

BIM论坛

中国BIM标准发展和认证 BIM Standardization & Certification in China

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中国国家标准《建筑工程设计信息模型交付标准》和行业标准《建筑工程设计信息模型制图标准》主编

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China Institute of Building Standard Design and Research

全球政府BIM论坛

Guides

Level of Standard Restriction

CBS
BIM

标准的强制力



	Restrict	Normal	Available	Optional
Positive	必须 (MUST)	应 (SHOULD)	宜 (BETTER TO)	可 (CAN)
Negative	严禁 (NOT ALLOWED)	不得 (SHOULD NOT)	不宜 (BETTER NOT)	



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Three problems

CBS
BIM

标准化（系统化）程度不足
Lack of standardization

▶ 标准化 Standardization

数据化（信息化）程度不足
Insufficiency of data

▶ 数字化 Digitization

平台化（整合化）程度不足
Shortage of integration

▶ 集约化 Centralization

SDC-BIM



中国建筑标准设计研究院



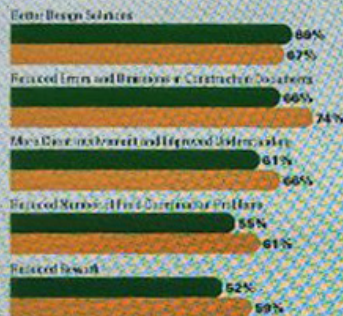
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Top Five Project Benefits Generated by BIM (By Percentage of Chinese Companies Receiving Benefit at High or Very High Level)

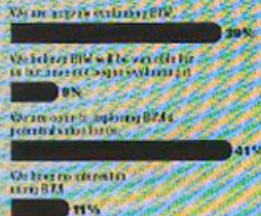
Source: CBQ Research, 2013

Architects
Contractors



Non-User Attitudes Toward BIM (According to Chinese Architects and Contractors Who Do Not Use BIM)

Source: CBQ Research, 2013



Current and Forecasted BIM Implementation Levels in China (According to Chinese Architects and Contractors)

Source: CBQ Research, 2013

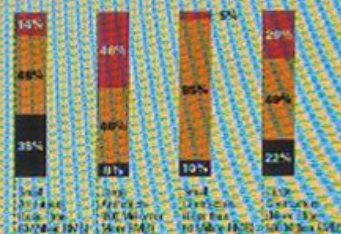
Key: High (over 70%);
High (55%-70%);
Medium (35%-55%);
Low (Less than 35%)



Number of Years' Experience Using BIM in China (By Size of Company)

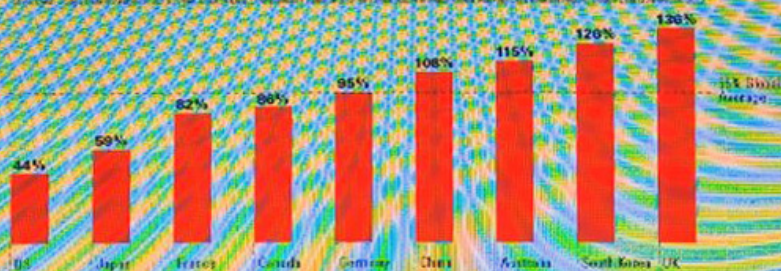
Source: CBQ Research, 2013

Key: Less than 1 Year;
1-5 Years;
6-10 Years;
More than 10 Years



Two-Year Forecasted Increase in Percentage of Contractors at High/Very High BIM Implementation Level (Those With at Least 50% of Their Projects Involving BIM)

Source: CBQ Research, 2013. Forecasted increase in percentage of contractors at high/very high BIM implementation level (those with at least 50% of their projects involving BIM).

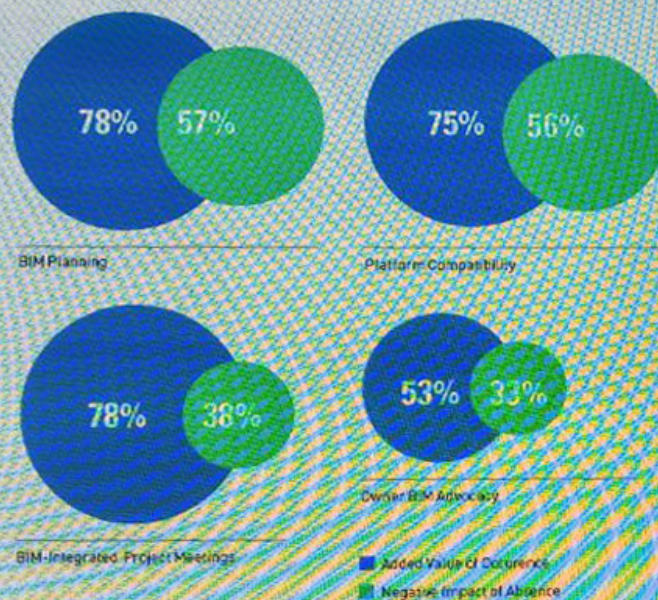


15% Global Average

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Most Impactful Factors

Success factors with greatest net combined impact of added value from occurrence and negative impact from absence on BIM projects



BIM Impact on Documentation and Constructability (According to Owners, Architects, Engineers and Contractors)

Source: CIMA 5th Annual Survey, 2015

Very High High Medium

Generated Better Construction Documents



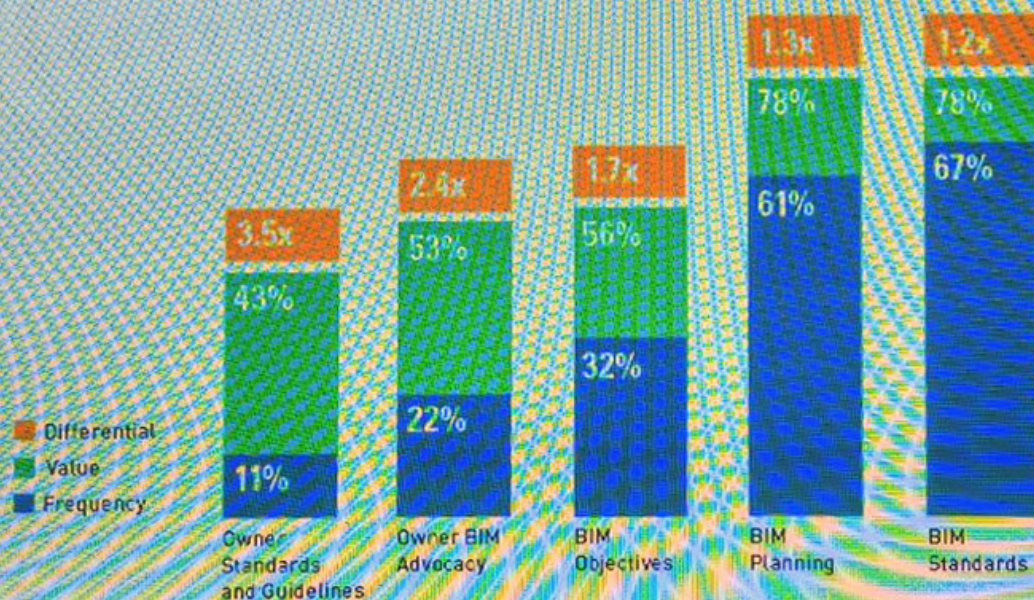
Improved Constructability of Final Design



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Frequency and Value: Context

Percentage rating high or very high frequency and value for these factors/activities being in place at the start of a project and the differential factor, indicating unmet market demand

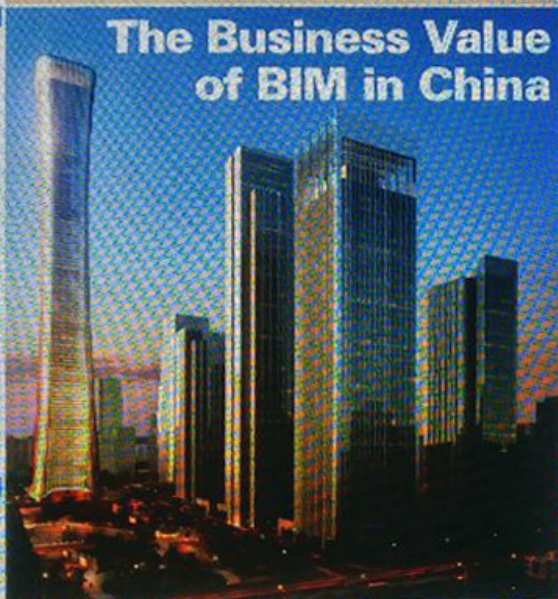


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SmartMarket Report

DODGE DATA & ANALYTICS

The Business Value of BIM in China



Executive Partners

AUTODESK

GLodon 广联达

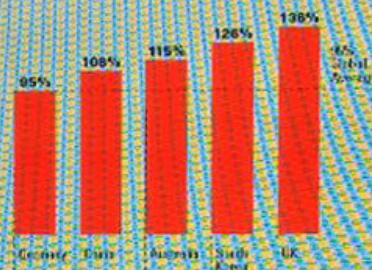
Research Partners



DODGE

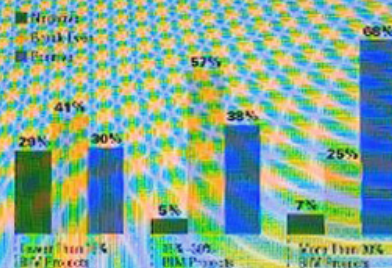
Top Five Fastest-Growing Regions for BIM Implementation by Contractors
(Two-Year Forecast for Increase in Number of Contractors Doing Over 30% of Their Projects With BIM)

Source: Dodge Data & Analytics



Perceived Return on Investment (ROI) for BIM Users in China
(By Level of BIM Implementation)

Source: Dodge Data & Analytics



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CONSTRUCTION MODELING

MODELING BY SPECIALTY TRADES

General Contractors who give high value rating



93%
HVAC
Contractors



91%
Plumbing/Piping
Contractors



88%
Structural
Fabricators



Greatest current demands:
interior, building
envelope and electrical
contractors

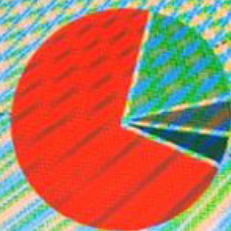


Still emerging
within trades:
site, civil and
geotechnical contractors

WHO IS MOST FREQUENTLY AUTHORIZING CONSTRUCTION MODELS?



72%
General
Contractors



19%
Specialties Trades

5%
Consultants

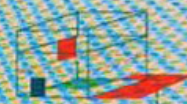
4%
Design Teams

MODEL USAGE

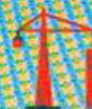
Greatest frequency and value



64%
Construction
work packaging
sequencing



60%
Project site
logistics



56%
Equipment positioning
and/or site movement

EMERGING USES FOR CONSTRUCTION MODELS



Draw locations
and workforce
planning



Safety rule
checking in
the model



Temporary works

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BIM4 COMMUNITIES CHARTER

Purpose of the BIM4 communities

The BIM4 communities are a collaboration of specialist interest groups who will champion BIM in their respective specialist areas. Their purpose is to raise awareness of BIM, promoting a shared understanding of the value proposition and issues affecting the implementation of BIM in their respective areas of interests.

The BIM4 communities will seek to develop consistency of messaging in a clear and concise manner to support both new and existing professionals in their respective BIM journeys.

What is BIM?

- BIM is a digital representation of the functional aspects of an asset and, as appropriate, its disposal and/or recycling.
- BIM is a process for creating and measuring cooperation; it enables greater levels of collaboration and better working practices across the industry and through the supply chain.
- BIM is an improved way of working; it reduces waste, mitigates risk and leads to tangible efficiency savings in both capital and operational expenditure.
- BIM is a shared knowledge centre for information about an asset and helps develop processes that cover the whole lifecycle of a building or asset.

Values of the BIM4 communities

- BIM4 communities will focus on the goal of promoting BIM adoption and providing support on an industry-wide basis with no single bias to any one platform, group or company.
- BIM4 communities work will be mutually supportive and collaborative; they will share instances of best practice to benefit the greater good.
- BIM4 communities will be the forum for all specialist interest groups aiming to coordinate BIM activities; they will do this by working together and pooling resources to provide an effective and practical conduit that is both knowledge-based and current.

Desired end result

Instilling the adoption of BIM across the communities is as much a cultural challenge as a technical one. The BIM4 communities have a vital role in facilitating culture change whilst ensuring that the industry is equipped with the skills required to take up the BIM challenge as it spreads into the digital revolution that will be a transformation for the industry.



BIM Task Group: BIM4Communities Organogram

Version 0.1 19/09/2014

