Raw Materials Summit 2018 shows potential of non-fossil resources

Chemistry sees alternatives to oil

- **Use of plants and CO₂** is gaining importance
- **International start-ups named “Resource Innovators 2018”**

Sustainable raw materials from plants and CO₂ are increasingly being considered as an alternative to oil in the production of chemical products. Companies and investors as well as science and politics see promising prospects here. This is the conclusion of the Raw Materials Summit 2018, which took place on Monday at the Technical University of Berlin under the patronage of the Federal Ministry of Education and Research. The participants called for the further development and use of non-fossil resources in order to make chemistry more sustainable and climate-friendly. Young companies in particular could make a major contribution to this. Five start-ups from three continents were selected as “Resource Innovators 2018” at the summit.

The event was again organized jointly by the TU Berlin, the DECHHEMA Gesellschaft für Chemische Technik und Biotechnologie and the materials manufacturer Covestro. It highlighted Germany's leading role as an innovative location for alternative raw materials in the chemical and plastics industries. Numerous new products based on plant biomass and CO₂ have recently been launched on the market, such as components for high-quality foams. This saves fossil resources such as oil and improves the sustainability balance sheets of chemical producers and numerous downstream industries.

Selective research funding through politics

“The turnaround in energy and raw materials is one of the major challenges of the 21st century. Germany wants and must show that this change process can succeed while maintaining our prosperity, ” said Dr. Georg Schütte, State
Secretary in the Federal Ministry of Research and Education. "Innovative technologies already make it possible today to produce the sustainable chemicals and fuels of the future. We support the substitution of fossil raw materials by targeted research funding in the field of bioeconomics and the use of CO₂. This is also how we secure our international competitiveness."

Dr. Erika Bellmann, Policy Advisor at the environmental organization WWF Germany, also called for a departure from fossil sources: "With our focus on coal, gas and oil, we have caused severe damage in recent decades: we have triggered the climate crisis with them and continue to heat it up. We must therefore move away from fossil raw materials and towards new ones. But new is not automatically better. Sustainability must be a key criterion in the development of new raw materials. The goal must be a successful, environmentally friendly and climate-neutral industry."

The event also emphasized Berlin's role as a research location for green chemistry. For example, the new Chemical Invention Factory, which is being built on the campus of the Technical University, offers new opportunities for setting up companies in the university environment and for the direct transfer of science to business.

**New ideas in competition**

The summit also set a signal for a more entrepreneurial spirit with an international ideas competition: Five start-ups from Australia, Germany, Great Britain, Latvia and the USA presented projects in which plants and CO₂ are used as carbon sources instead of oil. And first place was taken by the Australian company Mineral Carbonation International. The start-up takes carbon dioxide from waste gases as an alternative feedstock and transforms it together with minerals into building materials and other valuable industrial products.

At the summit, Professor Kurt Wagemann, CEO of DECHEMA, emphasized the importance of such young companies: "We must recognize the task of the chemical industry to bring together several technologies in order to find more sustainable solutions to the pressing questions of our time. Start-ups play a decisive role here."

**Create a suitable innovation climate**

Dr. Markus Steilemann, CEO of Covestro, emphasized that good ideas must lead to concrete sustainable products as quickly as possible. "This is only possible through close cooperation within the private sector and application-oriented cooperation with scientific partners. And we need a suitable climate for innovation with more courage to take risks."
Professor Dieter Jahn, member of the High-Tech Gründerfonds advisory board, regretted that there are still relatively few start-ups in the chemical industry. “But that must change, because chemistry is the basis for many other industries, and innovations are needed in ever shorter time. To achieve this, start-ups need the appropriate infrastructure from the business community and politics.”

Professor Reinhard Schomäcker from the Institute of Chemistry at the Technical University of Berlin advocated the establishment of modern structures and processes in the university landscape to facilitate a close exchange between science and industry.

About the Technical University of Berlin:
With around 34,500 students, around 120 courses of study and 40 institutes, the Technical University Berlin is one of the largest, internationally renowned and traditional technical universities in Germany. Outstanding achievements in research and teaching, the qualification of very good graduates and a modern, service-oriented administration characterize the university in Germany's capital - in the center of Europe. The range of services offered by its seven faculties represents a unique combination of natural and technical sciences with planning, economic, social and human sciences at a technical university. The Technical University of Berlin is the only university in the capital region where you can study engineering.

About DECHEMA:
DECHEMA Gesellschaft für Chemische Technik und Biotechnologie e.V. brings together experts from various disciplines, institutions and generations to promote scientific exchange in chemical engineering, process engineering and biotechnology. DECHEMA searches for new technological trends, evaluates them and accompanies the implementation of research results in technical applications. More than 5,800 engineers, scientists, students, companies and institutions belong to the non-profit association. Together with DECHEMA Ausstellungs-GmbH, it is the organizer of ACHEMA.

More at www.dechema.de

About Covestro:
With 2017 sales of EUR 14.1 billion, Covestro is among the world’s largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites worldwide and
employs approximately 16,200 people (calculated as full-time equivalents) at the end of 2017.

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