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POLICY ASPECTS OF BIOMASS UTILIZATION AND BIO-BASED PRODUCT CHAINS

Rainer Busch
T+I CONSULTING

Baden-Baden
Germany
office@rbusch.de

Abstract

Biomass has traditionally always played an important role for mankind, either as a renewable fuel or as a source for the production of materials. In those days, biomass consumption was relatively limited and not subject to political measures.

With the increasing utilization of biomass as a resource for the large-scale production of chemicals and automotive fuels, however, and the shift of our society to a bio-based economy, a number of regulations and policies with regard to biomass have come into force in recent years.

Most of them describe and regulate the sustainable growth of biomass and the land to be used for it, while others deal with standardization of biomass for different purposes.

Examples include

- 1) The new **European Common Agricultural Policy (CAP)** which promotes sustainable and competitive agricultural production, and ensures balanced access to raw materials for the food and feed sectors, as well as for industrial applications, without disrupting food supply. Its success will strongly depend of the breakthrough of the bio-based economy in Europe.
- 2) The **European Commission Directive 2009/28/EC (Renewable Energy Directive (RED))**, on the promotion of the use of energy from renewable sources, addresses sustainability criteria for biofuels and bioliquids. Land use types are identified from which raw material will not meet the requirements of the directive.
- 3) The **Environmental Technologies Action Plan** aims to harness the full potential of all environmental technologies to reduce pressures on our natural resources. It encompasses technologies and processes to manage pollution, less polluting and less resource-intensive products and services and ways to manage resources more efficiently.
- 4) **ANSI/ASABE S 593** delivers a common and uniform terminology and definitions for the general area of biomass production and utilization.
- 5) **NTA 8080** describes the requirements for sustainable biomass for energy purposes (power, heat & cold and transportation fuels).

More policies will be listed and described in the presentation.

For the EU, the biotechnological production of fuels and chemicals from renewable biomass, (White Biotechnology), is a real opportunity for establishing a leading position on a global scale in this area. It has well developed chemical and agro-food industries, its scientific position on industrial biotechnology is excellent and the logistic infrastructure needed for the envisaged transition exists. Strategic papers and policies like **The Knowledge Based Bio-Economy**, the **Lead Market Initiative** and **Key Enabling Technologies** all underpin the importance of the application of biotechnology and chemistry on sustainable biomass in this increasingly attractive field. In this context, biomass is considered as a replacement of non-renewable materials currently used in various industries with renewable resources.

