

## **Patrik Kolar's speech**

Ladies and Gentlemen,

On behalf of the Executive Agency for Small and Medium-Sized Enterprises, I am very pleased to welcome you to this workshop exploring the role of digital skills in the energy transition of the European building stock.

First of all a few words about our Agency. Since its beginnings as the first Executive Agency of the European Commission over 15 years ago, EASME has been entrusted by the European Commission with the management of a number of funding programmes. Today this covers SME support, environment, climate action, energy and maritime affairs. In line with this mandate, our main tasks are to manage the selection of innovative proposals, to prepare grant agreements with successful consortia and to monitor the execution of projects. Thanks to our close involvement with project participants, we are in a unique position to feed their results to the thematic departments of the European Commission, thus enabling feedback “from the ground” to be taken into account in the design of new policies. In this spirit, one of today’s main objectives is to gather ideas from you as European stakeholders and facilitate exchanges with European policy makers.

Why did we choose to dedicate a full day programme to the link between digital skills and buildings’ energy performance? Chiefly because the European building sector has engaged in a double transition:

- on the one hand, it is critical that we complete the decarbonisation of our building stock if we are to meet our climate targets;

- on the other hand, we need to make the most of the new digital technologies that are rapidly changing the way we design and construct buildings.

I would like to briefly highlight how the energy transition and the digital transition should be seen as complementary objectives. I will also highlight how EASME is supporting building professionals with the rollout of energy efficiency skills and digital skills.

Europe has set ambitious targets for buildings energy performance. From 2021, all new constructions will need to be Nearly-Zero Energy Buildings, in line with the Energy Performance of Buildings Directive. At the same time, the rate of renovation of existing buildings needs to be significantly accelerated, to ensure that buildings are ready to participate in a smarter energy system with a growing share of renewables.

This of course involves new technologies, innovative products and services. But let's be clear: the smartest buildings or the best conceived retrofit projects will never come to fruition without the qualified professionals to build them! Therefore, a "cognitive revolution" is needed, providing a full set of new knowledge, competence and skills for all professionals involved in the building cycle.

As illustrated in many studies, the difference between the claimed and the actual energy performance of a building is often significant, sometimes over 50%. Training building professionals towards better quality of construction and a more efficient interaction between trades onsite can play a large role in reducing this so-called "performance gap".

Against this background, it is not surprising that the *Energy Performance of Buildings Directive* calls upon Member States to include in their Long Term Renovation Strategies an overview of national initiatives to promote

skills and education in the construction and energy efficiency sectors. We will hear more about this later today with a presentation by the European Commission DG Energy.

Let's now add the "digital" element to this already complex equation!

We read every day articles announcing how drones, artificial intelligence, building information modelling, 3-D printing or the Internet-of-Things will revolutionise our buildings. At EASME, we see already real breakthrough in the projects we are funding. Let me mention one example in the field of renovation: the BERTIM project, coordinated by the Spanish organisation Tecnalia, has been developing a new industrial process that imports scanned data from an existing building into a Building Information Model and exports it to an automated cutting machinery for prefabrication of timber modules. The innovations developed within the project allowed to demonstrate primary energy savings of 50% after renovation and an overall reduction of the installation time by 30% compared with a similar typical deep renovation.

But overall, the building sector remains still today one of the least advanced in terms of digitalisation.

How can we explain such a discrepancy? A study commissioned by the Committee for European Construction Equipment, released in January this year, provides an interesting perspective on this, which I would like to quote: *"Digital transformation is not limited to the adoption of digital equipment and innovative software. Digitalisation means also rethinking (if not reinventing) organisations and their business models. As a result, not only technical skills will be affected by the digitalisation process but also managerial ones"*.

This means that embracing digital technologies will require a complete reshaping of organizations involved in the process of designing, constructing and operating buildings.

To leverage the potential of digital technologies, we need professional equipped with the relevant and up-to-date skills who will ultimately design and construct buildings faster, cheaper, and at higher levels of quality and energy performance. To put it differently, the European building value chain will truly succeed by investing in its “human capital”!

The European Commission is well aware of the skills challenge faced by the building sector. In 2011, the BUILD UP Skills initiative was launched, funded under the Intelligent Energy Europe Programme, then under Horizon 2020. Initially targeting on-site workers and craftsmen within national projects, BUILD UP Skills gradually evolved to cover all professionals of the building value chain within multi-country projects. To date, 57 projects have already been finalised, while 11 are on-going, for a total EU support of 40 million euros.

Through BUILD UP Skills, we identified a series of barriers to the upskilling of construction professionals, including the lack of awareness by companies or the lack of time to let workers enrol in training courses. But BUILD UP Skills did more than identifying barriers, it helped stakeholders throughout Europe to develop workable solutions to advance the upskilling of building professionals. For example in the "Train-to-NZEB" project carried out between 2015 and 2018, "Building Knowledge Hubs" were established in Bulgaria, Romania, Czech Republic, Turkey and Ukraine. These hubs are new or upgraded training centres equipped with modern technologies and demonstrating real-life construction models. They act as a kind of one-stop-shops offering tailor-made trainings and advice on Nearly-Zero Energy Buildings.

On the other hand, we have seen real opportunities emerging, in particular digital tools, which can act as a real game-changer, notably by facilitating the learning process, improving the perception of the construction sector

by young people and creating a generation of multi-skilled construction workers.

EASME is also managing a number of activities within the “*Blueprint for sectorial cooperation on skills in the construction sector*”. The “Blueprint” is a new framework for strategic cooperation between key stakeholders in economic sectors experiencing skills shortages or skills mismatches, launched as part of the New Skills Agenda for Europe in 2016. I am glad that we have today a representative from the European Commission DG GROW, who will tell us more about this initiative.

- Before concluding, let me say a few words about today’s programme. We have tried to approach the question of digital skills for the building sector from multiple perspectives and in a multidisciplinary manner. We are very pleased that upon our invitation leading players in the construction sector are here today, from architectural practice, industry organisations, training providers, academia, as well as the European Commission. They will provide their perspectives and insights on the issues they consider critical for making the energy and the digital transitions of the building sector a reality and a success.
- This workshop has been designed to be as interactive as possible. The two breakout sessions will allow you to hear about more specific examples of digital technologies and trainings, and to reflect in small groups in order to share experience and good practices. A panel discussion will close the day, taking stock of progress made so far and looking at further steps needed in this field.
- I would like to emphasise that this workshop is a unique opportunity for all of you to share ideas and provide feedback on what you see as the immediate priorities for the future. We will take your feedback into

account when reflecting on what should be the funding priorities after the end of the current programming period, meaning after 2020.

I will now give the floor to Enrique Corral, Director General of the Spanish Labour Foundation for Construction. His organisation has been very actively involved in the BUILD UP Skills initiative and more recently in the Construction Blueprint. On behalf of EASME, I would like to thank him and his team for supporting this event.

Finally, I would like to thank the BUILD UP team for organising this workshop.

I wish you all a very fruitful event!