

Digitalization in the construction sector and the effects on the labour force

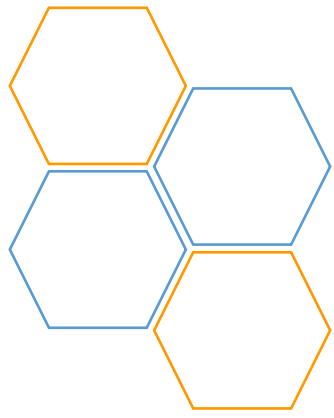
SuSodCo 3th Virtual Capacity Building Event
Seminar 28.06.2021

A general overview of the various areas of the digitalization impact



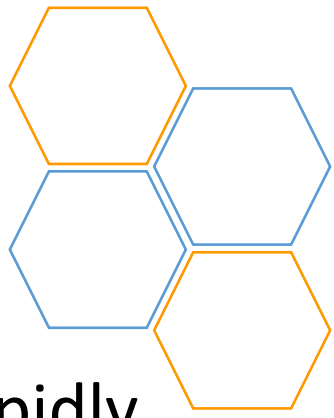
- **job creation:** new sectors, new products, new services;
- **job change:** digitalisation, human/intelligent machine interface, new forms of management;
- **job destruction:** automation, robotisation;
- **job shift:** digital platforms, crowd sourcing, 'sharing' economy

The “smart” living effect



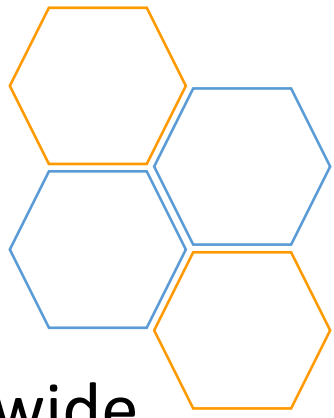
- There is a traditional split between industry and services;
- The “intelligent car” effect is in full force and can be quite disturbing with living the real labour force out of the labour system;
- There is a pressure for **change**;
- New gadgets are included

Pressure for change



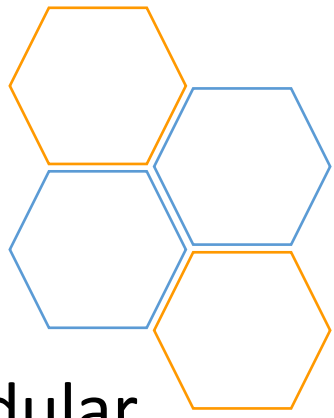
- **Evolving client expectations** – clients, influenced by other rapidly changing markets, now expect also the same from their homes, offices, commercial buildings and infrastructures;
- **New technological capabilities** -Sensors and various hardware as well as software have seen cost drop and efficiency rise over the past few years opening the path to new possibilities;
- **New generation of craftsmen and professionals** - Many new jobs, not yet known, will be created in the years to come with the adoption of new tools and processes;

New opportunities and measures



- **Booming start-up environment** - nearly 1,200 startups worldwide since 2010 in real estate and construction;
- **Supportive legal frameworks** – governments are increasing their CO2 and energy efficiency regulations and raising their targets;
- **Launch of large infrastructure projects** - All players in the industry , or distributors will be impacted by digital pressures. there is no doubt that significant change is coming;

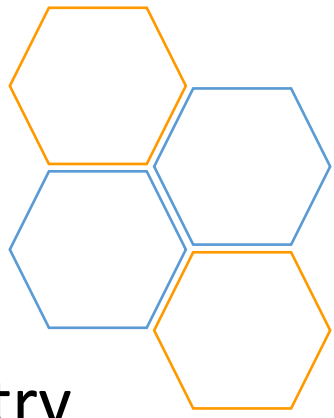
Industrialization of processes and parts



Construction tends to industrialize through pre-fabrication, modular production or 3D printing for instance which is without doubt a big opportunity to increase the productivity in the sector.

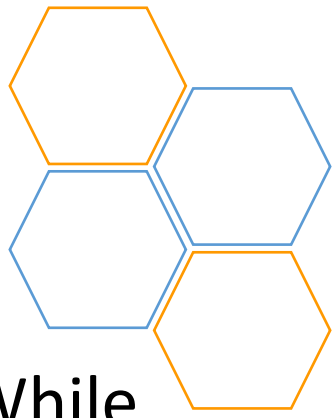
Digital construction processes have nothing in common with the old fashioned “pen and paper methods” of yesterday. The expected impacts on direct costs, delays but also safety, image, work satisfaction and environmental protection are numerous.

False fear and real opportunities



- When tackling the topic of digitalization in the construction industry there is a constant fear of losing one's job;
- However, upskilling and upgrading of already proven professionals is in full force;
- The training effort needs to be a **priority** dimension for construction industry players;
- Trainings also to provide innovative career paths and evolutions and grasp the strengths of both the old and of the new ways of working;
- Primary aim has to be increasing the number of qualified workers across Europe

CONCLUSION



Digitalization in the construction world is in its infancy. While innovation is booming it still remains scattered and not really organized. Nonetheless, digital in construction will eventually generate usages and breakthroughs that we simply cannot conceive yet.

Numerous data will be generated throughout the construction process and will hold tremendous value that needs to be captured. In addition, cost baselines are quickly evolving making competition even more intense in an environment with traditionally low margins. Taking quickly position, aligned with the accelerating market pace, is essential to take advantage of the opportunities and avoid future setbacks in the long run.



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КАМАРА НА СТРОИТЕЛИТЕ В БЪЛГАРИЯ
BULGARIAN CONSTRUCTION CHAMBER

Thank you!

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Federal Secretary

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