

Biotalous ja tulevaisuus...

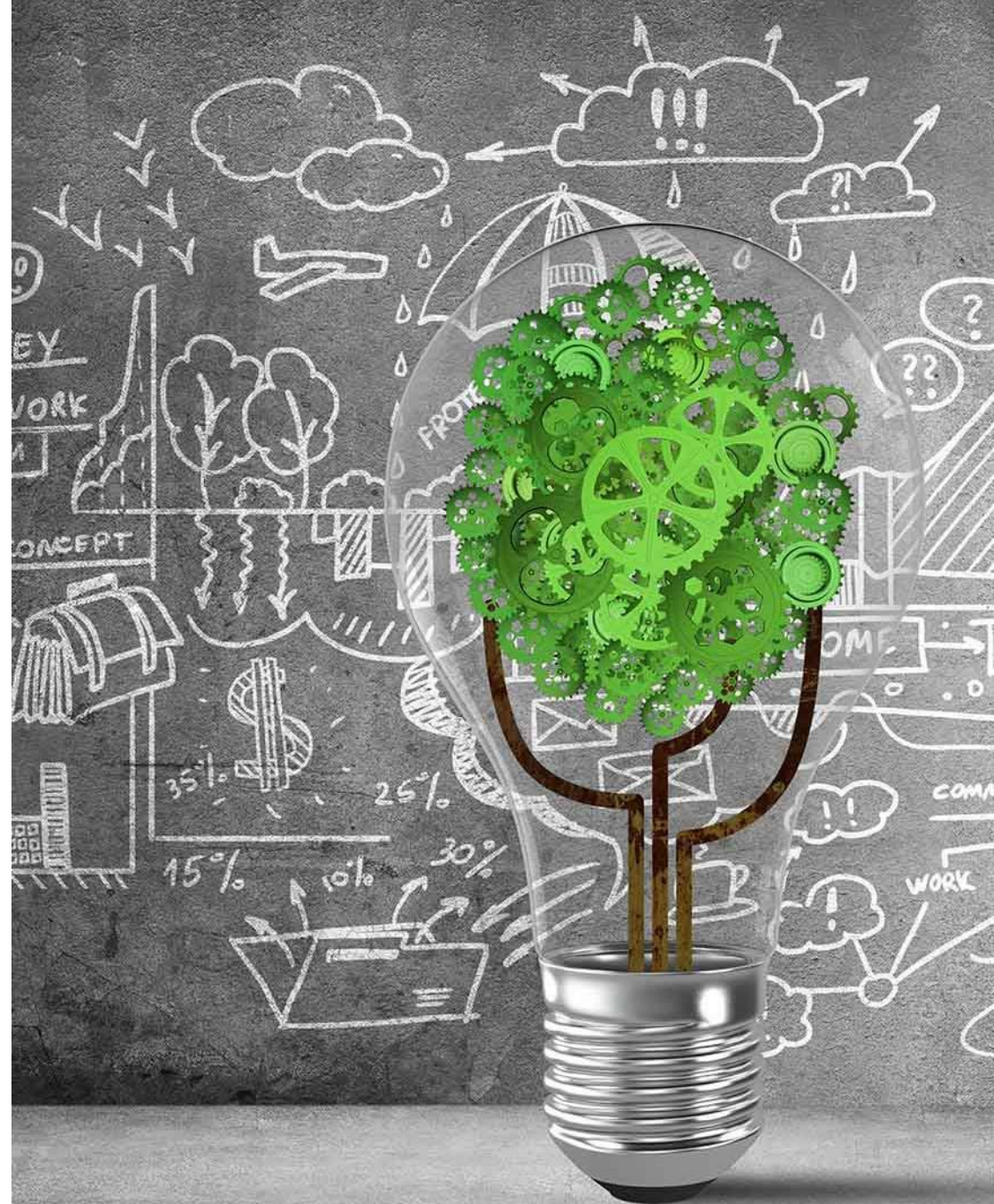
...metsäteollisuuden näkökulmasta

Antti Tahvanainen

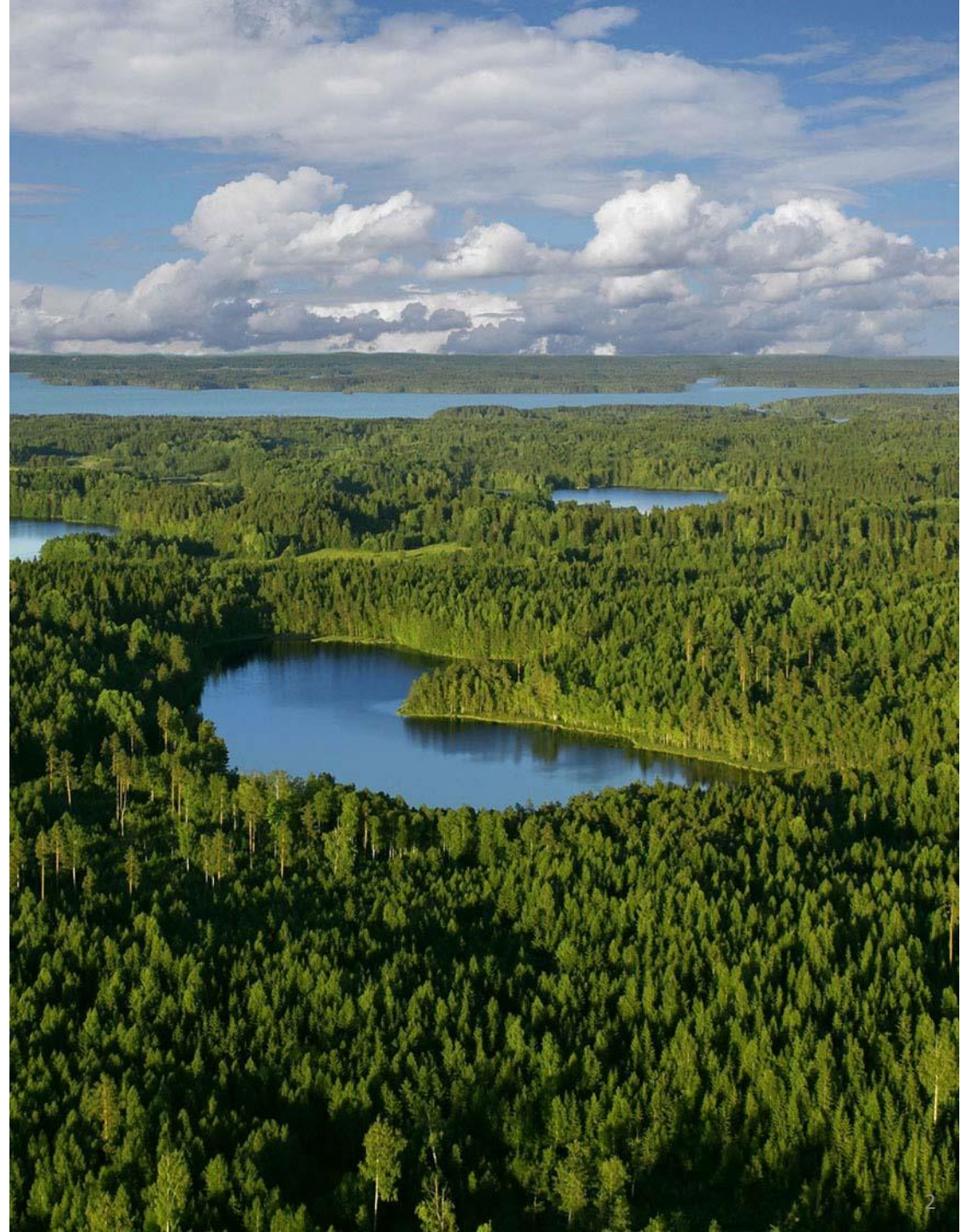
29.3.2022



Finnish Forest Industries



The forest industry in the Finnish bioeconomy



Finland – The country of forest-based bioeconomy

170 mills
in Finland

Almost
100 000
employed

> € 12 billion
in value
added

20 % of
total product
export

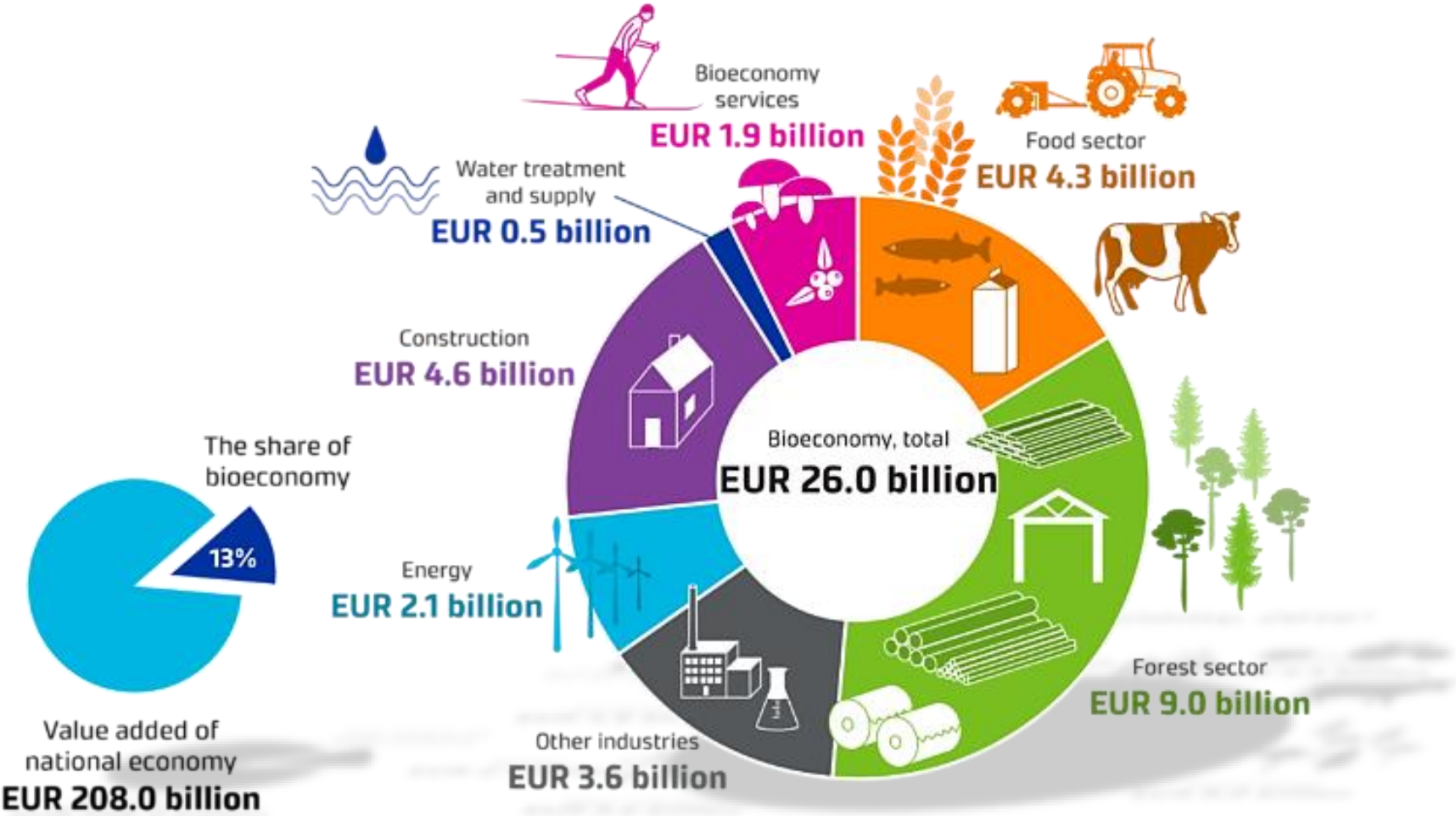
€3,6 billion in
tax revenue

€1,6 billion
annual direct
investments



The forest-based sector makes up 35% of the Finnish bioeconomy

Value added of bioeconomy, 2019*



The Challenges EU's push for sustainability



The Green Deal

A dominant policy agenda

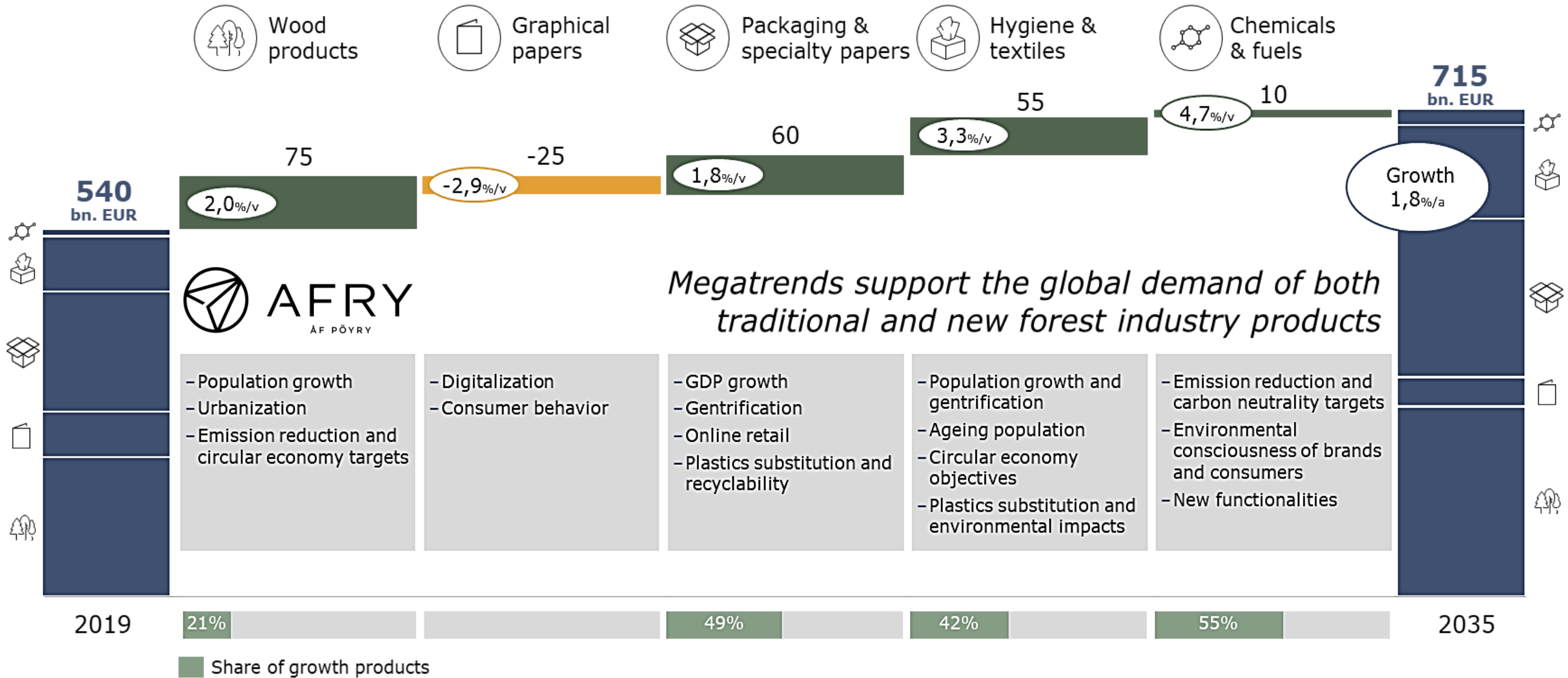
- Twin transition: Climate neutrality by 2050
- 55% reduction of GHE by 2030
 - Recovery - Recovery & Resilience Fund
 - Regulation - Fit for 55
 - Digitalization - Digital Strategy
 - Industrial Strategy - Transition Pathways
 - RDI – Horizon Europe & Innovation Fund
- **Neglect of the bioeconomy** in Industrial Strategy



The Challenges Capturing value from renewable opportunities

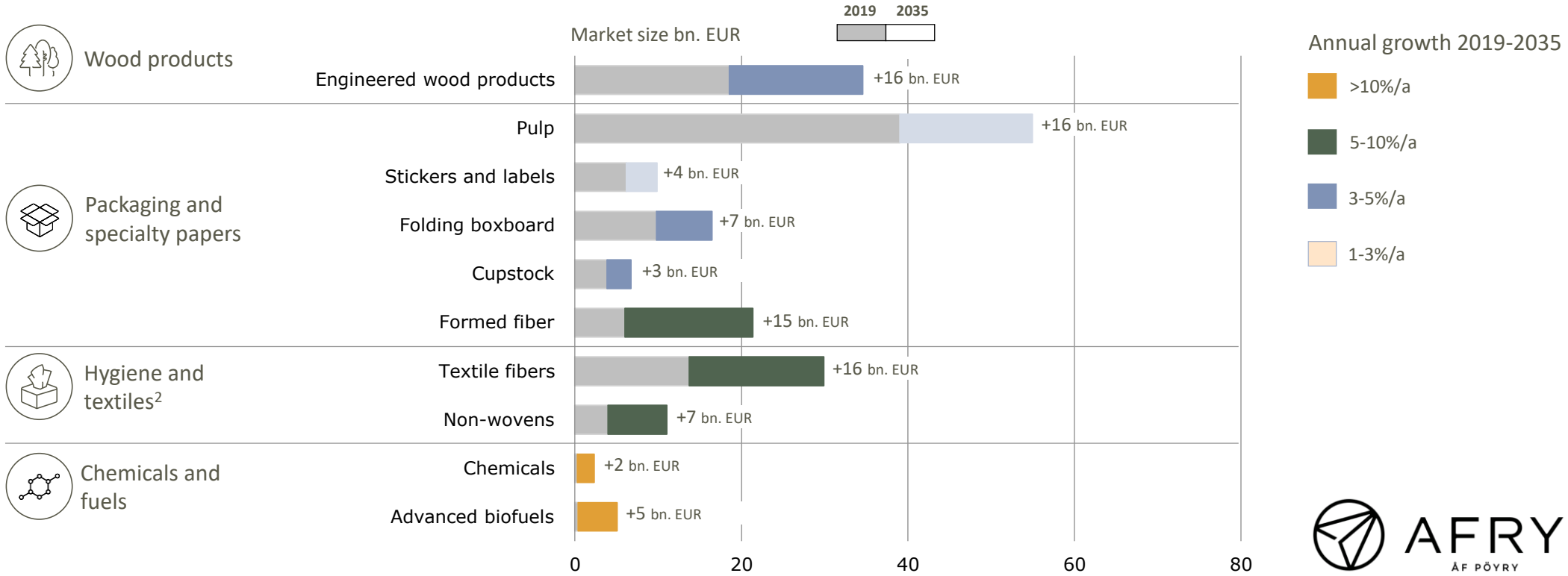


Global market for forest industry products estimated to grow by 1.8%/annum

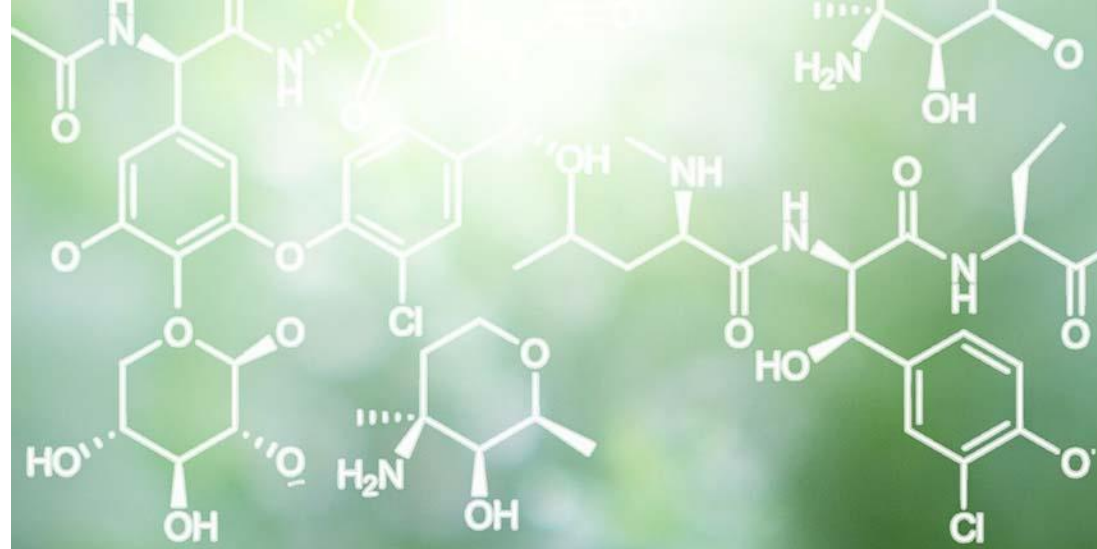


Technological development is driven by market outlooks

EXPECTED MARKET DEVELOPMENT OF GROWTH PRODUCTS 2019-2035



The Solutions Wood-based innovations

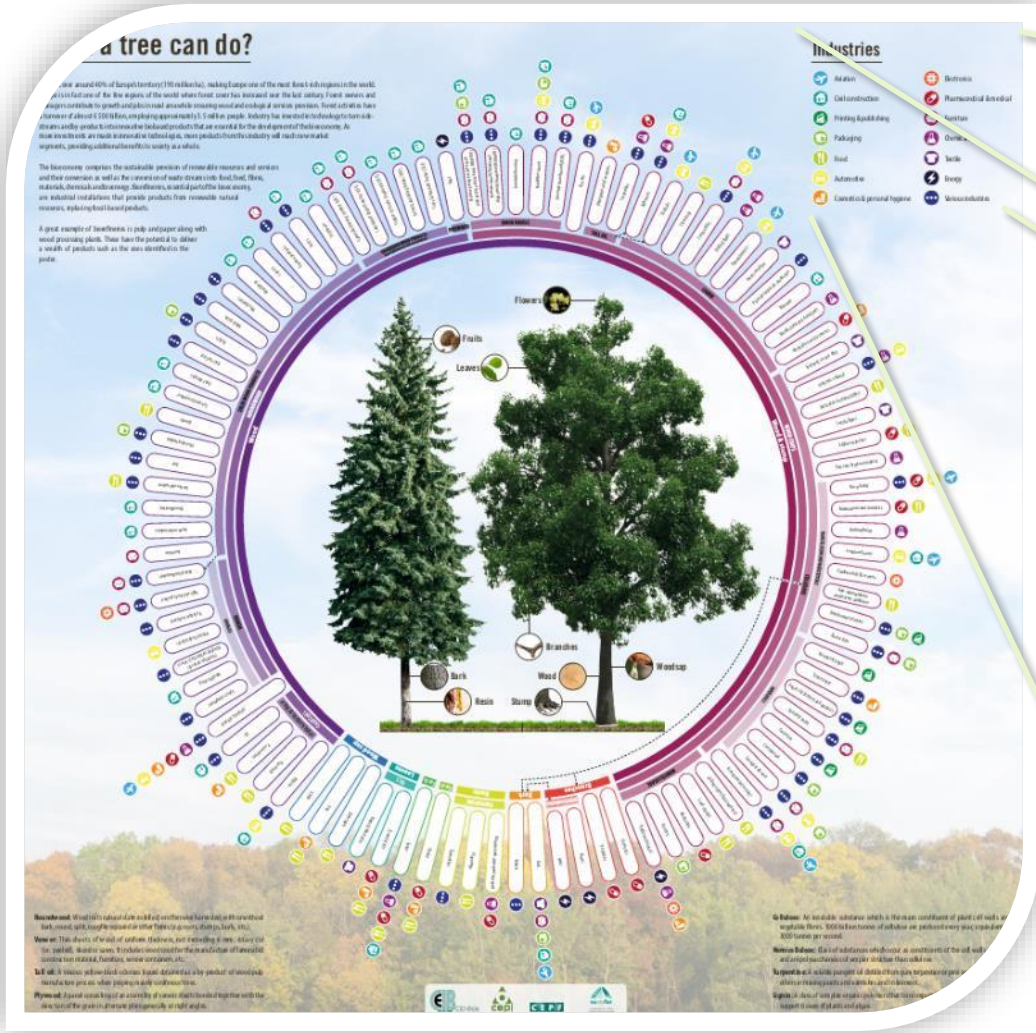


Forest-based material technologies solve problems Towards a renewables-based economy



The forest-based bioeconomy

An cross-industrial catalyst of the green transition



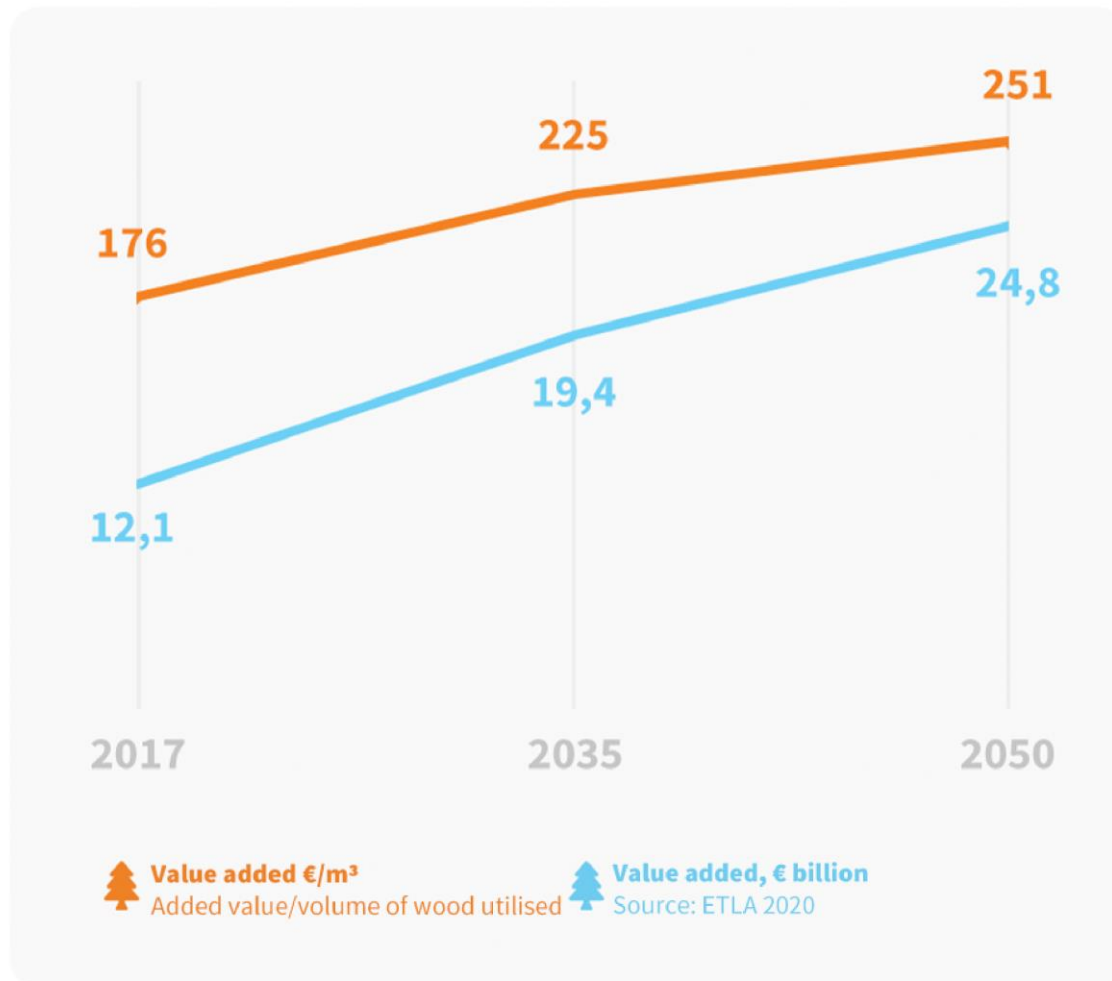
Wood-based material solutions help industries across the board achieve their respective climate goals

Industries

- Aviation
- Civil construction
- Printing & publishing
- Packaging
- Food
- Automotive
- Cosmetics & personal hygiene
- Electronics
- Pharmaceutical & medical
- Furniture
- Chemicals
- Textile
- Energy
- Various industries

Greater value added

Strong Finnish economy for decades to come



- Looking beyond the current financial crisis, forest industry products have a bright future on the global market
- Today, the Finnish bioeconomy is already producing a great deal of value added, generating over EUR 200 per cubic metre of wood, and the forest industry makes up EUR 176 of that value
- By 2035, the cumulative benefit to our national economy will be approximately EUR 300 billion

Wood-based products replace fossils

The forest industry's products offer climate-friendly options

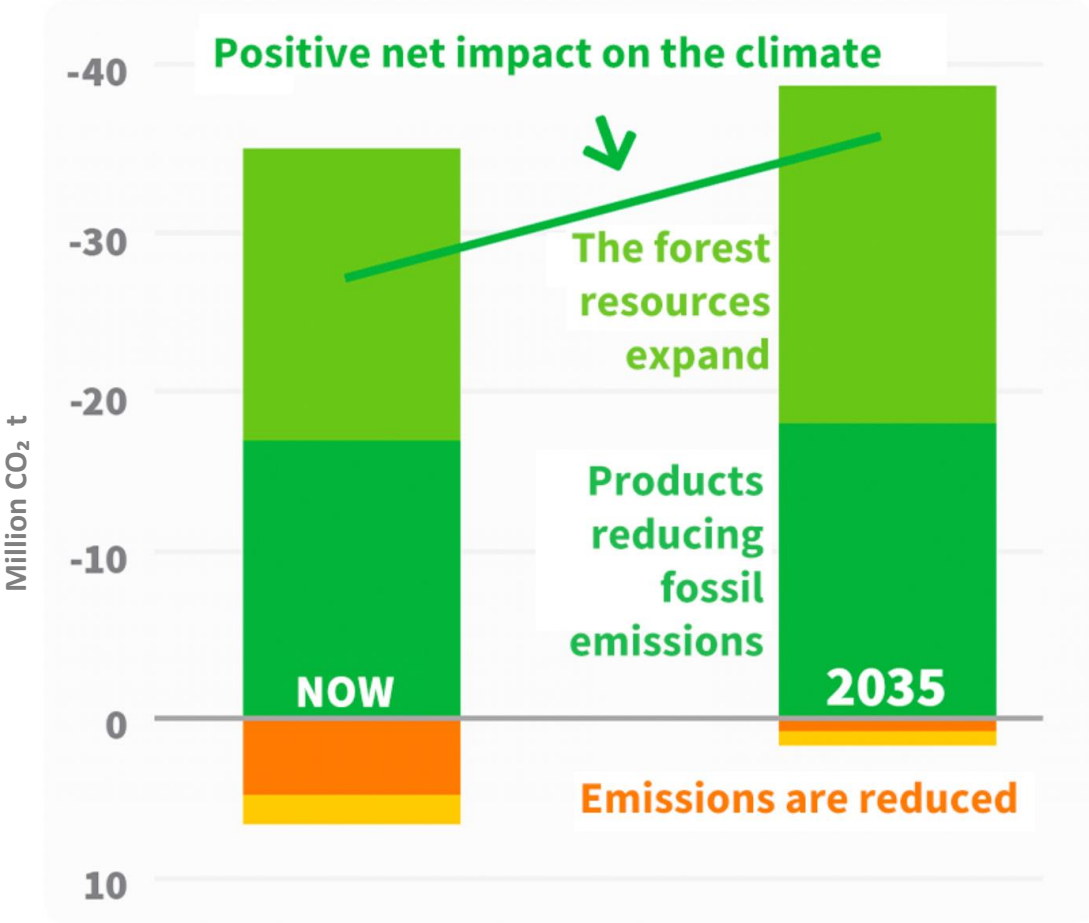
The positive annual climate impact of products

> 16MtCO₂/a
(2020–2035)



- Forest industry products help mitigate climate change by replacing products that are manufactured with high levels of fossil emissions
- Forest industry products account for over 16 million tonnes of CO₂ emissions abated globally per year
- This is over 5 times more than fossil emission at industry's mills

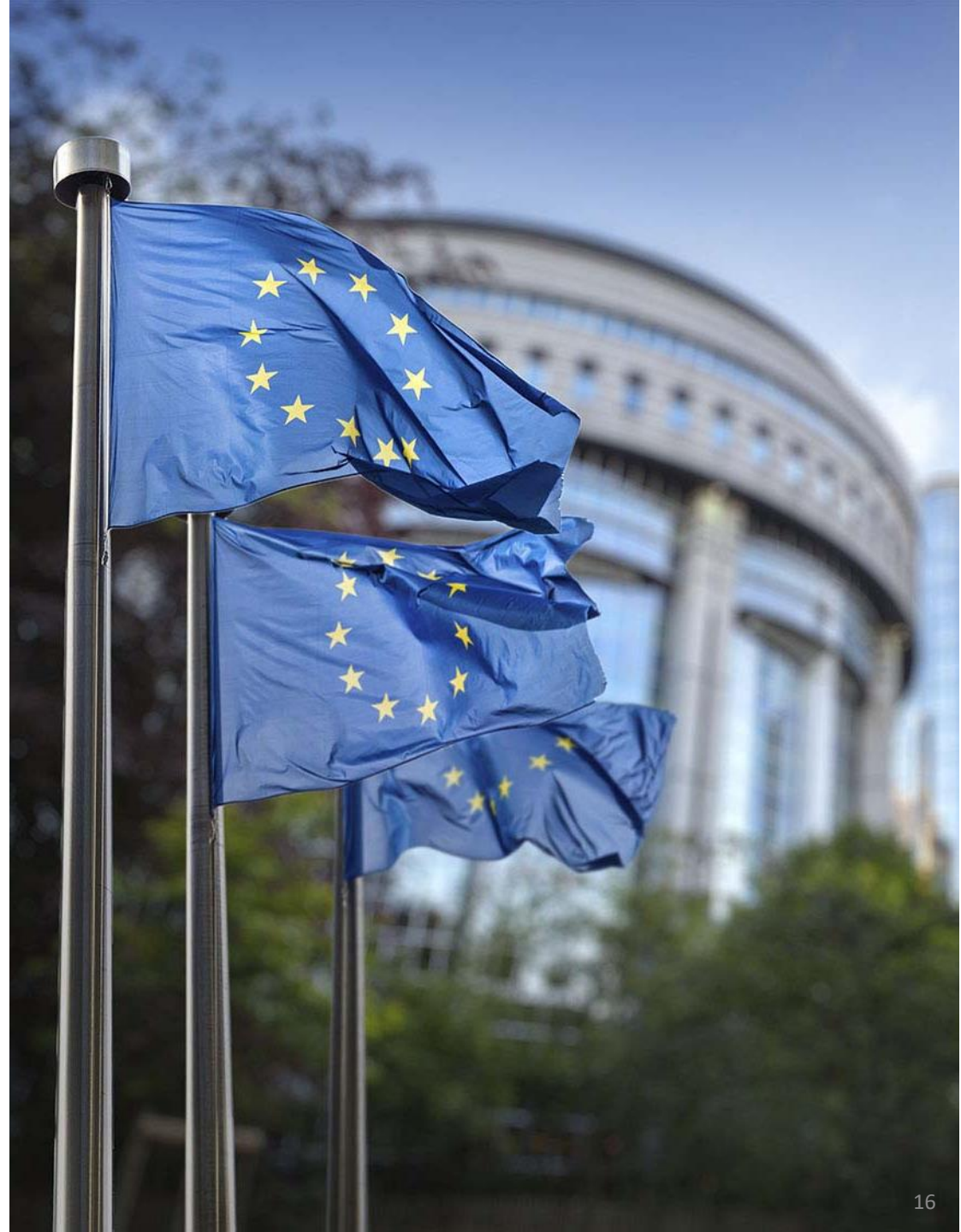
The forest industry's climate benefits for the global atmosphere are constantly increasing



-  Forest
-  Products
-  Plants
-  Logistics

- The forest industry's CO₂ emissions are decreasing
- Wood-based products continue to replace products that cause more fossil emissions
- The carbon storage in forests can increase even more strongly than before

The Prerequisites Favourable policy environment



The industrial bioeconomy is drifting in a policy void

- The Green Deal and the Industrial Strategy both ignore the bioeconomy
- The Bioeconomy Strategy's implementation largely restricted to the research domain
- The green transition necessitates cross-integration of strategies and acknowledgement of the industrial bioeconomy
- Bio-based solutions de facto play a crucial role in industrial Transition Pathways
- A Forest-based Bioeconomy Alliance?



Strategic RDI funding for bio-based solutions to be ensured

- Research, development, and innovation are key drivers of green industrial renewal
- Alongside digitalization, the development of new bio-based solutions for mass markets key for maximum climate impact
- Funding for renewables-based material technologies must be ensured reliably on a long-term basis



There is no evolving wood-based bioeconomy without raw material

- Continuous flow of raw material from sustainably managed forests is required
- Forest resources in Finland has been increasing since 1970's – the annual use is much below the growth
- More than 600 000 private people own forests in Finland – 70 % of the industry's wood come from private forests
- The value created for wood keeps forests as forests and encourages owners to manage their forests – positive outlook for the future is important

