Efforts and Challenges Adopting BIM in the Chilean Industry

Claudio Mourgues, PhD, MSc
cmourgue@ing.puc.cl @claudiomourgues
Assistant Professor
Director of the Immersive and Augmented Reality Environments Lab
Head of the Engineering and Architecture Major Program
Construction Engineering and Management
Engineering School
Pontificia Universidad Católica de Chile

Montreal, February 2018
Source: BIM In Ireland 2017 Report
BIM Adoption in Chile

Architecture Department, University of Chile
BIM Adoption in Chile

National BIM Survey of 2013 and 2016: Results Report. Architecture Department, University of Chile
# BIM Adoption in Chile, Some Early Public Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>BIM Coordination</th>
<th>4D Planning</th>
<th>As-Built Modeling</th>
<th>Progress Control</th>
<th>Facility Management</th>
<th>Bidding Date</th>
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<td>x</td>
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<td>x</td>
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<td>5-2014</td>
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</tbody>
</table>

Source: Adapted from Fabian Riquelme’s MSc Thesis © 2015
BIM Adoption in Chile, Observations

• Some public owners have been introducing BIM requirements since 2008
• Also, several private owners (specially in health, retail, mining, and real state projects) are requesting BIM
• However, the BIM uses and requirements are still lacking formalization and regulation
• There are no standards or regulations applicable to BIM uses
• Several companies using (or claiming to use) BIM are still lacking knowledge
Main BIM Initiatives in Chile
Plan BIM - Institutions

Source: Carolina Soto’s Talk “PlanBIM, BIM Mandate in Chile” © 2017
Carolina Soto is PlanBIM’s Executive Director
Plan BIM - Objectives

Use the State’s Purchasing Power to Boost the Industry Modernization

Source:
Carolina Soto’s Talk “PlanBIM, BIM Mandate in Chile”  © 2017
Carolina Soto is PlanBIM’s Executive Director
Plan BIM - Objectives

**SPECIFIC OBJECTIVES**

- Increasing the productivity and competitiveness of the construction industry
- Improving the quality and efficiency of projects throughout its life cycle
- Reducing costs, timelines and inefficiencies throughout the life cycle
- Improving predictability and control of construction costs and timelines
- Increasing the traceability and transparency of project information
- Providing better tools for citizen participation in projects
- Fostering a collaborative industry and the use of common standards
- Ensuring regulatory compliance and reducing building permit approval times

Source:
Carolina Soto’s Talk “PlanBIM, BIM Mandate in Chile” © 2017
Carolina Soto is PlanBIM’s Executive Director
Plan BIM – Public Agreement

Source: Carolina Soto’s Talk “PlanBIM, BIM Mandate in Chile” © 2017
Carolina Soto is PlanBIM’s Executive Director

Public agreement – Private PLAN BIM, January 2016
MOP/MINVU/Ministry of Economy/Ministry of Finance/CORFO/Chilean Chamber of Construction/Institute of Construction

• Enade (icare), November, 2015
• Construction Week, Cchc, May 2016
Plan BIM – Help from the UK

Source:
Carolina Soto´s Talk “PlanBIM, BIM Mandate in Chile” © 2017
Carolina Soto is PlanBIM´s Executive Director
Plan BIM – Roadmap

Source: Carolina Soto’s Talk “PlanBIM, BIM Mandate in Chile” © 2017
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Plan BIM – How?

Source: Carolina Soto’s Talk “PlanBIM, BIM Mandate in Chile” © 2017 Carolina Soto is PlanBIM’s Executive Director
Plan BIM – Some Deliverables

Source:
Carolina Soto´s Talk “PlanBIM, BIM Mandate in Chile” © 2017
Carolina Soto is PlanBIM’s Executive Director
Plan BIM – Some Deliverables

Training Promotion

- CORFO Scholarships

- “BIM Project Review” Courses
  280 Scholarships (90%)
  May – December 2017

- “BIM Installations Design” Courses
  (Sanitary – Electricity – climate)
  September 2017 – March 2018

Promoting implementation

- National Library BIM: CDT 2016-17

- BIM Tool

- BIM Provider Development: Mechanical Consultant financing 2016

- Study of Bim training in Chile 2016

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Plan BIM – Some Deliverables

National BIM Library
BIM Forum

Technical and permanent meeting point for people and institutions related to BIM

71 members

- Owners
- Academic institutions
- Architecture Offices
- Project coordination companies
- Technologic integrators
- Engineering offices
- Specialty design companies
- Suppliers
- Construction companies
- Technical inspection offices
- Professionals

2 branches

- Santiago
- Concepción
BIM Forum - Objectives

• Propose BIM good practices for project development in Chile throughout the entire project life cycle
• Promote research, select/collect knowledge and populate product libraries and technical information
• Generate meeting, transference and dissemination instances
• Promote alliances and articulations between key national and international stakeholders
• Contribute to the construction of BIM competencies and skills
BIM Forum - Structure

- Standardization Work Group
- Technological Transference Work Group
- Project Management Work Group
- Education Work Group
Repository of national research and reports
BIM Forum – Some Deliverables

Guides and recommendations
Dissemination and Discussion Events

3er Congreso Latinoamericano BIM Latam 2017
Por Equipo BIM Forum Chile CDT | 24/11/2017 | No Comments

Seminario Interoperabilidad Open BIM – 7 de septiembre 2017
Por Equipo BIM Forum Chile CDT | 17/09/2017 | No Comments

Seminario BIM en el aeropuerto de Santiago
Por bimforum_bvkylo | 15/06/2016 | No Comments

Primer Encuentro Soluciones Tecnológicas BIM
Por bimforum_bvkylo | 12/05/2016 | No Comments

Charla BIM: Integración y Coordinación de Especialidades – 29 de octubre 2015
Por bimforum_bvkylo | 29/10/2015 | No Comments

Taller BIM Flujos de Trabajo: Captura láser al modelo BIM/CAD – 01 de septiembre 2015
Por bimforum_bvkylo | 01/09/2015 | No Comments

Charla BIM: Desafíos para mejorar la productividad – 30 de septiembre 2015
Por bimforum_bvkylo | 30/09/2015 | No Comments
BIM Forum – Some Deliverables

BIM Collaboration Student Contest
Main Current Challenges

• Education/Training: not only addressing modeling and technical analyses capabilities but specially addressing process and business analyses capabilities related to BIM

• Legal and contractual challenges: different requirement interpretations, responsibility allocation, information property concerns, etc.

• Costs/Benefits allocation

• Implementation issues

• Public and private articulation
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