



## DISCUS - State of play of digitalisation in the construction sector

FRANCE

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# THE CONSTRUCTION SECTOR IN FRANCE

## MAIN CHARACTERISATION

According to the French Building Federation (FFB) In 2017, the construction sector (building) was represented by:

**392 000 companies**

**1,441,000 active workers including  
1,069,000 employees  
and 372,000 craftsmen**

**135 billion euros  
excluding construction  
taxes**

**The construction sector  
is equivalent to half of  
industry or twice the  
banking and insurance  
activities**

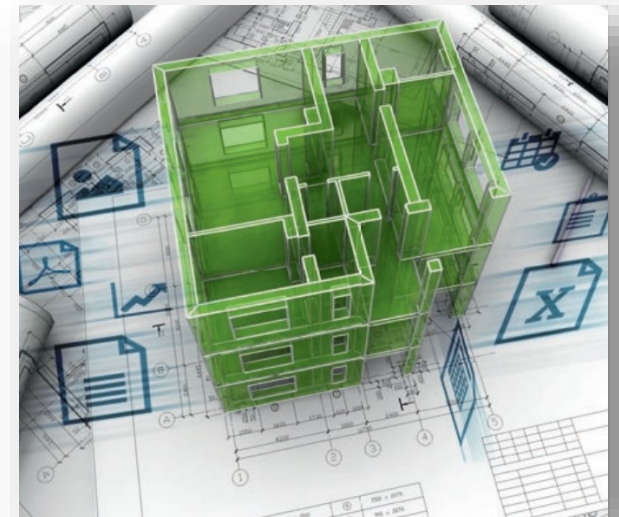
# INNOVATIONS IN THE CONSTRUCTION SECTOR - WHAT ARE WE TALKING ABOUT ?

BUILDING INFORMATION MODELING (BIM)

WORKING PLATFORMS

- ❖ PEER TO PEER
- ❖ PRO TO PEER
- ❖ PRO TO PRO

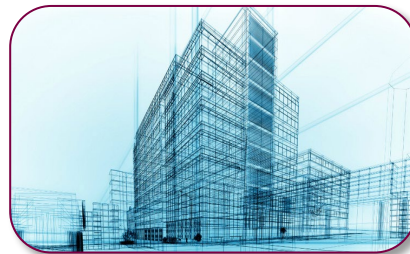
PUBLIC PLATFORM FOR THE BENEFIT OF SMALL AND MEDIUM-SIZED CONSTRUCTION COMPANIES – KROQ!



## OTHER TYPE OF INNOVATIONS



SITE MANAGEMENT SOFTWARE



COMPUTER-AIDED DESIGN/DRAWING



DRONES OR UAVs



3D PRINTERS

# In practice ?

Interviews carried out up to now show a gap between what is promoted on the government side and the reality as experienced by companies, and especially the small ones (95% of companies in the sector have less than 10 employees)

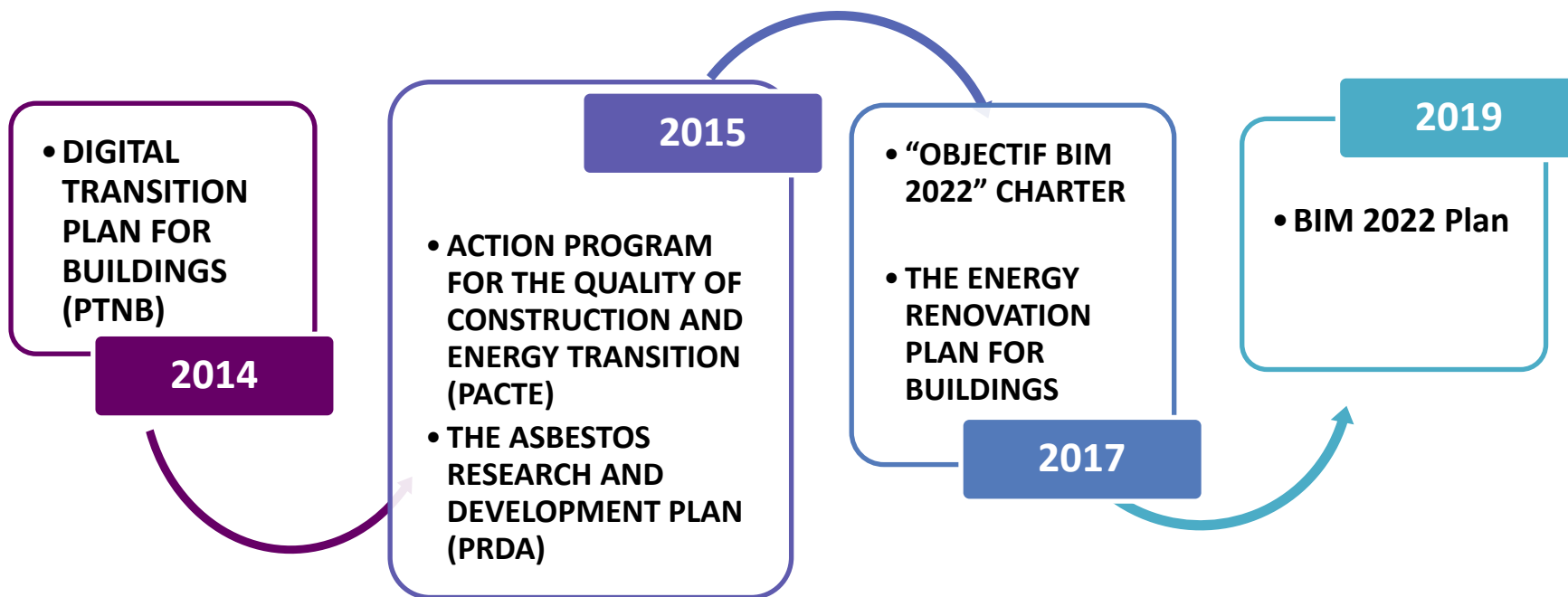
- *“The digital diagnostics of 140 companies carried out by Constructys indeed show that we talk a lot about BIM for more collaboration, but the demands expressed by SMEs and VSEs are much more basic: data backups, integration of business software or migration to suites such as Office 365” (Constructys research director – 12/03/2019)*

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# In practice ?

- « *Whereas IT has long been present (in accounting management up to the edition of estimates), ongoing evolution is more due to the deployment of mobile devices on construction sites: mobile phones and tablets, particularly in daily use for taking photos and thus improving customer relations. Nevertheless, more progress is being made in some families than in others: plumbers and electricians, for example, and also in the carpentry trades (with digital manufacturing software)*” (CAPEB, 12/20/2019)
- *“Globally speaking companies and craftsmen are more interested in concrete innovations : Drones and 3D scanners but also drawing softwares like SketchUp are attractive”.* (CAPEB, 12/20/2019)

# RELEVANT INSTITUTIONAL INITIATIVES AND POLICIES



## Practical impacts ?

Launched in a enthusiastic context, the PTNB (2015- 2018) has contributed to raise awareness about BIM potential towards professionals, to foster training and tools dedicated to it and issued practical tools and recommendations (guidelines for contractors, etc.) –

However, *“even if the recent BIM 2022 plan officially intends to generalise the BIM, as this innovation transforms the professional culture in the sector, much more time will be needed to fully translate it in practice”* – (Former President PTNB 01/14/2020)

Another key issue related to the BIM development is the weak number of orders including BIM / that is why the PTNB quickly issued a practical guide to engage contractors in BIM



# EMPLOYMENT PROFILE IN THE CONSTRUCTION SECTOR

**IN 2018, THE CONSTRUCTION SECTOR, including building and public works, COUNTED WITH...**

- ❖ **A total of 1,177,090 employees**
- ❖ **78% of whom worked in the building sector and 22% in the public works sector**
- ❖ **88% are men.**
- ❖ **27% of workers are between 25 and 34 years old, 26% between 45 and 54 years old**
- ❖ **66,7% occupied in production functions**

# Occupations

## MAIN PROFESSIONS AND OCCUPATIONS

### COMMERCIAL AND ADMINISTRATIVE

18,2%

- Sales
- Human resources
- Office Manager

### PRODUCTION

66,7 %

- Mason
- Painter
- Carpenter
- Electrician
- Roofer
- Machine operator
- Metal worker
- [...]

### TECHNICAL AND SITE SUPERVISION

15,1 %

- technician
- Site manager
- Engineer
- Draughtsman quantity surveyor
- Topographer
- [...]

# Digitalisation and Training: SOME CHALLENGES

- ❖ The needs range from training in specific tools to training in the basics of digital technology.
- ❖ Companies point to a lack of readability and accessibility of the training offer, which demonstrates a need for support in choosing the right training courses.
- ❖ The need to have easy and personalized access to training and information
- ❖ The significant need for demonstration and purchasing advice illustrates the uncertainties of companies as to their ability to adapt to the digital transition in a completely autonomous way.
- ❖ Training in BIM is particularly problematic.
- ❖ The lack of visibility on the gains to be expected from the different solutions leads to many postponements of investment decisions.
- ❖ The need to have support systems tailored to the profile of companies and employees
- ❖ The branches have a large proportion of workers whose digital skills are professional skills remain to be developed. This population would then require mechanisms to specific and personalized support.
- ❖ Such challenges explains the search for innovations in integrating training in building operations, such as the *Constructys FIT project* in the Nord Pas de Calais Region

# Role and challenges for social partners

**First**, it's worth mentioning that employer organisations, or at least some of them, have been developing numerous initiatives to support the sector digital transformation, for instance « digitalisation awareness kits » by the CAPEB (craft industry)

**Second**, it seems that social dialogue essentially refers, on this subject, to works carried out by joint bodies, Constructys (training operator whose priorities are agreed on by social partners), the sectoral Employment Observatory, the CCC ABTP (which manages the apprentice training centres) and the OPPBTP (advisory body on OHS matters) / an evidence that digitalisation is still an “emerging” issue in social dialogue ?

Trade Unions are not represented in the steering committees of national action plans above-mentioned (PTNB and BIM 2022)

# Open issues for social dialogue ?

**A forthcoming and increased importance of production off site (vs on site / and suitable for automation) and its potential consequences on skills, employment and even borders of social dialogue? « *The requirement for upstream design linked to production off site, combined with the integration of new technical solutions (insulation, joinery) in pre fabrication, finds a particular resonance with the development of BIM*”**  
*Employment Observatory – 2019*

**The development of Big Data in construction and the related opportunities and threats ?**

AND.....

THANK YOU !!!!!