

Consolidate and improve your BIM maturity on each project – the BIM journey of VINCI Construction France

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BIM director



FRANCE

Class summary

I will explain how the main general contractor in France has approached its own BIM revolution starting its digitalization process from the company culture. Thanks to specific examples and techniques, I hope you will be able to reuse some of our experience.



Key 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

Let's begin...



So you want to lead your company into a BIM journey...

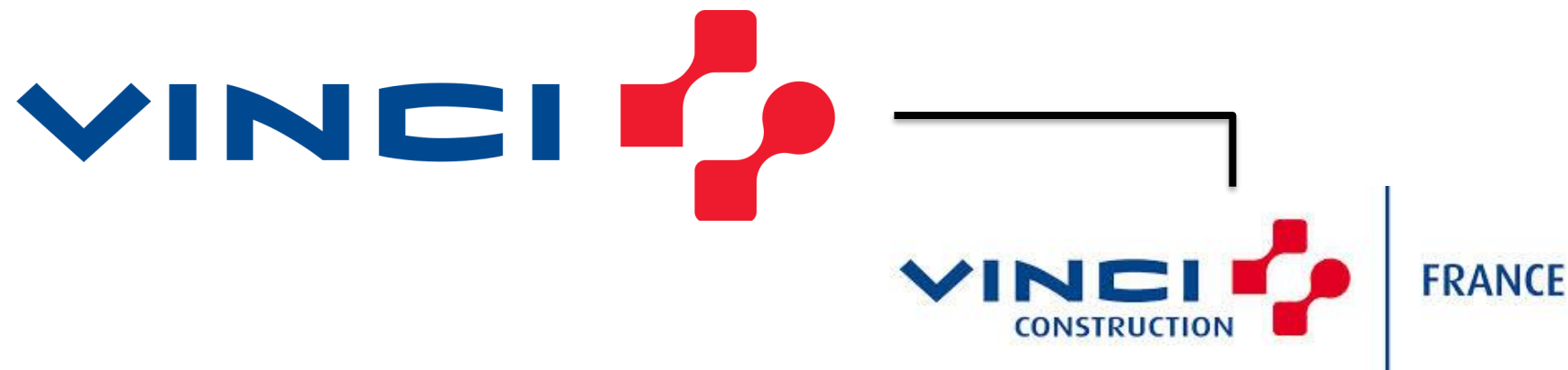
Where to Start ?



Where to Start ?

The context of our BIM journey :

*Being part of a big worldwide Contractor
BIM specifics of the market in France*



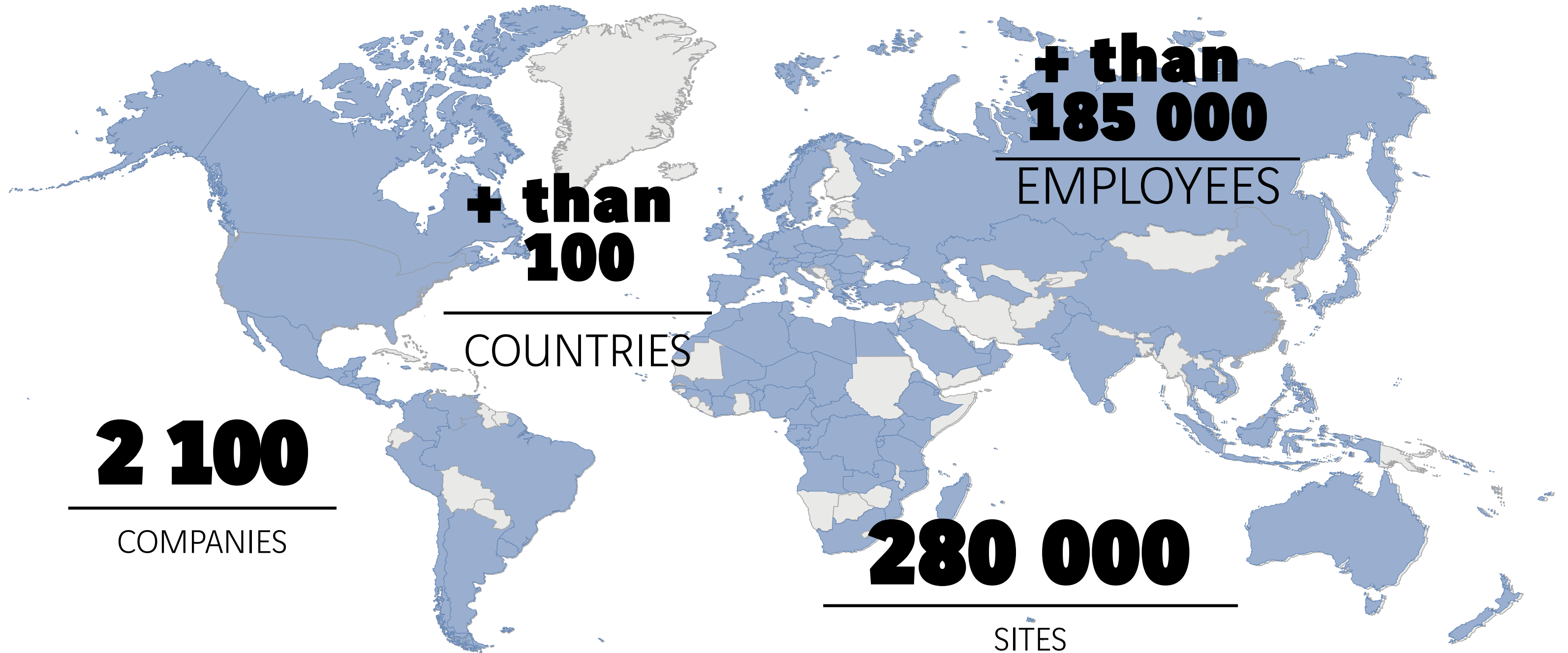
Where to Start ?

Look at your company





VINCI in the world





VINCI



38,5 G€
TURNOVER



185 452
EMPLOYEES

CONCESSIONS

CONTRACTING



5 803 M€



12 838



32 570 M€



171 828

VINCI MOTORWAY

VINCI AIRPORTS

OTHER CONCESSIONS

VINCI ENERGIES

EUROVIA

VINCI CONSTRUCTION



4 881 M€



6 676



820 M€



5 392



102 M€



670



10 180 M€



65 342



7 899 M€



38 115



14 491 M€



68 371

VINCI Construction France

VINCI Construction International
Network

VINCI Construction UK (Royaume-Uni)

Soletanche Freyssinet

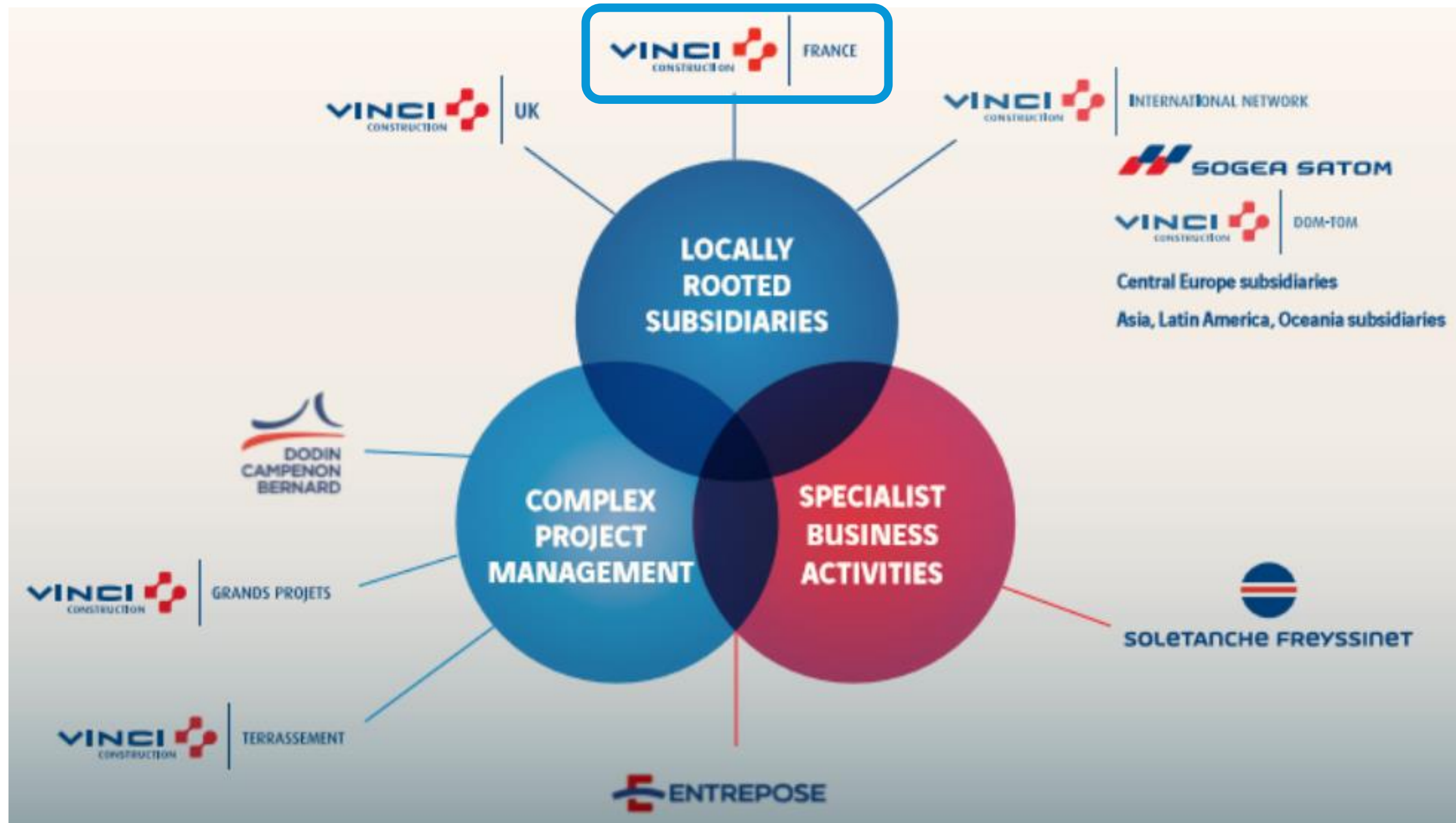
Entrepose

VINCI Construction Grands Projets

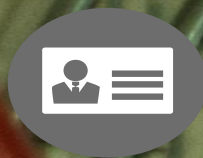
VINCI Construction Terrassement

Dodin Campenon Bernard









21 125

EMPLOYEES

5 776

M€ TURNOVER

VINCI CONSTRUCTION FRANCE

n°1 General Contractor in France

391

OFFICES

7 400

SITES

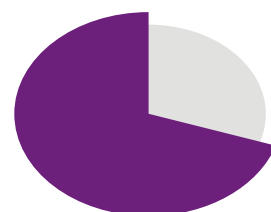




OUR BUSINESS

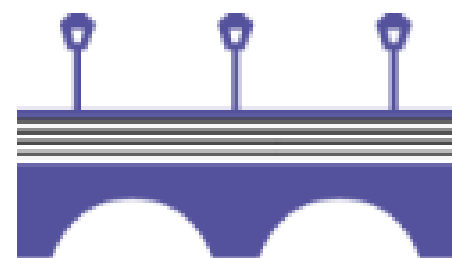


BUILDING

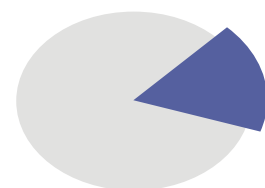


67,9 %
3 923 M€
TURNOVER

3 217
SITES



CIVIL CONSTRUCTION

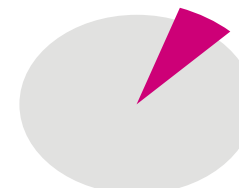


20,7 %
1 196 M€
TURNOVER

1 534
SITES

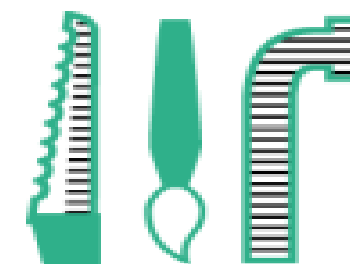


HYDRAULIC & WASTE

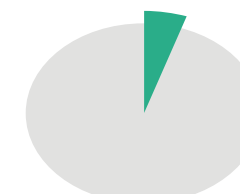


7,9 %
454 M€
TURNOVER

1 946
SITES



SPECIALITIES



3,5 %
203 M€
TURNOVER

793
SITES

Our Culture



Prevention



Organization



Environment

**ENTREPRENEURSHIP
ENGAGEMENT
TOGETHER**



Digital



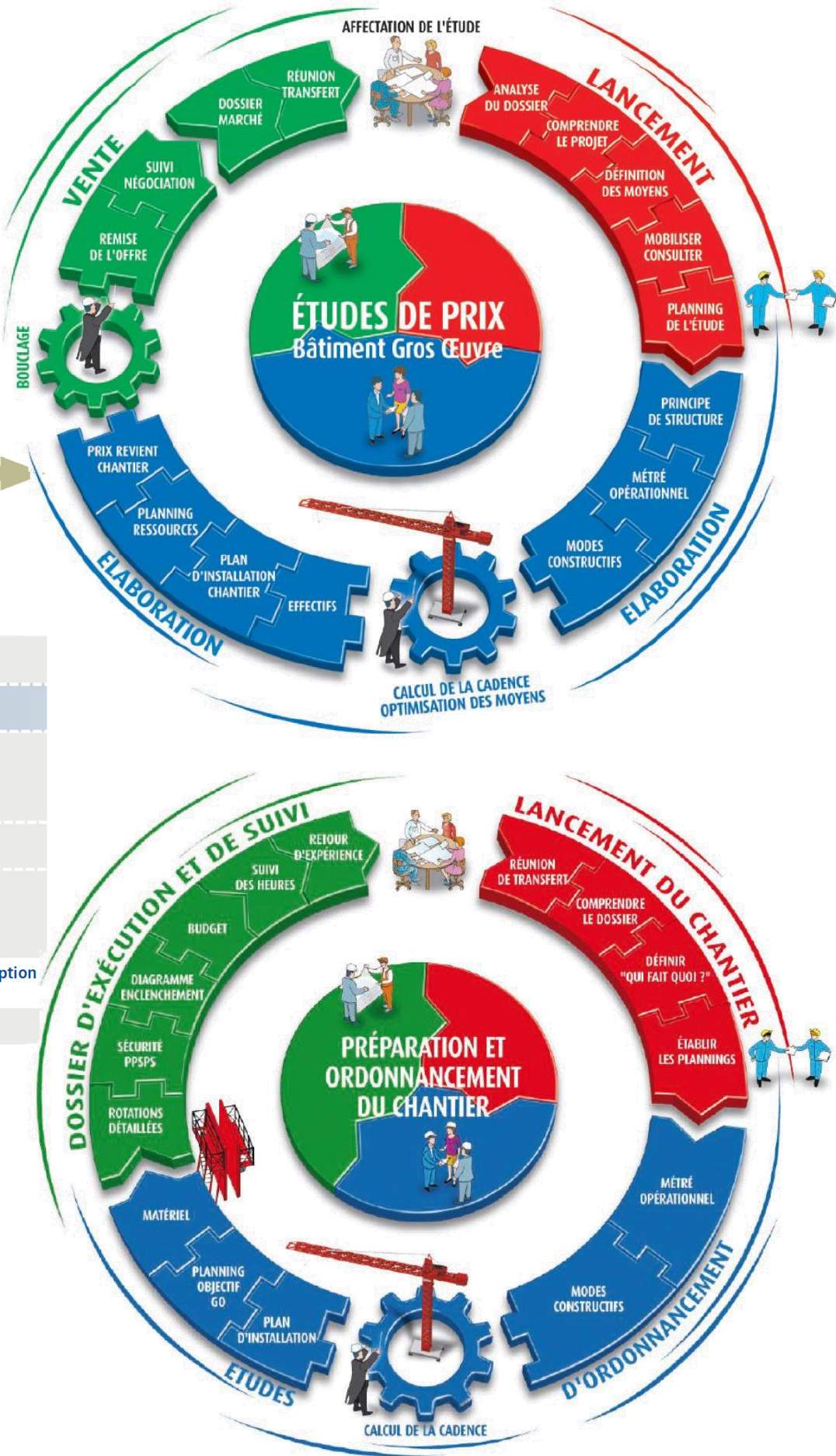
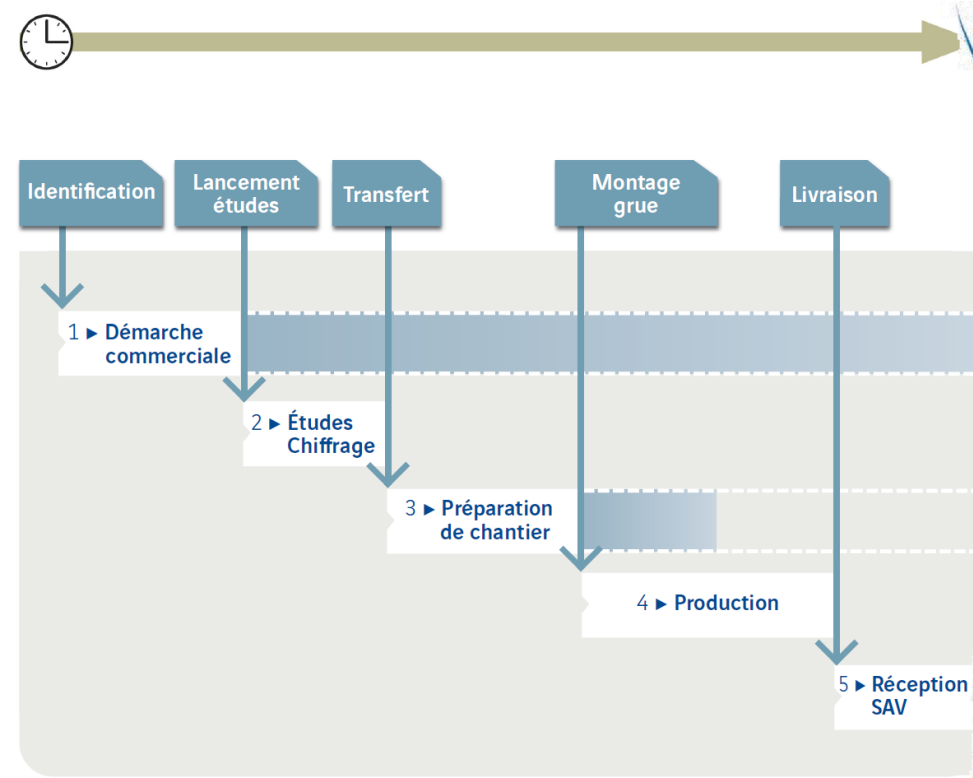
Management model



Business

Our Culture

→ Orchestra®



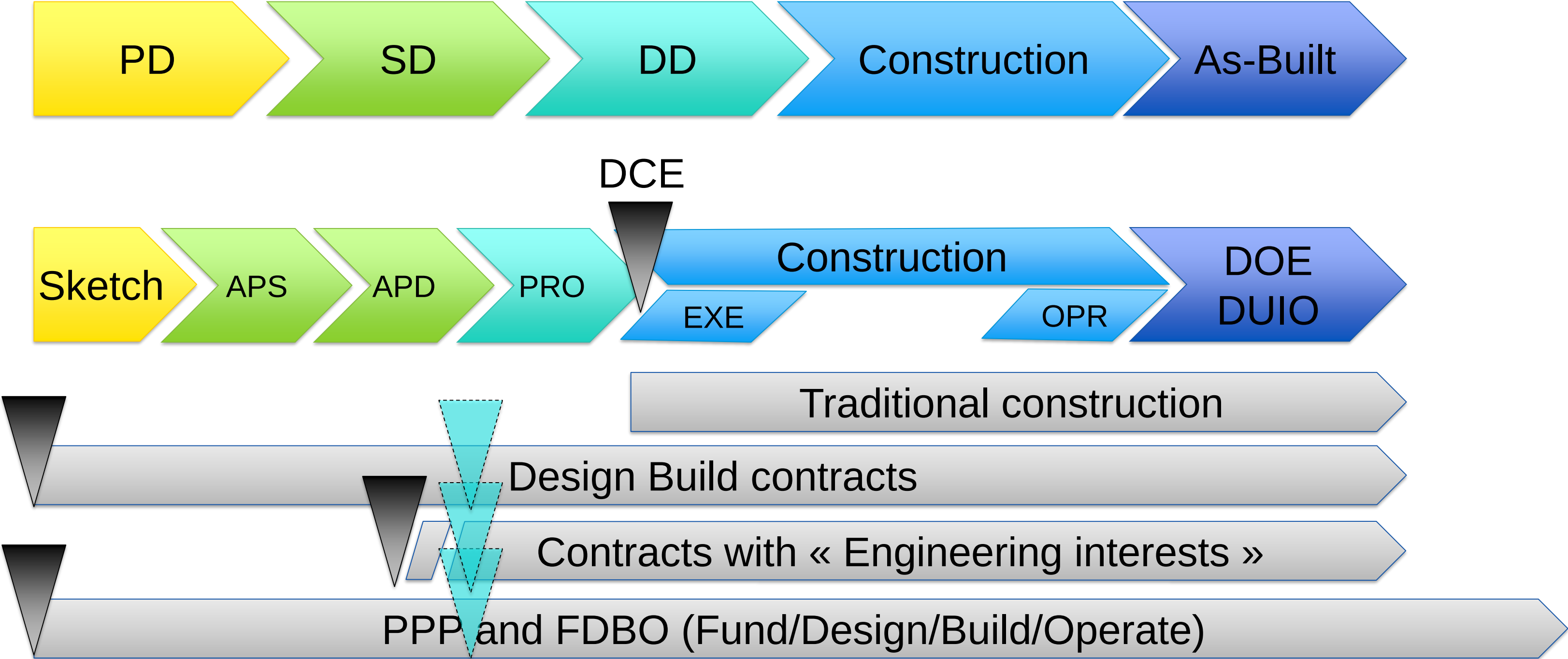
DONNÉES D'ENTRÉE		ÉTAPES	DONNÉES DE SORTIE
		Initialisation du dossier d'engagement et de suivi Orchestra	Dossier d'engagement et de suivi Orchestra
Dossier d'engagement Orchestra RCP - Dossier / Budget transfert - Contrat obtenu / Savoir de l'équipe études	Dossier de transfert Dossier marché ou DCE	1 TRANSFERT DU SERVICE ÉTUDES AU SERVICE TRAVAUX	Relevé de décision 1 - Point études/travaux - Points bloquants
		Lancement de la préparation	- CR réunion de lancement - Planning de préparation et de décision - Note d'hypothèse
		Initier les REX	REX pertinents à réaliser sur le chantier
		Dossier appel d'offres - Offre de prix	Dossier marché signé complet (y compris PC, DQE, garantie de paiement, etc.)
Points bloquants Ensemble des compétences prédéterminées		2 PLANNING DE PRÉPARATION ET DE DÉCISION	Relevé de décision 2 - Levée des points bloquants - Période de préparation et compétences validées - Planning de préparation et de décision coopté
		Démarches administratives	DICT (déclarations préalables)
		Ouverture du tableau récapitulatif Options/Organisation/Structure	Tableau récapitulatif des options renseigné au fur et à mesure de la préparation
		Options possibles	Définition des options
	- Plans marchés - Liste des opérations à effectuer - Plans de l'existant - Sondages	Diagnostic des structures existantes	Plans de l'existant
		Mise au point des modes constructifs	Plans d'installation de chantier et cahier de phasage des travaux
		Planification des travaux	Plannings d'exécution (GO et TCE)
		Définition des moyens humains et matériels	Organigramme du chantier, budget d'exécution main d'œuvre, charges de travail des moyens de manutention et levage
- Étude comparative avec budget de référence - Actualisation options EdPrix - Évaluation autres options - Échange avec EdPrix	Dossier de consultation lot par lot (avec plans de repérage, avenant au CCTP, limites de prestation, etc.)	Élaboration des analyses de risques QSE (PQC, PPSPS, Environnement)	PQC, PPSPS, analyse environnementale, liste prévisionnelle des additifs au PPSPS et planification de leur diffusion
		F POINTS DE VIGILANCE OPTIONS/ORGANISATION/STRUCTURE (ANTICIPATION DU BUDGET D'EXÉCUTION)	Validation de la pertinence des options proposées par les travaux / études
		Préparation consultation : analyse des pièces marché	Liste d'obs. lot par lot « ré-alotissement » pour optimisation
		Consultation CES	- Offres des ST - Tableau de consultation
CCTP, plans marchés, offres de prix phase études, DPGF	Plans marché	Choix des sous-traitants et des fournisseurs (fournisseurs et lots sur le chemin critique)	Fiche de résultat de consultation - Contrats de sous-traitance comprenant : - additif technique - planning d'études et de travaux - devis détaillé - limites de prestations - Commandes acier/béton - Approbation des plans de contrôle des sous-traitants
		Envoi copie des devis ST au chargé d'affaire	
		Envoi courrier aux entreprises non retenues	
		Élaboration de plans et détails d'exécution GO	Plans béton, plans d'armature, plans d'étalement, carnets de phasage, planning de livraison des plans BET
Projets de plans et détails d'exécution TCE		Réflexion sur les interfaces entre corps d'état	Réservations, interface des CET (gainés, etc.), détails des points particuliers (interface)
		3 CHECK-UP AVANT NON-RETOUR	Relevé de décision 3 Prise de décision sur dossier d'engagement Orchestra du RCP
		- Identifier et gérer les contraintes client sur chemin critique - Valider l'avancement de la phase étude de synthèse et des études d'exé - Valider la démarche Orchestra - S'assurer des moyens humains et techniques - Valider les grandes options, matériels et coffrages - Mettre en place les actions de sécurité et la logistique - Passer en revue les lots stratégiques - Valider les thèmes REX - Réaliser un prébilan financier et un comparatif études	1 mois avant début travaux structurels
		Autorisation du lancement de la phase production	Classeur Orchestra de l'affaire
Budget d'heures, besoins en matériel, offres de prix ST, commandes acier/béton		Élaboration du point zéro	Proposition du point zéro
		4 VALIDATION DU BUDGET D'EXÉCUTION	Suivant date cooptée dans le planning décisionnel

Where to Start ?

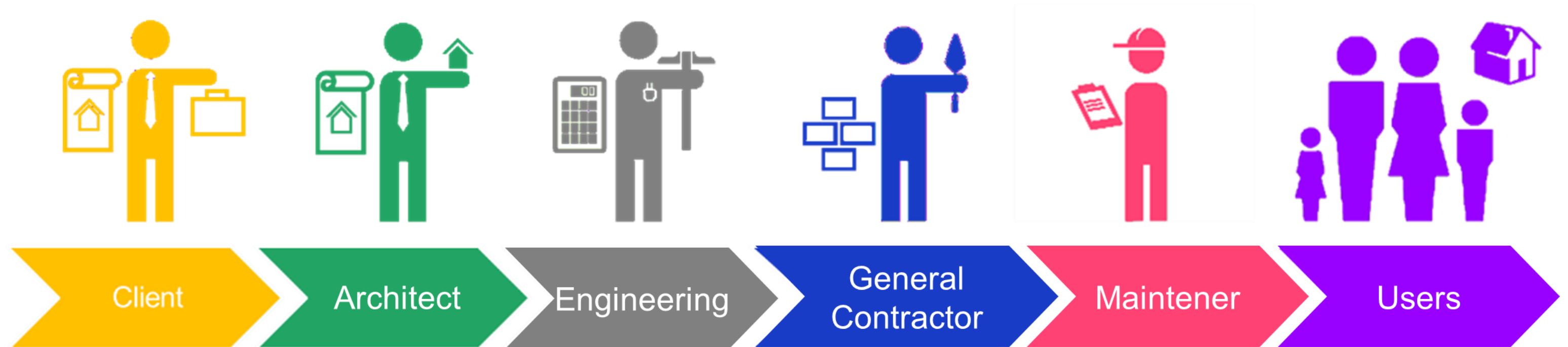
Look at your market



The French General Contractor on the market



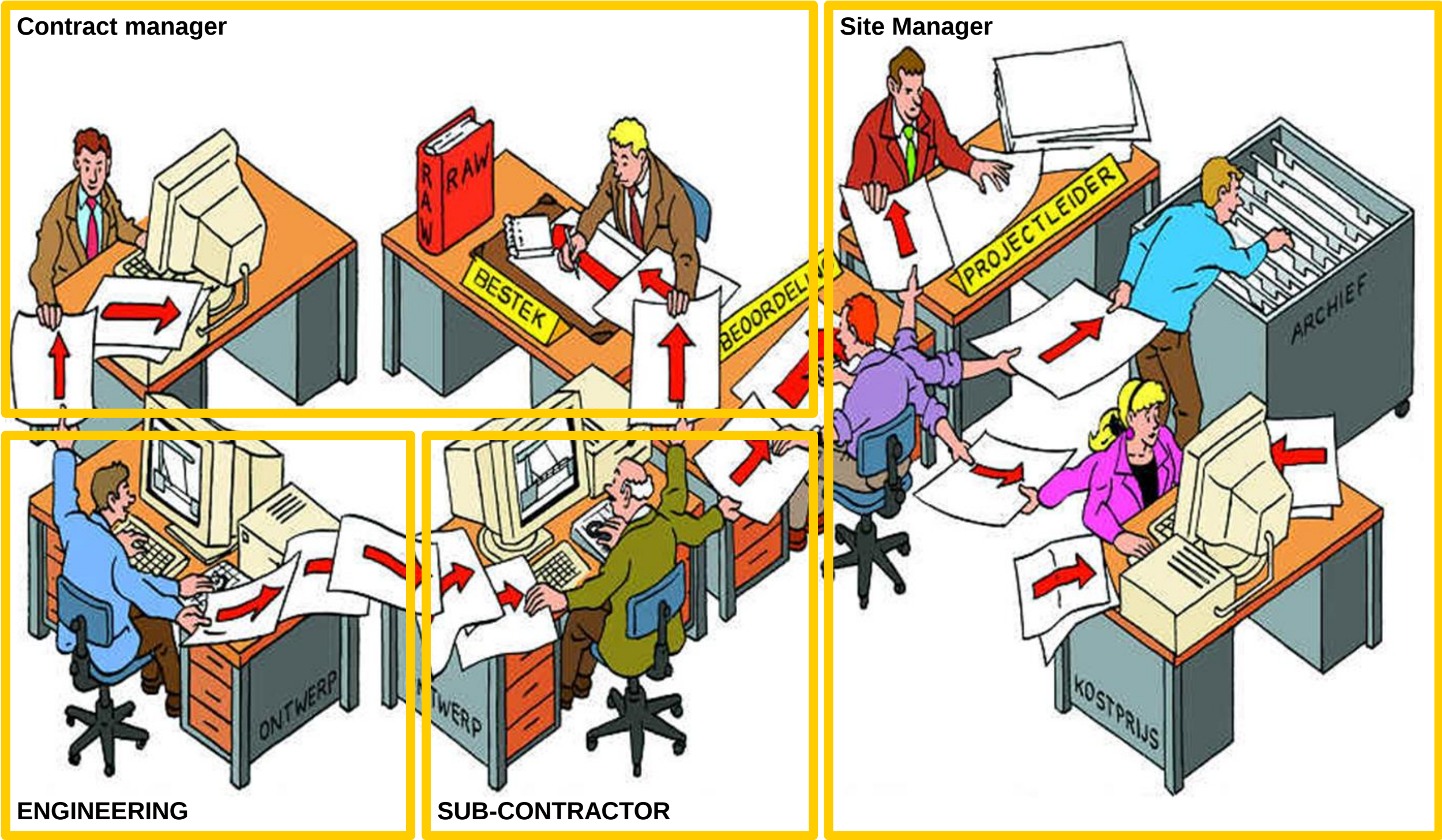
Hot potato paradigm



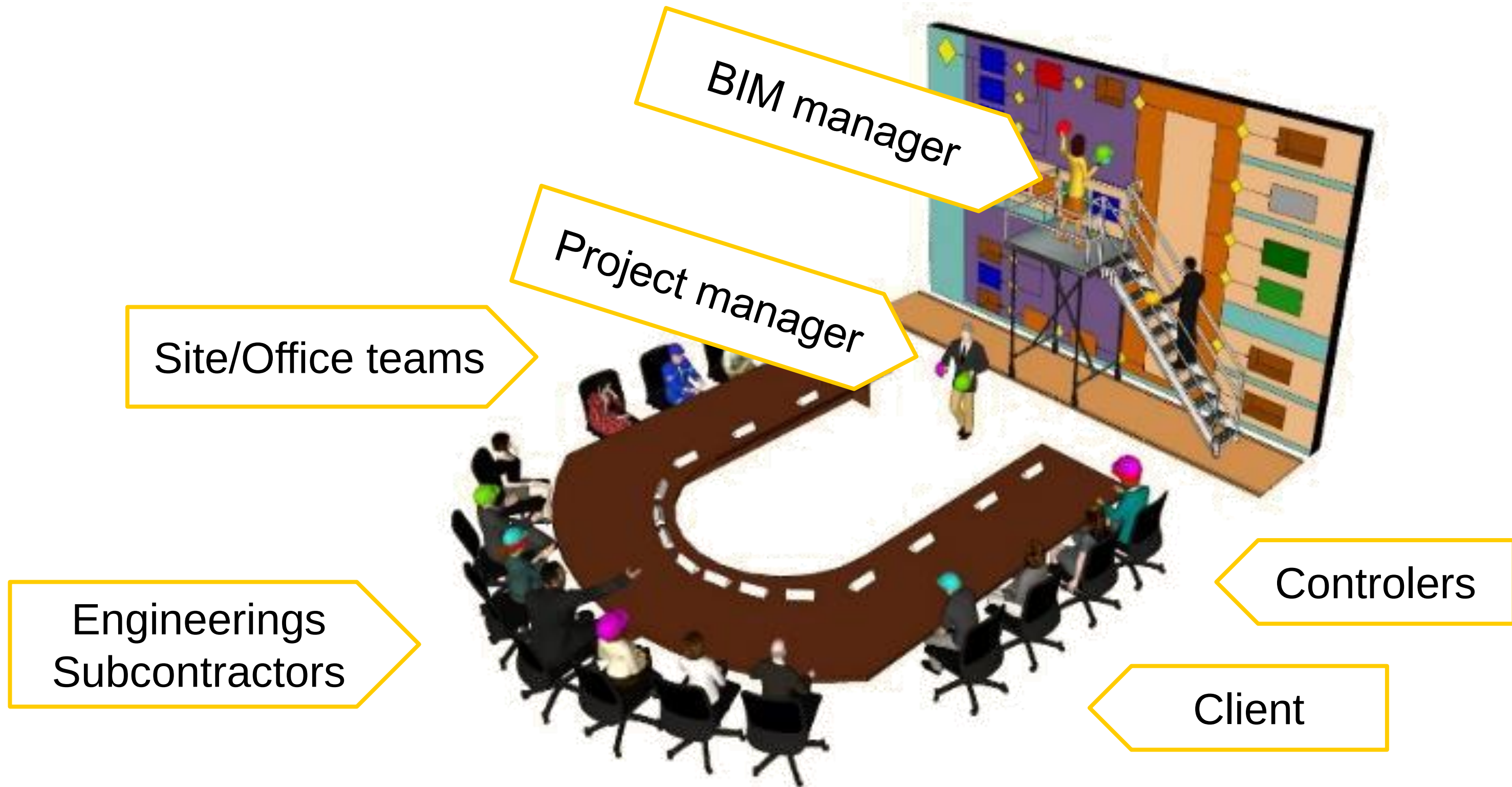
Information losses + non collaborative mode
= cascade of costs and delays

➔ **AEC top-down approach limits...**

Actual process ...



BIM push organization management



Knowledge sharing and collaboration : Working for the Project or for fees...



Specifications
Contract
...



In real life,
Drawings
Details
...



Tabs
Schedules
Metrics
...

Those 3 documents are telling different stories (!)

Even if almost every stakeholder have modeled a part of the project

Defining a technical or
aesthetical specification and
some times dimensions of an
object

Defining a localization and
dimensions

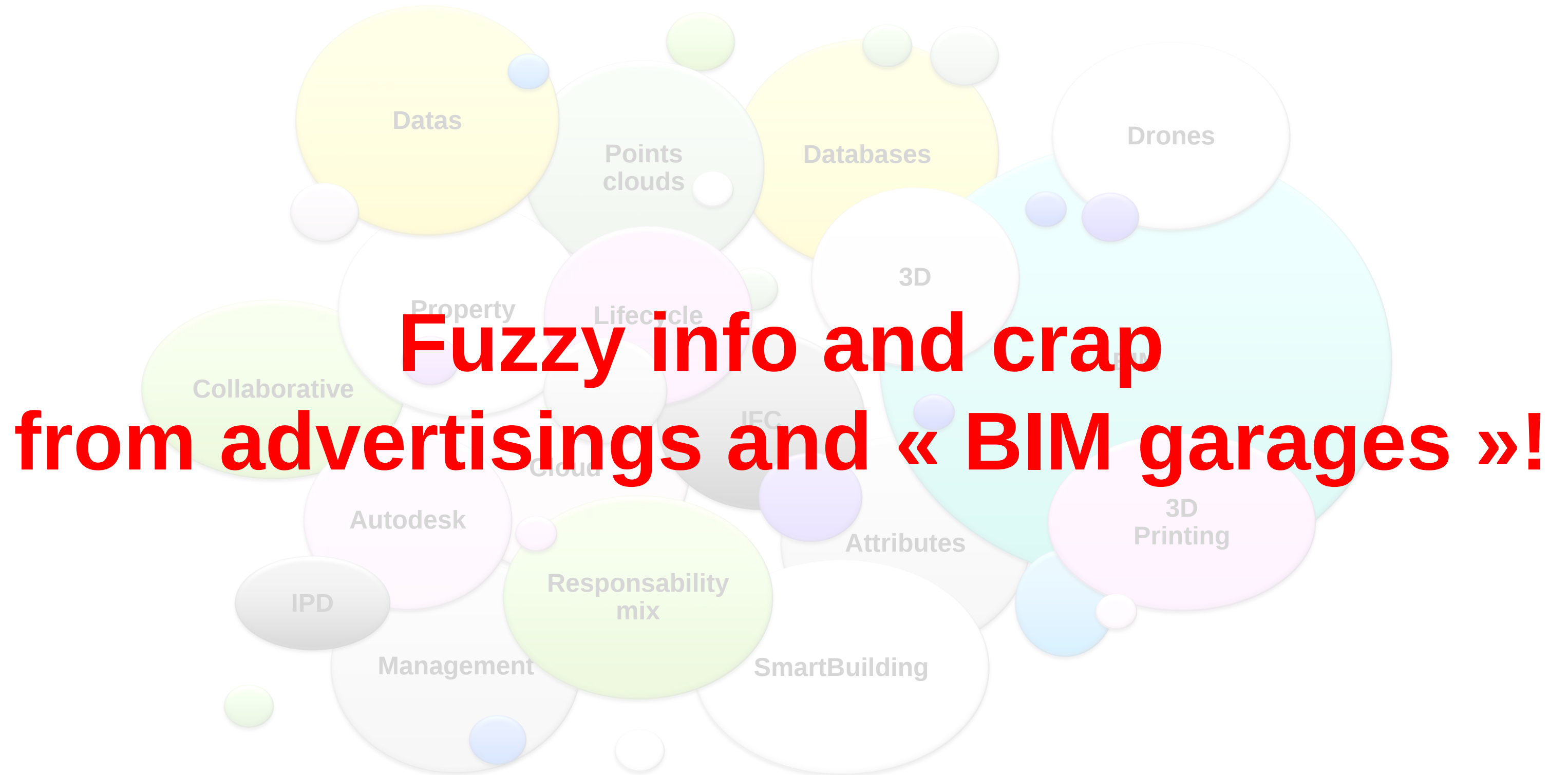
Defining quantities,
sometimes dimensions,
unit prices, job allocation,
and specifications

People don't **KNOW** about BIM

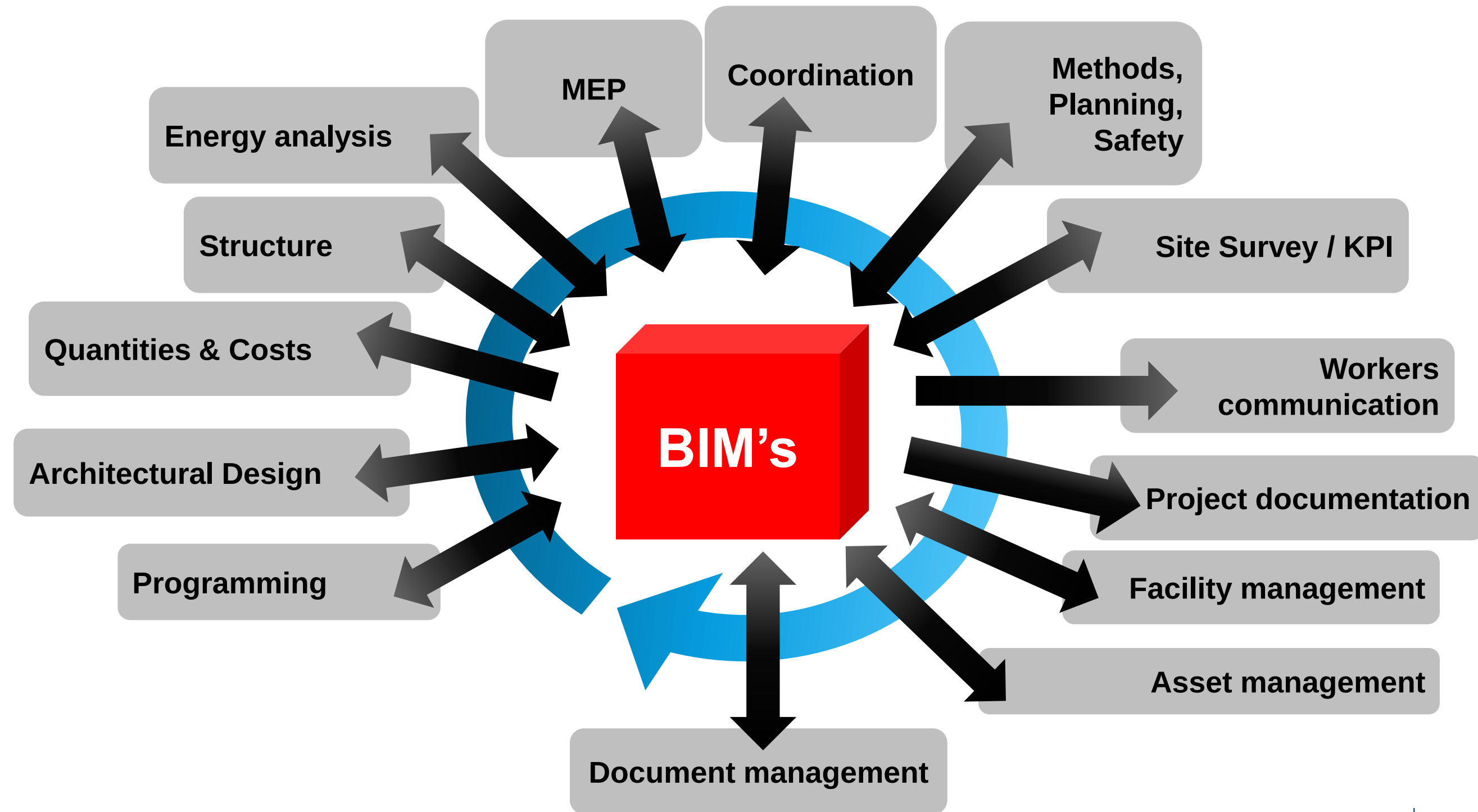
They **TALK** about BIM



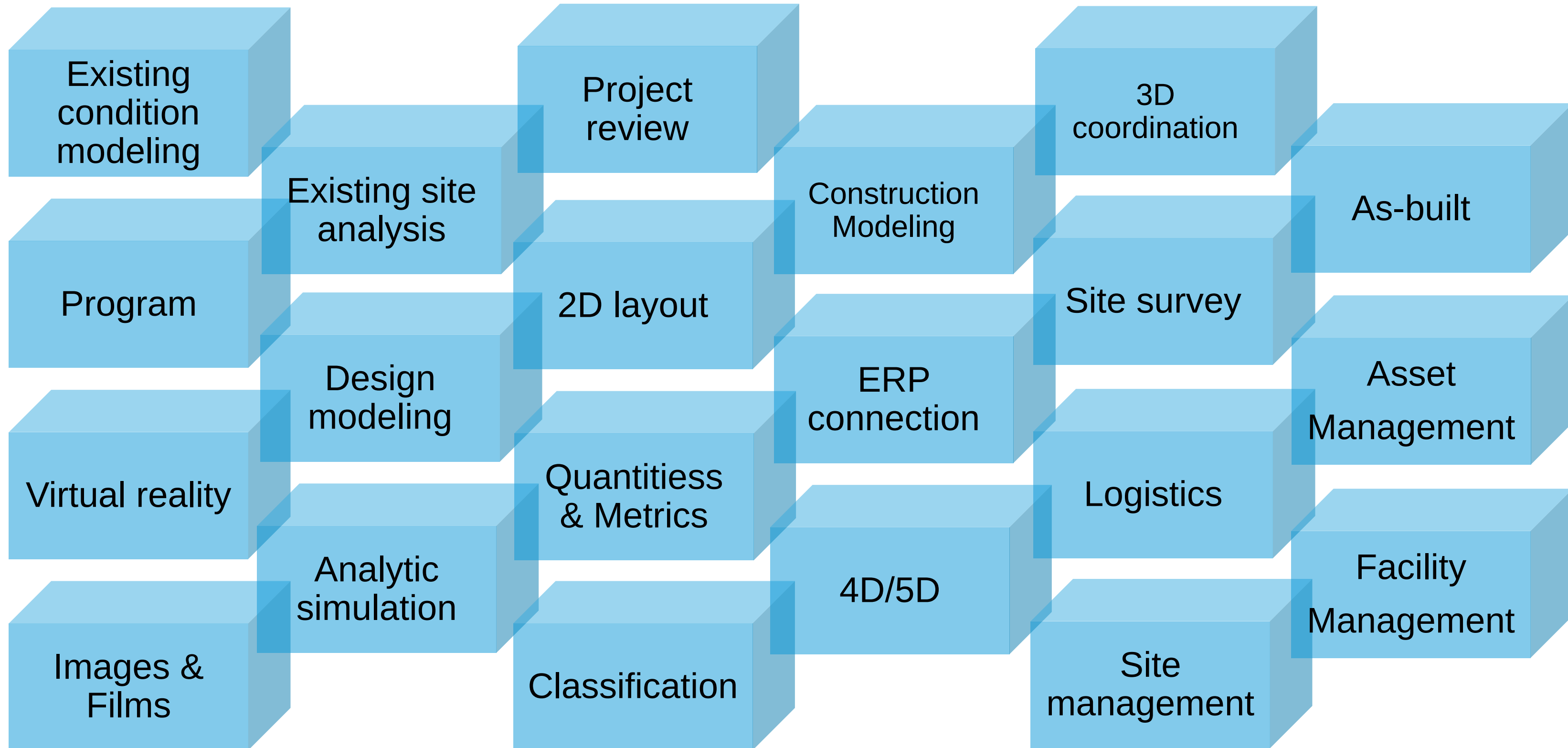
What people know about BIM



Defining BIM by the roles



Defining BIM by the Uses



So why going BIM ?

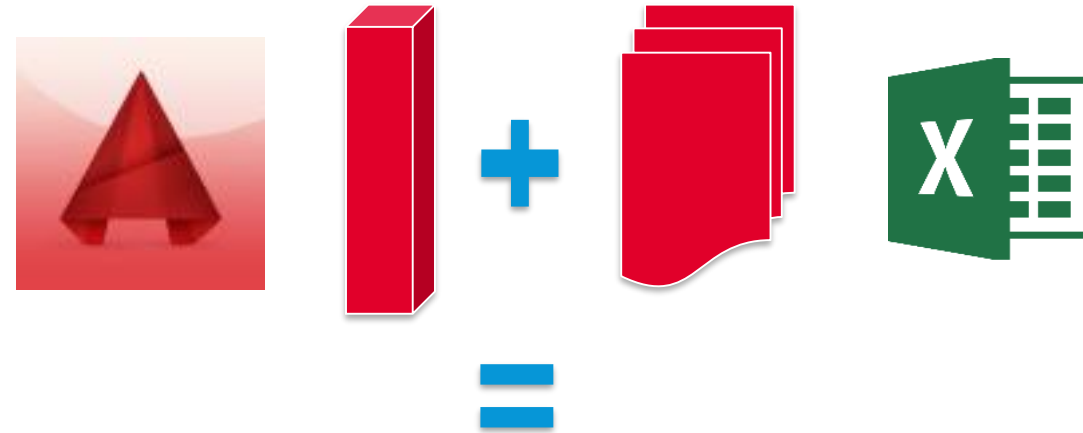


Single source of truth

- Limiting **information losses**
- Finding **contradictions** and **errors**
- Allowing stakeholders to **collaborate**
- Getting an any time any topic **audit capacity**

May be you don't know, but BIM gets its root in ...

BIM = 3D + Database



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



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

Build your **own** Roadmap



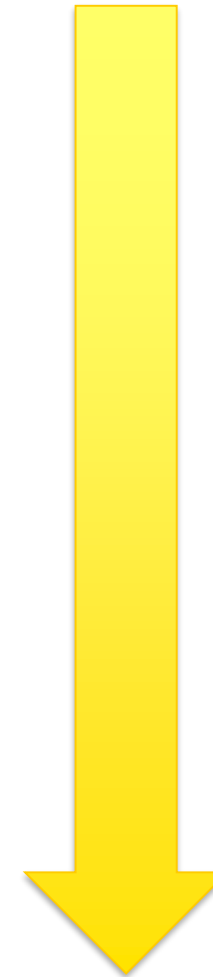
Build your Roadmap

Define priorities and use cases



Our BIM needs = our core jobs

- Methods engineering
- Cost Estimating
- Coordination
- Safety
- Sales
- Site management



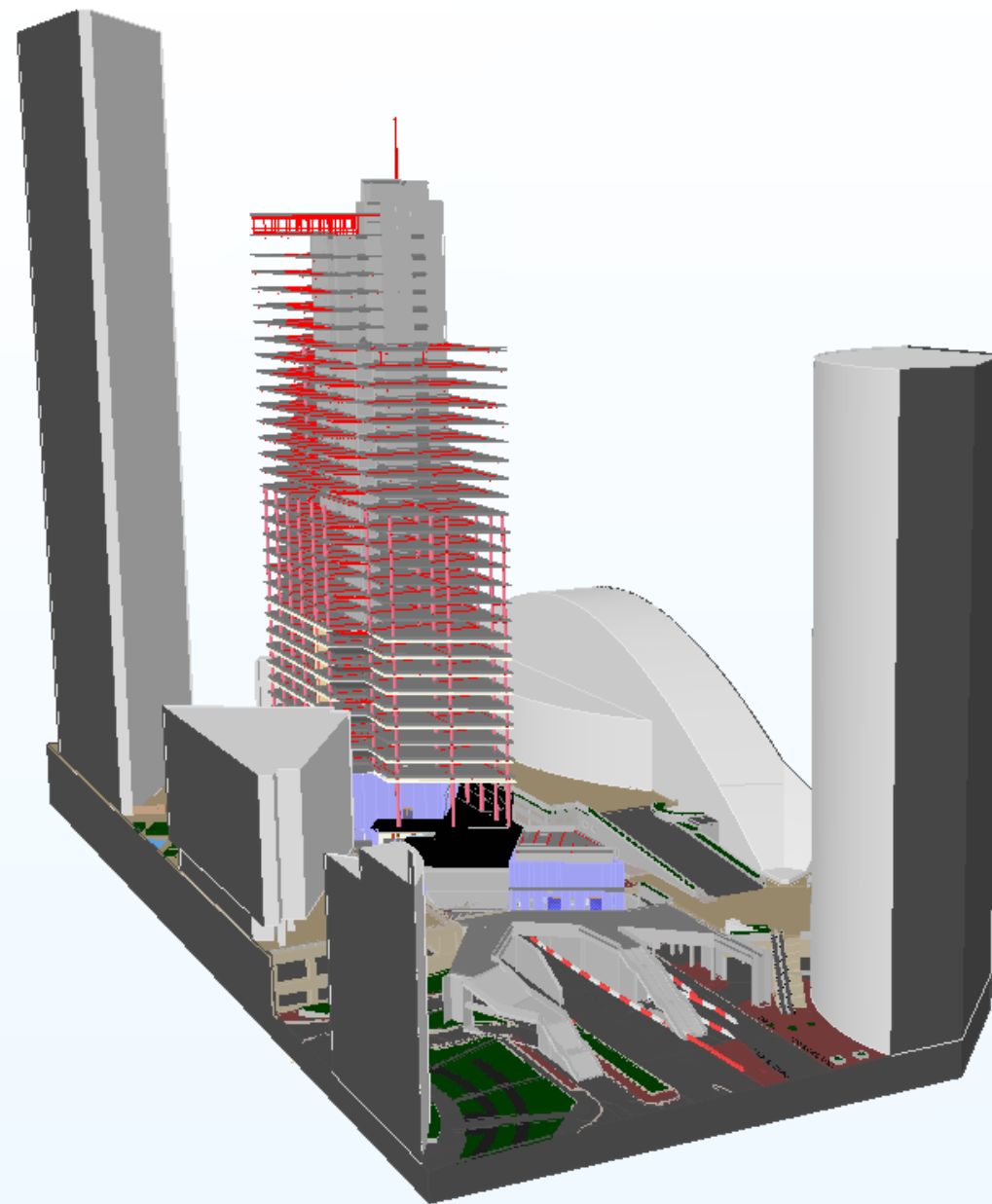
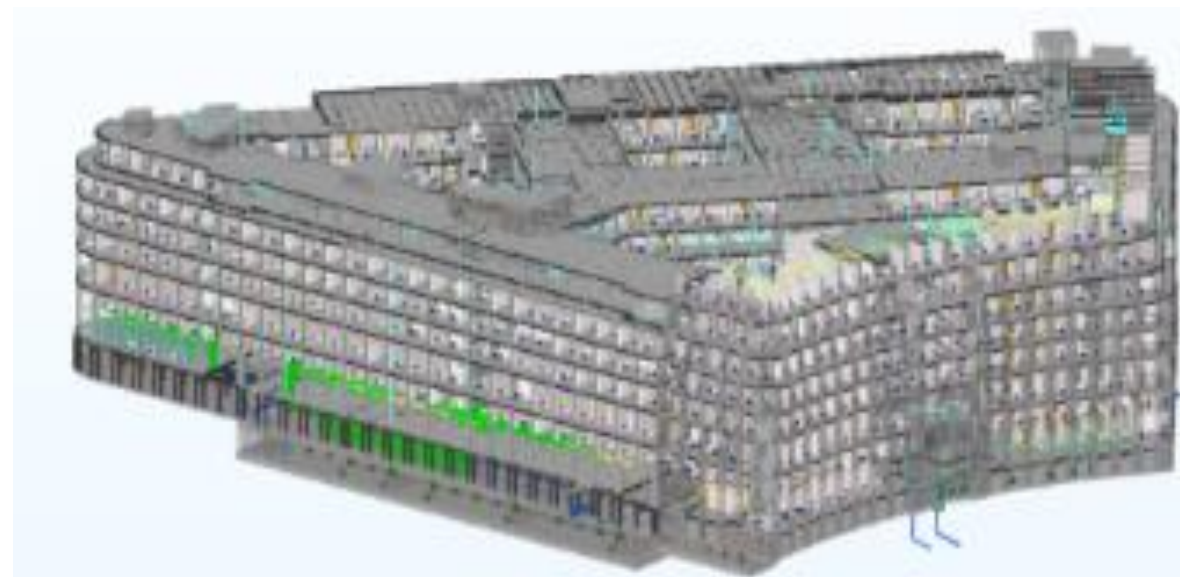
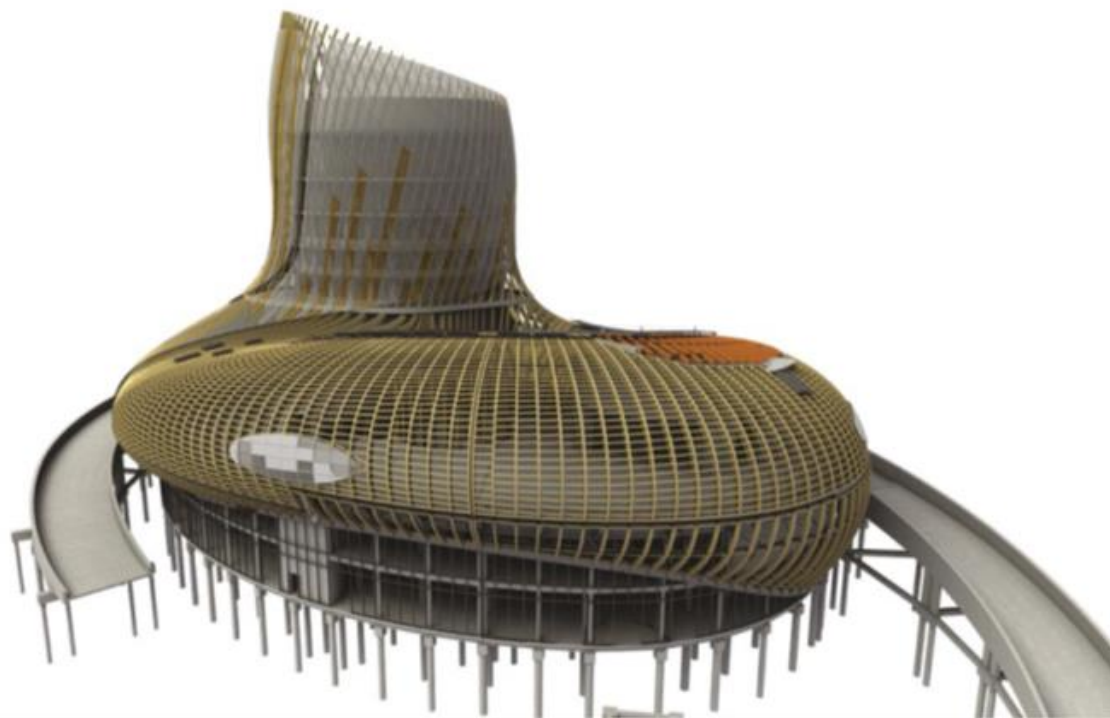
2011 - ...

2012 - 2017

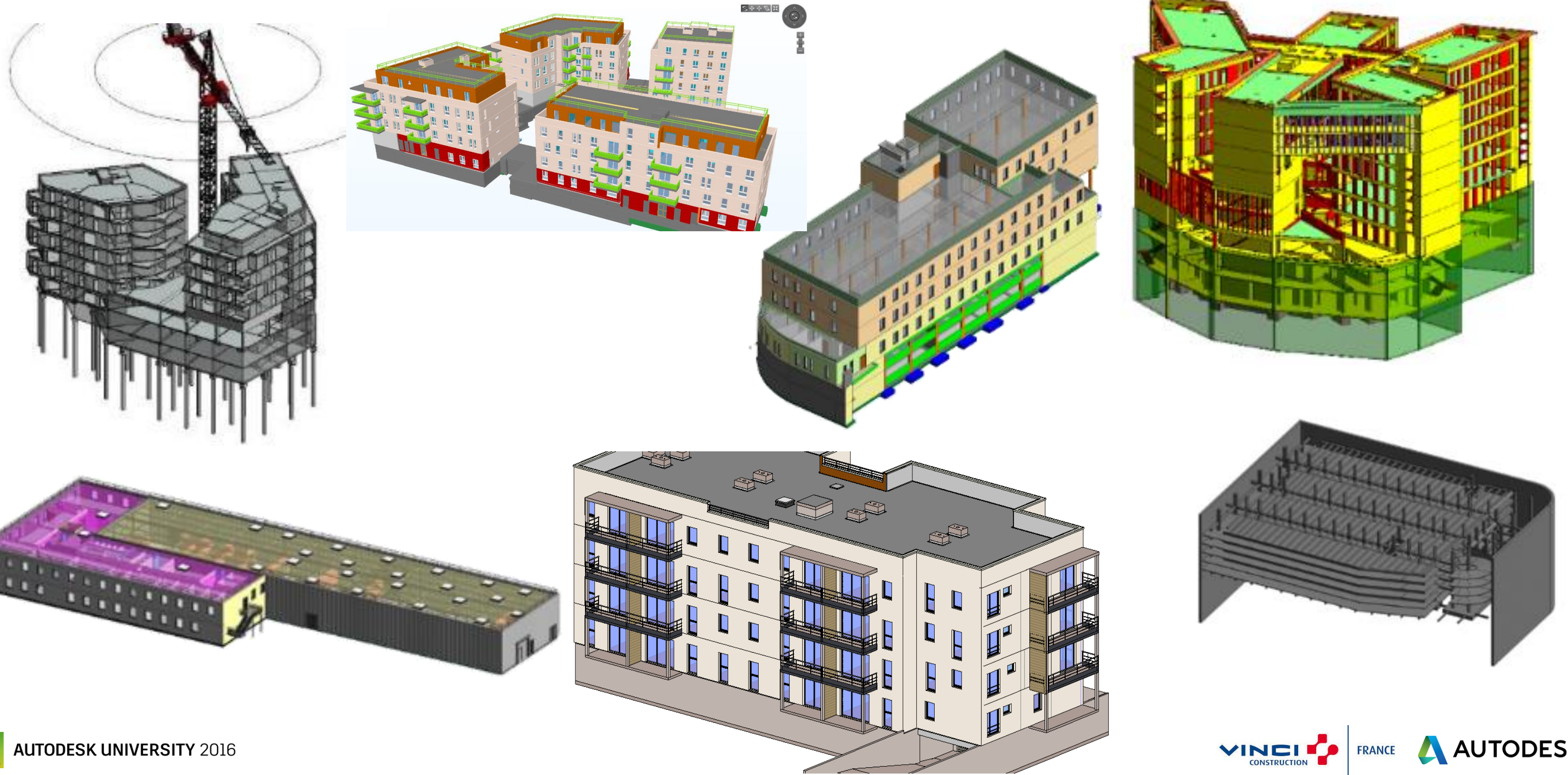
2015-2017

2016 - ...

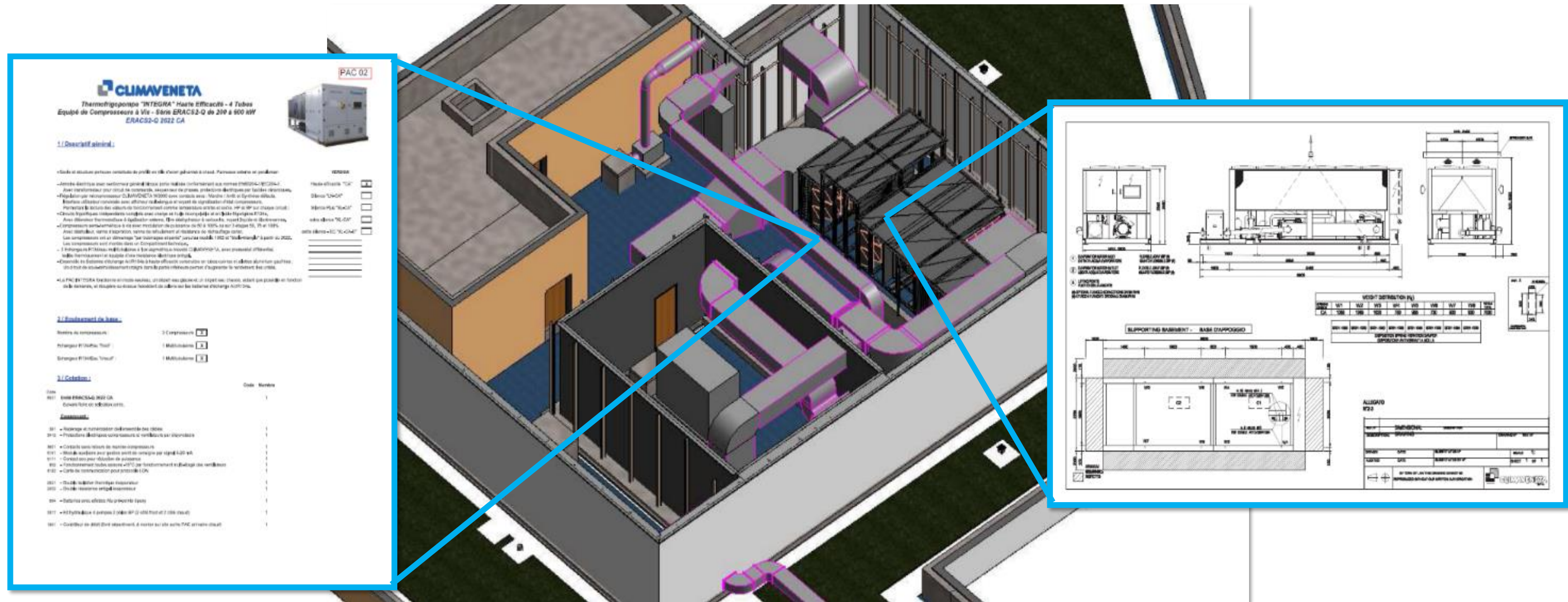
Iconic projects



Business as usual projects (80% TO)



The Client BLM dream : full lifecycle digital clone



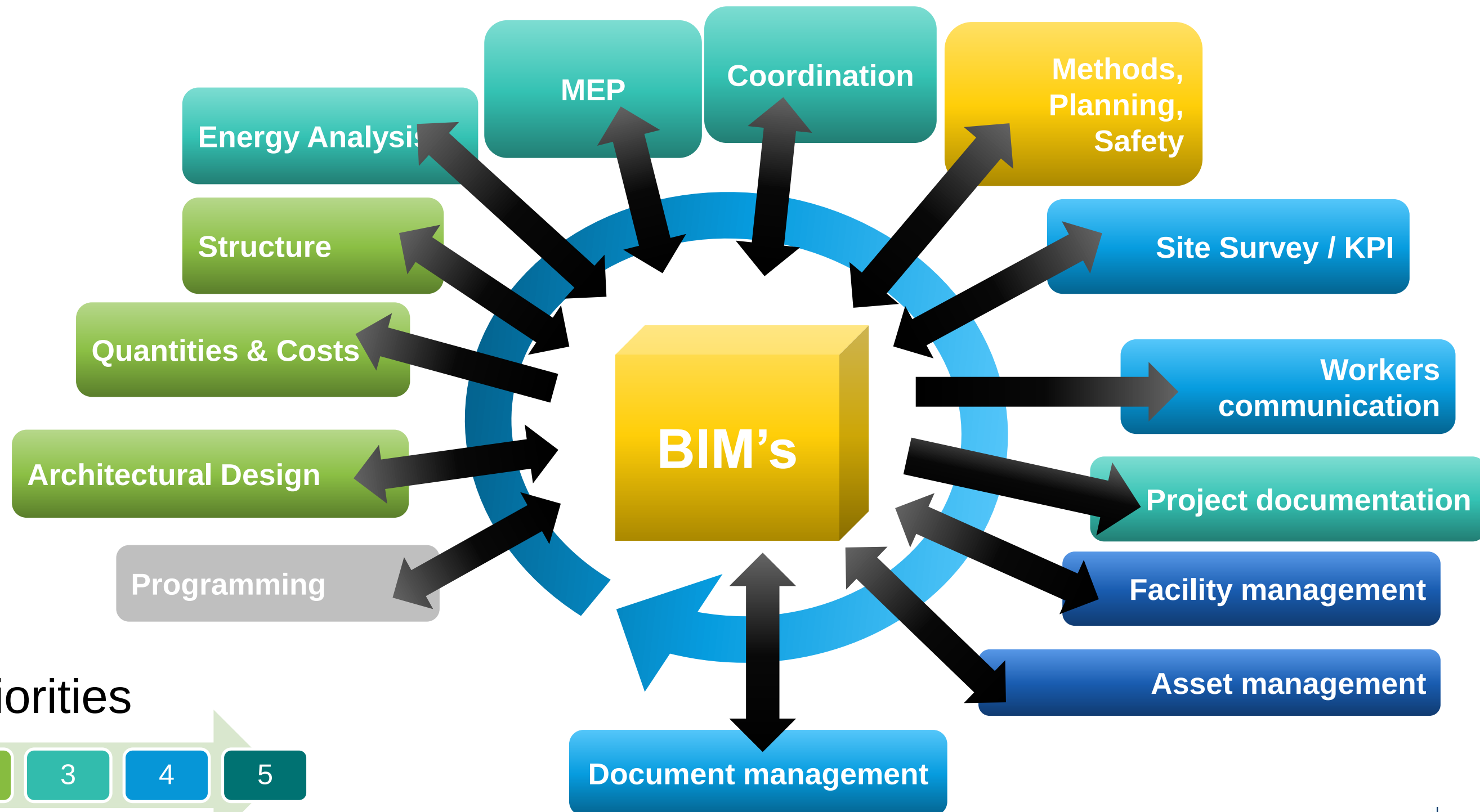
How did we approach BIM revolution?

- **Needs of the users**
 - bringing comfort to the users
- **Motivation of job profiles**
 - Job targets
- **Operational improvement**
 - ↘ engineer unit task duration
 - Bringing confort at work (empowering work value)

→ **Top management validation of the vision...**



Defining the impacted roles in the company

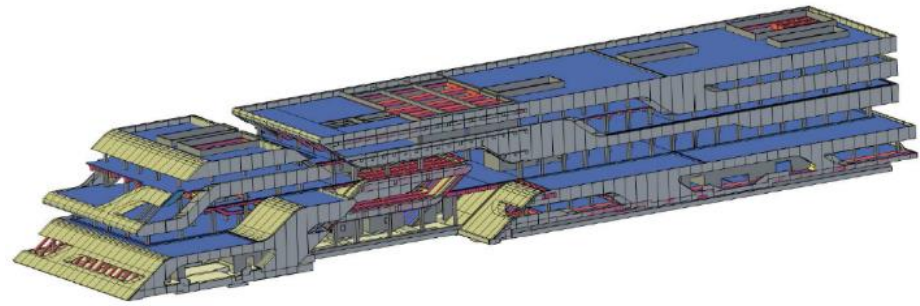


Define your Roadmap

Define impacts in roles and processes



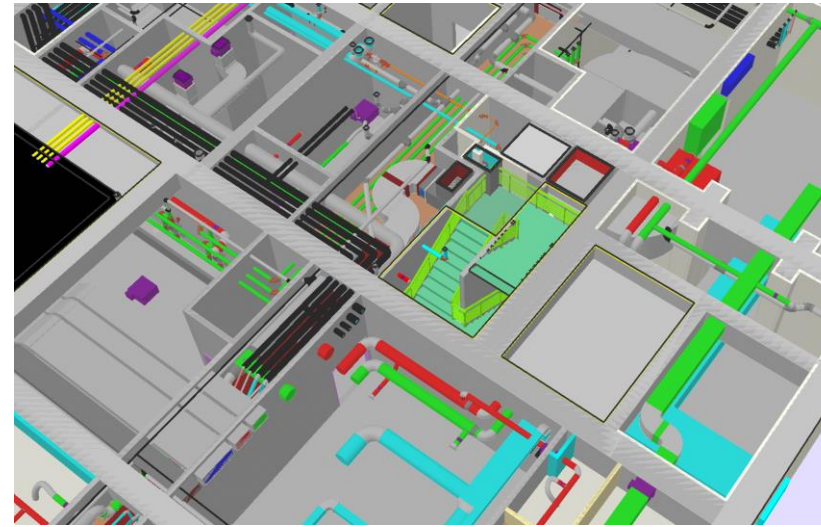
Understanding the revolution



Today → 3D :

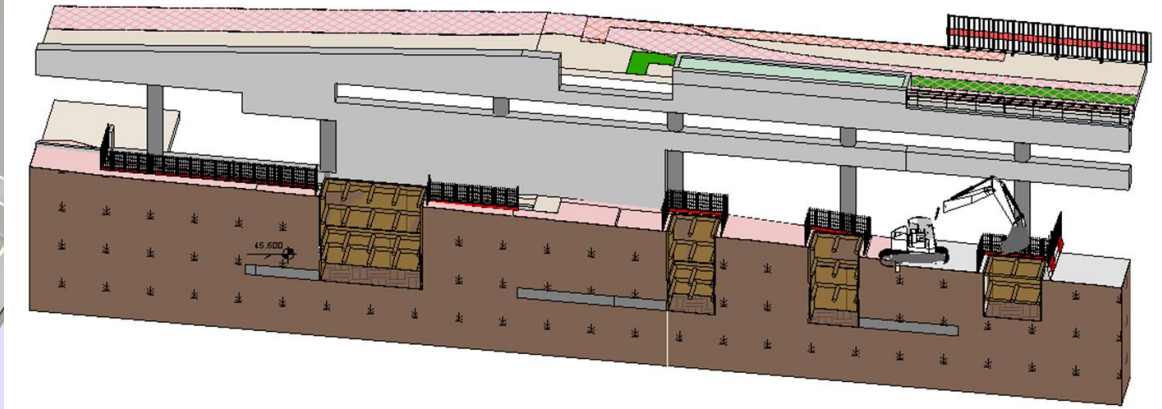
Points
Lines
Segments
Polylignes
Blocs
Hatches
Text
Surfaces
Solids

→ No artificial intelligence ...
(like in 2D drawings)



Today in BIM :

Walls
Slabs
Beams
Columns
Doors
Windows
Pipes
...

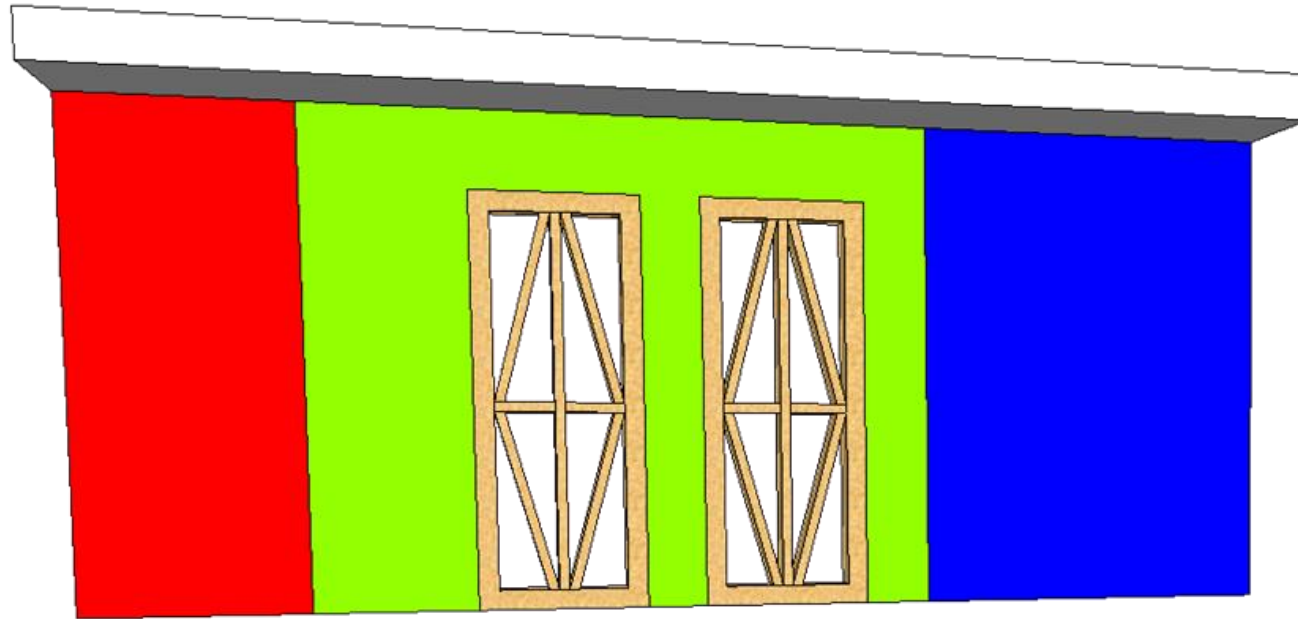


and
Tasks
Ressources
Costs codification
...

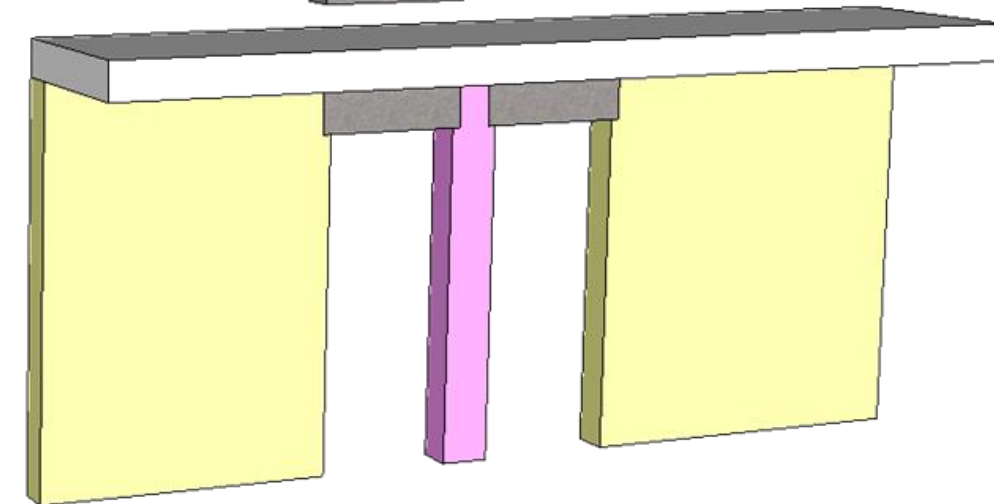
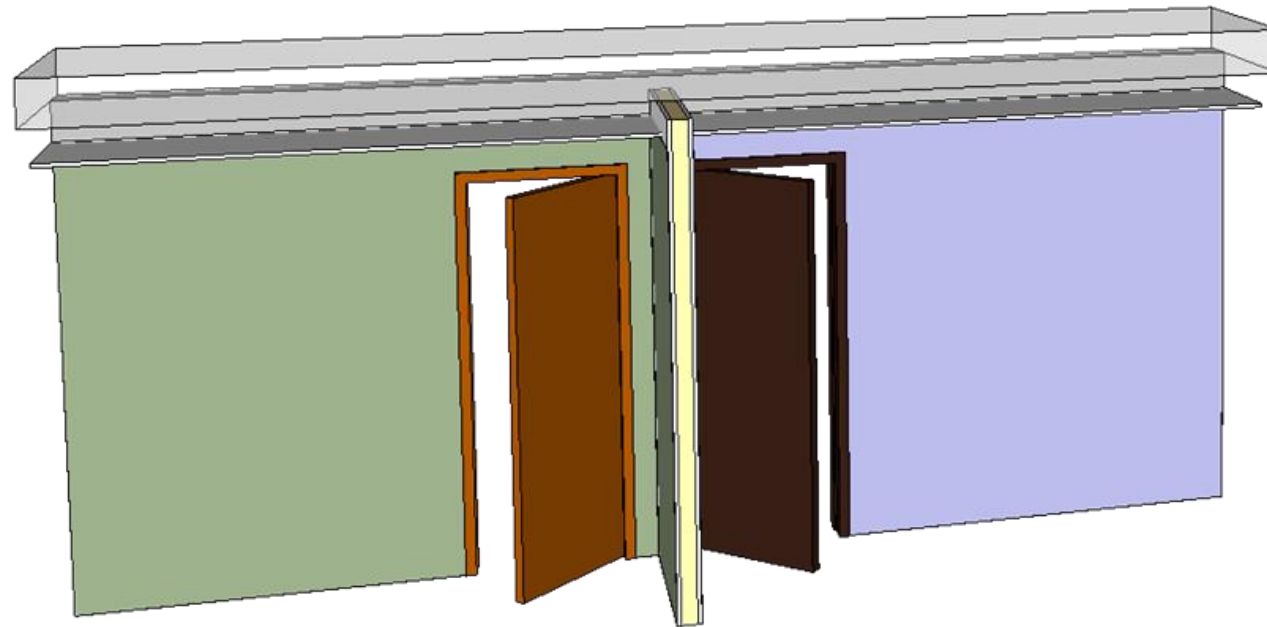
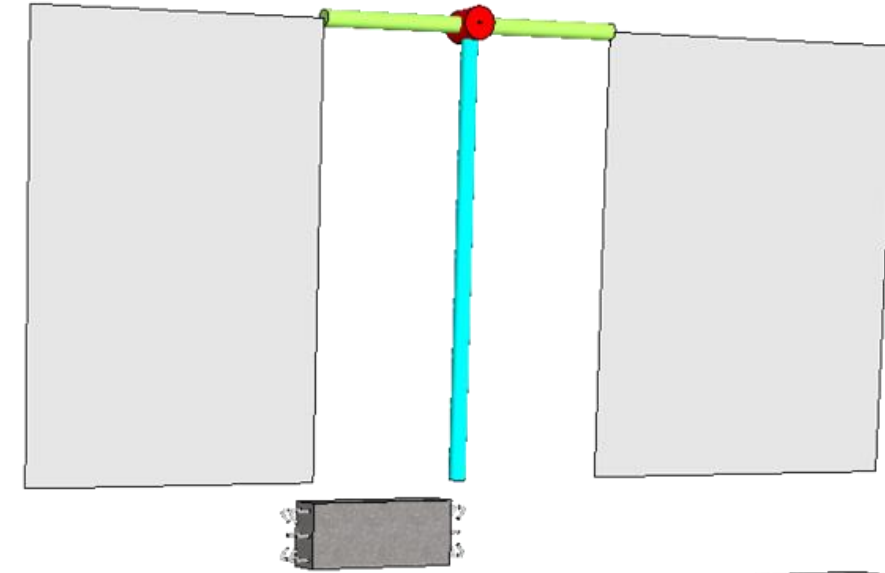
→ Semantical objects
data enriched and links

Data & jobs : tricky conciliation

Methods



Structural analytics

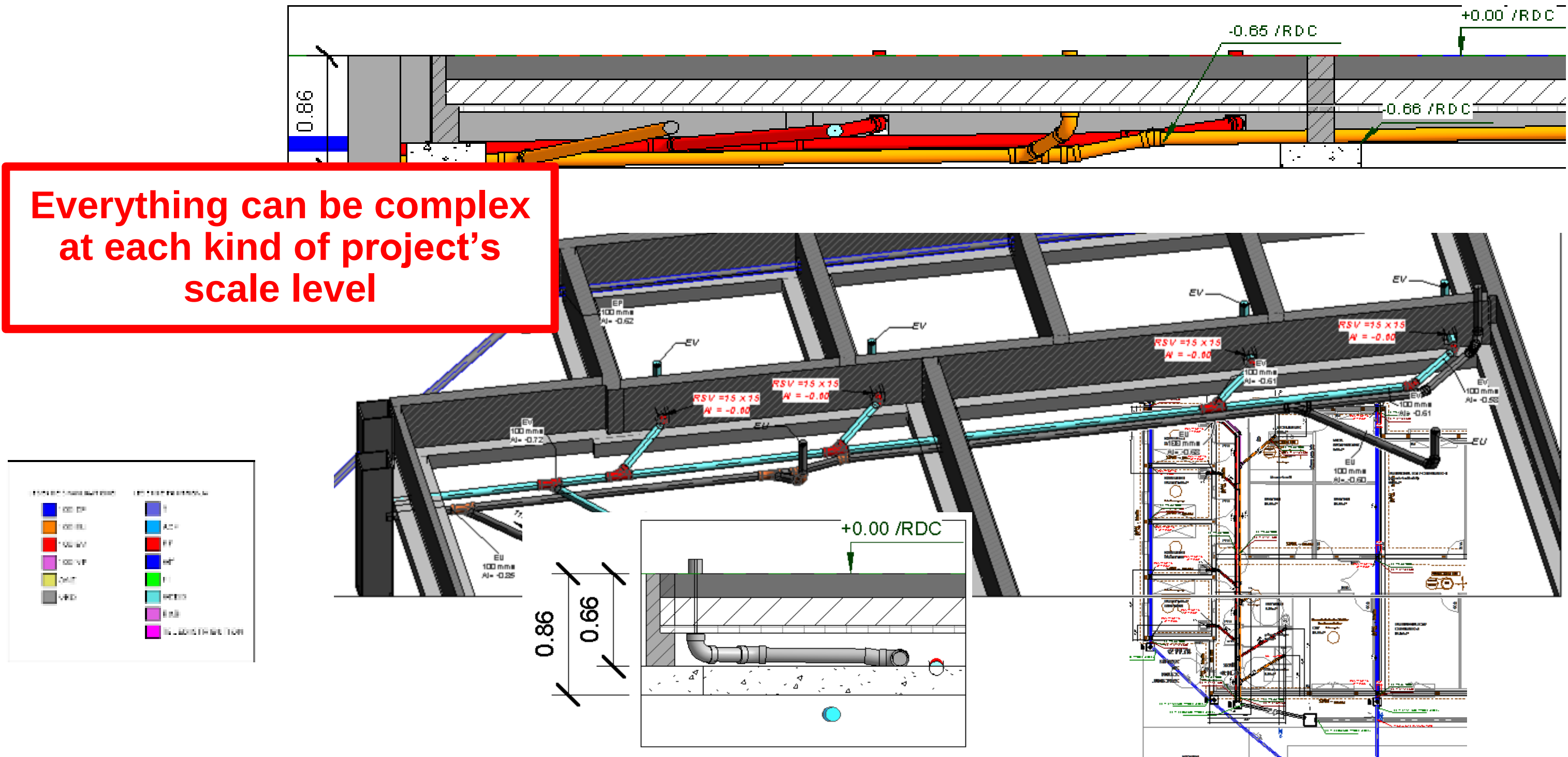


Cost estimating

Structural modeling

Even simple and small projects are complex...

Everything can be complex
at each kind of project's
scale level

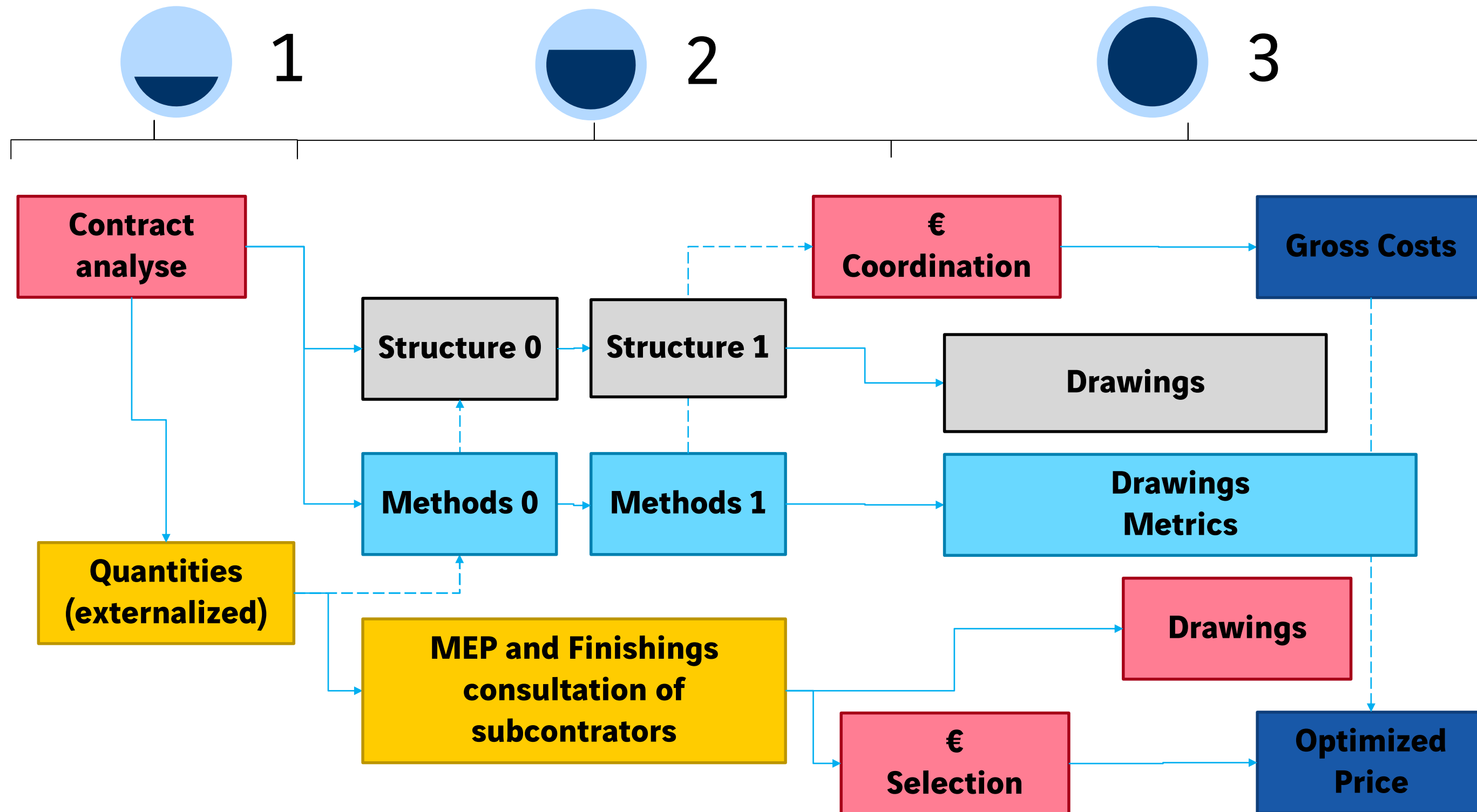


Process and organizational changes

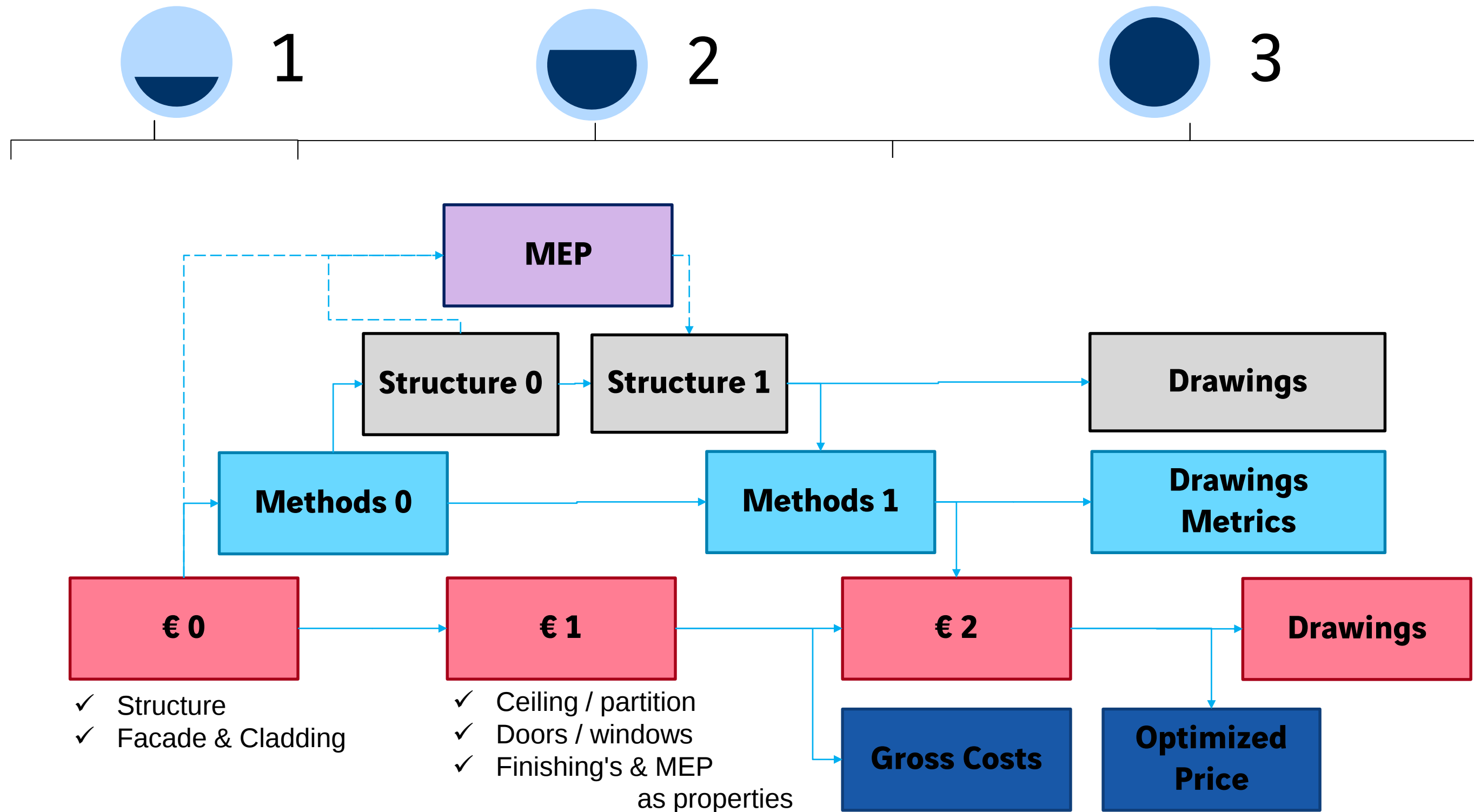
“Qui va piano, va sano...”



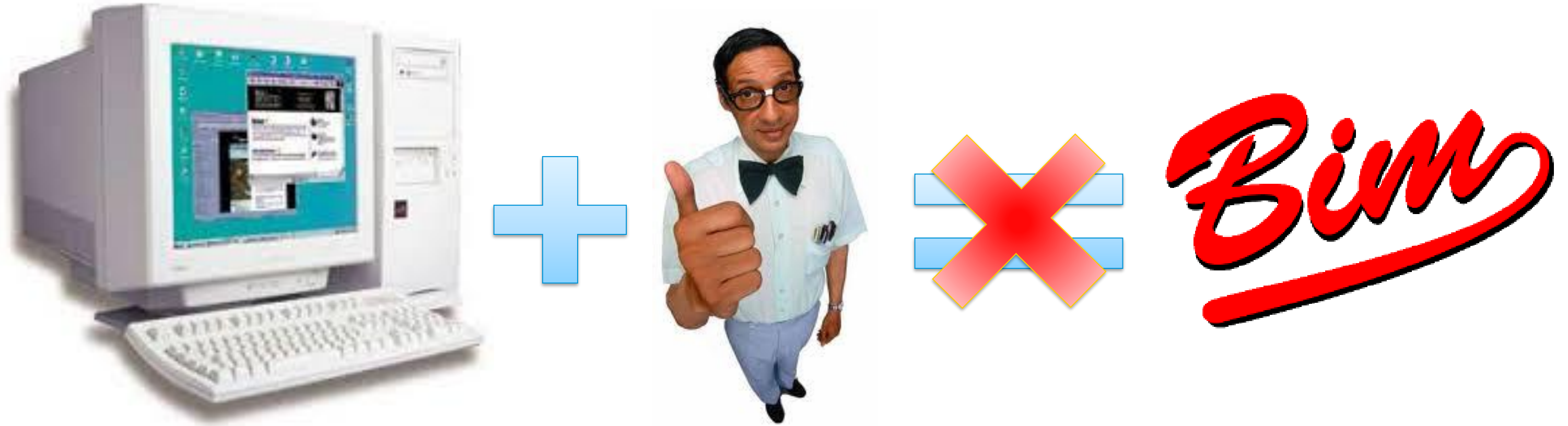
Engineering “traditional” process



Engineering process in BIM



Understanding what BIM is not



**Not automatic
Not rapid
... not magic!**

BIM aims company change management

Profits

3D
Coordinated drawing
Basic quantities

Investments

Softwares
Computers
Teaching

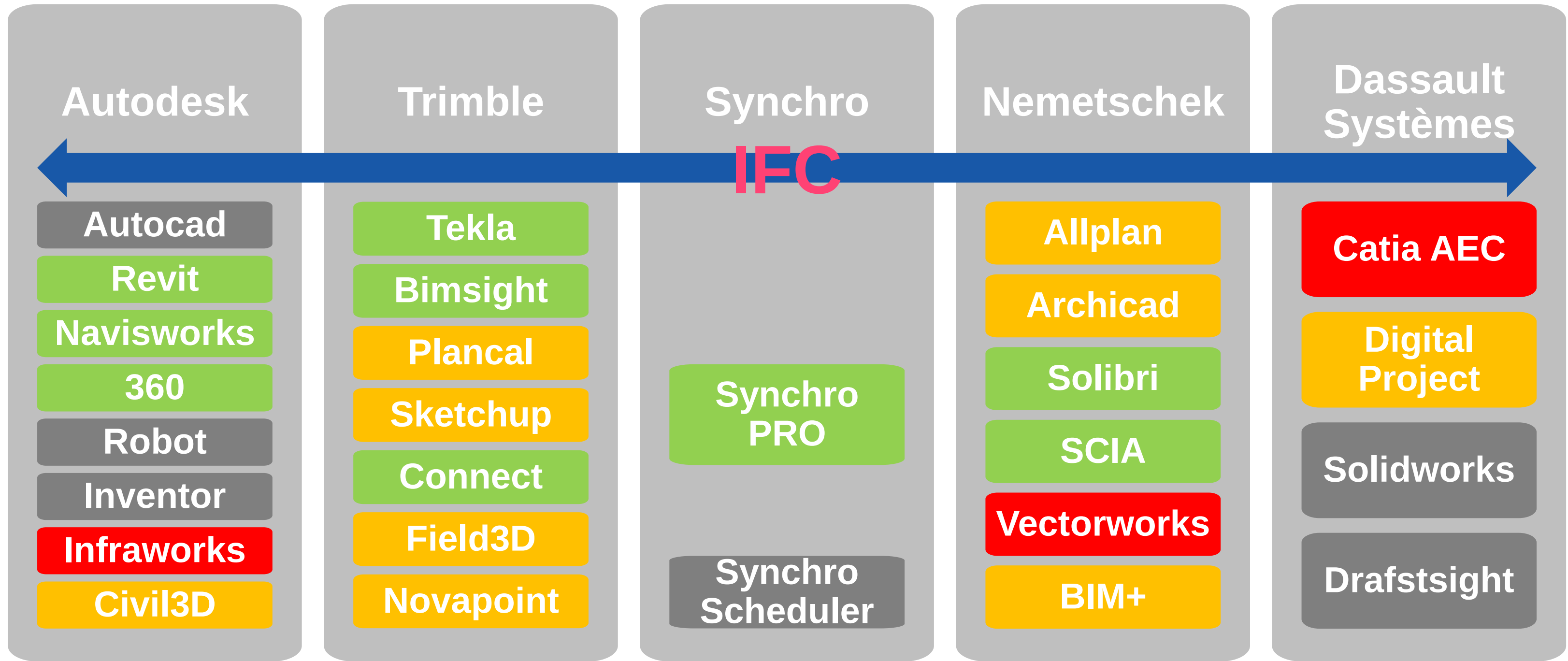
Quantities metrics
Fabrication drawings
Collaboration
Analytic simulation links
(STR, Th, Acoustics? , Light)
Point clouds and survey
5D
Data Analytics
Detailing et FAO

...

Methodology and documentation
Standards
Engineering productivity losses
Processes
Change resistance
Role mutation (responsabilities ?)
Normalization
Modeling quality
Co/sub-contractors contractualization

....

The software french market panorama



Identifying new roles added to the jobs

Frame scope

Project SWOT

BIM Goals

BIM uses / phases

BIM audit and survey

Manager

BIM processes

Modeling quality

Data Coordination

(Families & Templates)

Processes and modeling
control

Collaboration
implementation

Technology watch

Coordinator

Internal
workbreakdown

3D Coordination

Modeling quality

Modeler

Designing and
detailing

Deliverables
(tabs & 2D/3D
drawings)

Reviewer

Comments

Models exploitation
(views and datas)

Build your Roadmap

Define your BIM Office



My professionnal journey vs private path

- EIVP 47th promotion in 2008
- 2008-2009
 - **R&D engineer**
 - Civil BIM with Communic® R&D program
 - Housing modularization
- 2010-2011
 - **BIM engineer**
 - BU Creation
 - BIM Explorations
 - Team = 2 peoples
- 2011-2016
 - **BIM Business Unit Manager**
 - Development, organization and empowerment
 - Team grows from 4 to 18
- 2016 – ?
 - **BIM Director**
 - BIM consultancy/management big projects
 - Company developments (KM & tools) and processes
 - Innovation

And in my life...

- 4 apartment moves, 3 dogs, 1 cat ...
- Meet Love (my future wife)
- 1 apartment buying and deep refurbishing in 2 months ourselves
- Wedding
- Meet happiness (10 months old son)

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

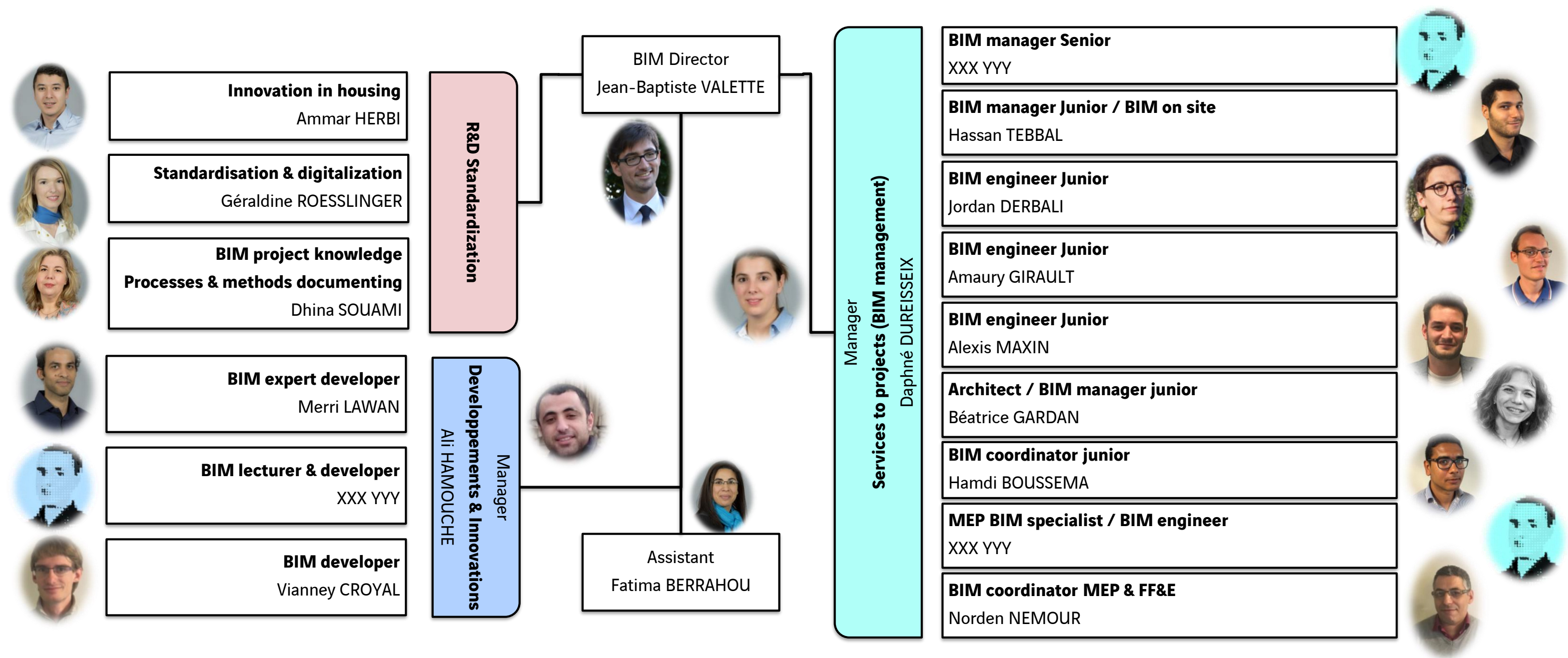
- BIM toolkit development and improvement
- Plugins and components development
- Proof of concept for new technologies

5

Technology watch

- Software editors roadmaps and R&D
- Prototypes and beta testing
- Trade shows and conferences

Organization

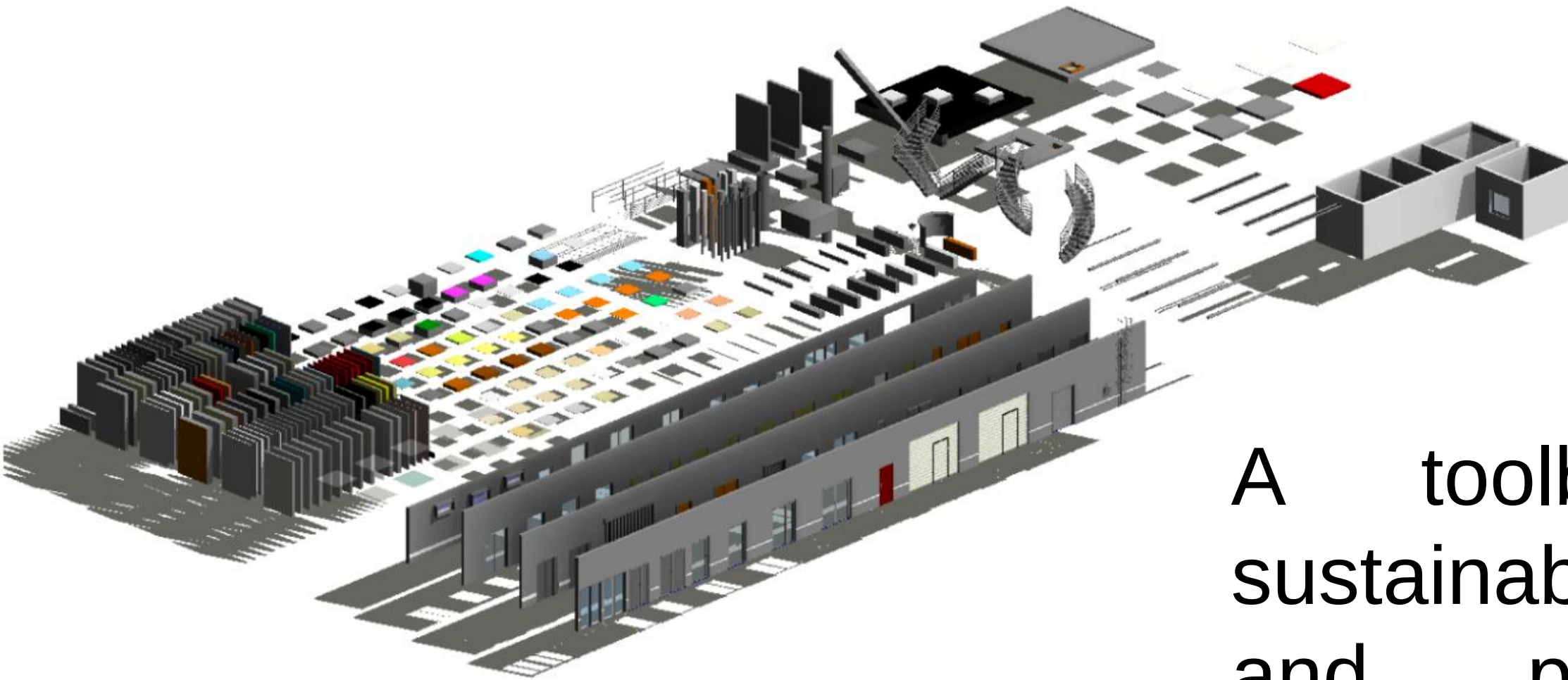


Build your Roadmap

Define your BIM Toolbox

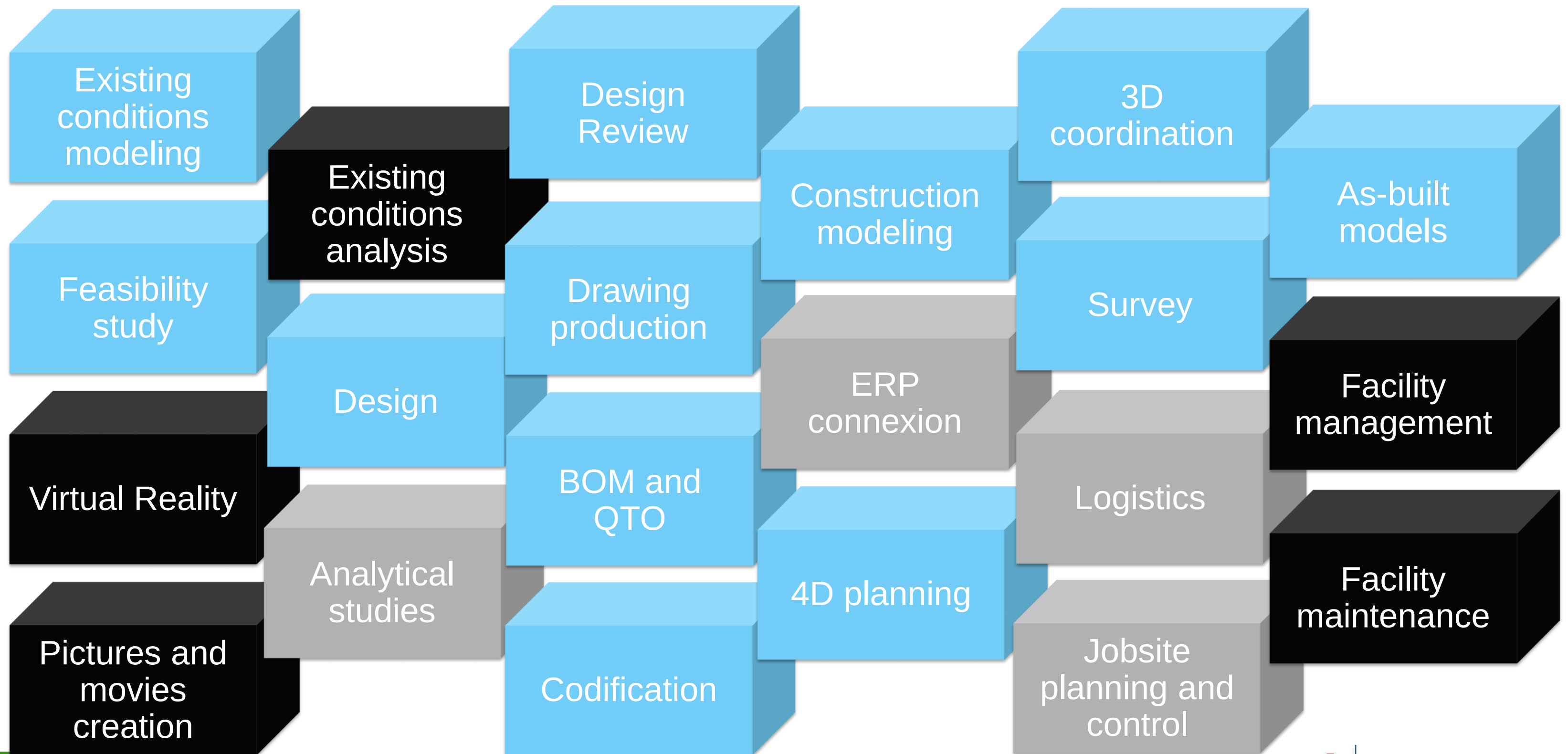


Blue BIM Toolbox



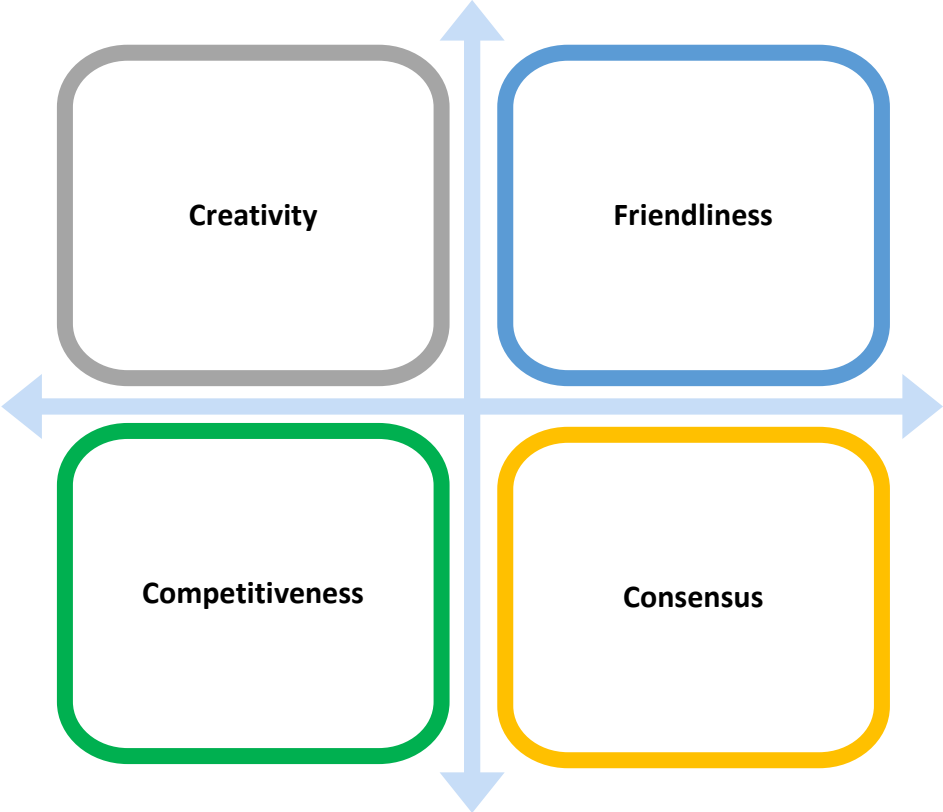
A toolbox to serve
sustainable construction
and project financial
viability.

BIM Uses targeted by the BlueBIM Toolbox

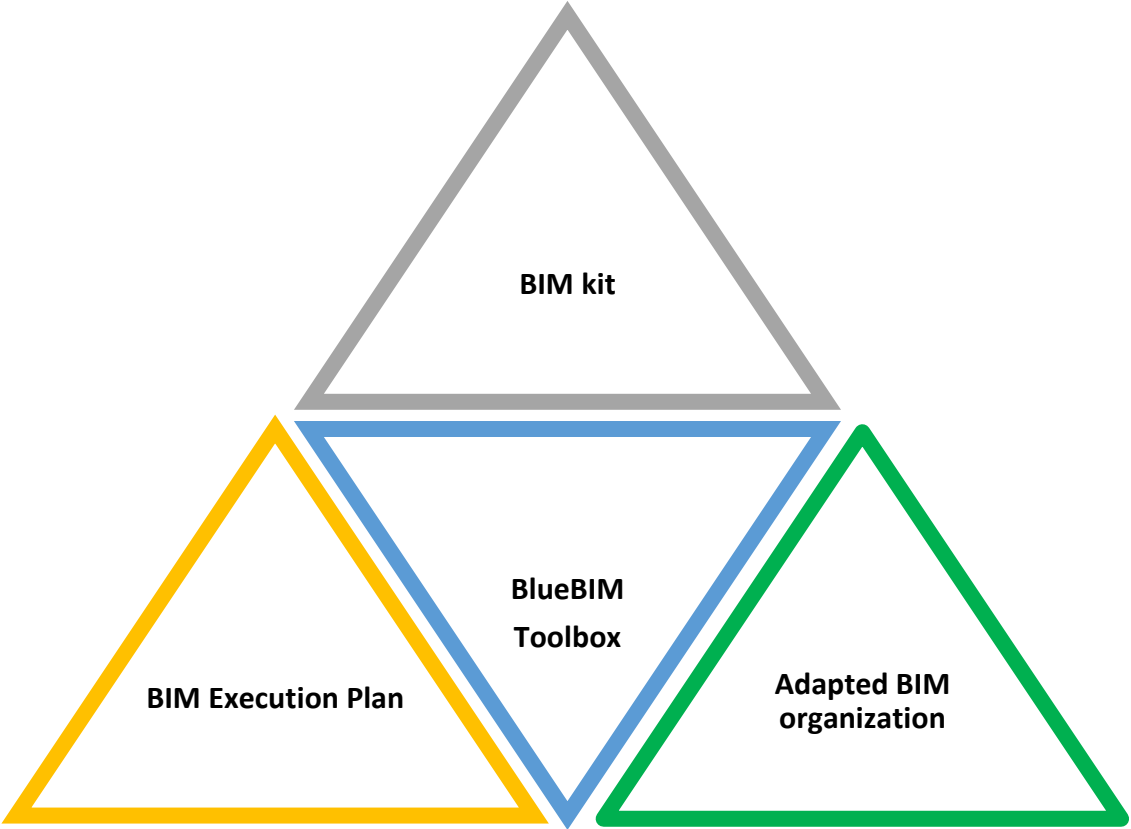


The BlueBIM Toolbox

Project needs



BIM tools



A 3 layers toolbox

Project's scale organization

Open BIM kit

Central Expertise for local use

Corporate BIM Execution Plan

- Document prepared by the BIM Manager
- It describes the roles, responsibilities, tasks and processes applicable to the project
- BIM production must comply with the BIM Execution Plan
- It is useful to all project stakeholders from design to AsBuilt, to ensure uniformity in the use of BIM

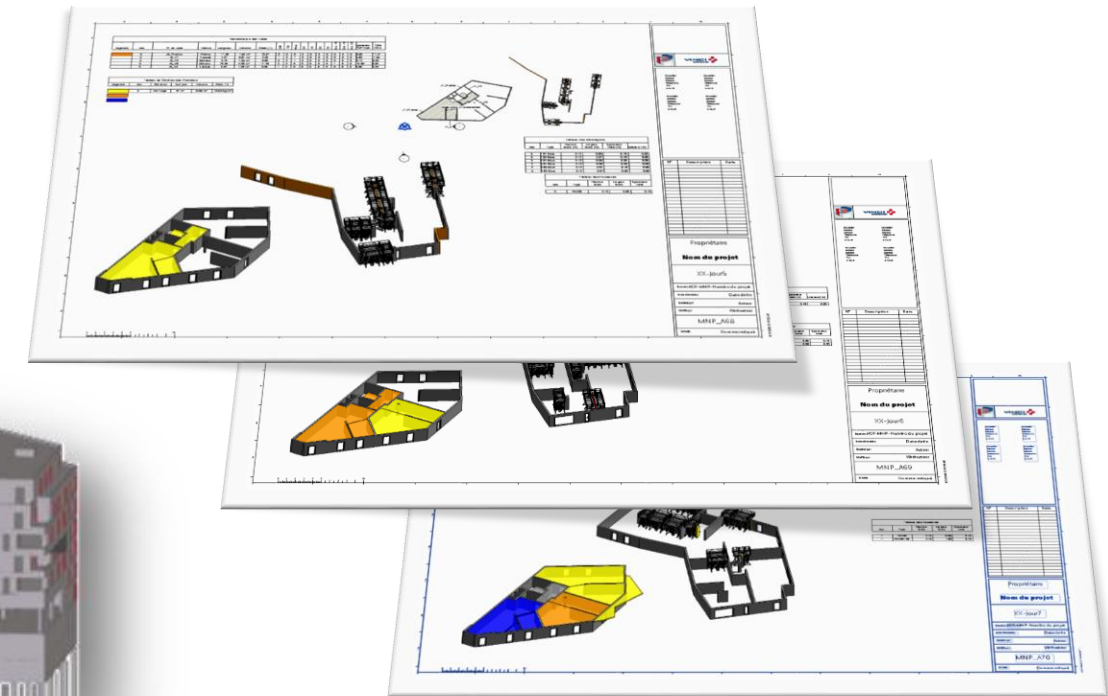
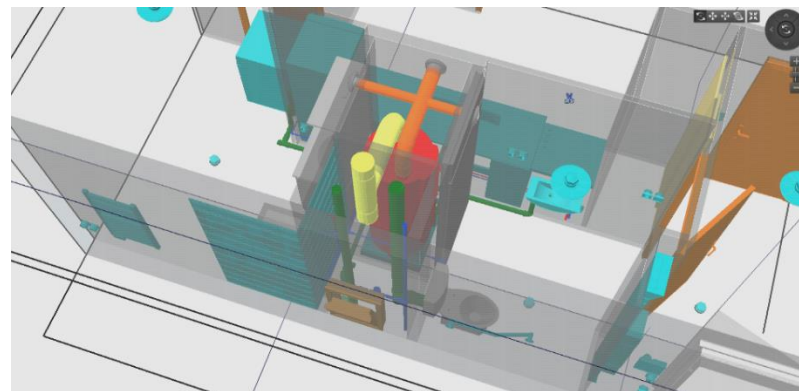
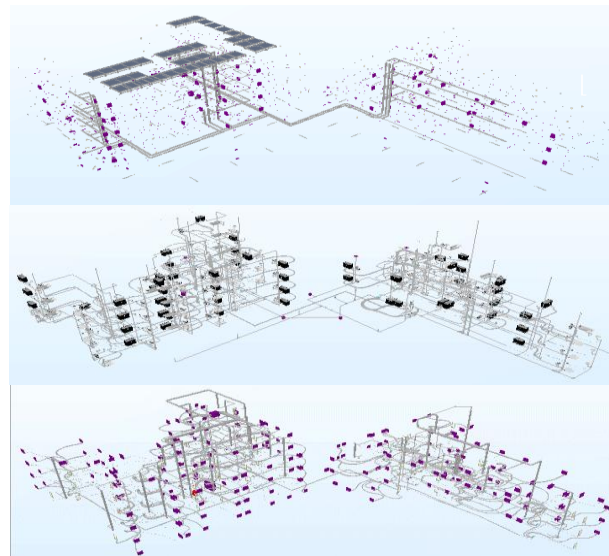
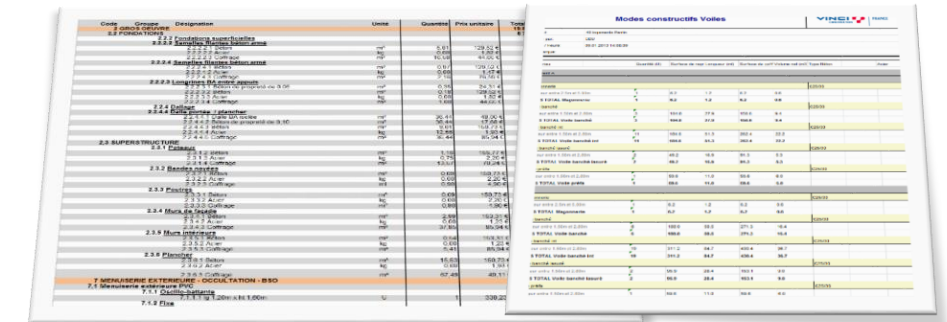
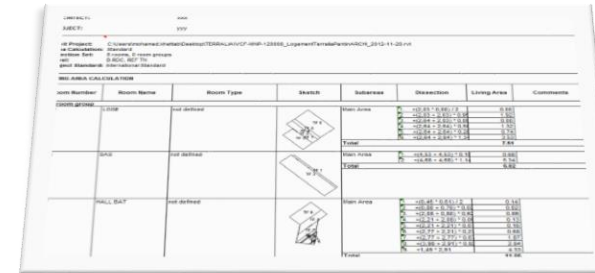
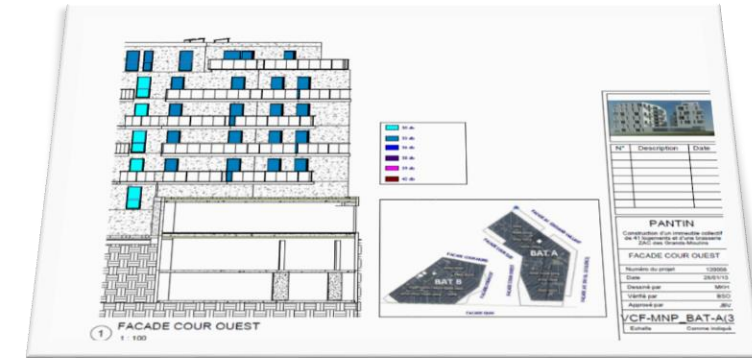
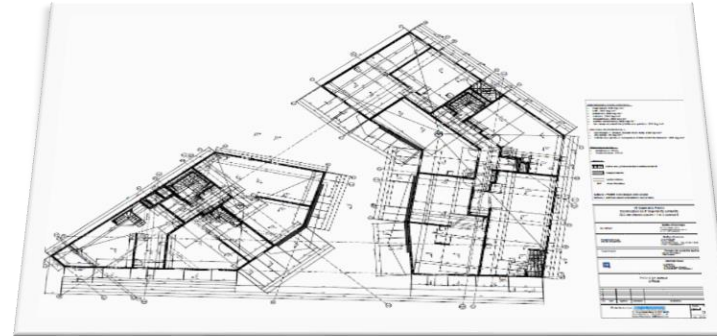


BIM tools and their uses are constantly changing, therefore this BIM Execution Plan is not frozen and is updated throughout the project

BIM Kit

The kit contains :

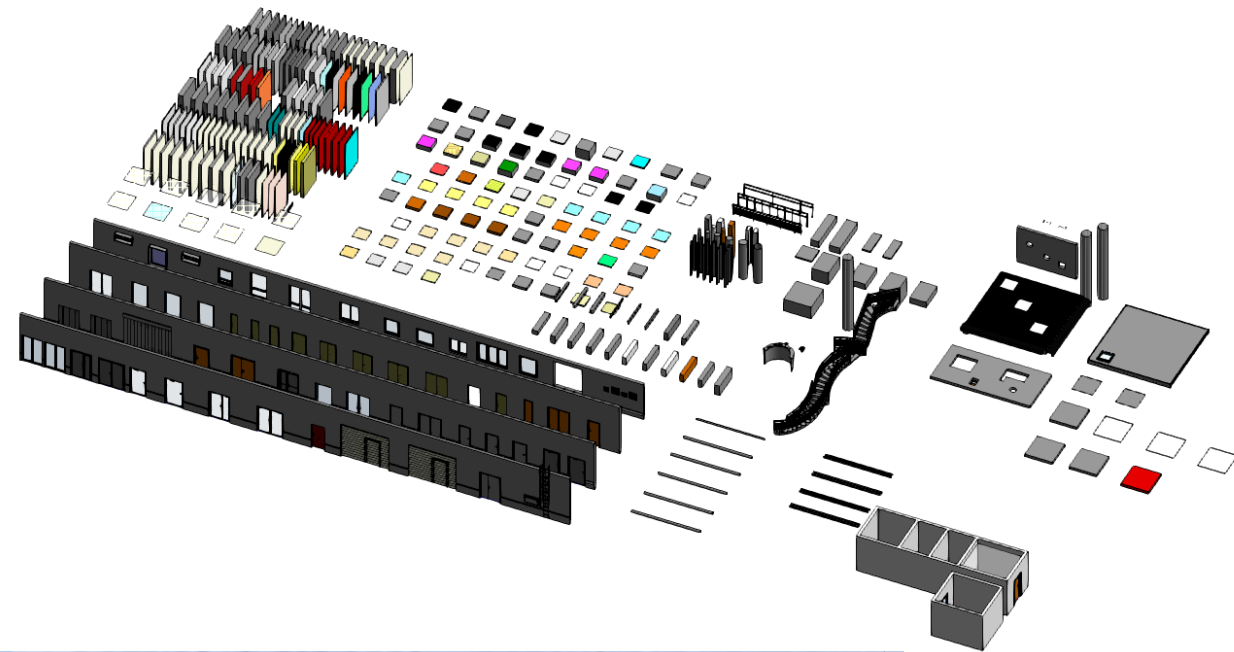
- Generic objects
- their settings
- Templates
- Modeling rules of VINCI CONSTRUCTION
- Plugins to accelerate the modeling and operation models



BIM Kit

Architectural template

- Families: walls, slabs, columns, finishes, doors, ...



Shared parameters

Modifier l'assemblage

Famille: Mur de base
Type: VCF_CES_CLOISON_ALVEOLAIRE_PLACOPAN_DOUBLE_180-50
Epaisseur totale: 0.1800
Résistance (R): 3.0281 (m²K)/W
Masse thermique: 9.46 kJ/K

Exemple de hauteur: 6.0000

	Fonction	Matériau	Epaisseur	Retournements	Matériau structurel
1	Limite de la couche principale	Couches au-dessus	0.0000		
2	Finition [4]	VCF_PLAQUE_PLATRE	0.0150		
3	Doublage [2]	VCF_PLACOPAN	0.0500		
4	Isolant/Vide [3]	VCF_LAINE_MINERALE	0.0540		
5	Doublage [2]	VCF_PLACOPAN	0.0500		
6	Porteur/Ossature [1]	VCF_PLAQUE_PLATRE	0.0130		
7	Limite de la couche principale	Couches au-dessus	0.0000		



Multilayers walls

- Buildings
- Zone
- Level

Localization parameters

- Acoustic performance
- Fire classification
- Type of lock
- Type of door leaf
- ...

Door accessories

Propriétés

VCF_PORTE_METAL_VITREE_2V
VCF_PORTE_METAL_VITREE_2V_HM_90
+50x220cm

Portes (1) Modifier le typ

Contraintes	
Niveau	1 - RDC
Hauteur de l'appui	0.0000
Construction	
Type de cadre	
Texte	
VCF_Localisation	
VCF_Etage	RDC
VCF_Zone	??
VCF_Mode_Realisation	
VCF_Localisation_Zone	Localisation ?? Zone ??
VCF_Heure	
VCF_Heure_Ratio	
VCF_Grue	
Matériaux et finitions	
Matériau des huisseries	
Finition	
VCF_Menuiserie	
VCF_PV_Vitrage	
VCF_Matériau_Occulta...	
VCF_Affaiblissement...	
VCF_PV_Serrure	
VCF_Finition_Portes	
VCF_PV_Cylindre	
VCF_Film_Colore	☒
VCF_Poussant_Gauche	☐
VCF_Poussant_Droit	☐
VCF_Barre_Seuil	☐
VCF_Finition_Vantail	
VCF_Fermetures	
VCF_Garnitures	
VCF_Oculus	
VCF_Asservissement	
VCF_Control_Acces	
VCF_Accessoires	
VCF_Occultation_Ext	
VCF_Occultation_Int	
VCF_Ferme_Porte	
Cotes	
VCF_Retrait_du_Nu_Int...	0.0700
VCF_Epaisseur_Hote	0.2000

Nomenclatures/Quantités

_INFOS_FENETRES
_INFOS_FINISHES_PIECES
_INFOS_PORTES
_RATIOS_D_ACIERES_DALLES
_RATIOS_D_ACIERES_FONDATIONS
_RATIOS_D_ACIERES_MURS
_RATIOS_D_ACIERES_OSSATURE
_RATIOS_D_ACIERES_PIEUX
_RATIOS_D_ACIERES_POTEAUX
_RATIOS_D_HEURE_DIVERS
_RATIOS_D_HEURE_MURS
_RATIOS_D_HEURE_SOLS
_VERIFICATION_BETON_PROPRETE_DEBORD
_VERIFICATION_DESCRIPTION_DIVERS
_VERIFICATION_DESCRIPTION_MURS
_VERIFICATION_DESCRIPTION_SOLS
_VERIFICATION_MATERIAUX_POUTRES
VCF_LOT_04_01_FUT
VCF_LOT_04_01_GROS_BETON_FILANT (FONDATIONS)
VCF_LOT_04_01_GROS_BETON_FILANT (OSSATURE)
VCF_LOT_04_01_GROS_BETON_ISOLE
VCF_LOT_04_01_ISOLATION_SOUBASSEMENT
VCF_LOT_04_01_LONGRINES
VCF_LOT_04_01_PAROI_MOULEE
VCF_LOT_04_01_PIEU
VCF_LOT_04_01_RADIER&DALLE_PORTE&FOSSE_AS
VCF_LOT_04_01_RELEV_FOSSE_ASCENSEUR
VCF_LOT_04_01_SEMELLE_FILANTE
VCF_LOT_04_01_SEMELLE_ISOLEE
VCF_LOT_04_01_TETE_PIEU
VCF_LOT_04_01_TIRANT_PARASISMIQUE
VCF_LOT_04_02_ACROTERE_BETON
VCF_LOT_04_02_MUR&ACROTERE_PREFA
VCF_LOT_04_02_MUR_AGGL&BET_CELUL&BRIQU
VCF_LOT_04_02_MUR_OSSATURE_BOIS
VCF_LOT_04_02_MUR_RIDEAU
VCF_LOT_04_02_PREMUR
VCF_LOT_04_02_VOILE_BETON
VCF_LOT_04_03_POTEAU
VCF_LOT_04_04_POUTRE
VCF_LOT_04_05_BALC_CASQ&PALIER
VCF_LOT_04_05_CAILLEBOTIS
VCF_LOT_04_05_CHAPE
VCF_LOT_04_05_DALLE_BETON

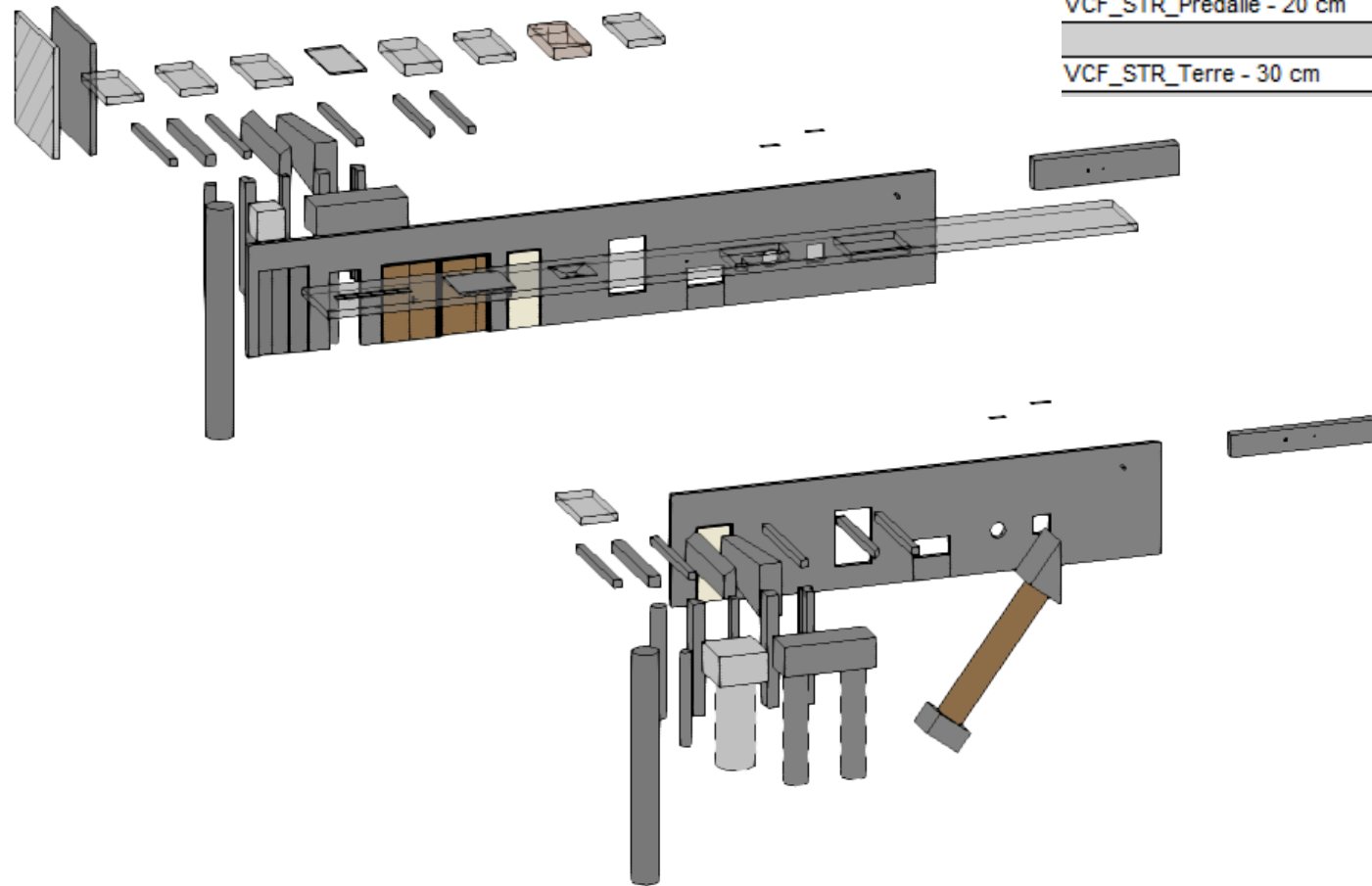
Information
schedules about
windows, doors
and rooms

- Steel density ratio schedules: slabs, walls, funding, beams, columns
- Hour ratio schedules: walls, slabs, multicategor ies

QTO according
French
classification

BIM Kit

Structural template



<_RATIOS_D_ACIERS_DALLES>

A	B	C
Type	VCF_Ratio_HA (kg/m2)	VCF_Ratio_TS (kg/m2)
VCF_STR_Dalle alvéolaire - 20 cm		
VCF_STR_Dalle brute - 20 cm		
VCF_STR_Dalle de compression - 20 cm		
VCF_STR_Dalle de finition - 5 cm		
VCF_STR_Dalle sur plots - 30 cm		
VCF_STR_Prédalle - 20 cm		
VCF_STR_Terre - 30 cm		

- ✓ Families: walls, slabs, beams...
- ✓ Shared parameters
- ✓ Schedules

SURCHARGES D'EXPLOITATION :

logement: kg/m²
 hall: kg/m²
 escalier: kg/m²
 balcon: kg/m² + charge permanente dalle sur plots
 circulation: kg/m²
 partie commune: kg/m²
 terrasse inaccessible: kg/m²

CHARGES PERMANENTES :

carrelage + chape (total= cm ht): kg/m²
 cloisons: kg/m²
 dalles sur plots + complexe d'étanchéité+isolant: kg/m²

Résistance au feu :

verticaux:
 horizontaux:

Légende :



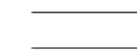
Terre pleine



Dalle sur plots+isolant+étanchéité



Maçonnerie



Voile béton

NP

Non porteur

PV

Poutre Voile

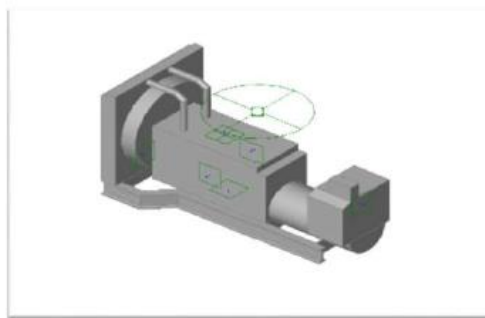
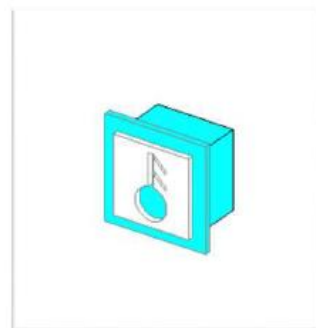
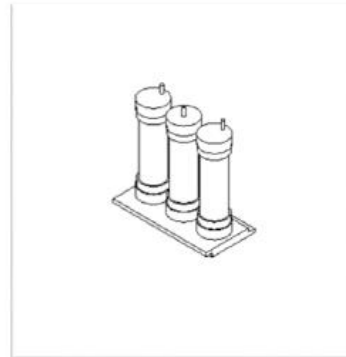
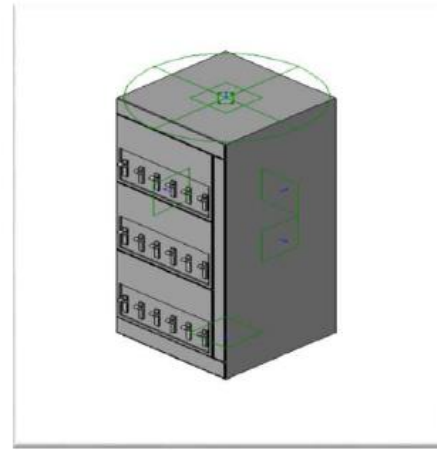
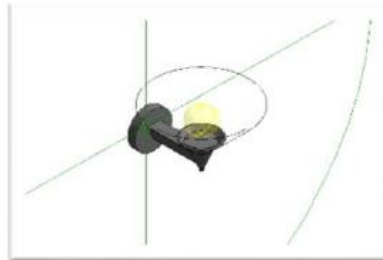
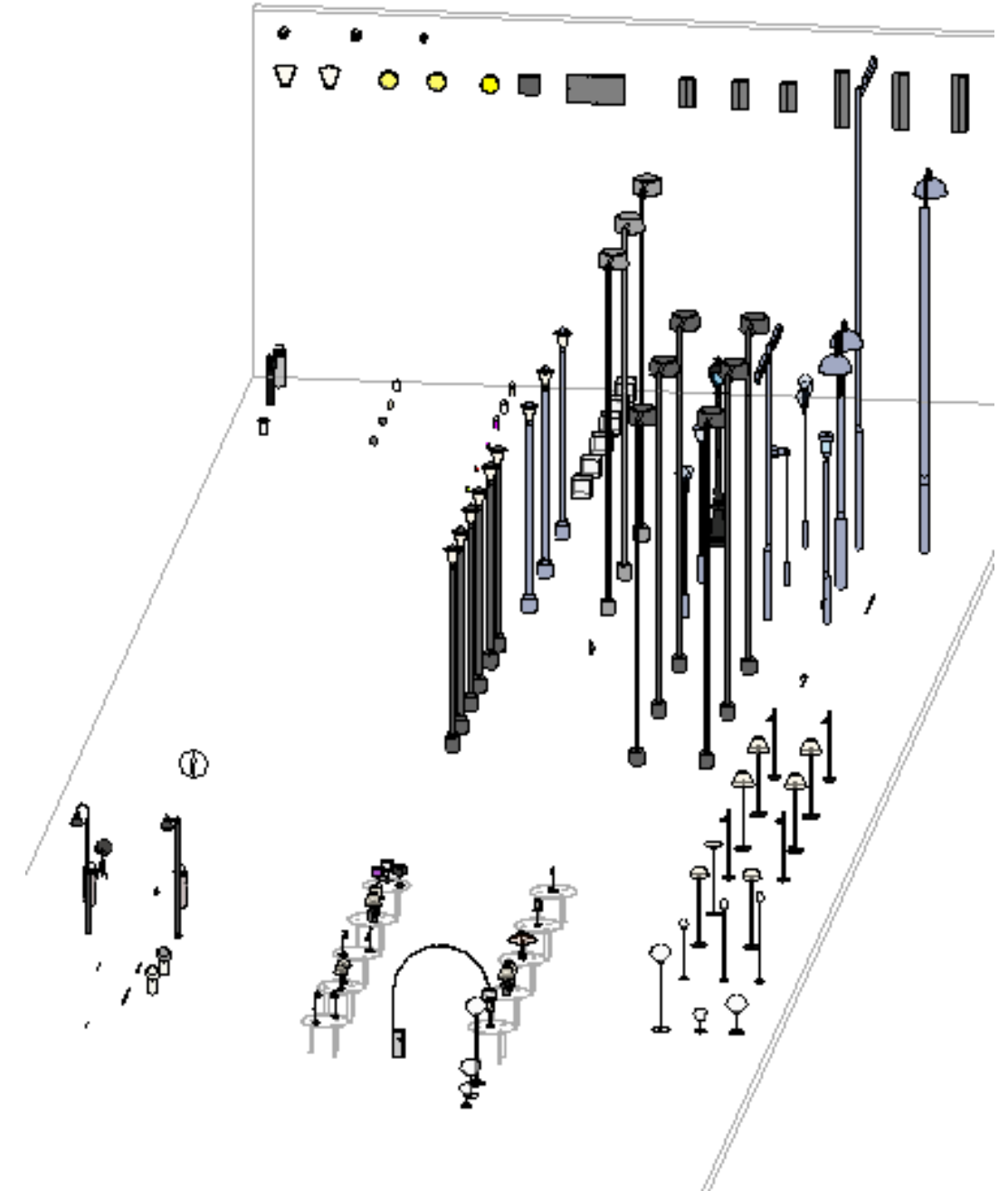
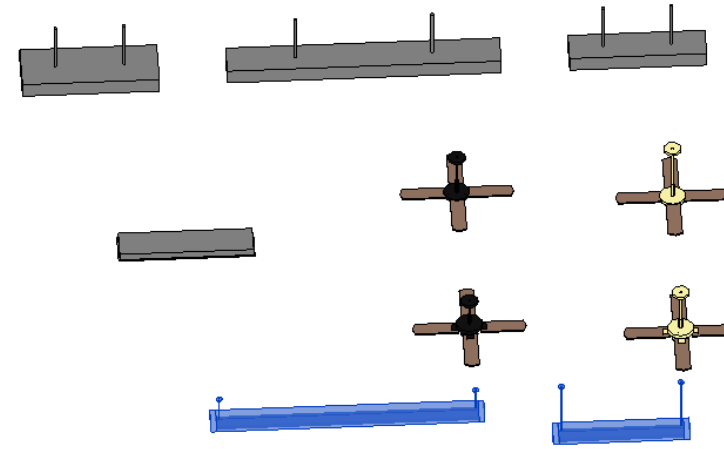
Aciers :

Béton :

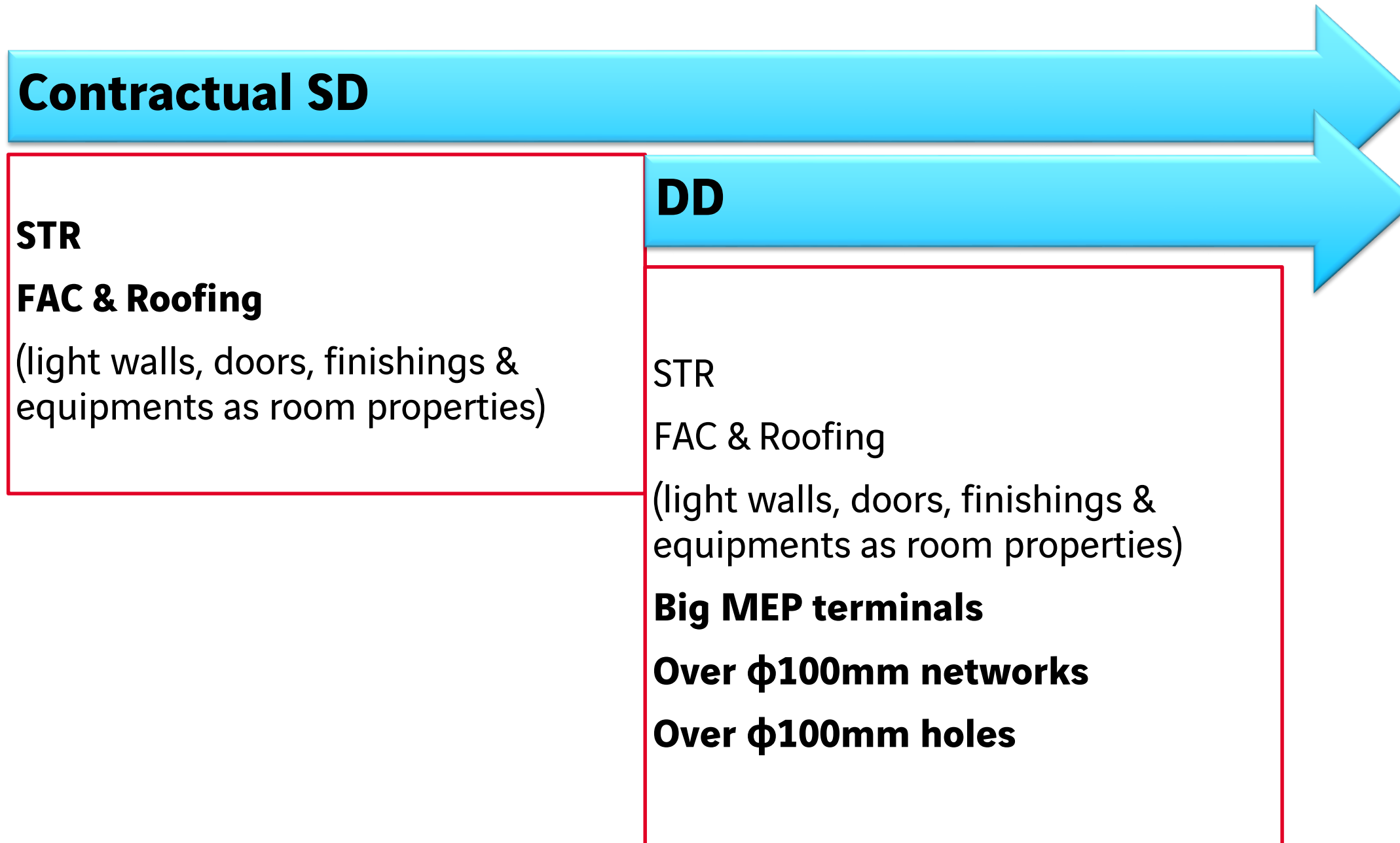
BIM Kit

MEP template: HVAC-Plumbing, Electrical

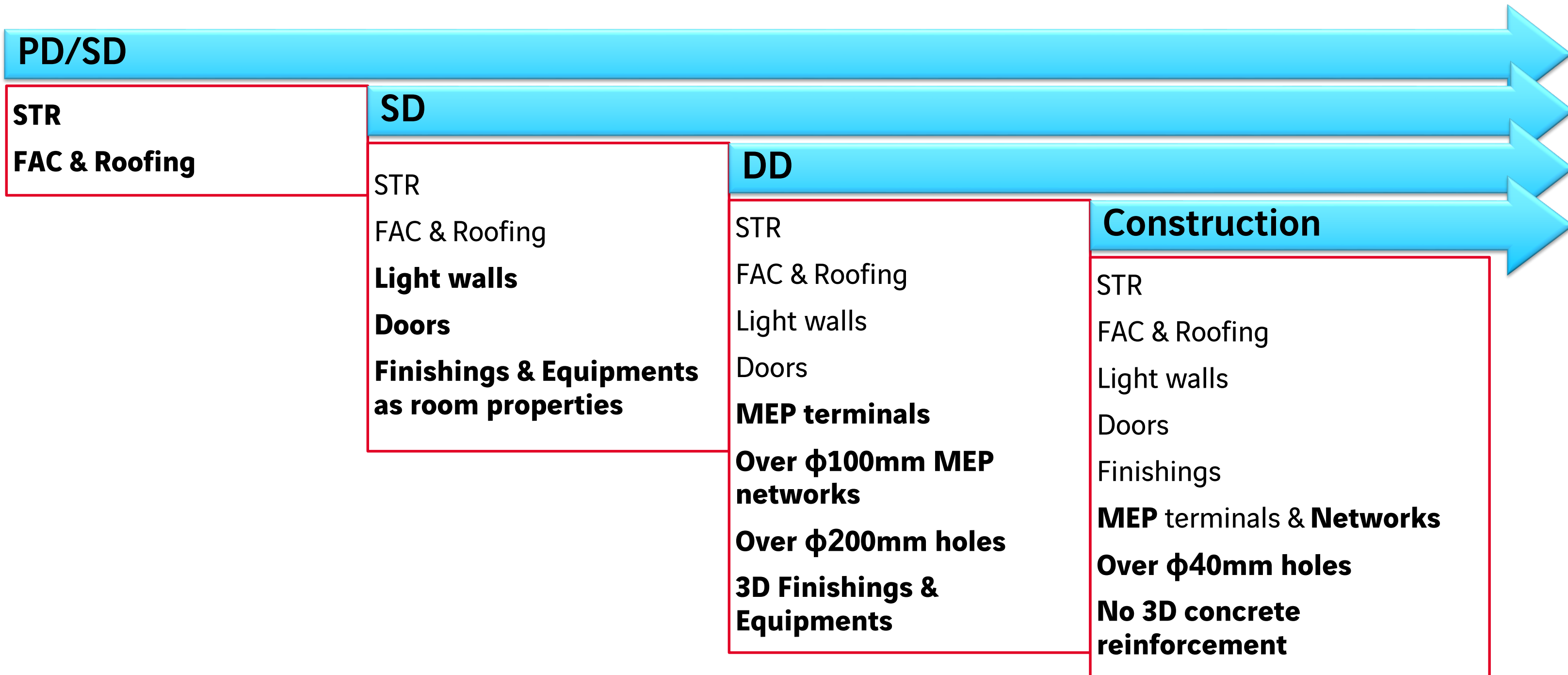
- ✓ Families: Air terminals, ducts, conduits, ...
- ✓ Shared parameters
- ✓ Schedules



LOD-LOI adapted to the project's scale: Construction contracts



LOD-LOI adapted to the project's scale: Design and build's LOD



Softwares

Type of project	Roles								
	Cost Eng.	Methods Eng.	Civil Eng.	Reinforc.	Steel & Wood	Planning	MEP	3D Coord.	Project review
Building & Process	Revit			Tekla		Synchro	Revit	BIMsight/Navisw.	
Water Projects	Revit			Tekla		Synchro	Revit	BIMsight/Navisw.	
Civil works	Tekla					Synchro	?	BIMsight/Navisw.	

Build your Roadmap

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



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

Experience BIM

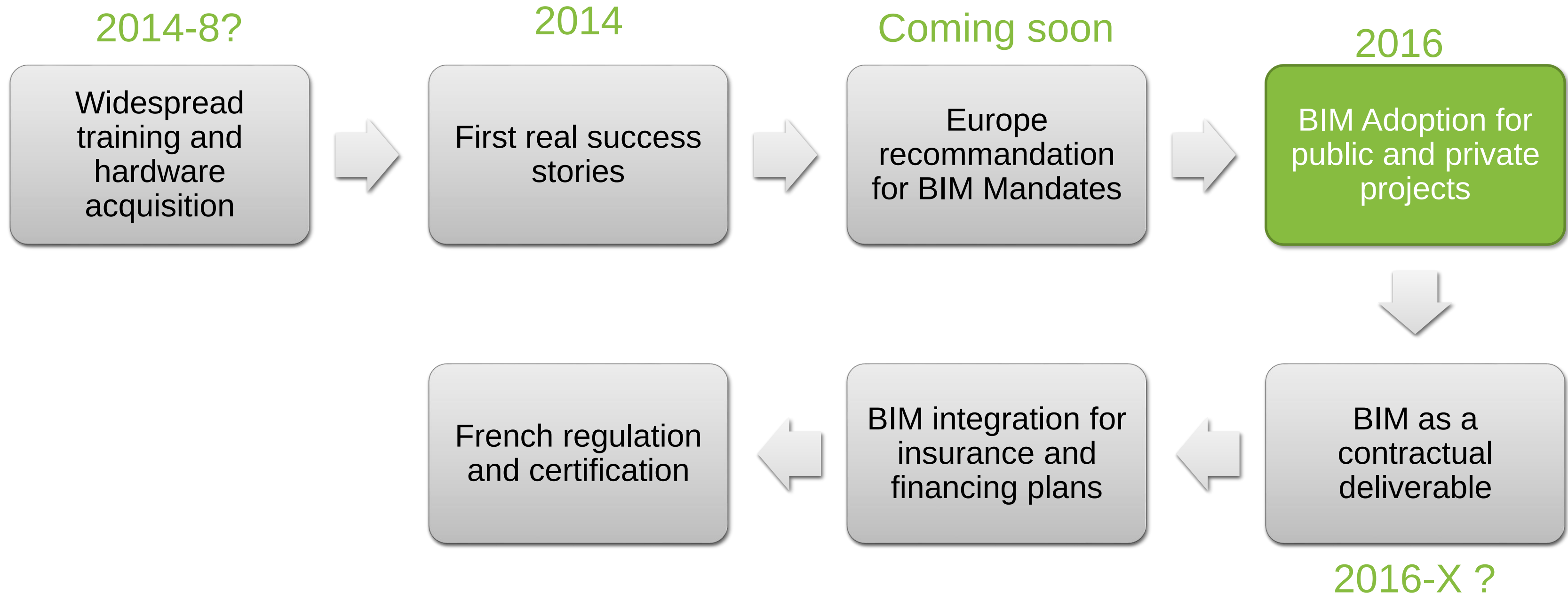


Experience BIM

Find your market role and your partners



Market Evolution in France

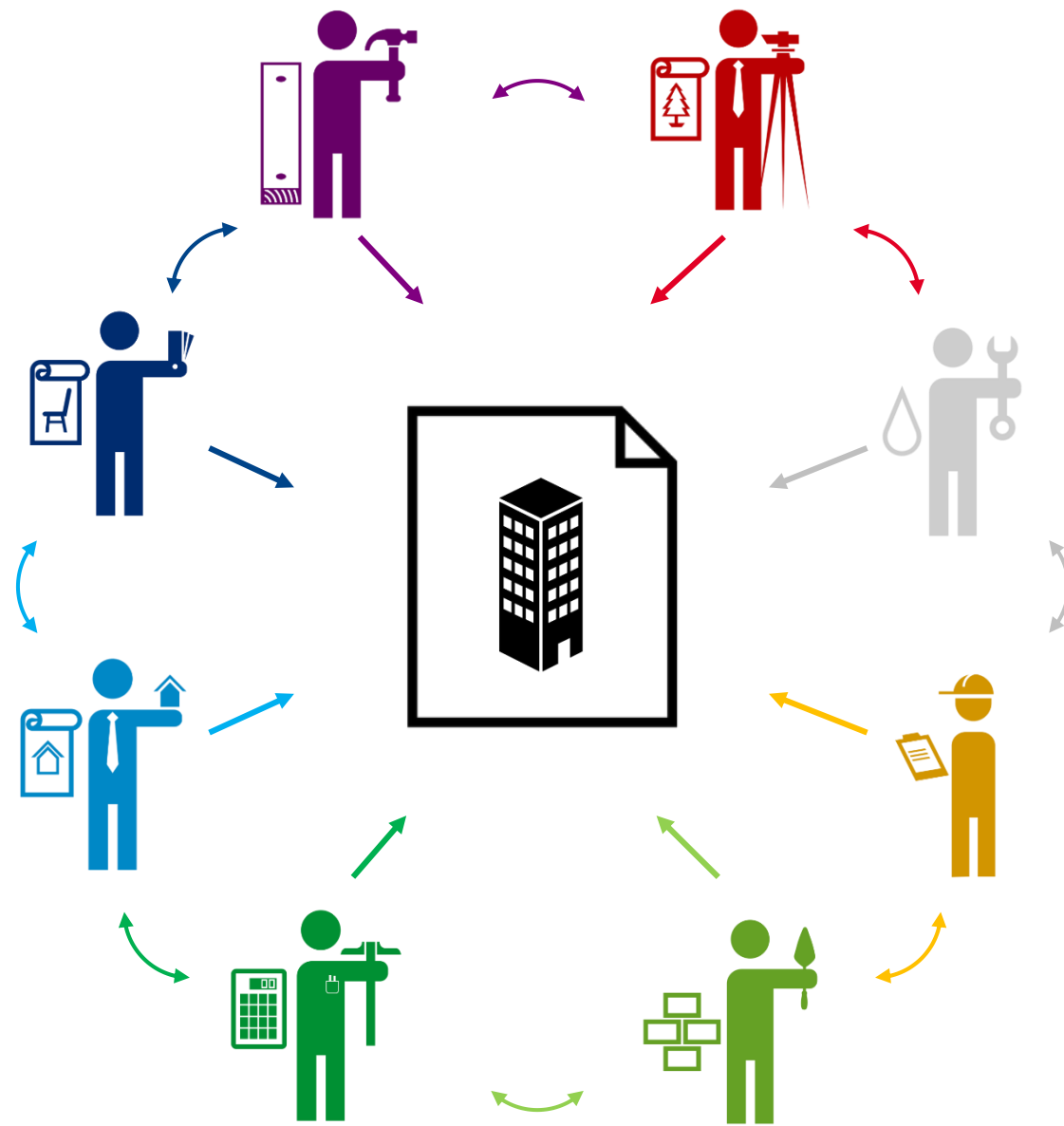


VINCI Construction France's role in the market evolution



Each stakeholder has to adopt and participate to the BIM evolution. VINCI Construction France has to lead the way.

VINCI Construction France's role in the transition



Be a locomotive and help to push 2 major cars :

- Eco-system transformation
- Collaboration between stakeholders

Experience BIM

Deploy your BIM Toolbox



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	
5D planning	Starting/linking/updating/tracking	Synchro Ltd	2	Eng from offices
BIM management	BEP, management, quality control technics	BIM Theory and technics	1	Average projects/site managers

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

Internal Revit Community / Store

- Over 350 « connected »

The image shows two overlapping screenshots of the Office 365 interface. The top screenshot is an Outlook inbox for a private group named 'Diffusion VCF'. A red box highlights the 'Fichiers' (Files) tab in the top navigation bar. A blue arrow points from this tab to the bottom screenshot. The bottom screenshot shows the OneDrive document library for the 'Diffusion VCF' group. A red box highlights the 'Fichiers' tab in the top navigation bar. A blue arrow points from this tab to the document list below. The document list contains six folders, all created on October 7, 2015, and shared by HAMOUCHE Ali:

Nom	Modifié	Partage	Modifié par
01 - PLUGINS	7 octobre 2015	Partagé	HAMOUCHE Ali
02 - ETUDES DE PRIX	7 octobre 2015	Partagé	HAMOUCHE Ali
03 - METHODES	7 octobre 2015	Partagé	HAMOUCHE Ali
04 - STRUCTURE	7 octobre 2015	Partagé	HAMOUCHE Ali
05 - CET	7 octobre 2015	Partagé	HAMOUCHE Ali
06 - Guides	8 octobre 2015	Partagé	HAMOUCHE Ali

2 Communities of practice : Network Together

Network Together | Intranet VINCI

1

Jean Baptiste VALETTE

network TOGETHER

Accueil | Communautés | Mon Espace

Recherche

OK

VINCI

BIM @ Vinci Construction

Ingénierie / Technique - Privée

Le BIM (Building Information Modeling) est une méthode unissant l'usage de la 3D paramétrique et de bases de données via des logiciels de modélisation et de calcul reliés, pour améliorer la collaboration entre les acteurs de l'acte de construction.

101 Membres

9 Abonnés

SUIVRE

Accueil | Documents de Travail | Documents de Référence | Médiathèque | Discussions | Blog | Wiki | Calendrier

Démarrer une conversation

Ajouter un fichier

PUBLIER

150

AB

Alexandre BAZAILLE

Je viens d'ajouter une nouvelle discussion Grues VCF dans Méthodes

15 juin - J'aime - Répondre

Clément JACOB

Un article de

PDF

Her

10 mai

FV

Frédéric VALLET

je vous propose de faire

4 mai

FV

Frédéric VALLET

Je vois sur leur site pas mal de vue 3D des pièces. Eventuellement en récupérant les 3D autocad, on peut rapidement créer les familles Revit.

9 mai - 1 - Je n'aime plus - Suivre Frédéric VALLET - Plus

LIENS UTILES

paramétriques
ule IMP) et
at ? Je
ent sur tous
harges et

personnes ayant
correspondant
sateco. (tout

2016

DERNIER(S) DOCUMENT(S) PUBLIÉ(S)

Actualités Numériques

Network Together | Intranet VINCI

1

Jean Baptiste VALETTE

network TOGETHER

Accueil | Communautés | Mon Espace

Recherche

OK

VINCI

Solutions BIM Autodesk @VINCI Construction France

Ingénierie / Technique - Privée

Les responsables du support prioritaire et du consulting de notre contrat chez Autodesk

59 Membres

5 Abonnés

SUIVRE

Accueil | Documents de Travail | Documents de Référence | Médiathèque | Discussions | Blog | Wiki | Calendrier

Démarrer une conversation

Ajouter un fichier

PUBLIER

350

Frédéric VALLET

Est-ce que vous avez pu appliquer un style d'objet personnalisé à une famille Autodesk type solo ? Il arrive que les familles Autodesk ne soient pas compatibles avec les familles Revit.

LIENS UTILES

VCF

(Knowledge Base)

it

visworks

+

IONS

ment collaborer avec les IFC

lorsque vous devez échanger entre le

otre logiciel, les fichiers au format IFC

on Classes) peuvent être une

ment, pour vous aider dans cette démarche,

og Hexabim vient de mettre en ligne dans un

es - Dernière contribution 18/05/2016

DERNIER(S) DOCUMENT(S) PUBLIÉ(S)

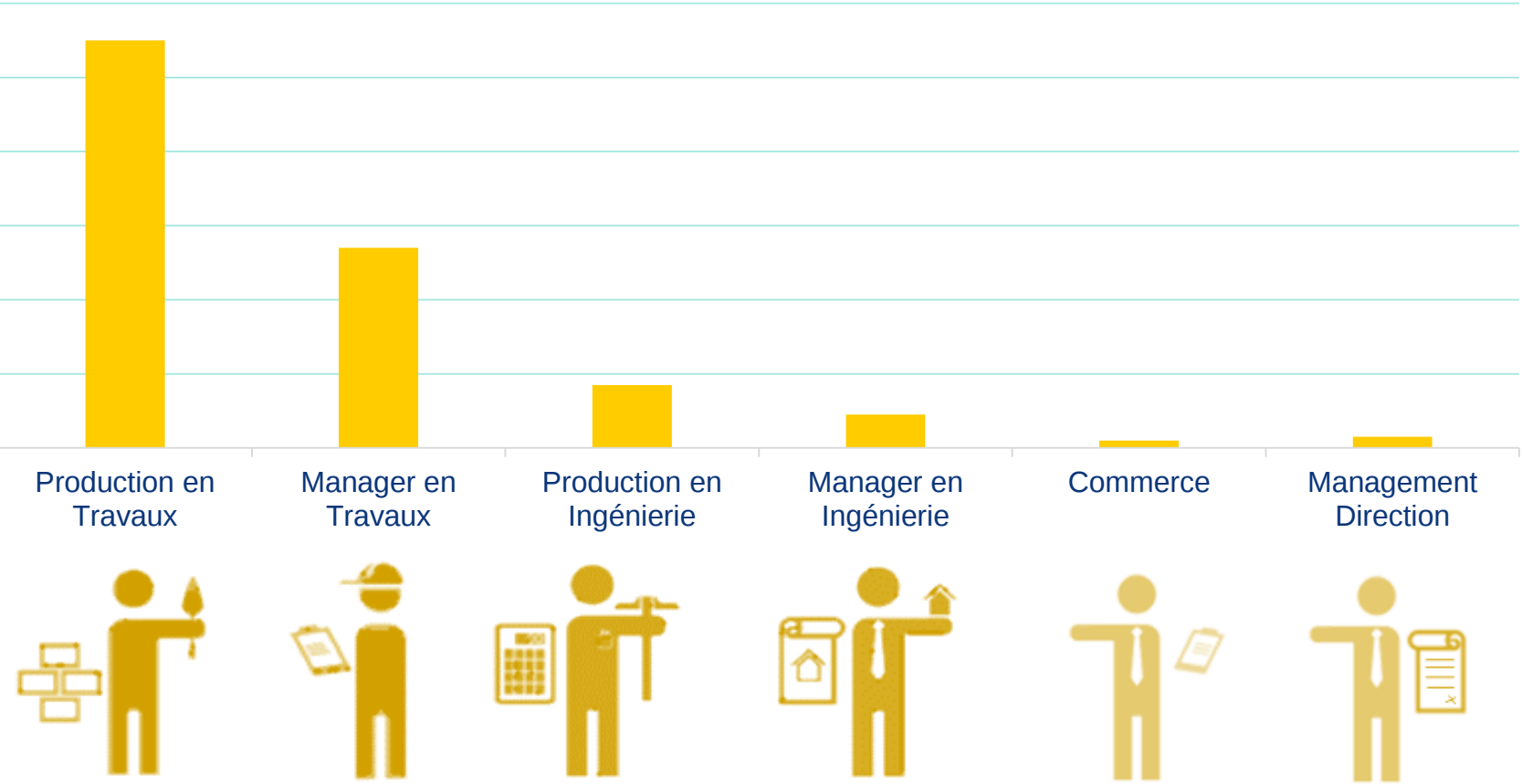
Bonne lecture!

Il y a 13 heures - J'aime - Répondre - Suivre Diane LEMOULT - Plus

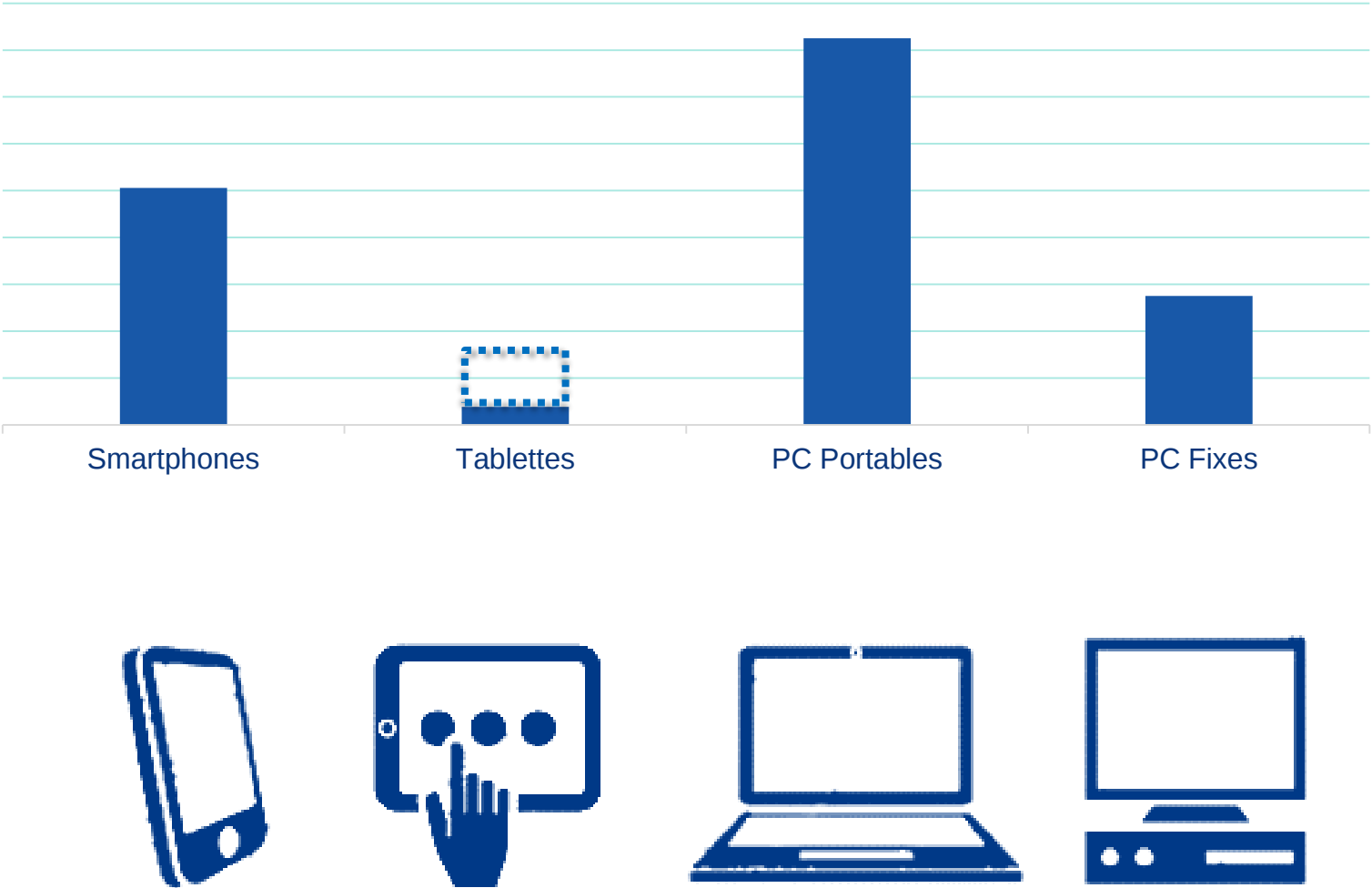


Key indicators of VCF

SALARIES



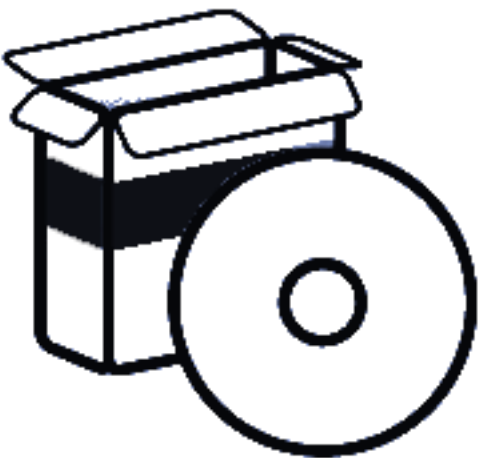
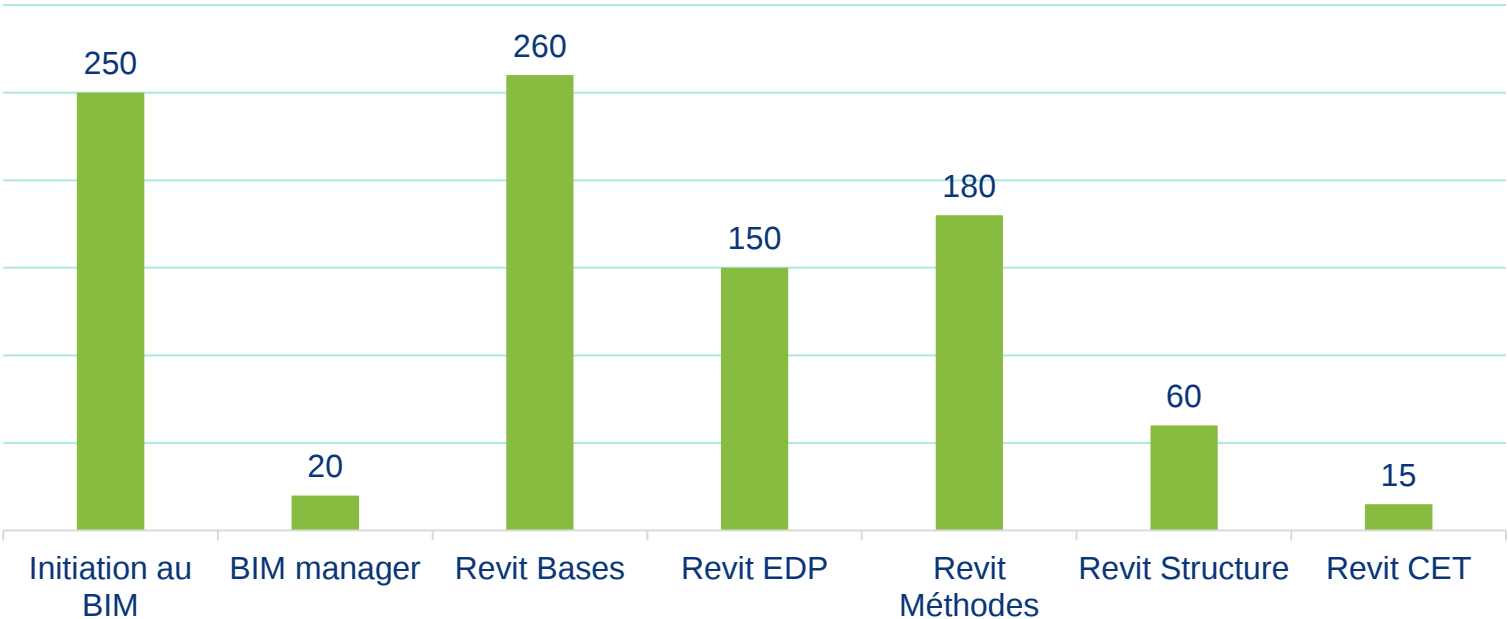
IT



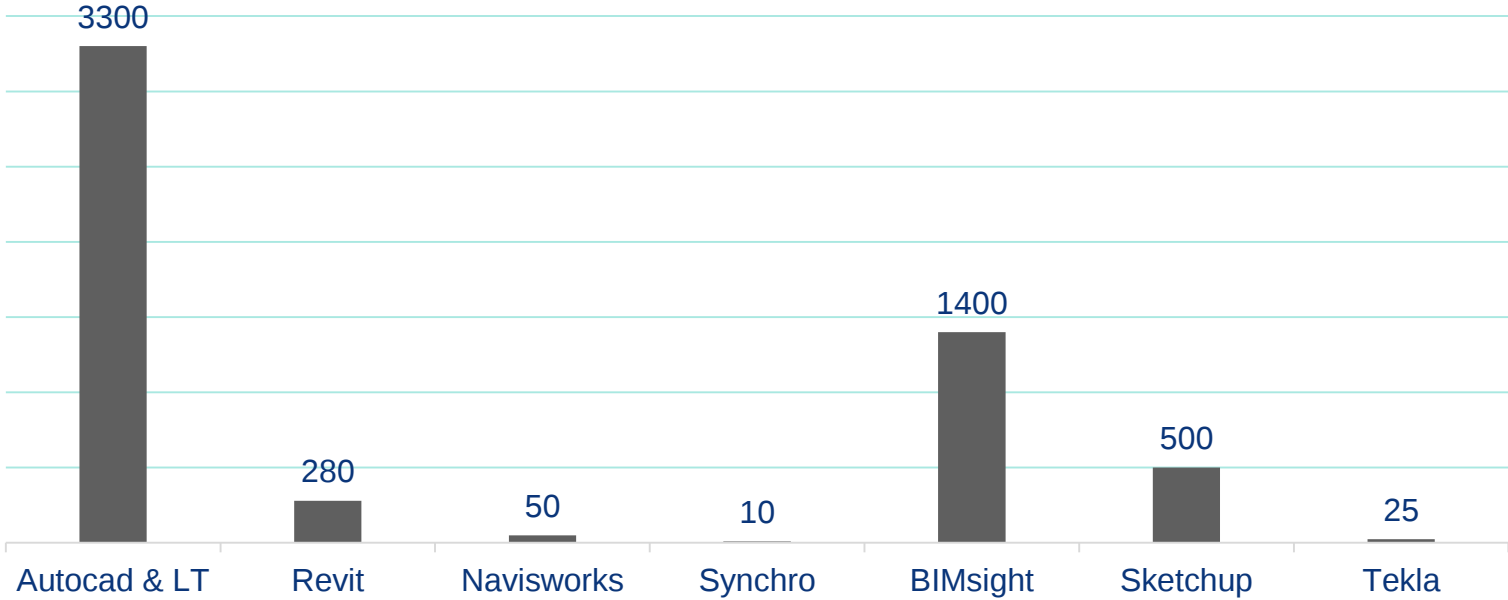
Key indicators about BIM Deployment



BIM University results



Deployment

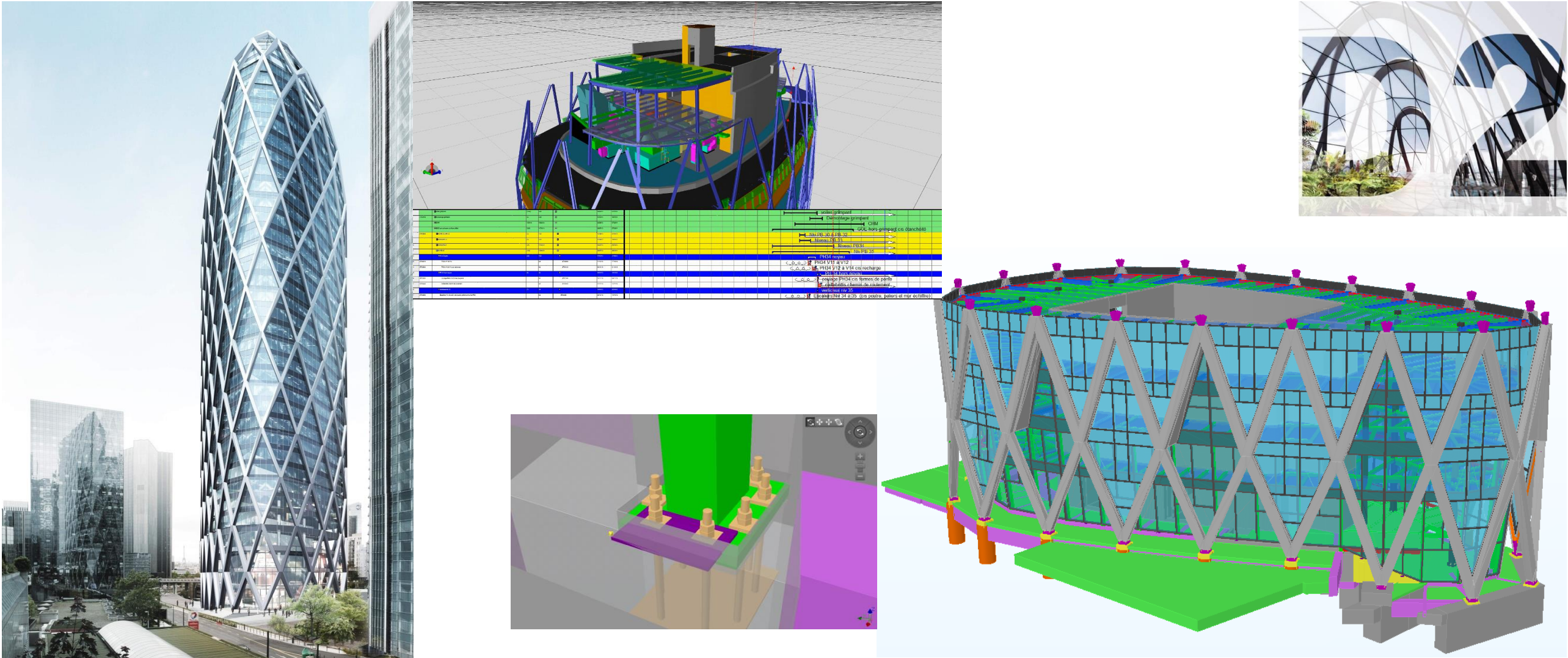


Experience BIM

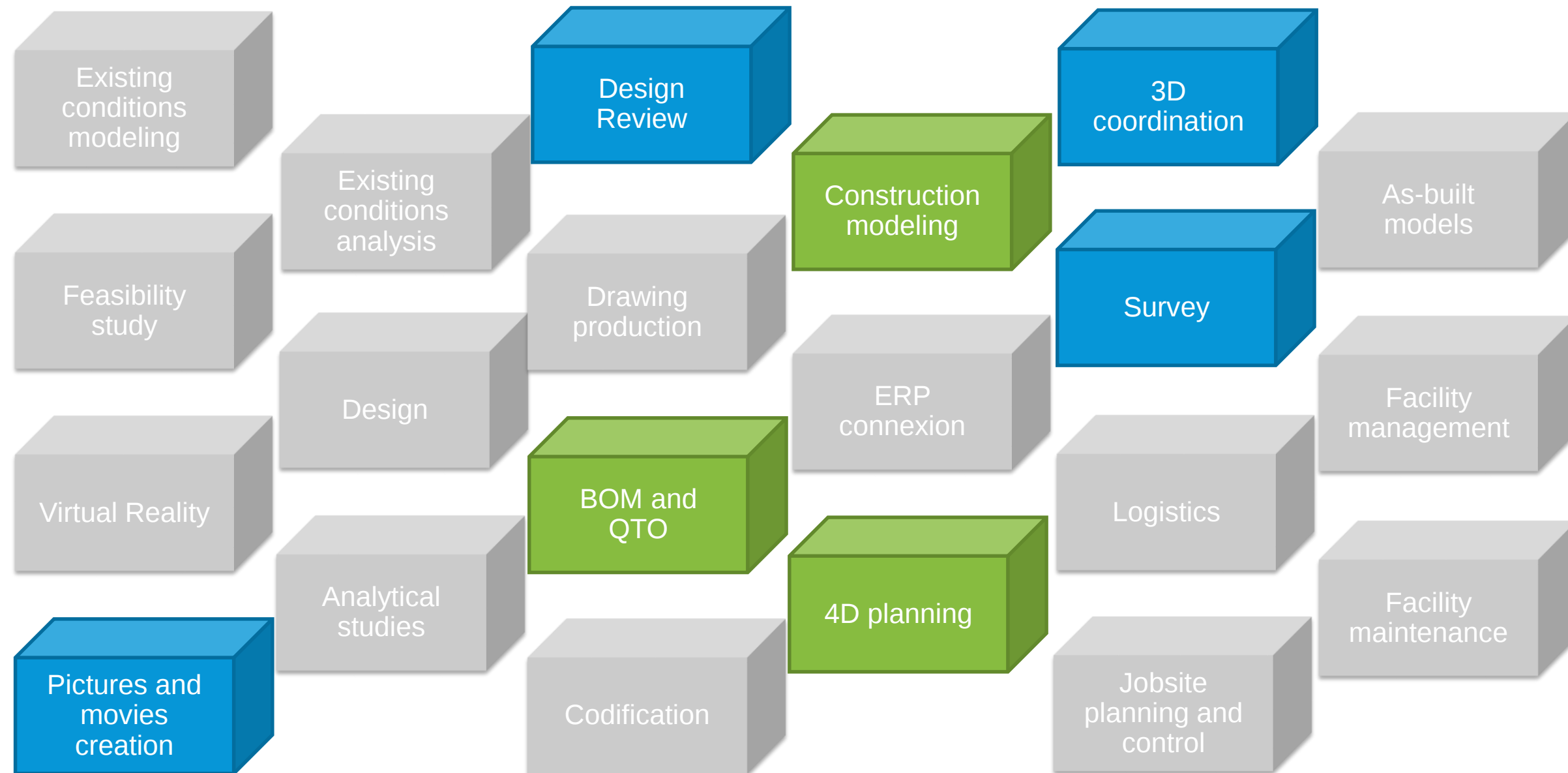
Use projects to improve your BIM



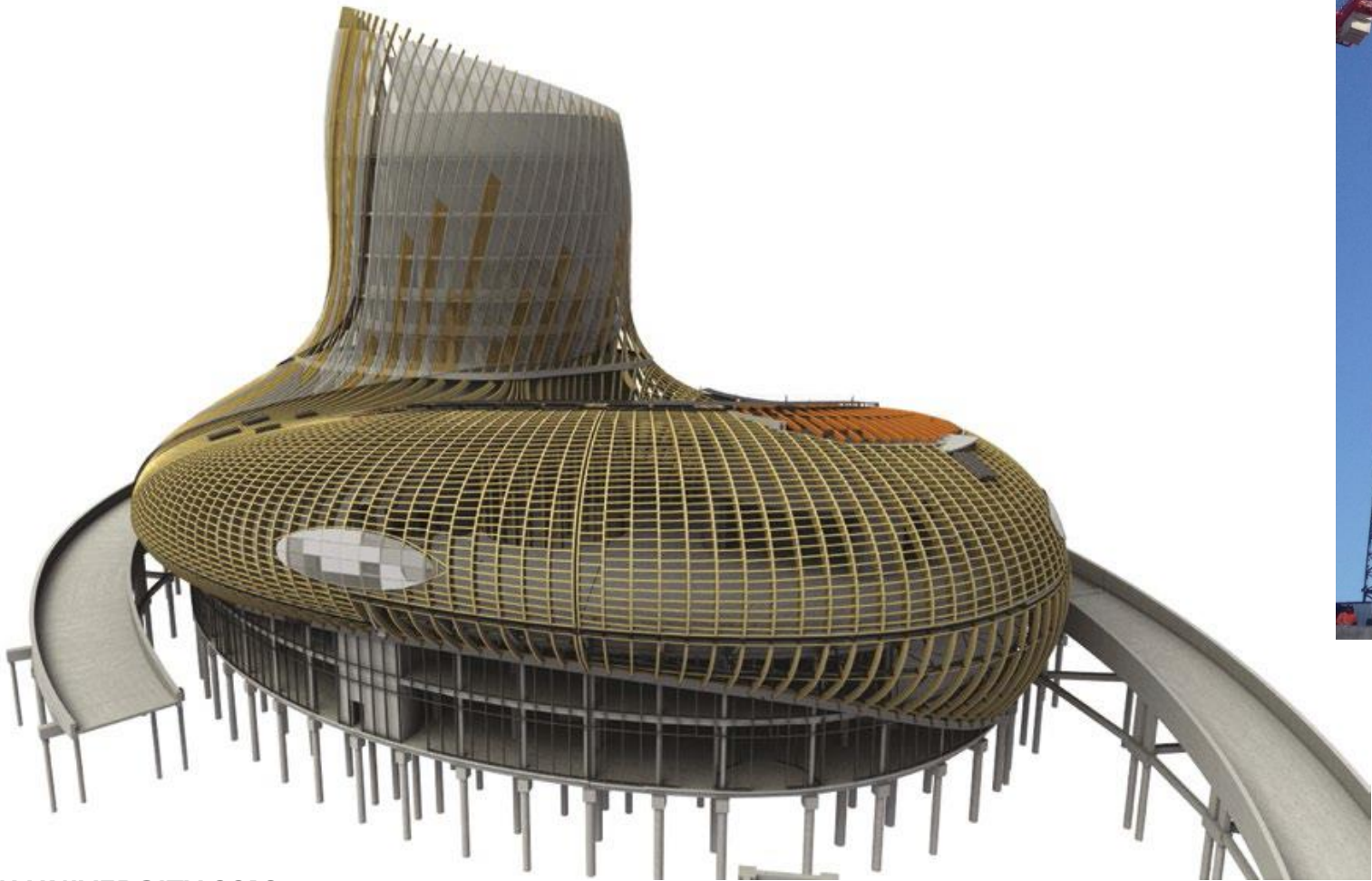
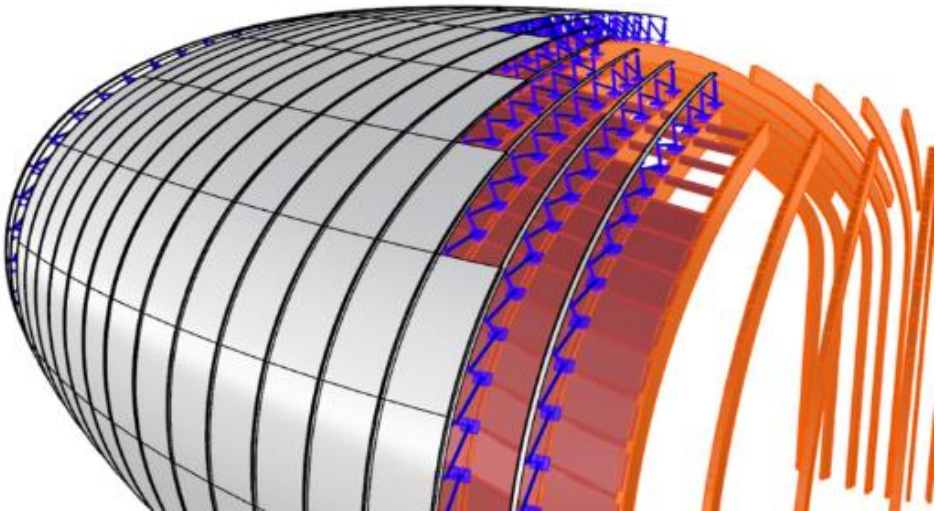
Tour D² offices



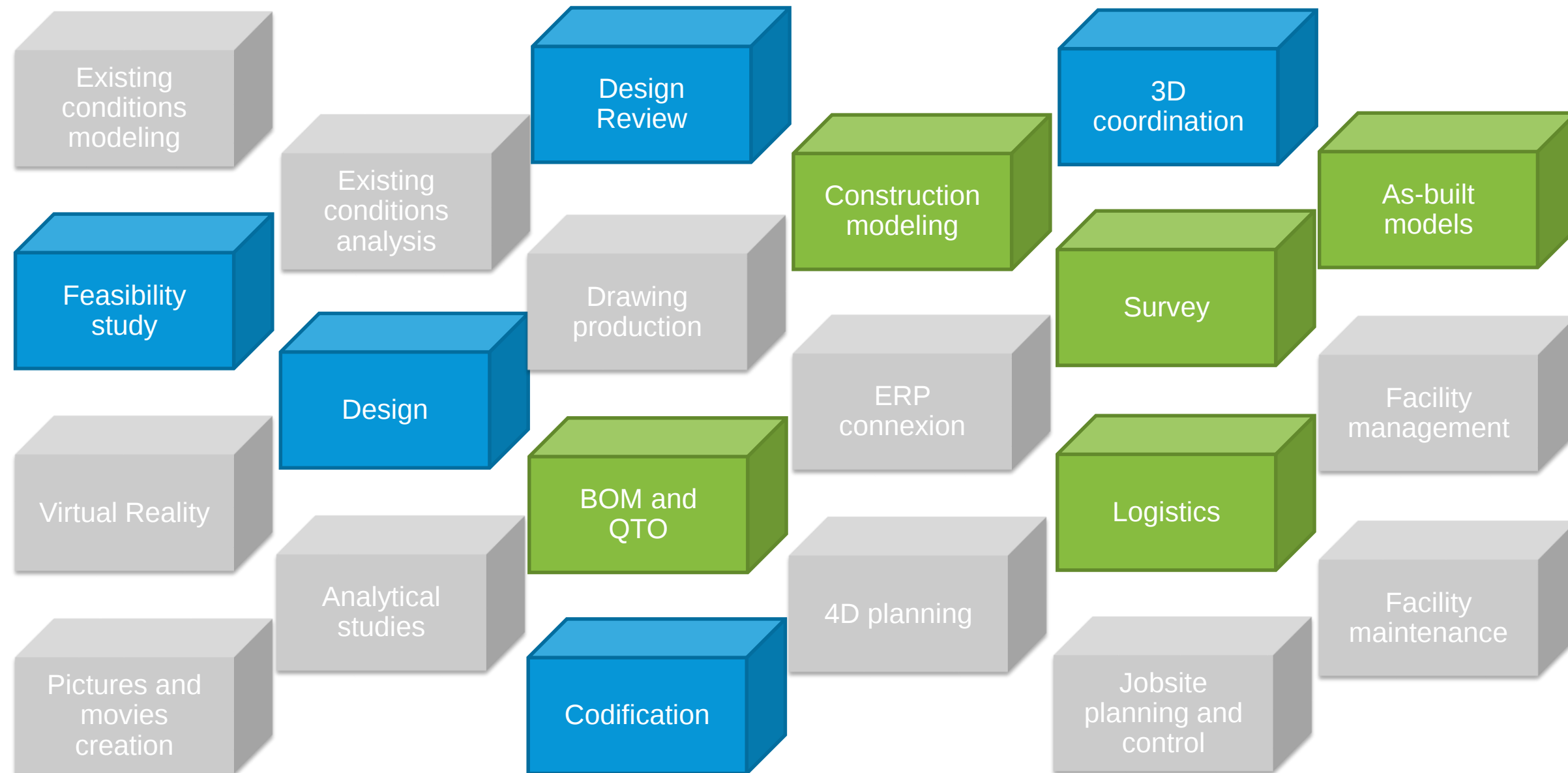
BIM Uses for D² Tower



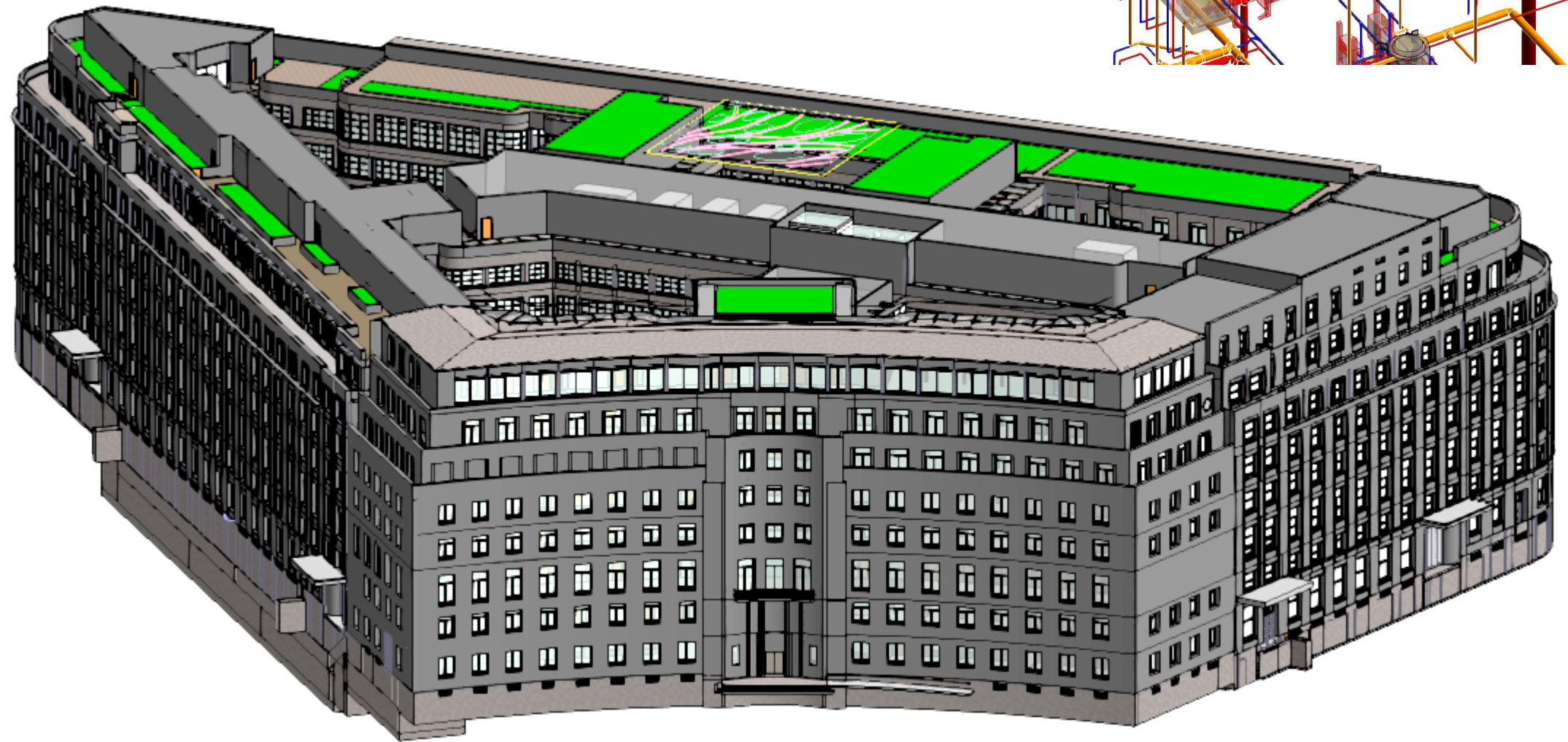
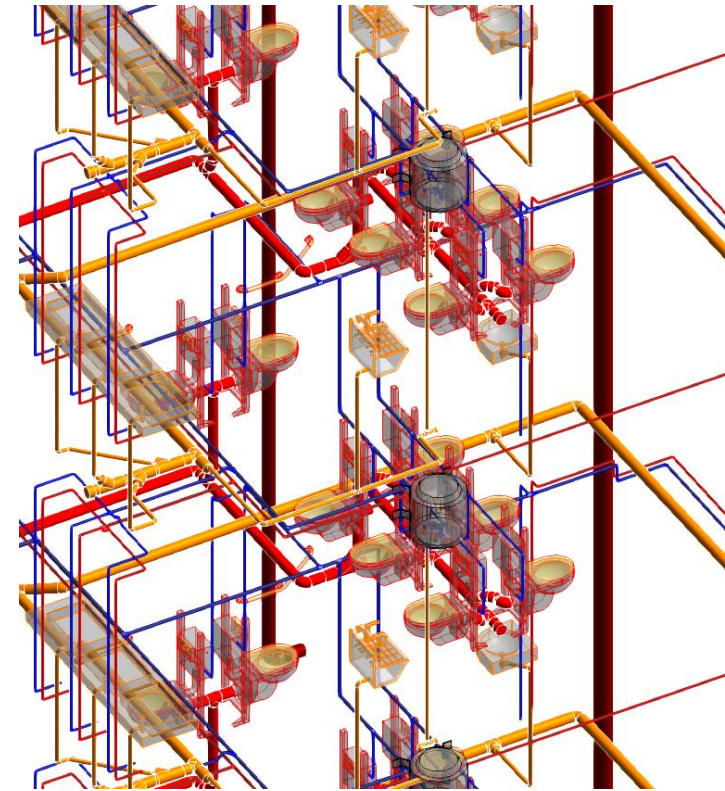
Cité du vin (Museum)



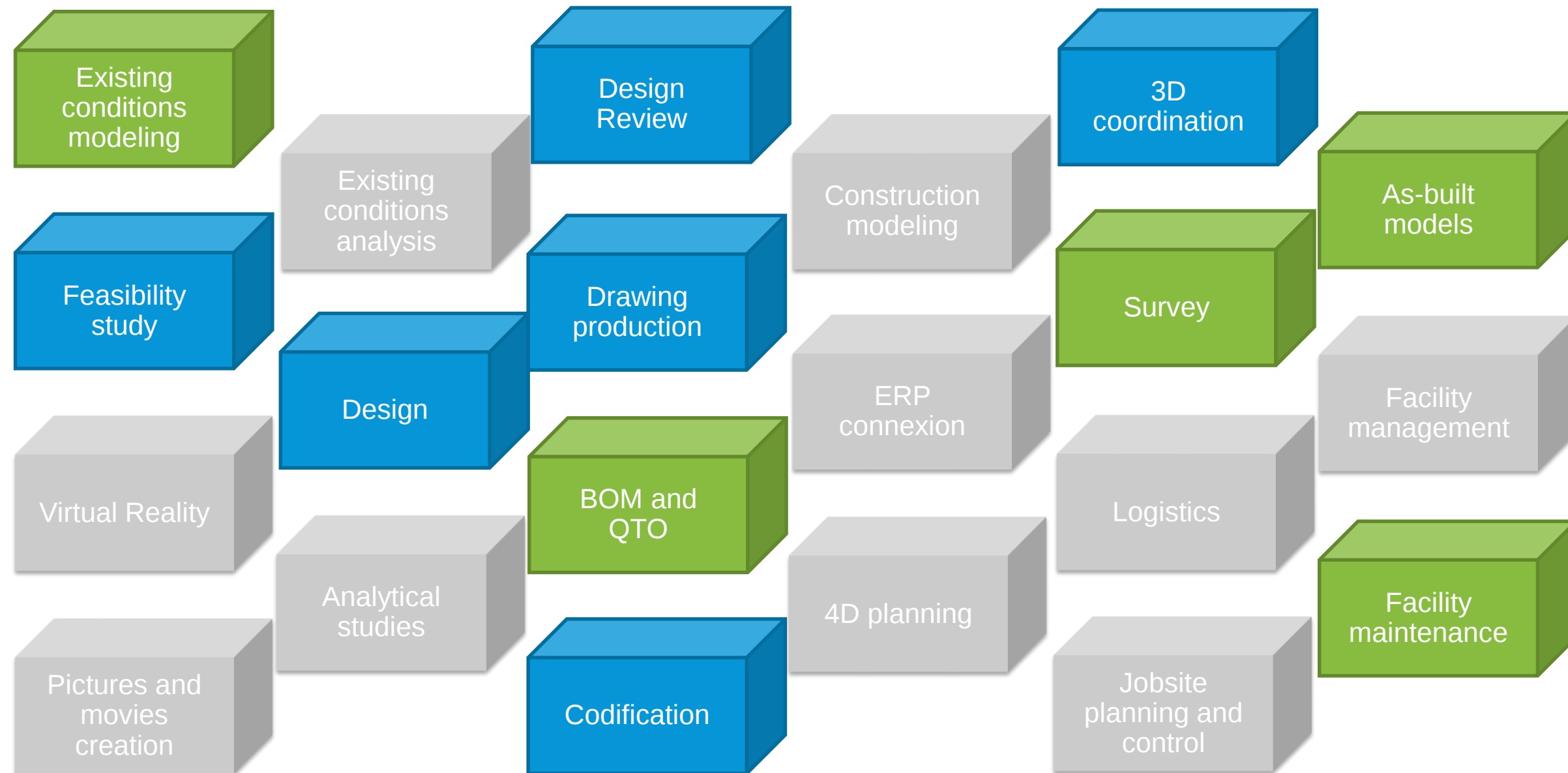
BIM Uses for Cité du Vin



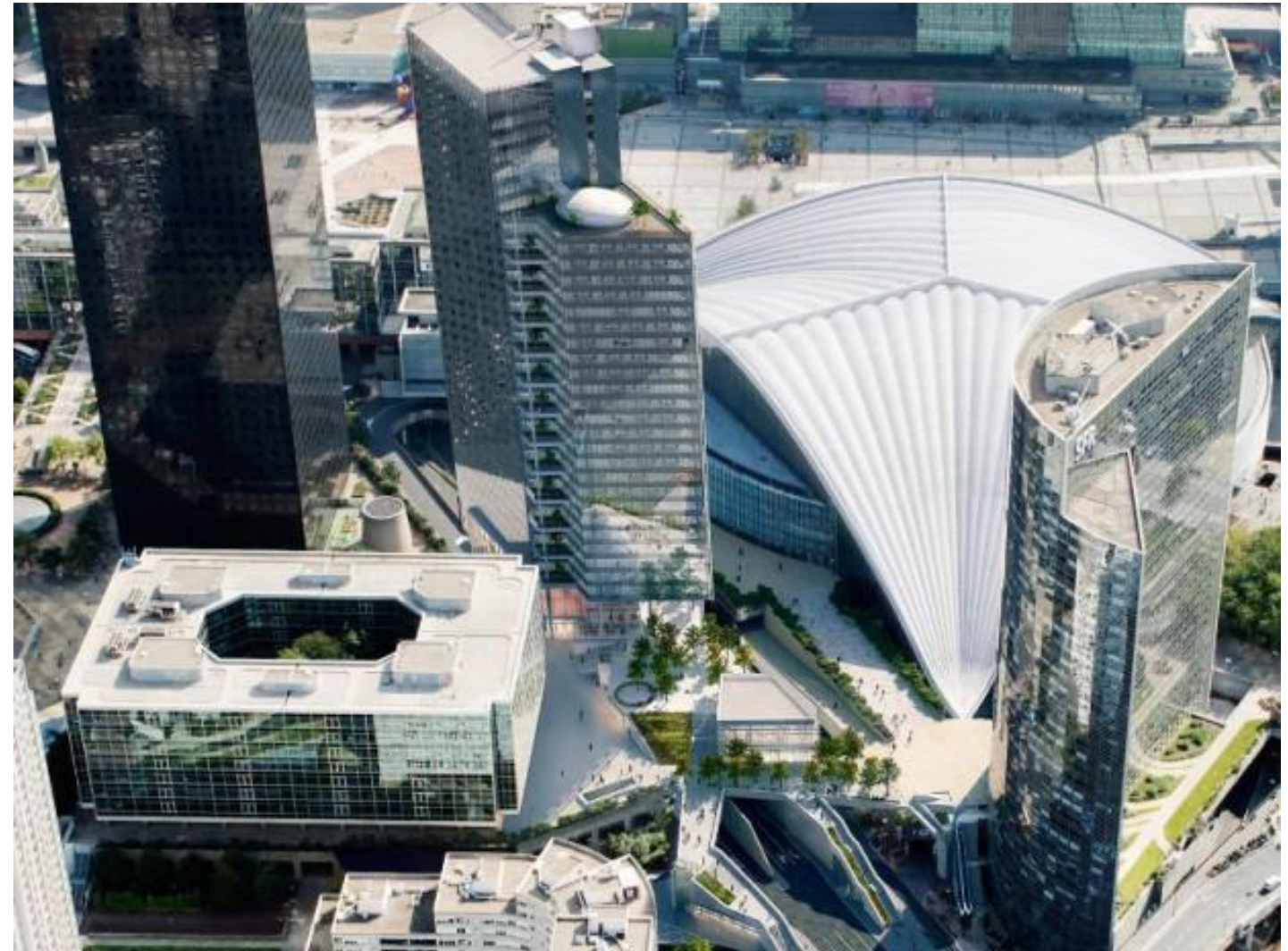
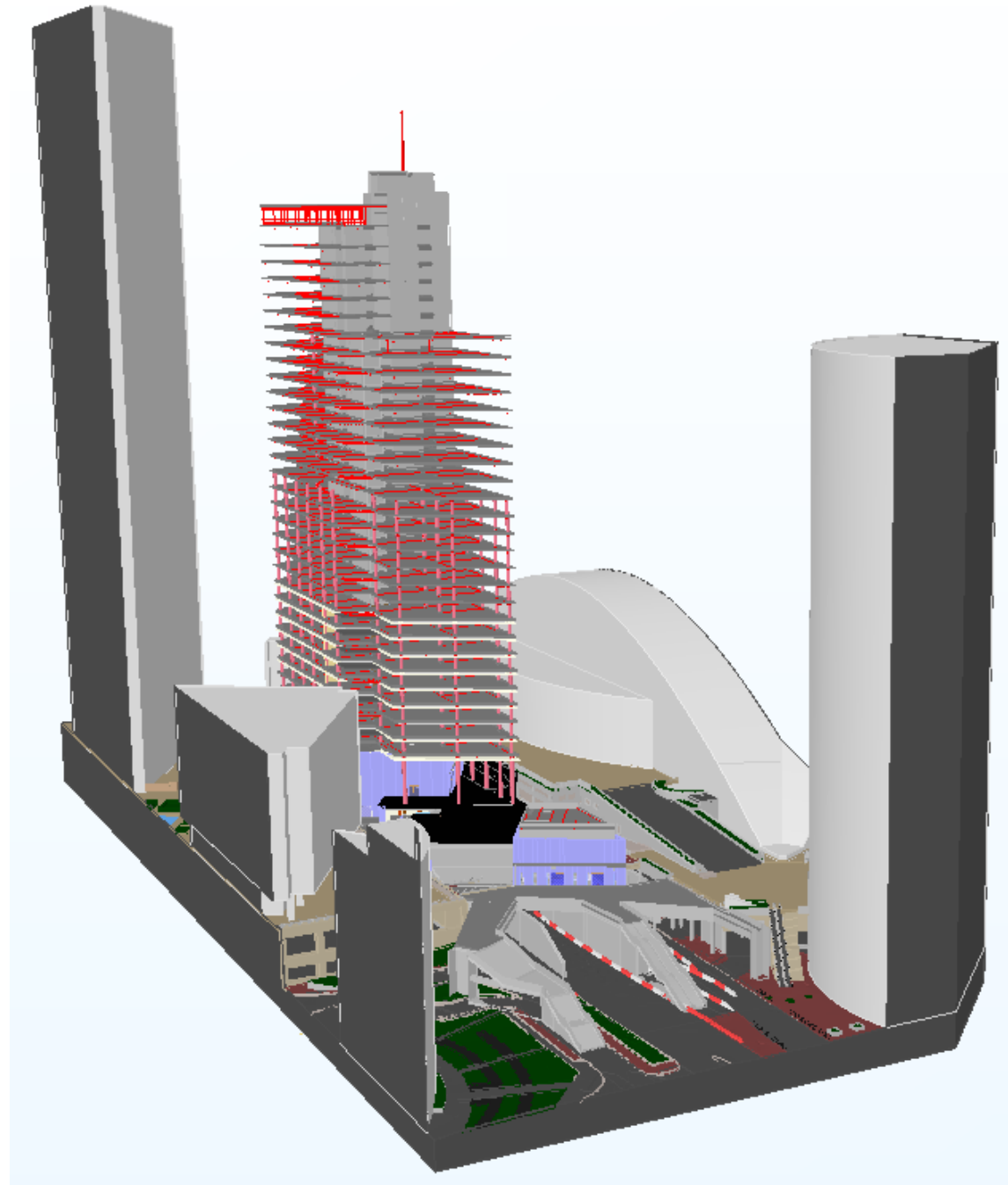
Ilot Fontenoy Ségur (Ministry)



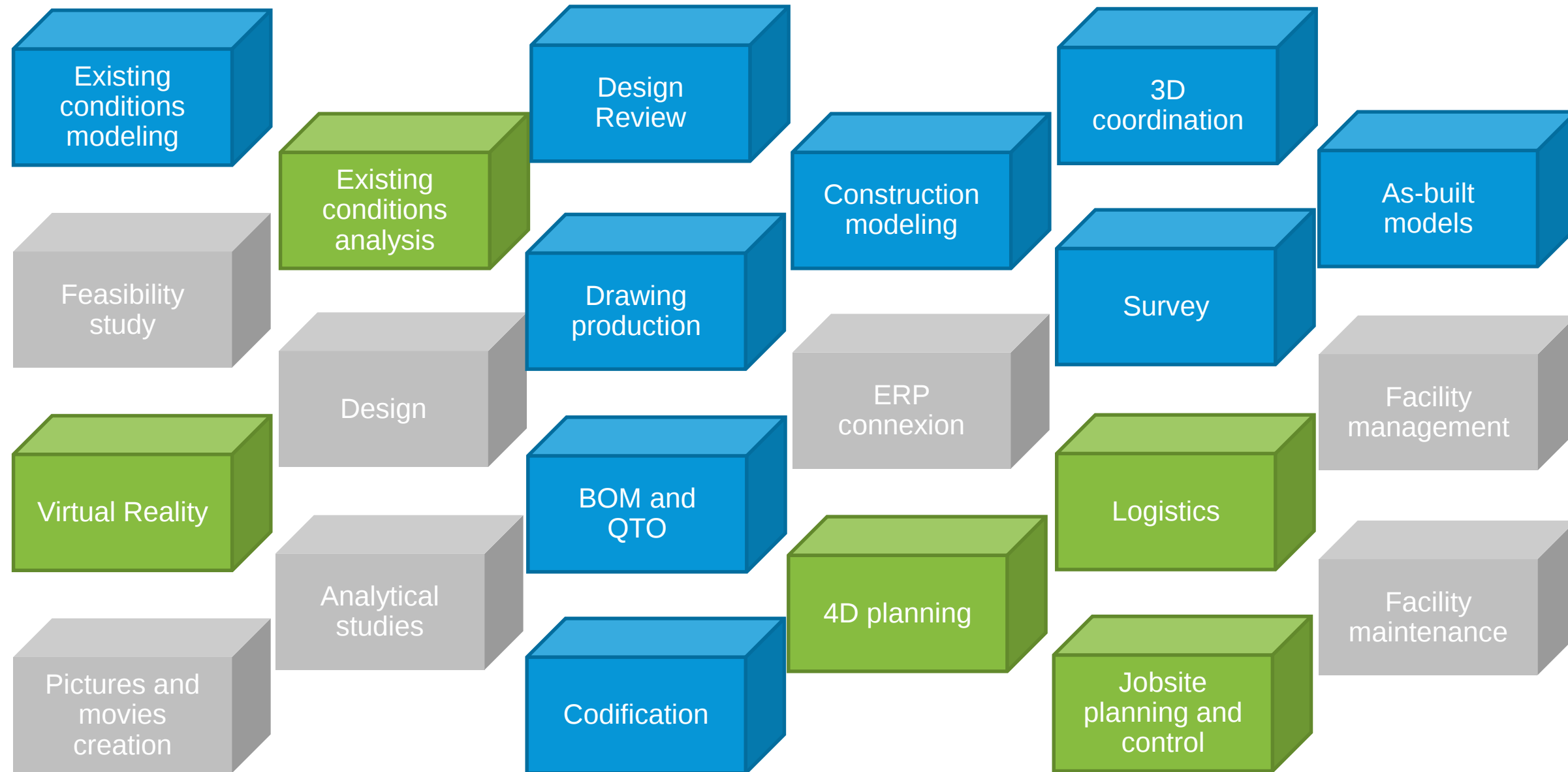
BIM Uses for Ilot Fontenoy Ségur



Trinity Tower (Unibail)



BIM Uses for Tour Trinity



Experience BIM

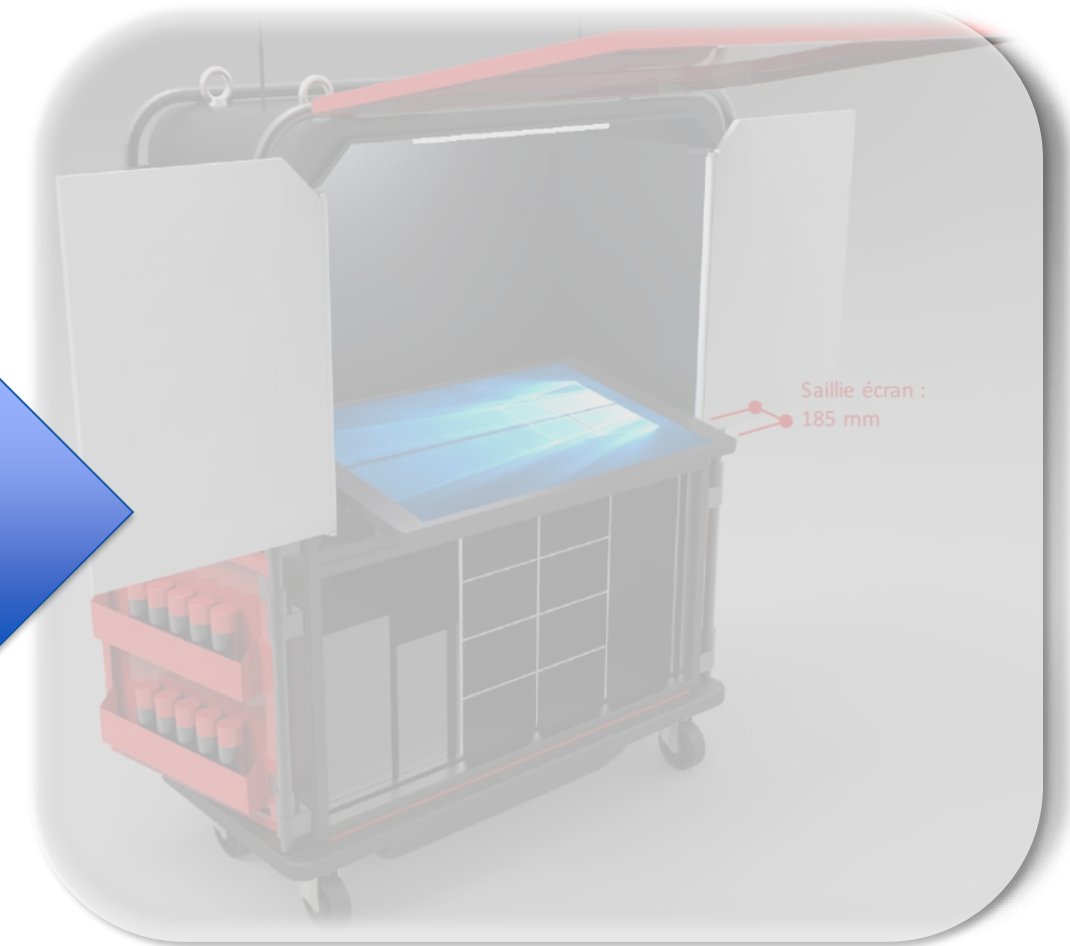
Get the BIM “dirty” (BIM onsite)



From digital to « concrete »



Touch your models



FRANCE



itekube



AUTODESK UNIVERSITY 2016



FRANCE



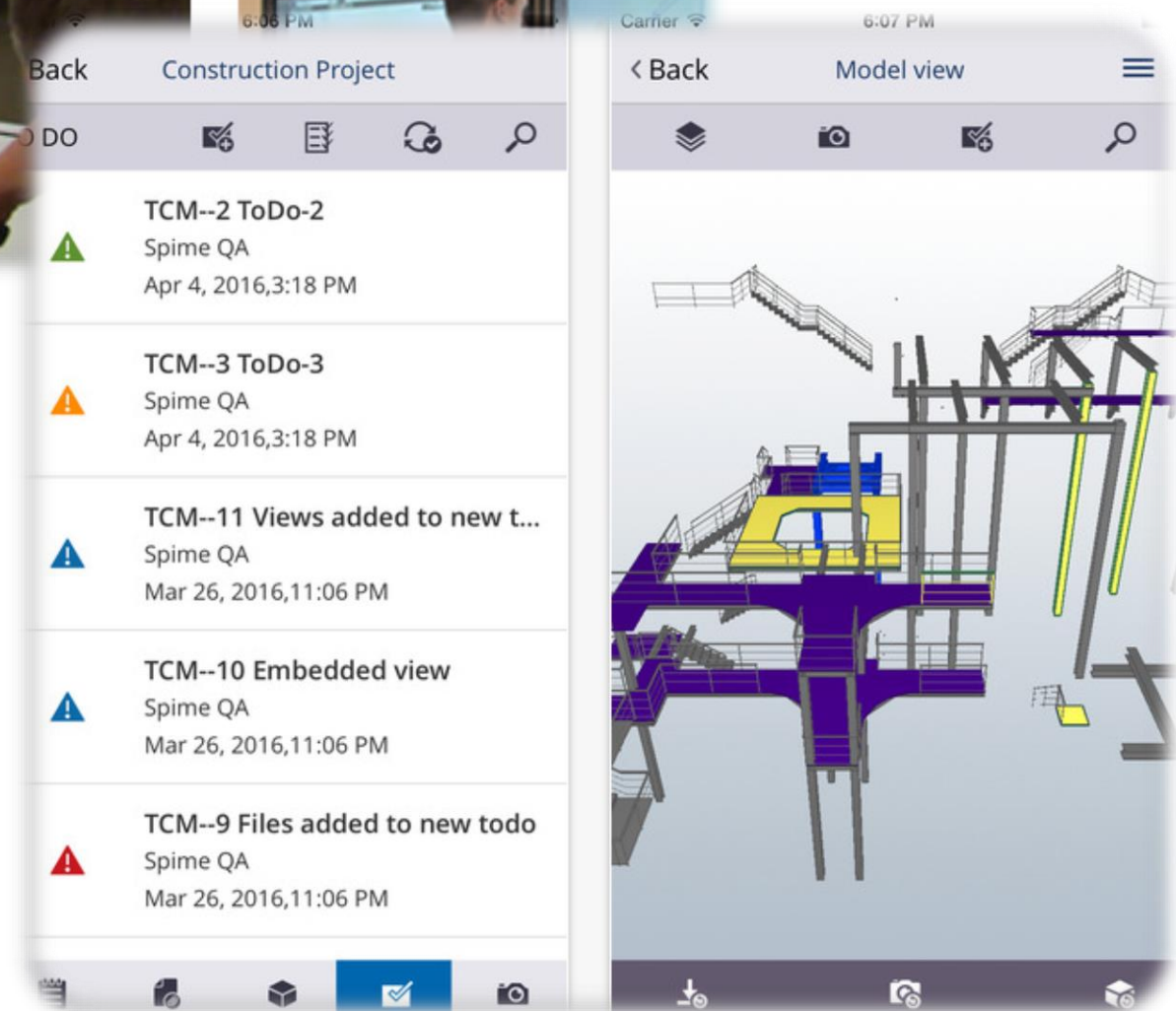
Share your models

- **SmartRooms**



- **Mobilité and Cloud**

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



Experience BIM

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



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 »

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

The journey is just starting

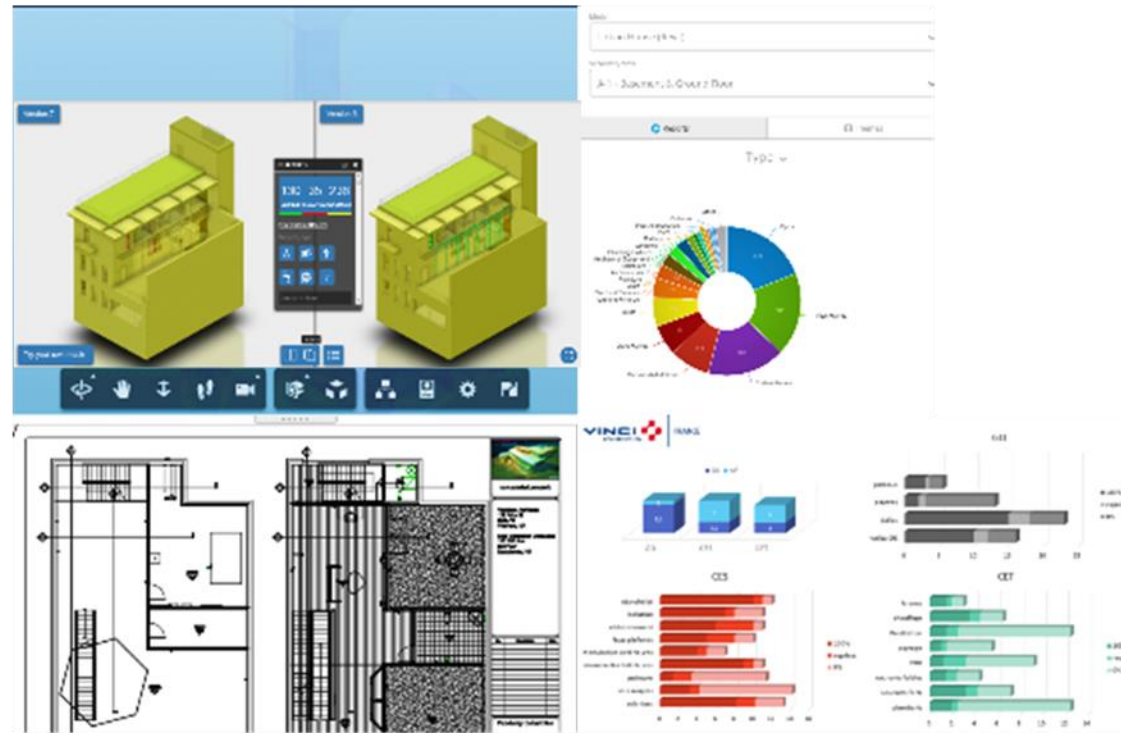
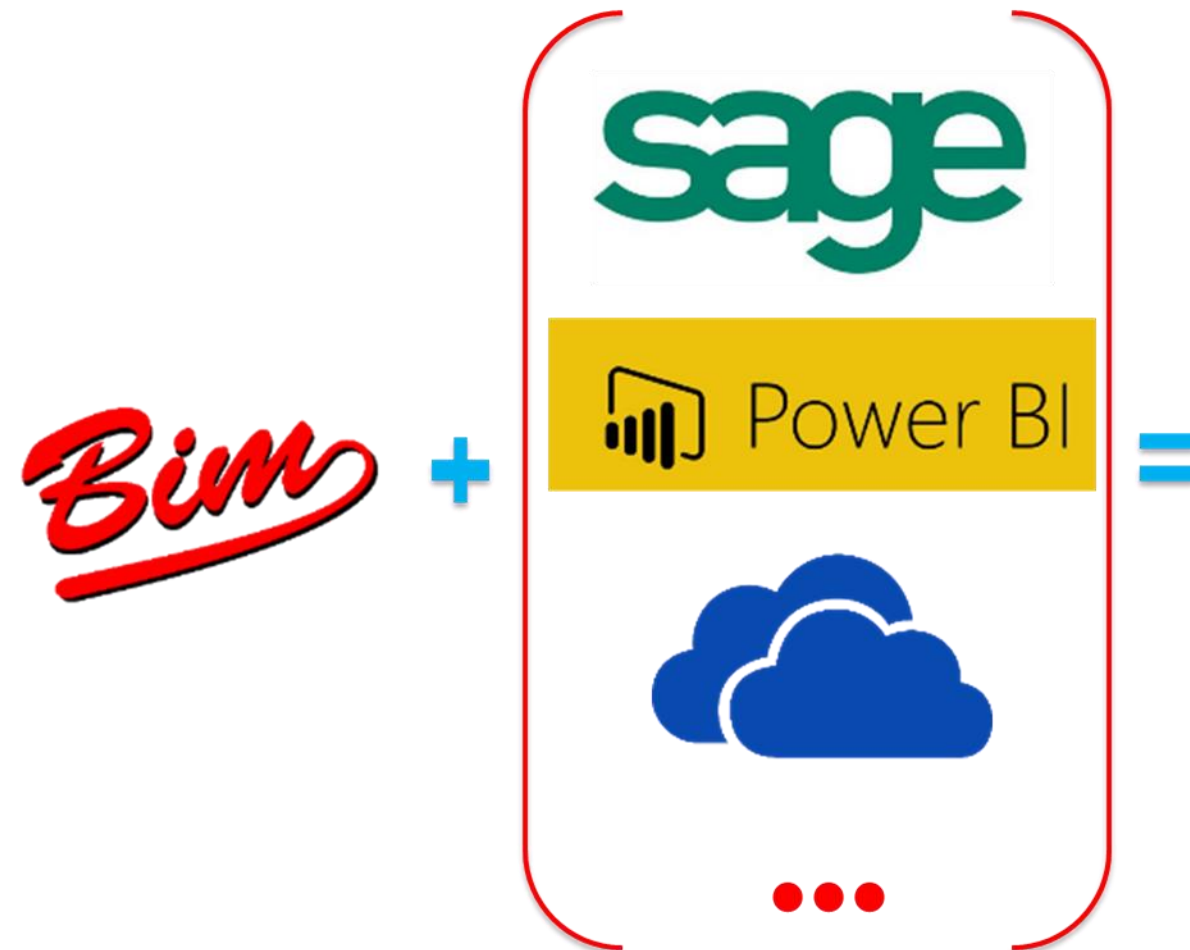


The journey is just starting

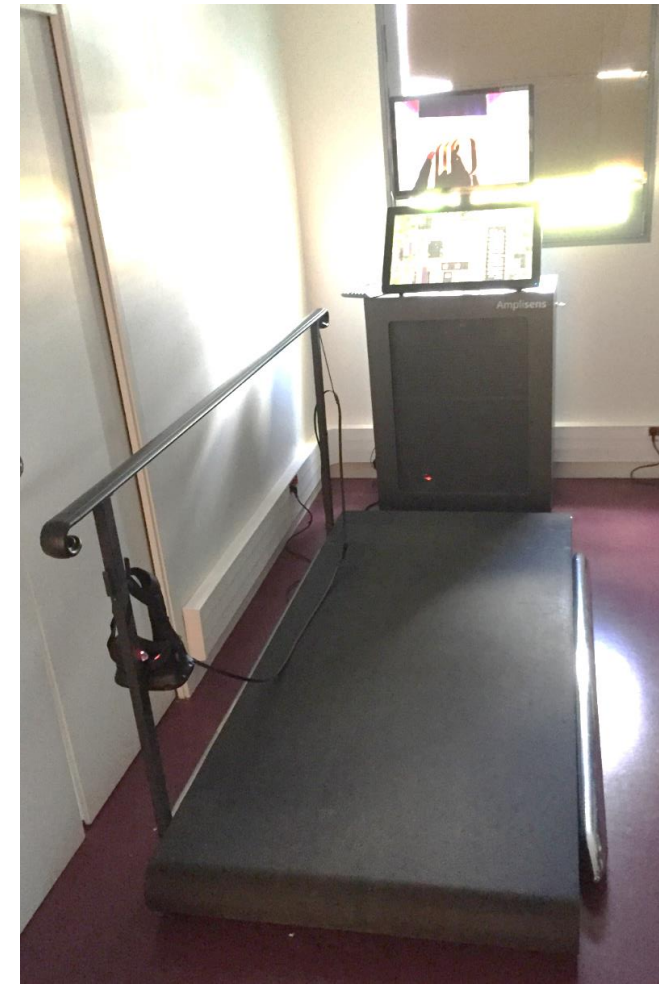
Look forward and be ambitious



BIM Big Data

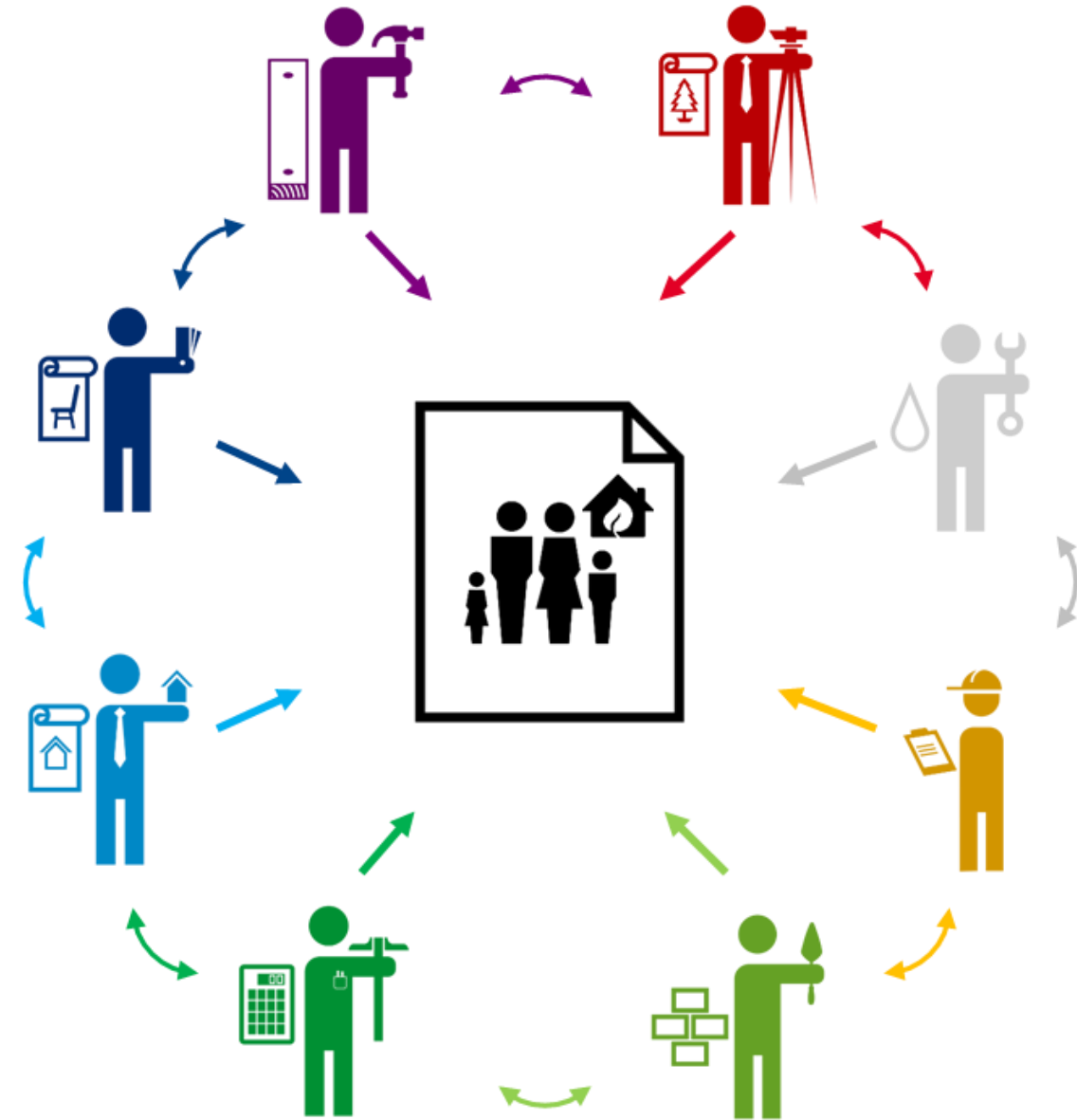


AR/VR



Thank you !

Any Questions ?





FRANCE



AUTODESK®

R E A L
SUCCESS
I S T H E
SUCCESS
YOU SHARE