

Business Press Conference ACHEMA 2009



Press Statement

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Ladies and Gentlemen,

The Fachagentur Nachwachsende Rohstoffe (FNR) is making an appearance at Achema for the second time this year. In our role as a project management organization acting on behalf of the German Ministry of Food, Agriculture and Consumer Protection (BMELV), we have been responsible since 1993 for awarding subsidies which are intended to support research, development and market introduction of renewable resources. We also share information about renewable resources with the trade public and consumers.

BMELV and FNR are convinced that there are significant opportunities for adding renewable resources to the raw material base in the chemical industry, and that is one of the major reasons for our involvement at ACHEMA. The chemical industry has been one of the priorities in our grant programs right from the start, and it is still high up on the agenda despite the fact that the importance of bioenergy has increased over the years. Four of the six current project calls are focusing on materials, and three of them are relevant to the chemical engineering sector. We are promoting research on biopolymer materials, engineering plastics, special polymers, wood and natural fiber reinforced plastics as well as special and fine chemicals. FNR has granted 51.5 million euros in subsidies to 213 projects which are currently in progress in these categories.

When you look at the success that has been achieved in recent years in exploiting renewable resources for chemical engineering applications, it is easy to understand why an event like the special show in Hall 4.2, which is entitled "Renewable Raw Materials and Energy Supply in the Chemical and Biotechnology Industry", makes a lot of sense.

Why should we use biomass as a raw material in the chemical industry? The whole issue of raw materials is obviously the primary consideration. Over the long term, we will have no choice. Oil is a limited resource that will become increasingly expensive, and the time will come when the oil reserves are exhausted and we will simply have to find an alternative source of carbon. If we make the transition early, we will gain a competitive advantage. The industry is eventually going to have to find a solution to the problem anyway. This is also an essential issue for society as a whole, if we want to avoid crisis situations caused by shortages of supply.

Biomass also makes a contribution to climate protection. Certainly, the importance of biomass in reducing CO₂ emissions from chemical production should not be overstated - the impact is far bigger in the power generation sector - but even a series of minor contributions can make a difference. Many producers of biomass products are continuing to improve their CO₂ lifecycle balance, and there is still significant potential for further improvement.

It is also important to keep in mind that biomass allows us to exploit the products of natural synthesis. Conventional chemical synthesis of many natural substances is very difficult and costly. Biomass offers a genuine opportunity to simplify the production process, protect the environment and reduce cost. In many instances, white biotechnology is already doing just that.

Another goal of FNR is to convert biomass into totally new products which have superior properties. This is possible in some areas too.

Finally, biomass can also be used to produce less complex basic chemicals and intermediates. One of the priorities of the subsidy program is to position renewables at the beginning and in the middle of the product chain and to make a contribution to material diversification in the differentiated chemical tree.

At the end of the lifecycle in cases where material recycling is not feasible, the material can and should be used for power generation. This type of cascade utilization makes the most efficient use of renewables and cuts CO₂ emissions.

Allow me to briefly describe two interesting FNR projects.

The first is a product development project which is being carried out in collaboration with the German Aerospace Agency (DLR). The project demonstrates the current capabilities of biomaterials. The BioConceptCar is a long-distance racecar which has non-structural parts such as doors, hood, spoiler and other items that are made entirely of renewable raw materials. To be specific, the parts are made of flax and linseed oil based biopolymers which are



reinforced with natural fibers. The car is truly unique, but it is not merely a lab study model. Smudo, the front man in the German hip hop group Fanta 4, has driven the car at racing events. The vehicle is on display at our stand in Hall 4.2. Fiber-reinforced plastics, for example in door panels, have been used for years in car interiors. We wanted to show on this project that biomass-based materials can also take the punishment on a car exterior.

The second project operates at a higher level and is potentially relevant to all renewable resources. As demand for biomass continues to grow, you are undoubtedly aware that sustainable production has become an increasingly important issue. There have been some highly critical media reports about environmental destruction and unacceptable social conditions on palm and soy plantations. The EU has already created a legal framework which requires proof that biofuels are produced from sustainable resources. It is reasonable to assume that every industry which processes biomass will be required to provide this type of evidence at some point in the future. This includes material supply as well as food and animal feed production. FNR is providing subsidies to the ISCC certification program which has been launched to test a practicable auditing and traceability system which ensures compliance with sustainability regulations. It is probably the most advanced program of its kind in the world, and it is currently being tested in practical application in Argentina, Brazil, Indonesia, Malaysia and the EU. The results so far have been encouraging. More information about the project is available at the FNR stand in Hall 4.2.



To summarize, renewable resources will become an increasingly important factor in the chemical industry because of factors such as security of supply, competitiveness and, in many cases, the inherent advantages that these raw materials have to offer. FNR is making a constructive contribution to the transition process. We have come to Achema to raise the profile of new approaches to raw materials supply. I look forward to seeing you at the stand.