



Finnish Forest Sector Economic Outlook 2021– 2022

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Executive summary

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The gradual fading of the effects of the COVID-19 pandemic and the continuation of economic recovery will be reflected in the global economy and increase the production and export volumes of Finnish forest industry products in 2021. In Finland, the growing demand for roundwood increases the removals of industrial roundwood, raises stumpage prices, and improves employment and profitability in the forest sector. In 2022, along with the slowing growth of the world economy, the growth rate of production and export volumes of many forest products will decrease, and paper production and exports will start to decline again. The export prices for sawnwood and pulp, stumpage prices, and roundwood import volumes are also declining. The removals of industrial roundwood will remain close to the current year's level in more than 65 million cubic meters.

Strong economic growth in the Finnish forest industry's export markets

The progress of vaccination programmes, the lifting of restrictions, and the rise in economic activity will make the world economy grow by six percent this year and by less than five percent next year. In the euro area, the main market area for Finnish forest industry products, the economy will grow by 4–5 percent. In Germany, economic growth is slightly slower. China's strong economic growth this year will slow towards the end of the year. In other export areas of the Finnish forest industry, economies are



Picture: Erkki Oksanen, Luke.

also growing and demand is increasing. The world economy, weighted by previous year's export shares of the Finnish forest industry, will grow by more than five percent this year and by more than four percent next year.

Faster economic growth in the United States than in the euro area and faster timetable for tightening monetary policy will be reflected in a slight weakening of the euro against the US dollar. The Russian rouble is expected to remain weak against the euro, and the Swedish krona is likely to remain at its current level or strengthen slightly over the next year. The main uncertainties related to forecasts and global economic activity are the development of possible resilient variants of COVID-19 virus, accelerating inflation, global logistics problems, rising energy and commodity prices, possible bursting of debt bubbles

and banking crises, and growing disputes between the United States and China. In Finland, collective bargaining in several industries are under negotiations. Without significant labour disputes affecting production volumes, the Finnish economy is estimated to grow by about 3.5 percent this year and about three percent in 2022.

Boom in sawnwood markets

In 2021, the demand for softwood sawnwood in the world market has been strong relative to the supply, and the price level has risen to historically high levels. The export price of Finnish sawnwood has also risen sharply, and export volumes have increased. Although the export price of softwood sawnwood is expected to decline towards the end of the year, the average export price for the whole year of 2021 will increase by almost 40 percent with respect to 2020. The export volume of softwood sawnwood is forecast to increase by 12 percent to 9.2 million cubic meters in 2021.

In 2022, export demand for sawnwood is expected to remain good as export market economies continue to recover. The exports of softwood sawnwood are forecast to grow by a couple of percent in 2022 from 2021, but the average export price is expected to fall by about twenty percent as the demand and supply of sawnwood is balancing in the world market. The production of softwood sawnwood is expected to

increase to 12.2 million cubic meters in 2022. In addition to the good drive of exports, the growth in sawnwood production will be supported by the new investments in sawing capacity in Finland.

Brisk demand in the construction and transport industries will increase the production and exports of both softwood and birch plywood. In 2021, the total volume of Finnish plywood exports is expected to increase by 17 percent and the average export price by five percent. In 2022, the export and production volumes as well as the export prices of plywood are expected to decrease slightly from the 2021 figures.

Double-digit growth rates in the pulp and paper industry

As a result of the growth of the global economy, the demand for paper has started to rise again in Europe since the collapse in last year. The Finnish paper exports have also recovered and the massive closures of paper machines are less visible in the export volumes than expected. Paper production and exports will grow one percent this year with respect to last year, but will decline again in 2022. The average export price of paper will increase by one percent both this and next year as a result of improved demand, reduced supply, and higher raw material costs.

The COVID-19 pandemic has increased the demand for cartonboard products along with the growth of e-commerce, and the growth in demand is expected to continue in the near future. The Finnish cartonboard production capacity will increase noticeably this year due to the start of Stora Enso's kraftliner production in Oulu. The commissioning of the new kraftliner ma-



Picture: Pixabay.

chine will be reflected in a 14 percent increase in cartonboard production and exports this year. In 2021, cartonboard prices have risen sharply in Europe, which will also raise the average export price of Finnish cartonboard by a couple of percent, despite the fact that the export share of kraftliner, which is cheaper than folding boxboard, will increase. In 2021, cartonboard will rise past paper to become Finland's most important forest industry product in terms of export value. Next year, cartonboard production and export volumes as well as the unit price of cartonboard exports will continue to rise slightly.

In 2021, the Finnish pulp exports have risen, because the demand for end products made from pulp has strengthened. The pulp export volumes will continue to grow in 2022, but more moderately compared to this year. The price of pulp in Europe has been at a record high, and Finland's average export price of pulp in this year is forecast to be six percent higher compared to previous year. In Europe, however,

price increases have already levelled off, and in China, prices have been falling for some time. The average export price of pulp will be lower next year than this year. The total production of pulp will increase clearly in 2021 from last year. In 2022, the changes in production volumes are estimated to be minor.

The profitability of Finnish forest industry is improving

The profitability of Finnish cartonboard industry will reach a record high level in 2021, and pulp production will also be exceptionally profitable. The sawmilling industry will make the best result of all in its history, as the operating profit will rise to 10–15 percent. Such figures have not been seen in the industry for 25 years. However, in this year, the profitability of traditional paper production is deeper than in decades. In 2022, the profitability of the production of cartonboard, pulp, and sawnwood will no longer maintain such good results, because, with the exception of cartonboard, the prices of end products will fall and rising cost inflation will weaken the results. The plight of printing and writing papers will continue.

Industrial roundwood removals increasing to more than 65 million cubic meters

In 2021, the Finnish roundwood markets will be at the peak of business cycle again. The drivers for brisk demand for roundwood have been, in particular, the excellent demand and price levels of softwood sawnwood and pulp in the world market. In 2021, the removals of industrial roundwood will increase to almost 66 million cubic meters. The average stump-

almost 66 million cubic meters. The average stumpage prices of softwood sawlogs will increase by 10–11 percent and those of pulpwood by 4–6 percent. The imports of roundwood will increase slightly from last year.

The previously purchased standing roundwood inventories, a significant increase in the capacity of the sawmill industry and a decrease in the imports of roundwood from Russia are the main reasons why the removals of industrial roundwood in Finland in 2022 are expected to remain almost at the current year's level. The average stumpage prices of softwood sawlogs are falling by 4–7 percent in line with declining sawnwood prices. The decline in the price of pulp will reduce the stumpage prices of pulpwood by 3–4 percent.

Russia's high export duties on softwood roundwood to be introduced at the beginning of 2022 mean that the imports of softwood from Russia to Finland will



run out almost completely. Along with the decreasing import volumes of birch pulpwood to Finland, the total imports of roundwood will decrease by 12 percent in 2022.

Gross stumpage earnings and the operating profit of private forests will rise again

Increasing roundwood removals and rising sawlog prices will increase gross stumpage earnings in private forests to EUR 2.2 billion in 2021. In 2022, the forecast decline in stumpage prices will reduce gross stumpage earnings to EUR 2 billion. The investments in roundwood production fell by six percent in 2020. In 2021, investments are forecast to rise by four percent and continue to rise also in 2022.

The operating profit of private forestry was EUR 114 per hectare in 2020. Increasing removals and rising roundwood prices will improve the operating profit to about EUR 140 per hectare in 2021, but in 2022 the result will decline below EUR 130 per hectare. The return on investment in roundwood production in private forests was only less than three percent in 2020 due to the reduction in stumpage prices. The rise in stumpage prices in this year will raise the return on investment in private forests to slightly less than ten percent. In 2022, the return on investment will be about three percent.

The total employment in the Finnish forest sector will remain unchanged

In 2020, the forest industry employed a total of 39,000 people, which was four percent less than in 2019. In the woodworking industry, employment is

expected to increase by three percent in 2021 and by two percent in 2022 due to new investments and growth in production. However, due to the decrease in employment in the paper industry, the total employment in the forest industry will remain at the previous year's level in 2021 and 2022.

In 2020, the number of people employed in forestry felled to 25,000, which was five percent less than in 2019. The outlook for 2021 and 2022 is positive, as the demand for wood products has picked up, and the roundwood trade and work in forests have increased. Energy wood harvesting is also likely to increase in the coming years. In the forestry as a whole, employment is forecast to increase by two percent in 2021 and by one percent in 2022. According to preliminary data for 2020, the labour productivity index in forestry has felled to the same level as in the national economy average.

The use of wood energy is growing strongly

The use of solid wood fuels decreased slightly in 2020. However, wood fuels still remained the most significant single energy source, accounting for 28 percent of the total energy consumption in Finland. Due to the cold weather at the beginning start of the year, the use of forest chips is expected to increase by two percent in 2021 and by 4–5 percent in 2022. The average plant price of forest chips will rise by 3–5 percent this year. The decommissioning of energy peat will increase the use of forest chips significantly in the coming years. The price of emission allowances is higher than ever, which makes the energy use of peat and coal expensive and accelerates their

abandonment. The annual fluctuations in the production of wood pellets are strong in Finland. In 2021 and 2022, the production of wood pellets is expected to grow by 6–7 percent. Globally, pellet consumption and production will also continue to grow.

► [Luke: Forest statistics](#)

Average nominal stumpage prices (over bark) in non-industrial private forests 2020–2022f.

Roundwood assortment	2020	2021f	Change	2022f	Change
	€/m ³	€/m ³	%	€/m ³	%
Pine sawlogs	55.0	61.1	11	58.6	-4
Spruce sawlogs	59.1	64.9	10	60.3	-7
Birch sawlogs	43.4	45.1	4	44.1	-2
Pine pulpwood	17.6	18.5	5	17.9	-3
Spruce pulpwood	19.9	20.7	4	19.8	-4
Birch pulpwood	16.9	17.9	6	17.2	-4

Source: Natural Resources Institute Finland.

Key forecasts 2020–2022f.*

Forecast variable		2020	2021f	2022f
		% y-o-y change		
Sawnwood	production	-5	10	2
	exports	-8	12	2
	export price	-2	38	-20
Plywood	production	-9	18	-3
	exports	-9	17	-3
	export price	-4	5	-1
Pulp	production	-8	8	1
	exports	-7	9	4
	export price	-18	36	-6
Paper	production	-25	1	-7
	exports	-26	1	-7
	export price	-7	1	1
Paperboard	production	0	14	2
	exports	0	14	2
	export price	-3	2	3
Fellings of industrial wood		-8	13	-1
Roundwood imports (incl. chips)		4	1	-12

*Price changes are nominal.

Sources: Finnish Forest Industries, Finnish Customs and Natural Resources Institute Finland (forecasts).

Basis and risks of the forecast

The Finnish Forest Sector Economic Outlook provides information on the current situation in the forest sector and the near-term outlook. The forecasts are based on public statistics, global economic development forecasts, market information from the forest sector from various sources, and studies conducted at the Natural Resources Institute Finland (Luke). The forecasts are based on the so-called derived demand principle, in which fluctuations in the economic development of the domestic and export markets are assumed to be reflected through the demand for Finnish forest industry products in the forest industry production and the domestic roundwood market. The effects of changes in the operating environment of the forest sector and the state's economic control measures have also been considered when making the forecasts. Worse-than-expected economic development would lower the export prices, production, and profitability of the Finnish forest industry compared to the forecasts presented here. From the forest industry, the effects would also spread to the roundwood market, forestry employment and the profitability of private forestry as the demand for wood decreases. In that case, the development of the Finnish forest sector would be weaker than the forecasts now presented. Better-than-expected economic development, in turn, would do the opposite.

The perceptions of the economic development of the world economy and the export markets is formed based on forecasts of various organisations

(e.g. OECD, IMF, ETLA, Nordea, Bank of Finland). The forecasts in this Finnish Forest Sector Economic Outlook are based on October 2021 data for the forest sector and forecasts for global economic development for 2021–2022. The forecasts for the Finnish forest sector correspond to the researchers' perception of the most probable development. They are point forecasts and are based on the export market growth forecasts as well as other background assumptions about market developments.

The main uncertainties of this year's and next year's forecasts are related to the possible new variants of COVID-19 virus, their resistance to vaccines and the partial return of restrictions, accelerating inflation, and the timing of central banks' tightening monetary policies. Recently, global logistics problems, such as container shortages, and energy adequacy before the start of the winter season have also raised concerns. Rising energy demand, declining fossil energy production, decommissioning of nuclear power, emission limits and the rising prices of emission allowances have already caused energy shortages and production disruptions around the world. The fear of global economic consequences of possible debt bubbles and the onset of banking crises has also grown again. Concerns relate in particular to the real estate markets and stock prices. In trade disputes and other conflicts between the United States and China, tensions appear to be increasing again as COVID19-related problems are gradually declining.



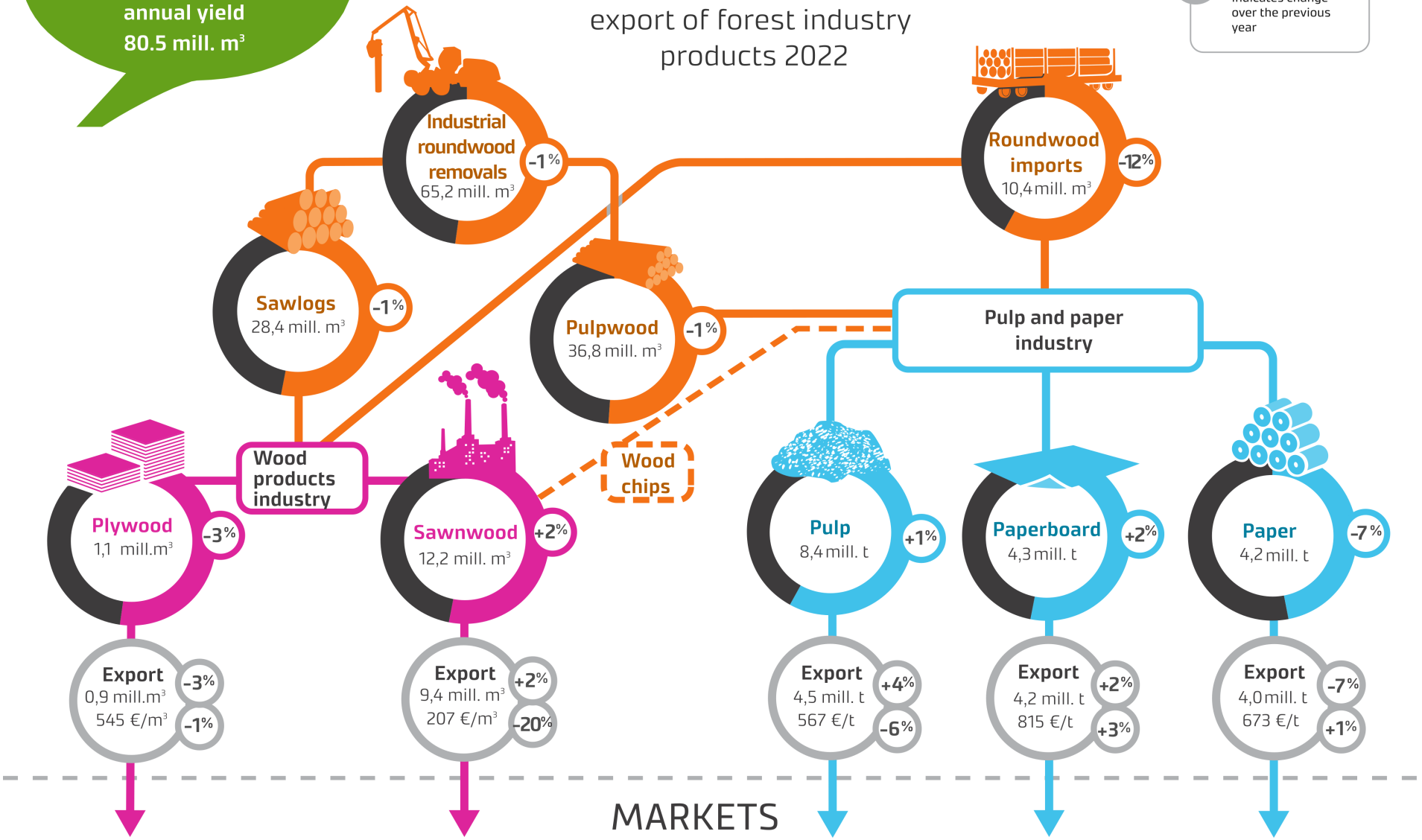
Picture: Erkki Oksanen, Luke.

Volume of growing stock
2.5 bn m³
Maximum sustained
annual yield
80.5 mill. m³

FROM STUMP TO MARKET

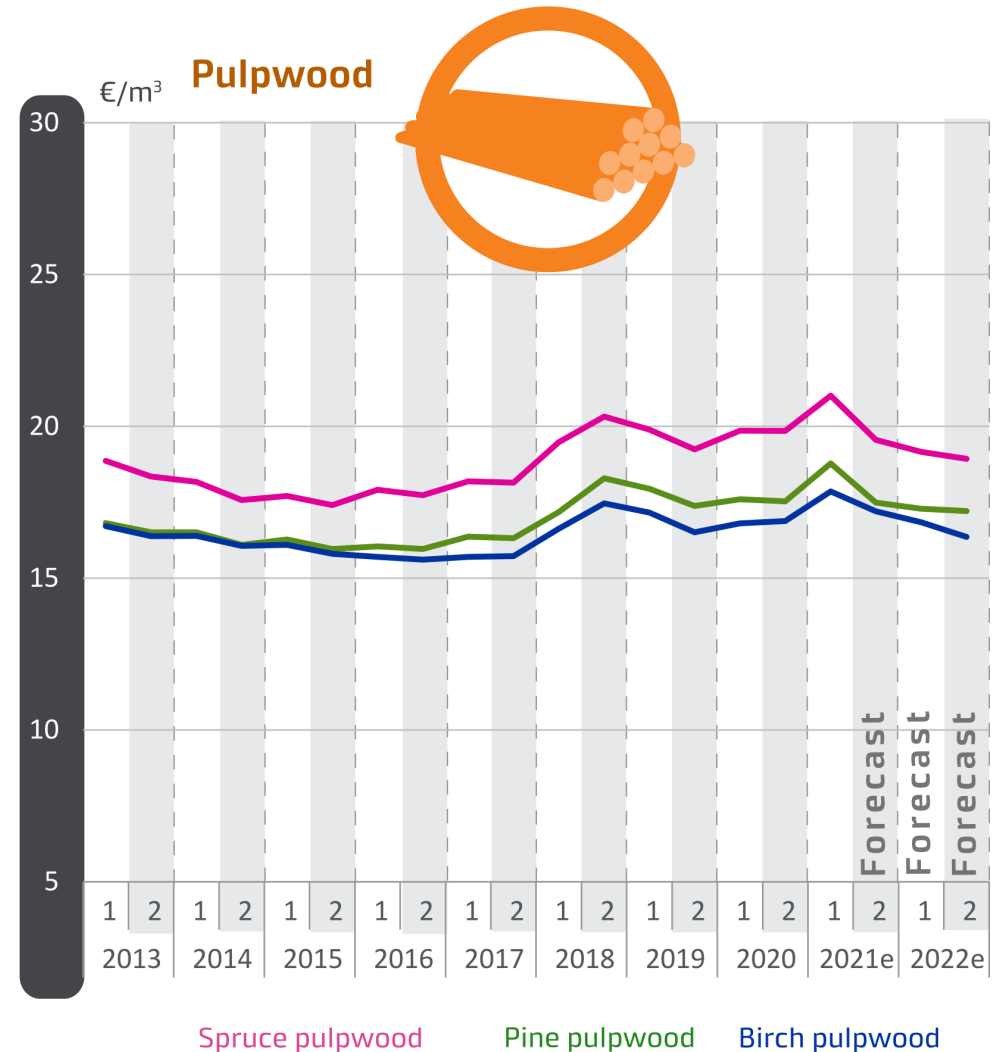
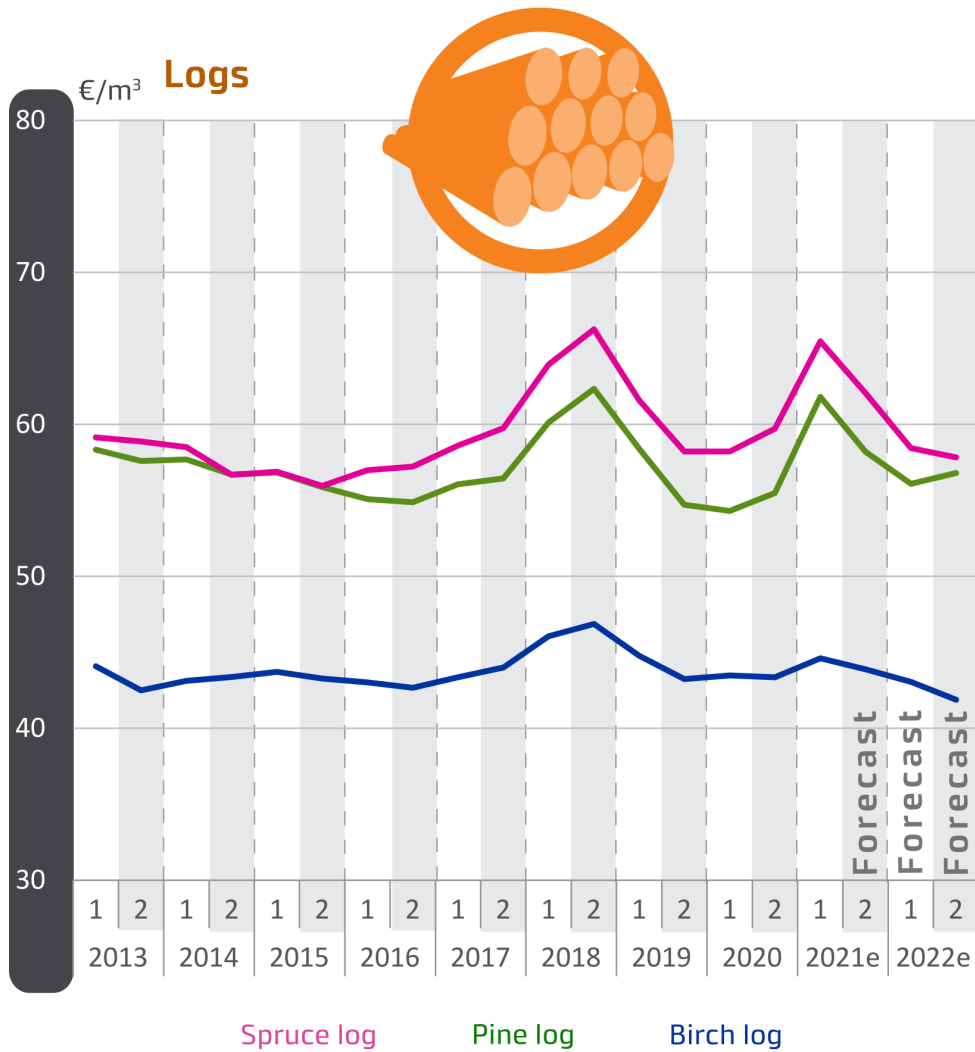
- forecast of fellings, processing and
export of forest industry
products 2022

%
Indicates change
over the previous
year



MARKETS

Biannual stumpage prices of logs and pulpwood 2013-2022e in 2020 prices (cost-of-living index)





The executive summary is a translation of the summary of the Finnish original publication "[Metsäsektorin suhdannekatsaus 2021–2022](#)", and is based on information available in October 2021.

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