

Diner speech Stephan Tanda, Member of the managing Board of DSM 13 September 2010, KBBE, Brussels

Ladies and gentlemen,

Some weeks ago I read an article in Time Magazine about French rural areas and the problems farmers have in making a proper living. They need to start chambres d'hôtes, to survive. What is becoming of Europe: are we -becoming an open air museum with rural Bed and Breakfast facilities?

Let's hope not. Let's talk about new perspectives, about challenges, about opportunities for Europe. I would like to spend some time with you to discuss an opportunity that will yield 3 exiting things for Europe

- New technologies that will make Europe's chemistry and energy more competitive and sustainable, savings of GHG emissions via cleaner products and production systems
- 2. Hundreds of thousands of new jobs, increased incomes, especially in low-income sectors like agriculture, revival of rural areas and industries in Europe and integration of new member states in the European industrial infrastructure.
- 3. Less dependency of finite feedstocks like oil and thus lower imports of oil

That opportunity is called the biobased economy. Often regarded as 'the magic spell' when it comes to an alternative solution for fossil fuels. But there is much more to it. The bio-based economy is a golden opportunity for Europe. Not only because fossil sources are finite, but because it offers numerous opportunities of implementing such an economy in our regional European industrial structure. This will make Europe more sustainable and competitive.



We cannot go on anymore with business as usual: not as citizens and not as industry. We need to commit to a sustainable society. And that should be the main reason for implementing this new industry in which renewable resources play an extremely important role. We as industry think that Europe is well equipped and has all the necessary competences to make a successful transition from a fossil based to a biobased economy. The US, and BRIC countries like Brazil and China are generating a lot of speed; if Europe does not want to lag behind, we need immediate action.

Let me give you an example we work on in DSM. DSM is a Life Sciences and Materials Sciences company. More than 5% of our turnover we invest in innovation and over the last few years we generated one billion Euros in sales based on these innovations! The example is about an important chemical building block, succinic acid. Succinic acid is used in many end products like sweaters, automotive components, electronics and many other things. Until recently this was produced out of classical – fossil - feed stocks. DSM can produce this via a biobased route and we work together with French company Roquette.

The result: no oil to be used and a much better environmental footprint. In addition this is a perfect example of a successful European collaboration – initiated by the French BioHub program - that now comes to the stage of production. That is a typical biobased chemical and a good step to that biobased economy.

More holistically, what do we as Europe need to be successful.

We need three things:

- 1. Industrial transition towards biobased products
- 2. Securing sufficient quantities of sustainable renewable feedstocks
- 3. Market development for biobased products: i.e. a strong academia R&D facilities, and academic-industrial alliances



- 1. Industrial transition: we need science that converts agricultural waste into biobased products. And we need technology: biorefineries, in which we are able to scale up from the lab to quantities with which we can demonstrate that our processes work on a scal that can be converted into production plants. These biorefineries will sometimes be close to biomass, agricultural waste, and sometimes close to our (chemical) infrastructure and industries.
- 2. Renewable feedstock: we need to improve and secure access to sustainable renewable raw materials for industrial use. Thus, we need in Europe sufficient rural areas with good quality of agriculture. This is of course an excellent opportunity to get the new member state economies intertwine within the Europe Union. What we then need are of course agricultural policies to promote renewable raw materials production for industrial use.
- 3. Market development: when Europe does not only want to be top in publications and innovations, but also wants to become top in the implementation of these in our European setting, we really need to develop a European biobased products market. We need coordinated Europe-wide research programmes for industrial biotechnology and biobased products covering the entire value chain via public-private partnerships. In addition, we need focus on end of the value chain i.e. new end-product applications . For that, we need flexible research-orientated bioproduction facilities and easy access for companies to use these infrastructures to test and refine industrial processes, reducing lead time and investment costs. We need to close the critical gap between scientific feasibility and industrial application through demonstration projects, allowing European companies to gain a better understanding of actual operating costs and the strengths and weaknesses of technological processes.



A new study by Bloomberg New Energy Finance is making a strong case for a biobased economy. At a time with low global growth rates, the biochemical industry could provide a significant green stimulus to the European economy (EU27):

- sustainable job creation: 1 million man years of employment
- economic impact: over EUR 30bn of revenues per year in 2020.

The study highlights the enormous potential that next-generation biofuels and biochemicals can bring to Europe, based on the use of only 25% of existing agricultural residue and waste. The study "Next-generation ethanol & biochemicals: What's in it for Europe" will be released tomorrow by Bloomberg New Energy Finance with the support of Novozymes and DSM. The results send a strong signal to European policy makers that action is required.

I know we have a new commission that is dedicated to innovation and committed to implement and green Europe's economy. European success stories do not come like this. Industry and the European politicians and policy makers need each others unconditional support.

I as an industrialist expect from Europe:

- Collective measures to support the bio-based economy
- Clear mandates to reach ambition as set in the Renewable Energy Directive (RED)
- The creation of friendly climate for larger, long term bio-based economy investments in for example bio-refineries
- A Common Agricultural Policy (CAP) that supports the bio-based economy



You may expect from me – a world wide operating company – that I commit to get developments done in Europe.

Only a powerful and consistently operating European government and an aligned industrial environment will be capable of leading our European ambitions in the right direction.

I think we are all eager to make it happen, let's ALL together focus at the opportunities from an environmental, people and business perspective. For ourselves and generations to come!

Thank you very much for your attention.

Stephan Tanda, Member of the managing Board of DSM 13 September 2010, KBBE, Brussels