

Kestävyyšnäkökulmat eri maiden biotalouspolitiikassa

*Sustainability concepts in national
bioeconomy policies*

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Setting the scene

Sustainable forest management “the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, **relevant ecological, economic and social functions**, at local, national, and global levels, and that does not cause damage to other ecosystems” MCPFE Helsinki H1 resolution [1]

1713/1992

2050

2015



[2]

2012/2018



[3]

2019

EU Green Deal

- *sustainable use of resources*
- *sustainable solutions across sectors*
- *sustainable paths*
- *SDGs*
- *sustainable public and private investment*
- *sustainable products and services*
- *sustainable decisions*
- *etc.*

[4]

2020



[5]

26.3.2021

Aim and materials

- how the concept of sustainability is taken into account in national bioeconomy strategies (*AT, CA, FI, FR, DE, IT, NL, SA, and US*)
- which SDGs are taken into account in national bioeconomy strategies (*AT, DE, and IT*)



[6]

Results

National bioeconomy definitions

- from a narrow economic activity to a wider, sustainable and circular economy

	Austria	Canada	Finland	France	Germany	Italy	NL	South Africa	USA and USA II
agriculture/food systems	■						■	■	
biodiversity			■	■	■	■	■		■
biomass supply		■	■						
circular economy				■		■			
climate change	■		(■)*				■	■	
economic development	■		■	■	■	■	■	■	■
education/knowledge/research		■			■	■		■	■
forestry	■								
health								■	
innovation	■	■		■	■		■	■	
local/rural/regional		■			■	■	■		
policy coherence		■				■	■		
products	■	■	■		■		■	■	■
renewable resources	■	■	■		■		■		■
resilience				■		■			
social transformation	■		■		■	■	■		■
sustainability			■	■	■	■	■	■	■
value chains		■	■		■		■	■	

Overview of the issues mentioned in studied national bioeconomy strategies and their goals and/or objectives and/or priority. *As for Finland, mentioning of global challenges.

Sectors	Austria	Canada	Finland	France	Germany	Italy	NL	South Africa	USA and USA II
Agriculture	■	■	■	■	■	■	■	■	■
Forestry	■	■	■	■	■	■	■		■
Fishing and aquaculture	■	■	■			■	■	■	
Manufacture of food, beverages and tobacco	■	■	■	■	■	■	■		
Manufacture of bio-based textiles	■	■			■	■			
Manufacture of wood products and furniture		■	■	■					
Manufacture of paper	■	■	■			■			
Manufacture of bio-based chemicals, pharmaceuticals, plastics and rubber (excl. biofuels)	■		■		■	■			■
Manufacture liquid biofuels	■	■	■	■	■	■	■		■
Activities related to the manufacture of cars					■				
Harvesting technologies			■						
Human health and social work activities/health sector			■					■	
Nature tourism			■						
Water treatment and distribution/water management	■		■						

Overview of mentioned examples of bioeconomy sectors considered in the studied national bioeconomy strategies. Bioeconomy sectors after NACE Rev.2 codes

Sustainability in national bioeconomy strategies

- viewed very differently in the strategies of different countries

Ecological dimension <i>quotations summarised</i>	Economic dimension	Social dimension	Holistic dimension
<ul style="list-style-type: none">• more efficient use of agricultural land and wastelands (AT, FR)• sustainable use of natural resources and mitigation of climate change (FIN)• climate-smart forestry and wood products (AT)			

[6]

Sustainability in national bioeconomy strategies

Ecological dimension	Economic Dimension <i>quotations summarised</i>	Social dimension	Holistic dimension
<ul style="list-style-type: none">• symbioses and side streams of different sectors and industries (FI)• sustainable growth and well-being (FI)• sustainability as a driver of market and demand (CA)• sustainable innovation ecosystems that increase international competitive advantage including education (CA)• flexible value chains (FR)• fair and sustainable trade, global responsibility (AT, NL)			

[6]

Sustainability in national bioeconomy strategies

Ecological dimension	Economic dimension	Social dimension <i>quotations summarised</i>	Holistic dimension
<ul style="list-style-type: none">• rural development (DE)• digitalisation in the transition to a bioeconomy (DE)• a sustainable and resilient (local and global) resource economy(FI), including human social capital and social innovation (IT)• planetary boundary resource use: innovation and changing consumption patterns, the state of the environment, ecosystems restoration and improvement of food production, access to water security (NL)			

[6]

[7]

Sustainability in national bioeconomy strategies

Ecological dimension	Economic dimension	Social dimension	Holistic Dimension <i>quotations summarised</i>
<ul style="list-style-type: none">• promoting societal transformation: technology and economic integration of science, political and social aspects; raising awareness in society (AT)• different sustainability dimensions from a broader perspective (US)			

[6]

SDGs in national bioeconomy strategies

UN Sustainable Development Goals (SDGs) (short from)	Austria	Germany	Italy
1. No poverty			
2. Zero hunger	■	■	■
3. Good health and well-being	■	■	
4. Quality education	■		
5. Gender equality	■		
6. Clean water and sanitation	■	■	■
7. Affordable and clean energy	■	■	■
8. Decent work and economic growth	■	■	■
9. Industry, innovation and infrastructure	■	■	■
11. Sustainable cities and communities	■	■	■
12. Responsible consumption and production	■	■	■
13. Climate action	■	■	
14. Life below water	■	■	■
15. Life on land	■	■	■
16. Peace, justice and strong partnership	■		
17. Partnerships for the goals	■		



Overview if and which SDGs are taken into account in the studied national bioeconomy strategies [6]

Key findings

Sustainability concepts in national bioeconomy policies

- the definition of bioeconomy has evolved over the last decade from relatively narrow economic activity to a broader, sustainable and circular economy-based bioeconomy
- sustainability is viewed very differently in the strategies of different countries: socio-economic, ecological and holistic dimension
- three countries, which had published the strategy after 2015, had incorporated the UN Sustainable Development Goals into their strategy

[6]

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Link to strategies

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Kiitos!

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Luonnonvara- ja biotalouden tutkimus 2/2021

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