DISCUSSION PUBLISHERS
Research Center · Open Access Edition

What Is the Bioeconomy? A Review of the Literature

Markus M. Bugge, Teis Hansen, Antje Klitkou

Discussion Research ID	DPR-2026-1188
Year	2016
Field	Agricultural and Biological Sciences
DOI	10.3390/su8070691
Author ORCID	0000-0002-4352-4811
Licence	CC-BY
Original source	Sustainability
Permanent link	https://discussionpublishers.com/research/7b2e951c-ac4d-49db-94cc-f5efe89da77e
Publisher	Discussion Publishers discussionpublishers.com

Republished by Discussion Publishers under the original CC-BY licence. Copyright remains with the original authors; please cite the original work.

Cite as: Markus M. Bugge, Teis Hansen, Antje Klitkou (2016). What Is the Bioeconomy? A Review of the Literature. Discussion Publis

Abstract

The notion of the bioeconomy has gained importance in both research and policy debates over the last decade, and is frequently argued to be a key part of the solution to multiple grand challenges. Despite this, there seems to be little consensus concerning what bioeconomy actually implies. Consequently, this paper seeks to enhance our understanding of what the notion of bioeconomy means by exploring the origins, uptake, and contents of the term bioeconomy in the academic literature. Firstly, we perform a bibliometric analysis that highlights that the bioeconomy research community is still rather fragmented and distributed across many different fields of science, even if natural and engineering sciences take up the most central role. Secondly, we carry out a literature review that identifies three visions of the bioeconomy. The bio-technology vision emphasises the importance of bio-technology research and application and commercialisation of bio-technology in different sectors of the economy. The bio-resource vision focuses on processing and upgrading of biological raw materials, as well as on the establishment of new value chains. Finally, the bio-ecology vision highlights sustainability and ecological processes that optimise the use of energy and nutrients, promote biodiversity, and avoid monocultures and soil degradation.

Keywords: bioeconomy, biotechnology, biological raw materials, value chain, biodiversity, soil degradation, nu

Full text

The complete text of this work is hosted by its original publisher.
Read it via the Discussion Publishers page:
https://discussionpublishers.com/research/7b2e951c-ac4d-49db-94cc-f5efe89da77e
Original record: https://doi.org/10.3390/su8070691
DOI: https://doi.org/10.3390/su8070691