Productivity Calculator – Background Information

The Alberta heavy industrial construction sector, represented by the Construction Owners Association of Alberta (COAA), has been a leader in benchmarking construction performance for a decade now. Working with the Construction Industry Institute (CII), in the University of Texas at Austin, two multi-year projects have yielded a database of approximately 60 Alberta megaprojects. CII, a global leader in construction benchmarking, has a much larger database of American and international projects. Responding to the strategic imperative to improve Alberta heavy industrial construction productivity, COAA and CII have developed a high-level productivity metric (the COAA Productivity Index, PI) to facilitate tangible discussion among industry stakeholders, based on measured performance and quantitative goals for improvement.

Development of an analogous high-level safety metric in the early 2000's enabled discussion and demonstrable improvement of safety performance across the entire sector. The final link in the productivity data value chain is a tool to make calculation of the metric readily accessible to all companies in the heavy industrial construction sector. When PI becomes widely used, it will facilitate widespread improvement in the sector.

A project is currently underway to develop a prototype of a web-based tool which any project or any company can access to calculate their PI based on their particular project or company data. The "v1.0" PI calculator will include user instructions, an input template, an output form and "standard" comparisons of the output to cumulative sub-sector or sector level statistics.

Looking ahead, the prototype will form a foundation for a web portal which will allow registered firms to access the COAA/CII database and an enhanced version of the PI calculator. User instructions, a template for input to the database, output forms and customized comparisons of the output to cumulative sub-sector or sector level statistics. Additionally, the input template will include the data needed to calculate TRIR, so that users will have both safety and productivity metrics in one place.