A talk with Miloš Kužvart, the former Minister of the Environment and the Head Manager of projects at the Technical and Test Institute for Construction Prague

SUSTAINABLE USE OF NATURAL RESOURCES MEANS EMPLOYMENT IN THE EUROPEAN CONSTRUCTION SECTOR.

Miloš Kužvart **– is a former environment minister, a former MP (non-party, formerly ČSSD Party), a manager, and geologist. He graduated from the Charles University in Prague, Faculty of Science, where he earned the RNDr. degree. Between 1986–1990, he was an employee of the Czech Geological Survey. In February of 1990 he started at the Ministry of the Environment as an officer, and later led the Department of Analyses and Concepts. In 1994 he joined the ČSSD Party. From 1998 to 2002, he served as the environment minister in Miloš Zeman's government. In 2002 he was elected MP for the Social Democrats. He helped establish the civic association "The Party of Civic Rights – Zeman's people". Since 2012, he has been the Manager of Project Management at the Technical and Test Institute for Construction Prague.**

I SUPPORT SUSTAINABLE CONSTRUCTION

This November the Technical and Test Institute for Construction Prague will celebrate its 60th anniversary. It is one of the largest testing institutes in the Czech Republic, and offers a wide range of services. In addition to maintaining the portfolio of the construction sector, it also plays a very important role in protecting the environment, including saving materials and energy, in order to find the right way out of our economic crisis. We spoke with Miloš Kužvart, a former minister of the environment, about how to ensure the competitiveness of the construction industry with regard to savings in material resources.

How is the construction branch doing at present?

Unfortunately, it has been showing a rather downward trend. Also, the size and number of construction contracts have been constantly dropping, and of course, there is also a huge problem with unemployment. On the other hand, the prices of construction materials are growing. These are also the subjects of a growing conflict of interest in the market. It is one of the reasons why the European Commission (EC) strives to find a solution and develop a common strategy for all EU Member States. In this context, we were approached by the Ministry of Industry and Trade to nominate representatives to the working group "Sustainable Use of Natural Resources", which is an advisory body to the European Commission. The choice finally fell on me.

What is your professional focus?

I have a degree (RNDr.) in the field of economic geology from the Faculty of Science. Also, I was engaged (with a hiatus of eight years, while I was involved with Czech politics) in audit activities in the field of environmental management. The latter frequently uses various products which are also used by the Life Cycle Assessment (LCA). In this regard, for me, LCA of Mineral Resources harks back to 1990, when the Ministry of Environment originated. Back then we looked for options that would limit the extraction of non-renewable mineral resources in the Czech Republic.

What exactly is the task of the European Commission working group?

The working group is trying to find common solutions for the management of natural resources in relation to the economic and social aspects. The Group does not intend to engage in industrial and infrastructure buildings. On the contrary, it is aiming to deal with residential buildings, offices, health and social objects. Energy consumption plays a significant role throughout the entire life cycle of a building – starting with the extraction of raw materials, their processing, and production of building materials and components up to the construction of the building. Thereby, however, the cycle evaluation has not been completed. Furthermore, the building's long-term use, costs and impact on the environment caused by its disposal are assessed as well. Thus, the EC Conclusion is as follows: at the moment, there is no binding EU objective for the adoption of any document.

What is the reason for such a conclusion?

The construction industry is literally very diverse across the EU member states. Obviously, our aim is not to create a pigeonhole in order to squeeze the entire market within. On the one hand, the harmonization of *acquis communitaire* is a highly desirable process, for instance in terms of security, etc. On the other hand, there are different traditions within the individual EU member states with regard to the lifetime of the residential buildings. There are countries where fifty years, or even a hundred years is standard. It demonstrates a different utilization and expectancy of building materials, which vary from state to state.

So, what output can we expect?

Defining the main issues addressed at the appropriate EU level, if necessary, and developing joint proposals that are yet not of a binding nature. Yet, at the same time, I believe in the introduction of such mechanisms that will lead to a more favorable treatment of non-renewable natural resources, with positive effects on employment. We must realize that the European construction industry now generates about 10 percent of the GDP of the European Union.

Do you estimate the growth of employment within this branch?

Yes, definitely, the employment could be increased by 12 million within the EU in the construction sector from the current 20 million.

In this respect, does the Technical and Test Institute for Construction Prague bring any specific topic into the discussion?

The Technical and Test Institute for Construction Prague is a great promoter of tools that relate to the assessment of buildings as such. It is an assessment tool in terms of building life cycles. Accounts shall be taken including information about how difficult it was to produce various building components, how difficult it will be to heat the building, and even lighting, up to the very end of the life cycle of the building. Our company publishes the internationally recognized certificate, called the "SB tool." It is a comprehensive certification of buildings.

In what way is the certification attractive for the eventual owner?

The owner receives an overall evaluation of the quality of the building. To the various evaluation indicators belong a certain "well-being" of the object, i.e. an important aspect of utility and energy characteristics, whether it is an office building or a factory, etc. Moreover, it comprehensively covers the quality, and promotes sustainable construction in the Czech Republic. At the end of 2011, in order to promote sustainable development and construction in the Czech Republic, the National Platform SBToolCZ (NP SBToolCZ) was established. Its main objective is the operation, management and development of a certification system that adheres to the national guidelines of SBToolCZ. The founding members are The Faculty of Civil Engineering in Prague (CTU), The Technical and Test Institute for Construction Prague, and the Research Institute of Building Construction – Certification Company Ltd. Thus, our certification is already running, and the certificate issued by our platform is recognized in any country participating in this "multiagreement".

How does the certificate raise the quality, and hereby the price of real estate when purchased?

Obviously, especially in case of the lease or sale of a particular building, the certificate might prove to be a very helpful tool. It clearly shows the eventual cost savings to the future homeowner. If you e.g. use the recovery system for ventilation heat, which receives the heat back into the building, and preheats the intake of clean air, there will be an interesting amount of savings on heating. It is very much about the improvement of the indoor environment. And another thing, it is useful when you count impacts during construction, such as the reduction of greenhouse gas emissions. As a matter of interest, I'd like to add some comparison. If you invest one hundred thousand Euros in photovoltaic power plants, you can save 75 t of CO^2 in 30 years of operation. On the other hand, if you invest the same amount into a low-carbon concrete wall, you'll save 663 t of CO^2 immediately. In this context, I'd like to point out another important thing. The Czech Republic should, along with all EU members, find reasonable ways to enforce its environmental policy, i.e. the elimination of market distortion. The fight against global climate change is indeed necessary, yet it is de facto economic suicide.

Can you be more specific?

Once you invest big money within the EU to reduce greenhouse gas emissions, you immediately reduce the competitiveness of the economy with these costs. And much worse: in the same period, in growing economies such as China or India, where the effort to reduce greenhouse gas emissions has veered, newly built power plants are spewing many times more emissions into the atmosphere. If we approach this application for the protection of the environment, we will thus completely liquidate the competitiveness of the European economy. Moreover, we run the risk of global influences, as greenhouse gases will be reduced somewhat, but those who do not respect the environment will run over us with imports of non-organically produced products.

Where do you personally see a solution?

Society as a whole must strive to be more *eco-efficient*. The concept of eco-efficiency combines the environmental and economic performance of companies. The point is to produce more efficiently and ensure the final effects at little cost to your wallet or business, with a lower impact on the environment. The matter of eco-efficiency is relatively new.

What does it deal with, in particular?

Eco-efficiency compares products on the basis of certain mathematical formulas. In the case of two refrigerators that have the same volume, and the same cooling capacity, it compares not only power, but also the total LCA of the products. It simply concerns the fact that you won't use chemicals that destroy the ozone layer, even during the manufacturing of the product in question. Or that a given refrigerator is more easily recyclable. The same is true, for example, in the automotive industry; the car can later be decomposed back into components, plastics, glass, metals, etc. Thereby, the basic principle of eco-efficiency should be market-based and also be able to save primary natural resources. Thus our work, much like the entire philosophy, is about long-term priorities and the future, and not about short-term prosperity, which does not take into account the environment and future generations.

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