



Denmark

1 Which bioeconomy-related policy strategies exist?

Denmark does not have a dedicated national bioeconomy strategy yet. The government's commitment to bioeconomy is framed by the "Growth Plan for Foods" and the "Growth Plan for Water, Bio and Environmental Solutions" (2013). One of the key measures of the latter was the appointment of the National Bioeconomy Panel (NBP) which has been mandated as the advisory body to support the gov-

ernment's ambition to transform Denmark into a leader in bioeconomy. In 2014, the NBP published a statement, "Denmark as growth hub for a sustainable bioeconomy", which does not constitute a strategy as such but provides recommendations for the government to promote Danish bioeconomy development.

2 Is the term "bioeconomy" or "biobased economy" used in the strategy documents?

Yes No

X

Although the term is used in the "Growth Plan for Foods", the definition of bioeconomy in the "Growth Plan for Water, Bio and Environmental Solutions" strongly relates to "biobased solutions".

for the production of energy, chemicals and materials originate from renewable biological resources, including plants and animals"¹⁷.

The NBP's definition of bioeconomy refers to an economy "in which the basic building blocks used

¹⁷ Denmark. The National Bioeconomy Panel, 2014, p.1.

3 Who is the author of the strategies?

Both growth plans were published by the Danish Ministry of Business and Growth in 2013. The plans are based on recommendations of the Growth Team for water, bio and environmental solutions and the Growth Team for foods. These teams are composed of experts from business and were set up as advisory bodies to contribute to the government's business and growth policy.

The position paper "Denmark as growth hub for a sustainable bioeconomy" (2014) was published by the National Bioeconomy Panel which is composed of 27 experts from industry, research, NGOs, as well as key organizations and authorities. The panel is chaired by the Danish Ministry of Food, Agriculture and Fisheries and is further administratively supported by the Ministries of Environment; Business and Growth; Climate, Energy and Building, and Higher Education and Science.

4 What are the key goals of the strategies?

Both plans from 2013 are designed as growth strategies which should contribute to increasing economic growth, employment and exports. Furthermore, the plans seek to create new business opportunities and strengthen the competitiveness and innovativeness of Danish enterprises in the relevant industry sectors.

The NBP's statement from 2014 identifies general opportunities for Denmark associated with bioeconomy. These include, for example, lowering dependence on fossil fuels, increasing resource efficiency, promoting exports of technology, enhancing value creation and complementing food production.

5 What are the priority areas of the strategies?

The "Growth plan for water, bio and environmental solutions" defines 40 initiatives within five action fields. Bioeconomy is specially targeted under the action field of biobased solutions. The plan highlights Denmark's strength in industrial biotechnology and the potential of Denmark's agricultural sector concerning the production of biomass. Furthermore, biofuels are considered as a future market for Danish technology suppliers. In order to strengthen the country's biobased industry sec-

tor, the growth plan seeks to further develop the European market for biobased products by means of public-private partnerships for example.

Within the "Growth Plan for Foods" (2013), bioeconomy mainly refers to the action field of sustainable and resource-efficient food production. In this respect, the plan focuses on the efficient use and sustainable production of biomass which should be the basis for increased food production. More

specifically, the plan highlights the sustainable use of marine resources by focusing on using unwanted by-catches for the production of energy, pharmaceuticals or cosmetics. Further emphasis is put on developing new business models that concentrate on processing food wastes and residuals. Additionally, new technologies, e.g. for smart packaging, should contribute to reducing waste, water and energy in the food industry.

The NBP also highlights the importance of new bioeconomic value chains that should be strengthened by promoting biorefineries. Research, technology and know-how development should ensure support for these interventions.

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