

# Kestävyysnäkökulmat 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, <u>relevant ecological, economic and social functions</u>, at local, national, and global levels, and that does not cause damage to other ecosystems" MCPFE Helsinki H1 resolution [1]

1713/1992

2050

2015



2012/2018



2019

#### **FU 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.

2020



[5]

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[4]

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)

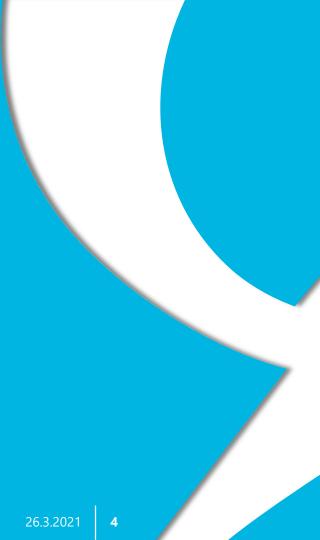


[6]





### 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		-						8	
policy coherence							•		
products								•	
renewable resources	•	•	•		•		•		•
resilience				•					
social transformation	•		•		1 🖦	•			•
sustainability			•	•		•		•	•
value chains			1 .				•		

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.

								1 -	
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 <u>bio-based</u> 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



- viewed very differently in the strategies of different countries

Ecological dimension quotations summarised	Economic dimension	Social dimension	Holistic dimension	
wast • susta mitig	celands (AT, FR) ainable use of natu gation of climate ch			
				[6]



Ecological Economic Social Holistic dimension dimension dimension dimension

- 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]



Ecological Economic Social Holistic dimension dimension quotations summarised

- 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)







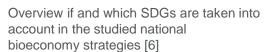
Ecological Economic Social Holistic Dimension dimension dimension dimension quotations summarised

- 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	•		







### **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



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## Kiitos!

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Luonnonvara- ja biotalouden tutkimus 2/2021

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