BIM IN EUROPE

Co-funded by the
Creative Europe Programme
of the European Union

Lars Jarle Nore

ACE Special session GA2, Brussels 1 Dec 2017

ACE ON BIM

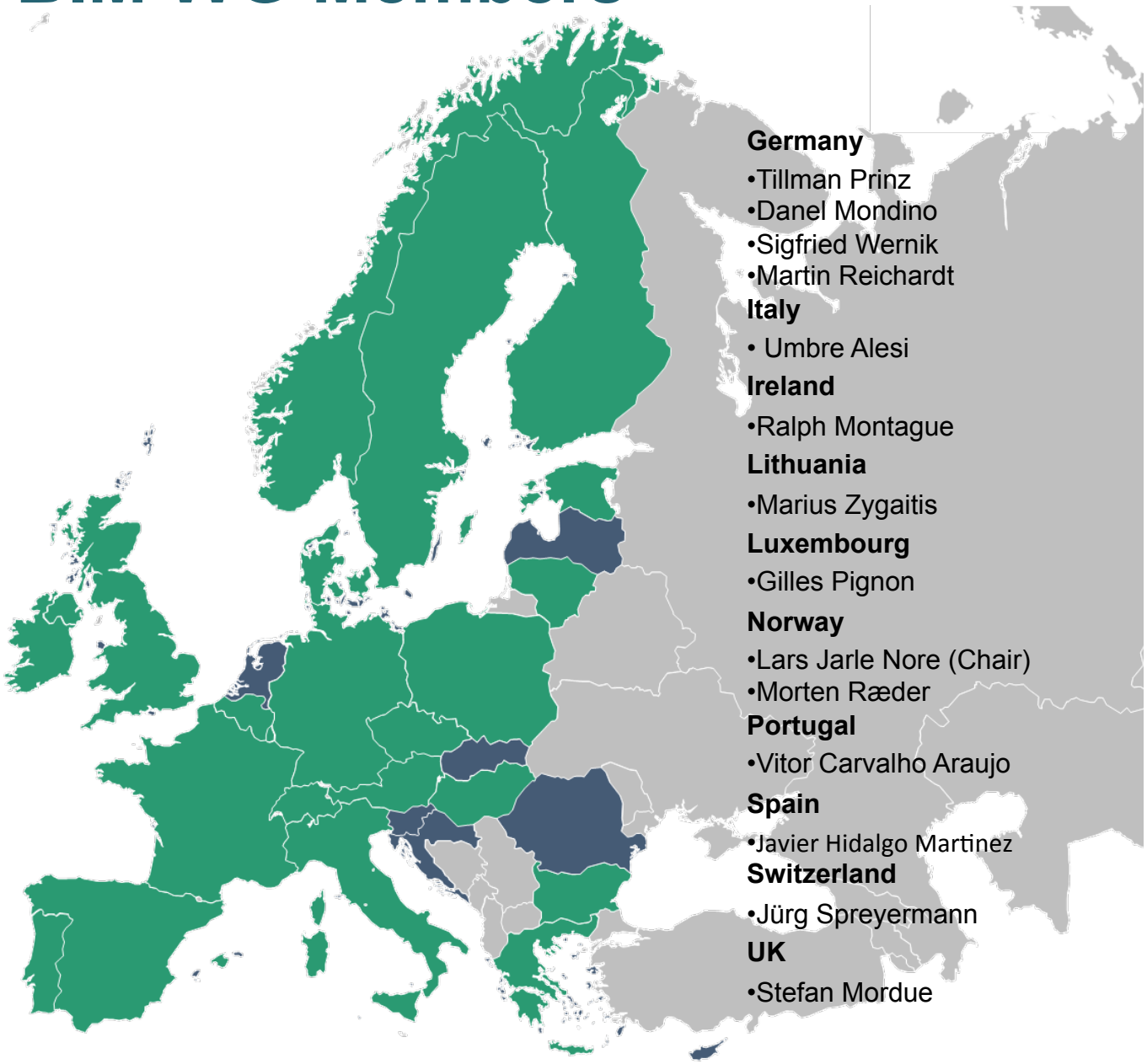
- Architects' work is heavily impacted by BIM
- In view of growth of use Building Information Modelling in various EU Member States, ACE has established a BIM work group
  - to look at the legal, technical and financial issues surrounding the advent of BIM,
  - to develop its policy and engage with work to develop European (CEN) standards.
  - The Work Group also works in liaison with parallel initiatives in Europe and European institutions.

ACE BIM WG

- First meeting in Oslo, April 2015.
- ACE BIM WG is established as a Horizontal Program in ACE, organized under Area 2 – Practice of the Profession.
- Chair: Arch. MNAL Lars Jarle Nore, Norway
  ACE Executive Board member
- 21 member countries, appr. 30 experts
- 3 WG meetings/year
- ACE WG experts also joining CEN/TC 442 WGs, national BIM WGs and –committees
  ACE WG Chair LJN liaison in CEN/TC 442
  (costs covered by AiN Norway)

ACE BIM WG Members

Austria
•Georg Pendl
Belgium
•Abdelkader Boutemadja
Bulgaria
•Boyan Georgiev
Czech Republic
•Petr Janda
Denmark
•Peter Hyttel Sørensen
Estonia
•Indrek Näkk
Finland
•Tomi Henttinen
France
•Stéphan Lutard
Greece
•Olga Venetsianou
Sweden
•Michael Thydell
Poland
•Mikolaj Machulik

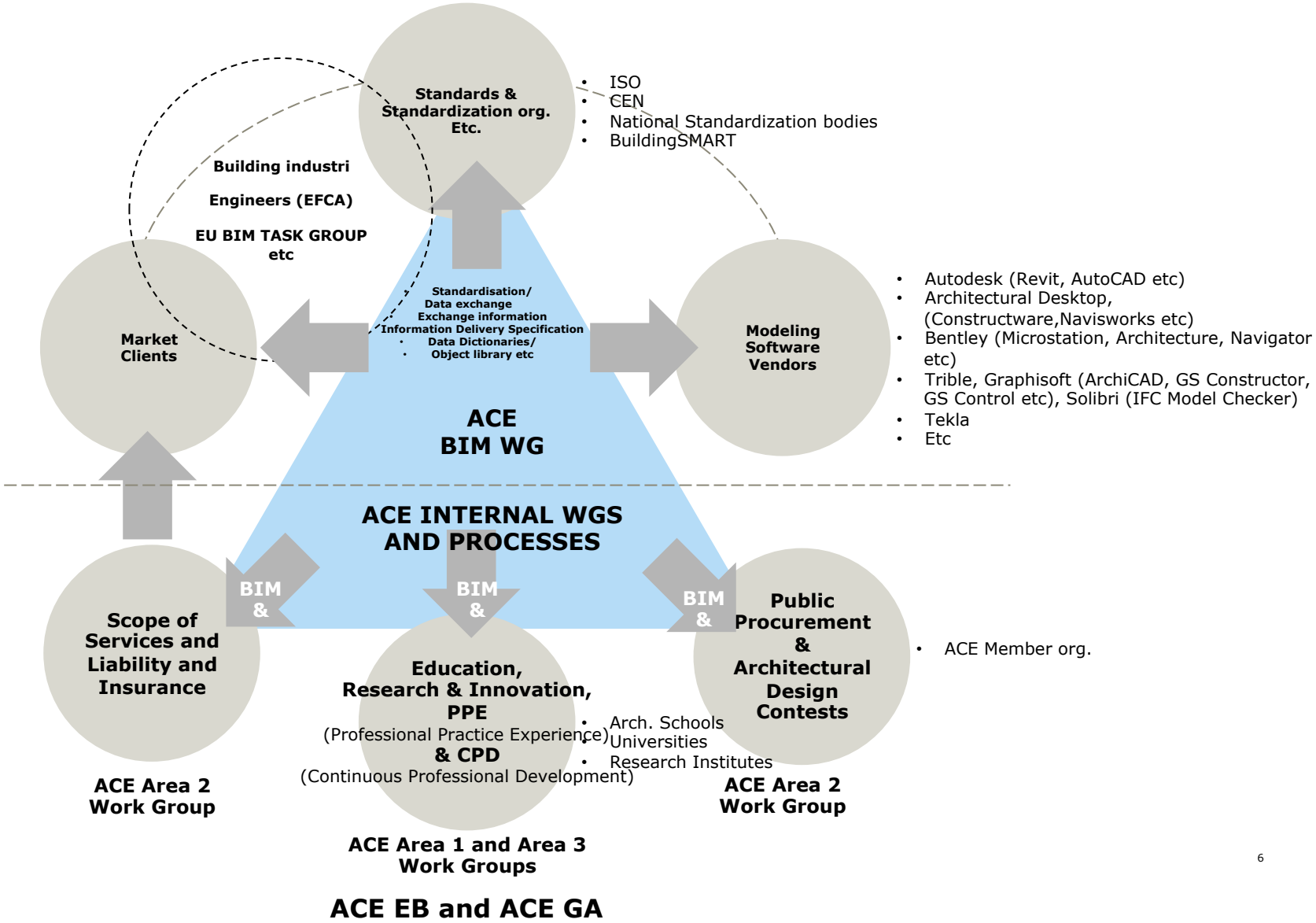


Germany
•Tillman Prinz
•Danel Mondino
•Sigfried Wernik
•Martin Reichardt
Italy
• Umbre Alesi
Ireland
•Ralph Montague
Lithuania
•Marius Zygaitis
Luxembourg
•Gilles Pignon
Norway
•Lars Jarle Nore (Chair)
•Morten Ræder
Portugal
•Vitor Carvalho Araujo
Spain
•Javier Hidalgo Martinez
Switzerland
•Jürg Spreyermann
UK
•Stefan Mordue

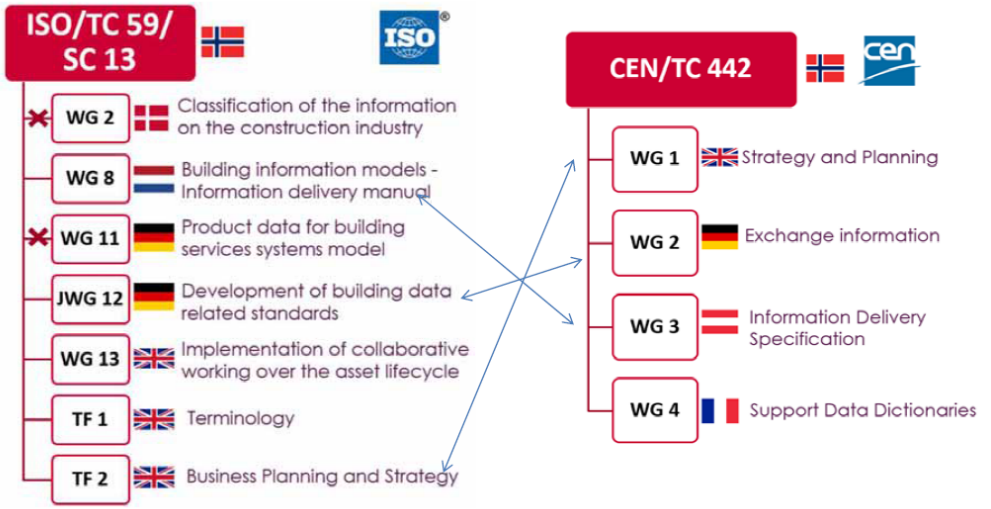
ACE BIM WG ACTIVITIES

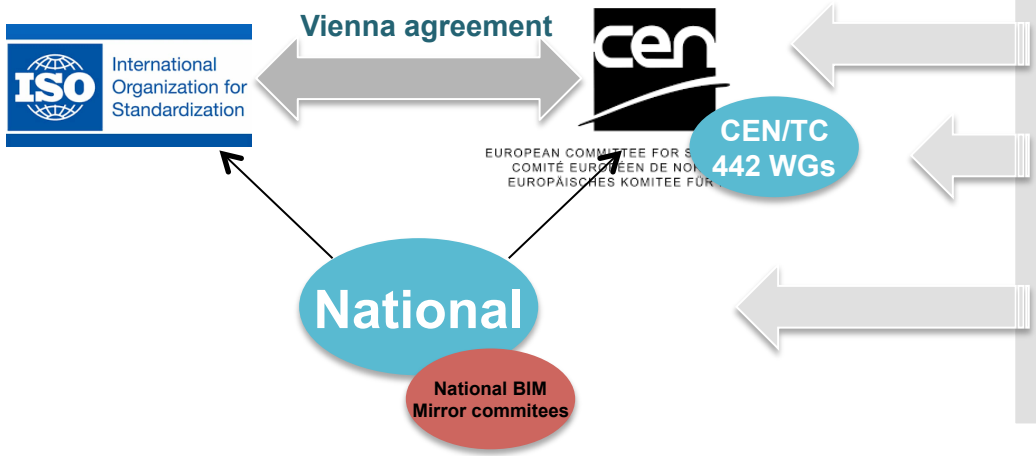
• develop ACE reflection on BIM	✓ DES 2017
• consider standardization / data exchange	
◦ monitor work in developing a CEN standard	✓ FEB 2016
• relations with other partners in the planning and construction chain	✓ JUNE 2016
• software manufacturer independence	✓ JUNE 2016
• authorship and copyright issues;	✓ JUNE 2016
• contracts, fees, scope of service and deliverables	✓ JUN 2016
• liability & insurance	✓ June 2016
• BIM and public procurement	✓ JUNE 2016
• CPD and education, scientific research.	✓ SEPT 2017
• Structure of architects´offices (size, type of projects)	✓ JUNE 2016
• explore impact of BIM on design quality	✓ JUNE 2016

ACE BIM WG – Stakeholders etc



ACE BIM WG – AND WG MEMBERS RELATION TO CEN/TC 442-PROCESS





ACE

- ACE Liaison in CEN/TC 442 from Feb 2016
- ACE BIM WG Experts active in CEN/TC 442 WG Meetings
- ACE BIM WG Experts meets in National Standardisation Mirror committees
- Øivind Rooth, chair of CEN/TC 442 (NO) invited to ACE WG Meeting 1/2015 and GA2/17 Special seiision BIM.
- Per I Bakkemoen, chair of ISO/TC 59/SC invited to ACE WG Meeting 1/2015
  - Richard Waterhouse, chair WG1 (UK) ACE BIM WG Meeting 3/2016
  - Roland Dominici, chair WG4 (FR) ACE BIM WG Meeting 1/2017
  - Peter Kompolschek chair WG3 (AU) ACE BIM WG Meeting 1 and 3 /2017
  - Thomas Liebich, chair WG 2 (DE) ACE BIM WG Meeting 3/2017
  - ACE BIM WG Chair keep active dialogue with CEN 442 secretariat

ACE POSITION ON WORK OF EU BIM TASK GROUP

ACE

- Ilka May, Head of Delivery at EU BIM Task Group, in charge for the Handbook invited to ACE WG Meeting 3/2016
- EU BIM Task chair Adam Matthews presenting BIM Handbook (by Skype) at ACE WG Meeting 2/2017 (tbc)
- EU BIM Task chair Adam Matthews invited to ACE General Assembly Dec 2017
- ACE secretariat keep active dialogue with EU BIM Task chair

DG Grow: ROLLING PLAN FOR ICT STANDARDISATION 2017
ACE ON EU BIM POLITICS AND PROCESSES

"Construction industry – one og the largest industries but insufficient in both process and service delivery"…"low level of digitalization"…fallen productivity"(compareto other sectors) …

PROPOSED NEW ACTIONS ON STANDARDISATION

STANDARDS DEVELOPMENT

ACTION 1 Adopt ISO standards as EN-ISO standards or technical specifications, including ISO12006-3, ISO16739, ISO29481-2, ISO 22263:2008, ISO 29481-1:2016, and ISO 29481-2:2012.

ACTION 2 SDOs to develop European standards when necessary (i.e. if functional gaps are found or international standards are not available)

ACTION 3 Exchange information — Enhance the industry foundation classes (IFC) standards

ACTION 4 Develop information delivery manual (IDM) standards

ACTION 5 SUPPORT DATA DICTIONARIES

ACTION 6 SUPPORT THE BIM EXECUTION PLAN (BEP)

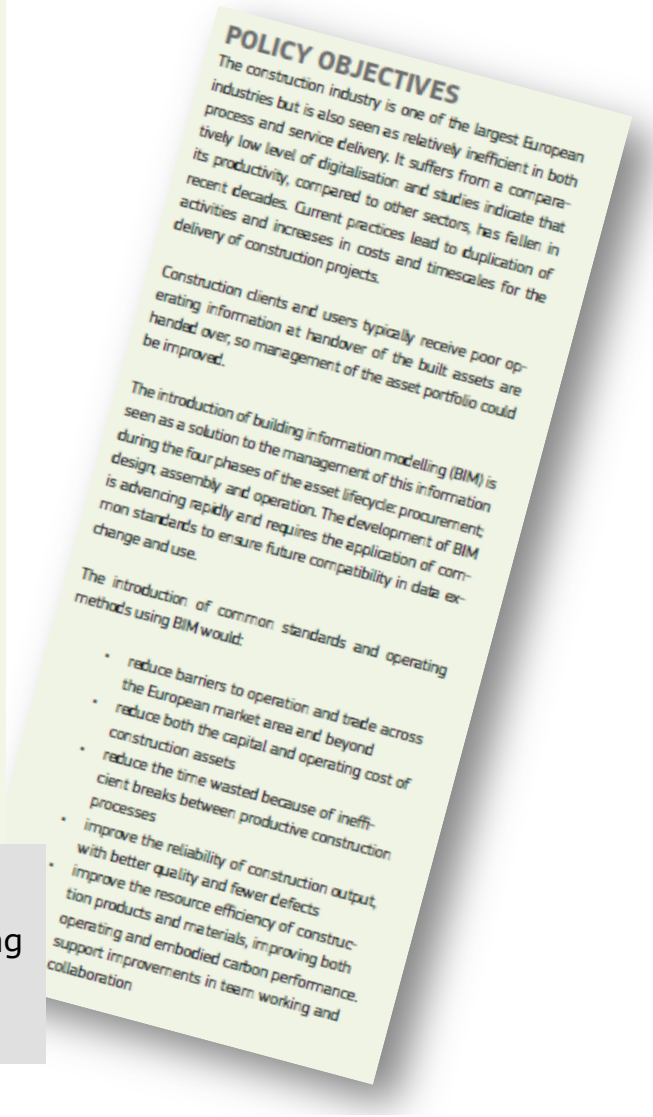
STANDARDISATION NEEDS, ONGOING ACTIVITIES AND PROGRESS REPORT

COMMISSION PERSPECTIVE AND PROGRESS REPORT

CEN Technical Committee 442 on Building Information Modelling was officially kicked off in 2015. The aim is to help the construction sector to be more (cost) efficient and sustainable by enabling smooth data exchange and sharing between partners in the value chain.

The objectives of CEN/TC 442 are:

- to deliver a structured set of standards, specifications and reports which specify methodologies to define, describe, exchange, monitor, record and securely handle asset data, semantics and processes with links to geospatial and other external data.
- to be the home for European BIM standardisation. CEN/TC 442 will be the central place to go for coordinating European BIM harmonisation.
- to coordinate the work with ISO under the Vienna Agreement, either adopting existing international standards at European level or developing new ones in parallel
- to receive and consider proposals for new deliverables and develop them within the TC



POLICY OBJECTIVES

The construction industry is one of the largest European industries but is also seen as relatively inefficient in both process and service delivery. It suffers from a comparatively low level of digitalisation and studies indicate that its productivity, compared to other sectors, has fallen in recent decades. Current practices lead to duplication of activities and increases in costs and timescales for the delivery of construction projects.

Construction clients and users typically receive poor operating information at handover of the built assets are handed over, so management of the asset portfolio could be improved.

The introduction of building information modelling (BIM) is seen as a solution to the management of this information during the four phases of the asset lifecycle: procurement; design, assembly and operation. The development of BIM is advancing rapidly and requires the application of common standards to ensure future compatibility in data exchange and use.

The introduction of common standards and operating methods using BIM would:

- reduce barriers to operation and trade across the European market area and beyond
- reduce both the capital and operating cost of construction assets
- reduce the time wasted because of inefficient breaks between productive construction processes
- improve the reliability of construction output, with better quality and fewer defects
- improve the resource efficiency of construction products and materials, improving both operating and embodied carbon performance.

support improvements in team working and collaboration

ACE

- ACE BIM WC chair, ACE secretariat and ACE president in meeting with Lutz Köppen, DG GROW June 2016
- ACE secretariat keep active dialogue with EU DG Grow

Thank you for your attention ! ☺

Introduction to the ACE BIM Work Group

Lars Jarle Nore

Are you currently using BIM in your architectural projects ?

Utilisez-vous actuellement le BIM dans vos projets architecturaux ?

1. *YES* — *1. OUI*
2. *NO* — *2. NON*
3. *N/A* — *3. N/A*

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If yes, when did you start to use BIM? (*Only those using BIM should answer)*

Si oui, Quand avez vous commencé à utilisez le BIM ? (Seuls les personnes utilisant le BIM répondent)

1. *This year*
2. *2016*
3. *2015*
4. *2014*
5. *2013*
6. *2012*
7. *2011*
8. *2010 or before*

1. *Cette année*
2. *2016*
3. *2015*
4. *2014*
5. *2013*
6. *2012*
7. *2011*
8. *2010 ou avant*

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Introduction to the ACE BIM Work Group

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What is/was the main barrier to the use of BIM in your activity?

1. *The paradigm shift: BIM will change the way we work and old habits die hard.*
2. *Technology & software – without industry standards and inter-operability, it can be difficult to share building models*
3. *Legal issues – there is a perception of increased liability within both the architectural and construction communities*
4. *Other / NA*

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Introduction to the ACE BIM Work Group

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Quel est /était l'obstacle principal à la mise en œuvre de BIM dans votre activité?

1. *Le changement de paradigme : le BIM va changer notre façon de travailler - les vieilles pratiques ont la vie dure*

2. *Technologie et logiciel – sans les normes de l'industrie et l'interopérabilité, il peut être difficile de partager des modèles de construction.*

3. *Problèmes juridiques – il existe une perception d'une responsabilité accrue dans les communautés de l'architecture et de la construction*

4. *Autres / NA*

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Introduction to the ACE BIM Work Group

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What is/was the main advantage of using BIM in your activity?

Quel est /a été le principal avantage de l'utilisation de BIM dans votre activité ?

1. *BIM Reduces the need for Reworking*
2. *BIM Improves Productivity*
3. *BIM Reduces Conflicts and Changes During Construction*
4. *Clash Detection*
5. *Other*

1. *Le BIM réduit la reformulation.*
2. *Le BIM améliore la productivité.*
3. *Le BIM réduit les conflits et les changements pendant la construction.*
4. *Détection des conflits*
5. *Autres*

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Introduction to the ACE BIM Work Group

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In your case, what is/was the main disadvantage of using BIM in your activity?

Dans votre cas quel est le principal désavantage d'utiliser le BIM dans votre activité?

1. *Incompatibility with partners*
2. *Legal issues*
3. *Cost of software*
4. *Lack of experts*
5. *Other*

1. *Incompatibilité avec les partenaires*
2. *Problèmes juridiques*
3. *Coût du logiciel*
4. *Manque d'experts*
5. *Autres*

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