

CS20802

Consolidate and Improve Your BIM Maturity on Each Project—the BIM Journey of VINCI Construction France

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Vinci Construction France - BIM Director

VALETTE

Learning Objectives

At the end of this class, you will be able to:

- Define where to start your journey
- Build your roadmap
- Consolidate your journey with each BIM project

Description

VCF (VINCI Construction France), a general contractor employing 22 000 people in France, has started its move to BIM since almost a decade and the path that led VCF to a BIM leadership in the French market has been consolidated project by project.

This course will detail the strategy designed by VCF to grow its knowledge, tools and references in BIM and also how every project has served to consolidate the BIM maturity of the company. Some key BIM projects will be presented to illustrate some important learning landmarks in the VCF BIM journey.

Your AU Expert

Jean-Baptiste Valette is currently the BIM Director of VINCI Construction France, the French part of one of the biggest construction group in the World : VINCI Construction.

His role is to lead the central BIM department that manage BIM on big projects and in the same time conduct the BIM transformation of all VINCI subsidiaries in the French market. This department also ensures the R&D and the development of tools and processes regarding BIM through the maintenance and improvement of the BlueBIM Toolbox.

Jean-Baptiste is a civil engineer that have helped VINCI to be a pioneer at BIM through R&D projects before creating and taking the lead of the BIM department. His work has been referred in several press articles, interviews or awards (Silver BIM awards in 2014 and 2015, Tekla BIM Awards in 2014).

Jean-Baptiste also is a frequent guest at BIM conferences and roundtables in France and he is also a professor in Architectural and Engineering schools.

The agenda of the Class

1. Where to start :
 - Look inside your company : VINCI, VC and VCF
 - Look into your market : the French market
2. Build your roadmap :
 - Define priorities
 - Define roles and processes
 - Build your BIM Office
 - Build your BIM Toolbox
3. Experience BIM :
 - Find your market role and your partners
 - Deploy your BIM Toolbox
 - Use projects to improve your BIM
 - Get your BIM models “dirty”
4. The journey is just starting

Some Extracts from the class presentation

Where to Start ?

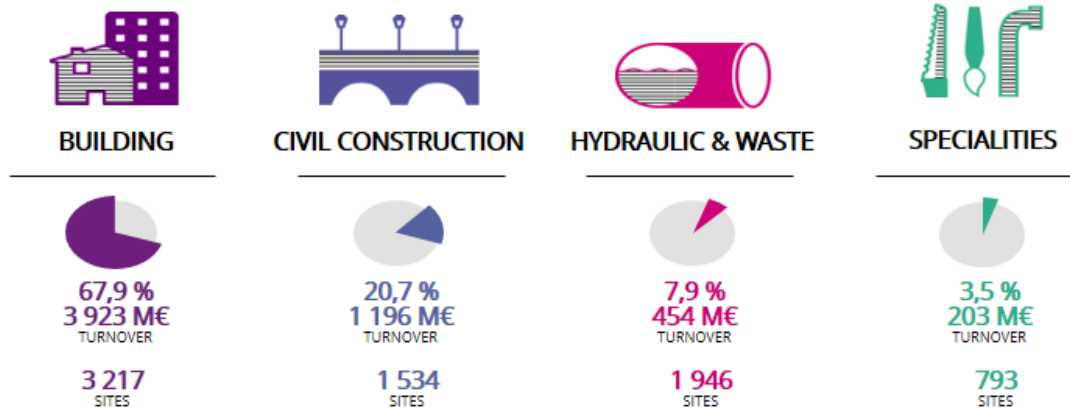
The context of our BIM journey :
Being part of a big worldwide Contractor
BIM specifics of the market in France

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OUR BUSINESS



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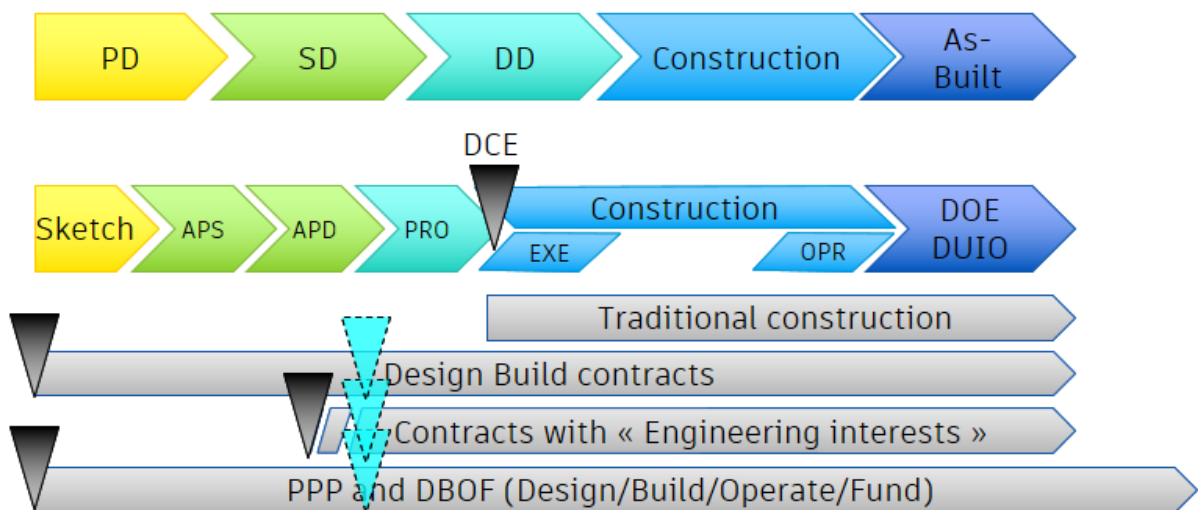
Our Culture



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The French General Contractor on the market

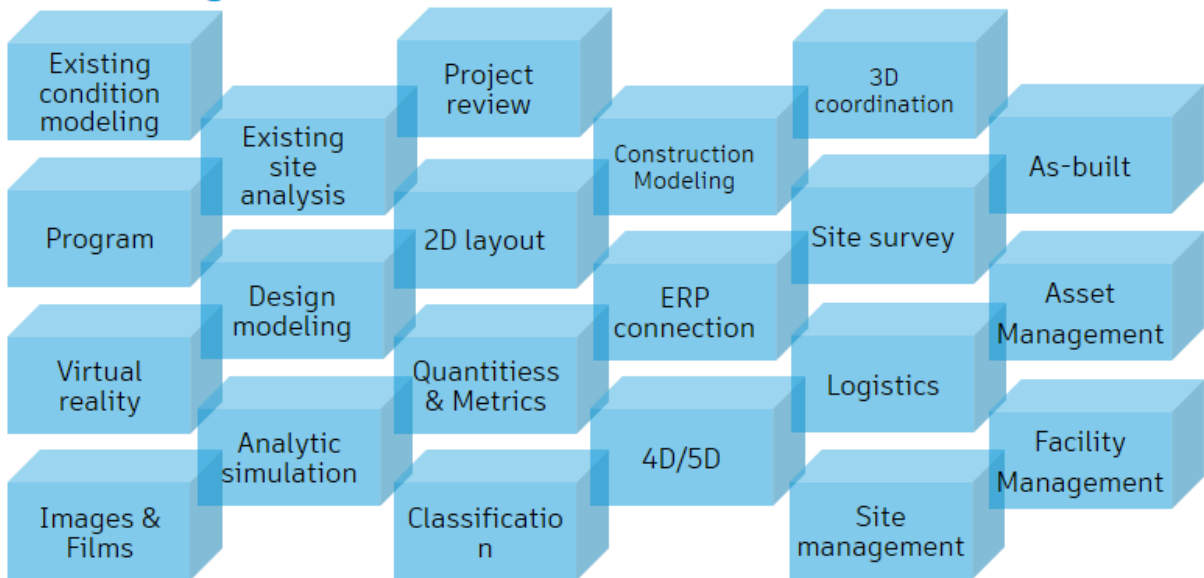


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Defining the BIM Uses



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Where to Start ?

Look at your market : what is the value chain and where and how you could initiate your BIM Journey ?

Sell BIM externally => Apply and improve BIM

Look at your company : what are the initiatives and the cultural elements that enables you to build your own Journey ?

Sell BIM internally => Resource and Change management

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Now you are ready to design your BIM roadmap...

Build your Roadmap



Build your Roadmap

1. Define priorities
2. Define roles and processes
3. Build your BIM Office
4. Build your BIM Toolbox



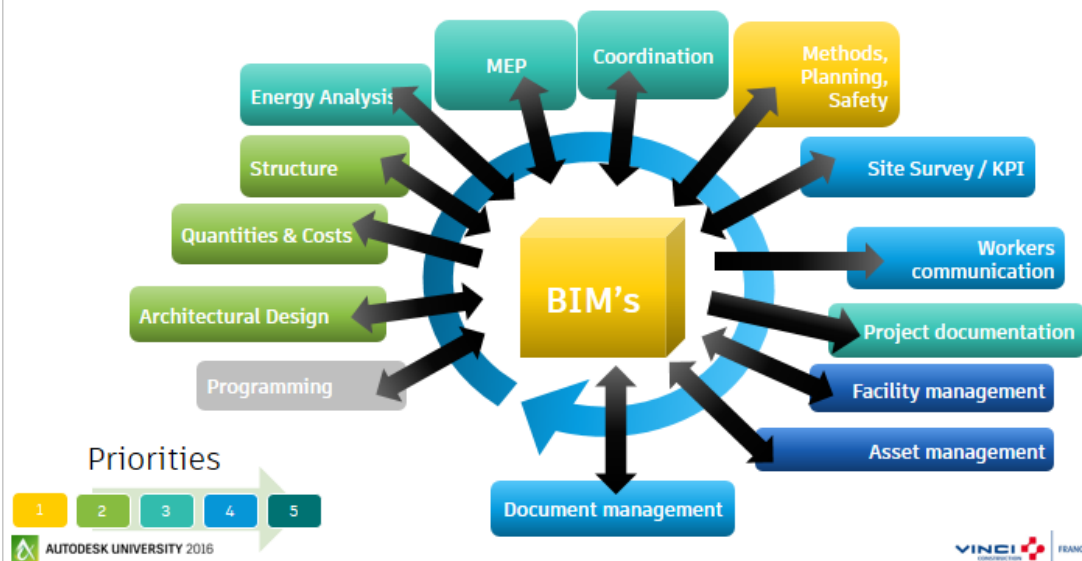


How did we approach BIM revolution?

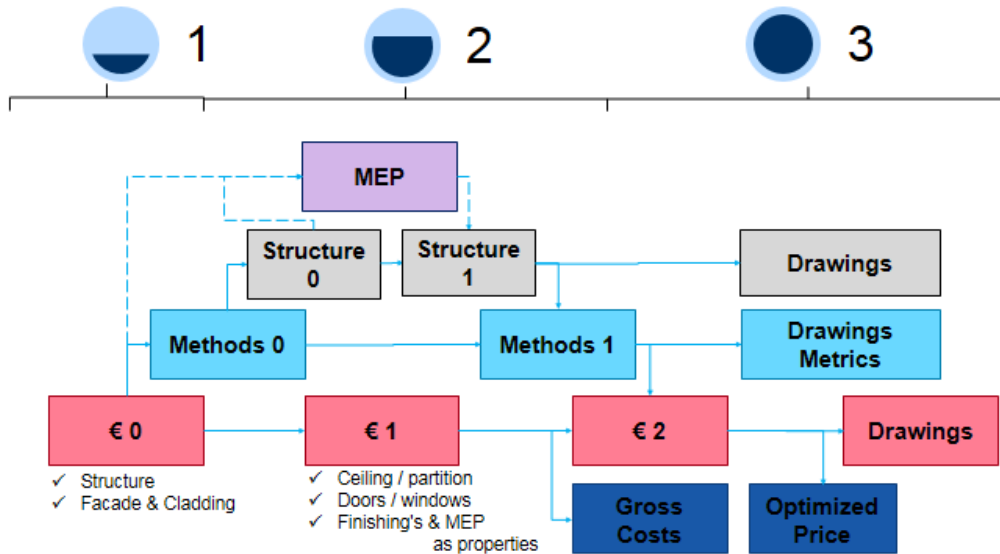
- **Needs of the users**
 - bringing comfort to the users
- **Motivation of job profiles**
 - Job targets
- **Operational improvement**
 - ↘ engineer unit task duration

→ Top management validation of the vision

Defining the impacted roles in the company



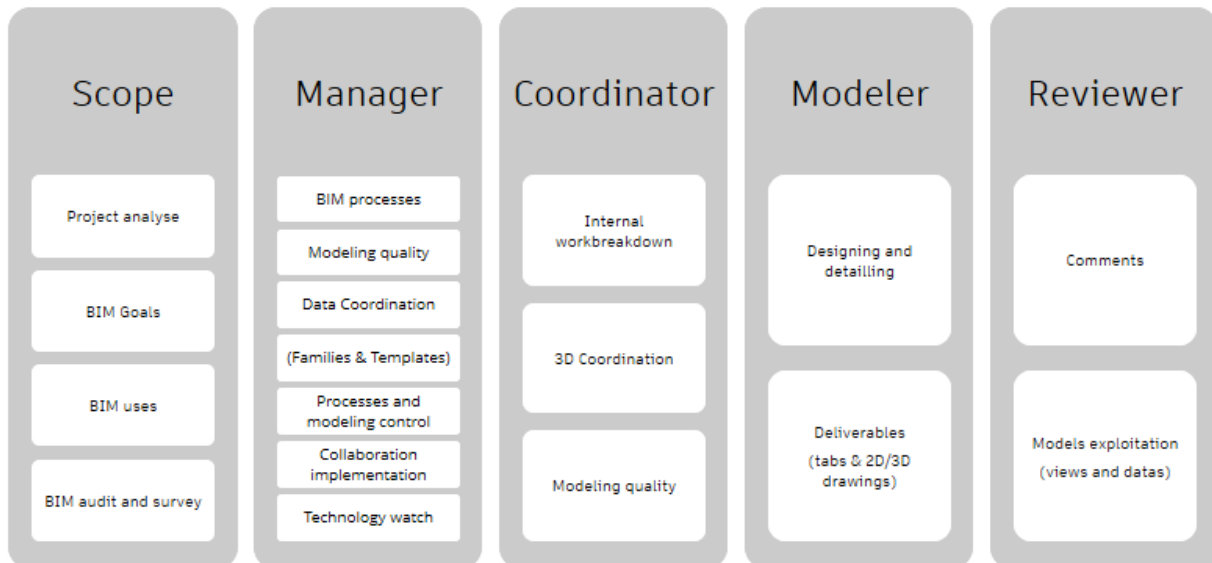
Engineering process in BIM



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Identifying new roles added to the jobs



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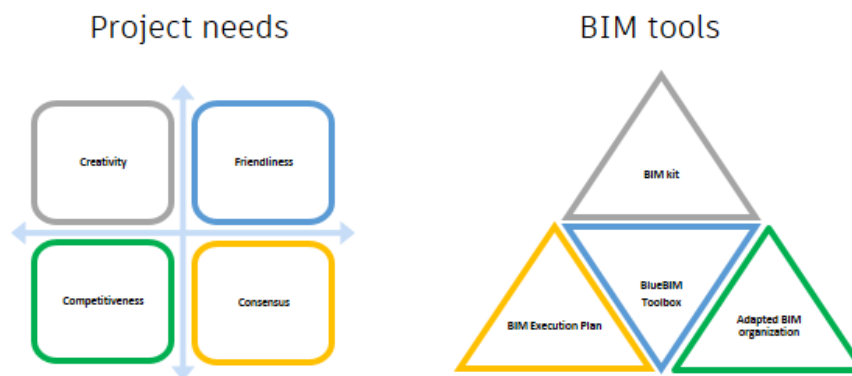
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IMP : « Project Engineering and Modeling » – a central service for all VCF subsidiaries

1	Project modeling support	• BIM Management • Project Management
2	Services	• BIM modeling • Expertise / audit • Complex project reengineering
3	Training and internal communication	• BIM software, methodology and project management training • BIM training courses for Engineering schools • Internal BIM community management
4	Software development	• BIM toolkit development and improvement • Plugins and components development • Proof of concept for new technologies
5	Technology watch	• Software editors roadmaps and R&D • Prototypes and beta testing • Trade shows and conferences

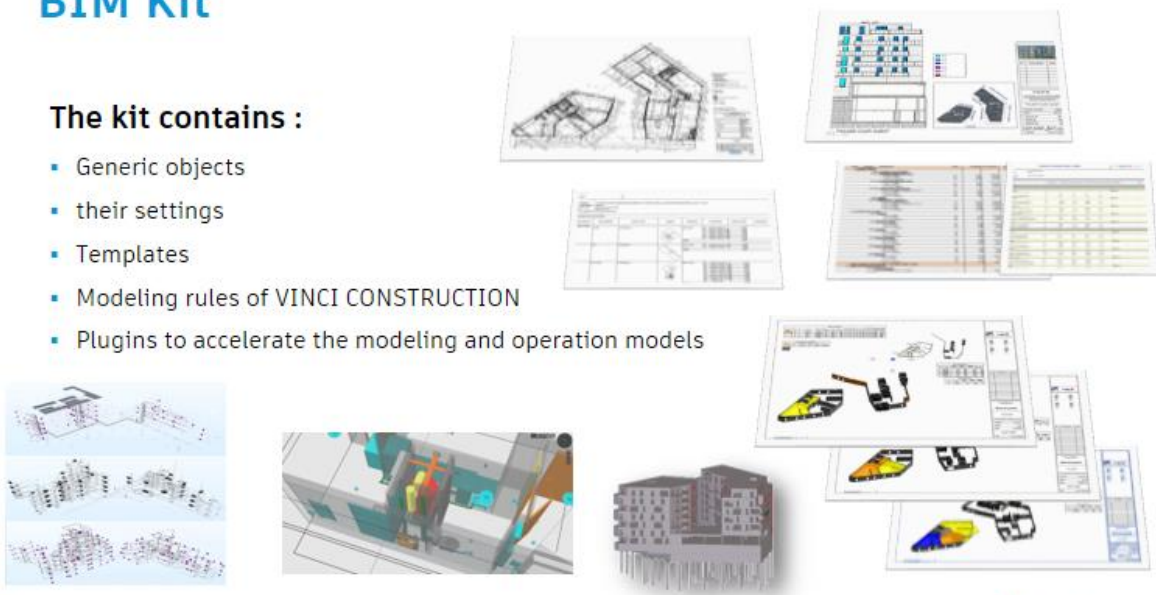
The BlueBIM Toolbox



BIM Kit

The kit contains :

- Generic objects
- their settings
- Templates
- Modeling rules of VINCI CONSTRUCTION
- Plugins to accelerate the modeling and operation models



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Now that you have your roadmap, go for it...

Experience BIM

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Experience BIM

1. Find your market role and your partners
2. Deploy your BIM Toolbox
3. Use projects to improve your BIM
4. Get your BIM models “dirty”

Vinci Construction France's role in the market evolution



Each stakeholder has to adopt and participate to the BIM evolution. VCF has to **lead the way**.

Internal teaching

Title	Program	Type	Days	Public
BIM basics	Bases, risks, advantages	Lecture and discussions	1	ALL
Project review	Methods and softwares	Lecture and training	1/2	ALL
Revit Bases	Common bases	Revit training	3	Eng and drafters
Revit for cost and site management	Template and plugins	Revit training	1	Eng and drafters from offices or sites
Revit for Structure	Template and plugins	Revit training	1	
Revit for Methods	Template and plugins	Revit training	3	
Advanced Revit	Famillies, site modeling, rendering	Revit training	1	
MEP	Template et plugins	Revit	2	Eng from offices
5D planning	Starting/linking/updating/tracki ng	Synchro Ltd	2	
BIM management	BEP, management, quality control technics	BIM Theory and technics	1	Average projects/site managers

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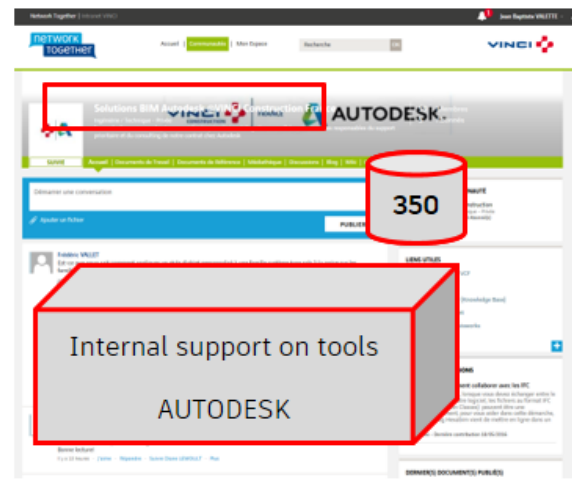
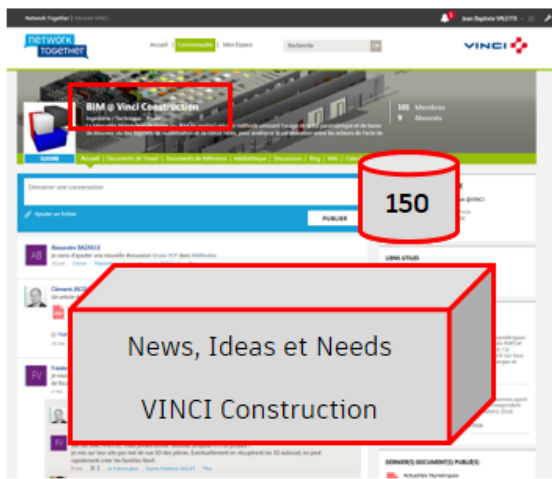
Business tools developed

1. One template per job = Graphism + Layout + Library
2. Home made Revit Plugins
 - ✓ STR productivity metrics
 - ✓ Construction technics choices
 - ✓ QTO details empowerment
 - ✓ QTO export
 - ✓ Schedules mass export
 - ✓ Site equipments management (formwork, ...)
 - ✓ Day by Day documentation tool
 - ✓ STR french annotation tool

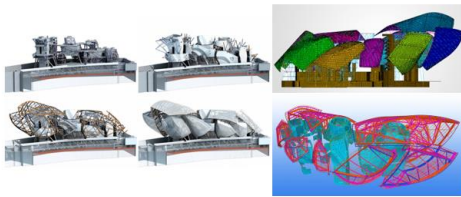
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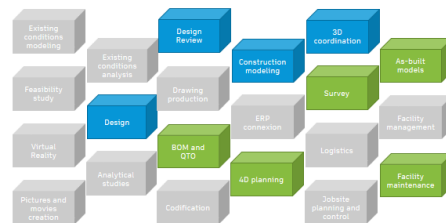
2 communities of practice Network Together



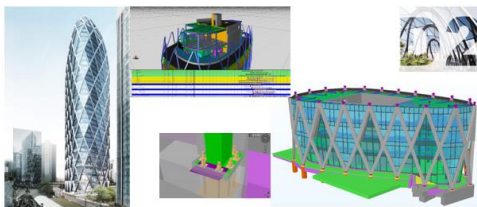
Fondation Louis VUITTON



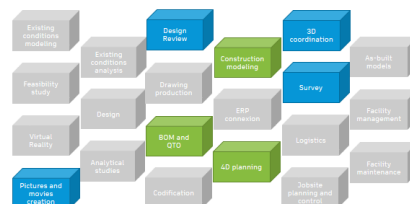
BIM Uses for Fondation Louis Vuitton



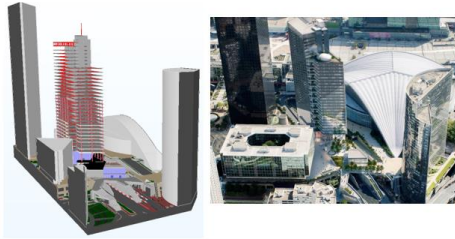
Tour D²



BIM Uses for Tour D2



Tour Trinity



BIM Uses for Tour Trinity



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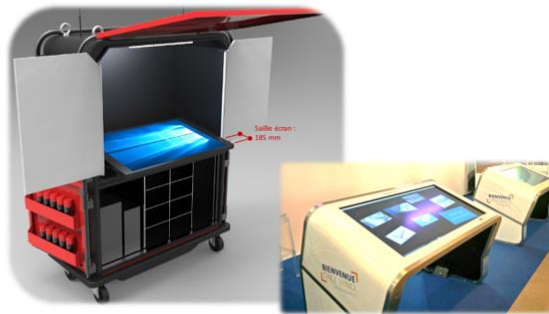
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Touch your models



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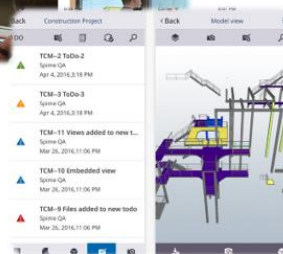
Share your models

SmartRooms



Mobilité and Cloud

- Connect, A360
- O365 : OneDrive, OneNote, ...



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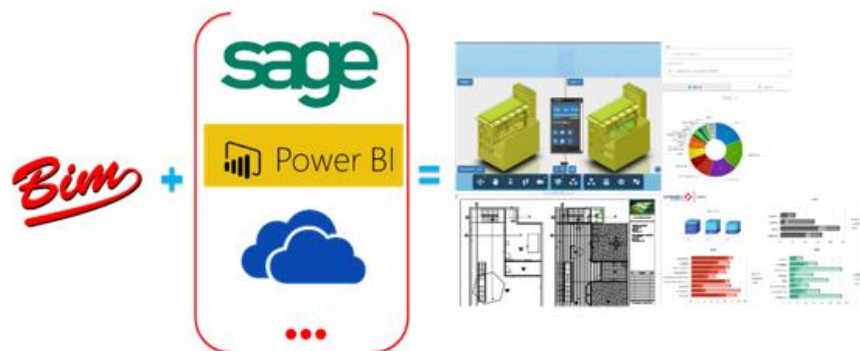
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As you go through your roadmap, don't assume
it is over as...

The journey is just starting

BIM Big Data



In a nutshell...

- Where to start ? Look outside and inside your company what are the key success factors and drivers that will define your journey
- Define your roadmap: Set the priorities, look at the impacts in your company and build your BIM « muscles » (office and toolbox)
- Go forward with your roadmap: Work your eco-system, deploy and improve your « muscles » with each project. Don't be afraid to put your BIM models into « dirty hands »