AEC Industry Opportunity

Jay Bhatt
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Building Information Modeling
Infrastructure Modeling
Digital Plant Design
Architecture, Engineering & Construction
Design
Visualization
Simulation
Global Economic Stimulus

- **US:** $789B+
- **Canada:** $30B+
- **EU:** $200B+
- **China:** $586B+
- **Japan & Korea:** $62B+
- **ASEAN:** $18B+
- **Brazil:** $28B+
- **Australia:** $42B+
Global Infrastructure Opportunity

- Buildings
- Transportation / Environmental
- Utilities
Department of Veterans Affairs

VA Salt lake City, UT

VA Houston, TX

VA New Mexico

VA Denver, CO
“In infrastructure projects, **Building Information Modeling** permits designers and contractors to see virtual elevations, roadway cross-sections, quantities of earth work and other project elements so that needed design changes can be made before construction begins.”

*Think Magazine*

HNTB
FULL BRIDGE CLOSURE
Labor Day Weekend 2007

THE SAN FRANCISCO-OAKLAND
BAY BRIDGE SEISMIC SAFETY PROJECTS
Utility Business Challenges

Infrastructure challenges

- Intelligent grid
- Sustainability and quality
- Aging assets
Enable Faster Permitting and Approval of Solar Generation

- Challenges: Difficult to access network information
- Needs: Accelerate approvals
- Solutions: AutoCAD Map 3D, Autodesk Topobase, MapGuide
Sonneborn, Inc.

25% time reduction using AutoCAD P&ID
Technology Leadership
Industry Leadership

- Rain Catchment: 30%
- Ground Water: 35%
- Surface Water: 30%
- Utility Purchase: 5%

Storm Water Runoff:
- Existing: 750
- Designed: 17% Improvement