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*A School with a View*

**Aleš Bulc, Presidents MBA 2004, Managing Director, German subsidiary of Global Bioenergies**

## »RISE OF THE DECENTRALIZED AND GREENER NEW WORLD«

**Dr. Bulc is successfully combining managerial experience with the technical expertise. He is leading German subsidiary of Global Bioenergies (GBE), one of the few companies worldwide, and the only one in Europe, that is developing a process to convert renewable resources into hydrocarbons through fermentation. They focus on the production of isobutene, one of the most important petrochemical building blocks that can be converted into fuels, plastics, organic glass and elastomers. The moment the world becomes serious about Paris climate accord; such solutions are going to be priceless.**



»100 years ago it was accepted to simply dump your waste streams into rivers. Today we cannot even imagine somebody would do that,“ smiles Dr. Bulc. The decentralized and greener new world will gradually take shape. However, Dr. Bulc remains realistic. He says that at the moment, sustainable development is not yet at the peak of CEO's agenda. “Crucial question is how to assure the steady flow of innovation and evolutionary development within companies.” It seems that at GBE, they know what this process is about. In 2008 there was just an idea that a new process might be possible. Last year, GBE completed the construction of the only demo plant in the world that is dedicated to the direct fermentation of gaseous hydrocarbons. The German car manufacturer Audi has already endorsed their vision and tested the first fuels produced by GBE. Dr. Bulc, who attended Presidents’ MBA program at IEDC, used to lead AMB Invest, R&D at Trimo, and gained experience also as a senior engineer at Bechtel in San Francisco, stresses that education is of utmost importance, not only for success, but, equally important for instilling right values to the future leaders. “Schools like IEDC also prove that in spite of being small, you can still be the best and come up with ideas and solutions that the “big players” did not dare to think or dream of.”

By: Tonja Blatnik, External Cooperator for Content Marketing

**Less than half of companies say their boards of directors are actively involved in sustainability (according to a survey from MIT Sloan Management Review, The Boston Consulting Group and the UN Global Compact). This is despite the fact that 87 percent of managers and executives say that boards of directors should be engaged in sustainability. How should sustainability challenges move from the backroom to the boardroom?**

The main task of Boards of directors is to assure the survival of companies that they were put in charge of to oversee. All of us involved with the renewable economy know very well that for the moment there is no "Green premium". Environment, ecology, sustainability are topics only for the companies that are active in those markets. For the rest, these topics are still more of a threat than an opportunity. However, when we as a society actually decide to care for our planet and do something about it by accepting the costs associated with those actions, the above quoted percentages will change fast.

**Companies must renew themselves much more regularly. The life cycle of a business has shrunk from 50 years to seven years. That means that a company today has only a few years to refresh their business model before they go into decline. In that perspective, how high on CEO's agenda are sustainable development and sustainable innovation?**

It is always dangerous to talk about averages and statistics. Inflow of new start-ups is positively changing the average, but the established companies do not reinvent themselves every few years. How has Krka changed in the last 20

years that is obvious to general public? GBE works with BASF, Bayer, Clariant, Audi etc. and the actual changes are not obvious, but also not that fast. The question is not yet the sustainable development and innovation, but rather how to assure the steady flow of innovation and evolutionary development within companies.

**The gradual increase of carbon dioxide (CO2) in the atmosphere has been linked to global warming and ocean acidification. How can we eliminate the disposal cost? What is the inherent value of the materials being discarded?**

Again, the right question is not if we can eliminate the disposal costs. First, we have to accept that there should be disposal costs. Once set and accepted, they can be optimized and eventually reduced. 100 years ago it was accepted to simply dump waste streams into rivers. Today we cannot even imagine that somebody would do that. The moment there are costs of disposal, we started looking if something in the waste stream can be used/reused in order to reduce the disposal costs. Therefore, the disposal costs are the actual driver for the change.

**In the beginning of this year, Global Bioenergies announced the production of ETBE purely from renewable resources. What does this breakthrough innovation mean for the future? Media report that the purely renewable ETBE holds the potential for incorporating 2.7 times more renewable energy in gasoline than with traditional biofuels. Will this help to cut greenhouse gas emissions?**

Today the oil industry uses ETBE as fuel additive to improve the fuel properties. They mix premium fuels for the most technologically

developed and therefore fuel quality sensitive motors in top automotive brands. The production of "green ETBE" allows the blenders to produce premium gasolines while increasing the "green"/renewable content of fuels that are predominantly fossil based. Bio diesel, bio ethanol fuels are limited to 5 or 7% in order not to have a deteriorating effect on motors. Green ETBE produced by Global Bioenergies allows the blenders to add up to 1/3 of renewable fuels while improving the fuel quality in gasoline we are buying at the fuel pump today. No change of fuel standards or engine modifications are required to achieve this significant reduction of CO2 emissions as CO2 released would originally come from the atmosphere through plants photosynthesis instead of coming from oil wells.

**Which companies are already testing or using your innovation? Audi, for example, already showed its support for this vision of future.**

Global Bioenergies has developed a patented process where genetically modified bacteria convert sugars into isobutene. IBN in itself is one of the basic raw materials for the chemical industry allowing companies to further produce Plexiglas, rubber, natural synthetic chewing gum, green cosmetics and creams, as well as renewable fuels. There is already a long list of companies that have successfully tested our green IBN including Audi, Arkema, L'Oréal, Cristal Union, Clariant, Aspen, Arlanxeo, etc. and are in the process of starting industrial collaborations with GBE.

**What are the trends in terms of the development of sustainable alternative fuels?**

For the moment Europe is investing a lot of money into development of biochemical processes and bio refineries (coordination and

integration of the whole bio-chemical value chain). However, Europe must learn on how to commercialize the R&D that it is funding. Bio-Based industries (BBI) initiative with almost €3 billion budget was established with 25% EU funding and 75% by EU industry to finance so-called Demo and Flagship projects including first commercial plants for bio-chemistry. Hopefully, this is a step in the right direction to keep EU know-how and R&D results making profits in Europe.

**At IEDC art, ethics and sustainability play a crucial role. In 2008, the school fully integrated the subject of sustainable development across its entire curriculum. How should executive education support champion and inspire this field?**

Talking about these issues raises the awareness.

This is an important first step. By educating the future leaders IEDC can instill those values and understanding of problems in its students. Schools like IEDC can also convey ideas that while being small, you can still be the best and come up with ideas and solutions that the big players did not dare to think or dream of.

**How did Presidents' MBA at IEDC transform your life? What is the power of studying at IEDC?**

I would say that for most of IEDC students one of the major benefits besides getting the excellent management background is the network of friends and partners that also went through IEDC programs and today work and lead companies in South East and Central Europe. In my present job as a director of the German branch of Global Bioenergies I am using 120% of everything I have ever

learned. Therefore, what I have learned at IEDC represents an important addition to the toolbox I must and I use every day.

## MEET ALEŠ IN EVERYDAY LIFE

### **Describe your idea of a better world...**

... that the World improves every week for at least a bit. The world that allows you to build your dignity and freedoms.

### **If I could change one thing tomorrow, that would be...**

...to raise the awareness that in Nature an extinction is a rule and not a survival. We have to care about nature and sustainability today as tomorrow it may be already too late. Too late for humans, Earth will survive with or without us.

### **My biggest achievement in life is ...**

... that I am still an optimist and a fighter for a better world. I have learned to fall and stand-up again.

### **I find inspiration in...**

... natural beauty and human mind.

### **When I think of IEDC, I think of ...**

... an example that something great can grow from almost nothing if people with vision and determination are involved.