Society, forests and the future

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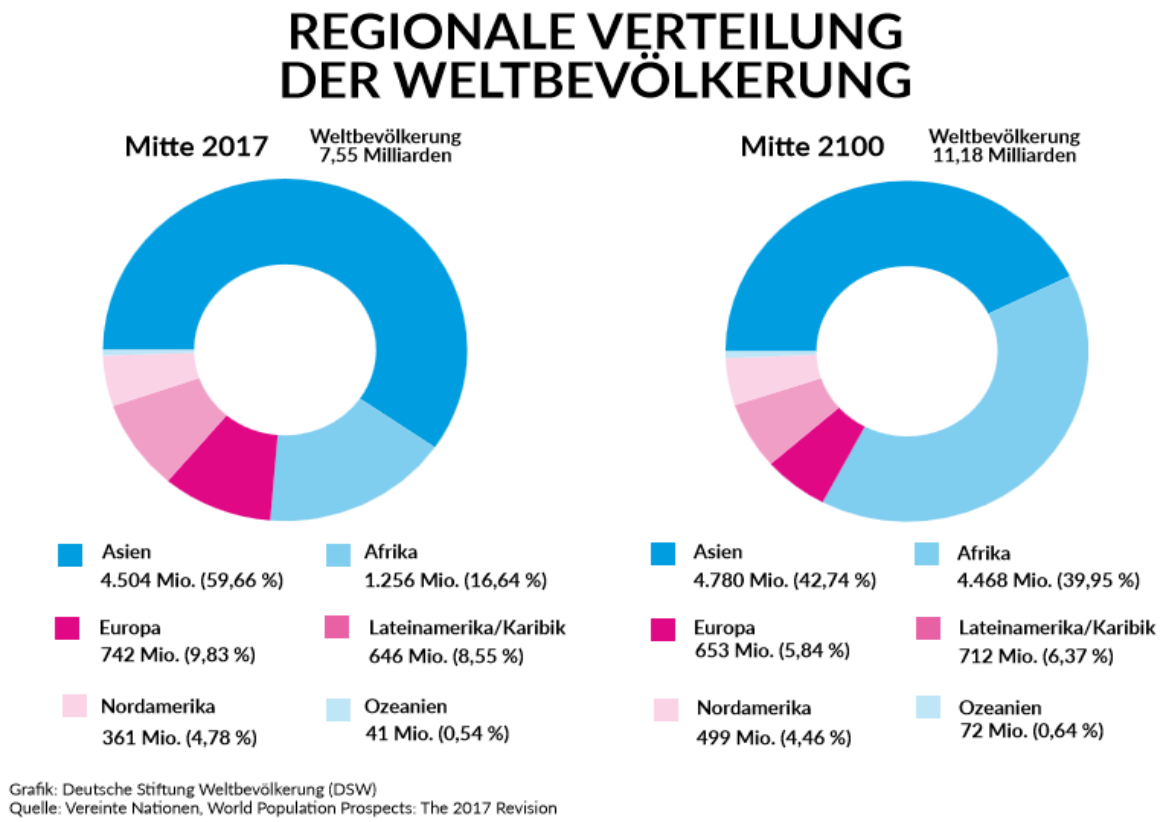
Trico Forestry Campus, Kitzbühel, 7-9 June 2022

Global Megatrends

Development of population



Urbanisation

- Since 2008 more than half of the global population lives in cities
- 31 Megacities (> 10 Million inhabitants)
- In 2100 more than 70% of the global population will live in cities

source: South China Morning Post

Consumption

- Increasing demand on resources and energy - consumption patterns
- Loss of soil and biodiversity
- Emerging economies (China, India, Africa)
- Land use change - deforestation, illegal logging

But: reycling, renewable energies, urban mining

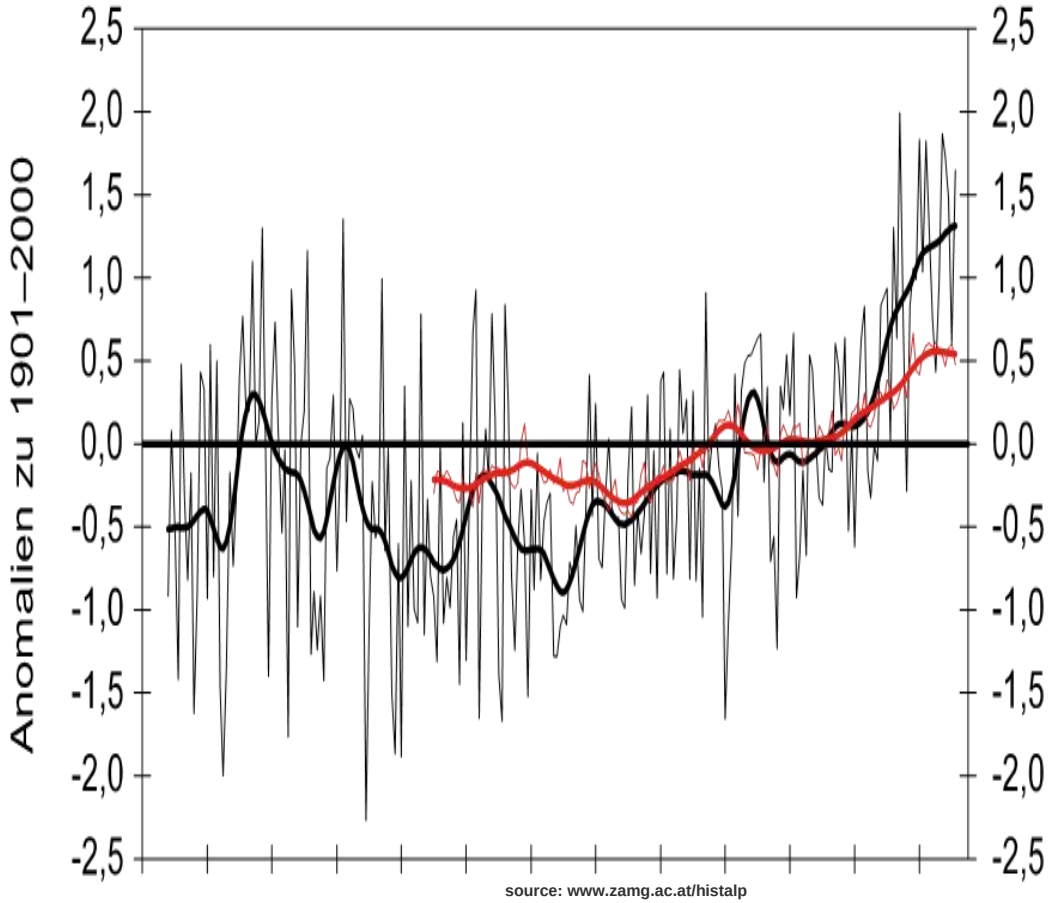
Quelle: Forschungsatlas.at

Digitalisation, Informatisation

- Big Data
- Internet of Things (IoT)
- Automation
- Augmented Reality
- Artificial Intelligence
- Industry 4.0
- Intelligent Materials
- Man-machine-interaction

Climate Change

- Global warming up to 4,8°C until 2100
- Mainly caused by the increased GHG content in the atmosphere by the use of fossil based energy



The role of forests ?

Many interests…

- Store more carbon to save climate
- Protect more forests for biodiversity
- Use more wood for buildings and energy
- Provide space for recreation and health
- …

Quelle: https://www.fva-bw.de/fileadmin/user_upload/Abteilungen/Wald_und_Gesellschaft/Sozialwissenschaften/wg_sowi_freizeit_wald_pause.jpg

Forests important for SDG

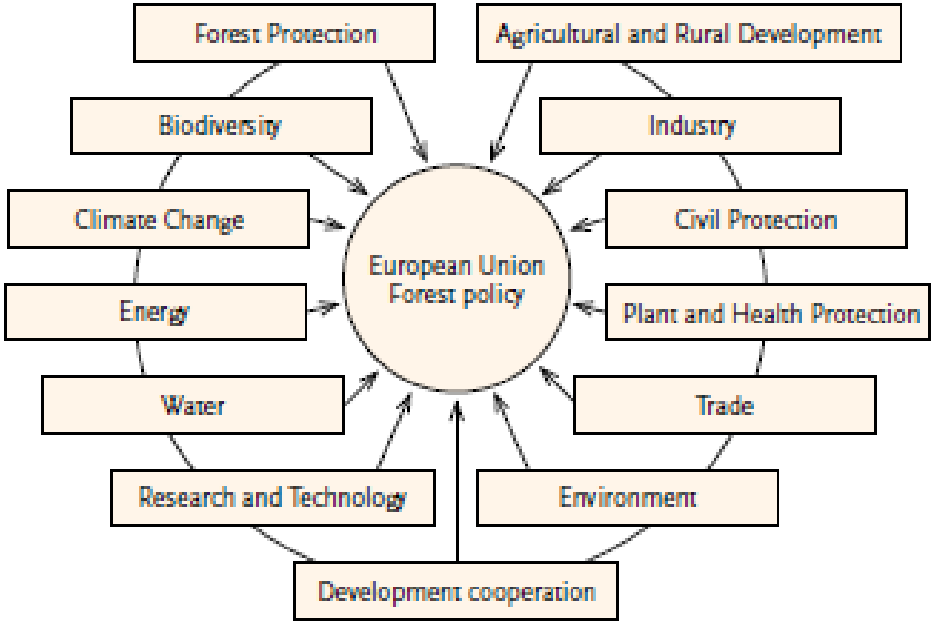
Forests in the EU

Quelle https://www.europeanfiles.eu/wp-content/uploads/2020/03/Green-EU-flags_web-1.jpg

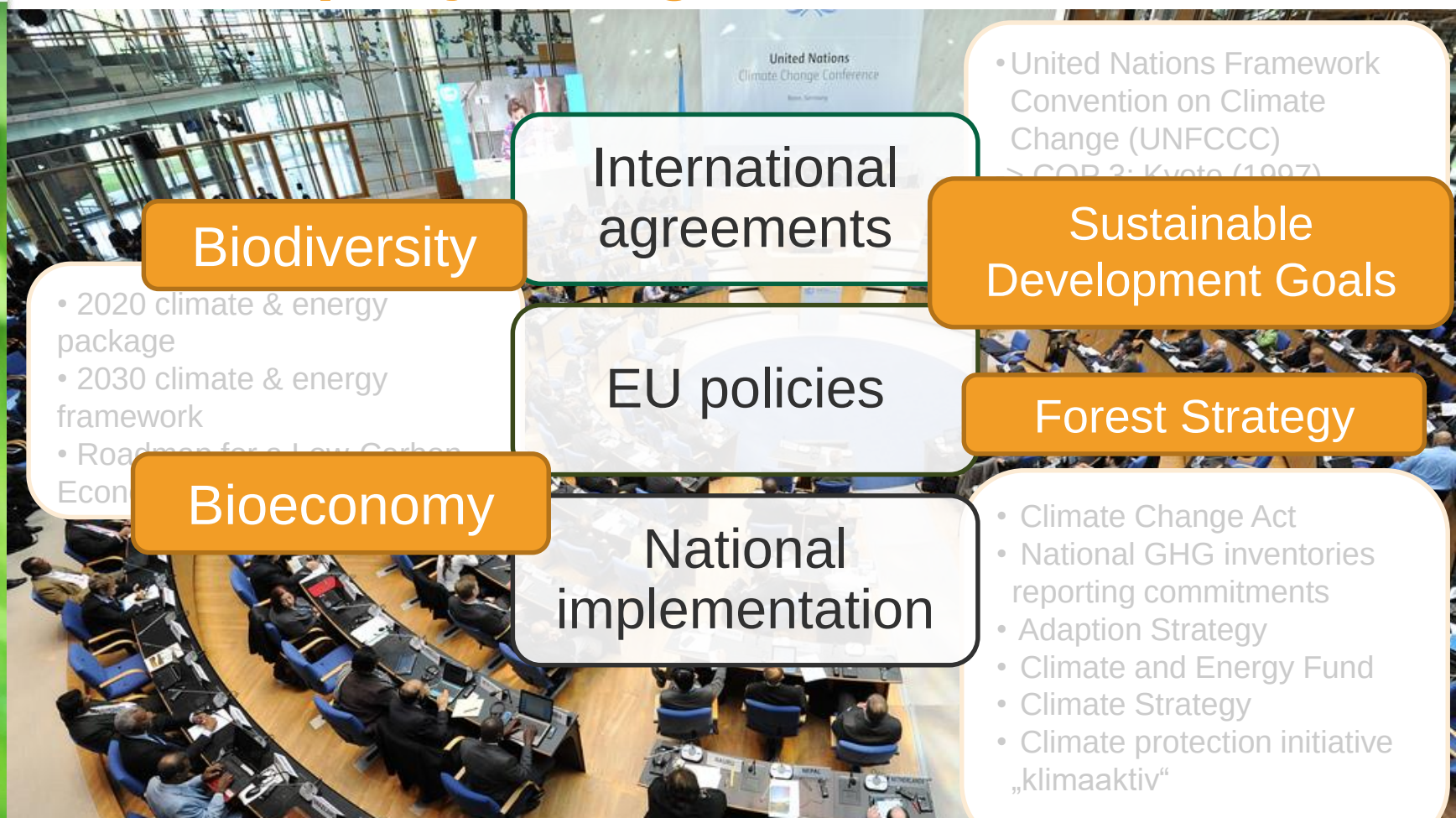
Priority areas of the EU Forest Strategy

- Sustainable forest management contributes to major societal objectives
- Improving the knowledge base
- Fostering coordination and communication
  - Working together to coherently manage and better understand our forests
  - Forest from a global perspective

But: Many policies address forests



Forest poliy – target conflicts



International agreements

- United Nations Framework Convention on Climate Change (UNFCCC)
- > COP 3: Kyoto (1997)

Biodiversity

Sustainable Development Goals

- 2020 climate & energy package
- 2030 climate & energy framework
- Roadmap for a Low Carbon Econ

EU policies

Forest Strategy

Bioeconomy

National implementation

- Climate Change Act
- National GHG inventories reporting commitments
- Adaption Strategy
- Climate and Energy Fund
- Climate Strategy
- Climate protection initiative „klimaaktiv“

Future of forest policy

- Dense regulatory network has developed over time
- “Decentralized” forest policy
- However, objectives and targets are often contradictory / competing
  - ➢ Policy coherence problems
  - ➢ Need to deal with trade-offs
  - ➢ Demand for effective coordination mechanisms

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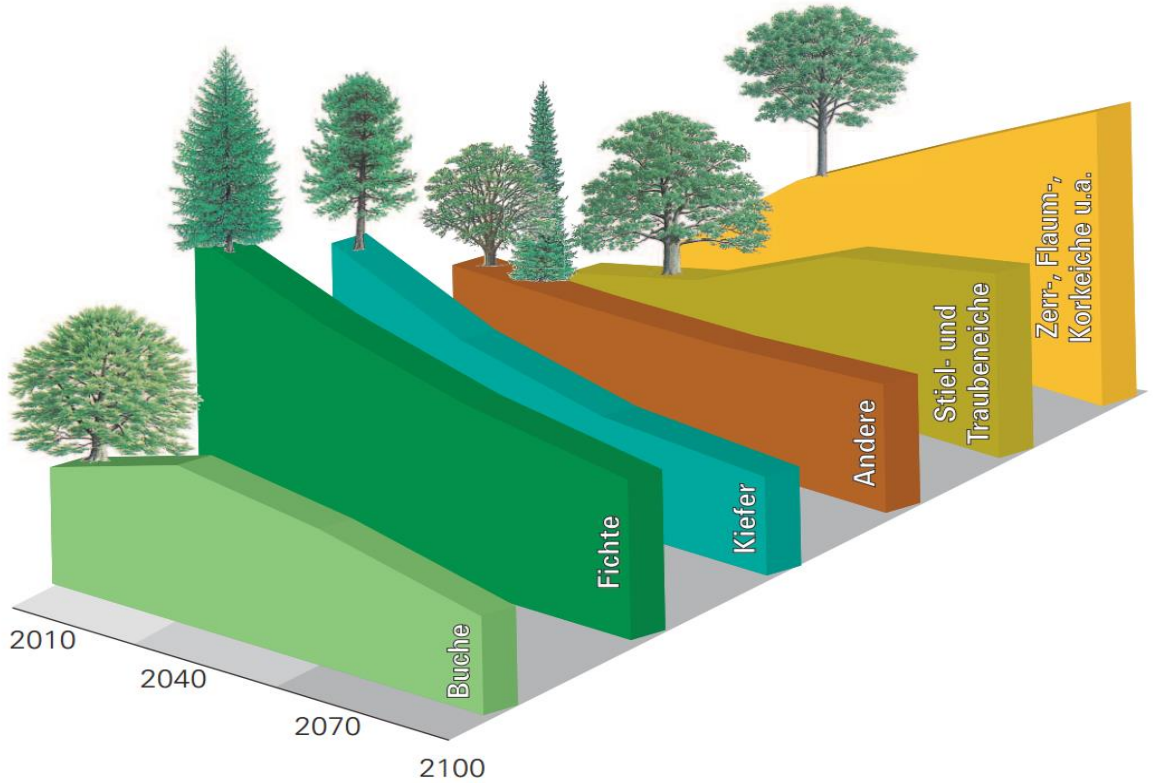
Forests
and climate change

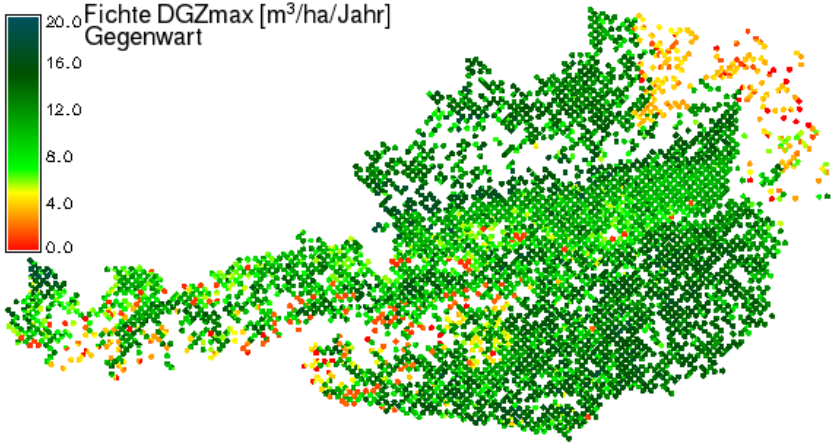
Effects of climate change on forests

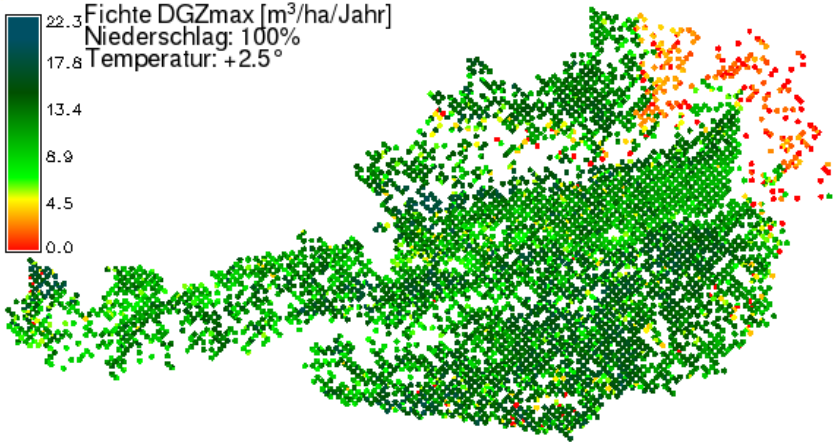
Adaption to climate change

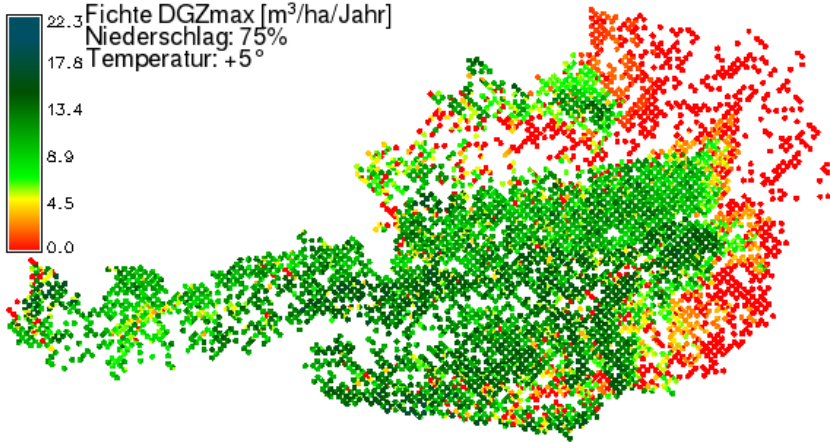


Quelle: Hanewinkel Nature Climate Change 2012, BFW PraxisInfo 30, 2012

Example – spruce in Austria







Traffic light system - forests of the future

7. Baumartenampel für WG9: Mühl- und Waldviertel

Wie hoch ist die Wahrscheinlichkeit, dass die klimatischen Bedingungen am ausgewählten Ort für eine Baumart passen?

● = hoch ● = mittel ● = gering

www.klimafitterwald.at

	Fichte	Weißkiefer	Lärche	Weißtanne*	Buche	Stieleiche	Traubeneiche	Bergahorn*
>1200 m	●	●	●	●	●	●	●	●
901-1200 m	●	●	●	●	●	●	●	●
601-900 m	●	●	●	●	●	●	●	●
<600 m	●	●	●	●	●	●	●	●

	Birke	Douglasie*	Esche*	Hainbuche	Küstentanne	Roteiche	Schwarzerle	Schwarzkiefer	Vogelkirsche*	Winterlinde	Zitterpappel
	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●

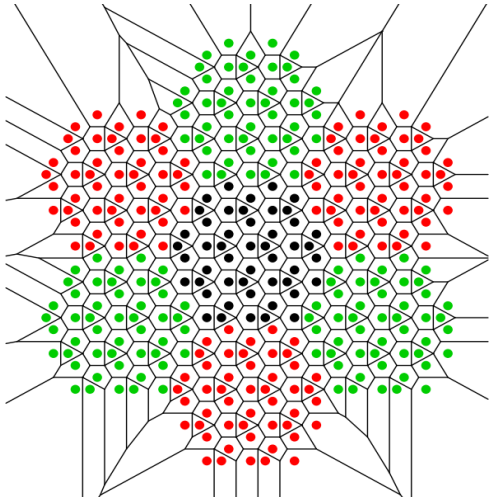
Hinweis:
In die Ergebnisse fließen Prognosen von Temperatur und Niederschlag sowie die Seehöhe des angegebenen Ortes ein. Bodenverhältnisse, Exposition oder Steilheit des Geländes können in einer Kurzfassung nicht berücksichtigt werden. Die Baumartenampel kann also nur eine erste Einschätzung passender Bäume geben, muss aber vor Ort noch mit weiteren Standortsfaktoren ergänzt werden.

Besuchen Sie auch unsere Online-Baumartenampel unter
www.klimafitterwald.at/baumarten

Wichtige Anmerkungen zu Relief und Boden:

* Weißtanne: für Höhen unter 600 m Herkünfte aus Südeuropa bevorzugen
* Douglasie: nicht auf Unterhängen und luftfeuchten Lagen (Schütte-Gefahr)
* Bergahorn, Esche, Vogelkirsche: bevorzugt nährstoffreiche Böden
* Vogelkirsche: vernässte Standorte vermeiden

Forests for the future

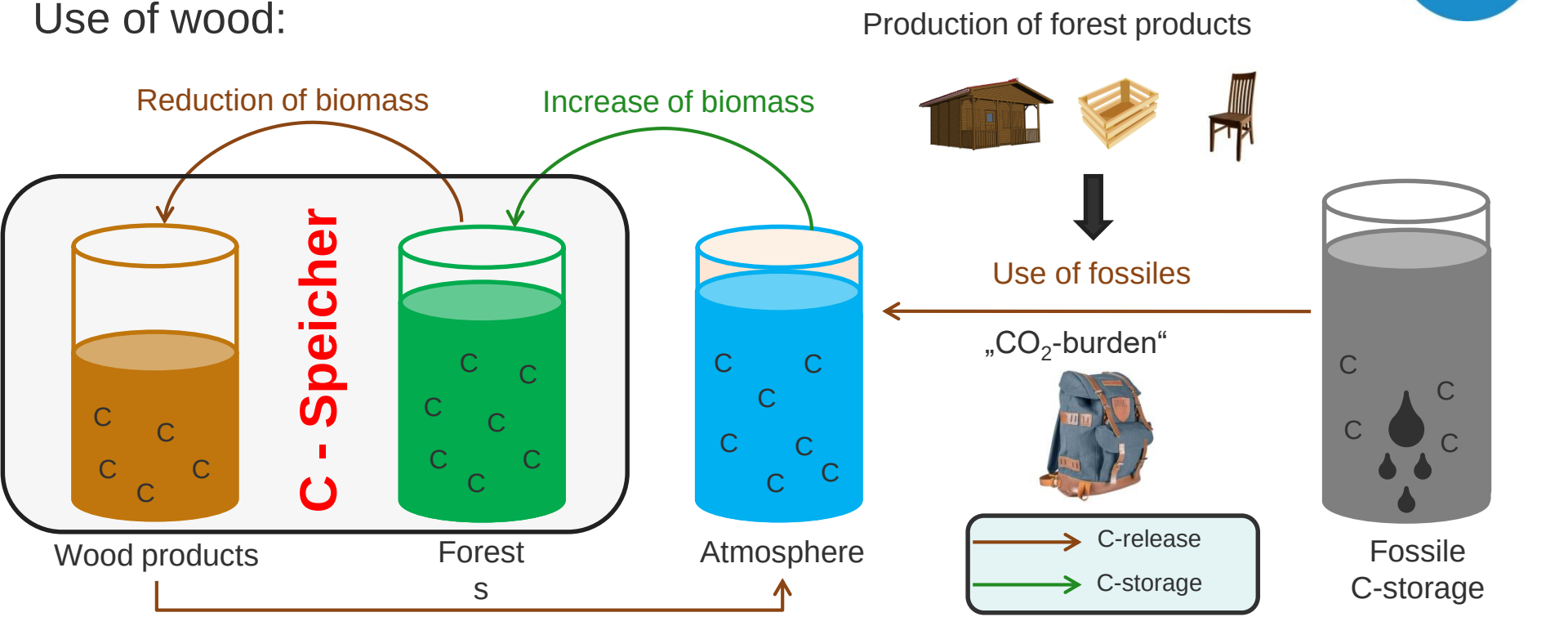


- Mix of tree species and increased biodiversity
- Increased gentic diversity
- Management of game influence
- Increase in extreme weather events
- Increased chance of pests and diseases

Solution: C-storage and substitution

powered by klima+ energie fonds

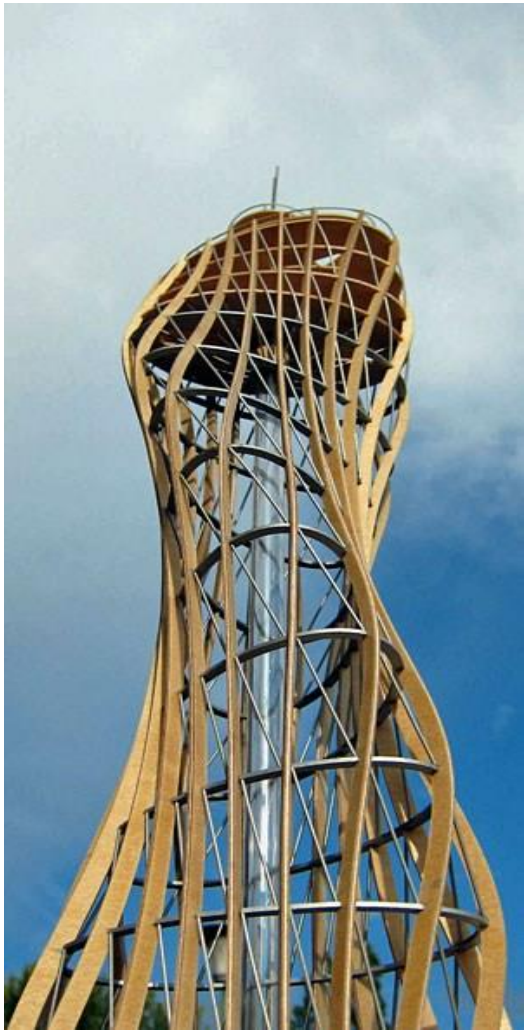
Use of wood:



Forests and
and a circular, biobased society

Innovation

- Digitalisation in forest technology
- Use of new technologies – from drones to satellites
- New ways of reforestation and assisted migration of trees
- Computerbased modelling
- Optimization in resource use and value chain



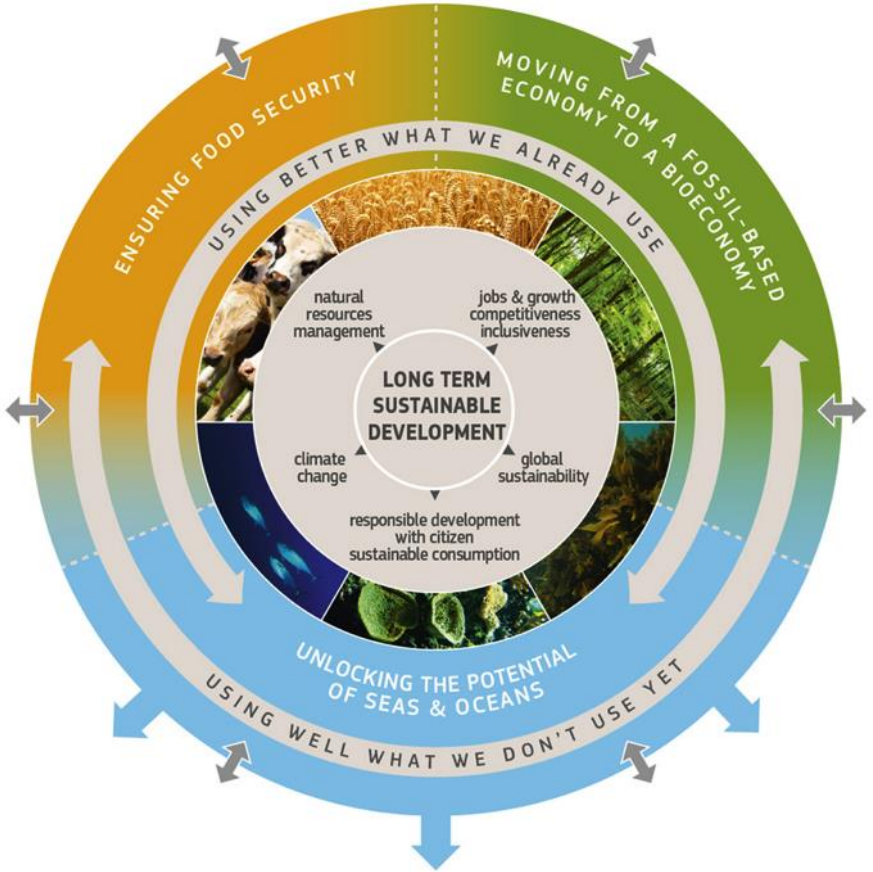
source: derstandard.at

A changing society

- Health and recreation (e.g. in COVID-19 crises) in an urbanised and aging society
- Sustainability and multifunctional aspects to avoid resource over-use
- Bioeconomy and circular economy as bio-based concepts
- Green jobs

The future

- Megatrends shape societies (including unexpected health and economic crises)
- Forests and wood products more important than ever – innovation and bio-based solutions
- Forest policy – new mechanisms needed to solve target conflicts



Picture | Filmstyle from „See Aural Woods“ (Luma.Launisch & Takamovsky)

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