaged PreScouter in this ongoing Research Support Service License to help them identify innovations that could be applied to different areas of the compaction process to improve compaction or machine efficiencies, as well as monitor and control product quality. A key aspect of the project was to find appropriate novel technologies from the mining or adjacent industries that could be customized to the client's existing machines.

APPROACH

PreScouter identified and profiled **24 companies** and **27 lower TRL studies** covering recent innovations used to improve the compaction process. A Subject Matter Expert was also consulted to fill in gaps in information about the latest innovations in the compaction industry. The team **identified 22 vendors** of wear-resistant coatings that could be applied to compaction rollers and **reached out to 14 targets** to obtain further information and quotations.

OUTCOME

PreScouter recommended prioritized vendors for automatic process, quality, and skew control systems, as well as alternate designs, to the client. Three wear-resistant coating vendors were recommended based on the outreach and quotations received.

Impact of PreScouter's Work: The client reached out to one of the vendors for further pilot testing. Six lower TRL studies were prioritized as high-interest studies by the client for further probing by their teams and potential extension to application in their roller compactors.