



2008 Open Forum for
Standards Developers



building**SMART**alliance™

Standards Development Collaboration in the Facilities Industry

Presented by

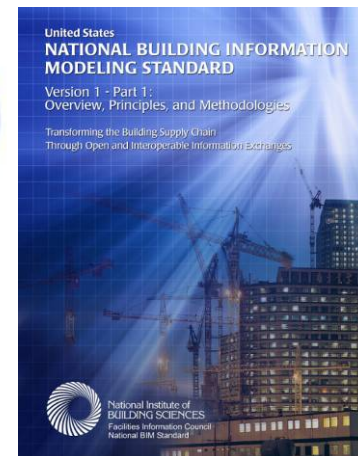
Deke Smith, FAIA

Executive Director, buildingSMART alliance

Open Forum for Standards Developers
June 24–25, 2008

National Institute of Building Sciences

- **1974 - NIBS - Public Law 93-383, Sect. 809**
 - Bridge between Private and Public Construction
 - Non-governmental – Unique 501(c)3 Organization
 - Unique in that it represents all disciplines in industry
- **1992 - Facility Information Council Mission**
 - “improve the performance of facilities over their full life-cycle by fostering common and open standards and an integrated life-cycle information model for the A/E/C & FM industry.”
- **NIBS Related Products**
 - Construction Criteria Base
 - Whole Building Design Guide
 - National CAD Standard
 - National BIM Standard

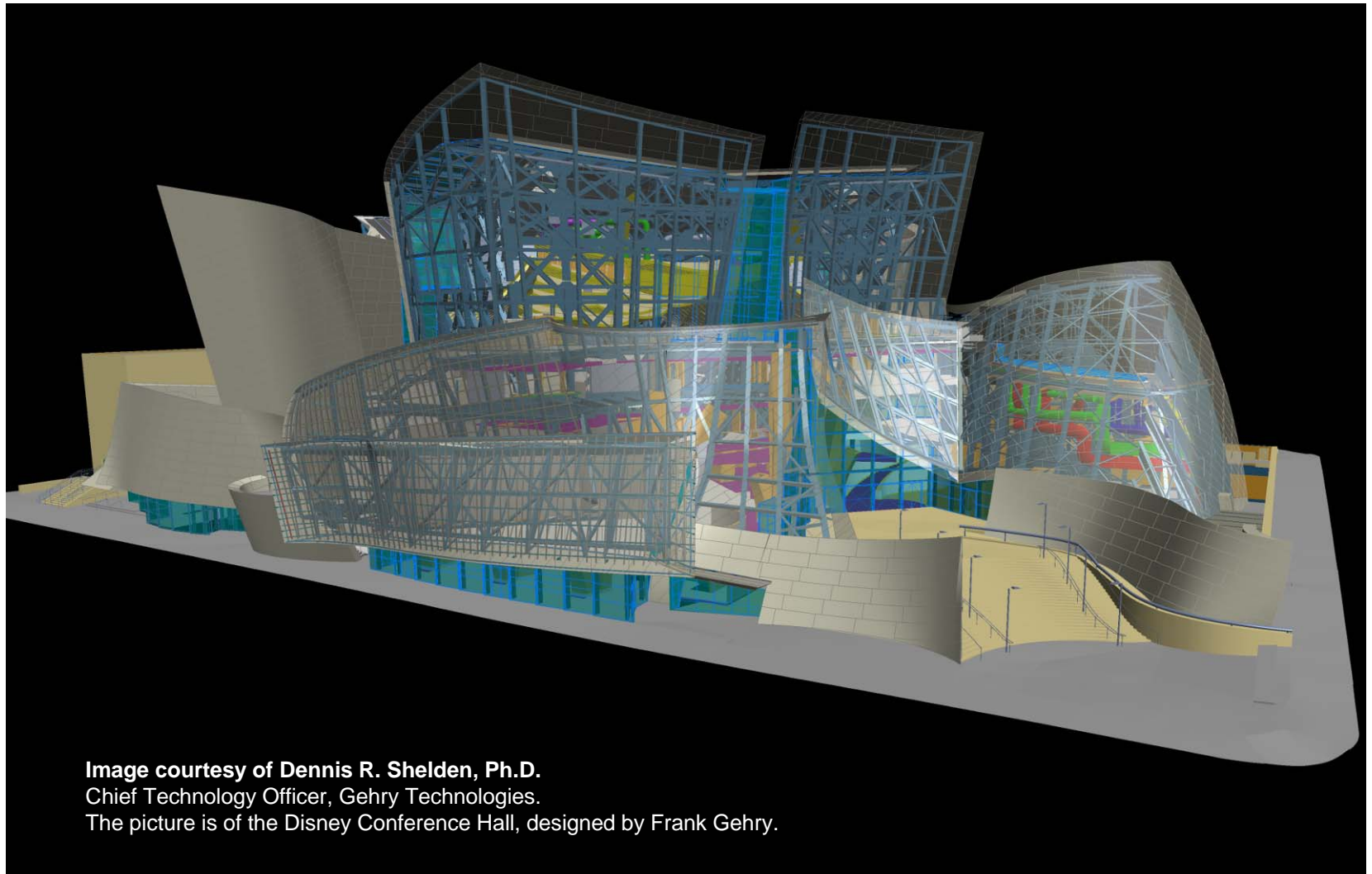


Simple Message

building **SMART** will deliver...

- a facility sooner
- a lower cost higher quality facility
- a facility with few or no change orders
- a significant reduction in RFI's
- a more energy efficient facility
- a more sustainable facility
- a more environmentally friendly facility

Building Electronically First



Case Studies: Far More Than Visualization

Ceiling Integration

Disney Concert Hall

Design by Frank Gehry

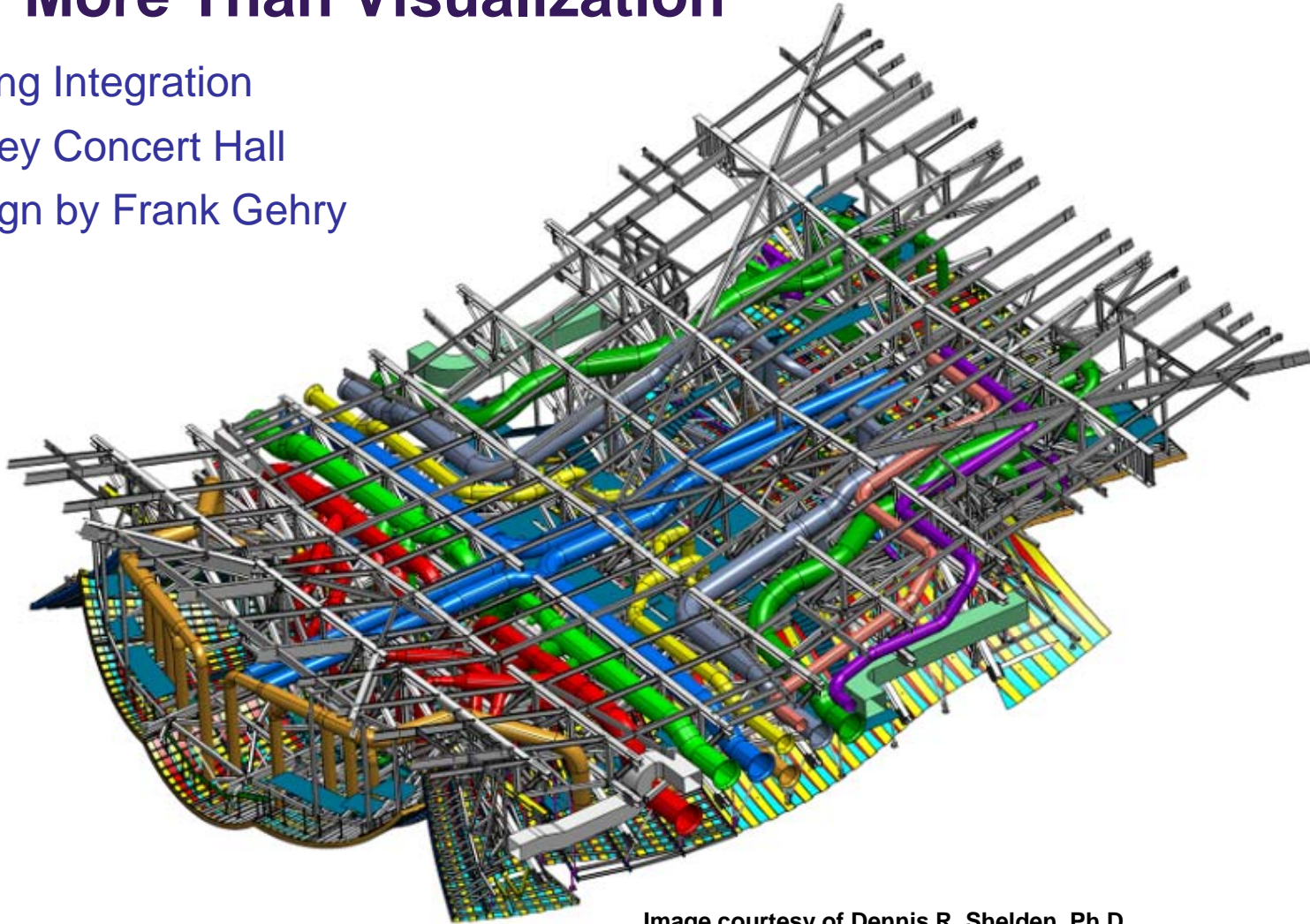
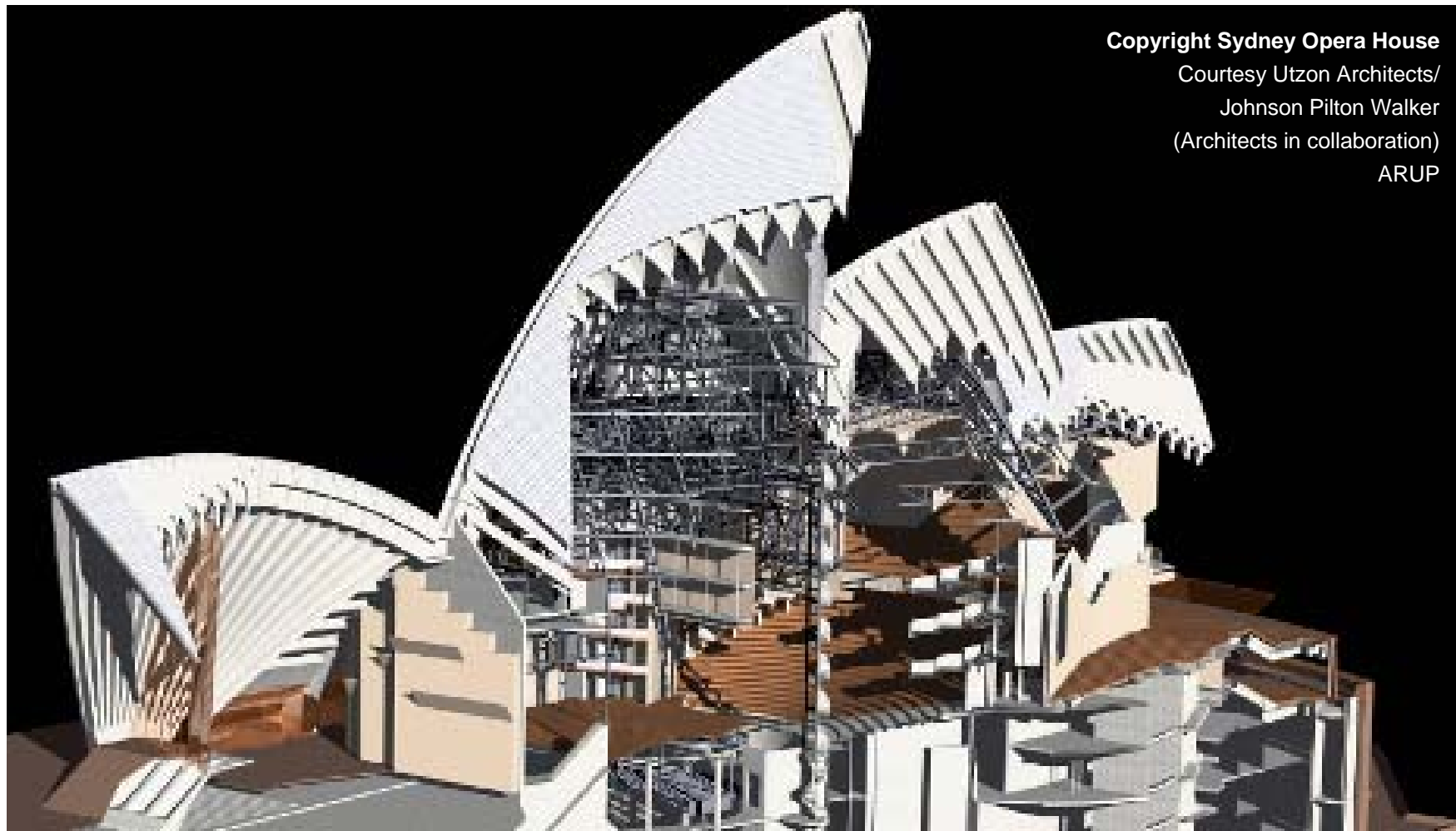


Image courtesy of Dennis R. Shelden, Ph.D.
Chief Technology Officer, Gehry Technologies.
The picture is of the Disney Conference Hall, designed by Frank Gehry.

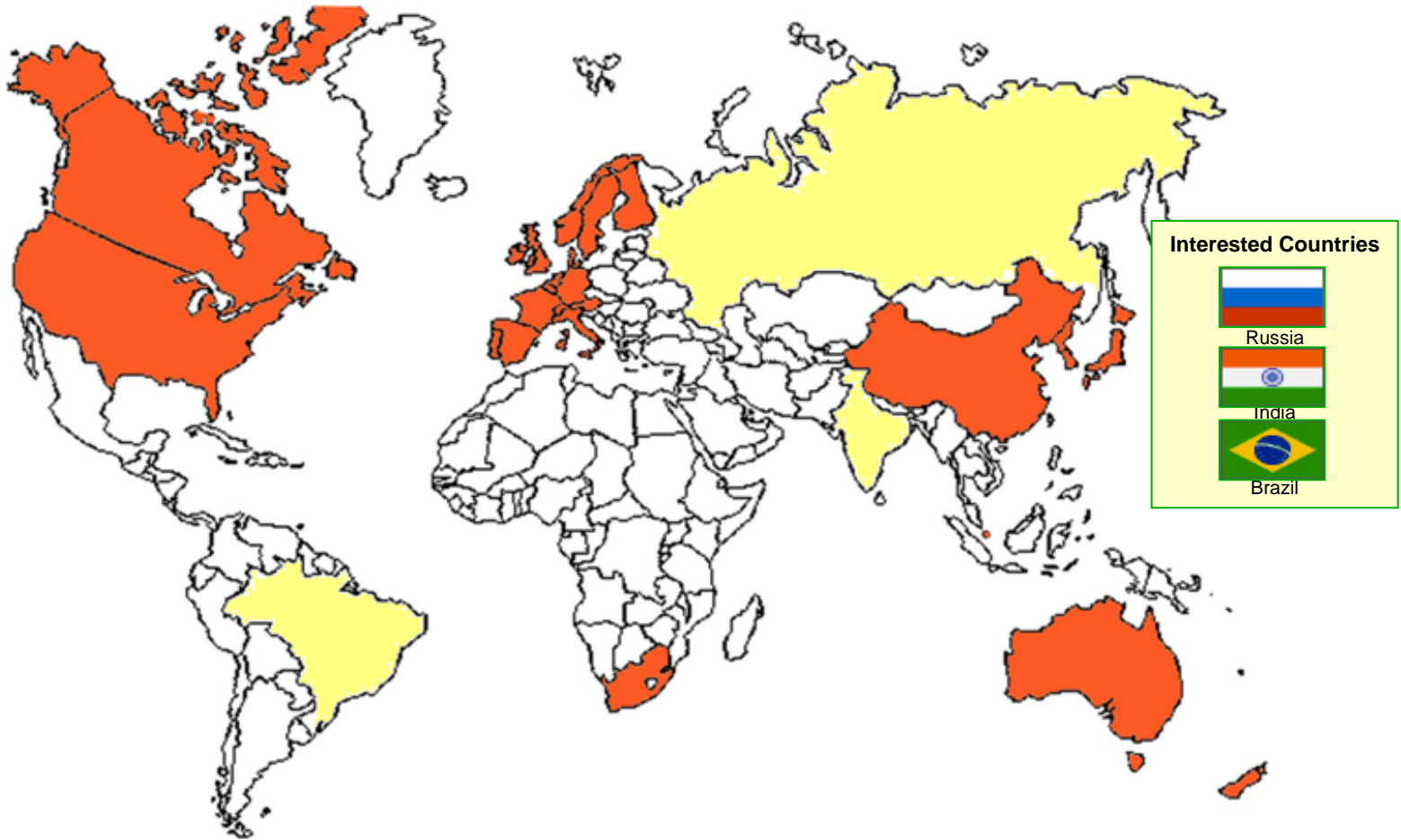
Case Studies: Facility Management



Copyright Sydney Opera House
Courtesy Utzon Architects/
Johnson Pilton Walker
(Architects in collaboration)
ARUP

Sectional View of Sydney Opera House

buildingSMART International



North America



Canada



United States

Europe



France



Portugal



Germany



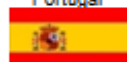
Austria



Norway



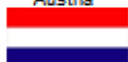
Great Britain



Spain



Belgium



Netherlands



Sweden



Ireland



Italy



Switzerland



Denmark



Finland

Africa



S. Africa

Asia



Japan



China



Korea



Singapore

Australasia



Australia



New Zealand

OGC AECOO Testbed – Direct to ISO

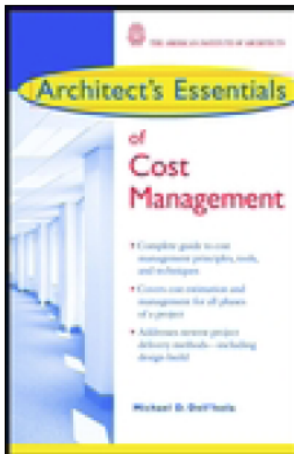


Decision Support
Communications



Energy Analysis

QTO



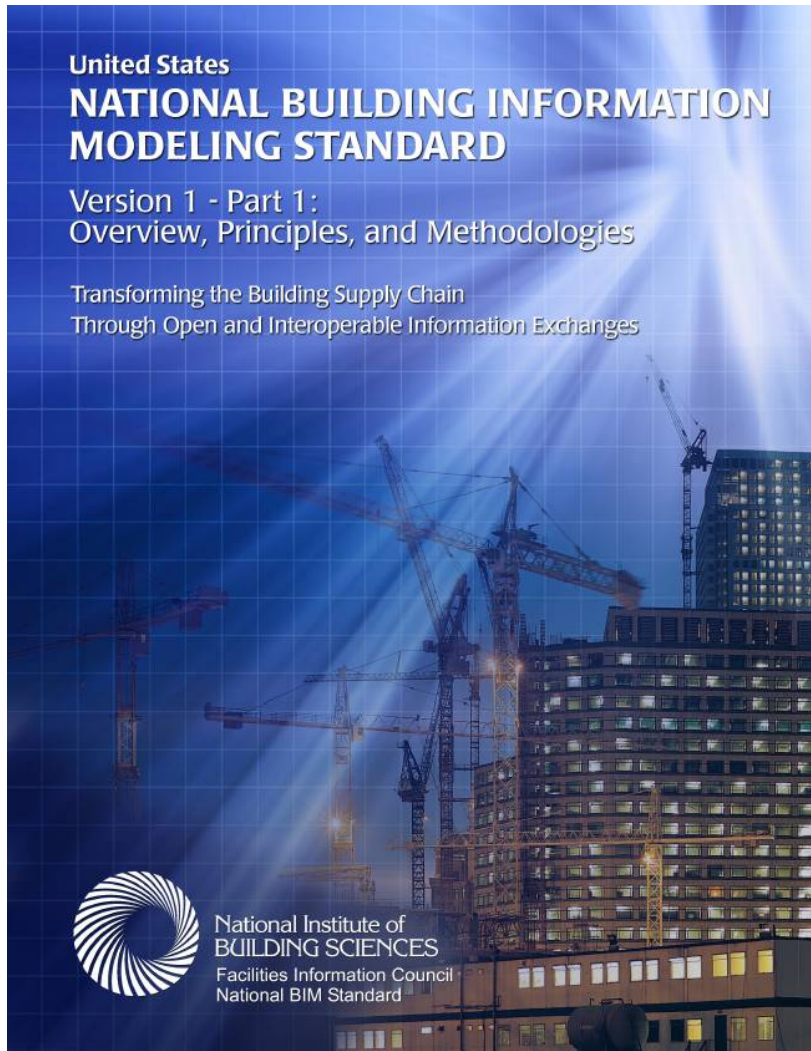
OGC[®]
Open Geospatial Consortium, Inc.

AECOO Testbed



Green Buildings

National BIM Standard V1 P1

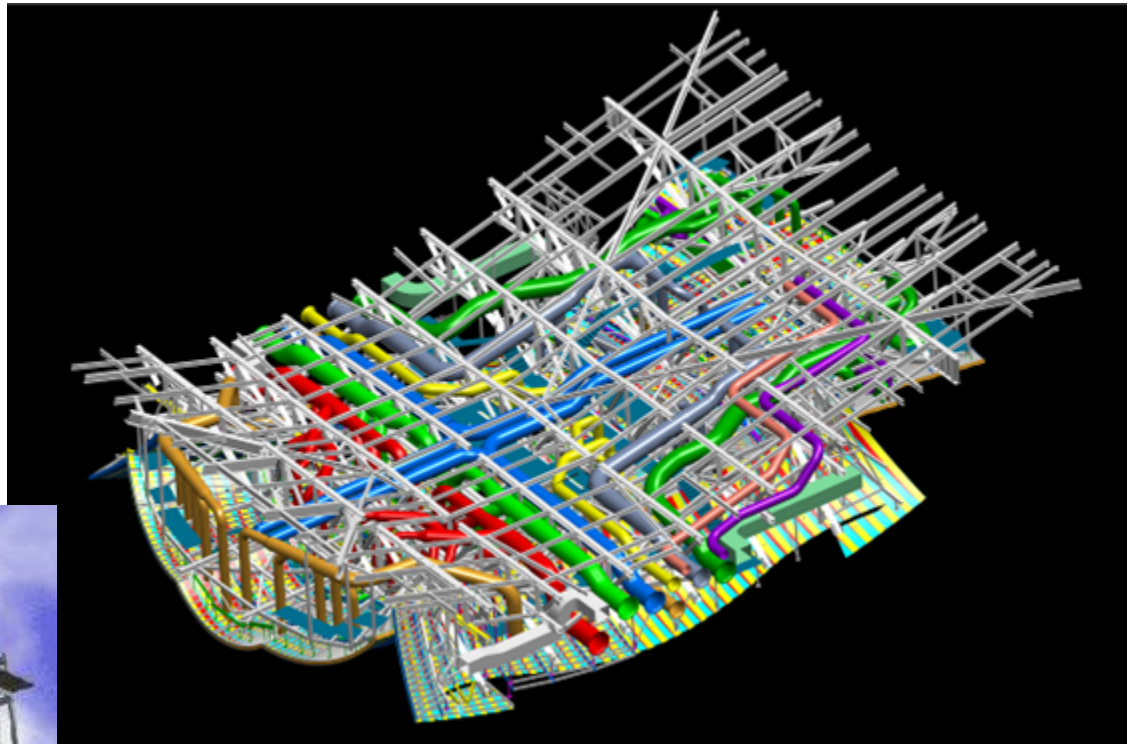


- ❑ Delivered Dec 27, 2007
- ❑ International ISO-based Core
- ❑ National Specific
 - OmniClass
- ❑ Over 30 contributors
- ❑ Being used in
Australia and Norway

**190,000 DOWNLOADS
in the first four months**

ISO 15926 and ISO/PAS 16739

Both approaches are based on changing business processes.



They have many more **similarities** than differences.

Image (above) courtesy of Dennis R. Shelden, Ph.D.
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Relationships

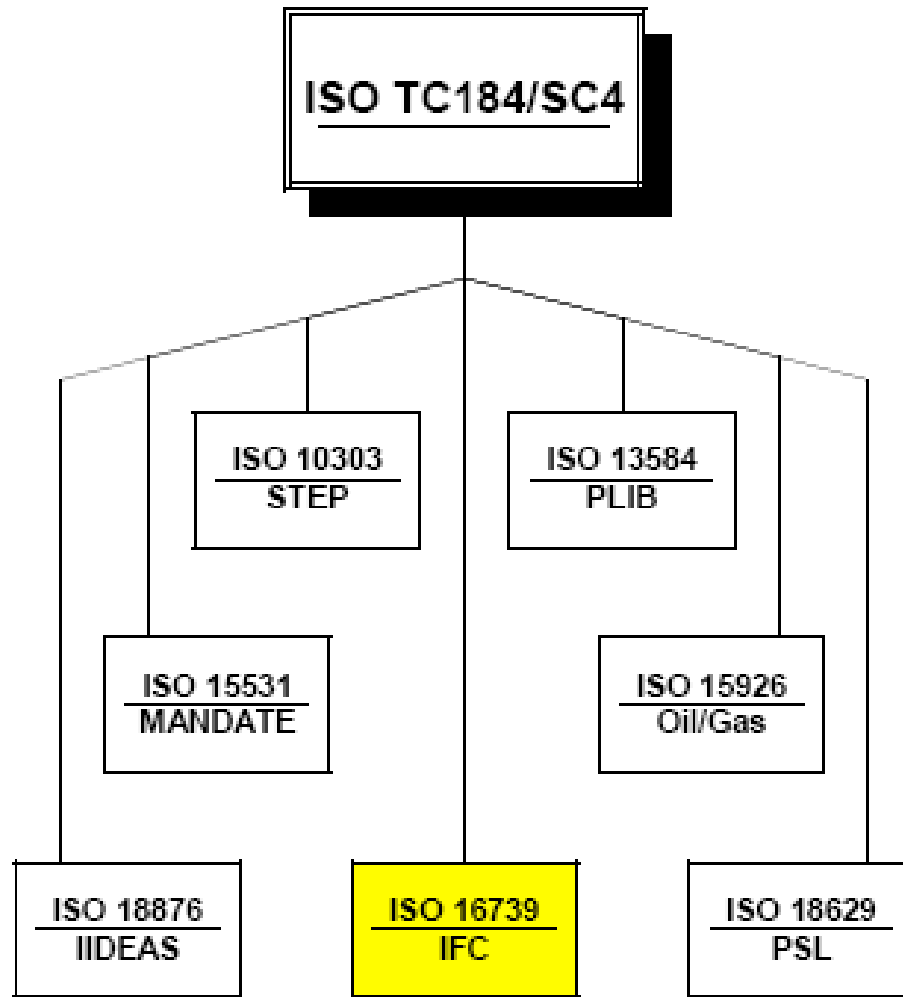


Figure 2 - IFC in the ISO family

Projects: Coordinating Object Definitions



**ISO/PAS 16739
(Industry Foundation Class)**



**ISO 15926
(Process Industry)**

Issues and Challenges

- ❑ Effort is under resourced
- ❑ ISO standards not well respected in U.S.
- ❑ Standards not in forefront of significant problems
- ❑ Work is being done on IFC's in Europe and they are currently representing our needs
- ❑ Work is outside ANSI chain
 - OGC direct to ISO
 - IFC work direct ISO
- ❑ Value not perceived
- ❑ Not seen as a crisis . . . **yet**