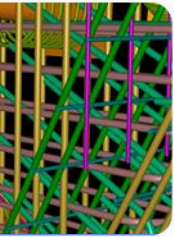




The Integration of Information and Tools to Support Decisions

Maurizio Cecchini

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2013 Bentley Corporate Overview

Working Smarter, Together...



Bentley's mission is to provide innovative software and services for the enterprises and professionals who design, build and operate the world's infrastructure - sustaining the global economy and environment, for improved quality of life.

Improving Quality of Life...



MINING

- STAAD
- OpenPlant
- Raceway and Cable Management
- InRoads
- Bentley Map
- Descartes
- GEOPAK
- gINT
- RAM

WATER & WASTEWATER

- WaterGEMS
- SewerGEMS
- AutoPLANT
- OpenPlant

BUILDINGS

- AECOsim
- GenerativeComponents
- RAM
- ProStructures
- speedikon
- gINT

CONSTRUCTION

- ConstructSim
- ProjectWise
- Navigator
- ProStructures
- MicroStation

3D CITIES

- Bentley Map
- Geo Web Publisher
- Descartes
- InRoads
- AECOsim
- Geospatial Server

NUCLEAR

- eB
- AutoPIPE
- OpenPlant
- Raceway and Cable Management

COMMUNICATIONS NETWORKS

- Bentley Fiber
- Bentley Coax
- Inside Plant

ROADS

- InRoads
- GEOPAK
- MX
- SUPERLOAD
- LEAP
- RM
- Exor
- gINT

BRIDGES

- RM
- LEAP
- SUPERLOAD
- GEOPAK
- InRoads
- gINT
- MX
- ProStructures

RAIL & TRANSIT NETWORKS

- Bentley Rail
- Opttram
- InRoads
- MX
- RM
- GEOPAK
- LEAP
- gINT

SUBSURFACE UTILITIES

- WaterGEMS
- SewerGEMS
- sisNET
- Exor
- GEOPAK
- gINT
- InRoads
- MX

POWER PLANTS

- AutoPLANT
- OpenPlant
- AutoPIPE
- STAAD
- ProStructures
- Raceway and Cable Management
- AECOsim
- RAM
- gINT
- Descartes
- GEOPAK
- InRoads
- Bentley Map

PROCESS PLANTS

- OpenPlant
- AutoPLANT
- eB
- Raceway and Cable Management
- AutoPIPE
- ProStructures
- STAAD

CAMPUSES

- Bentley Map
- Descartes
- Geospatial Server
- AECOsim
- RAM
- STAAD
- Raceway and Cable Management
- GEOPAK
- InRoads
- gINT
- MX
- OpenPlant

UTILITY NETWORKS

- Substation
- sisNET
- Descartes
- GEOPAK
- gINT
- InRoads
- MX
- promisio
- STAAD

WIND FARMS

- SACS
- STAAD
- ProStructures
- Substation

OFFSHORE

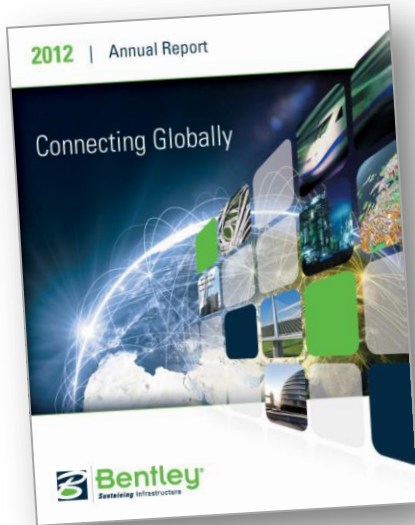
- SACS
- FormSys
- AutoPIPE
- STAAD
- ProStructures
- ConstructSim

Sustaining Infrastructure
Bentley's Solutions

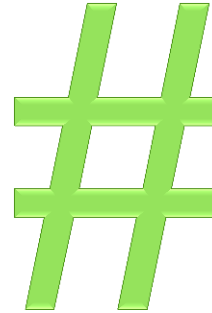


• MicroStation • ProjectWise • AssetWise • Navigator

2012 Annual Report

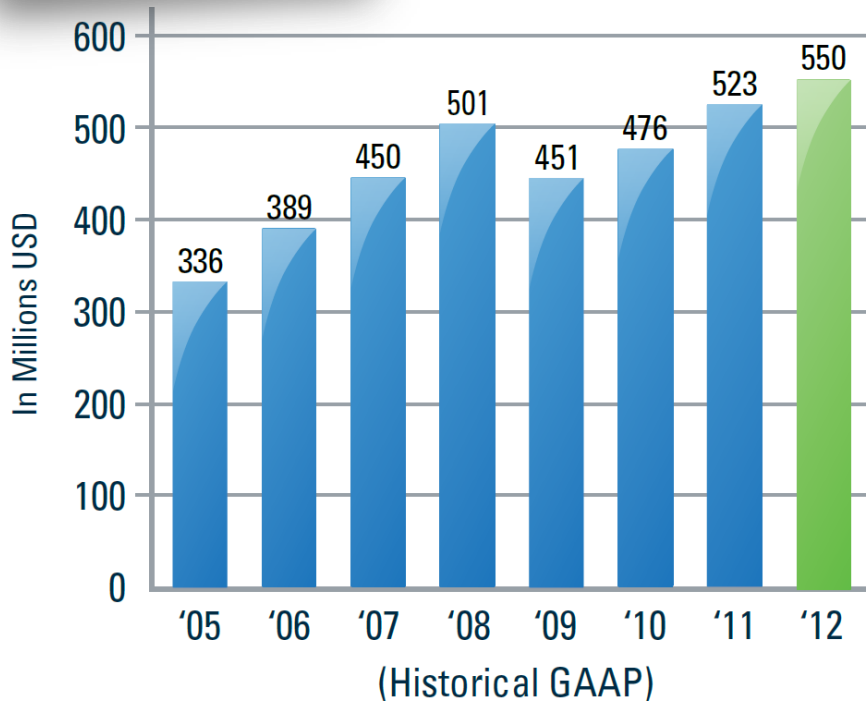


View or download at:
www.bentley.com/annualreport

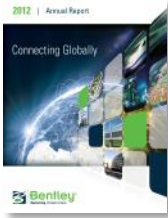


- Bridges
- Roads
- Rail and Transit Networks
- Power Plants
- Water and Wastewater Utilities

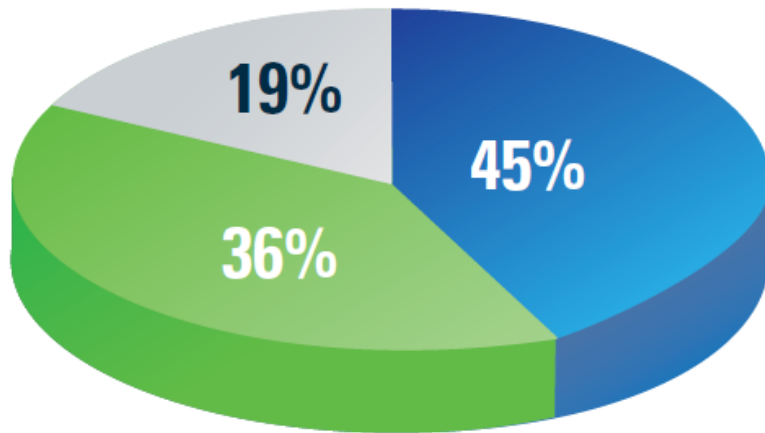
- Construction Simulation
- Collaboration Services
- Process Plant Operations
- Structural Analysis
- 3D City Modeling



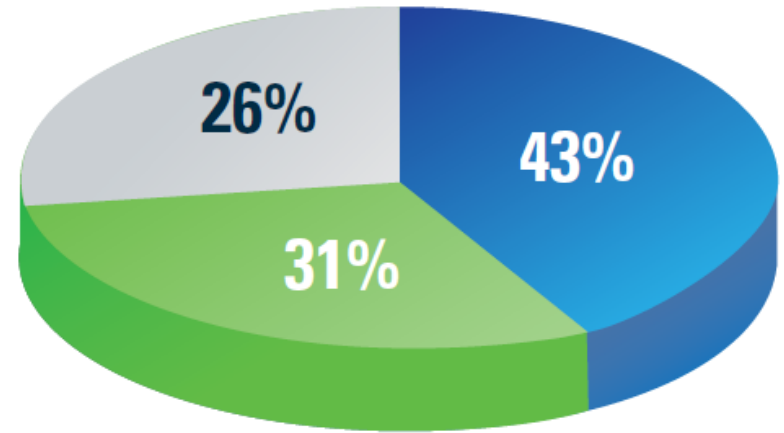
Global Balance



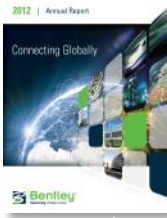
REVENUE



COLLEAGUES

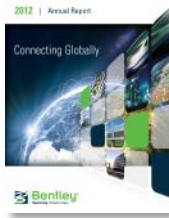


2012 Performance Highlights



- Historical GAAP revenues grew **5%** to **\$550 million**. In constant currencies, GAAP revenues grew **8%**, and organic growth was **6%**.
- Subscriptions reached a record **74%** of revenues.
- Applications use logged by over **1 million** users in over **165 countries** - approaching **2 million** including users of Passports and iWare apps.
- 2012 saw continued geographically diversified growth with the *Middle East and Africa* notably growing in excess of **25%**.
- Operating cash flow was more than **\$100 million**.

2012 Performance Highlights



- A record investment in R&D and acquisitions of nearly **\$200 million** brings the total invested since 2005 to more than **\$1 billion**.
- Bentley's worldwide Professional Services organization, encompassing over 400 colleagues, grew revenues of **13%** and achieved record utilization levels.
- Continued investment in the company's capital structure now reflects equity ownership of **98%** by the Bentley family and colleagues.
- With **\$160 million** of available liquidity, the company remains advantageously positioned for the future.

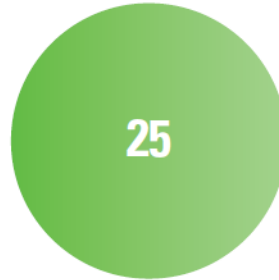
Bentley in Top Organizations...

INFORMATION MODELING

Bentley's applications usage among top design firms

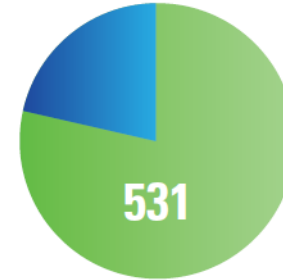
*Combined ENR Top 500 Design Firms and ENR Top 150 Global Design Firms, with duplicates removed

ENR Top 25 Design Firms



Organizations using Bentley applications

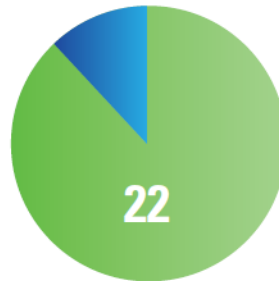
Combining ENR's Top 626 Design Firms*



INTEGRATED PROJECTS

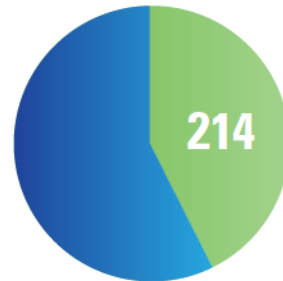
Bentley's ProjectWise usage among top design firms

ENR Top 25 Design Firms



Organizations using ProjectWise

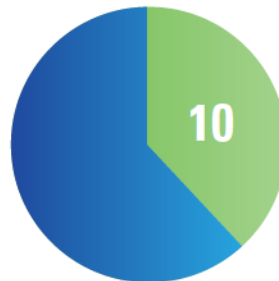
ENR Top 500 Design Firms



INTELLIGENT INFRASTRUCTURE

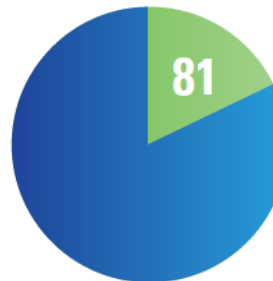
Bentley's AssetWise usage among top owners

Bentley Infrastructure 25 Top Owners



Organizations using AssetWise

Bentley Infrastructure 500 Top Owners



Efficiency Across the Entire Infrastructure Lifecycle

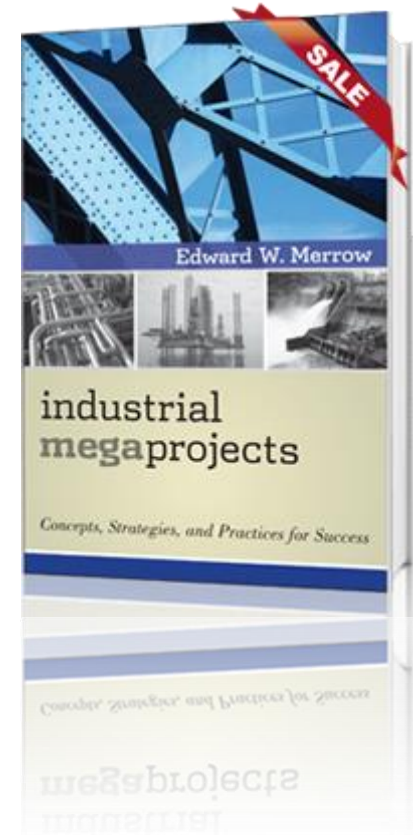


Industrial Megaprojects

Independent Project Analysis - (IPA)

Ed Merrow – Foreword & co editor Jim Porter (DuPont)

- 318 Project Studied (today's value \$2bn +)
 - Average Project Cost ~ \$3.4bn
 - Average Project Schedule ~ 66 months
- Oil & Gas, Chemicals, Minerals and Metals, LNG, Power
- Failure defined as:
 - >25% cost overrun
 - >25% schedule slip
 - After 2 years production - well below planned, significant operability problems (biggest issue)
- Study Finding:
 - 65% of projects failed ~ 40% average overrun
 - Failed projects: Oil & Gas ~ 78%
 - Minerals and Metals ~ 70%

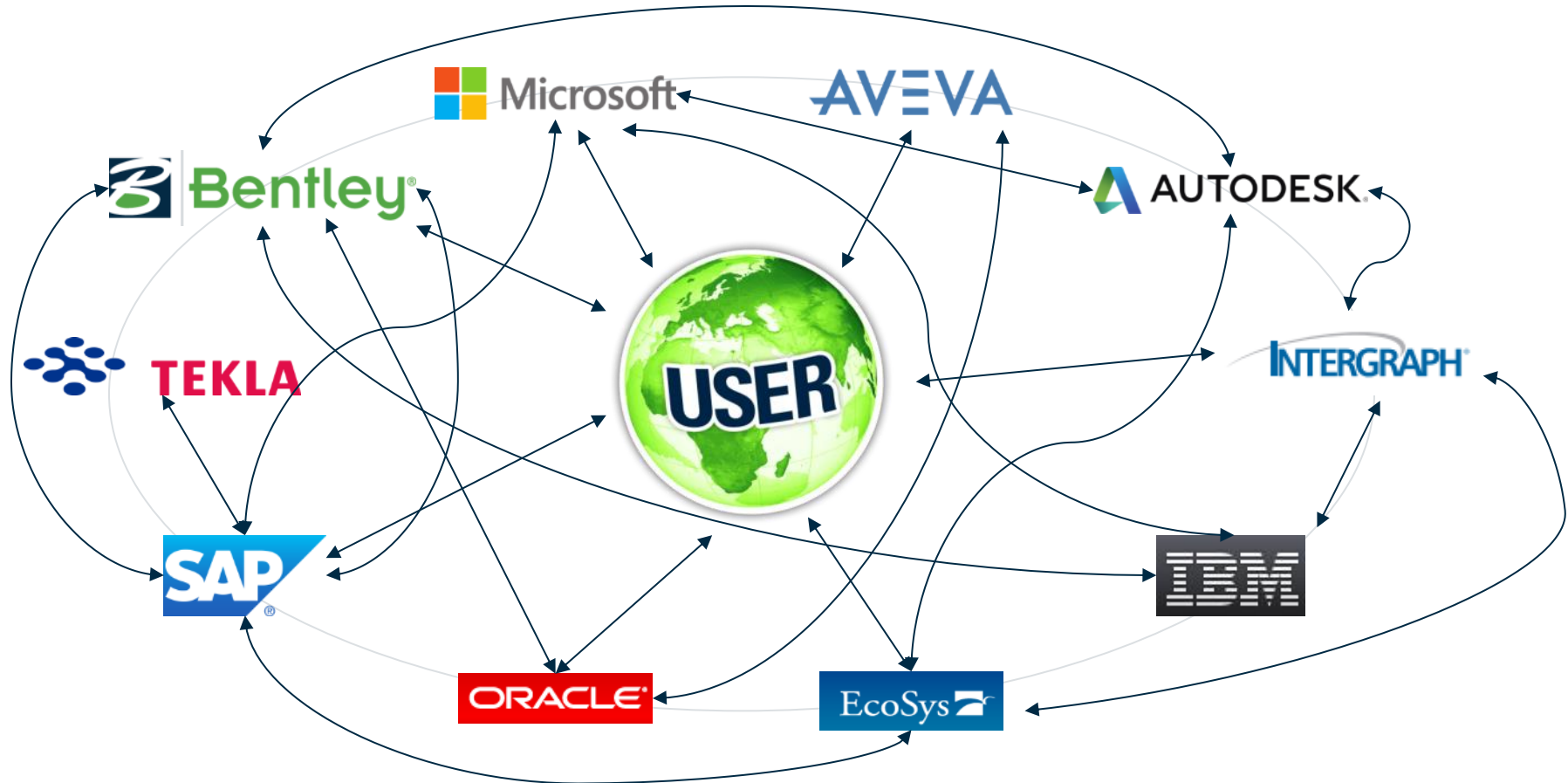


Source: *Independent Project Analysis - (IPA)*

A Typical Industry Environment

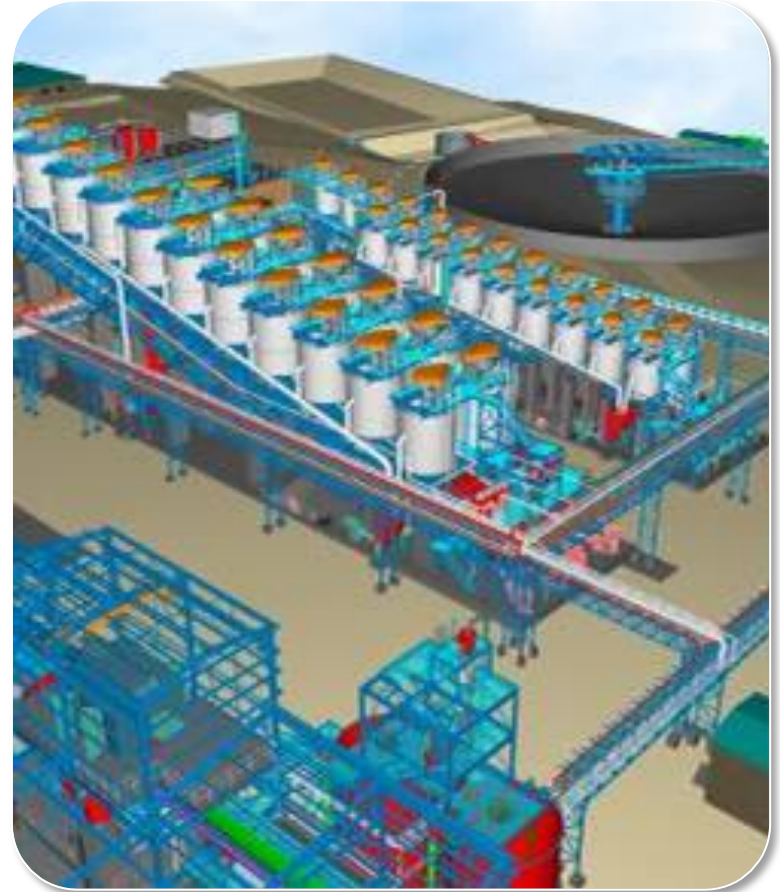


Challenges on Integration of Information

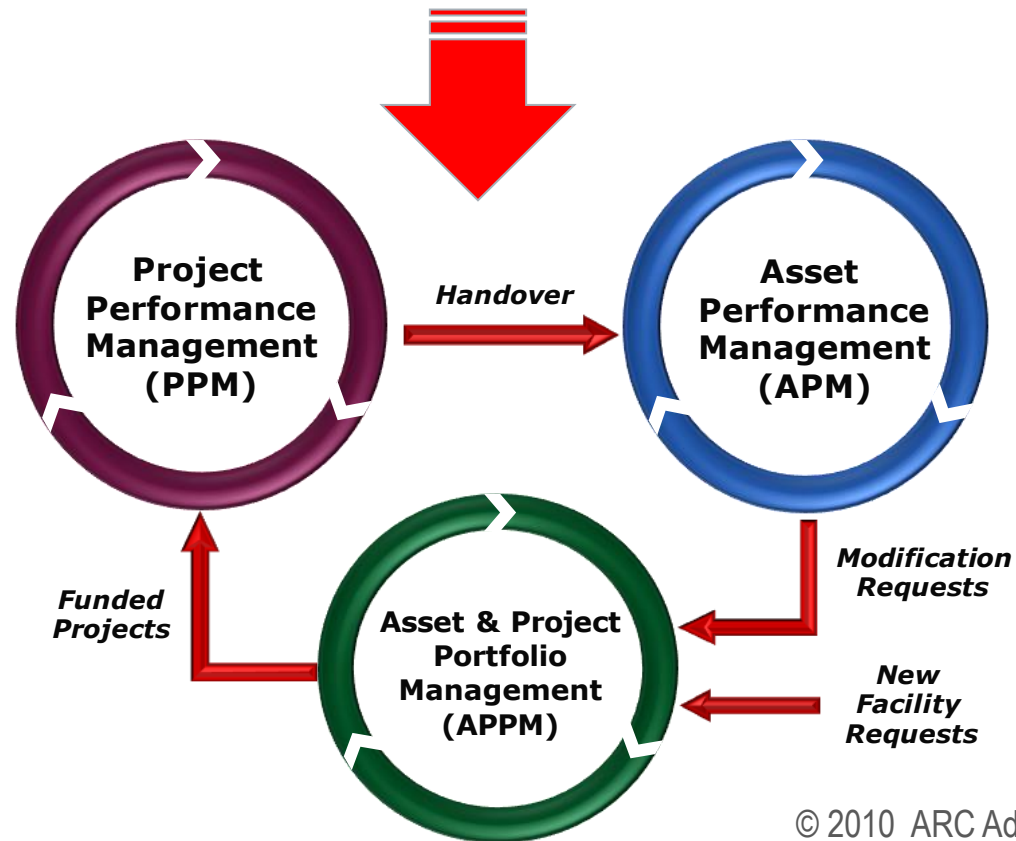


50 + Data Generators – Types of Information...

- Requirements/scope
- Program management (scheduling)
- Design (3D design)
- Procurement packages (purchase/receiving)
- ITAAC & quality records
- Work packages
- Corrective actions
- Commissioning/startup records

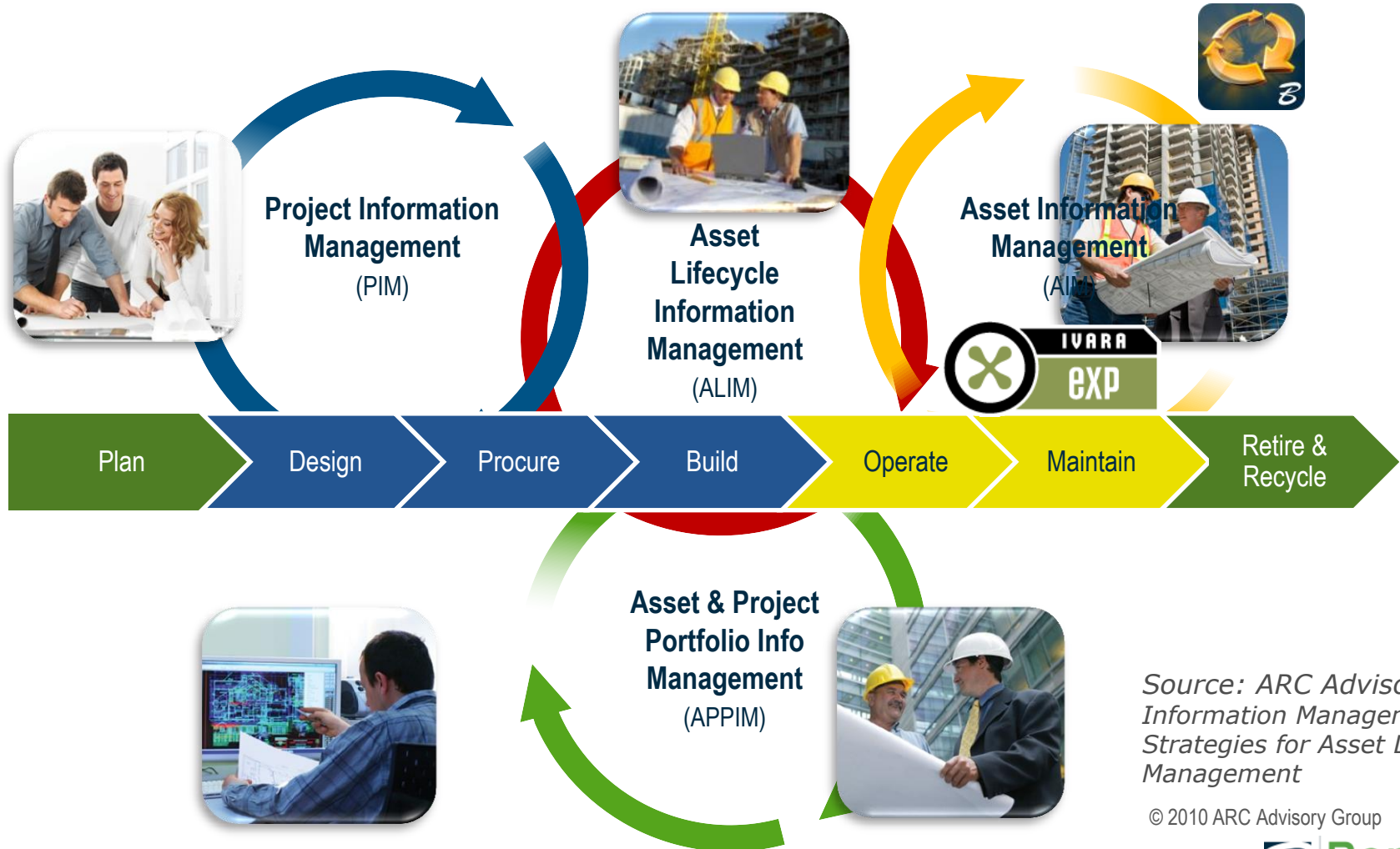


The ARC Business View



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Asset Performance Management – where we fit



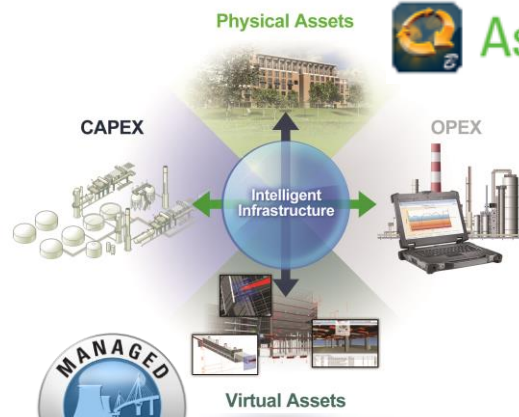
Source: ARC Advisory Group
 Information Management
 Strategies for Asset Lifecycle
 Management

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The Bentley Solution View

ProjectWise and AssetWise Shared Server/Services

Eb
 Geo Web Publisher
 Transmittal Services
 Enterprise Connection Services
 InterPlot Server



AssetWise Services/Services

Ivara Asset Performance Management
 Nuclera Compliance
 SUPERLOAD
 InspectTech
 Optram



Applications Portfolio



ProjectWise Server/Services

Integration Server
 Caching Server
 I-model Composition Server
 Dynamic Plot Service
 Business Process Template (for BS1192)
 Point-cloud Services



Spanning CapEx through OpEx

Project Information Management
Simulate (Design) & Construct (Build)

Asset Information Management
(Operate & Maintain)

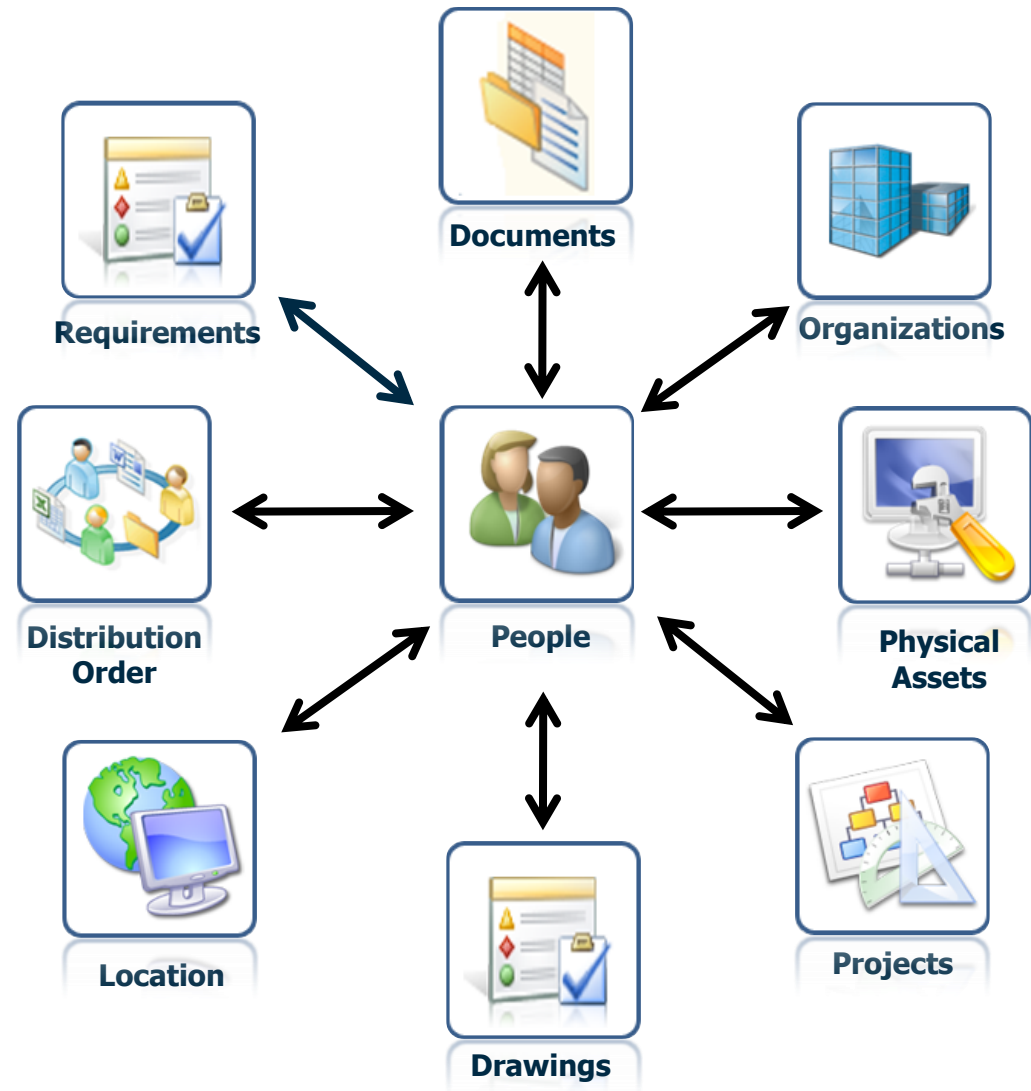


Design and Construction Organizations
Handover
Co-creation of Value

Owner/Operators
Operational Readiness
Life Cycle Value

Infrastructure Asset Information Modeling

- Manages much more than documents...
- Relates structured and unstructured information to teams, organization & the enterprise
- Focuses on how the information is related to the relationships
- Records conditions, incidents, events and corrective actions
- Captures, tracks, facilitates and transmits changes
- Creates auditable sequences of how and why information changed



i-models for Information Exchange



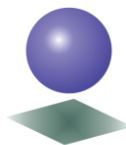
ProjectWise Users



AssetWise (eB) Users



Human Energy[®]



CH2MHILL



Constellation Energy[®]



Westinghouse



Sempra Energy[®]



Entergy



Britannia

bp

ZACHRY



NuStart Energysm



bhpbilliton



DE BEERS



RioTinto



FPL

KBR



amec



AssetWise (Ivara) Users

Electric Utilities



Metals



Mining



Oil/Gas/Chemical



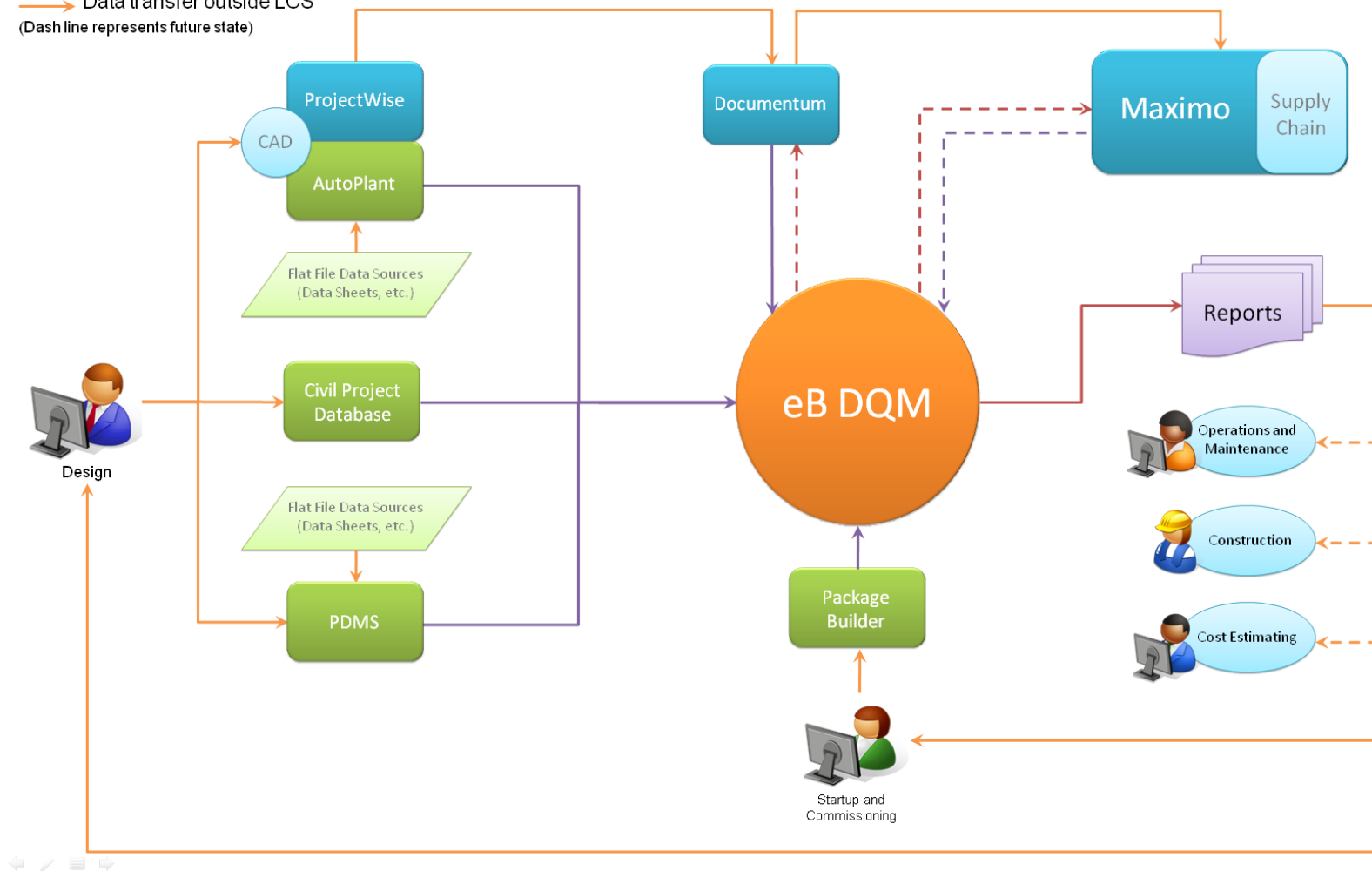
Forestry



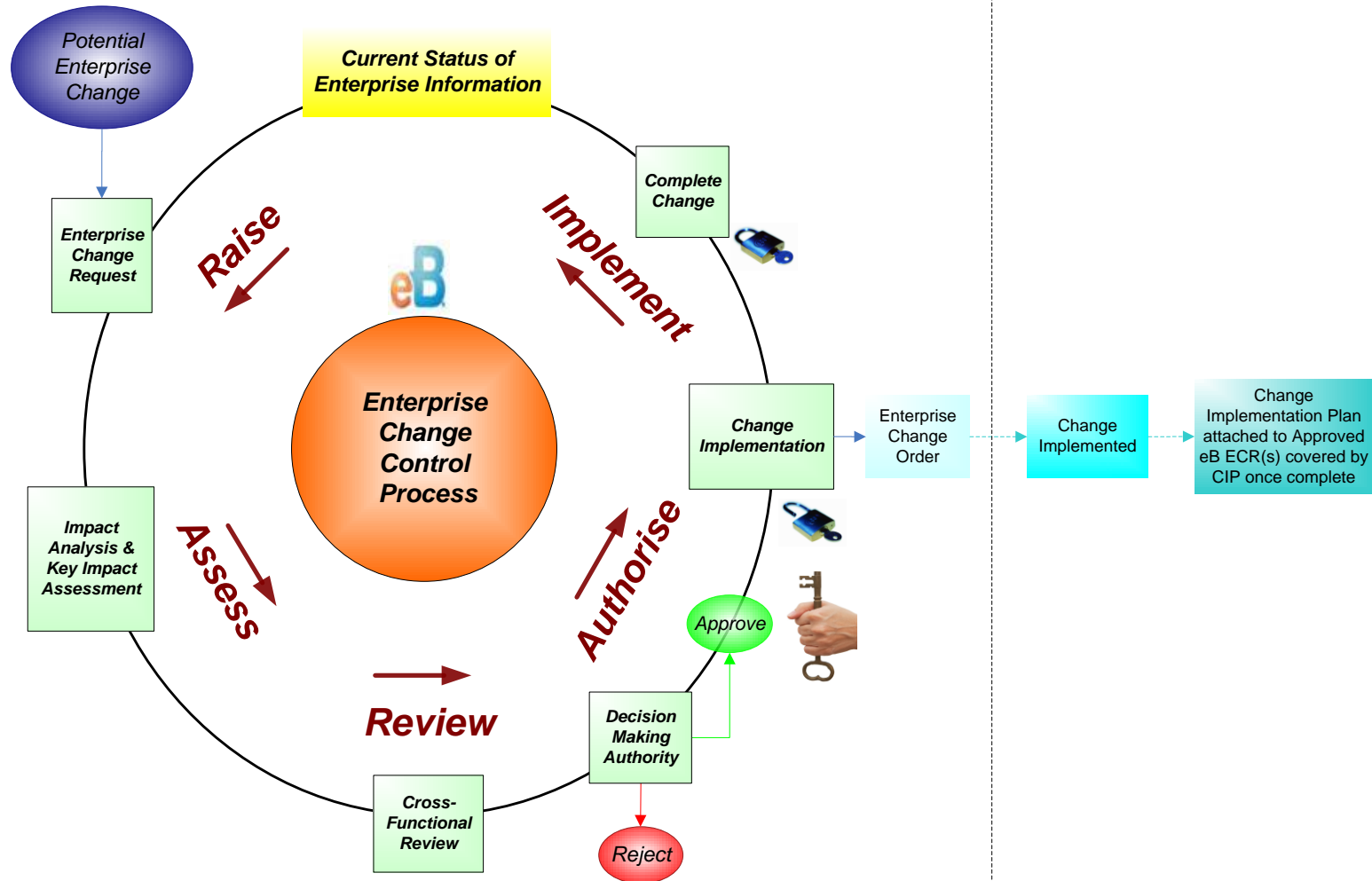
2012 Be Inspired Winner Southern Company

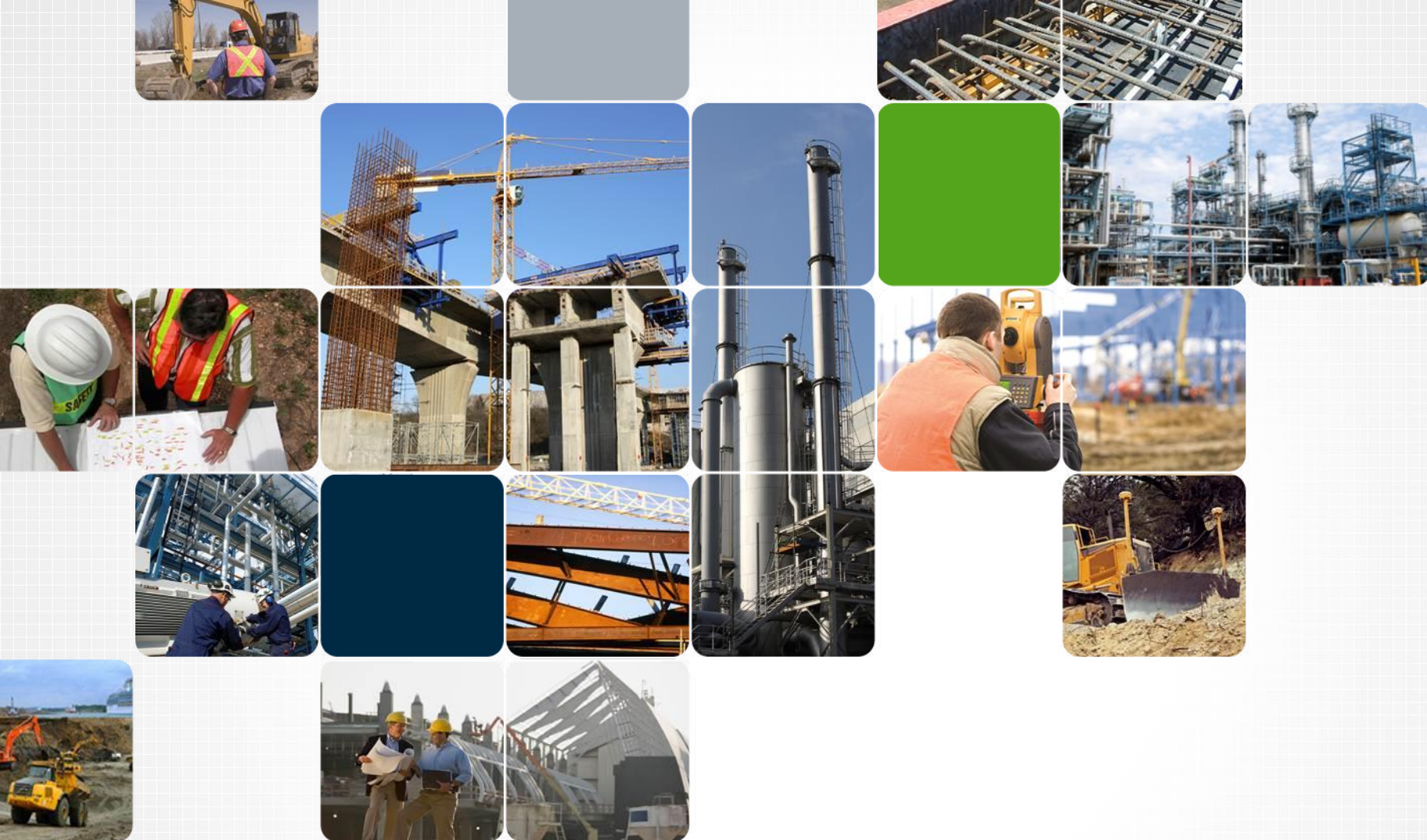
eB DQM Configuration

- Data to LCS
- Data from LCS
- Data transfer outside LCS
- (Dash line represents future state)



2012 Be Inspired Finalist Crossrail Ltd.





Thank You

Bentley Systems Italia

www.bentley.com