

DEVELOPMENT OF THE HARDWOOD MARKET IN EUROPE & COUNTRY UPDATES

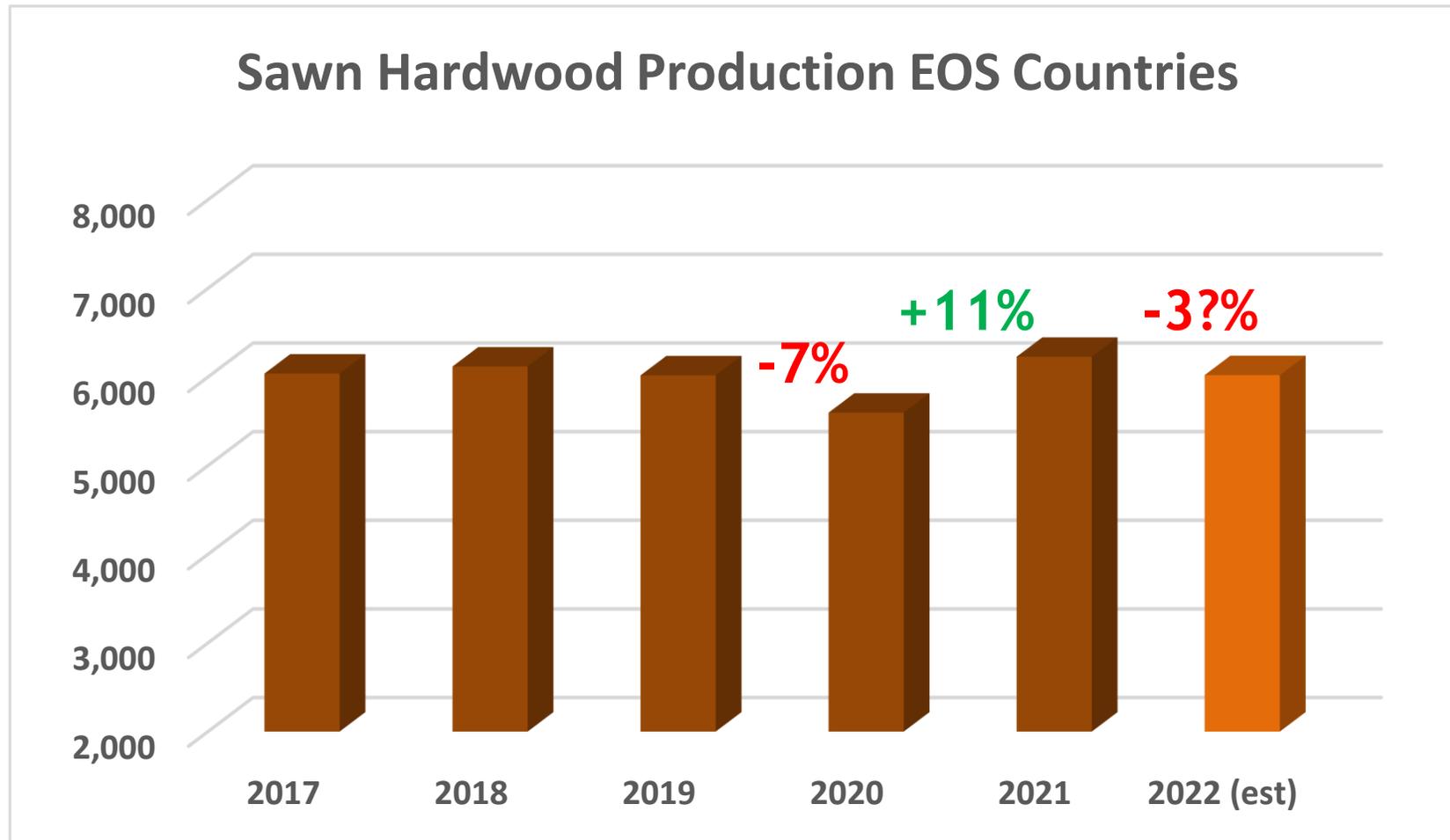
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PRODUCTION AND CONSUMPTION OVERVIEW

Total European hardwood production - sawn wood EOS countries + IT + UK



Lower production 2022:

Adaptation of production according to sales

Availability of logs for the „right“ price

Country by country European hardwood production - sawn wood EOS countries + IT + UK

	2017	2018	2019	2020	2021*	2022*	21/20 % var.
AT	172	175	212	165	178	200	7.9%
BE	150	150	150	100	90	80	-10.0%
CH	48	45	48	55	57	57	3.6%
DE	1,082	1,100	1,167	962	1,061	1,060	10.3%
DK	78	80	85	75	75	75	0.0%
FI	45	45	30	36	36	36	0.0%
FR	1,578	1,578	1,379	1,240	1,240	1,240	0.0%
IT	550	550	600	612	826	826	35.0%
LV	596	650	600	600	808	800	34.7%
NO	0	0	0	0	0	0	-
RO	1,600	1,600	1,600	1,615	1,700	1,500	5.3%
SE	97	95	100	100	120	110	20.0%
UK	42	50	47	37	37	37	0.0%
EOS	6,038	6,118	6,018	5,597	6,228	6,021	11.3%

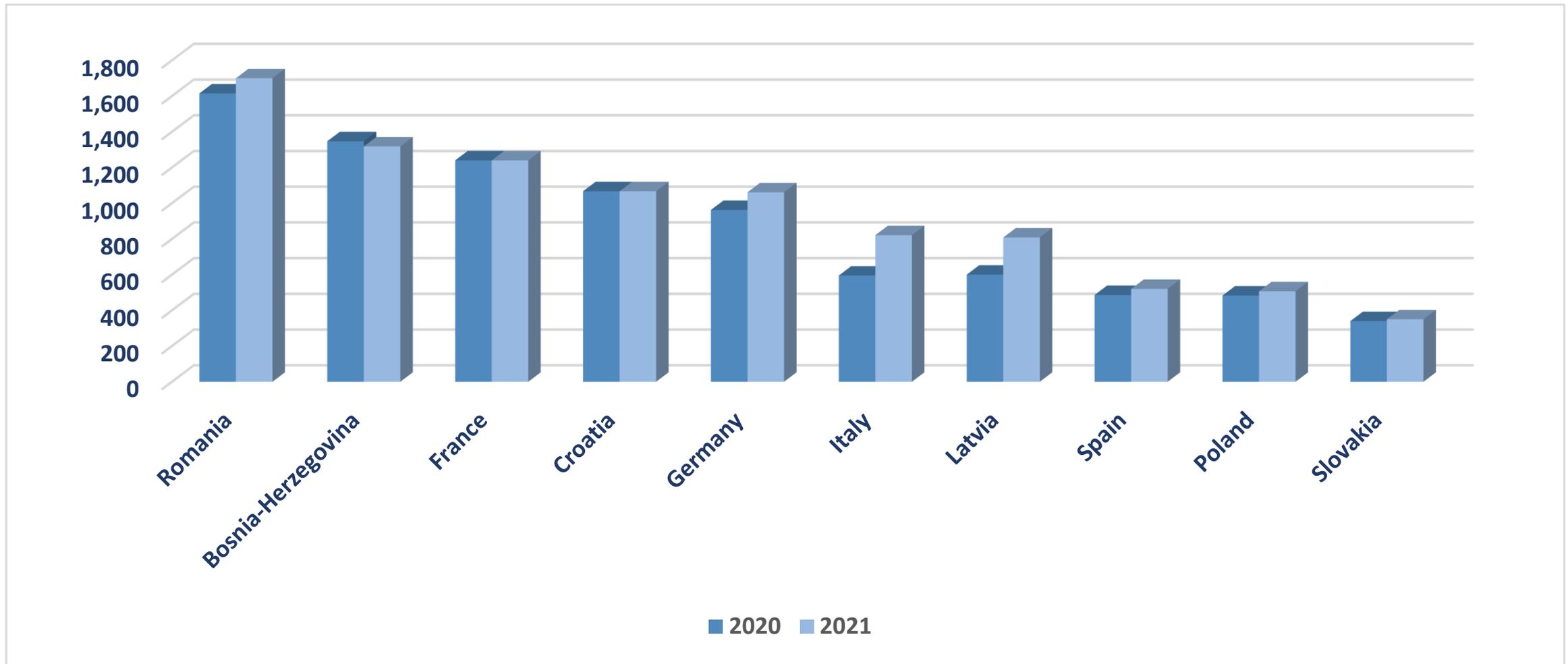
Production development 21/20

Decrease or same level mainly in countries with high log export numbers

Production 2022:
Forecast.

Source: EOS

European largest hardwood producers - sawn wood



Source: FAO and EOS

Country by country European hardwood consumption - sawn wood EOS countries + IT + UK

	2017	2018	2019	2020	2021*	2022*	21/20 % var.
AT	190	187	247	200	178	230	-11.0%
BE	210	210	210	160	410	260	156.3%
CH	60	60	72	72	81	81	12.3%
DE	680	705	792	659	786	760	19.2%
DK	185	130	120	105	120	115	14.3%
FI	49	52	42	47	42	42	-10.6%
FR	1,270	1,298	1,282	1,090	1,020	1,000	-6.4%
IT	1,048	1,048	1,034	986	1,259	1,259	27.7%
LV	250	243	262	196	250	230	27.6%
NO	31	31	31	31	31	31	0.0%
RO	825	1,110	1,080	1,010	1,100	800	8.9%
SE	101	120	138	106	118	103	11.3%
UK	518	528	533	489	489	489	0.0%
EOS	5,417	5,721	5,842	5,151	5,884	5,400	14.2%

Consumption =
Production and Import
minus Export

→ Here some
questionmarks on the
Belgium consumption

→ Overall positive
development within
the EOS countries on
consumption

Source: EOS

Export numbers - relevant markets for us - in EURO

COUNTRY/PERIOD	H1 2021	H1 2022	% var.	market share
Extra-EU27	476 065 185	537 352 515	12,9	100,0
China	141 562 709	149 180 581	5,4	27,8
United Kingdom	77 157 216	89 063 111	15,4	16,6
Egypt	49 895 994	56 173 989	12,6	10,5
Viet Nam	28 129 140	34 601 324	23,0	6,4
United States	25 608 848	28 337 123	10,7	5,3

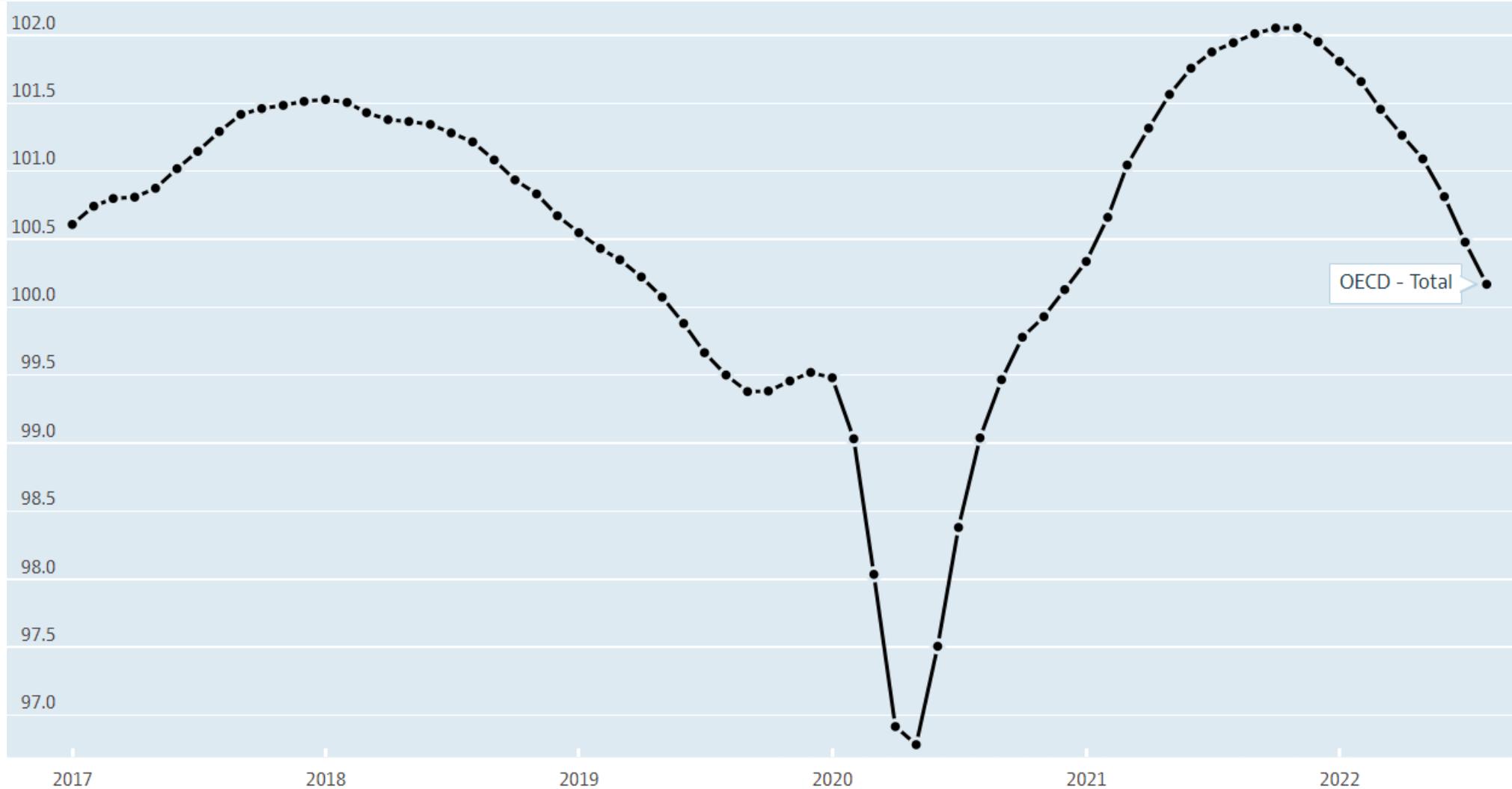
Figures in € (and next to them the % variation compared to previous year, as well as the 2022 market share of these countries)

Source: Eurostat

COUNTRY BY COUNTRY ANALYSIS

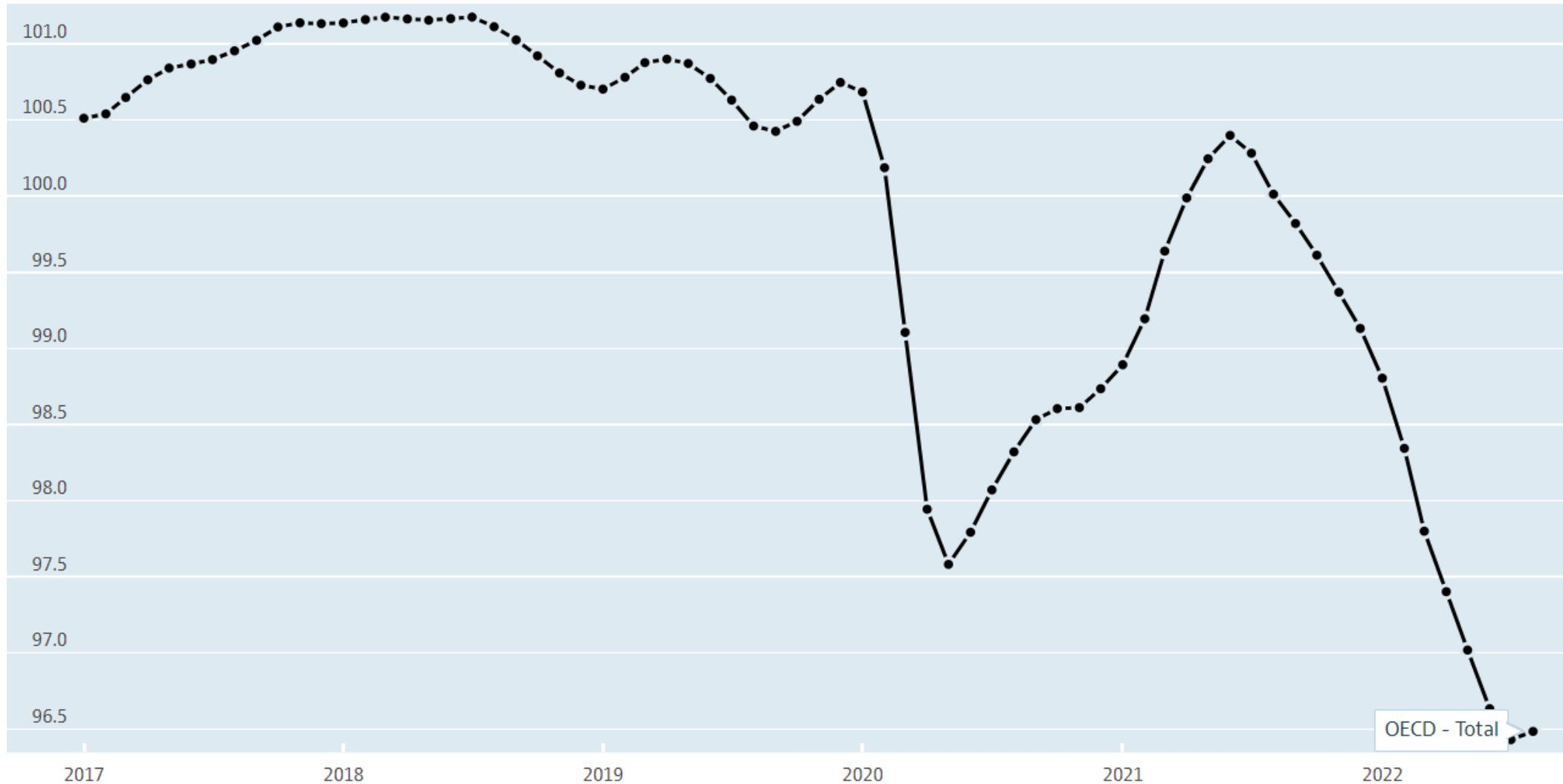
Market echos from interviews in October 2022

OECD business confidence



Source: OECD, Main Economic Indicators

OECD consumer confidence



Source: OECD, Main Economic Indicators

Austria

- Availability of logs yes, price increase of raw material between 10-30% over all species
 - Influence of high energy costs & fibre producers in Austria
- High energy costs for sawmills
- Stocks are on a season level
- Housing market: since a couple of months for private investors (builders) hard to finance.
- Austrian Market: furniture and flooring industry extremely weak, which harms sawmills
- International Markets: some markets are on a low consumption, some markets have a good demand
- Uncertainty within the market is high
 - Higher raw material prices to be integrated in the selling prices
 - How much to cut?
- Log export seems to start also in Austria

Belgium

- In 2021, the situation was dramatic in Belgium, with about **95% of oaks** sold in the forest being bought **for export**. Log prices have almost doubled in 1 year (between spring 2021 and spring 2022)
 - The current situation is better for oak, with a significant decrease in exports to Asia (but for how long ?)
- Reduction in log purchase prices is limited with current competition from sawmills in neighbouring countries, which benefit from lower **energy costs** than those charged in Belgium. Some sawmills shut down because energy costs cannot be passed on to the final product.
- Given the current situation, **demand is also declining** and uncertainty is very high.
- The situation of hardwood sawmills has deteriorated sharply over the last 30 years in Belgium. In **2010 : 78 hardwood sawmills**. In **2020 : 62 hardwood sawmills**.

Croatia

- Big challenge in Croatia is now the **competition from firewood** - many logs used for energy purposes
- Prices for all wood products have gone up, the government as a result has decided to **reduce VAT to 13%** (VAT in Croatia on other products is 25%)
- The sawmill sector is hampered by **high electricity prices** and if these will not go down there is no way that the sawmills will have good margins
- **Workforce availability** is a pressing issue; immigrants from Asian countries are starting to work in the industry but they need a lot of training
- **Consumption of sawnwood** in Croatia is slower but not doing too badly
 - Exports, in particular to Western European countries, are slower
- There is also a **fear** in the sector that **EU legislation** will structurally reduce availability of raw materials
- In short, it will be a difficult winter

Denmark

- **Availability of raw materials is worsening** as in the state forests, significant portions are being set aside for biodiversity purposes. The supply of logs from state forests has already halved and it will further decline
 - Also, in the private forest sector especially, **export of logs** to Asia, China in particular, has been very strong
 - Prices of logs are high
- **Demand for sawnwood in Denmark was good** for a couple of years but now it has **slowed down** with consumers and downstream industries such as the furniture industry trying to spare money
- **Exports** markets are generally subdued even though the **strong dollar** and **lower freight rates** are helping the sector (low freight rates conversely foster higher log exports)
- **High energy prices**
- Sawmills are squeezed from all sides with high prices of producing inputs and lower demand
 - Due to high inflation, prices have to be fixed on a much more frequent basis than usual
- **The oak sector is doing comparatively worse**

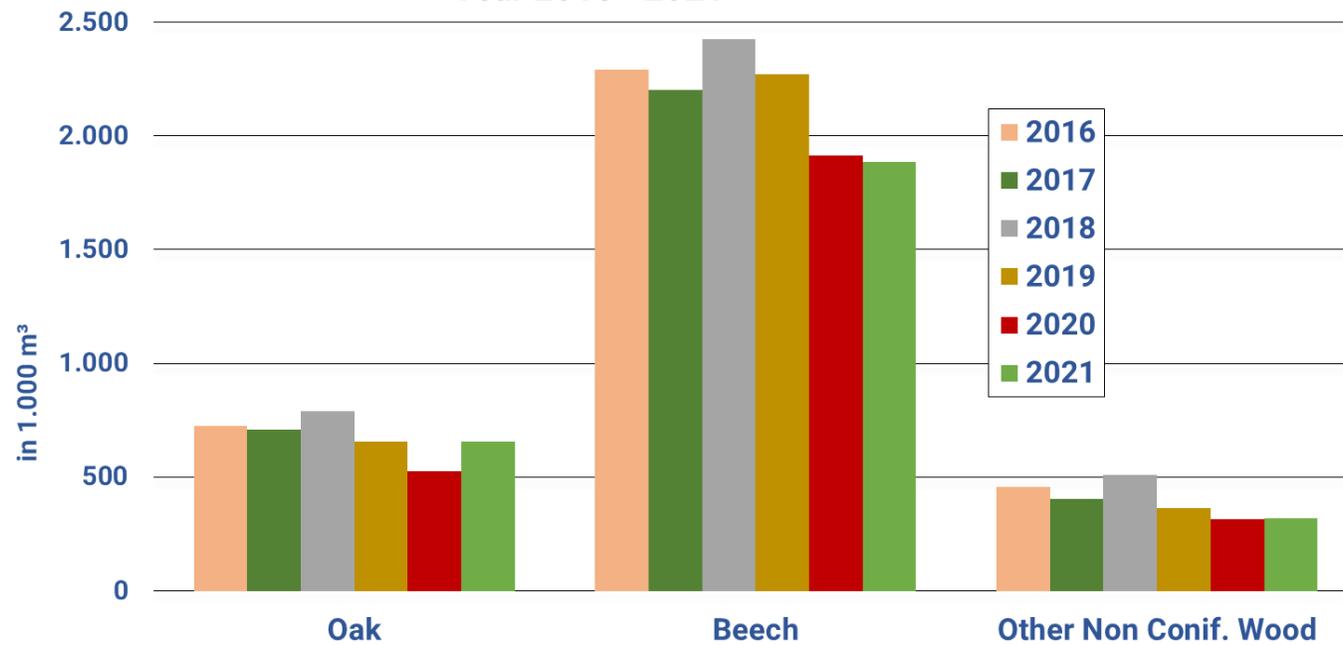
France

- France has a dedicated presentation

Germany

- Extremely difficult market situation, **development hardly predictable**
- Declining overall economy with recession in Germany for 2023. At the same time, sharply rising price level, **sharply rising energy prices** and rising interest rate level. Purchasing power is being withdrawn from demand.
- In **residential construction**, orders are being canceled and projects postponed or abandoned due to interest rates and prices. Housing permits for single-family homes slumped by - 15.8% in August and by 9.4% overall. This has a direct impact on the demand for hardwood lumber. On a **positive** note, the German **government is sticking to its target of 400,000 new homes per year.**
- High energy prices also affect firewood price/energy wood price, **high roundwood prices** are the result, which can no longer be implemented for sawnwood due to difficult demand in the domestic market and long-distance exports. In Germany, **increasingly roundwood auctions**, which do not allow cost-based calculation.
- Hardwood industry in price squeeze between roundwood price and sawnwood revenues.
- Markets in Europe and the Far East are still suffering from the consequences of the Corona pandemic and the disrupted supply chains **markets are no longer calculable.**
- **Oak:** tight supply in Europe due to lack of volumes from Ukraine, **price extremes and danger that demand will shift**
- **Beech:** price increases in raw material, **not to be implemented in finished product**, sales markets suffer from declining economy and interest rate increases.

**Removals Hardwood
 Year 2016 - 2021**



Wood harvesting, in 1000 m ³ without bark Year 2016 - 2021				
	Year	Oak	Beech	Other Non Conif. Wood
Logs, Sleepers, Poles	2016	725	2.290	457
	2017	707	2.204	403
	2018	790	2.425	511
	2019	655	2.272	363
	2020	528	1.914	314
	2021	655	1.886	319

Source: DeStatis

Poland

- **Polish state forests**, which account for the vast majority of logs supply to the industry, have decided to **increase roundwood prices by 20-30% for next year** - especially in the oak sector
- There is competition from firewood with **energy prices sky-rocketing** and creating demand for logs to be used for energy purposes
- **Oak** is the most processed species in the Polish hardwood sector - the sector is being hampered by **weak demand** across all segments. Solid wood flooring so far has not done too badly, but it is slowing down too
- In general, demand is slow and **warehouses are full; transportation costs** are an acute problem in Poland
- The **beech**-producing sector is hampered by declining imports of logs from Slovakia. Sawn beech from Poland is **mainly exported to China** and there would **still be underlying demand** which in some cases cannot be met due to **shortage of raw materials**
- There is no reason of optimism at least until Q1 2023. Later a lot will depend on energy and logs prices

Romania

- The **beech sector** is by far the **largest** in Romania. The **oak sector** is **small** and **doing comparatively better** at the moment
- In the beech sector **exports to China and the Middle East are important market drivers**: starting from the Spring exports to China have collapsed and are just a fraction of what they are in a normal situation. In the Middle East things are a bit better but not so good
 - There are **big stocks at mills especially for very short specifications** due to lack of demand from China
- **Consumption of sawn beech in Romania is not very good** with weak demand from the furniture sector
- **Availability of raw materials would be good, but** due to the very high prices for firewood unfortunately some logs that could be processed by sawmills are instead used **for energy purposes**.
 - Logs prices remain high in Romania whereas sawnwood prices have sharply declined, denting sawmills profitability.
 - The government has passed a bill to cap firewood prices which could help the sawmills

GENERAL OBSERVATIONS AND OUTLOOK

Challenges & Topics to work on

Oak Logs Export to China taking a heavy toll on the sector (1)

Oak logs Exports to China (in 1000 m3)

	2020	2021	% var.	YTD 2021	YTD 2022	% var.
Total	1016	1351	33.0%	933	1024	9.7%
EU	561	702	25.1%	529	689	30.2%
France	296	425	43.5%	320	441	37.8%
Belgium	66	66	-0.9%	52	63	21.5%
Germany	68	76	12.3%	57	59	3.4%
Slovakia	32	38	18.7%	25	34	35.8%
Slovenia	38	37	-4.2%	30	34	10.9%
USA	223	325	45.7%	190	224	17.9%
Russia	180	208	15.6%	150	1	-99.2%

- Exports of oak logs from Europe to China have been increasing for many years
- The Chinese appetite for oak sawlogs is growing. Russia has put in place a logs export ban so left the market
- The market share of Europe is over two thirds

Source: Chinese customs. Corrections done by French Timber, re-elaboration by EOS. Total is higher than list of countries here as „other“ is not included

Oak Logs Export to China taking a heavy toll on the sector (2)

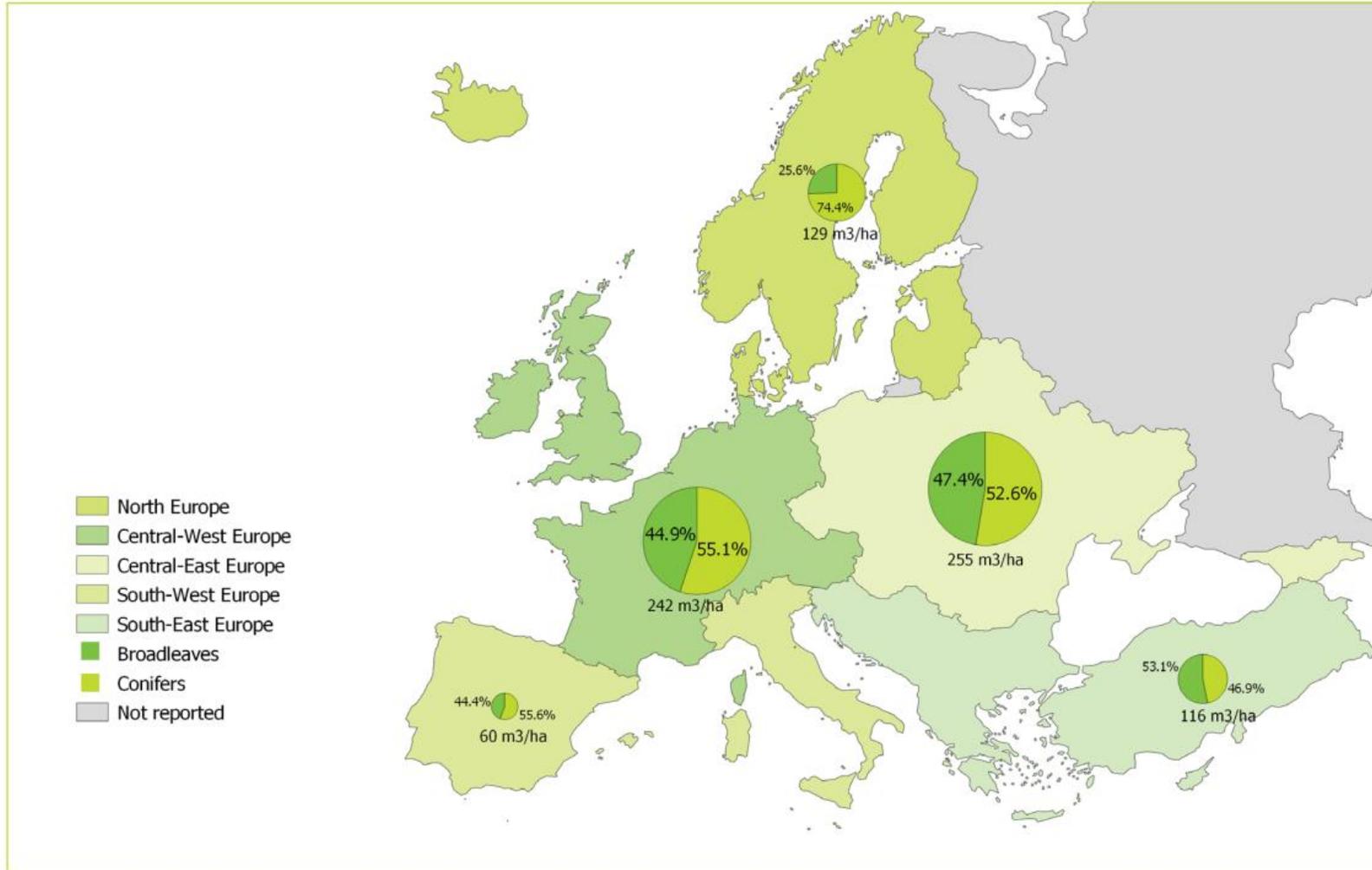
- **EOS Hardwood**, together with the **European Furniture Confederation (EFIC)**, the **European Panel Federation (EPF)**, the **Italian umbrella association Federlegno**, and the **European Parquet Federation (FEP)** have joined forces to form a coalition with the advice of a legal study looking to find a solution to the unsustainable export of logs
- **The coalition is working with DG Trade of the European Commission, which at the moment is reluctant to put in place any measure for a number of reasons**
 - There is a risk of retaliation as China could take measures in response to any action limiting the export of logs (both in the woodworking industry or in other sectors)
 - The Commission is challenging at the WTO and in bilateral discussions logs export bans introduced by many neighbouring countries of the EU => so if the Commission put in place logs exports limitations it would not be consistent with its previous actions
 - Chinese operators or Europeans acting on their behalf extend the number of possible customers for the forest owners: so what is bad for the woodworking industry is good for forest owners. It is a market outcome. So they advised the industry to negotiate and find solutions locally with the forest owners.
 - While it is impossible to be fully certain, through the Commission offices in Beijing they have investigated and found no evidence of subsidies

European Forest Strategy for 2030 excerpts

*To increase the supply of long-lived wood products, investments are needed throughout the wood processing chain. Wood processing industries should be supported to better adapt to the changing and diversifying resources of forests. **Investments should also focus on the production of long-lived wood products from lower quality logs, from more hardwood species, and anticipating greater fluctuations in production over time.***

*Research and innovation on architecture, green design and construction materials should be amplified, including on industrial improvements to use more low-grade wood, **especially from hardwood species***

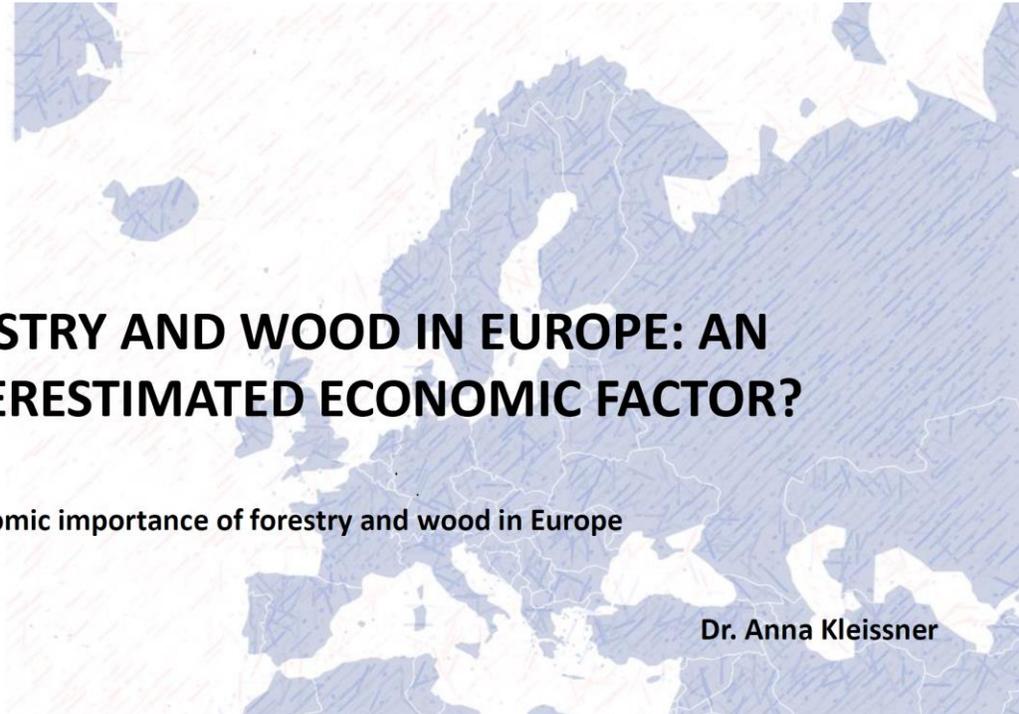
Altered composition of tree species in future forests: more hardwoods



- In green hardwoods, in yellowish softwoods. Source: Forest Europe
- In Western and Eastern Europe almost 50% of growing stock is hardwood species
- During the last 30 years, the growing stock of broadleaved trees increased at a higher rate than that of coniferous trees (about 1.6% and 1.2% each year, respectively)
- 46% of European forests are predominantly coniferous, **37% are predominantly broadleaved**, and the rest are mixed
- **But production of sawnwood is over 90% softwood!**

Source: Forest Europe

Economic importance of forestry and wood in Europe



FORESTRY AND WOOD IN EUROPE: AN UNDERESTIMATED ECONOMIC FACTOR?

The economic importance of forestry and wood in Europe

Dr. Anna Kleissner



econmove

Starting position

- ***What contribution to gross value added, employment and fiscal revenues does the forestry and wood industry trigger in Europe?***
- → You will not find anything on the economic significance of the whole value added chain forestry and wood” in Europe.
- → Question cannot be answered directly with data from official statistics
- What can be assumed:
- ***The overall economic importance of forestry and wood is persistently underestimated!***

Definition / Scope: 4 step approach

- **Forestry:**
 - = all goods and services related to the provision of wood (planting, rearing, harvesting).
- **Wood industry in the narrowest sense:**
 - = Forestry + sectors that purchase inputs directly from forestry (sawmills, paper and paperboard,..)
- **Wood industry in a narrow sense:**
 - = Wood industry in the narrowest sense + all sectors receiving intermediate consumption from enterprises included in the narrowest definition (furniture, publishing,...)
- **Wood industry in a broader sense:**
 - = Wood industry in the narrow sense + sectors that purchase inputs from companies in the narrow sense or are thematically linked to timber industry (wholesale, retail, administration, research, recycling, ...)

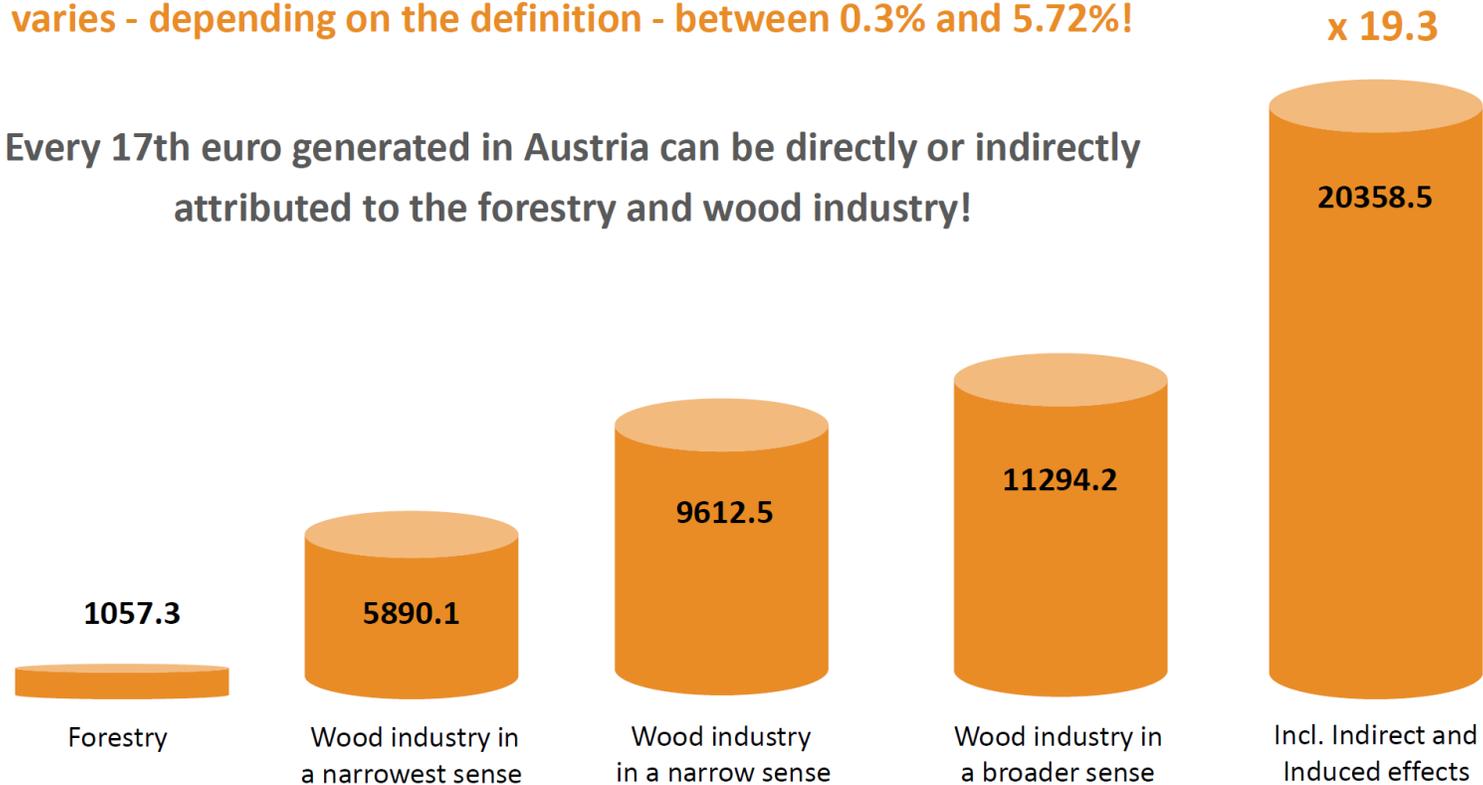


Experience from Austria

Gross value added, mio. €

The importance of the forestry and wood industry in Austria varies - depending on the definition - between 0.3% and 5.72%!

Every 17th euro generated in Austria can be directly or indirectly attributed to the forestry and wood industry!



Overview of the market and outlook (1)

- 2021 was a very positive year and also the first part half of 2022
- H2 2022: started challenging
 - Raw material prices & availability (log export and/or deforestation)
 - Increasing energy prices are taking a toll especially on more energy-intensive mills=> sawmill margins declining, especially in the beech sector (oak less affected)
 - Increasing Interest rates => demand slowing down
 - Mortgages increasing unaffordable => construction markets might significantly slow down in 2023 => this will initially have an effect on softwood markets but then also on hardwood markets
 - Shortage of workers
 - Markets have high uncertainties

Overview of the market and outlook (2)

- The value of the product “wood” is more and more acknowledged
 - Increasing recognition from consumers and also European policymakers
 - We need to find new markets and opportunities in the hardwood sector: some species are under-utilized, and forests will potentially supply more of the species which are ‘minor’ at present
- Join forces in R&D
 - For a centralized outcome for the sawmill industry → costs vs. outcome
- Adapt production to sales
- No panic sales
 - Hardwood lumber is a valuable good → keep prices as high as possible