

## **To slide 2**

As an introduction, I should say that everything in our surroundings is more or less – challenging.

Let's look at the title. What brings me here and why EE is connected to BIM?

Energy efficiency has roots in achieving goals of controlling climate change. On the other hand, the environmental aspect is one of the main pillars of sustainability. And there are so many conferences, papers and initiatives for sustainability and climate changes, that I want to be sure after today's session, whether this project BimCert, really make difference or just nominally want to have credit for positive climate change impact? Is it true that BimCert can support it in every phase of the project, from initiating to design, construction and maintaining phase?

Moreover, there are many obsolescences regarding climate change, which are referred to as technology innovation, variation in customer demands, change in legislation, social pressures, the advancement of knowledge, currency inflation; civil unrest or conflict of interests etc.

I'm very curious and suspicious, but just because of reconsideration whether you have solid and clear solutions for energy efficiency in buildings, both at the strategic and operational levels. So please try to convince me about it, that it makes changes.

## **BEFORE slide 3**

I'm sure you started with strategic questions and goals that should be managed by BimCert solutions. Only in "Scencedirect", about 1000 papers have "EE in buildings" in the title of the publication. This number increased by more than 1000 each year from then. After 2012, the difference was 2000 papers yearly. In 2019, there are more than 27000 papers with "EE in buildings", in "ScienceDirect". No doubt, there are plenty of different approaches, more than 300 main goals if we collect all authors' EE goals. So it must be challenging to sort them and to find critical ones for BIMCert. I won't ask you to reduce the goals of optimization of energy performance in just one sentence. **Can you select only five or, even better four of objectives of the energy performance of buildings, that BIMCert impact and that are, in overall and at the same time, four main challenges outside the BimCert, of that more than 30000 publications today?**

## **BEFORE slide 4**

Responsibility for sustainability can be divided into roles in projects. Regarding EE and environmental issues, it is well-known how designers calculate and describe parameters. There are Technical ordinances and law regulations regarding Energy Performance Building Directive and EE Directive. Policymakers are making those statements; they both with independent experts elaborated it in calculations for designers.

Even citizens are very interested in this topic, as it affects energy costs. Energy poverty is a widespread problem across Europe, as between 50 and 125 million people\* are unable to afford proper indoor thermal comfort. A common European definition does not exist, but many Member States (MS) acknowledge the scale of this socio-economic situation and its negative impact translated into severe health issues and social isolation.

In the recent period, the stakeholder dialogs are supporting member states to raise awareness across all of them, but generally, each stakeholder knows very well his/her role. **How BIMCert views this, what is in its concept regarding stakeholders?**

## **AFTER Slide 4**

So, that could boost and faster decisions on projects. Do you mean that simultaneously, all stakeholders will be connected to the same project? In this case, optimizations and considering variations could be simultaneously analyzed by all stakeholders. Today, one of the main challenges of project performance is changes. The procedure of analyzing and making decisions on changes, no matter if they are administrative, technical or organizational, are activities that spend considerable time. From the aspect of public administration, it also can pace the amendments on building permits in the future, which are also connected to the EE in buildings.

**BEFORE slide 5 (+6)**

What about building performance gaps? The performance gap of buildings is commonly defined as the difference between the performance value predicted in the design stage and that measured in the post-occupancy stage. Many recent scientific and practical publications analyzed performance gaps in the scientific journals that are dealing with sustainability. The performance of green buildings is a critical issue in both the design and occupation stage. This is not my idea, it is a proved fact. **Does BIMCert recognized this and offer a solution for that?**

**BEFORE slide 7**

Now that the BIMCert has resulted in educational materials, it is very important to spread this knowledge in the right way and to the right communities. Select Delivery Mode and Instruction Strategy, design, validate and develop Custom-Specific Training Material, Set up and maintain the training environment (e.g., facilities, equipment, hardware, system software, application software, application data); those steps are few initial steps that BIMCert will pass in the further development.

**In a few main bullets, can you explain to us the approach toward training on EE in buildings?**

**BEFORE Slide 8 (+9+10)**

Let's talk about impacts.

As IPMA wrote, in training project managers are often told that the main focus of a project is to deliver in time and in the budget. In fact, that's only partly right, as we should measure the success of a project rather based on the long-term impact than its deliverables. It is essential to clarify how does impact relates to input, activities, outputs and outcomes of a project?

Firstly, how BIMCert will make an impact and second question now by this challenge is, give us concrete numbers of those impacts.

**BEFORE Slide 11**

I'm sure that you, as experts, won't leave this project alone after the first implementations. You'll want to know after two, three, five or more years if this project is still needed in the market and how does it go. The environment will change, this is something that I see you also predicted, so you all won't be very surprised by those changes. **What will be the way to see if it has or not long term impact?**