



SCHULICH
School of Engineering



COAA Major Projects Benchmarking Research May 2013

University of Calgary
Schulich School of Engineering
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1. A key responsibility is to conduct research on how to best benchmark pipeline projects:

- by Emmett Moradi, graduate student, UofC
- now completed; graduate with MSc June 2013
- recommendations to be presented to the COAA Benchmarking Committee
- committee will determine how these recommendations may be implemented

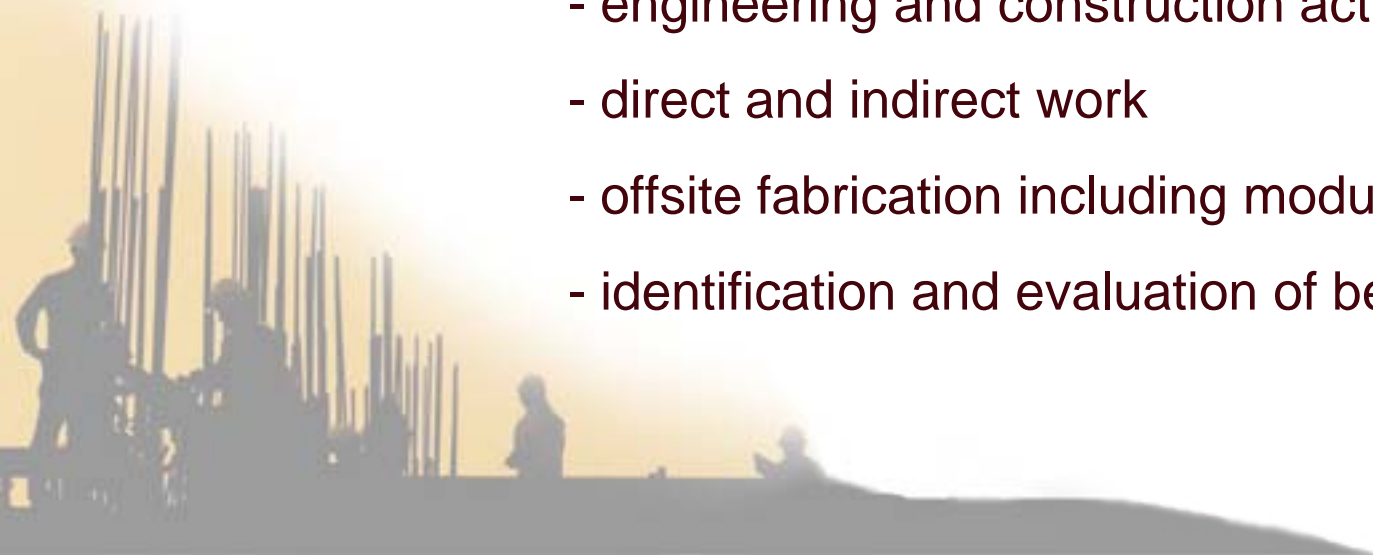


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2. In collaboration with our industry partners and the COAA Benchmarking Committee, the UofC continues to conduct benchmarking research in other areas including:

- (a) quality of project data entered into the benchmarking database
- (b) alternate methods to enter project data
- (c) additional data elements and metrics for:
 - engineering and construction activities
 - direct and indirect work
 - offsite fabrication including modularization
 - identification and evaluation of best practices

- continued →





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- (d) how best to benchmark well-site and well-pad projects
- (e) evaluate alternate productivity measurements and techniques
- (f) customized reporting of benchmarking data
- (g) updated glossary of terms and definitions
- (h) develop templates and checklists to assist users with data collection during project execution
- (i) make recommendations to COAA Benchmarking Committee regarding updates, revisions, additions and other modifications to the COAA Benchmarking System

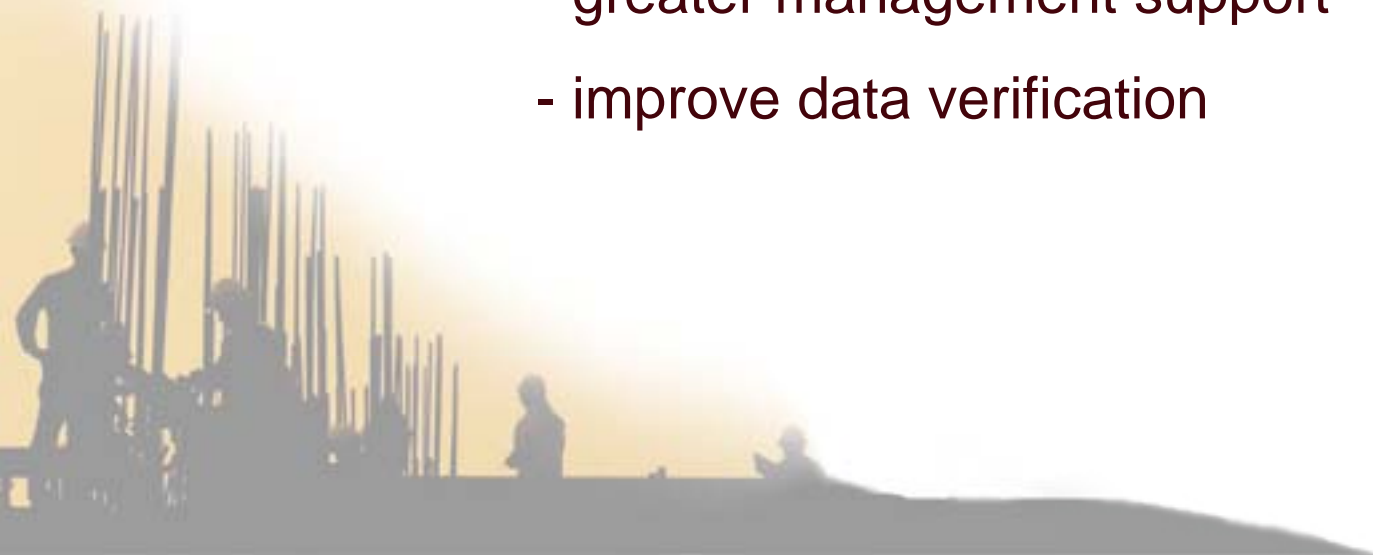




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2. (a) Quality of project data entered into the benchmarking database

- reduce incomplete or missing data
- understandable data definitions and descriptions
- additional training in data collection
- greater management support – provide resources
- improve data verification





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2. (b) Alternate methods to enter project data

- collect data directly from project reports
- direct electronic data transfer
- use of portable data collection devices in field
- location of data collection
- assign data collection responsibility to specific project team members





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2. (c) Additional data elements and metrics

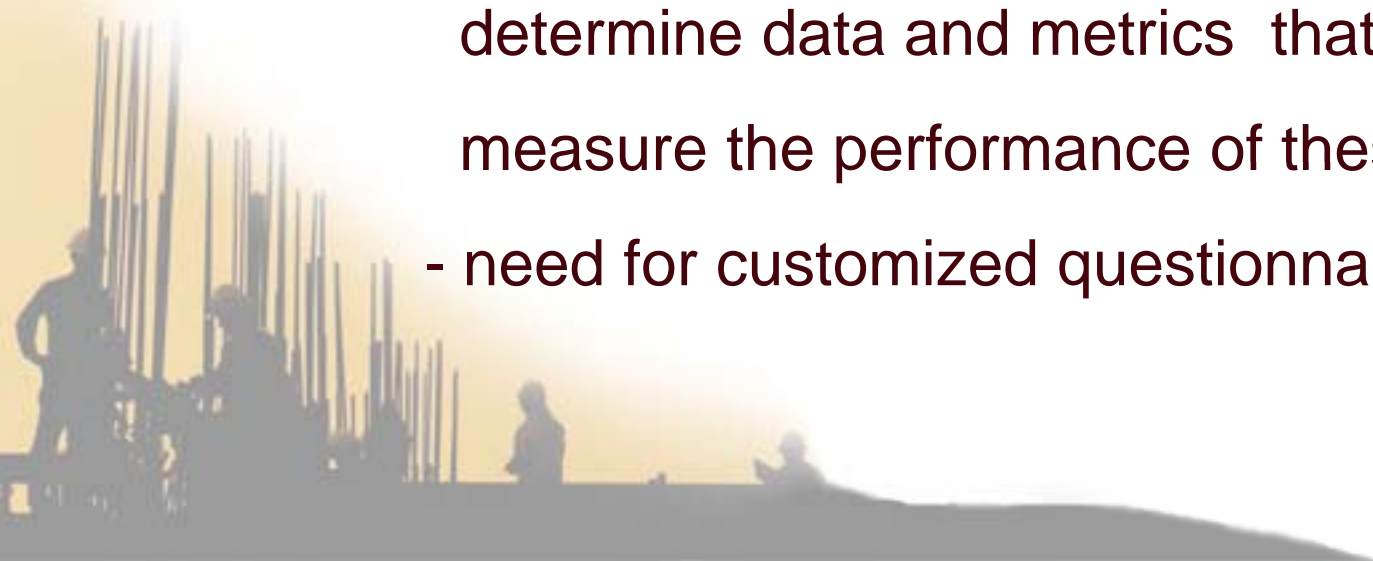
- project team size and composition
- several types of Owner Costs
- direct and indirect costs
- change and rework data
- offsite fabrication and modularization data
- evaluate alternate cost and escalation factors
- additional types of projects
- customized questionnaires



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2. (d) How best to benchmark well-site and well-pad projects

- similar to research on benchmarking pipeline projects
- collaborate with industry partners to determine data and metrics that best measure the performance of these types of projects
- need for customized questionnaires





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2. (e) Evaluate alternate productivity measurements and techniques

- effect of long delays after project approval
- lead versus lag benchmarking
- changes made after project execution
- benchmarking in other industries

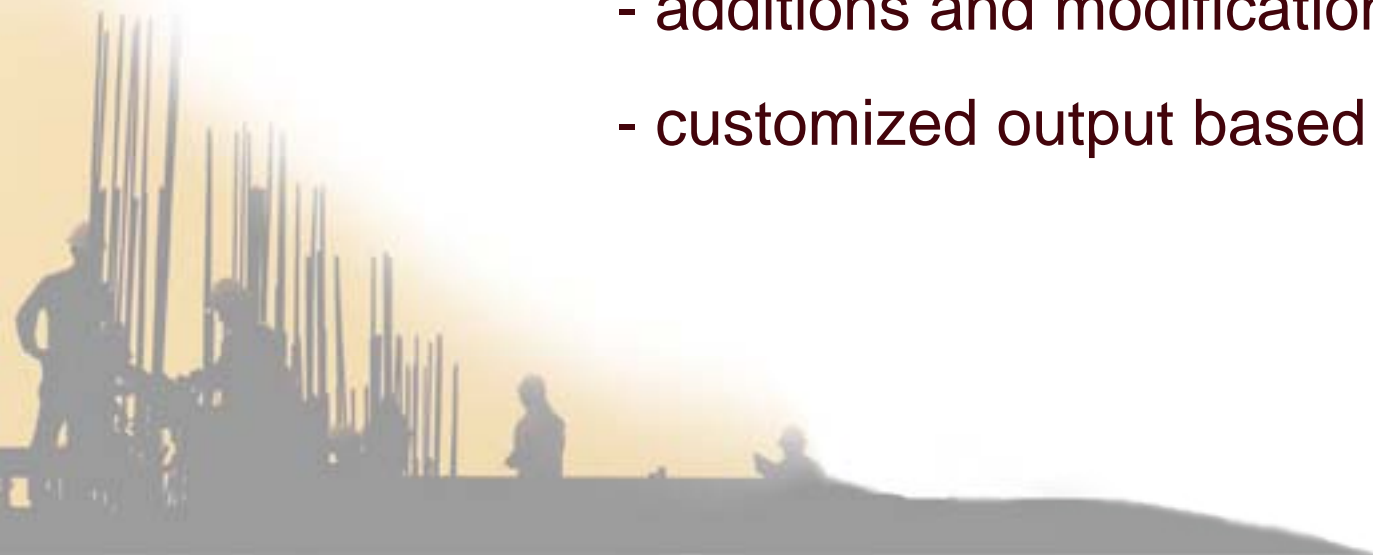




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2. (f) Customized reporting of benchmarking data

- evaluate COAA Key Report
 - additions and modifications
 - customized reports based on project type
- evaluate COAA Data Miner
 - additions and modifications
 - customized output based on project type





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2. (g) Updated glossary of terms and definitions

- understandable terms and definitions
 - applicable to specific project types
- incomplete definitions and descriptions
- additional terms and definitions
- online glossary for various platforms





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2. (h) Develop templates and checklists to assist industry partners with data collection during project execution

- customized for project types
- customized for specific phases of projects
 - planning, engineering, construction
- checklists for specific project team members





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2. (i) Make recommendations to COAA Benchmarking Committee regarding updates, revisions, additions and modifications to COAA Benchmarking System
 - identify and evaluate specific data elements, metrics and other items and determine items that could be revised
 - make recommendations to the COAA Benchmarking Committee based on research results
 - committee will determine how these recommendations may be implemented

Path Forward

How can you become involved in Benchmarking?

(a) Contact the COAA Benchmarking Committee

Larry Sondrol – lsondrol@suncor.com

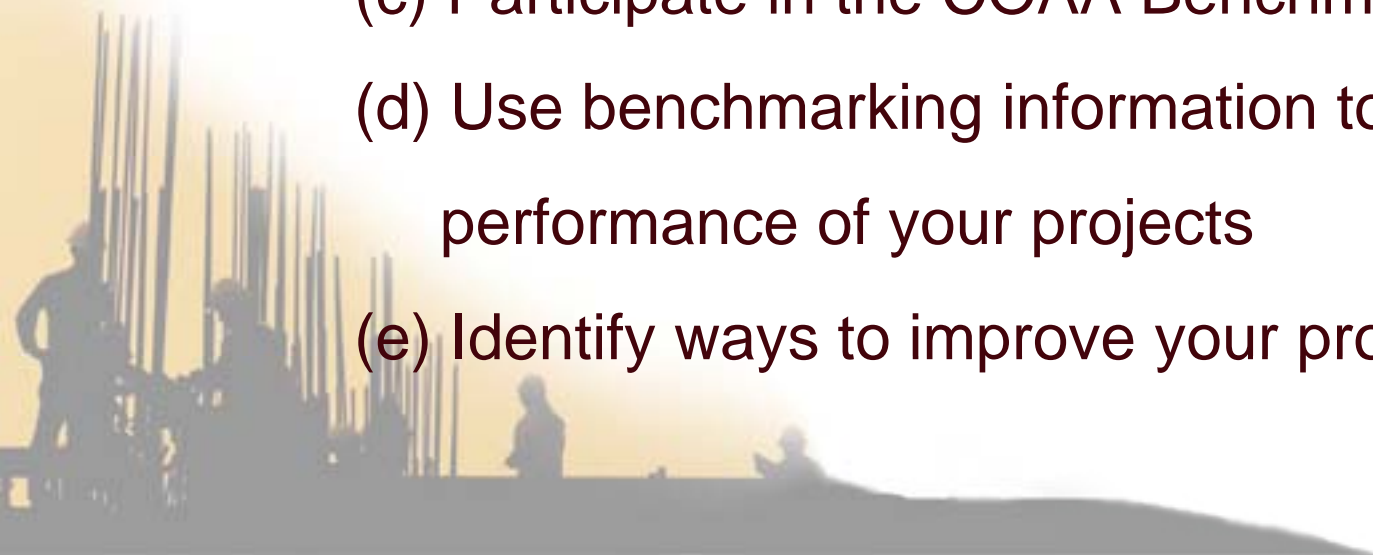
Steve Revay – sorevay@revay.com

(b) Join and participate in COAA Benchmarking Committee

(c) Participate in the COAA Benchmarking System

(d) Use benchmarking information to analyze the performance of your projects

(e) Identify ways to improve your project performance





Thank you

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