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**nova paper #6 published:
“Options for Designing the Political Framework of the
European Bio-based Economy”**

The new policy paper written by nova-Institute's experts discusses push and pull instruments that could promote the European bio-based economy, sustainably creating employment, value-added and innovation. The paper includes a statement on the recent ILUC reform and its impacts on the material sector as well as a list of examples of bio-based products offering real advantages for environment and society. www.bio-based.eu/nova-papers

The current framework of the European bioeconomy creates a non-level playing field between the material use of biomass and the energy use of biomass, clearly disfavouring the material applications, also called “bio-based products”. This is short-sighted and prevents the European bioeconomy from tapping into its full potential, since biobased products can contribute to innovation & competitiveness; investments, employment, value added; cascading use, resource efficiency & Circular Economy; independence from imports of raw materials; short- and long-term positive climate effects, decarbonisation of the economy; positive environmental impacts, reduction of waste pollution e.g. through biodegradable microparticles of plastics; consumer well-being.

The policy framework needs to be modified in order to enable the bioeconomy to make these positive contributions to the European society and economy. While a multitude of policy documents already acknowledge the potential of the bioeconomy and also that there is currently no level playing field between the different uses of biomass, concrete implementation of any measures that would change this situation is sorely lacking. This is, among other things, especially true for the cascading use of biomass: with bio-based products as its starting point, it increases resource efficiency as well as the sustainable use and generation of value added from biomass and it is part of the circular economy. Bio-based products and cascading use are an indispensable part of any resource efficiency and sustainability strategy. One is not conceivable without the other.

The paper highlights the weakest points of the current framework and why it needs to be changed. It argues that at the moment there is an artificially created strong market pull for bioenergy and biofuels only; in order to even the scales, market pull is also needed for bio-based products. The paper then identifies and discusses different options of push and pull instruments, evaluates their feasibility and expected impacts and in conclusion draws recommendations for further steps. It is stressed that cross-functional cooperation between policy makers is needed in order to obtain a holistic perspective and policy neutrality. The ideal framework would ensure a balance of push and pull mechanisms that are based on long-term goals and allow for the best technology and application to

flourish. This would also create a positive image of the bioeconomy, since end consumers and society would be able to benefit from the shift.

In terms of market pull measures, it is recommended that the current infrastructure of bioenergy and biofuels is transformed in order to produce more high-value chemicals and materials. This could be achieved by opening the energy quotas to also be fulfilled with materials made from biomass and by actively supporting the transformation of production plants. It is further recommended that smart market mandates are used in order to promote environmentally friendly, bio-based innovation by favouring those bio-based products that offer true solutions to ecological and societal challenges; that R&D is kept open to all types of biomass and applications (rather than limiting them to second-generation feedstocks only); and that supply security of high-value industries is ensured.

The paper concludes that as long as bio-based products are more expensive than petrochemical products – because of lower volumes and higher raw material costs – there is a need for market pull as created by incentives and mandates, or at least a positive image is needed. A positive environment is necessary to achieve GreenPremium prices for bio-based products. Both options need a real political commitment to the bio-based economy, to the transformation from a fossil to a bio-based raw material supply. This requires more than another roadmap and an additional research agenda. Surveys show that consumers have positive connotations with bio-based products – this should be supported and not undermined.

Download of the full paper at www.bio-based.eu/nova-papers

About nova-Institute

nova-Institute is a private and independent institute, founded in 1994; nova offers research and consultancy with a focus on bio-based and CO₂-based economy in the fields of feedstock, techno-economic evaluation, markets, LCA, dissemination, B2B communication and policy. Today, nova-Institute has 25 employees and an annual turnover of more than 2 million €.

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