



The Knowledge Leader for Project Success

Owners • Contractors • Academics

Construction Industry Institute (CII) Collaboration Model

Wayne A. Crew, PE

GLF-CEM

May 20, 2012

Purdue University

West Lafayette, IN

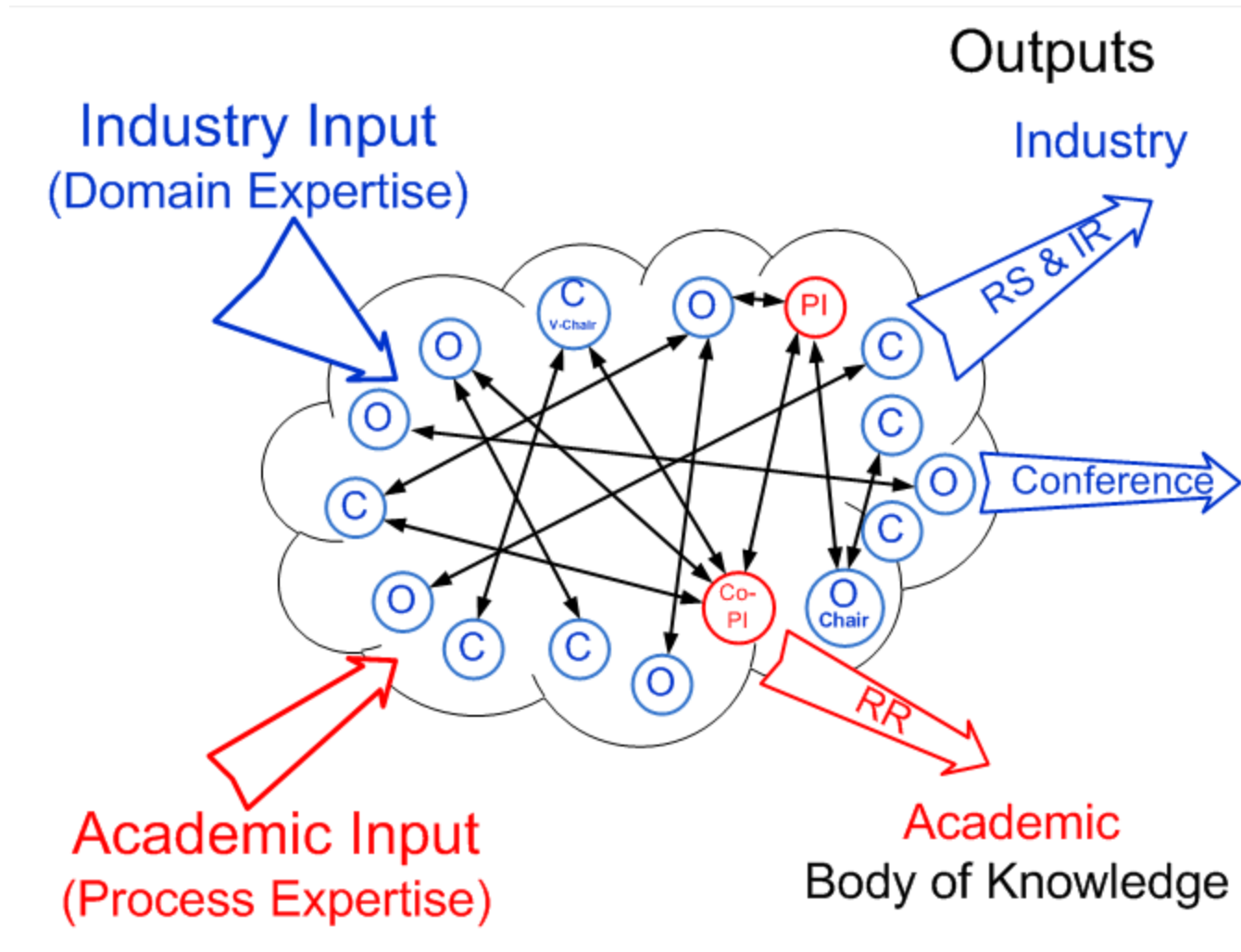




- A consortium of leading owners, contractors, and academics working collaboratively to improve the constructed project and the capital investment process.
- An organized research unit of the Cockrell School of Engineering at The University of Texas at Austin.



CII Collaboration Model



Owner CII Members

Abbott	Eli Lilly	Praxair
Air Products and Chemicals	Eskom Holdings Limited	Procter & Gamble
Ameren	ExxonMobil	SABIC
American Transmission	General Electric	Sasol Technology
Anheuser-Busch InBev	General Motors	Shell Global Solutions US
Aramco Services	GlaxoSmithKline	Smithsonian Institution
ArcelorMittal	International Paper	Southern
Architect of the Capitol	Huntsman	Statoil
Barrick Gold	Irving Oil	Teck Resources
BP America	Kaiser Permanente	Tennessee Valley Authority
Bristol-Myers Squibb	Kinross Gold	TransCanada
Cameco	Koch Industries	U.S. Army Corps of Engineers
Cargill	LyondellBasell	U.S. Dept. of Commerce/NIST/EL
Chevron	Marathon Oil	U.S. Dept. of Defense/Tricare
CITGO Petroleum	Marathon Petroleum	U.S. Dept. of Energy
ConocoPhillips	NASA	U.S. Dept. of Health & Human Services
Dow Chemical	NOVA Chemicals	U.S. Dept. of State
DTE Energy	Occidental Petroleum	U.S. Dept. of Veterans Affairs
DuPont	Ontario Power Generation	U.S. General Service Administration
Eastman Chemical Co.	PEMEX	Vale S.A.
Ecopetrol S.A.	Petrobras	



Contractor CII Members

Alstom Power

AMEC

Audubon Engineering

Aveng Group

AZCO

Baker Concrete Construction

Bateman Engineering

Bechtel Group

Bentley Systems

BIS Frucon Industrial
Services

Black & Veatch

Burns & McDonnell

CB&I

CCC Group

CDI Engineering Solutions

CH2M HILL

Coreworx

CSA Group

Day & Zimmermann

Dresser-Rand Company

Emerson Process Mgmt

eProject Management

ENGlobal U.S., Inc.

Faithful+Gould

Flad & Associates

Flint Energy Services

Fluor Corporation

Foster Wheeler USA

Gross Mechanical Contractors

GS Engineering & Construction

Hargrove Engineers+Constructors

Hatch

Hilti

Industrial Contractors

IDEA

Jacobs

JMJ Associates

JV Driver Projects

KBR

Kvaerner North American

Lauren Engineers & Constructors

M. A. Mortenson

Matrix Service

McCarthy Building Companies

McDermott International

Midwest Steel

Parsons

Pathfinder

Quality Execution

Robins & Morton Group

S&B Engineers & Constructors

SAIC Constructors

Shaw Group

Siemens Energy

SKE&C USA

SNC-Lavalin

SOG – Óleo e Gás S/A - SETAL

Technip

URS

Victaulic

Walbridge

Wanzek Construction

Wood Group Mustang

WorleyParsons

Yates Construction

Zachry Holdings

Zurich



Universities Performing CII Research 1983-2011

University of Alabama
Arizona State University
Auburn University
Baylor University
Bucknell University
University of California-Berkeley
Carnegie Mellon University
University of Cincinnati
Clemson University
University of Colorado-Boulder
Colorado State University
Columbia University
Drexel University
East Carolina University
University of Florida
Georgia Institute of Technology

University of Houston
University of Illinois
Iowa State University
University of Kansas
University of Kentucky
Lehigh University
University of Maryland
University of Michigan
Mississippi State University
University of New Mexico
North Carolina State University
North Dakota State University
Ohio University
Oklahoma State University
Oregon State University
The Pennsylvania State University
University of Pittsburgh

Purdue University
Polytechnic University of New York
San Diego State University
San Jose State University
Stanford University
State University of New York-Albany
Vanderbilt University
Virginia Polytechnic Institute and State Univ.
Texas A&M University
The University of Texas at Austin
Tsinghua University
University of Washington
University of Waterloo
University of Wisconsin-Madison
Worcester Polytechnic Institute





CII Research Projects in Progress

RT252 Craft Productivity Research Program
(UTexas, UWaterloo, UKentucky)

RT268 PDRI - Summary Documentation
(Arizona State)

RT272 Enhanced Work Packaging Continuation
(UTexas)

RT280 Dealing with Uncertainty—Probabilistic Controls
(UColorado)

RT281 Project Management Skills of the Future
(Arizona State)



CII Research Projects in Progress

RT282 Managing Indirect Costs
(NC State, Michigan State)

RT283 Modularization
(UTexas)

RT284 Safety Leading Indicators
(UFlorida, UColorado)



CII Research Projects in Progress

- RT290 Quantifying the Impact of Change from Project Authorization through Start-up
(UCBerkeley, NCState)
- RT291 Improving the Prediction of Project Outcomes
(UAlabama)
- RT292 Knowledge Transfer from the Near-retirement Generation to the Next Generation
(UTexas)
- RT293 Strategies for HSE Hazard Recognition
(UColorado, Virginia Tech)
- RT294 Deploying Best Practices in Developing Countries
(Virginia Tech)

CI Research: 2012 Project Slate

- RT 300 True Impact of Late Deliverables at the Construction Site
- RT 301 Using Near Miss Reporting to Enhance Safety Performance
- RT 302 Interface Management
- RT 303 Managing a Portfolio of Projects – Metrics for Improvement
- RT 304 Sustainability Practices & Metrics for the Construction Phase of Capital Projects
- RT 305 Measuring Project Complexity and its Impact
- RT 306 Quantitative Measurement of PM Competencies
- RT 307 Mitigating Threats of Counterfeit Materials in the Capital Projects Industry
- RT 308 Effective Supplier Quality Surveillance Processes & Practices



Research Essential Question Examples

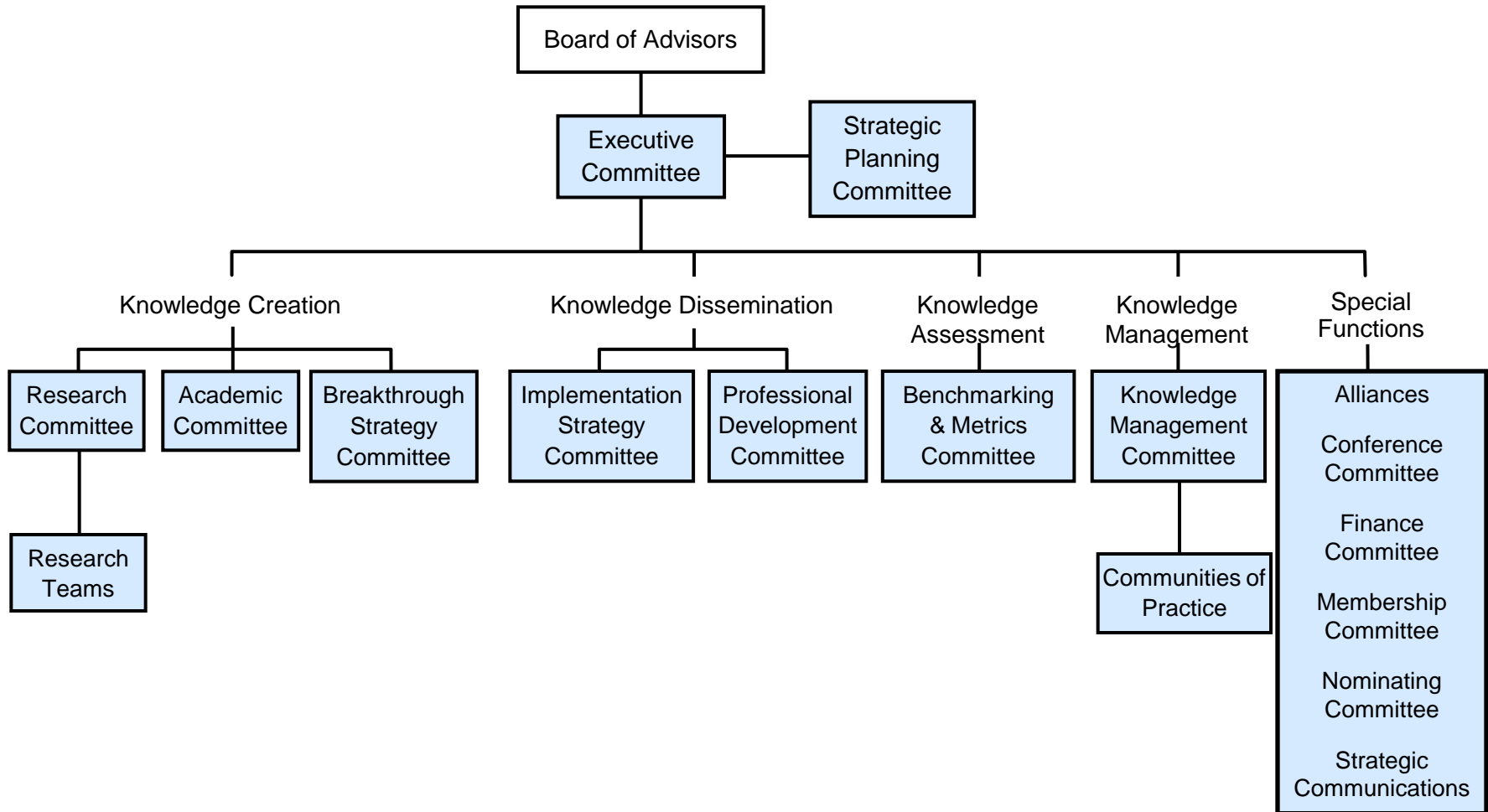
RT302 Interface Management - What practices, techniques, and processes are most effective for improving the critical interfaces among globally dispersed project teams, multiple project partners, and an increasingly diverse labor force?

RT306 Quantative Measurement of PM

Competencies - What measurements can be used to assess competencies of project managers in order to pinpoint areas for development?



CII Organization





Thank you