EUROPEAN ORGANISATION
OF THE SAWMILL INDUSTRY

Annual Report of the European Sawmill Industry

2020 – 2021

"We know that the construction sector can even be turned from a carbon source into a sink, if organic building materials like wood and smart technologies like AI are applied."

Ursula von der Leyen
President of the European Commission
State of the Union Address, 16/09/2020

2021

Annual Report of the European Sawmill Industry

EOS
EUROPEAN ORGANISATION OF THE SAWMILL INDUSTRY

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Foreword

by Sampsa J. Auvinen, EOS President

RESHAPING AFTER COVID-19. FROM EU POLICIES TO MARKET DEVELOPMENT.

The COVID-19 pandemic has dramatically affected our societies and economies, in Europe as around the globe. In this context, political actors have been called to reshape our world and the way we live, redesigning economies and supporting the transition away from fossil fuels. "Building back better" has become the new imperative for interventions that strengthen our economic and social resilience while putting climate protection at the centre of all decisions.

The European Commission's proposal for an economic stimulus plan alongside a revised proposal for the EU's 2021-2027 budget, followed calls by the Parliament for a massive recovery and reconstruction package with the Green Deal at its core to stimulate the economy and fight climate change.

Our organisation has been actively following the ongoing discussions related to the implementation of the "green recovery". An exhaustive summary of our advocacy actions is available in Chapter 6 of the Annual Report. With the aim of further strengthening the wood industries' ability to work effectively in the Brussels's lobbying arena EOS decided to jointly hire with CEI-Bois, the European Confederation of the Woodworking Industries, the former Member of the EU Parliament, Mr Paul Brannen as our joint Director of Public Affairs. EOS has also tightened the cooperation with CEI-Bois by appointing Silvia Melegari Joint Secretary General in both organisations. This will further strengthen our industry's united voice in Brussels.

I am proud to mention as well that in March 2021, the European wood-based sector, including EOS, launched the Wood Sector Alliance for the New European Bauhaus (Wood4Bauhaus) to establish an open platform that brings together a range of important stakeholders. Not long after the launch of the Alliance it was accepted by the Commission as an official partner of the New European Bauhaus.

As usual the EOS Annual Report contains a comprehensive update on market developments in the sawmill industry as well as a chapter on what is happening in our forests and in other sectors of interest to the sawmill industry, including the parquet industry and the panel industry.

The pandemic of 2020-21 has been truly extraordinary and nobody could have foreseen the market developments that have occurred over the past few months. As people spent more time at home, the packaging and DIY sector experienced an unprecedented boom on both sides of the Atlantic. As a result, the sawmill industry still had a good year in spite of the pandemic-related challenges (such as construction sites shut or operating at a low regime in Southern Europe, France and the UK). I recommend readers to study the special focuses on the North American markets that well explain the market dynamics in the US and Canada. The US market will continue to be an important market both in the medium- and long term. At the same time, the European sawmill industry continues to be a truly global industry with sawnwood sales outside the EU remaining a relevant sales driver. China, in particular, is a strategic market for many sawmills across Europe and to have more information on the Chinese market I recommend readers to look at the relevant dedicated chapter.

Looking forward, the first part of 2021 has seen a continuation of the trends that first emerged last year: the renovation (retrofitting) sector is becoming a more and more relevant driver for our industry pushing up demand. Combined with a steady growth in new build in wood and a growing realisation that it is possible to build at height and at scale in engineered timbers mean that the future is bright. It is good to see some national and local governments actively promoting the use of wood and,

albeit it slowly, the removal of legislation that hampers taller wooden buildings. At the same time, there are signs that the bark-beetle outbreaks that have ravaged Central European forests over the last couple of years causing a logs binge in Central Europe will subside. This could have an impact on the availability of raw materials: a relative shortage of logs in Central Europe might occur given that demand is expected to remain strong. As a result, prices of raw materials are increasing and sawnwood prices most likely will remain at current levels. It looks that we have started a new era with regards our products' prices. At any rate, these are exciting times in the market. The pandemic has brought about significant change and some of its effects are no doubt yet to be seen. I advise readers to have a look at the various countries statements in Chapter 4 to try to have a clearer picture in these uncertain times.

As of June 2021, after 6 years it is time for me to hand over the role of the Presidency. I want to express my deepest gratitude to the EOS Members, the Board and especially the EOS staff that have taken this journey with me. Our progress would not have been possible without your involvement and support. You have actively participated in our discussions and activities and made the EOS voice heard within our various international and European forums. Much work remains ahead of us, but I am confident that EOS will continue to succeed in tackling the political changes driven by social, technological, scientific, environmental and economic factors.

Wishing you all a good and successful continuation,

Yours,

Sampsa J. Auvinen

1. General Economic Situation

The information of the European section of this chapter has been taken from the European Commission Economic Forecast Spring 2021. For non-European countries, see footnotes.

1.1 Global overview with focus on the EU

The EU entered the year on a weak footing…

After the historic drop in activity recorded in the first part of 2020 and the rebound in the summer, the EU economy faced another setback in late 2020 as the resurgence of the pandemic prompted a new round of containment measures. With output falling again in the last quarter of 2020 and the first of 2021, by a cumulative 0.9%, the EU was pushed back into recession. However, considering the stringency of the restrictions, the decline in activity was far milder than the downturn in the first half of 2020. Better adaptation of firms and households to the constraints of the pandemic environment, stronger support from global growth and trade, and continued strong policy support helped economic agents cope with the economic challenges.

…and the pandemic is still setting the course for 2021-2022…

Economic developments in 2021 and 2022 will be largely determined by how successfully vaccination programmes will tame the pandemic and how quickly governments will lift restrictions. For the EU, the forecast assumes that following a marginal easing of restrictions in the course of the second quarter, progress in vaccinations will enable a more marked easing of restrictions in the second half of the year. In 2022, COVID-19 will remain a public health concern, despite the high share of the population being vaccinated (including refreshed protection when needed, for example due to new variants). It is therefore assumed that some limited containment measures will be in place as needed.

Table 1.1: Overview - the spring 2021 forecast

	GDP %			INFLATION %			UNEMPLOYMENT RATE %			BUDGET BALANCE %		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Belgium	-6.3	4.5	3.7	0.4	1.8	1.5	5.6	6.7	6.5	-9.4	-7.6	-4.9
Germany	-4.9	3.4	4.1	0.4	2.4	1.4	3.8	4.1	3.4	-4.2	-7.5	-2.5
Estonia	-2.9	2.8	5.0	-0.6	1.6	2.2	6.8	7.9	6.3	-4.9	-5.6	-3.3
Ireland	3.4	4.6	5.0	-0.5	0.9	1.3	5.7	10.7	8.1	-5.0	-5.0	-2.9
Greece	-8.2	4.1	6.0	-1.3	-0.2	0.6	16.3	16.3	16.1	-9.7	-10.0	-3.2
Spain	-10.8	5.9	6.8	-0.3	1.4	1.1	15.5	15.7	14.4	-11.0	-7.6	-5.2
France	-8.1	5.7	4.2	0.5	1.4	1.1	8.0	9.1	8.7	-9.2	-8.5	-4.7
Italy	-8.9	4.2	4.4	-0.1	1.3	1.1	9.2	10.2	9.9	-9.5	-11.7	-5.8
Cyprus	-5.1	3.1	3.8	-1.1	1.7	1.1	7.6	7.5	7.2	-5.7	-5.1	-2.0
Latvia	-3.6	3.5	6.0	0.1	1.7	2.0	8.1	8.2	6.9	-4.5	-7.3	-2.0
Lithuania	-0.9	2.9	3.9	1.1	1.9	1.9	8.5	8.3	7.1	-7.4	-8.2	-6.0
Luxembourg	-1.3	4.5	3.3	0.0	2.1	1.6	6.8	7.4	7.3	-4.1	-0.3	-0.1
Malta	-7.0	4.6	6.1	0.8	1.2	1.5	4.3	4.3	3.8	-10.1	-11.8	-5.5
Netherlands	-3.7	2.3	3.6	1.1	1.6	1.4	3.8	4.3	4.4	-4.3	-5.0	-1.8
Austria	-6.6	3.4	4.3	1.4	1.8	1.6	5.4	5.0	4.8	-8.9	-7.6	-3.0
Portugal	-7.6	3.9	5.1	-0.1	0.9	1.1	6.9	6.8	6.5	-5.7	-4.7	-3.4
Slovenia	-5.5	4.9	5.1	-0.3	0.8	1.7	5.0	5.0	4.8	-8.4	-8.5	-4.7
Slovakia	-4.8	4.8	5.2	2.0	1.5	1.9	6.7	7.4	6.6	-6.2	-6.5	-4.1
Finland	-2.8	2.7	2.8	0.4	1.2	1.2	7.8	7.6	7.2	-5.4	-4.6	-2.1
Euro area	-6.6	4.3	4.4	0.3	1.7	1.3	7.8	8.4	7.8	-7.2	-8.0	-3.8
Bulgaria	-4.2	3.5	4.7	1.2	1.6	2.0	5.1	4.8	3.9	-3.4	-3.2	-1.9
Czechia	-5.6	3.4	4.4	3.3	2.4	2.2	2.6	3.8	3.5	-6.2	-8.5	-5.4
Denmark	-2.7	2.9	3.5	0.3	1.3	1.3	5.6	5.5	5.2	-1.1	-2.1	-1.4
Croatia	-8.0	5.0	6.1	0.0	1.3	1.3	7.5	7.2	6.6	-7.4	-4.6	-3.2
Hungary	-5.0	5.0	5.5	3.4	4.0	3.2	4.3	4.3	3.8	-8.1	-6.8	-4.5
Poland	-2.7	4.0	5.4	3.7	3.5	2.9	3.2	3.5	3.3	-7.0	-4.3	-2.3
Romania	-3.9	5.1	4.9	2.3	2.9	2.7	5.0	5.2	4.8	-9.2	-8.0	-7.1
Sweden	-2.8	4.4	3.3	0.7	1.8	1.1	8.3	8.2	7.5	-3.1	-3.3	-0.5
EU	-6.1	4.2	4.4	0.7	1.9	1.5	7.1	7.6	7.0	-6.9	-7.5	-3.7

Source: European Commission Spring Economic Forecast 2021

…although a number of other key issues will also play an important role…

A number of other factors will also be critical to the outlook. These include the extent to which the EU can benefit from the improved external environment; the continuation of adequate policy support; the response of households and companies; and the extent to which the crisis leaves longterm scars on the economy. An important question will concern whether the savings accumulated during past lockdown periods are unwound, and about the pace of decline of the savings rate, once restrictions ease. The fact that it is mostly high-income households that accumulated savings last year, as the Commission's consumer surveys show, and that it is mostly the consumption of services that is constrained by the restrictions put in place in recent months, is likely to limit the potential for a large release of pent-up demand that would compensate for foregone spending.

…and the Recovery and Resilience Facility provides a unique opportunity for paving the way to a sustained recovery.

Policy will continue to play a key role. As the recovery takes hold, its focus will have to shift from damage control to strengthening the recovery and resilience of the EU economy. The implementation of the national Recovery and Resilience Plans under the Next Generation EU programme will serve this purpose. Following the final adoption of the Recovery and Resilience Facility (RRF) regulation in February this year and significant progress on the preparation of national Recovery and Resilience Plans (RRPs), the budgetary and economic impact of these plans has been incorporated into the forecast. The total EU expenditure expected to be financed by RRF grants over the forecast horizon amounts to EUR 140 billion, or just below 1% of 2019 GDP. The total economic impact generated by the RRF over the forecast horizon is expected to be approximately 1.2% of 2019 EU real GDP.

The recovery is already underway…

The latest Commission survey results suggest that activity in the EU economy has already moved up gear in recent months. As containment measures are gradually relaxed and the impact of the RRF kicks in, economic activity is set to accelerate in the third quarter, with countries, including those with large tourism sectors, benefitting from the return to quasi-normality of social activities over the summer. Growth is then forecast to remain solid in the last quarter of 2021, bringing EU GDP back to its precrisis level earlier than previously projected.

…and is stronger than previously forecast.

All in all, the EU economy is forecast to grow by 4.2% in 2021 and to strengthen to around 4.4% in 2022 (4.3% and 4.4%, respectively, in the euro area). A stronger-than-previously expected rebound in global activity and trade, and the growth impulse provided by Next Generation EU/Recovery and Resilience Facility (NGEU/RRF), help to explain the brighter outlook for all countries compared to the Winter Forecast. However, differences across countries in the pace of the recovery from the crisis remain substantial.

Private consumption will be in the driving seat...

As spending opportunities reopen and uncertainty about job and income prospects fade, private consumption will rebound and the household saving rate in the EU is expected to gradually decline from 19.4% in 2020 to 13.6% in 2022, still above its precrisis level.

…together with a revival in investment…

The improving outlook for demand at home and from abroad, a continuation of favourable financing conditions, recovering profitability and increasing capacity utilisation rates are set to propel investment spending. At the same time, higher corporate distress induced by the crisis, lingering risk aversion and spare capacity in some sectors could hold back corporate investment. The NGEU/RRF is expected to finance both public and private investment projects, which will be rolled out with increasing intensity towards the end of the forecast horizon. The EU's public investment-to-GDP ratio is forecast to rise to almost 3.5% in 2022, up from 3% in 2019, and back to its highest value since 2010.

Also, construction investment, including for housing, is expected to grow strongly over the forecast horizon, as wealthier households devote some of their accumulated savings to housing projects.

… and a stronger external environment.

The global outlook has improved considerably, but the recovery is expected to be asynchronous and uneven across and within regions. Significantly improved prospects for the US economy reflect progress in vaccination and the two large fiscal packages adopted in late 2020/early 2021. This is expected to create positive spillovers for the

global economy, including the EU. In China, growth is set to continue at a rapid pace, aided by buoyant global demand for goods. Elsewhere, many emerging economies are in a more challenging situation, with difficult access to vaccines and limited policy space weighing on growth prospects. All in all, global GDP (excl. the EU) is expected to grow by 5.9% in 2021 and by 4.2% in 2022, amid a solid expansion in global (excl. EU) trade. EU export markets are set to increase by 8.3% in 2021 and 6.4% in 2022, allowing EU merchandise exports to gain traction, while the recovery of service exports is set to take longer.

Inflation to peak in 2021 on transitory factors, before moderating in 2022.

Headline inflation increased sharply in early 2021 in both the EU and the euro area, reflecting rising energy prices and a host of temporary factors, including tax changes, base effects and the impact of a new weighting scheme of the inflation basket that better corresponds to the substantial changes to consumption patterns triggered by the pandemic. These factors will continue to shape the profile of inflation this year but should wear off gradually next year. The strong demand recovery and, to a lesser extent, high transport costs and other supply-side constraints also push inflation up over the forecast horizon. Remaining slack in the economy and the labour market is, however, expected to keep underlying inflationary pressures muted. HICP inflation in the EU is expected to increase from 0.7% in 2020 to 1.9% in 2021 and to moderate to 1.5% in 2022 (in the euro area, inflation would increase from 0.3% in 2020, to 1.7% in 2021 and 1.3% in 2022).

Labour market outlook reliant on continued policy support…

The widespread use of job retention schemes that kept many employees attached to their jobs helped contain the deterioration of labour markets in 2020, which was nonetheless substantial. After the initial hit from the pandemic, labour market conditions slowly started to improve in the second half of the year, with many people returning to the labour force and many workers exiting short-time work schemes. However, employment will take time to fully recover, as there is scope for working hours to increase before companies need to start hiring again. Further job losses and higher unemployment rates are expected in some Member States this year, but next year headcount employment is expected to start increasing and unemployment rates should decline across the EU. The EU unemployment rate is forecast to rise to 7.6% this year and to decline to around 7% in 2022, above the rate of 6.7% in 2019. The labour market outlook hinges not only on the speed of the economic recovery, but also on the timing of policy support withdrawal and the pace at which workers are reallocated across sectors and firms.

…amid a supportive policy mix…

Given the size of the emergency support measures put in place to cushion households and firms from the negative impact of the COVID-19 pandemic, the EU fiscal stance will continue to be supportive this year. In 2022, fiscal policy in the EU is expected to remain slightly supportive, also thanks to the support from the expected acceleration in spending financed by RRF grants. The long accommodative monetary policy environment complements and reinforces the fiscal stimulus as favourable financing conditions are set to support governments, corporates and households over the forecast horizon.

…with public deficit and debt set to increase further this year on the back of continuing support measures.

The aggregate general government deficit in the EU and the euro area increased significantly from around ½% of GDP in 2019 to around 7% of GDP last year, due to the impact from the operation of automatic stabilisers and sizeable discretionary fiscal measures. The deficit ratio in both areas is set to increase further this year, to about 7.5% and 8% of GDP respectively, following the extension of emergency policy support. In 2022, the deficits in the EU and the euro area are both expected to halve to around 3¾% of GDP, thanks to the continued economic recovery and the phasing out of much of the temporary policy support. The EU and euro area debt-to-GDP ratios are projected to rise further this year, reaching a new peak of around 95% and 102% in the EU and the euro area, respectively, before decreasing slightly in 2022.

Risks to outlook broadly balanced overall…

The risks surrounding the GDP forecast are high and will remain so as long as the pandemic hangs over the economy. On the epidemiological front, developments concerning the pandemic and the efficiency and effectiveness of vaccination programmes could turn out better or worse than assumed in the central scenario of this forecast. On the economic side, this forecast may underestimate the propensity of households to spend, or, on the opposite,

consumers' desire to maintain high levels of precautionary savings. The impact of alternative paths for the evolution of household savings is assessed in the model-based analysis presented in this publication. Another risk to the outlook is the timing of policy support withdrawal, which if premature could jeopardise the recovery. On the downside, the impact of corporate distress on the labour market and the financial sector could prove worse than anticipated. On the upside, stronger than projected global growth, particularly in the US, could have a more positive impact on the European economy than expected. Stronger US growth, however, risks pushing up US sovereign bond yields, which could interact with the materialisation of idiosyncratic risks (stemming from e.g. the slow vaccination rollout) in highly indebted emerging market economies with high foreign currency debts, causing disorderly adjustments in financial markets. Inflation in EU could turn out higher if the rebound in the European and global economies is stronger than expected, or if current supply constraints turn out more persistent. Overall, the risks surrounding the outlook are broadly balanced.

1.2 Non-EU large economies of interest to the EU sawmill industry

Japan[1]

Japan's economy is likely to follow an improving trend with the impact of the novel coronavirus (COVID-19) waning gradually, but the pace is expected to be only moderate while vigilance against COVID-19 continues. Specifically, downward pressure stemming from the impact of a resurgence of COVID-19 is likely to remain strong for the time being, particularly in face-to-face services consumption. Thereafter, as the impact subsides globally, the economy is projected to keep improving further with overseas economies returning to a steady growth path.

The year-on-year rate of change in the consumer price index (CPI, all items less fresh food) is likely to be negative for the time being, mainly affected by COVID-19, the past decline in crude oil prices, and the "Go To Travel" campaign. Thereafter, it is expected to turn positive and then increase gradually, since downward pressure on prices is projected to wane gradually along with economic improvement and the effects of such factors as the decline in crude oil prices are likely to dissipate.

Compared with the previous projections in the October Outlook Report, the projected growth rates are somewhat higher, mainly for fiscal 2021, reflecting the effects of the government's economic measures in particular. The projected rates of increase in the CPI are more or less unchanged.

China[2]

Growth prospects for China going into 2021 are high. The International Monetary Fund (IMF) projects China's 2021 growth at a staggering 8.1%, well ahead of the United States at 5.1%, and second only to India with a projected 11.5% growth. In addition to incredible growth, China has also surpassed the United States in terms of attracting foreign direct investment (FDI).

While some companies have reacted to coronavirus disruptions by reshoring operations closer to their largest customer base, others saw how China's integrated manufacturing hubs with all elements of the supply chain regionally located were able to continue production throughout the pandemic. This has led some businesses to accelerate investment in China, redefining operations there as their main production sites. The two approaches are pulling in different directions, with some companies reshoring and others offshoring, but China has seen more investment come in than flow out. This trend will continue throughout 2021 and will likely outlast the coronavirus pandemic that precipitated it.

There are some potential issues brewing for China's economy in the near term despite the strong performance. In addition to companies considering reshoring, more than a few nations are pushing for a more aggressive policy stance against China. Some of this resolve is related to the perceived

1 The information in this chapter has been taken from https://www.boj.or.jp/en/mopo/outlook/gor2101b.pdf

2 The information in this chapter has been taken from https://www.investopedia.com/chinas-economic-strength-to-continue-into-2021-5100844

lack of transparency on China's part as the coronavirus was first spreading. Regardless of the source, there have been signs of pushback from a number of developed economies, building on the trade spats between China and the United States under the Trump administration.

In addition to potential international trade and policy headaches, China has also seen slowing productivity growth as its population simultaneously begins to grey. Rather than moving forward with long-promised reforms and encouraging private innovation, China seems to be set on keeping power in state-owned enterprises (SOEs). Jack Ma's recent troubles are just one example. The deference shown to SOEs and the resistance to reform will likely continue to drag on productivity even as China grows.

In sum, China has essentially emerged from the coronavirus pandemic as strong as it went into it and on a timeline that seems unfathomable for other large economies. Working from this position of economic strength, China is poised to continue to grow while the rest of the world still struggles to bring the coronavirus under control.

There are some potential snags ahead for China, including upset international partners turning to tougher policy, slowing productivity growth, an aging population, and a lack of real reform. With all that being said, however, China has once again shown that, no matter the issues facing its economy, the markets need to be wary of betting against its continued growth.

Russia[3]

After several years of negative growth due to massive capital flight, the collapse of the rouble, falling oil prices and trade sanctions imposed by the West after the Ukrainian crisis, the Russian economy had returned to modest growth since 2017, driven mainly by mineral resource extraction and private consumption. However, due to the COVID-19 pandemic, the economy contracted to -4.1% GDP in 2020 (from +1.3% in 2019), as exports, investment activity and consumer demand all plunge. According to the IMF's October 2020 forecast, the economy is expected to rebound in 2021 (+2.8%) and 2022 (+2.3%), supported by fiscal and monetary stimulus and assuming the situation gradually normalizes. In its most recent January 2021 update of the World Economic Outlook, the IMF has revised its GDP growth projections for Russia to 3% in 2021 and 3.9% in 2022. In response to the crisis, the Russian authorities adopted a strong public health and economic package, amounted to about 3.5% GDP (IMF). Measures included expanded social and unemployment benefits. Bringing the COVID-19 pandemic under control and avoiding lasting damage to the economy is the main priority, but for 2021 Russia has planned to scale down its state support of the economy and consolidate its fiscal policy in order to return to the budget rule by 2022. Russia faces many challenges: a large state footprint, weak governance and institutions, insufficient infrastructure, low levels of competitiveness, underinvestment, low production capacity, dependence on raw materials, poor economic climate, lack of structural reforms and ageing of the population.

The unemployment rate, estimated by the IMF at 4.6% in 2019, was falling before the COVID-19 crisis, but real wages had also fallen. Social inequalities remain high, especially between large cities and rural areas. Only 1% of the population owns around 70% of private assets. Despite the emergence of an urban middle class, the poverty rate remains at around 13%. A middle class protest movement calls for an end to corruption and patronage. According to IMF estimates, the unemployment rate increased to 5.6% in 2020 under the effect of the pandemic, but should gradually decrease to 5.2% in 2021 and 4.7% in 2022.

USA[4]

The Conference Board forecasts that US Real GDP growth will rise to 5.0 percent (annualized rate) in Q1 21* and 6.0 percent (year-over-year) in 2021* Following a lull in the economic recovery in November and December, growth improved in January before stalling in February due to adverse weather conditions. In March, however, the economic recovery continued to strengthen. We expect real GDP growth to accelerate further over the coming quarters as new COVID-19 infection rates decline further, the vaccination program continues to expand, and a large fiscal support program is fully deployed. Following a robust recovery in 2021, we forecast economic growth of 3.5 percent (year-over-year) in 2022.

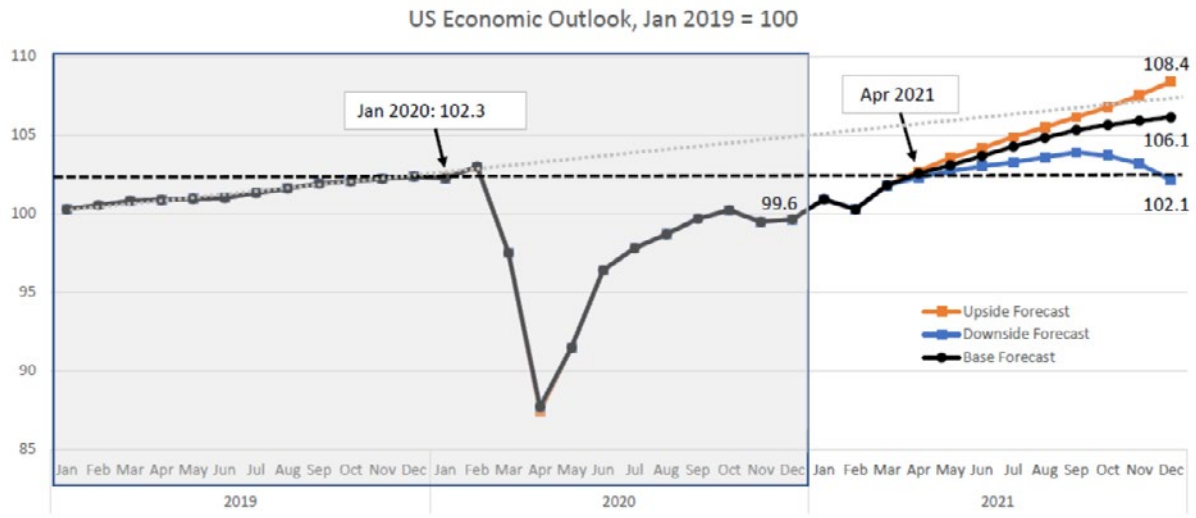
While the economy has already partially rebounded from the deep contraction in the first half of 2020, a variety

3 The information in this chapter has been taken from https://santandertrade.com/en/portal/analyse-markets/russia/economic-political-outline

4 The information in this chapter has been taken from https://conference-board.org/research/us-forecast

of factors will determine the way forward. Key variables include: a) the spread of the virus itself; b) the deployment and effectiveness of COVID-19 vaccines; c) the impact of fiscal and monetary support; d) the status of labor markets and household consumption; and e) the pace at which mobility and travel restrictions are lifted. While there are many possible outcomes for these factors, The Conference Board has generated three potential recovery scenarios based on specific sets of assumptions.

Fig. 1.1, US Economic Outlook



1.3 Exchange Rates

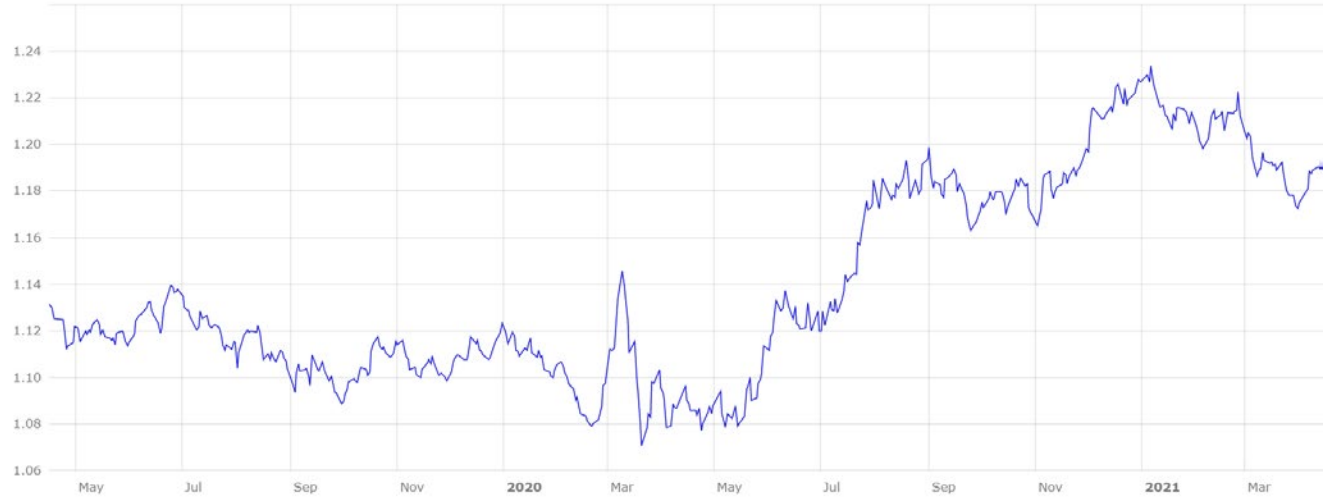
The exchange rate between two currencies is an important driver of trade. Other things being equal, a strong currency in country A (relative to trade partners) will favour importers of country A, while a weak currency in country A will favour exporters of country A.

Exchange rate fluctuations thus affect trade and industries, and the European sawmill industry is no exception to this. It is therefore useful to include an overview of exchange rates in this chapter.

In the figures on the next page, we provide the exchange rate of the EUR vs various currencies over the last two years (data updated in mid-April 2021).

The euro vis-à-vis the US dollar has slightly depreciated in 2019 but from the beginning of the pandemic it has appreciated until the turn the start of 2021, when a slight depreciating trend was apparent. Over the last two years the USD was at its strongest (vs the EUR) in March 2020 when 1 euro=1.07 dollar and at its weakest in January 2021 when 1 euro=1.23 dollar. The euro has thus appreciated by around 15% in the space of a few months.

Fig. 1.2 EUR vs USD, April 2019 – April 2021



Source: European Central Bank, 2021

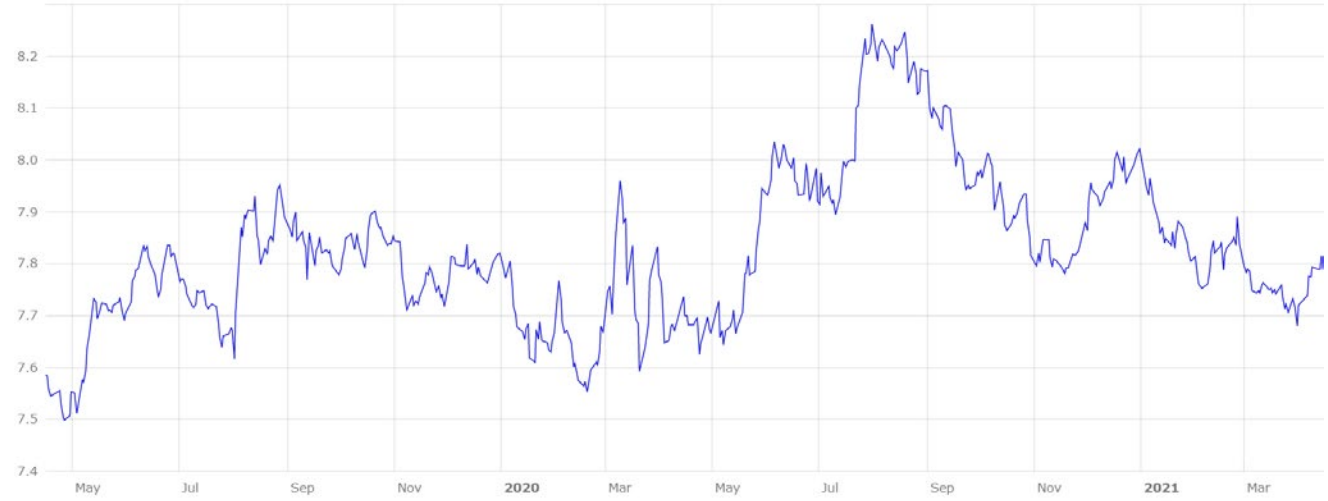
Over the last two years the euro and the pound sterling exchange rate has moved in a topsy-turvy way, with no continuous patterns, also on the back of political developments regarding Brexit. At the beginning of the pandemic the euro swiftly appreciated but then has depreciated and for a few months the exchange rate has been quite stable. From the beginning of 2021 the euro has been depreciating again. Over the last two years the GBP was at its strongest (vs the EUR) in February 2020 when 1 euro=0.83 GBP and at its weakest in March 2020 when 1 euro=0.93 GBP. In those days the euro equalled a 10-year high vs the GBP.

Fig. 1.3 EUR vs GBP, April 2019 – April 2021

Source: European Central Bank, 2021

In summer 2020 the yuan was at its weakest vis-à-vis the euro since 2014, but then an appreciating trend of the yuan kicked in which is lasting into the spring of 2021. Over the last year the CNY was at its strongest (vs the EUR) in April 2020 when 1 euro=7.62 CNY and at its weakest in August 2020 when 1 euro=8.26 CNY.

Fig. 1.4 EUR vs CNY, April 2019 – April 2021



Source: European Central Bank, 2021

Until spring 2020 the euro was on a depreciating trend against the Japanese yen. Since then, the European common currency has been appreciating. Over the last two years the JPY was at its strongest (vs the EUR) in May 2020 when 1 euro=114 JPY and at its weakest in April 2021 when 1 euro=131 JPY.

Fig. 1.5 EUR vs JPY, April 2019 – April 2021

Source: European Central Bank, 2021

In March 2020 the euro was at its strongest level vs the krona since 2010 (1 euro=11.1 SEK), but over the last year it has been depreciating by around 10% vis-à-vis the Scandinavian currency.

Fig. 1.6 EUR vs SEK, April 2019 – April 2021

Source: European Central Bank, 2021

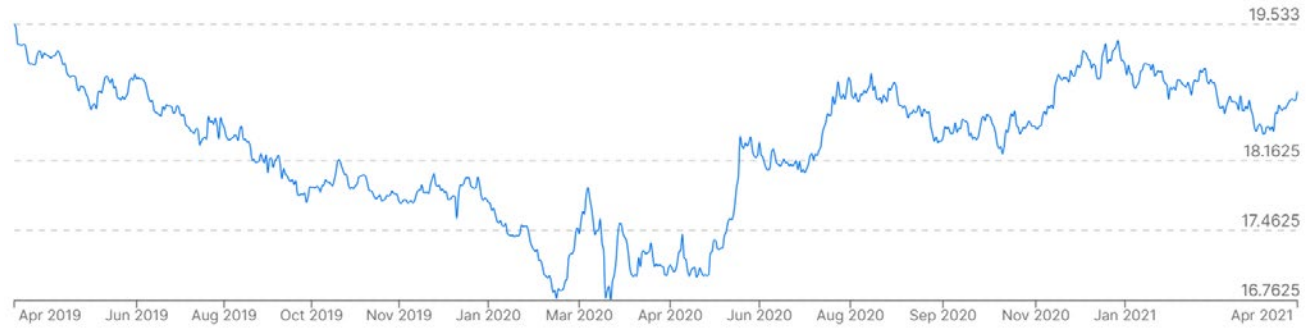
As a result of geopolitical tensions, over the last few years the rouble has been very volatile. The euro remains historically very strong against the Russian rouble and as a result of the pandemic, after some quarters of rouble appreciation, there was a sharp rouble depreciation continuing well into 2021. Up until the geopolitical tensions with Ukraine in 2014, the value of 1 EUR was consistently below 50 roubles, while now it has established itself around 90 roubles.

Fig. 1.7 EUR vs RUB, April 2019 – April 2021

Source: European Central Bank, 2021

When the Egyptian authorities stopped controlling the value of the Egyptian pound in November 2016, the pound lost 50% of its value vs the euro. Until the beginning of the pandemic, while the euro remained historically strong vis-à-vis the pound, there was a relative appreciation of the Egyptian pound against the euro which was brought to a sharp end by the pandemic with the pound losing all the ground gained.

Fig. 1.8 EUR vs EGP, April 2019 – April 2021



Source: www.xe.com

2. Overview of other sectors of interests to the Sawmill Industry: Forests, Parquet Industry, Panel Industry

EOS expressed gratitude to Isabelle Brose, Managing Director of the European Federation of the Parquet Industry, and to Orifjon Abidov, Economic Advisor of the European Panel Federation, for their contribution to this chapter.

2.1 State of Europe's Forest Report

On 17 December 2020, the Ministerial Conference on the Protection of Forests in Europe – FOREST EUROPE – published the State of Europe's Forests 2020 report.

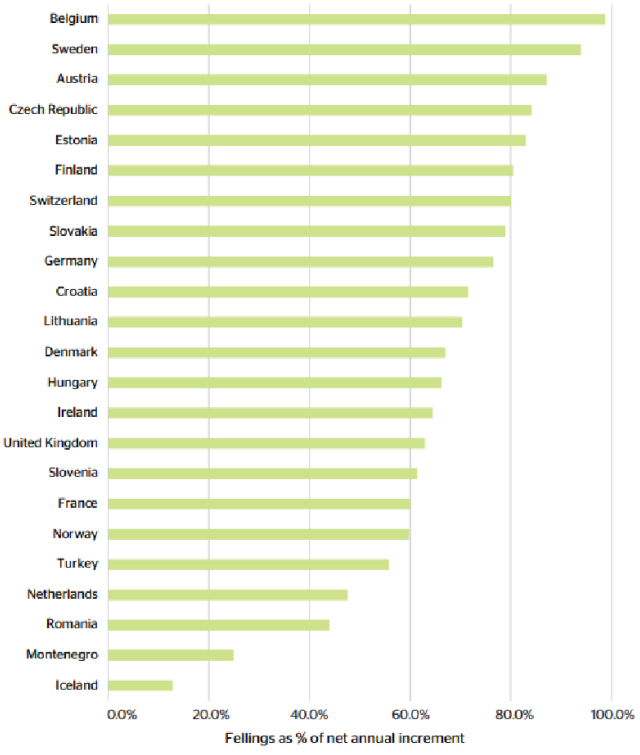
The report provides comprehensive information on the status and trends in forests and forestry, based on the pan-European criteria for sustainable forest management.

The area of forests in Europe has increased by 9% over the last 30 years. At 227 million ha of forests, more than one-third of Europe's land surface is forested. The volume of wood and the weight of carbon stored in the biomass of European forests have grown by 50% over the last 30 years as forest area expanded and only a part of the increment has been harvested. Other wooded land accounts for an additional 27 million ha. **Around 75% of the forest area is available for wood supply.** 46% of European forests are predominantly coniferous, 37% are predominantly broadleaved, and the rest are mixed.

European forests are steadily becoming more diverse in tree species composition. Stands composed of two or more tree species occupy 67% of the forest area. 33% of the forests are composed of stands dominated by single tree species – either monocultures or naturally homogenous forests. 66% of the total forest area in Europe was regenerated naturally or result from natural expansion, and the share of these forms of establishment is slightly increasing. **In 2020, plantations covered only 3.8%;** Forests undisturbed by man cover 2.2% of European forest area. Introduced tree species are used quite marginally in European forestry, covering 3.1% of the total forest area. The forest area dominated by invasive alien tree species is about 0.5% of Europe's forests and slightly increasing.

About three-quarters of the net annual wood increment is felled. The figure below shows the country-by-country breakdown of this important metric:

Fig. 2.1 Fellings as a percentage of net annual increment, 2015



Source: State of Europe's Forests, 2020

Every year in Europe, forests sequester in their biomass about a tenth of the carbon dioxide emissions produced in other sectors. Carbon stored in harvested wood products

also contributes to the reduction of CO_2 emissions. The volume of wood supply has grown, reaching 550 million m^3, which is 40% more than in 1990.

The total growing stock of European forests adds up to 34 900 million m^3, of which about 84% is located in forests available for wood supply. On average, there are 169 m^3 of growing stock per ha, which is 40 m^3 per ha more than thirty years ago. **Growing stock has increased by 50% in 2020 compared to 1990, although this trend is slowing down**.

European forests are predominantly semi-natural and the **tree species diversity of forest stands has been increasing since 2005**. The amount of deadwood in European forests is also growing. About 2% of the forests are considered undisturbed by man. Nearly 24% (almost 50 million ha) of forests are in areas protected for the conservation of biodiversity and landscape, considerably more than several decades ago. The area of forests designated for biodiversity conservation has increased by 65% in 20 years, and the area designated for landscape conservation by 8%.

Still, there are significant threats and challenges, mainly to forest health and economic sustainability. At the European level, 3% of the forest area was affected by damage in 2015. However, **a growing frequency of large-scale forest disturbances has been observed recently**, including extreme droughts, heat waves, extensive bark beetle outbreaks, and more extensive forest fires. Deposition of air pollution has continuously decreased over the last 25 years; however, some pollutants still locally exceed critical loads. The relatively low net revenue of forest enterprises poses a risk for forest management, especially in the environment of volatile markets, adverse effects of changing climate, and requirements for more demanding silvicultural systems.

Policy tools have been put in place to reach the objectives related to maintenance and enhancement of forest resources, as well as their adaptation to climate change. These include national forest acts, codes, regulations, national forest programmes or strategies, funding programmes, information campaigns, and communication strategies. Challenges in achieving policy objectives comprise the funding of afforestation, reforestation and climate change adaptation activities, competing land use interests, and effective operation and co-ordination of all key sectors and stakeholders.

About 53% of forests in Europe are in public ownership and 47% in private ownership. Private holdings are, in general, much smaller than public ones. Public forest holdings are, on average, much larger than private ones. However, the sizes and numbers of both vary greatly among countries. Smaller holdings tend to be found in South-East Europe, and larger ones in North Europe. Public forests are mostly municipal and state holdings, where state forests are sometimes split into smaller units for management purposes. Most of public holdings in Europe (20 342 holdings reported by 19 countries) have a size between 11 and 500 ha, while the vast majority of private forest properties (almost two million holdings reported by 18 countries) belong to the size class up to 10 ha, often as a result of inheritance splitting. The largest proportion of public forests area is in holdings larger than 500 ha (60 million ha reported by 18 countries), while the most of private forest area is in holdings of size class from 11 to 500 ha (almost 17 million ha, followed by the size class above 500 ha with 12 million ha reported by 17 countries). The figure below shows the share of public and private ownership by region.

Forestry and the wood processing industries provide employment for more than 2.6 million people in Europe. However, employment in the forest sector is steadily declining – by about 33% from 2000 to 2015. The forest sector employs about 1.1% of the total number of

Fig. 2.2: Share of Public and Private Ownership by Region, 2015

Region	Public		Private	
	1 000 ha	%	1 000 ha	%
North Europe	17 512	29.8	41 268	70.2
Central-West Europe	13 366	37.0	22 778	63.0
Central-East Europe	37 446	85.7	6 241	14.3
South-West Europe	5 352	24.5	16 475	75.5
South-East Europe	29 520	90.5	3 085	9.5
EU 28	56 892	39.3	87 785	60.7
Europe	103 196	53.5	89 847	46.5

Note: Data coverage as % of total regional forest area: NE 83%, C-WE 100%, C-EE 100%, S-WE 70%, S-EE 81%, EU-28 92%, Europe 87%.

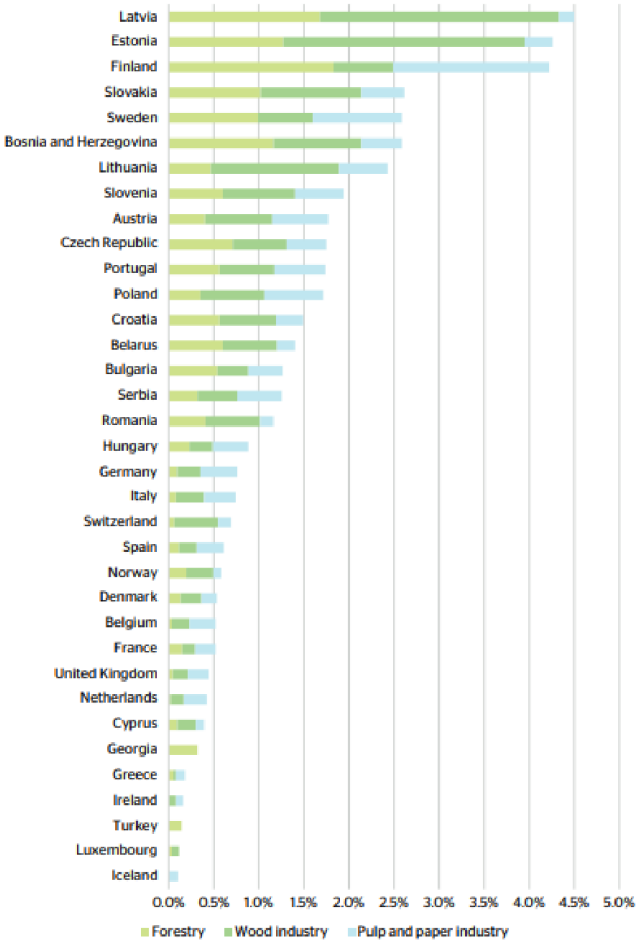
Source: State of Europe's Forests, 2020

workers in Europe. In the highly forested countries of North Europe, an average of 2% of the jobs are in the forest sector (reaching about 5% in Estonia and Latvia), while in Central-West Europe, the share is just above 0.7%. Nevertheless, the forest sector remains an important employer in rural areas, also providing income to numerous other people working informally in forestry such as non-industrial forest owners and farmers. In general, approximately 36% of the people employed in the overall sector work in the primary sub-sector forestry, nearly 40% in wood manufacturing, and about 25% in the paper industry.

The forest sector contributed about 0.7% to GDP in Europe but it contributed 2% to gross domestic product in North Europe, reflecting regional differences. The forest sector consists of forestry, the wood industry, and the pulp and paper industry. The forest sector contributed 2% to gross domestic product in North Europe, reflecting regional differences. Figure 2.3 shows the country-by- country breakdown of the contribution of the forest sector in Europe.

© Peter / Adobe Stock

Fig. 2.3 Contribution of the Forest Sector to GDP, 2015



Source: State of Europe's Forests, 2020

2.2 Focus on Bark-beetle attacks

Over the last few years, Central European forests (but also parts of Sweden, France, and Belgium) have been ravaged by unprecedented bark-beetle outbreaks. Climate-induced warming is probably one of the culprits as unusually high temperatures as well as widespread droughts have fostered the good conditions for beetles to proliferate.

This has had profound repercussions for the European woodworking industry as a lot more raw materials were available for the industry, but they had to be processed quickly in order not to let the wood rot in the forest. Some of these logs could not be processed in time and had to be exported to China (see special focus on China for more information).

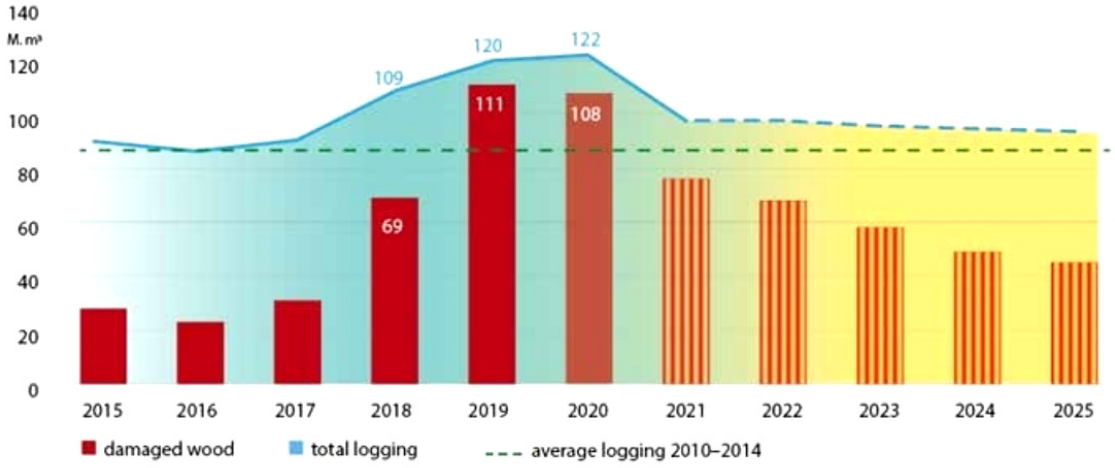
2020 was another significant year in terms of damaged wood in Central Europe. A total of 108 million m^3 accumulated in Austria (6 million m^3) and mostly in the Czech Republic (at least 30 million m^3) and Germany (72 million m^3). However, the spring has been much cooler than the past ones and as a result bark-beetle outbreaks are expected to be less widespread than in past years.

Germany forecasts "only" 40 million m^3 of damaged wood for this year. This could be an opportunity to return to normal harvest volumes in Central Europe, that is 17 to 18 million m^3 in Austria and 50 to 55 million m^3 in Germany. The Czech Republic probably won't succeed in halving its harvest from 2020 to 2021. In 2020, 30 million m^3 were

harvested. 15 million m³ are the average logging volume of the years 2010 to 2015.
With 60 million m³, damaged wood accounts for nearly three quarters of the overall 2020 logging volume in Germany. Last year, the already big quantity of 46.2 million m³ of damaged wood rose by 30% to 60.1 million m³. Softwood logs account for 88.9% of the harvested damaged wood. Overall logging amounted to 80.4 million m³.

According to Destatis, the German Statistical Office, the logging of damaged wood increased nearly five-fold since 2017 (2017: 12.3 million m³). The volume of harvested insect-damaged wood clearly exceeded the volumes of the record years 2018 (11.3 million m³) and 2019 (31.7 million m³). Compared to 2017, a seven-fold increase was recorded. In the years from 2010 to 2017, only 0.9 to 6 million m³ of insect-damaged wood were logged each year.

Fig. 2.4 Damaged Wood across Central Europe, million m³, historical and forecasts



Sources: Destatis, BMEL, CZSO, CTK, HEM, FHP/LKÖ; 2015-2019: actual figures, 2020: official estimates/preliminary data
2021-2025: Holzkuriers projection | © Holzkurier 2021

Accumulation of damaged wood in Central Europe from 2015 to 2025 © holzkurier.com

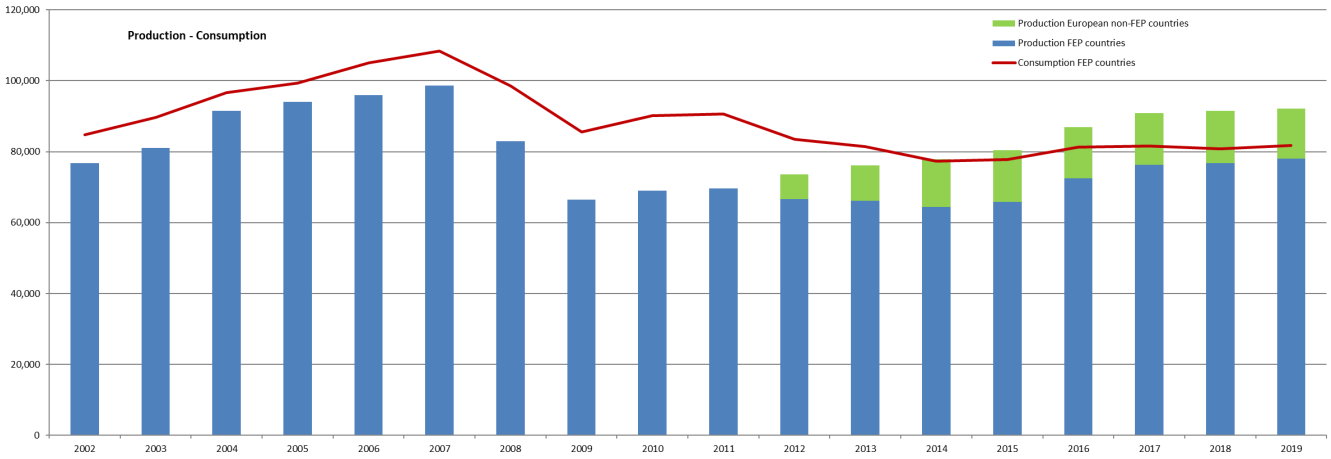
2.3 Overview of the European parquet market by FEP – the European Federation of the Parquet industry

Market developments in 2019 – the European parquet market improved moderately

After a year of slight contraction (<-1%) in 2018, the overall consumption figures of parquet in Europe upturned by +1.2% in 2019 to reach 81,766,700 m². The market improvement was mainly due to increases of parquet consumption observed in Germany, Poland, France, and Italy. On the other hand, Scandinavia reported declines.
In terms of consumption per country, Germany reinforces its first position with 21.1%. France at 10.6% and Italy at 10.6% complete the podium. Sweden at 10.1% gets the fourth seat. Austria with 8.0% keeps its fifth position while the Nordic Cluster (7.2%), Switzerland (7.0%) and Spain (7.0%) follow.
The production in FEP territory rose by 1.6% and exceeded the 78 million m² threshold. The European production outside FEP countries was at an estimated 14.2 million m² – 8.7 million m² produced in EU countries and 5.5 million m² in European non-EU countries. Taking into account the total production in Europe (FEP countries + non-FEP countries in Europe) implies that production in 2019 rose slightly by 0.7% and exceeded 92 million m².

In absolute production figures by country, Poland maintains its top position with 16.9%. Sweden keeps its second place on the podium with 14.5%. It is followed by Austria at 12.5%, while Germany comes in as fourth (11.3%).
The 2019 total parquet production per type remains similar to the picture already presented from 2010 onwards, whereby multilayer comes in first with 83%, being followed by solid (including lamparquet) with 16% and mosaic at a stable 1% of the total cake.
The usage of wood species in 2019 indicates that the share of oak remains stable and reaches 80.6%. Tropical wood species represent 3.4% of used wood. Ash and beech are

Figure 2.5: European production and consumption of parquet in thousand m^2, 2002-2019



still the two other most common chosen species with 7.2% and 2.0% respectively.

Estimates for the year 2020 – the European parquet market managed to remain flat, led by renovation and its increased use of real wood flooring

The good start of the year observed at the very beginning of 2020 has unfortunately to be balanced with the surge of the Covid-19. In a nutshell, during spring 2020, the situation got worse when going from north to south of Europe which was hit earlier and harder by the pandemic. Italy, Spain, but also France or Belgium have been locked down for weeks. Non-German speaking parts of Switzerland and Austria were also confronted to this kind of situation. On the other hand, the activity never really stopped in Germany and some shops, such as DIY, were open during the first wave. And no drastic confinement measures were taken in Scandinavia where life remained as normal as possible.

Whole in whole, the consumption figures of parquet in Europe remained stable in 2020 despite the pandemic. As usual, the results show variations from country to country, also reflecting the evolution of the illness and the related governmental measures in the different Member States.

Austria, Sweden, Switzerland, and, to a lesser extent, Spain, have totally, or partially, compensated, during the second half of 2020, the bad performance observed in March-April. Still on the positive side, parquet consumption in Germany, the biggest European parquet market, has grown further also driven by renovation. On the other hand, despite a good summer and a good renovation rate, France and Italy have not been able to offset the loss experienced during the spring lockdown and report declines in parquet consumption.

While there are uncertainties for the future regarding the continuous impacts of the pandemic, the restart of travels thanks to vaccines and the long-term economic consequences (recession, reduced public spending and decline in new projects), some habits have changed and this crisis also represents an opportunity for the Parquet industry, which has already well benefitted from the increase of the renovation rate and of its relatively higher use of wood.

It seems that not only the European authorities have now understood the positive role played by wood and wood products to tackle climate change by ***saving*** CO_2, but the end-consumers as well, bringing nature into their homes!

A first look at 2021 – the European parquet market gained momentum during spring but is facing difficult raw materials supply conditions

The European parquet market has generally slowly started the year 2021 with stable to slightly increasing consumption in January and February. This positive trend has accelerated in March and April, still driven by renovation.

The provisional results for the first quarter 2021 indicate increasing parquet consumption (also compared to 2019, as 2020 was a very specific year with the surge of Covid-19) in all countries but Spain. Germany and Italy report stable consumption levels during the two first months of the year but which were already rising in March and especially April.

These positive developments are nevertheless tempered by the issue of tight supplies of raw materials and their significantly increasing costs. This phenomenon does not only concern wood and wood-based products but also glues, lacquers, packaging, etc.

2.4 Overview of the European panel market by EPF – the European Panel Federation

Wood-based panels industry in 2019

General overview

After four years of uninterrupted growth, total wood-based panels production in the EPF countries contracted in 2019 by 1.8% to nearly 59.2 million m^3 (Table II.1). The apparent consumption of wood-based panels followed a similar trend, but decreased to a lesser extent than production at the rate of 0.7% to nearly 61 million m^3. As apparent consumption exceeded the domestic production, the EPF countries registered an expanding trade deficit position in wood-based panels markets in 2019 at nearly 1.8 million m^3. This net import position is essentially driven by the plywood segment, which offset the net export position in other wood-based panels sectors such as particleboard, MDF, OSB and fibreboard. Indeed, the share of extra-EU imports in the European plywood sector reached more than 60% of plywood apparent consumption in 2019.

Table 2.1: Key figures of the Wood-based Panel* industry in EPF countries x 1,000 m_3, 2014-2019

	2014	2015	2016	2017	2018	2019	*19/18*
Production	53,825	55,739	57,371	59,369	60,290	59,185	*-1.8%*
Net Imports[1]	174	-157	340	246	1,108	1,797	*62.3%*
Apparent Consumption[2]	53,999	55,582	57,711	59,615	61,397	60,983	*-0.7%*

* includes particleboard, MDF, OSB, hardboard, softboard and plywood
1 negative net imports means net exports
2 for hardboard and softboard, production is considered

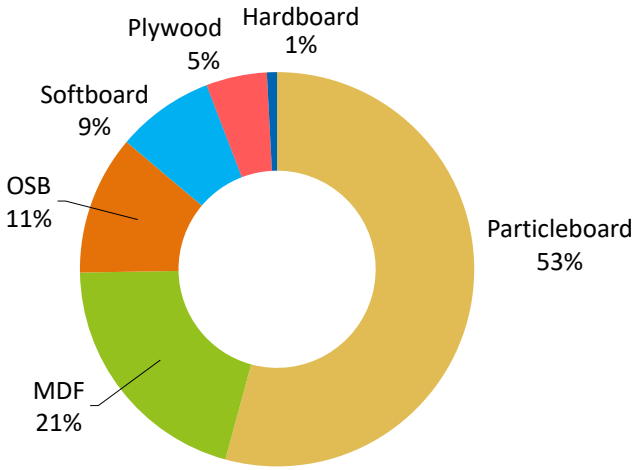
Production

The production of all wood-based panels (WBP) dropped in 2019 in EPF countries, except particleboard which posted a mild increase of 0.5% partly thanks to continued capacity expansions (Table II.2). As particleboard represented more than half (53%) of total WBP production, its increase partially offset the production drop in other sectors. With 10% of share in total WBP production, European softboard industry posted the largest relative decrease in production at -8.6% due to announced capacity closures. The next largest relative drop took place in the plywood industry (-7.8%), which had a share of 5% in 2019. Although being the smallest WBP sector in Europe (1% of share), hardboard production weakened by 7.3%. As the second the most important WBP sector in EPF countries, MDF production (21%) contracted to a lesser extent at 3.7% due to announced capacity closures. Finally, OSB production moved down mildly by 0.8% and had a share of 11% in 2019.

Table 2.2: Overview of Wood-Based Panels Production in EPF countries in 2014-2019

Production, million m^3	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	***19/18***
Particleboard	29,514	30,188	30,559	31,334	31,939	32,095	*0.5%*
MDF	11,520	12,027	12,140	12,564	12,604	12,136	*-3.7%*
OSB	5,426	5,731	6,625	6,903	6,828	6,771	*-0.8%*
Hardboard	570	574	542	526	530	491	*-7.3%*
Softboard	4,003	4,403	4,579	4,895	5,184	4,738	*-8.6%*
Plywood	2,792	2,816	2,926	3,149	3,206	2,954	*-7.8%*
Total wood-based panels	**53,825**	**55,739**	**57,371**	**59,369**	**60,290**	**59,185**	***-1.8%***

Figure 2.6: Share of wood-based panels production by type in EPF countries in 2019



Development in 2020

Despite challenges that the COVID-19 pandemic brought to the economy in Europe and outside, total wood-based panels production in the EPF countries posted a mild contraction in 2020 by 2.1% to 58 million m^3. The apparent consumption of wood-based panels followed a similar trend but decreased at a slightly higher rate than production (-2.7%) and amounted to 59.1 million m^3.

3. Overview of the industrial roundwood and sawnwood markets – special focuses on the US, Canada and China

Updated global data that keep into account the disruption in the markets caused by Covid-19 are at this writing unavailable (April 2021). The first part of this chapter will present the top 20 largest producers, importers and exporters of industrial roundwood, sawn softwood and sawn hardwood at global level. These macro-figures help understand the most important players in the woodworking industry at global level even though the latest available data of this kind date back to 2019. However, statistics and considerations for North America and China (see sections 3.2, 3.3, 3.4 of this chapter) already incorporate the unforeseen developments caused by Covid-19. The special focuses have been written by authoritative market experts. The EOS Secretariat expresses gratitude to these authors for having enhanced this edition of our Annual Report. Together with the exhaustive overview of European markets (in chapter 4), these two chapters provide a comprehensive and specific update on the sawnwood markets.

3.1 Largest global producers, exporters, and importers of industrial roundwood, sawn softwood and sawn hardwood

Industrial Roundwood

Table 3.1: World largest producers, exporters and importers of roundwood, 2019, m^3

Removals		Exports		Imports	
United States of America	387,701,948	New Zealand	22,665,805	China	64,318,320
Russian Federation	203,193,943	Russian Federation	15,857,000	Austria	10,504,573
China	181,702,877	Czechia	14,145,828	Sweden	8,791,472
Canada	143,994,045	Germany	8,558,019	Germany	7,270,611
Brazil	142,989,000	United States of America	7,800,500	Finland	6,233,960
Indonesia	83,346,000	Canada	7,547,771	Canada	4,710,253
Sweden	68,500,000	Australia	6,327,822	Republic of Korea	4,281,141
Finland	55,950,637	Poland	4,174,902	India	4,234,770
Germany	53,424,948	France	3,876,696	Belgium	3,889,299
India	49,517,000	Papua New Guinea	3,752,924	Italy	3,211,633
Chile	47,595,344	Norway	3,648,503	Japan	3,032,417
Poland	38,853,030	Belgium	2,706,630	Viet Nam	2,624,001
Viet Nam	37,335,420	Latvia	2,651,872	Portugal	2,273,883
New Zealand	35,969,000	Solomon Islands	2,584,328	United States of America	1,803,643
Australia	32,710,375	Estonia	2,396,267	Slovakia	1,534,303
Czechia	26,664,000	Spain	1,947,264	Czechia	1,353,142
France	25,654,926	Uruguay	1,941,568	France	1,262,550
Japan	23,417,000	Lithuania	1,888,736	Latvia	1,228,879
Turkey	22,700,000	Slovenia	1,725,745	Poland	1,155,216
South Africa	16,297,408	Slovakia	1,711,199	Romania	1,138,999

Source: UNECE/FAO 2021 and EOS re-elaboration

Sawn Softwood

Table 3.2: World largest producers, exporters and importers of sawn softwood, 2019, m^3

Production		Exports		Imports	
United States of America	60,042,300	Russian Federation	31,474,000	China	29,700,897
Canada	41,510,304	Canada	27,713,922	United States of America	24,551,816
Russian Federation	41,266,000	Sweden	12,601,014	United Kingdom	6,434,619
China	40,245,000	Finland	8,954,937	Japan	5,511,648
Germany	23,306,983	Germany	8,786,847	Germany	4,797,155
Sweden	18,630,000	Austria	6,089,639	Italy	3,740,797
Finland	11,360,000	Belarus	3,987,025	Egypt	3,619,580
Austria	10,343,000	Chile	3,662,848	Netherlands	2,988,900
Japan	8,282,000	Czechia	3,520,000	Uzbekistan	2,744,472
Chile	8,025,300	Latvia	2,764,000	France	2,478,309
Brazil	7,840,000	United States of America	2,304,637	Denmark	2,144,015
France	6,559,000	Brazil	2,129,456	Republic of Korea	1,847,486
Turkey	5,950,000	New Zealand	1,939,369	Saudi Arabia	1,821,682
Belarus	5,105,000	Ukraine	1,720,200	Austria	1,785,791
Czechia	4,675,000	Belgium	1,238,629	Mexico	1,759,000
Poland	4,400,000	Romania	1,192,946	Algeria	1,563,498
New Zealand	4,332,000	Estonia	1,005,350	Belgium	1,464,177
Romania	3,999,400	Slovenia	961,790	Estonia	1,177,515
Australia	3,923,998	France	940,764	Latvia	1,170,000
United Kingdom	3,409,780	Poland	862,029	Lithuania	1,082,579

Source: UNECE/FAO 2021 and EOS re-elaboration

Sawn Hardwood

Table 3.3: World largest producers, exporters and importers of sawn hardwood, 2019, m^3

Production		Exports		Imports	
China	50,047,700	Thailand	3,923,514	China	9,748,529
United States of America	22,429,400	United States of America	3,708,790	Viet Nam	1,880,000
Viet Nam	6,000,000	Russian Federation	1,888,000	Canada	887,279
India	4,889,000	Malaysia	1,795,364	Denmark*	834,031
Thailand	4,500,000	Cameroon	1,046,000	Italy	792,903
Malaysia	3,372,296	Croatia	1,022,079	United States of America	771,564
Russian Federation	3,200,000	Gabon	846,499	Egypt	664,649
Indonesia	2,640,000	Germany	759,540	United Kingdom	602,509
Brazil	2,400,000	Canada	598,183	India	507,288
Turkey	2,400,000	Romania	534,237	Belgium	497,042
Nigeria	2,000,000	France	532,083	Germany	401,091
Myanmar	1,750,000	Brazil	494,536	Mexico	382,384
Romania	1,600,000	Latvia	438,000	Netherlands	366,100
Croatia	1,390,566	Belgium	403,701	Thailand	341,000
Argentina	1,315,330	Indonesia	356,000	Czechia	327,082
Bosnia and Herzegovina	1,300,000	Ukraine	333,300	France	286,717
Cameroon	1,300,000	Philippines	296,730	Poland	276,915
Germany	1,266,369	Bosnia and Herzegovina	265,780	Malaysia	229,000
France	1,254,000	Serbia	253,000	Japan	196,633
Canada	978,600	Lithuania	251,474	Austria	195,691

Source: UNECE/FAO 2021 and EOS re-elaboration

*FAOStat Danish data differ significantly from EOS Danish data

3.2 Canada

EOS expresses gratitude to Russ Taylor for the special focus on the Canadian market

Canada Lumber Industry & Export Trends/Outlook

As background, Russ Taylor has conducted extensive analysis on the Canada lumber industry for almost 35 years. He and his BC colleagues correctly forecasted back in 2010 that there would be a dramatic downturn in the BC Interior SPF lumber industry from the mountain pine beetle epidemic by the end of the decade. And in the same year, predictions about a "lumber super-cycle" were made that were tied, in part, to a mid-term reduction in BC's production and the tightening supply constraints in other parts of North America. These outlooks have all come true and, at the same time, Canada is no longer the lumber powerhouse that it was in previous decades. BC, in particular, is looking like a shadow of its former self with further even reductions expected in its fibre supply.

In terms of 2020, the onset of the pandemic impacted global sawnwood markets positively, as unprecedented demand caused shortages and soaring prices, most notably in the US as well as the Canadian market. This has continued unabated in 2021, setting the stage for a record year in sawnwood prices.

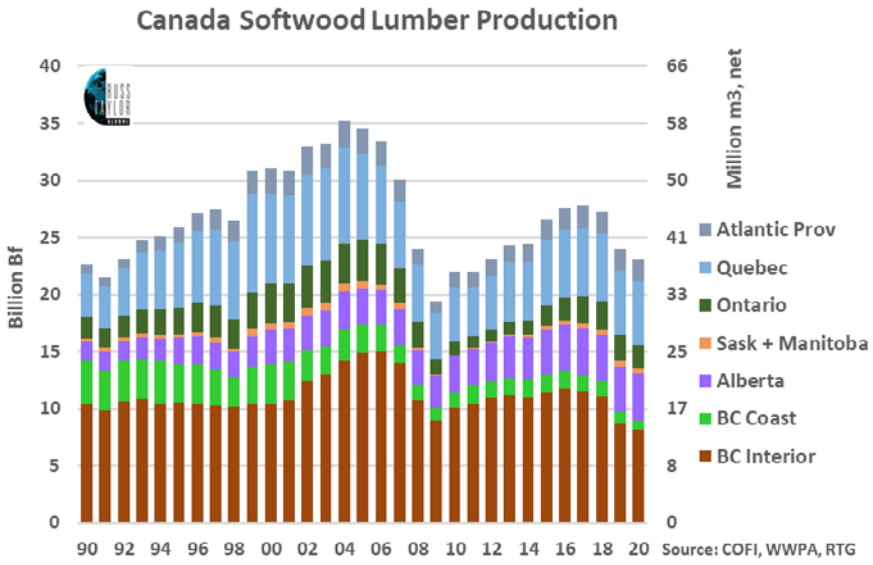
Canada Lumber Production

At the onset of the pandemic, global sawnwood production collectively curtailed for some 4-8 weeks before the surge in repair and renovation markets was recognized. US and Canadian production also curtailed quickly, but only US production was able to rebound – a 4.3% gain was recorded by the end of 2020 as compared to 2019. Canadian production ended the year with a 4.0% reduction where production was decreasing on a quarterly basis from 2020-Q1 and onward – both in BC and the rest of Canada. And this was despite soaring prices! Various factors interrupted a steady production flow, including some curtailments due to COVID, supply chain hiccups and other weather-based and production factors. About 90% of the Canadian forest industry operates on provincial crown lands (and some Federal lands). Provincial forest policies have been negatively impacting the timber supply in key producing provinces for decades where the economic log supply has dwindled. As a result, the annual allowable timber harvests in many provinces have peaked or are declining - this has resulted in flat to declining sawnwood production since the peak in 2005.

While the Canadian sawmill industry features some of the lowest cost sawmills in the world, the volume, quality and economics of the timber supply in much of Canada has eroded the competitiveness of its sawmills. This is partly impacting new investments, as without the opportunity to operate under clear forest policies, many larger companies have chosen to expand outside of Canada - especially in the US South and even Sweden. As a result, the growth prospects of the Canadian sawmilling industry going forward could become more limited in some provinces.

Looking back to 1990, Canada produced 22.67 billion bf (36.4 million m^3, net) of lumber (sawnwood), and it peaked in 2004 at 35.23 billion bf. However, in 2020, production was only 23.06 billon bf, or almost back to 1990 levels. A lot of this reduction is tied to the fortunes of the BC lumber industry, as discussed below. All other regions in Canada increased output between 1990 and 2020, led by Alberta (+2.47 billon bf) and Quebec (+1.75 billion bf). The increases for the other provinces totalled 5.66 billion bf against 5.28 billion bf in production losses in BC, for a net gain in Canada of just 0.38 billion bf of output in 30 years!

Fig. 3.1: Canada Softwood Lumber Production



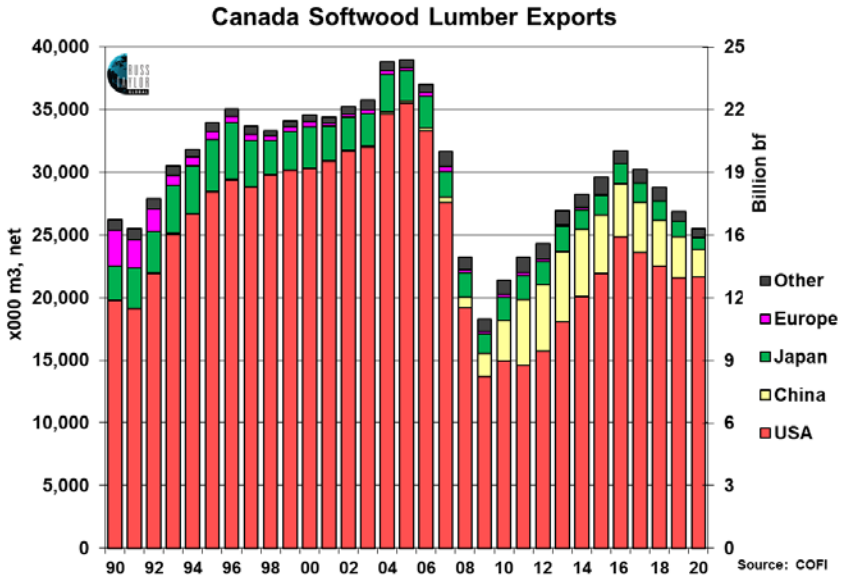
In looking at US lumber production over the last 30 years, the net increase in output is also relatively small – only 1.61 billion bf! Only the US South has increased – some 7.84 billion bf, while declines were recorded elsewhere: the US West Coast (-0.96 billion bf); the US West Inland (-5.56 billion bf) and the US North & East (-0.09 billion bf).

Over the same 30 years, North American lumber consumption has grown by 8.18 billion bf (+15.8%) as compared to total gains in output of only 1.61 billion bf (+2.8%). Consequently, the recent surge in US lumber demand can no longer be met by US and Canadian lumber production and, hence, this is one of the fundamental factors for the current record lumber prices in US. At the same time, more offshore imports are required and a reduction in North American exports are other factors to try and balance demand with supply! This was always the basis of the *lumber super-cycle* that I forecasted back in 2010 – at some point there was going to be a large gap between North American production and demand – it just took a bit longer to happen than initially forecast!

Canada Lumber Exports

Canadian lumber exports in 1990 were 15.88 billion bf and peaked in 2005 at 24.15 billion bf. After plunging during the global financial crisis, exports reached a high of 19.32 billion bf in 2016 before slumping to 15.48 billion bf in 2020.

Fig. 3.2 Canada Softwood Lumber Exports



China was the growth market for Canada following the global financial crisis where amble volumes of low-grade SPF (from beetle-killed timber) were exported from BC to China. Exports peaked in 2013 at 3.4 billion bf and have since fallen in consecutive years to only 1.3 billion bf in 2020. No growth is expected to China in the short-term as lumber prices are just too low – returns are about half relative to sales to the US market.

Japan remains a core and declining market. Canadian exports peaked in 1996 at 2.75 billion bf but have trended lower since then to reach only 592 million bf in 2020. With the recent price spikes, Japan is paying almost the equivalent of US prices and volumes are expected to remain steady, although substitutes have a wide-open field to North American lumber at such high prices.

The US market has represented Canada's largest market – exports peaked in 2005 at 21.5 billion bf but were much lower in 2020 at 13.1 billion bf.

Relative to the US market, the key exporters and their trends are summarized as follows:

- The US is the key market, although Canada's exports have dropped from an 95% market share of US sawn softwood imports in 2000 to 87% in 2020.
- European imports held a 2% import market share in 2000 (rising to 8% in 2005) and in 2020 were over 9%.
- The Southern Hemisphere countries have remained stable – they held a 3.5% import share in both 2000 and 2020.
- These three broad regions have held a 99+% US import market share over the decades.

BC Situation

BC production was 14.20 billion bf in 1990 and peaked in 2005 at 17.39 billion bf. In 2020, production had slipped below the level of 1990 and was at 8.92 billion bf. Of the 30-year drop in output, the BC Interior's production declined by 2.31 billion bf and the BC Coast was even more at 2.97 billion bf.

In 1990, BC represented 63% of Canada's total sawnwood production; in 2020, it was less than 39%. However, BC still dominates Canada offshore exports – its 2.2 billion bf in 2020 represented 92% of the total. In terms of US exports, BC shipped 5.6 billion bf and represented 43% of Canada's shipments.

The production and export potential of the BC lumber industry continues to fade from a myriad of issues. Aside from the fallout from mountain pine beetle epidemic, there are also many more government looming initiatives that will negatively the fibre supply and industry cost structure (stumpage formula, transfer of tenures to First Nations, fibre recovery zones and penalties, various and export restrictions on logs and cants, caribou protection strategy, AAC reductions, old-growth and parks strategy, environmentalist issues, other bark beetle infestations, etc.).

Outlook

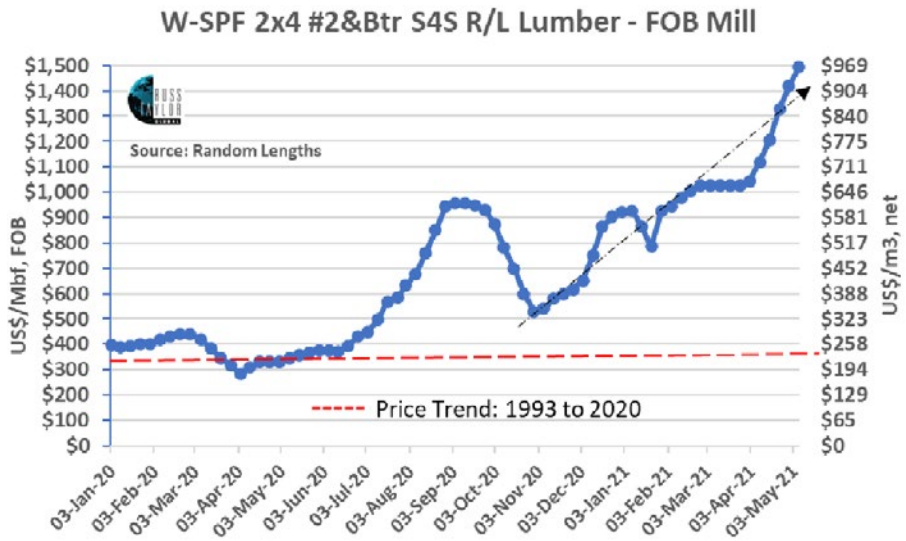
Looking ahead in 2021, the steady demand for wood products in North America continues unabated and there is no incremental lumber supply of any significance to offset this in short term. The US and Canada production may be able to increase output by an additional one billion bf each in in 2021. However, lumber demand is expected to increase by almost 3 billion bf, leaving a gap of almost 1 billion bf for increased imports and decreased exports – a difficult balancing act. High prices will be the catalyst for increased exports from Canada and Europe to the US for the rest of the year!

At the time of this writing (early May 2021) prices for W-SPF 2x4 #2&Better Random Lengths (FOB BC Mill) had jumped to US $1,495/Mbf (US$965/m^3, net). Despite a record run so far, it is possible that the SPF prices could approach $2,000 price ($1,292/m^3, net; or ~$1,375/$m^3$ delivered US East Coast) during this current cycle. As the graph shows, the recent torrid pace in April is unprecedented, but anything seems to be possible this year.

There is a chance that the average W-SPF 2x4 price could average over US$1,000/Mbf ($645/m^3) for 2021 – quite unbelievable, except this year! History suggests, however, that whenever expectations get too lofty, things can change for the negative very quickly. If it is too good to be true, then probably it is not. And nothing cures high lumber prices like high lumber prices. Trying to forecast lumber prices in the unprecedented market is impossible – anyone that does can only be lucky if they are close but will most likely be wrong! As always, the outcome will be played out in the lumber markets and no one can really predict what is going to happen in this crazy cycle until it happens!

Note: Conversions from Board Feet to Cubic Metres:
1 billion bf = 1.6 million m^3, net (2x4 to 2x12).
$1,000/Mbf = $645/$m^3$, net (2x4).

Fig. 3.3: Softwood Lumber Prices



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3.3 USA

EOS expresses gratitude to Paul Jannke for the special focus on the US market

US Sawntimber Markets Have Been Extremely Strong And Will Likely Remain So For The Next Year

It has now been a little over a year since COVID-19 started to surge in the US, and what a crazy year it has been! Initially, sawtimber markets dropped sharply in response to the pandemic. Overall economic activity, as measured by GDP, dropped 31% (annualized) in the second quarter. In markets more closely tied to sawtimber, industrial production fell an annualized 60% in March–April and housing starts dropped from 1.62 million units (SAAR) in January to 0.93 million units in April.

Dealers, seeing this level of economic activity, became afraid of a severe recession and stopped buying sawtimber to draw down inventories. This caused sawtimber prices, as measured by western SPF 2x4 sawtimber, to plunge nearly 30%, from $US252/m^3 (net—meaning converted from $/MBF by dividing by 1.72) to $182/m^3.

Meanwhile, mills, seeing the same weak economic activity, as well as new ordering and prices plunging (as dealers drew down inventory), dramatically cut back production. Total North American sawtimber production fell almost 15% year over year in April–May. On a regional basis, production fell 15–20% in the US West and eastern Canada, and as much as 40% in British Columbia. Even in the US South, where output jumped almost 10% above year-ago levels in the first quarter, production was flat in April–May.

So, dealer stocks were down and mills slashed production. What happened on the demand side surprised everyone: instead of continuing to plunge, end-use markets surged. Industrial production increased 12% over the second quarter while housing starts surged 60% to nearly 1.50 million units in July. Most importantly for sawtimber consumption, residential-improvement expenditures—a measure of additions, alterations, and improvements to the existing housing stock—jumped from $146 billion in March to $170 billion in August.

Why was this? With stay-at-home orders in place across most of the country, US consumers had nothing to spend their time and money on except their houses. They couldn't go to cultural or sporting events. Restaurants were closed, as were museums and retail stores. Finally, travel was severely restricted, so vacations were canceled. What households could do was spend time and money on their homes, and they did.

On the new residential construction side, COVID-19 accelerated US households' trend of moving from high-density to low-density housing. This means we saw a surge in purchases of single-family homes, which use three times the sawtimber of multifamily homes.

With sawtimber demand surging while inventories and production collapsed, prices jumped 75% to $318/m^3 in July. While mills wanted to take advantage of the higher prices, COVID-19 quarantine and isolation restrictions, as well as enhanced government unemployment payments, hampered labor participation. As a result, mills were not able to increase sawtimber production fast enough to meet rising demand and prices increased an additional 75% to $551/m^3 in September.

We did see a seasonal lull in buying in September–October as dealers were hesitant to purchase inventory before the winter slowdown in building. This drove prices down to $339/m^3 in November. However, with the warm winter and strong demand, that slowdown never came and dealers quickly found themselves short of lumber. As a result, lumber prices surged back to nearly $600/m^3 in March. With demand strong and production unable to keep pace, prices have continued to rise, and are now over $900/m^3.

Where do we go from here? The underlying fundamentals of US sawtimber markets are very strong. After more than a decade of underbuilding, we estimate pent-up demand for housing exceeds 3 million units. Moreover, there is a bulge of population in their late 20s and early 30s. These are prime first-time home-buying years. Because of this, we expect new residential construction markets will remain very strong through 2022 and beyond. Meanwhile, the US housing stock was an average 42 years old in 2019. While this will certainly seem young by European standards, it is well above the average of 29 years at the turn of the century. More importantly, the average home built 42 years ago was 162 square meters, while the average new home today is more than 40% larger, at 230 square meters. As a result, US consumers will continue to spend money on adding to and improving their homes, activities that consume a significant amount of sawtimber.

Sawtimber production has been slow to increase in response to skyrocketing prices. This is in part because weak prices in the second half of 2018–19 prevented mills from investing in greenfield (new) capacity. It is also because mills all but

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halted capital expenditures (capex) once COVID-19 hit in Q1 and Q2 of 2020. It took several quarters of high prices before producers became convinced that higher prices were sustainable and capex resumed. However, a greenfield mill takes over a year to bring to fruition and machinery manufacturers quickly became very busy, such that they are currently booking projects in 2023. Therefore, there is very little new capacity coming onstream in 2021.

With end-use markets remaining strong and production having trouble keeping pace, we expect sawtimber prices will remain elevated through most of next year. Does this mean that we will continue to see $900+/m^3 sawtimber prices? The short answer is that this is unlikely.

We do expect sawtimber prices will continue to increase, exceeding $1,000/m^3 over the summer. This will occur as demand remains strong and supply-chain disruptions prevent mills from getting sufficient wood to the markets. However, we typically get a seasonal lull in buying in September–October as dealers draw down inventory in preparation for the winter slowdown in building. With supply-chain disruptions easing over the summer and into the fall, increased shipments as ordering declines will cause prices to decline.

With markets as volatile as they are currently, there is significant risk both for higher and lower prices. If supply-chain disruptions clear up faster than we think, we could see prices drop sooner than we forecast. Risk on the upside centers around the potential for a devastating fire season in the US West. A large portion of the west coast is currently experiencing record drought conditions. If we have extensive wildfires over the summer, production disruptions will cause prices to surge above $1150/m^3.

What does this mean for European sawtimber producers? Demand will remain strong through 2022 and North American supply will have trouble keeping pace with rising demand. Therefore, US buyers and consumers will be looking to offshore producers to help supply domestic consumption. With prices remaining elevated, the US should be an attractive market for European producers. Therefore, we expect offshore imports will increase in 2021–22.

Paul Jannke has been analyzing global wood products markets for nearly three decades. In 2009, Paul co-founded Forest Economic Advisors (FEA) to help industry leaders better understand current markets and future trends. For more information on how FEA can help you, please contact David Battaglia at dbattaglia@getfea.com

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3.4 China and South East Asia

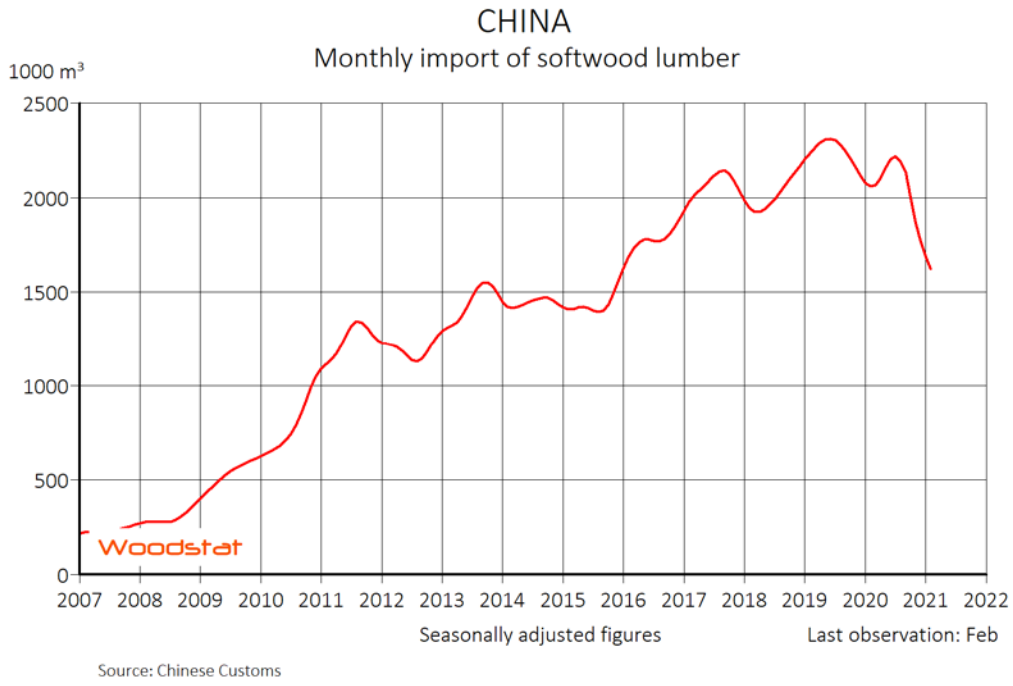
EOS expresses gratitude to Jenny Wessung for the special focus on the Chinese and other South East Asian markets.

China's import of softwood lumber enters a falling trend

China - Softwood lumber

The steady increase in softwood lumber import in China continued during the first six months of 2020, but then entered a falling trend. Softwood lumber import in China during 2020 amounted to 24.8 million m³ which means a decrease by 10% (compared to 2019), according to figures from the Chinese customs. It is worth mentioning that the import ten years ago amounted to only 9.37 million m³. During January-February 2021 the import decreased by 18% to 2.58 million m³ (compared to 2020). The seasonally adjusted trend in February is approximately 1.6 million m³ (figure 1). That figure can be compared to the average figure for 2019 which was 2.25 million m³. However, when looking forward we are convinced that the trend soon will increase again.

Figure 3.4:



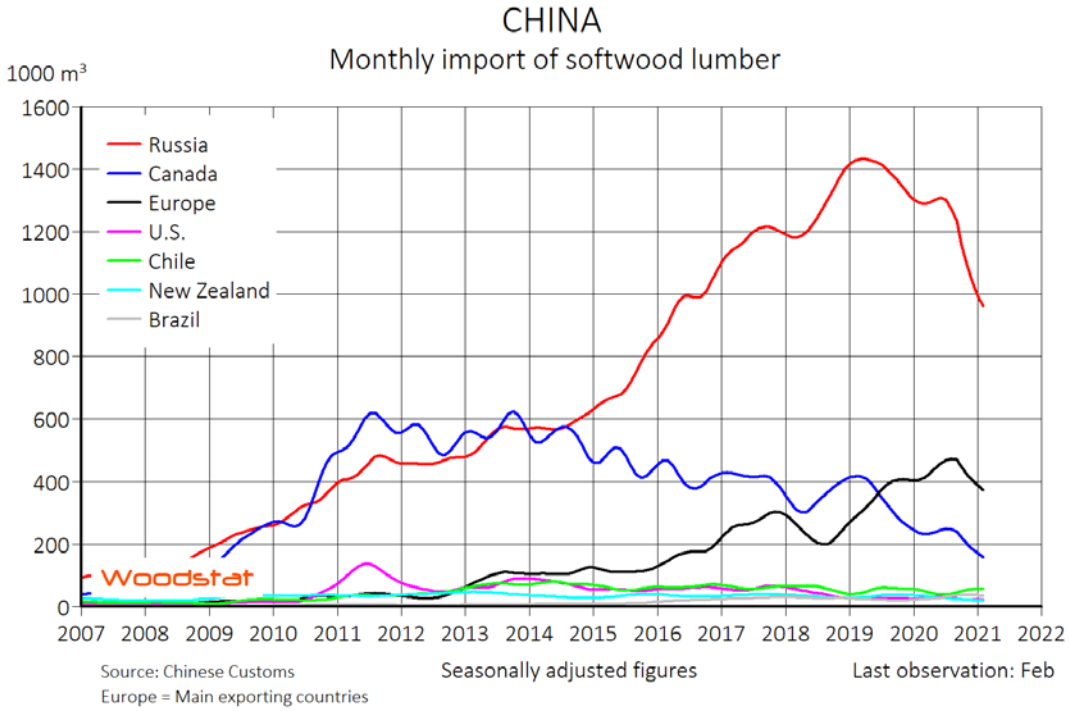
Source: Chinese Customs

Softwood lumber import in the Middle East increased by 4% during 2020 (compared to 2019) and the trend line is in the beginning of 2021 running at the highest level since 2016. Import in North Africa decreased by 14% in 2020 and this is closely linked to a much smaller demand in Egypt. European import increased by 4% during 2020 and this is mainly a result of increased activity in renovation and improvement in the single-family housing sector. Due to the COVID-19 pandemic, many employees stayed at home and invested in renovation. Even in the U.S. heavy investments in single-family housing renovation and improvement increased demand for softwood lumber.

Even if softwood lumber import in China entered a slower phase during last year, China as a softwood lumber importer is of greatest importance when we are talking about balance in the market for softwood lumber worldwide. When including the figures for February 2021, the trend line for import from Russia stabilizes at just below 1.0 million m³. The import from Russia decreased by 13% during 2020 (compared to 2019). The import from Canada during 2020 decreased by no less than 37% and at the same time import from Europe increased by notable 24%. The import trend line (monthly figures) for Europe is at the beginning of 2021 running at approximately 400,000 m³ compared to approximately 200,000 m³ for Canada. Just a few years ago, the situation was reversed. Import from Canada is at the beginning of 2021 at the lowest level since 2009 (figure 2).

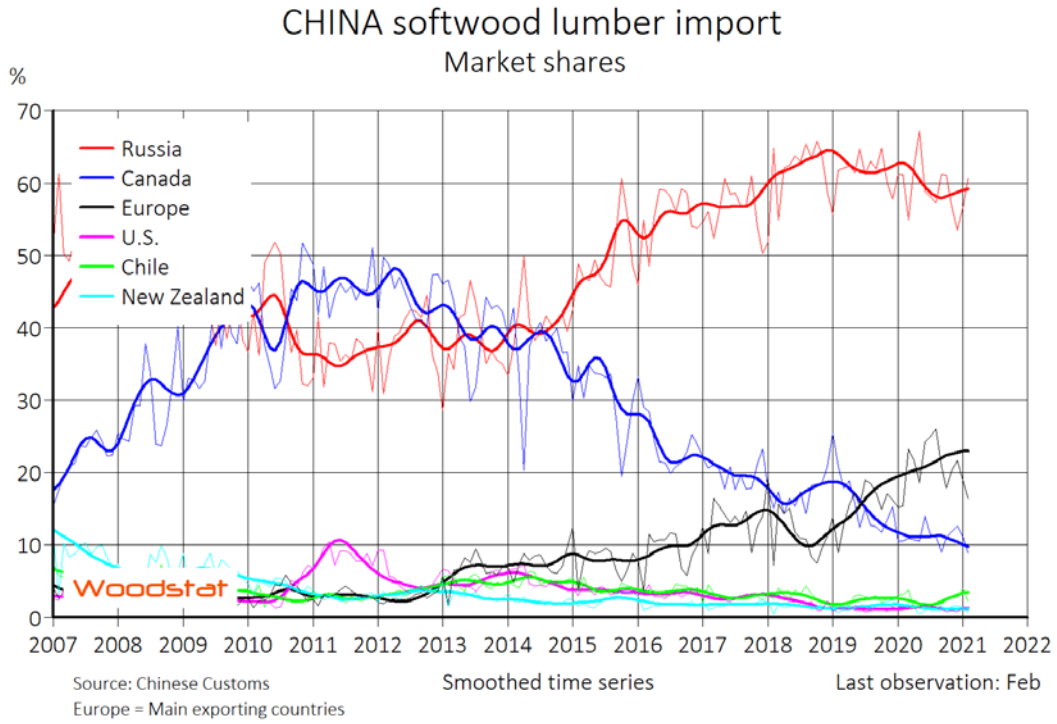
As can be seen in figure 2, Russia totally dominates as a supplier of softwood lumber to China. Eight years ago, Canada was the main supplier. No doubt, during a quite short period we have seen dramatic changes among the main suppliers, where Russia and Europe have taken larger market shares and Canada has lost share.

Figure 3.5:



The smoothed line for the market share for Europe is at the beginning of 2021 running at approximately 23% compared to 8% just five years ago. The market share for Canada decreased during the same period from 25% to 10%. Other exporters have had minor changes (figure 3).

Figure 3.6:



A growing population and massive migration are still the main factors for softwood lumber consumption in China and will continue to support an increasing demand for lumber. The furniture industry was also in 2020 an important consumer of softwood lumber and the forecast is positive. We can see more wooden construction and a growing interest in using lumber as a nature friendly material.

Russia was the main supplier and delivered 14.8 million m³ softwood lumber to China during 2020 (-13% compared to 2019). Second largest supplier was Europe (main European exporters) with a total export of 5.2 million m³ (+24%). The import from Canada was 2.8 million m³ (-37%) (table 1).

Table 3.4:

China's import of softwood lumber (1 000 m³)

	2020	2019	2020/2019
Russia	14 794	16 973	-13%
Europe (excl. Russia)	5 192	4 193	+24%
Canada	2 782	4 391	-37%
Chile	565	654	-14%
Brazil	370	266	+39%
U.S.	306	312	-2%
New Zealand	306	391	-22%
Argentina	120	129	-7%
Other	390	302	+29%
Total	**24 825**	**27 611**	**-10%**

Europe: Main European exporters. Source: Chinese Customs.

When looking at the European exporters we saw a dramatic change during 2020 when Ukraine surpassed Finland and became the European leading exporter. The import from Ukraine increased by 24% to 1.04 million m³. The import from Finland decreased by 22% to 969,000 m³. Import from Germany increased by 36% to 944,000 m³ and is now third largest European exporter. Sweden increased shipments by 26% to 914,000 m³ during 2020. The steady increase from European exporters is shown in table 2.

Table 3.5:

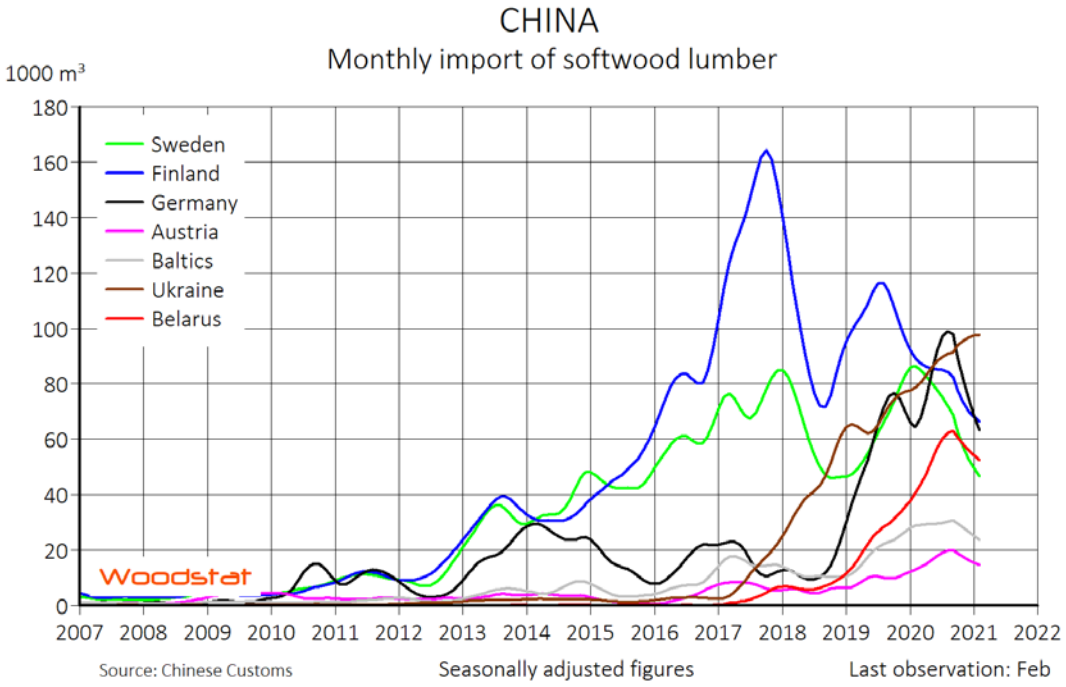
China's import of softwood lumber (1 000 m³) from main European exporters

	2020	2019	2020/2019
Ukraine	1 036	834	+24%
Finland	969	1 238	-22%
Germany	944	692	+36%
Sweden	914	723	+26%
Belarus	637	296	+115%
Baltics	354	221	+60%
Austria	190	111	+71%
Romania	148	78	+90%
Total	**5 192**	**4 193**	**+24%**

Source: Chinese Customs

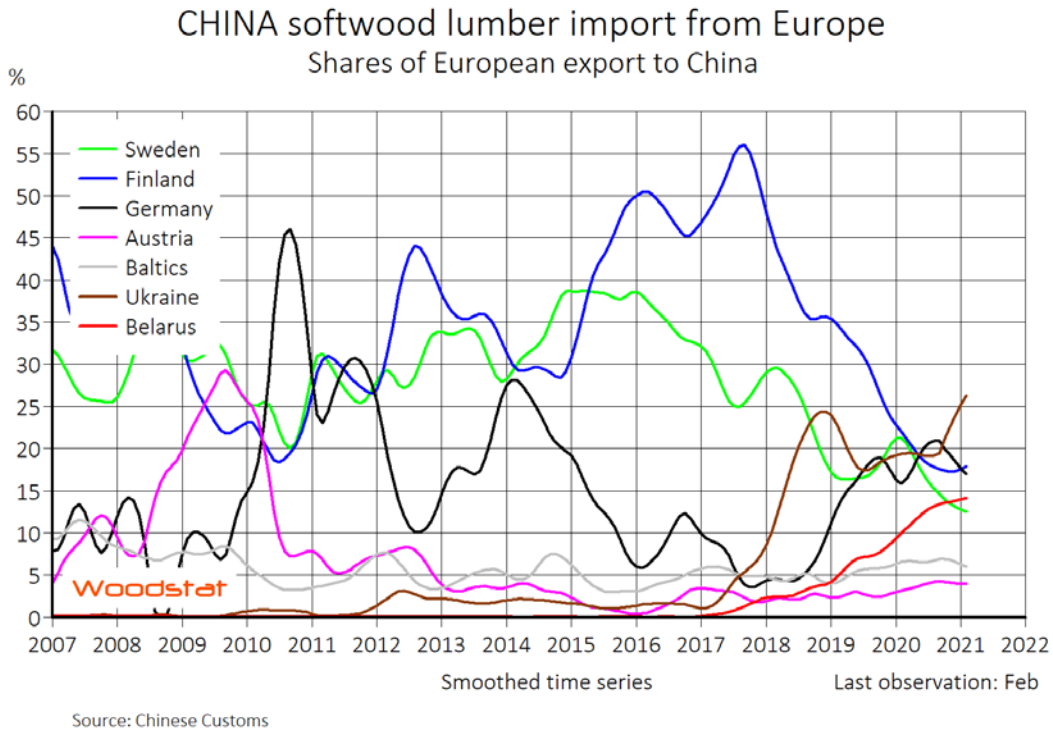
As can be seen in figure 4 the import from the European exporters (excluding Russia) has increased clearly during the past years and several countries reached new top levels during 2020.

Figure 3.7:



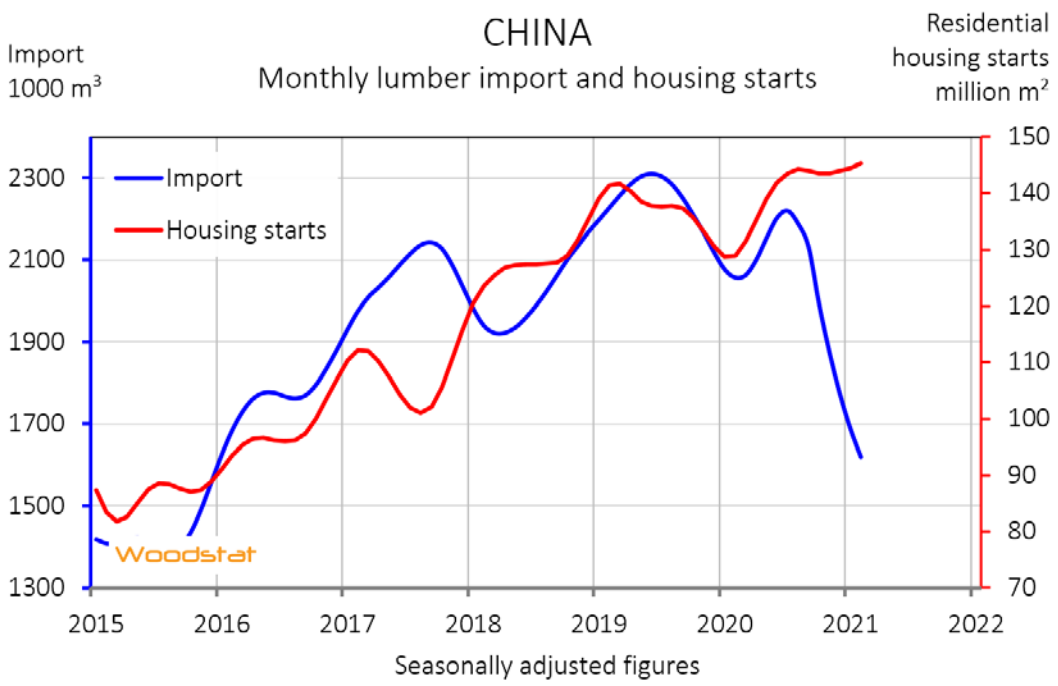
The very strong increase of shipments from Ukraine and Belarus have of course changed the market shares for European exporters dramatically (excluding Russia, smoothed time series). Both Sweden and Finland have reduced their market shares during the past few years and are now at very low levels for each country (figure 5).

Figure 3.8:



There is a correlation between the lumber import and residential housing starts, as can be seen in figure 6. The data include February 2021 figures. With a high level of housing starts and decreasing trend line for lumber import, we have another indication of that the lumber import will increase.

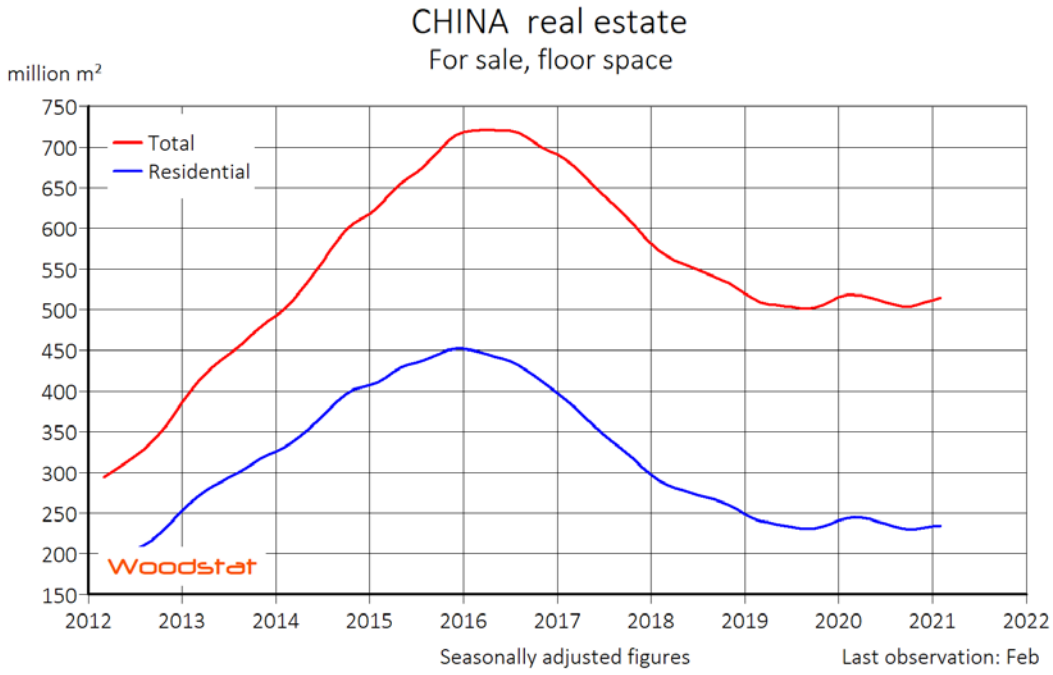
Figure 3.9:



The rapidly increasing import in China is of course closely linked to the construction sector where residential building again is the main sector, but there is still also a strong demand for furniture and other further processed goods. In 2020, the amount of started housing surpassed the amount of sold housing. Housing starts during January-February this year increased by 69% compared to same period 2020 (figure 7). Compared to the situation a few years ago the floorspace for sale is much lower (figure 8). This stabilizes the building industry long term, and the ongoing urbanization is an important factor and will no doubt increase the demand for residential buildings further.

Figure 3.10:

Figure 3.11:

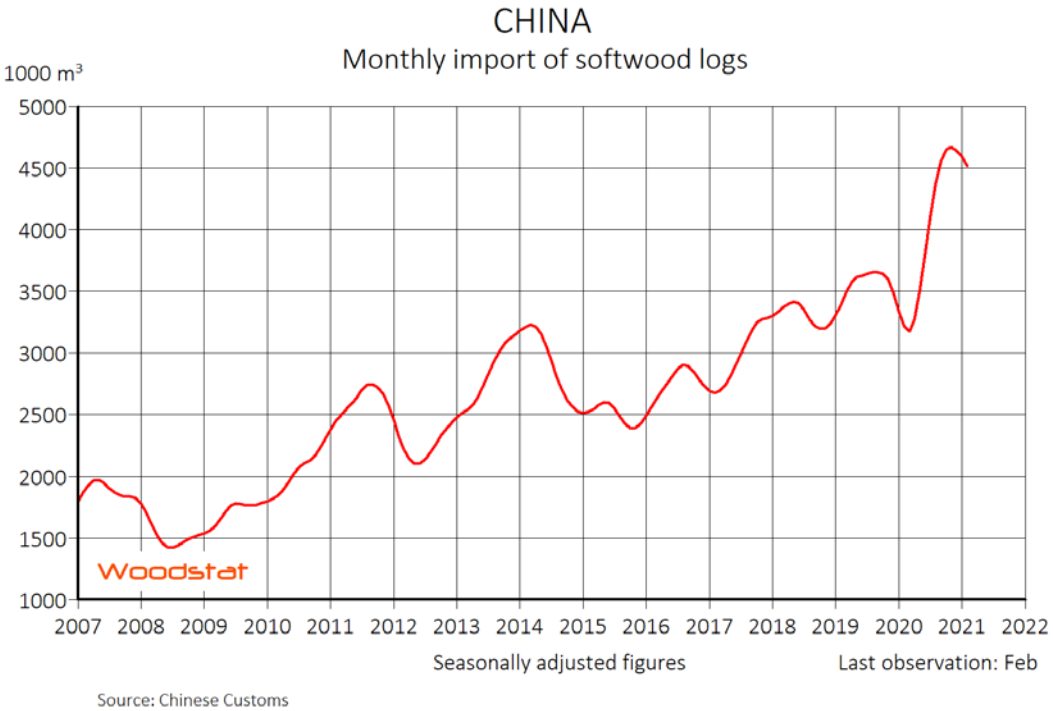


Source: China Statistical Information Network

China – Softwood logs

Total import of softwood logs in China has increased clearly since 2009 and was at the beginning of 2021 running at approximately 4.5 million m³ monthly (seasonally adjusted figures). The import during 2020 totaled 46.7 million m³ (+6% compared to 2019) (figure 9).

Figure 3.12:



Source: Chinese Customs

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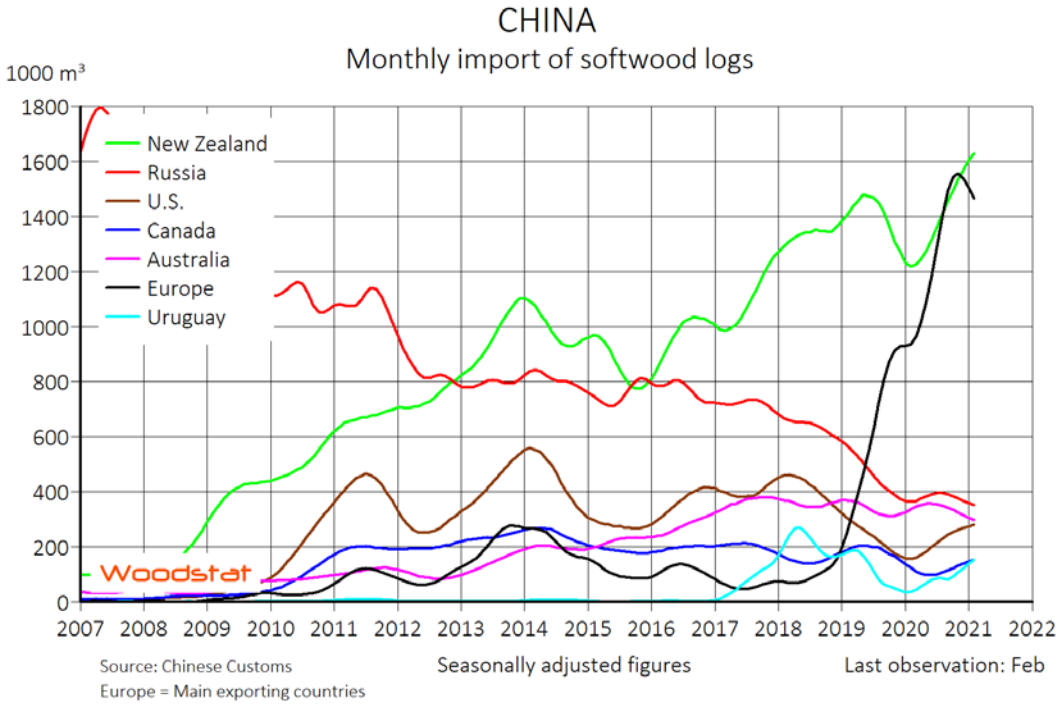
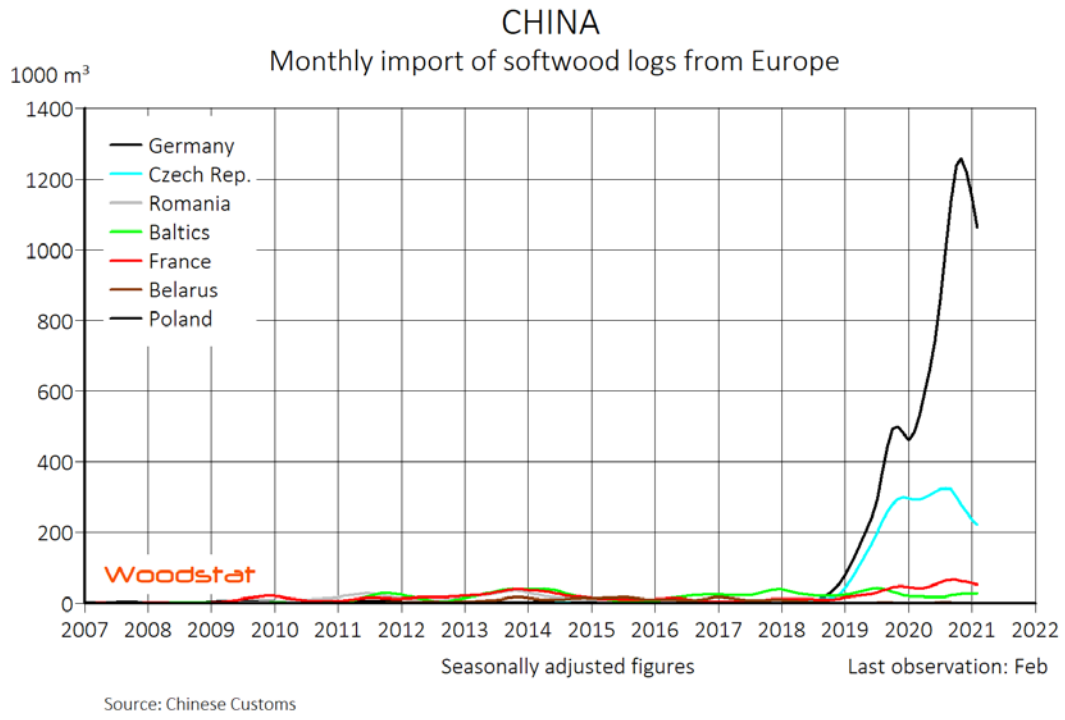
As can be seen in figure 10, import of softwood logs from Russia is running at a low level according to official statistics from the Chinese customs. Volumes from Europe are at the beginning of 2021 at very high volumes. New Zealand was still the main supplier during 2020 and the trend line is increasing at a record high level. Import of logs from Europe has increased dramatically since the beginning of 2019 and this is of course a result from attack from bark beetles. However, when looking forward, volumes from Europe will decrease rapidly. In October 2020, the Russian President Putin gave instructions to the government to introduce a complete ban on the export of unprocessed or roughly processed wood from January 1, 2022. The president said in a press release "I ask the government to prepare a legislative and regulatory framework for solving the following tasks: it is necessary, finally, to put a rigid barrier against uncontrolled export of unprocessed timber". Instead of timber processing, Russia is exporting raw materials, "smuggling them out," the president elaborated. So, the main question will be where to find larger volumes of softwood logs when looking forward.

Figure 3.13:



The import of softwood logs from Europe comes mainly from Germany and the Czech Republic. Both countries had a massive increase of shipments during 2020 by +162% and 47% respectively (compared to 2019). The import from Czech Republic entered a falling trend during the second half of 2020 but remains at a high level for the country. The import from Germany is also decreasing when we include the figures for February 2021 (figure 11).

Figure 3.14:

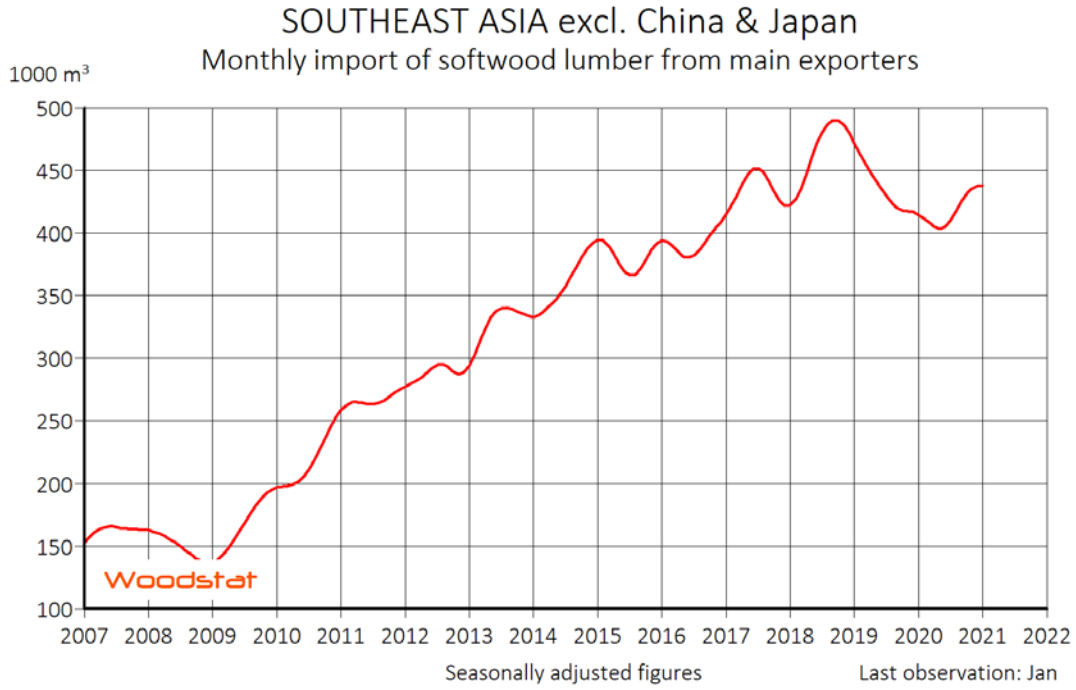


Source: Chinese Customs

Southeast Asia (excluding China and Japan) – Softwood lumber

In Southeast Asia, China and Japan are the main importers of softwood lumber, but many other countries in the region have increased their import substantially compared to the situation ten years ago. However, since the beginning of 2019 the total import in the countries in the region entered a slightly lower phase but since Q2 2020 the trend is increasing again and running at a monthly average level of almost 450,000 m³ (figure 12).

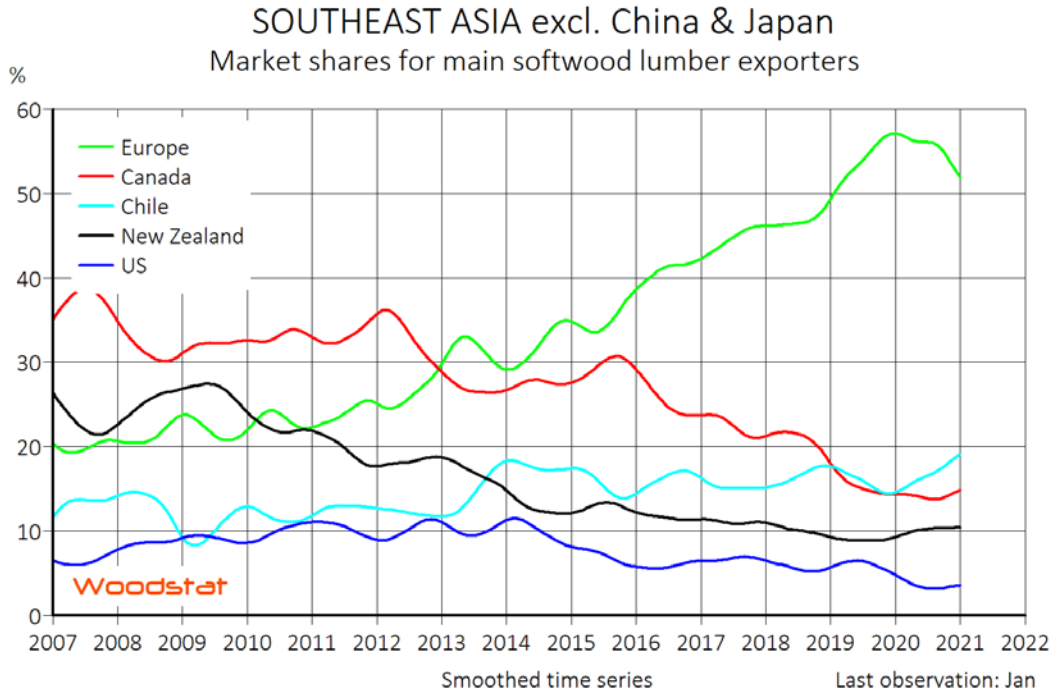
Figure 3.15:



Source: Eurostat, Russian Customs, USDA, Statistics Canada, Stats NZ, Ukraine Statistics, Belstat, INFOR

As can be seen in figure 13, European exporters (Russia included) have also gained market shares rapidly in this region. The market share for Europe has increased from just over 20% in 2007 to approximately 55% in 2020. Chile is now second largest exporter with a market share close to 20%.

Figure 3.16:



Source: Eurostat, Russian Customs, USDA, Statistics Canada, Stats NZ, Ukraine Statistics, Belstat, INFOR

South Korea is the main importer when we analyze the softwood lumber import in the region from main exporters (excluding China and Japan). The import decreased by 4% during 2020, but the trend line for the import is in a slightly increasing trend at the beginning of 2021. Vietnam had a clearly increasing trend line during 2020 (figure 14). In India there is a high demand for new housing because of low interest rates. As a result of the COVID-19 pandemic, many employees are working from home and are now looking for larger homes.

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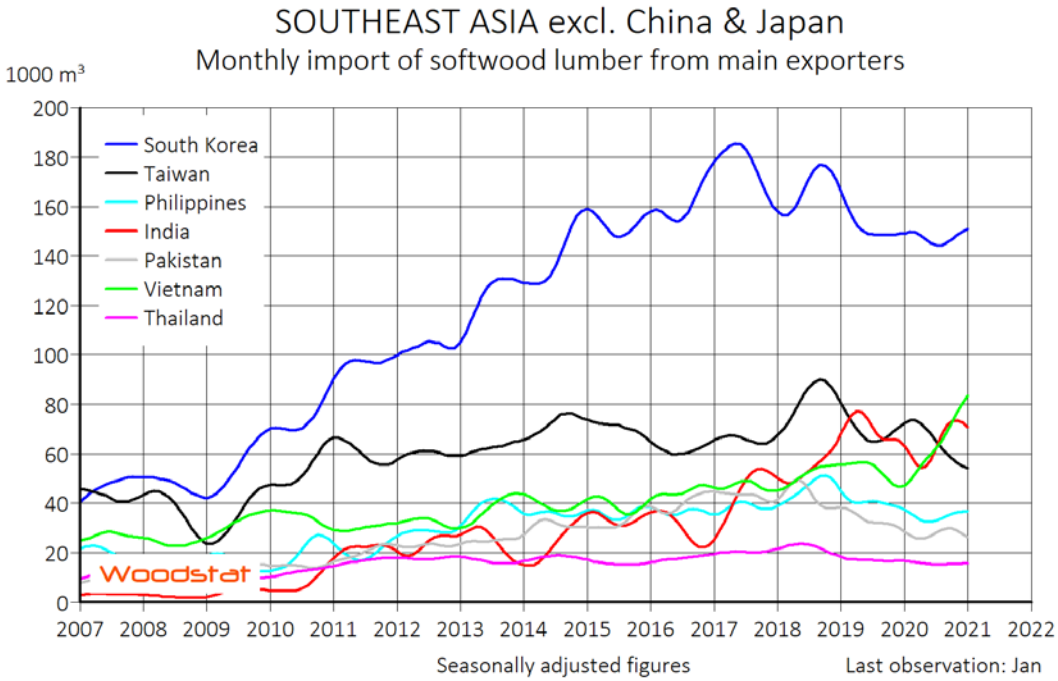
Figure 3.17:



Source: Eurostat, Russian Customs, USDA, Statistics Canada, Stats NZ, Ukraine Statistics, Belstat, INFOR

Total softwood lumber import in the region decreased by 4% during 2020 to 5.0 million m³ (compared to 2019). Increased import was seen in Taiwan and Vietnam. The other countries imported lower volumes (table 3). The forecast for the region is positive.

Table 3.6:

The Southeast Asian (China and Japan excluded) import of softwood lumber (1 000 m³) from main exporters

Importer	2020	2019	2020/2019
South Korea	1 742	1 808	-4%
Taiwan	816	803	+2%
India	749	863	-13%
Vietnam	727	634	+15%
Philippines	421	482	-13%
Pakistan	323	404	-20%
Thailand	193	208	-7%
Total	**4 971**	**5 202**	**-4%**

Sources: Eurostat, Russian Customs, USDA, Statistics Canada, Stats NZ, Ukraine Statistics, Beltstat

Chile and Canada were the main suppliers to the region during 2020 and they lowered shipments by 4% and 10% respectively (compared to 2019). Germany was third largest exporter and decreased the volume with 11%. Fourth largest exporter New Zealand increased export by 7%. It is worth mentioning that Europe (excluding Russia) exported 2.36 million m³ during 2019, which means a market share of 47% (table 4).

Table 3.7:

Woodstat	The Southeast Asian (China and Japan excluded) import of softwood lumber (1 000 m³) from main exporters		
Exporter	**2020**	**2019**	**2020/2019**
Chile	784	816	-4%
Canada	720	798	-10%
Germany	682	769	-11%
New Zealand	498	465	+7%
Russia	437	468	-7%
Austria-Slovenia	420	315	+33%
Baltics	365	368	-1%
Sweden	317	290	+9%
Ukraine	300	287	+5%
Finland	186	224	-17%
U.S.	175	308	-43%
Romania	84	91	-8%
Belarus	3	3	-
Total	**4 971**	**5 202**	**-4%**

Sources: Eurostat, Russian Customs, USDA, Statistics Canada, Stats NZ, Ukraine Statistics, Beltstat

When looking forward, we can expect a growing demand for softwood lumber in many areas worldwide.

In many countries we can see a fast-growing interest in using softwood lumber in construction. This is of course very closed linked to the problem with carbon dioxide and global heating. We can also see a growing interest in high rise wooden buildings. Also, in the U.S. and many European countries we have seen many employees working from home, due to COVID-19. To some extent, this will no doubt continue after the end of the pandemic. Larger homes will of course support a higher demand for softwood lumber.

Softwood lumber is an environmentally friendly material that will help solve the problem with carbon dioxide affecting countries worldwide. It is created by the nature for the nature.

Jenny Wessung, CEO
Woodstat AB
jenny.wessung@woodstat.com
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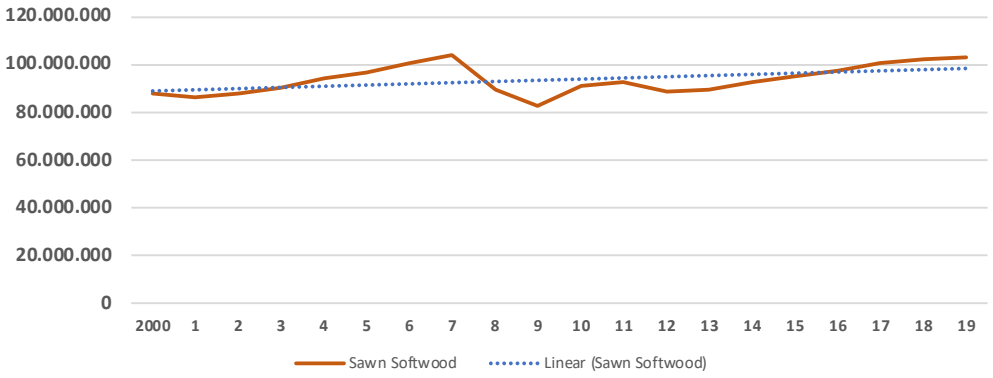
4. Main results from the EOS market survey – April 2021

Chapter 4 analyzes the sawnwood markets over the last few years in the EOS countries in general (big consumer countries such as Italy*[1]and the United Kingdom, which are not EOS members, are also included). For a more detailed country-by-country analysis, see section 4.5.

4.1 General information about the timber markets

Chapter 4.1 is about long-term dynamics: we provide some data regarding the performance of sawnwood markets over the last twenty years in terms of production both for softwood and hardwood in the whole European Union.

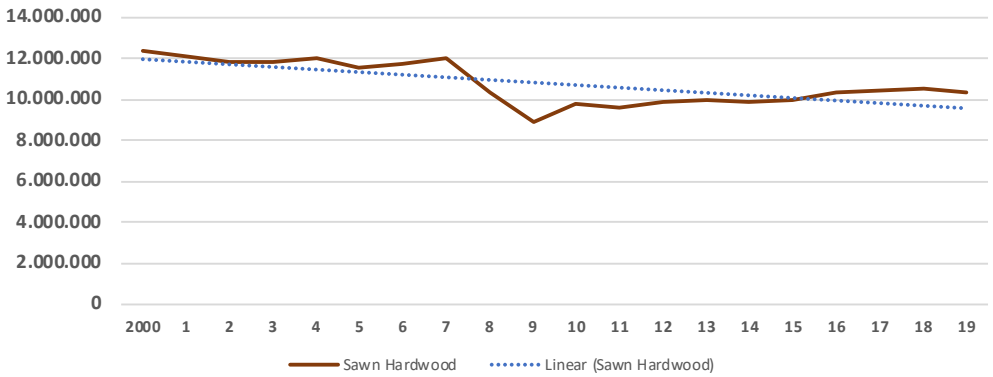
Figure 4.1: EU sawn softwood production 2000-2019 in m^3



Source: FAOstat, EOS reelaboration

Sawn softwood production peaked in the EU right before the global financial crisis of 2008. After some stuttering years right after the crisis, production has been steadily growing in line with GDP (or in some years even at a higher pace) for some years on the back of strong exports and recovering construction markets. A slowdown occurred in 2019. 2020 was characterized by the Covid outbreak, but strong demand in the packaging sector and in the DIY sector were beneficial for the softwood-processing mills. See chapter 4.2 for details.

Figure 4.2: EU sawn hardwood production 2000-2019 in m^3



Source: FAOstat, EOS reelaboration

1 *for Italy only hardwood data are available

In terms of volumes, sawn hardwood production across the European Union never really recovered after the 2008 global financial crisis. Still, there were good years and the European hardwood sawmillers produce first-class products. However, continuing weakness of the furniture sector as well as for many years high exports of quality raw material towards Asian countries (especially China) have hampered the sector. The parquet industry, which consumes high quantities in particular of oak, has not been growing much either over the last few years (see chapter 2 for more information).

4.2 Sawn softwood

4.2.1 Overview of EOS Sawn Softwood Production

Table 4.1: Overview of the EOS sawn softwood production 2016-2021 in 1,000 m^3

	2016	2017	2018	2019	2020*	2021*	20/19 % var.
AT	9,250	9,650	10,200	10,233	10,339	10,500	1.0%
BE	1,400	1,350	1,450	1,450	1,500	1,550	3.4%
CH	1,074	1,037	1,075	1,077	1,060	1,080	-1.6%
DE	21,109	22,056	23,000	23,304	25,174	25,900	8.0%
DK	310	304	300	331	360	360	8.8%
FI	11,400	11,700	11,800	11,354	10,884	11,800	-4.1%
FR	6,400	6,596	6,795	6,455	6,260	6,460	-3.0%
LV	2,792	2,662	2,730	2,660	2,600	2,400	-2.3%
NO	2,533	2,655	2,675	2,650	2,680	2,750	1.1%
RO	3,900	3,600	3,550	3,500	3,000	3,000	-14.3%
SE	18,011	18,309	18,300	18,600	18,500	18,800	-0.5%
UK	3,624	3,728	3,650	3,410	3,500	3,780	2.6%
EOS	**81,803**	**83,647**	**85,525**	**85,024**	**85,857**	**88,380**	**1.0%**

*Estimates. Source of UK softwood production is UK Softwood Conference 2021.

Sawn softwood production in this group of countries has been growing for a number of years with the exception of 2019. In spite of pandemic-related disruption in some countries overall 2020 production was expected to slightly grow by 1% to 85.9 milllion m^3. This is in stark contrast with GDP growth, which fell across Europe. The decoupling of these two parameters – sawn softwood production and GDP – was mainly due to strong demand in the packaging and DIY sectors (see section right below on "consumption" for more information). Sawmills are producing at full capacity. Moreover, many countries, particularly in Central Europe but also in Finland have reported capacity increases, both for 2020 and for 2021 (Belgium expects a decrease in 2021).

Also, there was high availability of raw materials due to the widespread weather-related calamities across Europe, particularly in Germany (and Czech Republic), for the third year in a row. However, especially in the second half of 2020, beetle-damaged wood was less than many players expected leading to unexpected local shortages. The supply of logs will be an issue which will dominate the markets in coming years.

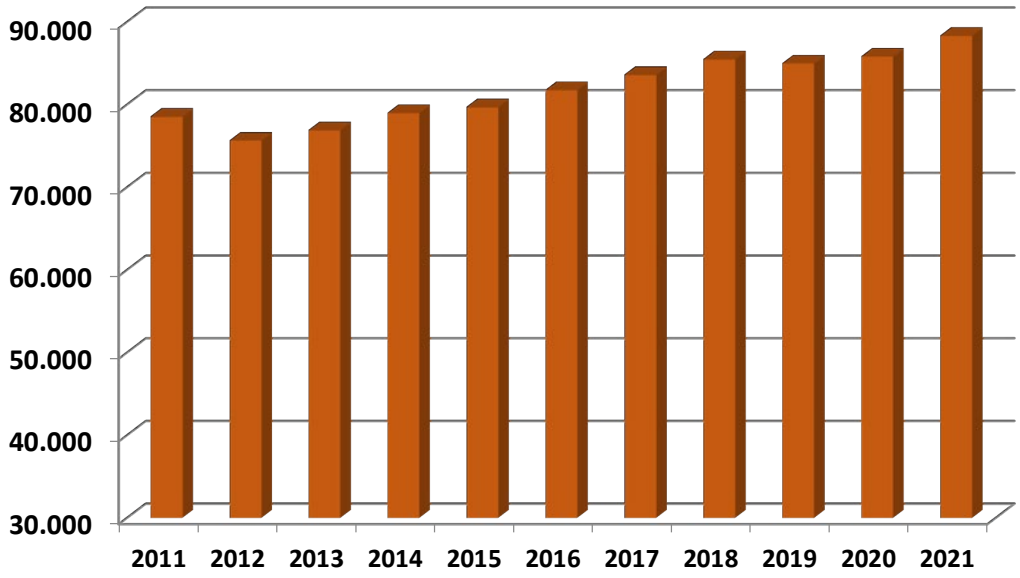
Overseas deliveries keep representing an important market driver for many companies across Europe with around one quarter of production exported. In 2020 China and the United States are the standout markets for many European exporters (see Chapter 3 for more information). Shipments to the two markets have sharply increased, thanks to a faster than expected recovery in China and to a more resilient than expected construction market in the United States, which drove prices up.

With a projected production of 25.2 million m^3 in 2020 (+8% vs 2019) Germany remains the largest sawn softwood producer within the EOS community. Sweden ranks second with 18.5 million m^3 in 2020 (-0.5% vs 2019). Finland remains the third largest producer with 10.9 million m^3 (-4% vs 2019, but this is mainly due to strikes at sawmills at the beginning of 2020) slightly ahead of Austria with 10.3

million m³ (+1% vs 2019). France remains the fifth largest producer with 6.3 million m³ (-3% vs 2019).

Production is expected to further rise in 2021 with increases expected across the largest countries. Wood as a building material is doing well across Europe.

Figure 4.3: Sawn softwood production volumes in the EOS member countries 2011-2021 (1,000 m³) - TOTAL



4.2.2. Overview of the EOS Sawn Softwood Consumption

Table 4.2: Overview of the EOS sawn softwood consumption 2016-2021 in 1,000 m³

	2016	2017	2018	2019	2020*	2021*	20/19 % var.
AT	5,756	5,780	6,200	5,954	6,175	6,200	3.7%
BE	2,550	2,550	2,750	2,650	2,750	2,700	3.8%
CH	1,232	1,181	1,210	1,183	1,154	1,183	-2.4%
DE	18,729	19,291	19,817	19,412	20,905	21,800	7.7%
DK	1,690	1,600	1,454	1,261	1,460	1,460	15.7%
FI	3,200	2,900	3,000	2,506	2,681	2,700	7.0%
FR	7,730	7,917	8,225	8,350	7,970	8,305	-4.6%
LV	832	850	936	854	782	850	-8.4%
NO	2,924	2,985	2,932	2,920	2,864	3,132	-1.9%
RO	2,383	2,450	2,800	2,800	2,100	1,900	-25.0%
SE	5,550	5,780	5,705	5,500	5,300	5,600	-3.6%
UK	9,676	10,641	10,020	9,611	9,873	10,500	2.7%
EOS	**62,252**	**63,925**	**65,049**	**63,002**	**64,014**	**66,330**	**1.6%**

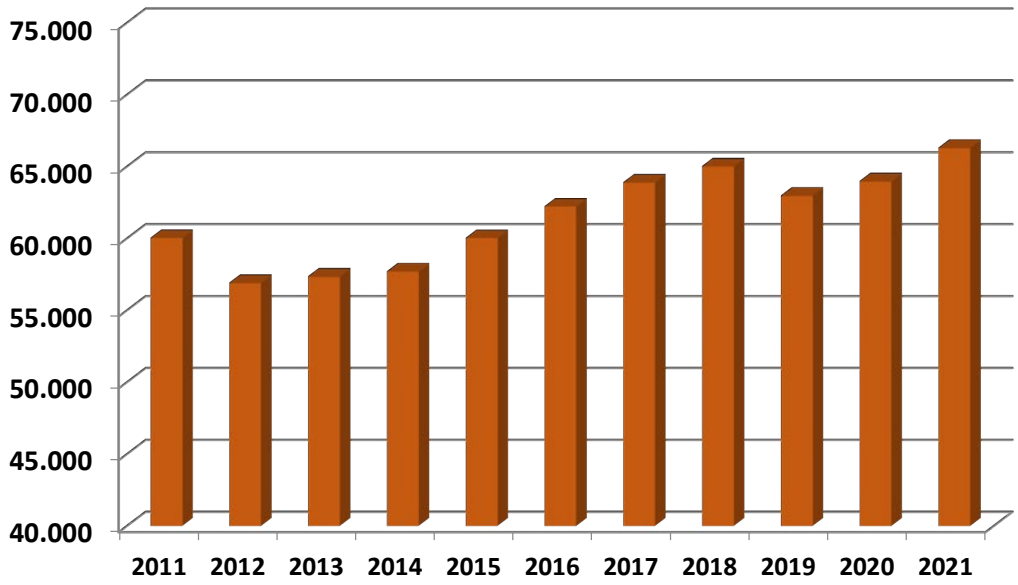
*Estimates

In this group of countries (EOS+UK), sawn softwood demand increased almost 2% in 2020 and a further stronger increase is expected in 2021. The fact that many people had to stay home and could not go on vacation pushed many to renovate their homes. This heralded an unprecedented boom in the DIY and packaging sectors in many European countries which pushed sales prices up to high levels. However, in a longer-term perspective, the price of sawnwood increased less than the price of other building materials. Also, many other commodities and raw materials have seen their prices increase over the last few months amid supply bottlenecks and strong demand.

While the construction sector held up well in parts of Europe (Scandinavia, Germany, the Netherlands) in other areas (Southern Europe, UK, and partly France) there was a double-digit slump. Wood in construction, overall, seems to be doing better than the general construction sector. For more information on single countries, see country-by-country section below and for the construction sector have a look at Chapter 5.

The demand outlook is uncertain but there is a certain optimism for the short-term when the trends emerged during the pandemic are expected to remain in place, notably a very lively renovation sector and wood gaining market share. At any rate, the EOS Members expect an almost 4% increase in demand in 2021.

Figure 4.4: Sawn softwood consumption volumes in the EOS member countries 2011-2021 (1,000 m^3) - TOTAL



4.3 Sawn hardwood

4.3.1 Overview of EOS Sawn Hardwood Production

Table 4.3: Overview of the EOS sawn hardwood production 2016-2021 in 1,000 m^3

	2016	2017	2018	2019	2020*	2021*	20/19 % var.
AT	153	172	175	212	232	260	9.4%
BE	150	150	150	150	150	150	0.0%
CH	48	48	45	48	49	49	1.0%
DE	1,064	1,082	1,100	1,167	991	1,050	-15.0%
DK	84	78	80	85	75	75	-11.8%
FI	50	45	45	30	30	30	0.0%
FR	1,500	1,578	1,578	1,379	1,240	1,310	-10.1%
IT	550	550	550	600	600	600	0.0%
LV	690	596	650	600	600	600	0.0%
NO	0	0	0	0	0	0	-
RO	1,700	1,600	1,600	1,600	1,615	1,550	0.9%
SE	100	97	95	100	100	100	0.0%
UK	47	42	50	47	50	50	6.4%
EOS	**6,136**	**6,038**	**6,118**	**6,018**	**5,732**	**5,824**	**-4.8%**

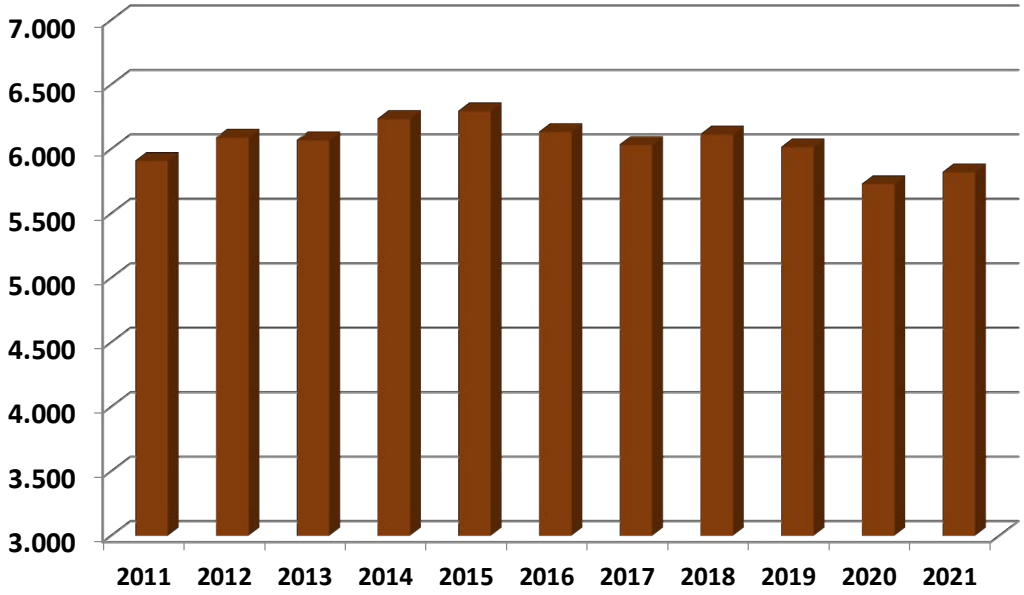
*Estimates; for 2020, and 2021, Italy data are unavailable; therefore, data for Italy have been replicated from the last available year

Production in the sawn hardwood sector has been significantly impacted by the coronavirus crisis. Overall, production decline is set to decline in 2020 by 5% in this group of countries, with large producer countries such as France and Germany posting a double-digit decline. However, the situation in the second part of 2020 has significantly improved and overall the market is challenging but probably better than expected a few months ago.

On the supply side there are also challenges as many logs are being exported to China (in particular France and Belgium report shortages of oak) depriving mills of precious raw materials. Also, while there have not been the massive beetle outbreaks that have ravaged softwood trees, drought in parts of Germany has put under pressure beech trees.

Exports, which for the sector are very important, sharply declined to most overseas destinations. The US, unlike in the softwood sector, did not experience a demand increase and Asian countries, such as China, as well as MENA markets, have seen subdued demand.

Figure 4.5: Sawn hardwood production volumes in the EOS member countries 2011-2021 (1,000 m^3) - TOTAL



4.3.2 Overview of EOS Sawn Hardwood consumption

Table 4.4: Overview of the EOS sawn hardwood consumption 2016-2021 in 1,000 m^3

	2016	2017	2018	2019	2020*	2021*	20/19 % var.
AT	201	190	187	247	258	290	4.5%
BE	210	210	210	210	210	210	0.0%
CH	77	60	60	72	72	74	0.6%
DE	755	680	705	792	661	670	-16.5%
DK	194	185	215	316	305	305	-3.5%
FI	59	49	52	42	47	47	11.9%
FR	1,250	1,270	1,298	1,282	1,090	1,130	-15.0%
IT	1,132	1,048	1,048	1,034	1,034	1,034	0.0%
LV	253	250	243	262	196	205	-25.2%
NO	28	31	31	31	31	31	-
RO	1,025	825	1,110	1,080	1,010	900	-6.5%
SE	123	101	120	138	141	141	2.2%
UK	453	518	528	533	470	530	-11.8%
EOS	**5,760**	**5,417**	**5,806**	**6,038**	**5,525**	**5,567**	**-8.5%**

*Estimates; for 2020, and 2021, Italy data are unavailable; therefore, data for Italy have been replicated from the last available year

Sawn hardwood consumption has declined by 8.5% in this group of countries during the course of 2020. In many countries the hardwood sector has been significantly more affected than the softwood sector, especially because the furniture industry for a few months in 2020 was shut in some countries.

The largest countries all posted declines, in case of Germany and France double-digit declines. Updated data for Italy are not available but it is likely that consumption declined even there. The outlook for 2021 is more upbeat as some large consuming countries such as France, Germany and the UK expect a slight consumption increase.

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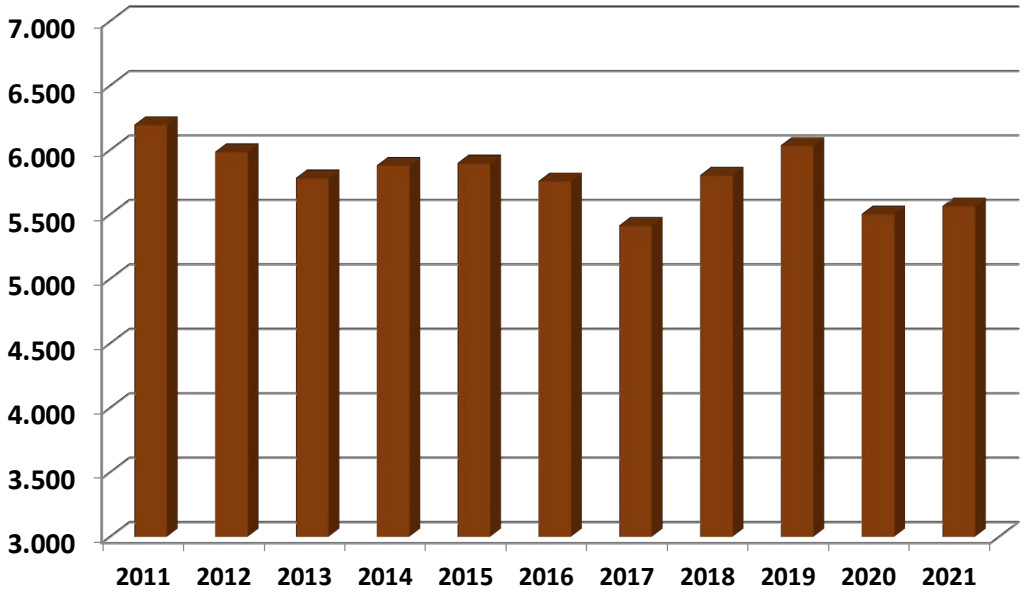
Figure 4.6: Sawn hardwood consumption volumes in the EOS member countries 2011-2021 (1,000 m³) - TOTAL



4.4 Focus on by-products

Most EOS countries have shared data on sawmill by-products, which are reported below.

Table: 4.5 Sawdust production volumes in the EOS member countries 2019-2021 (000 m³)

	2019	2020*	2021*	20/19 % var.
AT	3,203	3,201	3,251	-0.1
BE	221	228	235	3.2
CH	224	220	224	-1.6
DE	5,257	5,618	5,789	6.9
FI	3,400	3,260	3,500	-4.1
LV	518	509	477	-1.8
NO	265	255	250	-3.8
RO	200	200	200	0.0
TOTAL	**13,288**	**13,491**	**13,926**	**1.5**

*Estimates; Norway has not communicated updated data for 2020 and 2021, thus data has been taken from previous Annual Report

Table: 4.6 Chips production volumes in the EOS member countries 2019-2021 (000 m³)

	2019	2020*	2021*	20/19 % var.
AT	3,805	3,674	3,731	-3.5
BE	838	864	893	3.1
CH	522	514	523	-1.5
DE	10,941	11,749	12,096	7.4
FI	7,500	7,200	7,800	-4.0
LV	2,999	2,944	2,760	-1.8
NO	1,400	1,300	1,300	-7.2
RO	350	300	300	-14.3
TOTAL	**28,356**	**28,545**	**29,402**	**0.7**

*Estimates; Norway has not communicated updated data for 2020 and 2021, thus data has been taken from previous Annual Report

Table: 4.7 Bark production volumes in the EOS member countries 2019-2021 (000 m³)

	2019	2020*	2021*	20/19 % var.
AT	998	928	943	-7.0
BE	125	129	250	3.2
CH	186	184	187	-1.1
DE	unav.	unav.	unav.	
FI	3,100	3,000	3,200	-3.2
LV	391	384	360	-1.8
NO	500	500	500	0.0
RO	1,650	1,600	1,550	-3.0
TOTAL	**6,951**	**6,725**	**6,990**	**-3.2**

*Estimates; Norway has not communicated updated data for 2020 and 2021, thus data has been taken from previous Annual Report

4.5 Focus on Sawnwood Exports

The European sawmill industry is a very international industry. Exports to overseas markets make up a relevant share of the revenues for many mills across Europe. The four largest overseas markets are the United States (which has done extremely well in 2020), China (which has seen spectacular developments over the last decade), Egypt (and North Africa and Middle East in general, an area with big potential due to a youthful demographics but often marred by geopolitical instability) and Japan (which is a mature and stable market, but it is expected to decline due to its aging population).

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According to Eurostat, in 2020 about 53% of exported sawnwood by EU mills was delivered to non-EU 27 countries. The largest non-EU market is the UK with about 10% of sawnwood exported, followed by the US, with slightly over 8%, China with over 6%, and Japan and Egypt with a share around 4-4.5% each.

Table: 4.8 Sawn Softwood export volumes in the EOS member countries 2016-2021 (000 m³)

	2016	2017	2018	2019	2020*	2021*	20/19 % var.
AT	5,301	5,450	5,900	6,068	5,939	6,100	-2.1%
BE	950	1,200	1,200	1,500	1,700	1,700	13.3%
CH	190	198	198	201	197	197	-2.0%
DE	7,295	7,848	8,523	9,344	9,997	10,000	7.0%
DK	120	120	120	280	300	300	7.1%
FI	8,900	9,700	9,000	9,298	8,554	9,200	-8.0%
FR	770	743	720	755	890	755	17.9%
LV	2,739	2,746	2,850	2,906	2,912	2,900	0.2%
NO	600	666	667	694	832	708	19.9%
RO	1,800	1,600	1,100	1,150	1,200	1,300	4.3%
SE	13,000	13,110	12,440	12,700	14,100	13,500	11.0%
UK	167	166	194	193	190	190	-1.6%
EOS	**41,832**	**43,547**	**42,912**	**45,089**	**46,811**	**46,850**	**3.8%**

*Estimates

Table: 4.9 Sawn Hardwood export volumes in the EOS member countries 2016-2021 (000 m³)

	2016	2017	2018	2019	2020*	2021*	20/19 % var.
AT	133	157	139	149	135	160	-9.4%
BE	360	360	360	360	360	360	0.0%
CH	17	25	20	22	22	22	-1.9%
DE	685	781	745	746	680	710	-8.8%
DK	100	100	100	35	40	40	14.3%
FI	19	19	18	11	11	11	0.0%
FR	450	480	480	430	350	380	-18.6%
LV	472	417	448	378	448	465	18.5%
NO	0	0	0	0	0	0	-
RO	800	800	600	650	710	750	9.2%
SE	19	43	20	32	28	28	-12.5%
UK	21	25	23	19	20	20	7.6%
EOS	**3,076**	**3,207**	**2,953**	**2,832**	**2,804**	**2,946**	**-1.0%**

*Estimates

4.6 Country Reports

AUSTRIA

Source: Fachverband der Holzindustrie Österreichs

General economic information

	2019	2020	2021
Population *(million)*	8.9	8.9	9.0
GDP Growth *(%)*	1.6	-6.6	2.3
Inflation rate *(%)*	1.5	1.4	1.8
Unemployment rate *(%)*	4.5	5.4	5.0
Construction industry			
Buildings permits (units)	63 200	53 300	53 800
Housing starts (units)	56 700	55 400	50 900
Housing completions (units)	58 700	59 400	57 500
Wage Development *(%)*	3.3	1.6	2.0
Average working time in sawmilling *(h/week)*	38.5	38.5	38.5

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	10 233	10 339	10 500
Imports	1 789	1 775	1 800
Exports	6 068	5 939	6 100
Consumption	5 954	6 175	6 200

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	212	232	260
Imports	184	161	190
Exports	149	135	160
Consumption	247	258	290

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	2	2
Hardwood	3	3	3

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

”Sustainable, active forest management is the basis for the success of our industry, guaranteeing us a reliable supply of raw materials and thereby creating the prerequisite for our businesses to make an important contribution to climate protection and added value.”

Markus Schmölzer
Chairman of the Austrian Sawmilling Industries

Herbert Jöbstl
Chairman of the Association of the Austrian Wood Industries and Member of EOS board

The sawmill industry comprises more than 1,000 companies in Austria and most of them have been in family hands for generations. They include a broad spectrum of companies: from world market leaders to a host of medium-sized and small enterprises. The Austrian sawmill industry employs around 6,000 people in rural areas and ensures stability and prosperity in the regions.

The sawmill industry is a key sector for the domestic forestry and timber value chain. As the largest purchaser of roundwood, with around 10 million solid cubic metres of roundwood purchased by sawmills, it is an important partner for the domestic forestry industry and provides significant support in the processing of climate-damaged wood. It has also been purchasing around 7 million cubic metres of roundwood from neighbouring regions for decades-which means free trade in the European Union is a base principle for the functioning of this industry.

The sawmill industry is a supplier to the processing industry and to a wide range of commercial enterprises. It is also the starting point for the production of innovative timber construction products and wood packaging material. Well over a million tonnes of pellets were produced in the past year as an essential product for daily use in Central and Southern Europe.

Most of the sawn timber produced is further processed by master timber builders into high-quality wood products in Austria. High-rise buildings and “smart city” timber construction concepts are also highly sought after internationally. Nowadays there are a lot of large sawmill sites that process almost 80% of the sawn timber produced in their own operations.

Timber as a raw material:

The supply of roundwood from domestic forestry operations to the timber industry is the basis for production and added value. Securing the required sustainable, renewable raw material wood is essential for a functioning timber industry and thus the basis for a complex and versatile added value chain.

In recent years, the focus has been on coping with the high volumes of damaged timber caused by the “bark beetle infestation” and developing strategic approaches for the future to secure the ongoing, continuous flow of raw materials.

The removal from the affected damaged wood areas, mainly north of the Danube, was completed soon after the first Covid 19 lockdown in 2020, thanks to the joint logistics coordination of all parties involved in the value-added chain.

In 2019, the peak of damaged timber volumes in Austria seems to have been reached. As a result, the promotion of European projects for climate-resistant softwood species must now be intensively supported and numerous transport and logistics issues must be dealt with using environmentally sound overall concepts.

As in previous years, the seasonal variation in the delivery of raw material, as well as the diverse quality distribution of the roundwood ranges, remains a challenge for the industry this year.

Focus on early bark beetle detection.

Early detection of infestation of trees makes planning more realistic and means uncoordinated supply peaks can be avoided.

The secure supply of raw materials also includes an efficient transport and logistics infrastructure and rapid transport from the forest to the mills guarantees the quality and value of the timber. Short routes and the efficient use

of different modes of transport also reduce environmental pollution and protect the climate. Working with experts from the member companies and the forestry operations, the Raw Materials Competence Unit deals with a range of different issues concerning the safeguarding and future of raw materials.

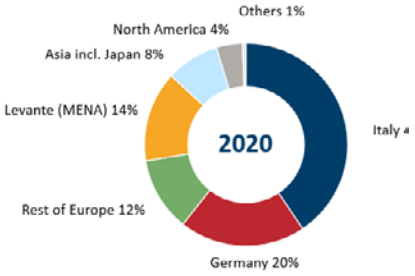
EXPORT OF SAWN SOFTWOOD 2020/19

Catch up effect for sawn wood export in 2020

Numbers in m³	01-12 2020	Diff. in %	01-12 2019
Italy	2 410 329	-8,4%	2 631 262
Germany	1 192 489	15,6%	1 031 748
Rest of Europe	700 070	5,7%	662 284
Levante (MENA)	854 548	-8,2%	931 241
Asia incl. Japan	502 763	-3,1%	519 106
North America	245 403	23,2%	199 123
Others	33 545	6,9%	31 370
TOTAL	5 941 167	-2,1%	6 067 816

* others: countries worldwide

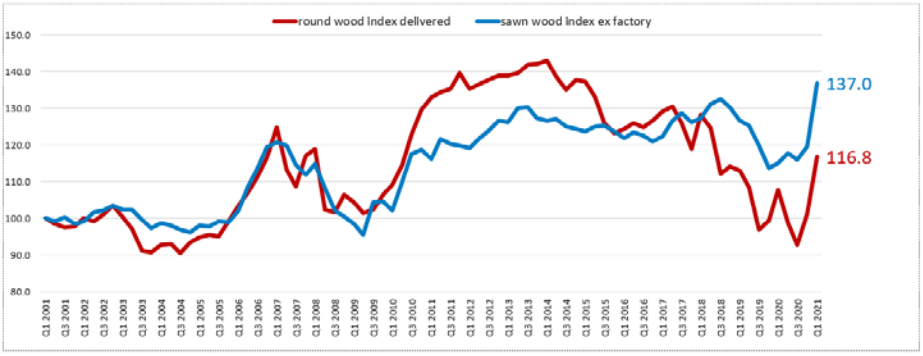
First half-year of 2020
-8,8 %



Source: Statistik Austria, 2020; preliminary numbers

BENCHMARK SAWMILL INDUSTRY IN AUSTRIA

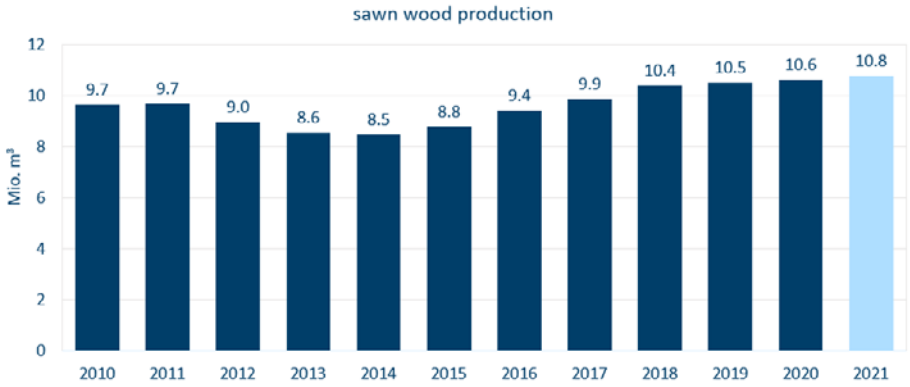
Development of price indices for sawn wood / round wood (Q1 2001 - Q1 2021) (100 = Jan 2001)



Source: Benchmark of the saw mill industry in Austria

SAWN WOOD PRODUCTION IN AUSTRIA 2010 - 2021

No reduction of sawn wood production in Austria despite COVID-19 crisis



Source: Statistik Austria, sawn soft and hardwood
2019: final numbers, 2020: preliminary numbers, 2021: forecast

BELGIUM

Source: Fédération Nationale des Scieries

General economic information

	2019	2020	2021
Population *(million)*	11.4	11.4	11.5
GDP Growth *(%)*	1.7	-6.3	3.5
Inflation rate *(%)*	1.2	0.4	1.7
Unemployment rate *(%)*	5.4	5.6	7.4
Construction industry			
Buildings permits (units)	33 948	35 029	35 000
Housing starts (units)	n.a.	n.a.	n.a.
Housing completions (units)	n.a.	n.a.	n.a.
Wage development (%)	2.8	1.0	1.1
Average working time in sawmilling *(h/week)*	38	38	38

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	1 450	1 500	1 550
Imports	2 700	2 950	2 850
Exports	1 500	1 700	1 700
Consumption	2 650	2 750	2 700

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	150	150	150
Imports	420	420	420
Exports	360	360	360
Consumption	210	210	210

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	5	5	3
Hardwood	3	3	3

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

Softwood

In 2020, the demand for softwood timber was good but prices were low. The roundwood supply was very high due to the damage done by the bark beetle, in Belgium, but also in neighbouring countries (Germany, France).

At the end of 2020, selling prices increased as a result of the increased demand on the global market.

At the beginning of 2021, due to the very high demand for wood on the global market, selling prices increased significantly. Softwood sawmills cannot meet the demand. The area of resinous forests is decreasing in Belgium, which will lead to a decrease of softwood supply in the long run.

Hardwood

In 2020, prices remained relatively stable. Softwood sawmills continue to face supply difficulties due to competition from the Asian market for logs. This competition appears to be intensifying at the beginning of 2021 with major supply difficulties for hardwood sawmills despite the increase in the demand and in the selling prices of sawn hardwood timber.

Byproducts

Due to the large quantity of damaged wood in 2020 and the significant sawmill activity, stocks in the panel, pulp and energy industries are high. The selling prices for byproducts remain therefore low.

Smaller sawmill units have difficulty to sell their byproducts.

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DENMARK

Source: Dansk Traeindustrier

General economic information

	2019	2020	2021
Population *(million)*	5.83	5.84	5.84
GDP Growth *(%)*	2.4	-2.7	1.4
Inflation rate *(%)*	0.7	0.4	0.4
Unemployment rate *(%)*	3.7	4.5	4.5
Construction industry			
Buildings permits (units)	34 852	24 265	20 000
Housing starts (units)	34 329	25 666	20 000
Housing completions (units)	34 132	35 488	37 000
Wage Development *(%)*	2.8	2.3	2.3
Average working time in sawmilling *(h/week)*	37	37	37

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	331	360	360
Imports	1 210	1 400	1 400
Exports	280	300	300
Consumption	1 261	1 460	1 460

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	85	75	75
Imports	266	270	270
Exports	35	40	40
Consumption	316	305	305

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	5	4
Hardwood	3	3	3

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

Danish sawmills have experienced a great demand for wood products and rising prices for finished goods. The availability of logs is good and log prices has so far remained stable. The overseas market is affected by rising shipping prices to Asia as well as increased delivery times which apply to both softwood and hardwood.

Future supply of logs from the Danish state forests - which owns about one fifth of the forest area - is feared to decline dramatically as the government and supporting parties has initiated a plan to stop majority of its commercial harvest in order to improve biodiversity. The local sawmills foresee the initiative will bring the supply of hardwood to a halt and that softwood production will be nearly halved. It will especially challenge the supply of certified timber as the state forest remains the main supplier in certified timber. The sawmill industry supports the goal to improve biodiversity but fear that the proposed measures will jeopardize not only the positive climate effect of the sector but also the survival of local sawmills dependent on supply from state forests.

FINLAND

Source: Sahateollisuus ry

General economic information

	2019	2020	2021
Population *(million)*	5.5	5.5	5.5
GDP Growth *(%)*	1.0	-2.9	2.3
Inflation rate *(%)*	1.5	0.2	1.6
Unemployment rate *(%)*	6.5	6.6	6.2
Construction industry			
Buildings permits (units)	38 415	39 568	38 000
Housing starts (units)	38 836	40 926	37 000
Housing completions (units)	42 910	38 525	39 000
Wage Development *(%)*	n.a	n.a.	n.a.
Average working time in sawmilling *(h/week)*	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	11 354	10 884	11 800
Imports	518	504	500
Exports	9 298	8 554	9 200
Consumption	2 506	2 681	2 700

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	n.a.	n.a.	n.a.
Imports	n.a.	n.a.	n.a.
Exports	n.a.	n.a.	n.a.
Consumption	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	3	4	2
Hardwood	-	-	-

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

Finnish economy

The year 2020 will be remembered as the year of the Great Pandemic. Covid 19 virus shattered the whole world and tested also the resilience of the Finnish economy seriously. Thanks to vigorous monetary and financial policies the worst scenarios have been avoided. The economic growth was seriously hurt by the pandemic during the first half of the year, but the economy started to recover relatively briskly during the second half.

The Finnish GDP contracted in 2020 by 2.9%. According to Bank of Finland, in the third quarter of 2020, the economy grew at a stronger-than-expected pace, and in the fourth quarter, growth was further driven by net exports even though exports were supported by a large ship delivery in December. Growth in private consumption was strong in the third quarter of 2020, but started to contract again towards the end of the year. Growth in retail trade was relatively robust, whereas demand for other services (particularly accommodation and food service activities as well as transportation services) decreased strongly during the year, and the pre-Christmas season did not provide any relief. In manufacturing, order books improved and output expectations strengthened, despite the differences in the impact of the crisis on the various manufacturing industries. The volume of construction shrank in 2020, but residential construction showed some signs of a turnaround at the end of the year.

While the recession in Finland has been milder than feared, it will weaken the conditions for economic growth. In response to the second and third waves of the pandemic, investments will probably continue to decline and the recovery of the labour market will be delayed. The crisis will leave the general government finances still weaker and the sustainability gap will widen. The outlook is subject to both upside and downside risks. In the positive scenario, the vaccinations will contain the pandemic and, as a result, strengthen the GDP growth. If the epidemic cannot be contained, the contraction of the economy will continue in 2021. Economic policy has been employed to soften the consequences of the recession and the government balance has deteriorated almost as sharply in 2020 as during the financial crisis in 2009. The economy is currently expected to grow 2,3 % in 2021 and the inflation rate is expected to accelerate to 1,6% (0,2% in 2020)

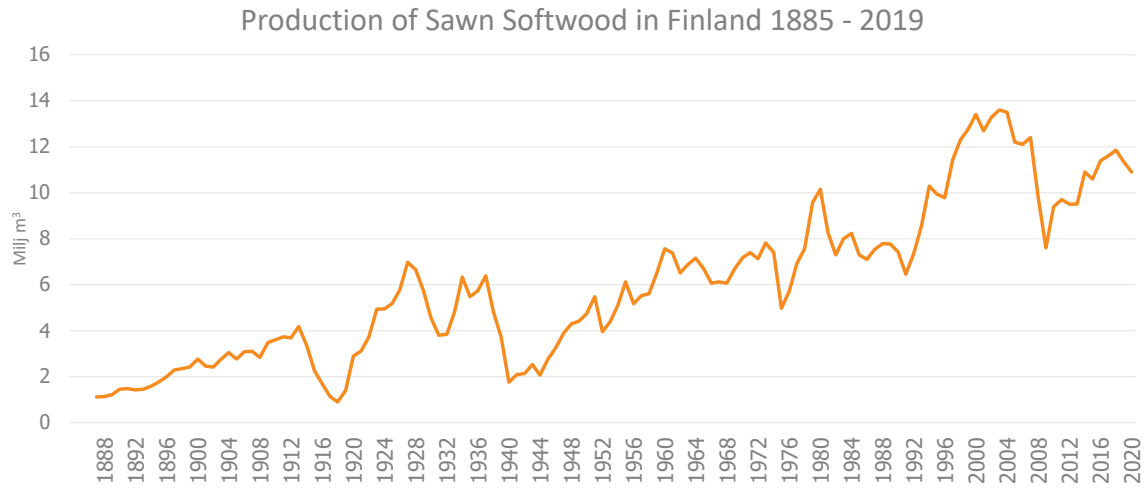
Production and markets of Finnish Sawn Softwood

Labor disputes, poor profitability and impacts of Covid19-pandemic shadowed the forest industry cluster during the first half of 2020. During the second half, the industry recovered briskly, driven by strong external demand. However, the markets paper industries remained subdued. The structural change within the sector continues as paper production is declining and, packaging board and pulp production are increasing. However, the increase in packaging board exports does not compensate the decline of paper exports. The outlook of the saw- and plywood industries is currently positive.

The roundwood market increased was sluggish in 2020 and the annual fellings of industrial roundwood declined to 56,4 million m3, consisting of 24,3 million m^3 of logs and, 32,1 million m^3 of pulpwood. The annual growth of Finnish forest is estimated to be about 110 million m^3/a and the annual sustainable felling volume for 2016-2025 is estimated to be slightly above 80,5 million m^3. The log prices increased by 1% in 2020.

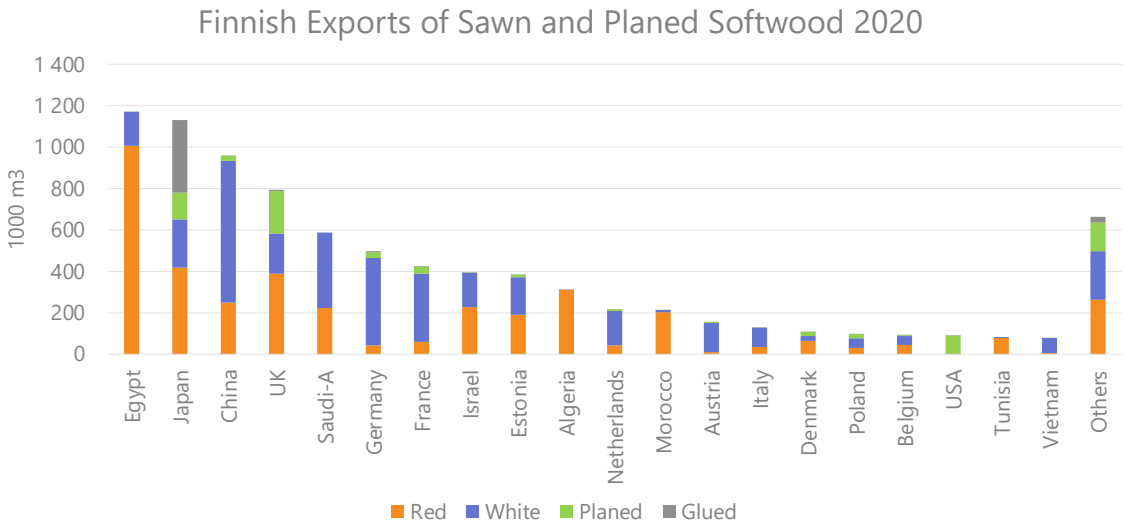
The output of Finnish sawmills was 10,9 million m^3 in 2020, 0,5 million m^3 less (-4%) than in 2019. Production of redwood declined by 2% and whitewood by 6%. The production level is clearly higher than what was expected as late as in September, thanks to favourable weather conditions and raw material availability.

Finnish mills exported about 8,6 million m^3 of sawn and planed products, a decrease of 8% compared to 2019. The biggest markets were Egypt (1,2 million m^3, -23%), China 1,0 million m^3, -22%), UK 0,8 million m^3, -6%), Japan (0,8 million m^3), -13% and, Saudi-Arabia (0,6 million m^3, +24%). Export prices dropped by 3%. The domestic consumption showed some positive developments after many years of decline. The Finnish Government set a goal to double the use of wood in construction during the Government term and set a 45% target market share for wood in public construction by 2025.
Easing monetary and financial policies kept the whole construction sector more active than expected. Most markets were also driven by DIY and renovation segments as people started to improve their homes while working remotely due to COVID19.



finnishsawmills

Source: Ahveninen; Sahateollisuuden historia, Finnish Sawmills



finnishsawmills

Source: Finnish Customs

Sawn timber inventories remained on low level throughout the year due to production curtailments at the beginning of the year and, thanks to increasing demand during the second half.

Expectations for 2021 are positive for Finnish mills, but still mixed. Exceptionally active demand and challenges in increasing global production have resulted in strong price increases of sawn products. On the top of generally increasing demand, the wood products clearly enjoy a positive market trend as climate friendly products. The market situation can be described as overheated and also negative consequences can be expected.

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FRANCE

Source: Fédération Nationale du Bois

General economic information

	2019	2020	2021
Population *(million)*	67.1	67.4	67.5
GDP Growth *(%)*	1.3	-8.3	5.5
Inflation rate *(%)*	1.1	0.5	1.5
Unemployment rate *(%)*	8.1	8.0	9.0
Construction industry			
Buildings permits (units)	449 400	381 600	350 000
Housing starts (units)	410 300	376 700	340 000
Housing completions (units)	n.a.	n.a.	n.a.
Wage Development *(%)*	2.0	1.9	1.5
Average working time in sawmilling *(h/week)*	39	39	39

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	6 455	6 260	6 460
Imports	2 650	2 600	2 600
Exports	755	890	755
Consumption	8 350	7 970	8 305

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	1 379	1 240	1 310
Imports	250	200	200
Exports	430	350	380
Consumption	1 282	1 090	1 130

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	5	5
Hardwood	3	2	1

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

Original Text

Marché français 2020:

L'année 2020 constituera une année historique à plusieurs titres. Jusqu'au confinement fin mars le début de l'année partait sur très bonnes bases, ce qui a permis à de nombreuses scieries de tenir le choc grâce à un bon carnet de commandes.
Fin mars début avril la majorité des établissements ont fermé excepté en feuillus de qualité pour ne pas perdre ou se laisser dégrader la matière récoltée.
Très vite de nombreuses scieries ont repris le travail en appliquant un protocole sanitaire très strict. La FNB s'est organisée pour acheter les masques nécessaires à la continuité de l'activité de ses adhérents.
Dès les premières semaines, le secteur du bois, en particulier les palettes ont été identifiés par le gouvernement comme un secteur essentiel de l'économie nationale. Cette identification a permis d'obtenir les autorisations nécessaires pour la reprise du travail.
Avril mai ont été très difficile car les majors du bâtiment ont confiné leurs activités bien au-delà des consignes gouvernementales. Pour sauvegarder leur activité les scieries ont alors initié des expéditions sur pays tiers.
Dès le mois de juin les scieries ont retrouvé une pleine activité. Depuis novembre 2020 ces dernières tournent à plus de 100% de leur capacité nominale grâce à des heures supplémentaires et un plus grand nombre de jours travaillés. Le taux actuel est de 118%.
La demande en bois augmente de mois en mois et les scieries ont des difficultés pour répondre à la demande. Il en découle une hausse des délais de livraison et une certaine spéculation sur les prix et volumes de commandes de la part des acheteurs.
Les scieries françaises ont réduit leurs exportations pays tiers au minimum pour servir en priorité leurs clients historiques et ne spéculent donc pas sur le marché américain. 92% sert la demande nationale.
Les importations UE ont quant à elles baissé et ce sont les acteurs engagés sur l'importation qui subissent actuellement des dérèglements de prix et délais sur le marché français. Plusieurs grands pays européens expédient fortement sur les USA et la chine.
Il n'y a pas de problèmes d'approvisionnement en grumes à signaler en résineux car la crise des scolytes a provoqué un afflux de bois. La météo a également été propice à l'exploitation forestière.
En revanche toutes les scieries souffrent de prix bas pour leurs connexes. Le secteur papetier est en crise avec la fermeture d'usines et la reconversion vers le recyclage.
Le secteur du panneau accélère sa mutation vers le bois de recyclage en fin de vie et se retire massivement de ses achats auprès des scieries.
Ces deux débouchés qui ont longtemps assuré et structuré un débouché matière aux scieries déstabilisent aujourd'hui le marché des connexes. Les scieries doivent trouver de nouveaux débouchés alternatifs. La valorisation énergétique constitue aujourd'hui la principale alternative.
En feuillus la situation commerciale des scieries est bonne.
Les commandes se sont redressées plus tardivement qu'en résineux mais progressent dans le bon sens.
Le problème principal des scieries de feuillus, en particulier de chêne, c'est l'approvisionnement.
Le confinement a provoqué une baisse de récolte et dans le même temps l'export de grumes est resté à un très haut niveau. Depuis octobre le volume mensuel exporté en Chine a doublé, probablement en anticipation de l'embargo sur l'export de grumes de la Russie.
Toutes les qualités sont concernées. Il en résulte une mise en danger de nombreuses scieries qui y vont devoir ralentir ou stoppe leur production.
Il est à anticiper qu'en 2021 ce sujet va devenir celui de l'ensemble des essences pour l'Europe à un moment où l'après crise scolytes va produire ses effets.

English translation:

The year 2020 was a historic year in many ways.
Until the beginning of confinement at the end of March, the year was off to a very good start, which has enabled many sawmills to weather the shock thanks to brisk orders.
At the end of March and beginning of April 2020, the majority of establishments closed except in some hardwood mills so as not to lose or allow the harvested material to be degraded. Many sawmills very quickly returned to work by applying a very strict sanitary protocol. The FNB has bought the masks necessary for the continuity of the activity of its members.
From the first weeks, the timber sector, in particular pallets, was identified by the government as an essential sector of the national economy. This made it possible to obtain the necessary authorizations for the resumption of work.
April-May 2020 were very difficult because the building majors confined their activities well beyond government

guidelines. To safeguard their activity, the sawmills then initiated shipments to third countries. From June the sawmills returned to full activity. Since November 2020, the mills have been operating at more than 100% of their nominal capacity thanks to overtime and a greater number of days worked. The current rate is 118%.

The demand for wood is increasing month by month and sawmills are having difficulties meeting the demand. This results in increased delivery times and some speculation on prices and order volumes on the part of buyers. French sawmills have reduced their exports to third countries to a minimum in order to serve their historical customers as a priority and are therefore not speculating on the American market. 92% of them serve national demand.

EU imports, for their part, have fallen and it is the players involved in importing who are currently suffering from price imbalances and delays on the French market. Several large European countries ship heavily to the USA and China.

There are no softwood log supply problems to report as the bark beetle crisis has caused an influx of logs. The weather was also favorable for logging.

On the other hand, all sawmills suffer from low prices for their by-products. The paper sector is in crisis with the closure of factories and the conversion to recycling. The panel sector is accelerating its transformation towards end-of-life recycling wood and is withdrawing massively from its purchases from sawmills. These two outlets, which have long ensured and structured a material outlet for sawmills, are now destabilizing the related market. Sawmills must find new alternative outlets. Energy recovery is the main alternative today.

In hardwood, the commercial situation of sawmills is good. Orders recovered later than in softwood but are progressing in the right direction. The main problem with hardwood sawmills, especially oak, is supply. The lockdown caused a drop in harvest and at the same time the export of logs remained at a very high level. Since October the monthly volume exported to China has doubled, probably in anticipation of the log export embargo from Russia. All qualities are concerned. This endangers many sawmills, which will have to slow down or stop their production.

It can be expected that, at the end of 2021, this issue will concern all wood species in Europe at a time when the post bark-beetle crisis will produce its effects.

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GERMANY

Source: Deutsche Säge-und Holzindustrie (DeSH)

General economic information

	2019	2020	2021
Population *(million)*	83.1	83.2	83.2
GDP Growth *(%)*	0.6	-4.9	3.1
Inflation rate *(%)*	1.4	0.5	2.1
Unemployment rate *(%)*	5.0	5.9	5.9
Construction industry			
Buildings permits (units)	317 823	327 129	n.a.
Housing starts (units)	n.a.	n.a.	n.a.
Housing completions (units)	260 761	n.a.	n.a.
Wage Development *(%)*	3.1	3.4	1.3
Average working time in sawmilling *(h/week)*	40	40	40

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	23 304	25 174	25 900
Imports	5 452	5 728	5 900
Exports	9 344	9 997	10 000
Consumption	19 412	20 905	21 800

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	1 167	991	1 050
Imports	371	350	330
Exports	746	680	710
Consumption	792	661	670

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	5	4
Hardwood	3	3	3

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

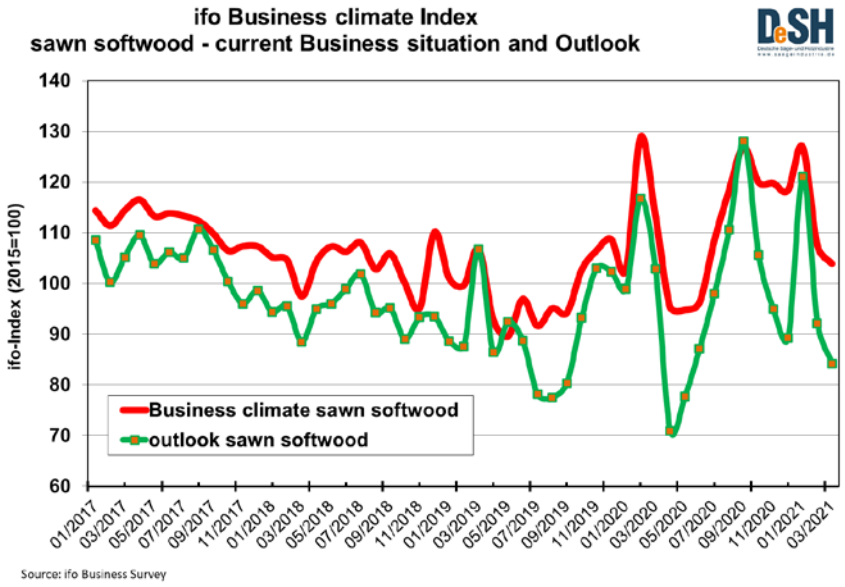
Market statement

Massive damaged wood calamities and the Corona pandemic as extreme challenges for the sawmill and timber industry

The Corona pandemic continues to weigh on the German economy and has already led to a sharp drop in gross domestic product of - 4.9% last year. Many sectors of the economy continue to be severely to existentially affected by the measures taken to combat the pandemic. The German government has provided extensive subsidies and bridging aid to support the affected sectors of the economy.

The construction sector, which is important for the sawmill and timber industry, was able to escape the negative trend and continues to trend at a high level. The pandemic and strong demand on the housing market, particularly in the conurbations, also led to extensive renovation and refurbishment work on existing buildings, resulting in additional demand from the construction sector. New construction activity also remained high, with housing permits for new apartments rising by 2.9% in 2020 to 327,129 apartments in newly constructed buildings.

The very positive development in the construction sector led to high demand for construction timber assortments and their preliminary products such as lamellas and board assortments in the course of the year. The sawmill and timber industry also benefited from the fact that it was able to meet demand at a high level of quality thanks to the modern, predominantly glued timber construction products developed in recent years, such as structural timber graded according to strength, solid structural timber, laminated beams, glued laminated timber and cross-laminated timber.

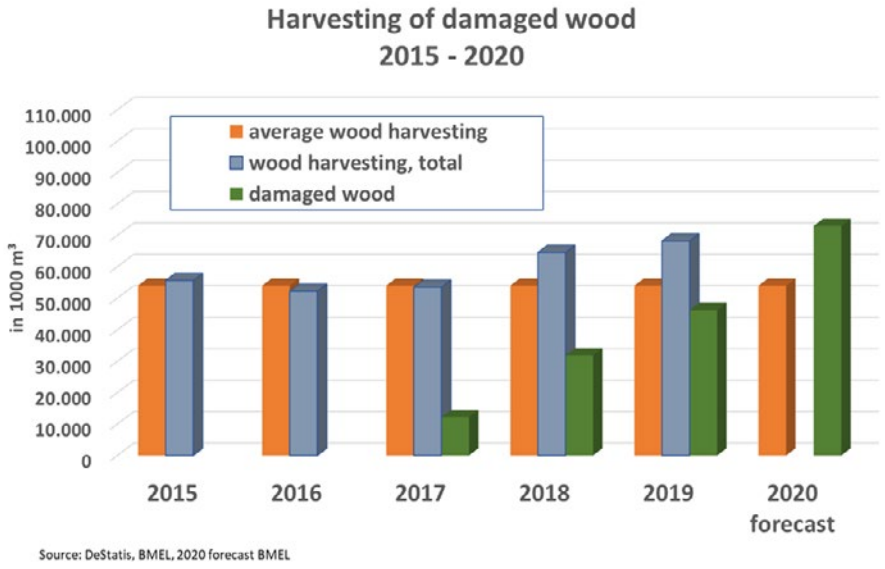


Raw timber market again characterized by high levels of damaged wood

In 2020, the raw timber market was again very strongly characterized by the continuing high volumes of damaged wood from drought damage and bark beetle infestation. In the third year with additionally still increasing volumes of damaged wood, the focus of the German sawmill and timber industry continued to be on the highest possible quality utilization of the damaged wood volumes.
Unfortunately, at the time of writing this report, the data on logging in 2020 was not yet available.

The amount of damaged wood harvested due to the ongoing drought has increased again in 2020. According to estimates by the Federal Ministry of Agriculture, a cumulative amount of 178 million m³ of damaged wood was expected to be harvested in 2018-2020. For the year 2020 alone, this would be a damaged wood accumulation of 73 million m³ compared to an average green wood felling of just under 54 million m³. In addition to softwood, other species of wood, especially beech, are also affected by the drought damage and its consequences.
However, the high volume of damaged wood can

often only be used to a limited amount for the sawn timber assortments due to the quality of the wood. The demands on the sawn timber assortments have increased significantly in recent years. In this respect, despite the high quantities of damaged wood, the companies continue to rely on logs with green wood quality.



By cutting logs at a high level, sawmills are making a decisive contribution to managing the accumulation of damaged wood, especially beetle-infested wood.

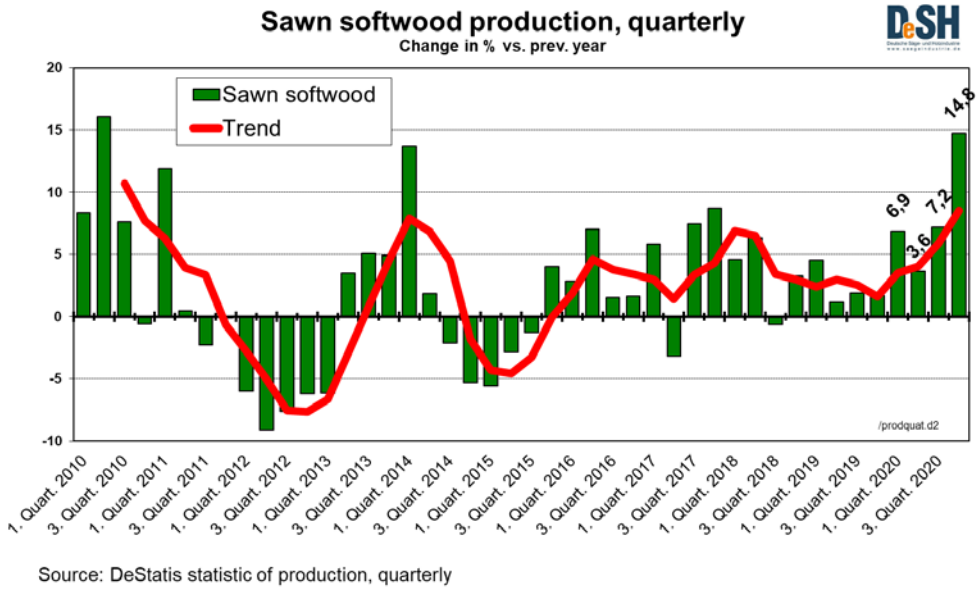
The significant export efforts of sawmills enable cutting at a high level over and above the increased absorption capacity of the domestic market.

The forest also responded to the increasing volume of wood from forced harvests by expanding softwood log exports. In 2020, 9.6 million m³ of softwood logs were exported, 75.4% or 4.15 million m³ more than the previous year. The main customer country was China with 5.9 million m³.

Softwood

Production of sawn softwood reaches record level

The high domestic demand from the construction sector for wood construction products and also the good export opportunities in long-distance sales to the USA and China enabled the sawmill and timber industry to rapidly expand sawn wood production, especially in the second half of 2020.



Source: DeStatis statistic of production, quarterly

The production of planed products was expanded particularly strongly by + 13.5%. With more than 25 million m³ or an increase of 8.0%, which corresponds to an additional production of almost 1.9 million m³ compared to the previous year, the highest production result to date was achieved.

Balance of sawn wood

Sawn softwood (m³)					
	Year 2015	Year 2018	Year 2019	Year 2020 gesch.	Change % 2020 / 2019
unplaned timber	17.422.407	18.435.033	18.508.507	19.733.174	+6,6
planed timber	3.011.072	4.345.321	4.795.090	5.440.882	+13,5
Production sawn softwood	**20.433.479**	**22.780.354**	**23.303.597**	**25.174.056**	**+8,0**
Import unplaned timber	3.706.853	4.568.659	4.281.288	4.386.128	+2,4
Import planed timber	871.648	860.292	1.171.017	1.341.919	+14,6
Import sawn softwood	**4.578.501**	**5.428.951**	**5.452.305**	**5.728.047**	**+5,1**
Export unplaned timber	5.227.911	5.759.747	6.168.063	6.214.689	+0,8
Export planed timber	1.301.594	2.860.658	3.175.477	3.782.238	+19,1
Export sawn softwood	**6.529.505**	**8.620.405**	**9.343.540**	**9.996.927**	**+7,0**
Balance sawn softwood	**18.482.475**	**19.588.900**	**19.412.362**	**20.905.176**	**+7,7**

Source: DeStatis Production, Foreign trade

In the context of the strong upward price trend for sawn softwood, there was a strong build-up of inventories in the trade and among customers, which further increased the demand for sawn wood, so that individual processors reported supply bottlenecks.

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Including foreign trade, calculated domestic consumption - excluding inventory changes - also increased by almost 8% or 1.5 million m³. The additional domestic consumption of sawn softwood, resulting from the higher demand for sawn wood from the construction sector, processors for the preliminary products such as raw lamellas or sawn wood for glued wood construction products and for packaging wood, was served with 1.25 million m³ from the increased domestic production and 0.25 million m³ from the higher import. Domestic sawmills, despite taking advantage of opportunities in exports, primarily supplied the domestic market for sawn softwood first.

Taking advantage of export opportunities

The need to make the best possible use of the high volume of damaged wood was the reason to draw on the experience already gained from exports in previous years and to take advantage of the opportunities for additional sales, especially in long-distance exports. As the European sales markets were not very receptive to Corona, while China had already overcome the Corona pandemic very early on and was demanding products, and the softwood market in the USA was also picking up very strongly, German exports of sawn softwood were concentrated on these customer countries in recent months.

Export of sawn softwood in m³

	2019	2020	change in %
total	**9.343.540**	**9.996.527**	**7,0**
USA	1.108.301	1.710.354	54,3
Austria	1.010.777	1.039.391	2,8
Netherlands	973.564	976.663	0,3
France	950.564	925.375	-2,6
PR China	757.145	896.628	18,4
Belgium	728.989	801.770	10,0
UK	523.528	630.645	20,5
Italy	499.171	458.285	-8,2
India	353.122	281.058	-20,4
Switzerland	228.199	237.280	4,0
Poland	219.157	235.160	7,3
others	1.991.023	1.803.918	-9,4

Source: DeStatis Foreign Trade

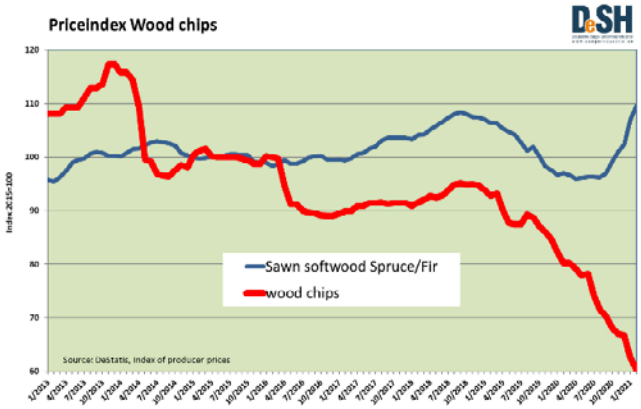
In the past year, the German sawmill and timber industry was very successful in taking advantage of export opportunities and sold 2.6 million m³ of sawn softwood to the USA and China alone. Behind this, well over 4 million m³ of logs were additionally marketed.

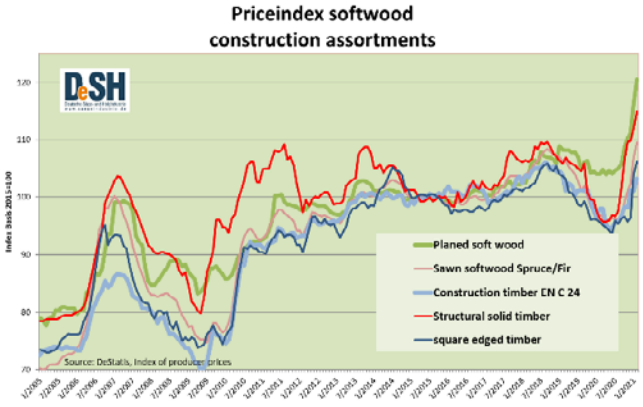
Different price development on the log and sawn wood markets

Due to the high volume of damaged wood, the price development on the log market continues to be under price pressure. However, the price trends for the individual wood types and in particular qualities are very different, also depending on the regional supply situation. In the case of softwood, it is becoming apparent that the prices of green wood qualities, which are in high demand, have been rising again significantly for some time.

Producer prices for sawn softwood were also under price and volume pressure for a long time. Only with the strong revival of volume demand and the increase in prices on the international market, particularly in the USA, did domestic prices also start to rise. There is also a clear differentiation in sawn softwood according to customer markets.

However, the earnings situation is being significantly impacted by the sharp drop in revenues for sawmill by-products, in particular wood chips. Approx. 40% of the volume cut goes into sawmill by-products at a completely inadequate price and significantly below value.



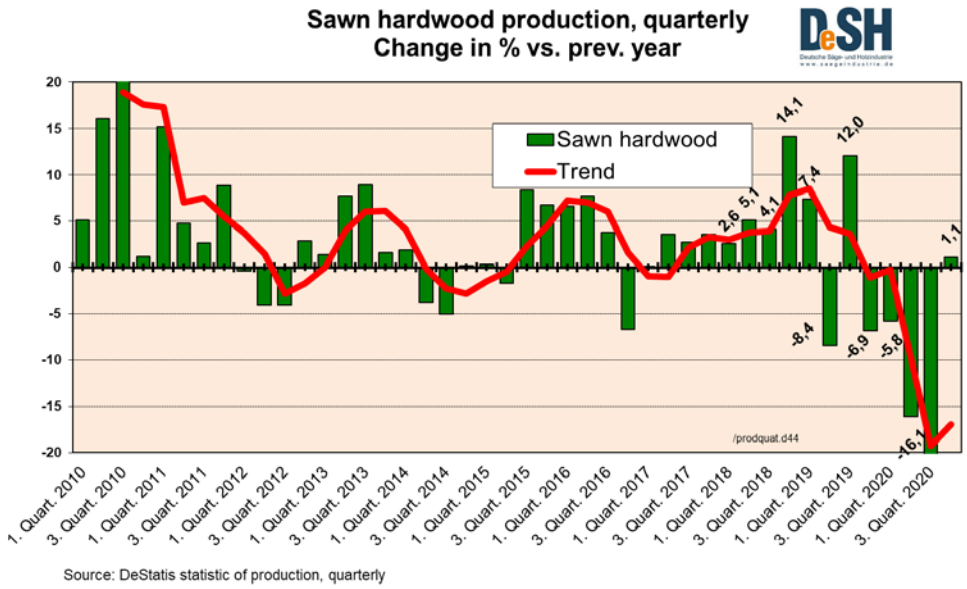


Hardwood

Production of sawn hardwood significantly lower

In contrast to the softwood market, the hardwood market has been strongly impacted by the effects of the Corona pandemic, but also by the significantly lower uptake of exports by customer countries.

As a result, hardwood companies had to significantly reduce cutting. Only in the 4th quarter of 2020, with the start of the new hardwood season, there has been no further reduction in cutting, but rather production is at the reduced level of the same quarter of the previous year.



In 2020 as a whole, the production of sawn hardwood decreased by 15% to 991 thousand m³, a decrease of 177 thousand m³. All hardwood types were affected by the cutback, primarily the beech and oak wood types that characterize the market.

Balance of sawn wood

Sawn hardwood (m³)					
	Jahr 2015	**Jahr 2018**	**Jahr 2019**	**Jahr 2020 gesch.**	**Ver.% 2020 / 2019**
unplaned timber	518.966	545.947	517.471	458.578	-11,4
planed timber	513.095	611.264	649.159	532.475	-18,0
Production sawn hardwood	**1.032.061**	**1.157.211**	**1.166.630**	**991.053**	**-15,0**
Import unplaned hardwood					
Oak	96.191	98.564	104.369	88.000	-15,7
Beech	30.668 *)	24.381 *)	21.513 *)	17.000 *)	-21,0
Import sawn hardwood	**411.155**	**348.379**	**370.697**	**350.000**	**-5,6**
Export unplaned hardwood					
Oak	132.330	132.781	117.260	99.000	-15,6
Beech	484.206 *)	532.865 *)	529.009 *)	485.000 *)	-8,3
Export sawn hardwood	**697.321**	**757.142**	**745.595**	**680.000**	**-8,8**
Balance sawn hardwood	**745.895**	**748.448**	**791.732**	**661.053**	**-16,5**

Source: DeStatis Production, Foreign trade

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Exports of sawn hardwood significantly lower in 2020

In the course of 2020, the development of declining export opportunities for German sawn hardwood to a large number of traditional customer countries, which had already begun in 2019, intensified.

To China, by far the largest customer for German sawn beech wood, in 2020 only 143 thousand m³ have been sold, a decrease of 6%. Exports to most of the other customer countries also went down, in some cases significantly.

After the USA as the second most important customer, the previous year's volume of 66 thousand m³ was shipped. By comparison, there was an increase in exports to Vietnam, Mexico and, marginally, Poland.

Accordingly, the total export volume of sawn beech wood in 2020 decreased to 485 thousand m³, the decline amounts to more than 8%.

The export volumes of sawn oak wood have fallen much more sharply. Deliveries to almost all customer countries are significantly lower, often with reductions in the double-digit range. Against the trend, deliveries to Switzerland have increased, but above all to the main customer country, the Netherlands. 16 thousand m³ were delivered to the Netherlands, an increase of 11%. The Netherlands has thus replaced Poland as the previous main customer country.

In total, only 99 thousand m³ of sawn oak wood (-15.6%) was exported in 2020. Compared to the previous years, this is a decrease of more than a quarter of the volume.

Outlook

The economy as a whole is still suffering from the measures taken to combat the Corona pandemic, and individual sectors of the economy are still severely affected.

Economic research institutes are somewhat more optimistic and, following the reduction of - 4.9% in the past year, expect GDP to increase by 3.1-3.7% this year and by a further 3.9% in 2022 - always depending on the success in combating the pandemic.

If the current positive development in the construction sector continues, in particular in residential construction including renovations, the sawmill and wood industry also expects the market to continue to develop positively in the current year.

Sawn softwood			
	Unit	**2020**	**2021**
Production	1.000 m³	**25.174,1**	**25.900**
Imports	1.000 m³	**5.728,0**	**5.900**
Exports	1.000 m³	**9.996,9**	**10.000**
Consumption	1.000 m³	**20.905,2**	**21.800**
Sawn hardwood			
	Unit	**2020**	**2021**
Production	1.000 m³	**991,1**	**1.050**
Imports	1.000 m³	**350,0**	**330**
Exports	1.000 m³	**680,0**	**710**
Consumption	1.000 m³	**661,1**	**670**

In the case of softwood, however, further development is also dependent on export sales opportunities, in particular to the main customer countries, including price developments and stable currencies.

The same applies to sawn hardwood; for beech, too, the development of sales opportunities in long-distance sales has a strong influence on the development of the domestic market.

ITALY

Source: FAOStat, European Commission, Federlegno

General economic information

	2019	2020	2021
Population *(million)*	60.4	60.2	60.1
GDP Growth *(%)*	0.3	-6.0	3.5
Inflation rate *(%)*	0.6	0.2	0.6
Unemployment rate *(%)*	9.9	11.2	9.6
Construction industry			
Buildings permits (units)	54 739	n.a.	n.a.
Housing starts (units)	n.a.	n.a.	n.a.
Housing completions (units)	n.a.	n.a.	n.a.
Wage Development *(%)*	1.4	n.a.	n.a.
Average working time in sawmilling *(h/week)*	40	40	40

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	1 004	1 004	1 004
Imports	3 740	3 598	3 598
Exports	308	308	308
Consumption	4 437	4 294	4 294

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	550	550	550
Imports	792	700	700
Exports	208	200	200
Consumption	1 034	1 034	1 034

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	4	-
Hardwood	4	3	-

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

LATVIA

Source: Association of Latvian Timber Producers and Traders

General economic information

	2019	2020	2021
Population *(million)*	1.9	1.9	1.9
GDP Growth *(%)*	2.2	-4.7	3.9
Inflation rate *(%)*	2.8	1.2	2.2
Unemployment rate *(%)*	6.2	8.4	8.7
Construction industry			
Buildings permits (units)	2 984	2 758	3 000
Housing starts (units)	n.a.	n.a.	n.a.
Housing completions (units)	n.a.	n.a.	n.a.
Wage Development *(%)*	7.2	5.4	6.0
Average working time in sawmilling *(h/week)*	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	2 660	2 600	2 400
Imports	1 100	1 094	1 150
Exports	2 906	2 912	2 900
Consumption	854	782	850

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	600	600	600
Imports	40	44	70
Exports	378	448	465
Consumption	262	196	205

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	2	3	2
Hardwood	2	3	2

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

Construction sawnwood markets show signs of over-heating. High demand and limited supply noticed in EU, UK and North America region.

At the same time, sawmilling side-products markets remaining on calm levels. Overall sawdust and chips sales possibilities in terms of volumes now are better comparing with last year, but prices still are low and struggling for backup from 5-year bottom levels.

In 2021 sawmilling industry is facing with shortened supply from Latvian State forests. This could be the reason for a decline in annual production level, because missing volumes could not be replaced from private forest owners or import operations. In middle-term period limited increase of protected forest area share is possible.

Bark-beetle situation in Baltic region is quiet, damaged forest areas are noticed only in minor quantities and could not affect market supply. Also, cold and long winter 2020/2021 helped to reduce pest regeneration possibilities.

NORWAY

Source: Treindustrien

General economic information

	2019	2020	2021
Population *(million)*	5.3	5.4	5.4
GDP Growth *(%)*	1.2	-2.5	3.3
Inflation rate *(%)*	2.2	2.5	2.7
Unemployment rate *(%)*	3.7	5.0	4.5
Construction industry			
Buildings permits (units)	31 643	29 948	29 500
Housing starts (units)	31 643	29 948	n.a.
Housing completions (units)	30 373	27 481	n.a.
Wage Development *(%)*	3.5	2.2	2.7
Average working time in sawmilling *(h/week)*	37.5	37.5	37.5

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	2 650	2 680	2 750
Imports	964	1 016	1 090
Exports	694	832	708
Consumption	2 920	2 864	3 132

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	n.a.	n.a.	n.a.
Imports	n.a.	n.a.	n.a.
Exports	n.a.	n.a.	n.a.
Consumption	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	3	3
Hardwood	-	-	-

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

The Norwegian economy in 2020, and the first quarter of 2021 is characterized by large movements through the year and large differences in separate industries. Though the downturn in March and April 2020 hit broadly, service industries were particularly impacted as infection control measures halted activity. During the fall we had a gradual recovery in parts of the economy, which dampened the annual downturn. At the start of 2021 infection control measures have again been tightened, affecting several industries.

The 2.5 per cent annual downturn in the mainland economy (that is abstracting oil and gas production), means that the Norwegian economy did relatively well through 2020 compared to other countries. In the 4th quarter 2020, Mainland GDP was 1.3 per cent lower than in the 4th quarter of 2019, according to seasonally adjusted figures from the National accounts, Statistics Norway. In most large European countries, the downturn has been considerably stronger.

Despite the Corona pandemic, oil and gas production experienced good growth in 2020. Activity levels rose nearly 9 per cent in volume. As a result, the total GDP downturn, including oil and gas extraction, pipeline transportation and ocean transport was at a mere 0.8 per cent.

The Norwegian government provided several support measures for business in general, such as measures to cover salary during sick leave/quarantine when the crisis struck. Support systems for layoffs have also been important to tackle unemployment and keep up the general purchasing power. At the beginning of the outbreak in March 2020 the unemployment rate in Norway increased, and reached 10 per cent by April, including layoffs, according to figures from the Norwegian Public Labour and Welfare Service. However, this decreased towards august 2020. At the end of the year the seasonally adjusted unemployment rate was 5,0 per cent, according to Statistics Norway. This is above the normal rate for Norway, but still low compared to other European countries. The wage rate and inflation rate are estimated to break even at 2,7 per cent for 2021. The savings ratio was 15,1 per cent in 2020, compared to 7,8 per cent in 2019. This indicates a delay in consumption, and consumption is expected to rise as infection control measures are gradually removed. The interest rates are low, with the policy rate from the central bank of Norway at a record low 0,0 per cent.

The housing market

The corona outbreak caused uncertainty in the construction and housing market. The sale of new dwellings decreased slightly, but is now back on track at a normal level. The construction industry is in general performing well, despite of the pandemic. Countercyclical fiscal-policy measures, such as the government stimulating public procurements, have benefited the construction industry. At the same time people are re-directing spending towards renovation projects, as travel and leisure options are limited because of the pandemic. As an effect of this the sale of wood products for the renovation market has largely increased. The housing prices have continued the increase during 2020. The price index for used dwellings shows a price increase of 10,9 per cent from

1st quarter 2020 to 1st quarter 2021. The price increase is particularly high in urban areas such as Oslo. The continued increase in housing prices means that an interest rate increase is likely to come in 2021.

The wood industry

There is strong market demand for wood both in the domestic market and export, for all market segments. The activity in the wood industry is high. The companies have managed to keep production up, while at the same time handling infection control. The stock levels in the wood industry are low. Imbalance in the international demand for pulp wood and bark beetle issues in Europe affect saw log availability. In addition, a cold winter and infection control measures have limited production capacity somewhat. The raw material situation has been satisfactory, but increasingly challenging towards the autumn 2020. Changes in demand in the pulp wood market may also affect availability of sawlogs in the coming months. Overall, the Norwegian wood industry continues to perform well, delivering good results. At the start of the pandemic the industry feared a fall in demand for wood products, instead the opposite occurred. The consumer market peaked, with everyone spending more time at home, renovating their houses, terraces etc, thus increasing the demand for wood products. The outlook for 2021 is positive.

ROMANIA

Source: Associatia Forestielor Din Romania (ASFOR)

General economic information

	2019	2020	2021
Population *(million)*	19.4	19.3	19.4
GDP Growth *(%)*	4.1	-5.0	2.5
Inflation rate *(%)*	3.8	2.6	3.0
Unemployment rate *(%)*	3.9	4.9	5.0
Construction industry			
Buildings permits (units)	16 000	17 500	17 000
Housing starts (units)	12 000	13 200	13 000
Housing completions (units)	10 000	10 500	8 000
Wage Development *(%)*	13.0	7.2	5.0
Average working time in sawmilling *(h/week)*	40	40	40

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	3 500	3 000	3 000
Imports	360	300	200
Exports	1 150	1 200	1 300
Consumption	2 800	2 100	1 900

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	1 600	1 615	1 550
Imports	130	105	100
Exports	650	710	750
Consumption	1 080	1 010	900

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	3	3	3
Hardwood	3	3	3

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

- 2020 was, for the entire European economic environment and for Romania an atypical year, with particular manifestations both in the area of resource and of production and trade of wood and wood-based products;
- In May 2020, the draft law was promulgated, by which the export of Romanian wood outside the European Union and the European Economic Area was banned (with effective application as of 2021); the measure did not bring significant effects on the market for wood products, including on the commercial component;
- The volume of wood placed on the market in 2020 was much higher than the usual volumes, partly due to windbreaks, but also as an oversupply to balance the financial resource of the supplier; at the same time, weaker demand was felt in several export markets for wood products and a decrease in domestic demand for firewood generated by the mild winters;
- In 2020, the average prices for resource allocation decreased by 10% compared to 2019; the average selling price of standing wood in 2020 is the lowest price in the last 5 years;
- Promoting a system for monitoring the traceability of wood mass, through the draft amendment to GD-1004-2016 in accordance with EUTR principles - European Regulation 995/2010 (SUMAL 1 and later SUMAL 2) provides for an efficient system to ensure, based on documents of primary origin, the legality of the origin of the wood mass; the analyzed period was thus characterized by a decrease in the volume of illegally cut wood, intensification of control but also the appearance of blockages;
- Unlike 2018, when the price of timber experienced the largest decrease and the largest loss for processors, the years 2019 and 2020 were characterized by a relative stability of prices for this product; in the first 10 months of 2020 compared to 2019 there was an increase in value in exports of only + 3.5%, while imports decreased for the same reference by -15.9%;
  - Boards and panels made of wood fibers or wood particles (MDF, chipboard, OSB, etc.) are constantly present in the import/export equation, where exports have a constant growth performance of 10-15%/year.
  - The context named leads to a self-exclusion of small economic agents from the wood exploitation sector (many economic operators entered in 2021 with unexploited stocks at the lots awarded in 2020), phenomenon directly associated with the sanitary/ economic crisis but also with the market rebounds.

The general picture presented characterizes/personalizes Romania regarding the trade with wood products as well as its placement in the global state of the forestry field for the reporting year 2020-2021

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SWEDEN

Source: Swedish Forest Industries Federation

General economic information

	2019	2020	2021
Population *(million)*	10.3	10.4	10.5
GDP Growth *(%)*	1.2	-7.0	4.8
Inflation rate *(%)*	1.8	1.7	1.4
Unemployment rate *(%)*	6.8	10.2	11.0
Construction industry			
Buildings permits (units)	57 000	58 500	n.a.
Housing starts (units)	51 600	54 000	52 500
Housing completions (units)	58 800	54 000	53 000
Wage Development *(%)*	2.6	1.9	2.2
Average working time in sawmilling *(h/week)*	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	18 600	18 500	18 800
Imports	430	550	600
Exports	12 700	14 100	13 500
Consumption	5 500	5 300	5 600

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	n.a	n.a.	n.a;
Imports	n.a	n.a.	n.a;
Exports	n.a	n.a.	n.a;
Consumption	n.a	n.a.	n.a;

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	4	4
Hardwood	-	-	-

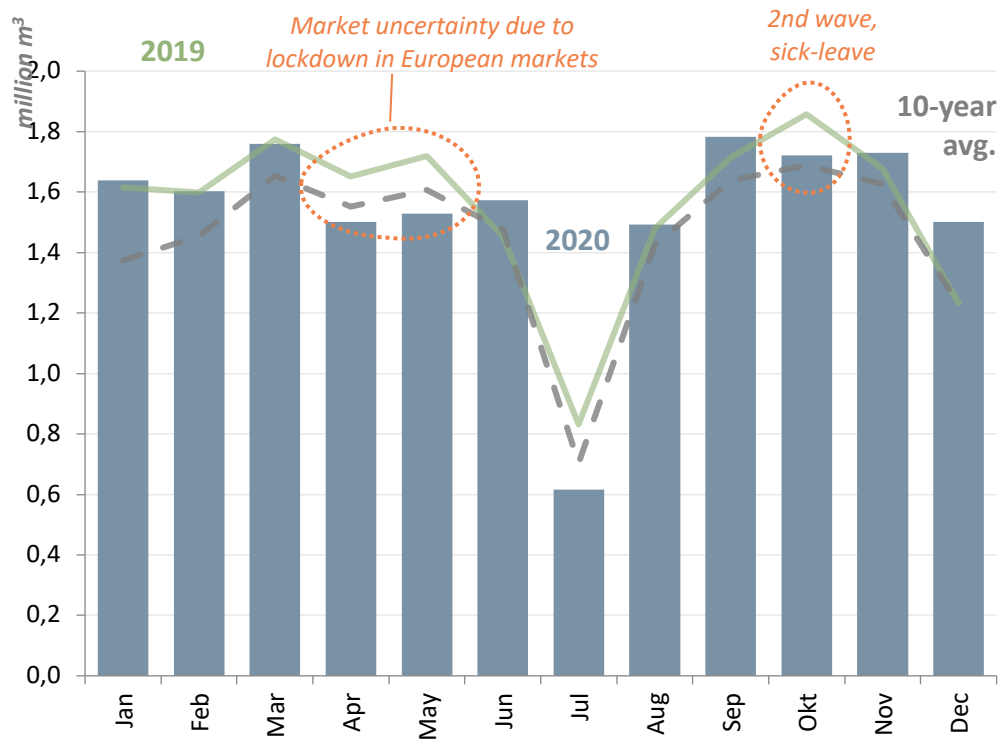
(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

2020 proved to be a strong year for the Swedish sawmill industry with a high demand from global markets. Total shipments increased however market uncertainties during the initial phases of the pandemic led to a slightly reduced production for the full year. As such the increase in shipments relied heavily on current inventories built up at the beginning of 2020. During the year inventories depleted and became the lowest seen in at least 20 years. A situation that remains as we move into the beginning of 2021. The outlook for 2021 continues to be strong, and we see the potential for new production records to be able to meet demand and rebuild stocks.

In springtime of 2020 the pandemic started to show it's more direct effects on the sawnwood markets. As in many other parts of the world many Swedish Sawmills started to prepare for a difficult year. Expecting demand to drop drastically as lockdowns were enacted throughout some of their most important markets. News of difficulties with shipments in the UK during April led to planned reductions of 10-25% in production at several sawmills. Production was however quickly resumed as it became apparent that demand remained stronger than first feared. To some degree the damage was however already done, it took until the end of May until production was up to speed again, and plans had already been made for extended summer holidays and summer production stops. All in all, production decreased by -10% for the months of April and May compared to 2019. Production in the holiday-month of July was even down by as much as -25%. Later in October the effects of the 2nd wave of the pandemic could also be observed as it impacted the production. Despite the market uncertainties and other difficulties during the year production for the full year of 2020 was relatively strong and approximately only -1% lower than the year before.

Figure 1, Swedish production of sawn wood 2020



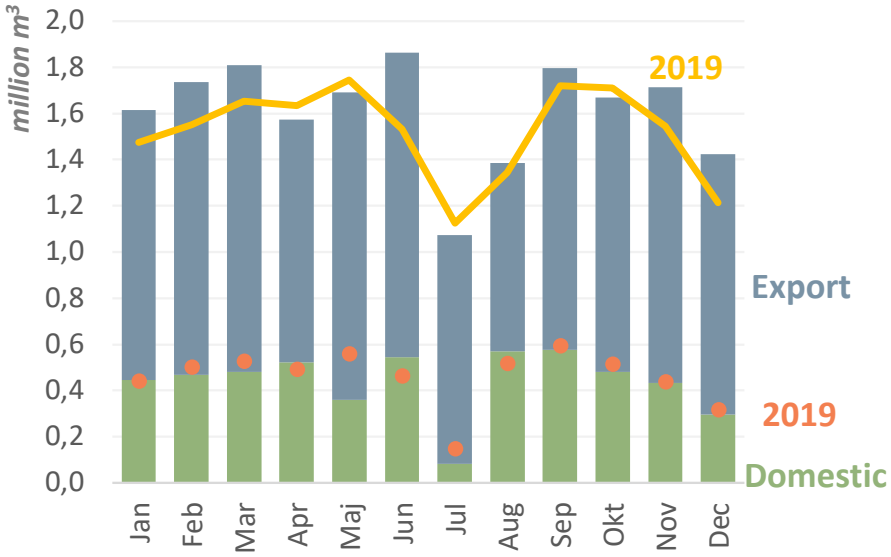
Source: Skogsindustrierna

Demand for Swedish sawnwood came primarily from export markets (+11%). Swedish exports of sawnwood increased by 11% and strongly contributed to the increased deliveries of +5%. Despite a strong domestic diy trend, often reported as +10% vs 2019, the total *domestic demand* declined by -5%. Primarily domestic demand was impacted by a reduced building activity of single-family housing, one of the main demand drivers. While

other construction sectors are expected to see a more modest development in 2021 building activity for single family housing is expected to surpass that of 2019 by +5%.

Coupled with a continued strong demand from the diy-sector, we anticipate a strong demand for sawnwood from the Swedish building sector in 2021.

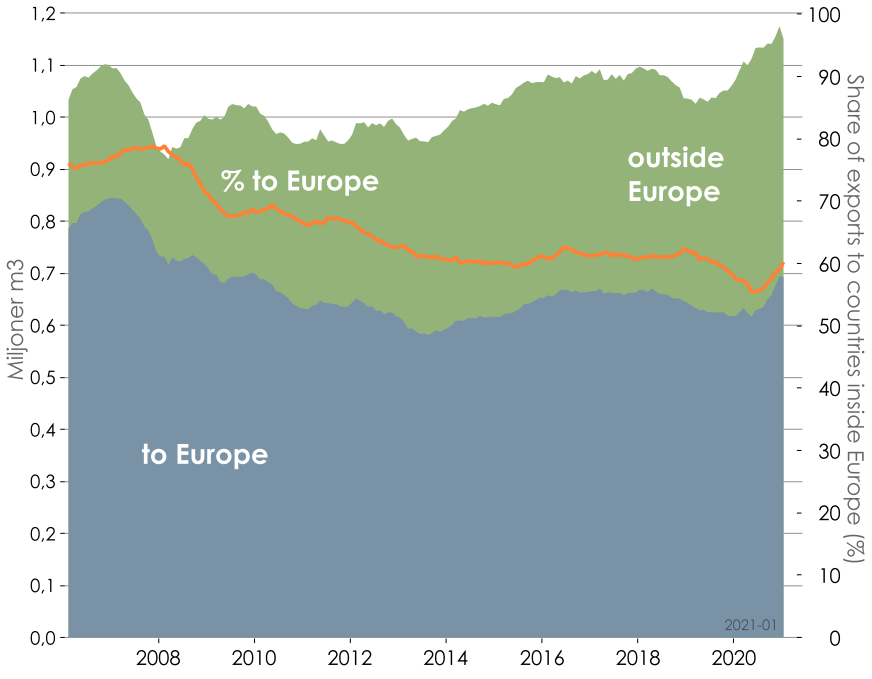
Figure 2, Deliveries of Swedish sawnwood 2020, domestic and export markets



Source: Skogsindustrierna

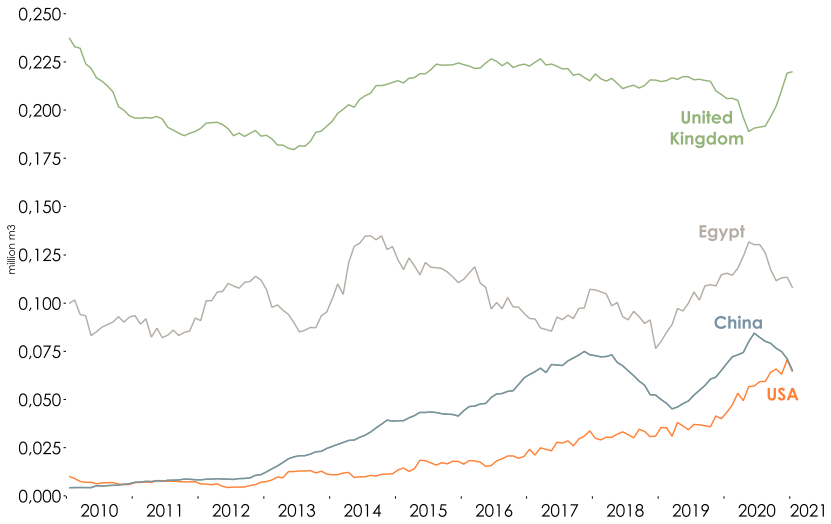
During the second quarter when many European countries were in different stages of lockdown Swedish exports were focused on other markets such as Egypt or to China where initial restrictions had been eased. During the fall exports later shifted back to western markets as restrictions were lifted and eased. Most notably exports to the UK increased significantly as they needed to resupply again to compensate for decreased trade activity during the spring.

Figure 3, Swedish total exports of sawn wood, to European and overseas markets



Source: Skogsindustrierna and Svandata

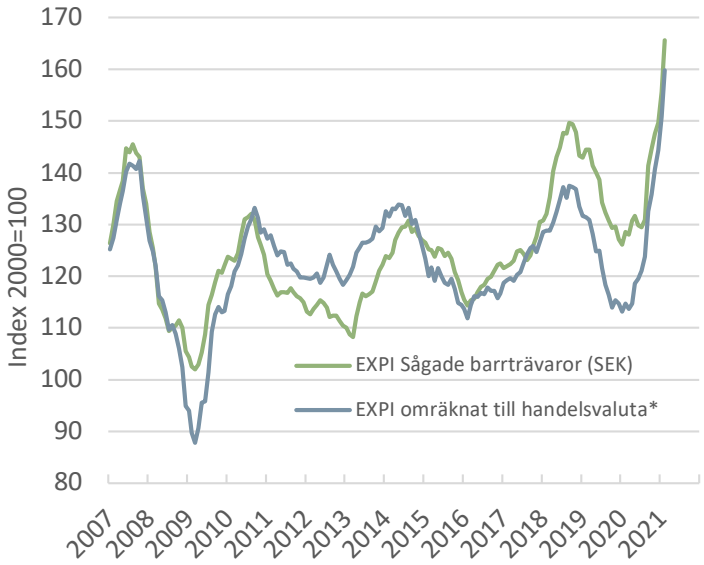
Figure 4, Swedish exports of sawnwood to selected markets, 12 month moving average



Source: Skogsindustrierna and Svandata

As prices and demand from the world markets increased, so did Swedish export prices. At first however held back and delayed due to a strengthening SEK compared to main trade currencies. Although the price development later picked up during the fall the SEK is still strong and price development in local currency has been somewhat lower than a comparable world price. In SEK export prices have increased by +30-40% since January 2020 to the beginning of 2021. While the corresponding world price for a typical fx-basket has been higher at +40-50%. Spruce has been the main specie driving the price increase.

Figure 5, Swedish sawn wood export price index



Source: Skogsindustrierna and Statistics Sweden

Outlook for the Swedish sawmill sector is positive, and optimism of a new record production in 2021 does not seem unreasonable. As for demand, it is proving difficult to find examples of any probable series of events that might slow down the markets significantly, at least until later in the autumn of 2021. We expect to see a strong demand for Swedish sawn wood in 2021, both from domestic and global markets.

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SWITZERLAND

Source: Holzindustrie Schweiz

General economic information

	2019	2020	2021
Population *(million)*	8.6	8.7	8.7
GDP Growth *(%)*	0.9	-3.0	3.3
Inflation rate *(%)*	0.4	-0.7	0.4
Unemployment rate *(%)*	2.3	3.5	3.3
Construction industry			
Buildings permits (units)	52 000	51 000	n.a.
Housing starts (units)	n.a.	n.a.	n.a.
Housing completions (units)	n.a.	53 000/47 000	51 900/49 000
Wage Development *(%)*	0.4	0.4	0.4
Average working time in sawmilling *(h/week)*	42.5	42.5	42.5

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	1 077	1 060	1 080
Imports	307	291	300
Exports	201	197	197
Consumption	1 183	1 154	1 183

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	48	49	49
Imports	45	45	47
Exports	22	22	22
Consumption	72	72	74

2020 and 2021 data are estimates

Availability of logs

	2019	2020	2021
Softwood	4	4	3
Hardwood	3	3	3

(1 = low; 2 = medium low; 3 = normal; 4 = medium high; 5 = high)

Market statement

The Swiss Wood Industry is full in today's market. Some of our members cannot take new orders until August 2021 or even further. Because of the fast growing prices and the expanding terms of delivery, some construction companies have some problem with the quote they have made a year ago. A chance is that the steel industry does have a price increase either and does not take our jobs. If we take a step back and look in the past year, we can see that what we have yet is a price correction which is essential not only for the industry, but even more for the forest owners. Though, the price level for logs in Switzerland has never been that low as in the neighbouring countries. For the next months, we must carefully and attentively watch the market to react with it. An ongoing problem will be the low prices for the by-products from the sawmills. There is still no improvement in sight.

UNITED KINGDOM

Source: Timber Trade Federation, UK Softwood Conference 2021, European Commission

General economic information

	2019	2020	2021
Population *(million)*	66.8	66.9	67.0
GDP Growth *(%)*	1.5	-9.7	6.0
Inflation rate *(%)*	1.8	0.9	1.3
Unemployment rate *(%)*	3.8	3.9	n.a.
Construction industry			
Buildings permits (units)	n.a.	n.a.	n.a.
Housing starts (units)	189 000	n.a.	n.a.
Housing completions (units)	214 000	n.a.	n.a.
Wage Development *(%)*	n.a.	n.a.	n.a.
Average working time in sawmilling *(h/week)*	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Sawn Softwood (in 1,000 m^3)

	2019	2020	2021
Production	3 410	3 500	3 780
Imports	6 394	6 580	6 840
Exports	193	190	190
Consumption	9 611	9 873	10 500

2020 and 2021 data are estimates

Sawn Hardwood (in 1,000 m^3)

	2019	2020	2021
Production	n.a.	n.a.	n.a.
Imports	519	n.a.	n.a.
Exports	22	n.a.	n.a.
Consumption	n.a.	n.a.	n.a.

2020 and 2021 data are estimates

Market statement

UK mills are carrying less stock and narrower range as their focus is on maximising output. All mills were negatively affected by bad weather in January 2021.
Mills are operating at or close to capacity, and latent capacity is negligible. Demand will continue to exceed capacity and therefore prices will rise. Soaring log costs to UK mills 80% in 6 months. (Keith Ainslie, UK Softwood Conference 2021).

Imports and consumptions are expected to stay strong and actually increase in 2021 on the back of a recovering economy and a very lively construction market. DIY/ garden/home office sector is expected once again to do very well.

Commentary taken from UK Softwood Conference 2021.

5. Construction Industry

EOS expressed gratitude to Orifjon Abidov, Economic Advisor of the European Panel Federation, for the contribution to this chapter.

5.1 The Construction Industry in Europe

In 2020, the European construction activity measured by the construction output according to Euroconstruct registered a first decrease since 2013 due to the consequences of the corona crisis (-7.8% compared to 2019). The consequences for the individual countries are significantly different. Thus, the range goes from a small growth in Finland (+1.3%) and stagnation in Portugal and Norway to a sharp decline of almost one fifth in the UK in 2020 compared to 2019. Other important countries such as France or Spain were also strongly affected, whereas the German market (-1.6%) did surprisingly well thanks to the fact that construction activities could continue relatively unhindered.

Regarding the individual market segments, the civil engineering sector was least affected by the corona turbulences. The expenditure on infrastructure facilities is estimated to have dropped by only 3.8% in 2020 which compares with a sharper contraction of residential (-8.6%) and non-residential (-9.2%) construction. Due to government bans and legal uncertainties in some EU countries in spring 2020, also many renovation projects came to a stop, partly even for several weeks. This led to the fact that even the building renovation sector was heavily affected, which is different from typical economic crises.

The Euroconstruct network forecasts a moderate growth for non-residential construction in 2021-2023 (+3% per year), which means that its output is expected to remain below pre-corona levels of 2019 by the end of 2023. This is likely to be different for the residential and civil engineering segments, which are predicted to grow again by 3.2% and 3.9% per year from 2021 to 2023.

This positive assessment of the further development of construction activity is based on the assumption that the economy in the 19 Euroconstruct countries will probably grow by 4.9% in 2021. But in times of strong restrictions of public life and with on-going lockdowns in many countries, of which duration and consequences are currently difficult to assess, this can only be an orientation. In fact, the direct impact on the construction industry should be much less severe than in spring 2020. The situation for construction companies, customers and authorities is no longer entirely new and most construction sites should remain open at the time of writing. At the same time, compared to the period March-May 2020, there are already many protection measures in use and digital working procedures are practised. But indirect negative effects of the pandemic must be considered, as well. Already the first lockdown

Figure 5.1: Growth rates of the different segments of the European construction market, 2020

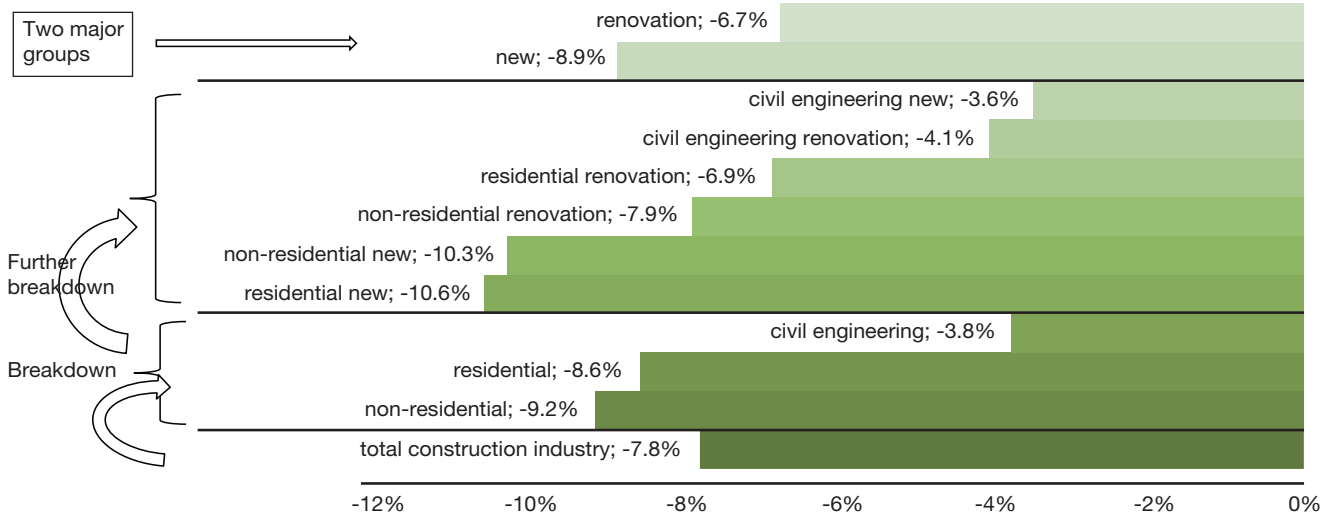


Table 5.1: Overview of the construction industry in Western and Eastern Europe in million EUR in 2019 and 2020

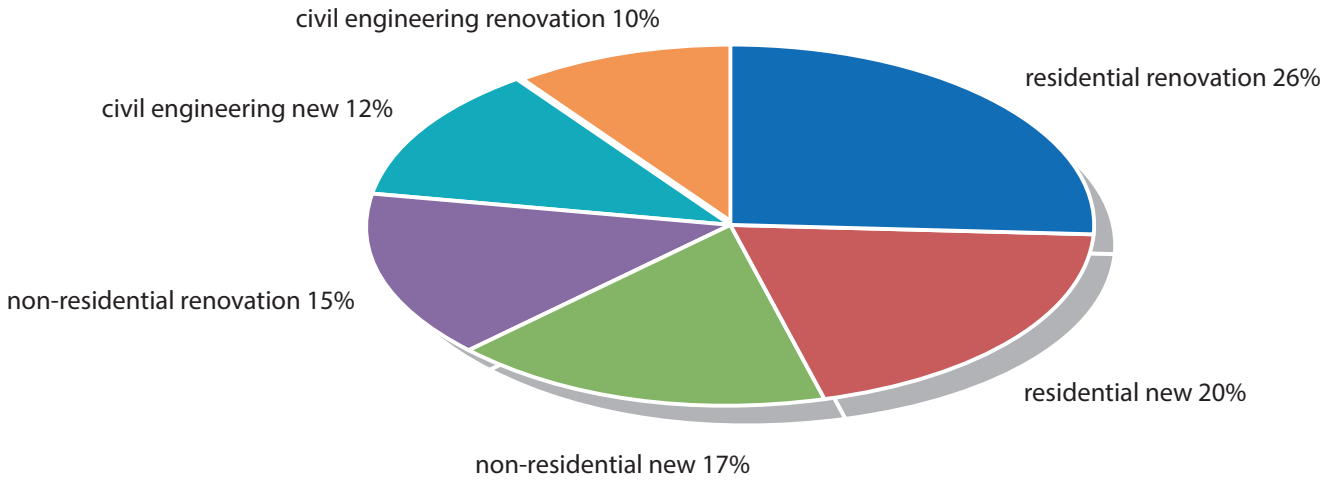
	total construction*			new residential			residential renovation			new non-residential			non-residential renovation			new civil engineering			civil renovation		
	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%	2019	2020	%
Austria	45,096	43,835	-2.8%	13,703	13,442	-1.9%	6,044	5,947	-1.6%	12,723	11,985	-5.8%	4,059	3,961	-2.4%	6,855	6,793	-0.9%	1,714	1,707	-0.4%
Belgium	47,189	43,848	-7.1%	9,045	8,291	-8.3%	13,369	12,378	-7.4%	8,910	7,560	-15.2%	7,505	7,081	-5.6%	6,479	6,632	2.3%	1,881	1,907	1.4%
Denmark	38,062	37,790	-0.7%	4,466	4,243	-5.0%	13,426	13,560	1.0%	6,892	6,756	-2.0%	4,295	4,166	-3.0%	6,456	6,474	0.3%	2,528	2,592	2.5%
Finland	36,108	36,583	1.3%	7,505	6,979	-7.0%	8,347	8,414	0.8%	8,178	8,626	5.5%	5,481	5,465	-0.3%	4,798	5,217	8.7%	1,799	1,882	4.6%
France	229,726	193,542	-15.8%	47,594	42,930	-9.8%	62,678	53,590	-14.5%	32,604	27,319	-16.2%	35,601	28,858	-18.9%	23,062	18,380	-20.3%	28,187	22,465	-20.3%
Germany	378,472	372,482	-1.6%	68,278	67,254	-1.5%	145,759	145,030	-0.5%	40,895	39,055	-4.5%	55,103	53,725	-2.5%	34,971	34,622	-1.0%	33,466	32,796	-2.0%
Ireland	28,365	23,839	-16.0%	4,377	3,519	-19.6%	4,714	4,050	-14.1%	11,493	9,799	-14.7%	3,831	3,266	-14.7%	2,607	2,115	-18.9%	1,343	1,089	-18.9%
Italy	178,829	165,605	-7.4%	16,032	14,333	-10.6%	71,715	64,247	-10.4%	17,435	15,510	-11.0%	35,888	33,344	-7.1%	12,521	12,734	1.7%	25,239	25,437	0.8%
Netherlands	86,141	84,265	-2.2%	16,151	14,616	-9.5%	21,267	21,625	1.7%	13,695	12,736	-7.0%	12,131	12,337	1.7%	15,216	15,216	0.0%	7,680	7,734	0.7%
Norway	45,265	45,303	0.1%	9,466	8,863	-6.4%	7,840	7,824	-0.2%	7,249	7,326	1.1%	8,700	8,675	-0.3%	8,154	8,781	7.7%	3,857	3,833	-0.6%
Portugal	22,492	22,513	0.1%	3,641	3,655	0.4%	7,885	7,956	0.9%	4,131	4,053	-1.9%	1,877	1,841	-1.9%	2,819	2,855	1.3%	2,140	2,153	0.6%
Spain	125,100	109,436	-12.5%	41,200	35,638	-13.5%	20,750	18,468	-11.0%	24,060	20,080	-16.5%	15,800	13,588	-14.0%	14,990	13,487	-10.0%	8,300	8,176	-1.5%
Sweden	45,260	45,060	-0.4%	9,269	8,705	-6.1%	7,798	7,950	1.9%	7,347	6,743	-8.2%	7,178	7,119	-0.8%	8,725	9,316	6.8%	4,942	5,228	5.8%
Switzerland	62,918	61,670	-2.0%	20,448	19,676	-3.8%	8,227	8,036	-2.3%	9,748	9,675	-0.7%	10,403	10,303	-1.0%	4,666	4,524	-3.1%	9,425	9,456	0.3%
UK	225,967	181,809	-19.5%	60,463	43,355	-28.3%	40,031	30,023	-25.0%	61,918	51,599	-16.7%	25,668	21,034	-18.1%	26,599	24,737	-7.0%	11,288	11,062	-2.0%
Total Western Europe	**1,594,991**	**1,467,580**	**-8.0%**	**331,636**	**295,498**	**-10.9%**	**439,852**	**409,097**	**-7.0%**	**267,278**	**238,823**	**-10.6%**	**233,518**	**214,763**	**-8.0%**	**178,918**	**171,882**	**-3.9%**	**143,789**	**137,517**	**-4.4%**
Czech Republic	23,728	22,807	-3.9%	7,020	6,725	-4.2%	2,649	2,615	-1.3%	4,196	3,815	-9.1%	3,297	3,034	-8.0%	2,199	2,336	6.2%	4,366	4,282	-1.9%
Hungary	17,010	15,607	-8.3%	2,687	2,204	-18.0%	1,841	1,712	-7.0%	3,695	3,758	1.7%	2,990	2,901	-3.0%	3,455	2,902	-16.0%	2,341	2,130	-9.0%
Poland	57,007	55,246	-3.1%	12,083	11,491	-4.9%	3,648	3,542	-2.9%	14,547	13,369	-8.1%	8,390	7,971	-5.0%	12,719	13,113	3.1%	5,620	5,761	2.5%
Slovak Republic	5,466	4,948	-9.5%	973	888	-8.7%	534	425	-20.4%	1,481	1,382	-6.7%	701	628	-10.4%	1,516	1,329	-12.4%	262	297	13.5%
Total Eastern Europe	**103,211**	**98,609**	**-4.5%**	**22,763**	**21,308**	**-6.4%**	**8,672**	**8,294**	**-4.4%**	**23,919**	**22,323**	**-6.7%**	**15,378**	**14,533**	**-5.5%**	**19,890**	**19,681**	**-1.1%**	**12,589**	**12,470**	**-0.9%**
Total Europe	**1,698,202**	**1,566,189**	**-7.8%**	**354,399**	**316,806**	**-10.6%**	**448,524**	**417,391**	**-6.9%**	**291,197**	**261,145**	**-10.3%**	**248,896**	**229,296**	**-7.9%**	**198,808**	**191,563**	**-3.6%**	**156,378**	**149,987**	**-4.1%**

source: Euroconstruct

* total construction also includes services/construction by other sectors, DIY, black economy

caused economic damages such as rising unemployment, a sharp drop in turnovers, tax losses which will most probably be felt in the coming months. Much will also depend on how well the government relief/stimulus programmes will work. Beyond the corona issue in the medium term, positive factors such as the need for housing in urban regions, energy-saving renovation projects and the modernisation of the infrastructure are expected to set the tone again.

Figure 5.2: Relative share of the different segments in the overall construction market in Europe, 2020



With a stable share of 46%, residential construction remains the building sector's main branch. Non-residential buildings rank second, accounting for 32%, while civil engineering projects account for the remaining 22%.

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5.1.1 Residential Construction

Table 5.2: Total residential construction volume in Europe in million EUR and annual increases, 2019-2023

Total volume x million EUR		% change			
(current prices)	**2019**	**2020***	**2021****	**2022****	**2023****
Austria	19,746	-1.8	2.0	1.8	2.1
Belgium	22,414	-7.8	9.8	4.7	4.4
Denmark	17,892	-0.5	3.1	2.4	2.0
Finland	15,852	-2.9	-4.4	-1.0	0.1
France	110,272	-12.5	10.6	2.3	2.1
Germany	214,037	-0.8	1.8	-0.2	-0.7
Ireland	9,091	-16.7	8.8	13.2	9.9
Italy	87,747	-10.4	9.0	4.7	2.0
Netherlands	37,418	-3.1	-5.4	5.7	8.0
Norway	17,306	-3.6	-7.6	4.7	4.0
Portugal	11,526	0.7	2.2	2.5	2.9
Spain	61,950	-12.7	5.0	3.2	2.7
Sweden	17,067	-2.4	-2.4	0.4	2.8
Switzerland	28,675	-3.4	-0.2	0.1	0.0
UK	100,494	-27.0	16.4	8.9	4.5
Total Western Europe	**771,488**	**-8.7**	**5.0**	**2.9**	**2.0**
Czech Republic	9,669	-3.4	-1.4	0.9	2.9
Hungary	4,528	-13.5	-4.1	12.9	10.9
Poland	15,731	-4.4	-3.5	1.0	2.4
Slovak Republic	1,506	-12.8	-2.8	5.1	8.1
Total Eastern Europe	**31,435**	**-5.8**	**-2.9**	**2.7**	**4.0**
Total Europe	**802,923**	**-8.6**	**4.7**	**2.9**	**2.1**

* estimates
** forecasts
Source: Euroconstruct

Following the significant growth of 5.3% in 2016-2017, the growth in total residential construction slowed to just 2.4% per year in 2018-2019. The contraction in residential construction in 2020 due to the consequences of the corona crisis of 8.6% was essentially driven by Western Europe given the size of the market, although the output also dropped in Eastern Europe by 5.8%. The forecast calls for a rebound in residential construction output in Western Europe (+5%) and a continued contraction in Eastern Europe (-2.9%) in 2021. An assumed growth in 2022-2023 is likely to be below the recent historical averages due to the lagged effects of the current economic crisis on the purchasing power of household, income and public finance.

At a national level in 2020, except in Portugal (+0.7%), residential construction contracted in all other 18 countries covered by Euroconstruct. This is despite better than expected residential renovation activities in Sweden (+1.9%), the Netherlands (+1.7%), Denmark (+1%) and Finland (+0.8%) (see Table 5.2 for more details).

Looking towards the future, all countries in Western Europe except Finland are expected to see their residential construction output remaining at least stable or growing between +0.3% and 11% per year for the period of 2021-2023. Nevertheless, despite this growth the output level in this segment is predicted to remain below the 2019 levels by the end of 2023 in Norway, Spain, Sweden, Switzerland and the United Kingdom. In Eastern Europe, the growth is forecast to resume only in 2022, which means that the output level in all four countries covered by Euroconstruct, is predicted to remain below the 2019 levels by the end of 2023.

Table 5.3: Finished single and two-family dwellings forecasts for the Western and Eastern European countries x 1,000 dwellings and annual increases (%), 2019-2023

	2019	2020*	2021**	2022**	2023**
Austria	17.7	1.7	-0.6	-0.6	0.0
Belgium	19.1	-3.7	-4.3	-1.7	11.6
Denmark	8.1	12.3	9.9	10.0	9.1
Finland	7.3	-4.1	-10.0	-4.8	1.7
France	163.8	-2.9	-10.1	13.1	3.5
Germany	103.1	-3.0	0.0	-5.0	0.0
Ireland	17.6	-22.7	10.3	16.7	14.9
Italy	31.0	-8.4	1.7	5.9	5.1
Netherlands	41.6	-17.1	-4.3	7.6	8.5
Norway	8.9	2.0	-7.4	-0.4	-1.7
Portugal	7.4	31.6	15.0	0.0	5.0
Spain	17.0	0.0	11.8	-5.3	-5.6
Sweden	15.2	0.3	-9.4	-9.3	11.8
Switzerland	6.2	-4.1	-0.5	-0.1	0.1
UK	159.5	-30.9	22.1	3.2	1.0
Western Europe	**623.5**	**-11.0**	**1.7**	**4.0**	**3.1**
Czech Republic	19.9	1.2	1.2	1.5	0.5
Hungary	10.1	8.8	9.1	0.0	16.7
Poland	69.2	4.8	3.4	-2.7	-1.4
Slovak Republic	13.4	-6.0	-1.6	2.4	2.4
Eastern Europe	**112.6**	**3.2**	**3.0**	**-1.2**	**1.2**
Total Europe	**736.1**	**-8.8**	**1.9**	**3.1**	**2.8**

* estimate
** forecast
Source: Euroconstruct

The number of completions of new single and two-family dwellings upturned strongly in 2019 with 4.1% growth before contracting sharply by 8.8% in 2020 due to the economic downturn caused by the COVID-19 pandemic. In the following years, a mild growth of 2.6% per year anticipated for 2021-2023 is unlikely to help the total completions of new single and two-family dwellings return to its pre-pandemic level of 2019 by the end of 2023. The largest market for finished one and two-family dwellings in Europe is France with a 22% market share in 2019 or 163,800 units (see Table 5.3). After increasing by 5% in 2019, the completion of one and two-family dwellings is expected to decrease in 2020-2021 (-6.5% per year) in France before increasing strongly by 8.3% per year in 2022-2023. The United Kingdom is the second largest market in this segment with a 21% market share in 2019 or 159,500 units. Strong housing demand in the UK supported higher completions of single and two-family dwellings for the last four years up to 2019 (+8.9% per year) before a significant contraction in 2020 caused by restrictions due to the COVID-19. Despite an assumed strong rebound in 2021 (+22.1%) and a mild growth in 2022-2023 (+2.1% annually), this is unlikely to offset a significant decrease of nearly 31% experienced in 2020. Germany is the third largest market in this segment with a 14% market share in 2019 or 103,000 of finished one and two-family dwellings, which was already in decline for the last several years prior to the corona induced economic crisis. The limited availability of lands, high construction costs and stringent legislation are likely to continue to negatively affect the completion of single and two-family dwellings in

Table 5.4: Finished flats forecast for the Western and Eastern European countries x 1,000 dwellings and annual increases (%), 2019-2023

	2019	2020*	2021**	2022**	2023**
Austria	41.0	1.0	-2.2	-3.2	-3.3
Belgium	30.2	-12.9	-10.6	-1.7	11.7
Denmark	26.9	-14.1	-11.3	-7.3	0.0
Finland	35.5	-15.5	-3.3	-17.2	-8.3
France	255.6	-2.7	-5.6	-6.1	12.5
Germany	189.9	-5.2	2.8	5.4	2.6
Ireland	3.6	-4.2	47.1	50.0	32.0
Italy	57.1	-11.9	4.4	4.6	4.6
Netherlands	29.1	4.8	1.6	11.3	5.8
Norway	21.4	1.8	1.5	-25.2	0.9
Portugal	6.8	31.6	15.0	0.0	5.0
Spain	61.8	-6.1	13.8	-6.1	-6.5
Sweden	52.9	-16.3	-7.5	1.0	-8.9
Switzerland	46.3	-2.6	0.1	0.4	0.1
UK	46.5	-29.3	17.1	7.1	1.4
Western Europe	**904.5**	**-6.6**	**0.0**	**-1.2**	**3.9**
Czech Republic	16.5	-16.4	9.5	5.3	6.3
Hungary	11.0	54.4	-41.2	0.0	30.0
Poland	138.2	-5.6	-5.7	4.1	-2.3
Slovak Republic	6.8	-2.9	4.5	-2.9	6.0
Eastern Europe	**172.5**	**-2.7**	**-7.7**	**3.6**	**0.9**
Total Europe	**1,077.0**	**-6.0**	**-1.3**	**-0.5**	**3.4**

* estimate
** forecast
Source: Euroconstruct

Germany in the future. The completions of flats experienced a slightly lower contraction in 2020 compared to finished single and two-family dwelling as a result of the pandemic crisis at -6.6% compared to the previous year. (see Table 5.4). The outlook calls for a moderate growth of just 0.9% per year in 2021-2023. France, Germany and Poland are the largest markets for finished flats with a market share of 24%, 18% and 13% respectively in 2020. Among these top-3 countries, only Germany is expected to register a renewed growth following an assumed economic recovery as of 2021 onwards.

Table 5.5: Housing starts forecast for the Western and Eastern European countries x 1,000 dwellings and annual increases (%), 2019-2023

Total volume x 1,000 dwellings	% change				
	2019	**2020***	**2021****	**2022****	**2023****
Austria	56.7	-0.2	-6.0	-2.3	-1.9
Belgium	44.0	-3.2	-6.1	9.5	6.6
Denmark	33.5	-13.7	0.3	5.2	3.3
Finland	37.3	-11.5	-9.1	-7.0	-5.0
France	409.3	-16.8	15.1	3.7	5.3
Germany	331.3	-5.7	-5.7	-5.5	-2.7
Ireland	28.5	-24.6	41.9	8.2	12.1
Italy	93.4	-14.6	5.5	4.4	4.2
Netherlands	69.0	-5.0	6.1	9.4	6.9
Norway	31.9	-21.6	0.0	4.0	11.5
Portugal	19.1	74.8	3.6	4.0	2.9
Spain	106.3	-41.7	6.5	6.1	7.1
Sweden	53.0	-5.5	-2.5	2.4	3.0
Switzerland	51.4	-0.5	0.2	-1.2	-1.6
UK	180.0	-43.3	17.6	5.0	1.6
Western Europe	**1,544.6**	**-15.5**	**4.9**	**1.9**	**2.9**
Czech Republic	38.7	-4.7	-1.5	0.3	2.7
Hungary	43.0	-36.1	17.9	20.3	6.0
Poland	237.3	-11.1	-10.0	3.2	2.0
Slovak Republic	21.5	-7.9	0.5	2.5	0.0
Eastern Europe	**340.5**	**-13.3**	**-5.6**	**4.7**	**2.5**
Total Europe	**1,885.1**	**-15.1**	**3.0**	**2.4**	**2.8**

* estimates
** forecasts
Source: Euroconstruct

Housing starts, which includes both flats and individual houses, experienced an upward trend between 2015 and 2019 and reached nearly 1.9 million units before registering the first contraction in 2020 due to the lockdown introduced to combat the COVID spread in Europe. The housing starts are forecast to rebound in 2021, provided that the vaccination programs against COVID among the European population are accelerated. The lag effect of restriction imposed in 2020 is likely to lead to a moderate slow-down of growth from 3% in 2021 to 2.6% annually in 2022-2023. Nevertheless, the levels of housing starts are forecast to remain below the pre-pandemic levels by the end of 2023 by 150,000 dwellings.

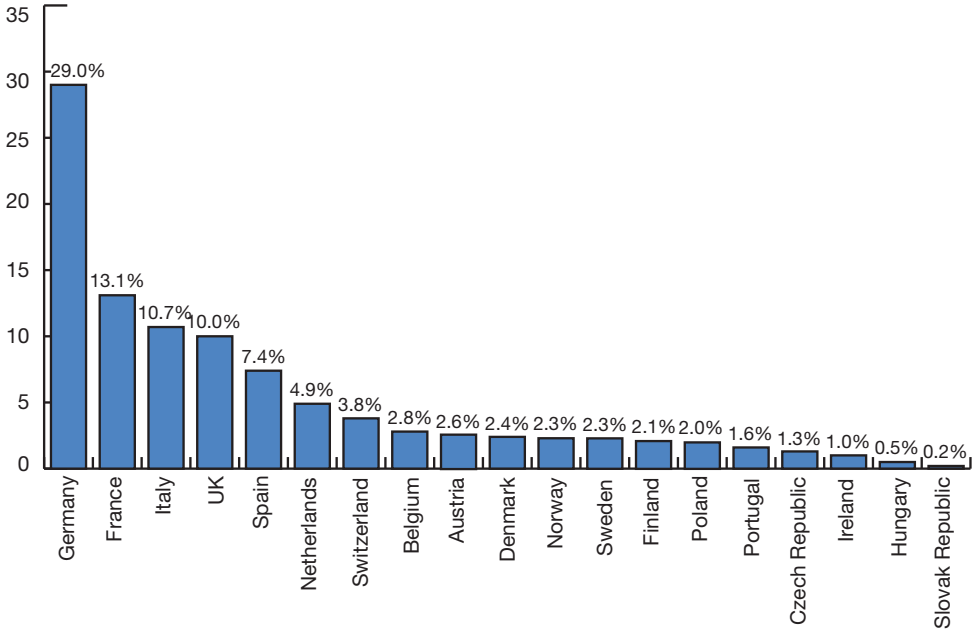
Table 5.6: Housing permits forecast for the Western and Eastern European countries x 1,000 dwellings and annual increases (%), 2019-2023

Total volume x 1,000 dwellings		% change			
	2019	2020*	2021**	2022**	2023**
Austria	63.2	-11.6	0.2	-4.5	0.6
Belgium	46.6	-7.9	-2.1	13.8	3.3
Denmark	35.1	-18.5	3.1	3.4	1.6
Finland	38.9	-8.5	-9.6	-9.3	-3.1
France	445.4	-16.8	18.4	3.1	3.0
Germany	360.5	-5.7	-2.9	-6.1	-4.8
Ireland	40.3	1.9	-19.5	21.2	5.0
Italy	93.6	-15.1	6.3	4.1	4.2
Netherlands	65.4	0.9	10.6	13.7	3.6
Norway	32.1	-22.1	4.4	8.8	2.0
Portugal	24.0	-1.9	5.0	5.0	5.0
Spain	89.7	-1.9	5.0	5.0	5.0
Sweden	59.4	-9.8	-2.5	4.9	5.0
Switzerland	59.9	-0.1	0.2	-1.5	-1.4
UK	195.9	-43.3	21.1	4.4	-0.6
Western Europe	**1,649.9**	**-13.9**	**6.2**	**2.1**	**1.1**
Czech Republic	31.6	1.9	0.9	0.6	2.4
Hungary	35.1	-31.7	20.8	20.7	5.7
Poland	269.5	-14.3	-9.1	2.9	0.9
Slovak Republic	20.4	-8.8	0.5	4.3	1.0
Eastern Europe	**356.6**	**-14.3**	**-5.1**	**4.5**	**1.6**
Total Europe	**2,006.6**	**-13.9**	**4.2**	**2.5**	**1.2**

* estimates
** forecasts
Source: Euroconstruct

Housing starts represent a medium-term forecast for housing completions, while housing permits provide a long-term outlook for housing completions. According to Euroconstruct, the total number of housing permits in 19 countries reached over 2 million units in 2019 with 82% coming from Western Europe. The expected trend for 2021-2023 from 2020 lows caused by the pandemic is very similar to the one for housing starts. A renewed assumed growth in housing permits from 2021 onwards is unlikely to offset the drop registered during 2020.

Figure 5.3: Relative share of the Western and Eastern European countries in the overall residential construction market, 2020



Germany represents about 29% of the overall residential construction market in Europe in 2020 according to Euroconstruct (see Figure 5.3), followed by France (13.1%), Italy (10.7%), the UK (10%) and Spain (7.4%). Together, those five countries represent 70.2% of the overall residential construction market in Europe in 2020. The other European countries hold a share of maximum 4.9%.

The residential renovation posted a lower rate of drop (-6.9%) in 2020 compared to the new residential sector (-10.6%) thanks to the households' higher expenditures on renovation projects during the pandemic (see Figure 5.1). Some countries even registered a mild growth of between 0.8% to 1.9% in residential renovation construction in 2020 compared to 2019 (Denmark, Finland, Netherlands, Portugal and Sweden, see Table 5.2).

So far, European households are enjoying better a access to credit, low interest rates and in some countries they benefit from state support in the form of various programmes to encourage access to housing. The phasing out of these programmes in some countries would substantially reduce the growth outlook for residential construction in the future. At the same time, the recovery in house prices generates positive signals for investments, but it also tends to overheat the market leading to a lower growth outlook for residential construction. The residential construction is predicted to grow again from 2021 onwards by 3.2% per year thanks to the easing of restriction measures and rebounding economic activity, which should allow its levels reaching the pre-pandemic levels by the end of 2023.

5.1.2. Non-Residential Construction

Table 5.7: Total non-residential construction volume in Europe and annual increases (%), 2019-2023

Total volume x million EUR		% change			
(current prices)	2019	2020*	2021**	2022**	2023**
Austria	16,781	-5.0	3.5	2.9	2.2
Belgium	16,415	-10.8	6.3	2.5	1.8
Denmark	11,186	-2.4	-3.1	2.4	2.5
Finland	13,659	3.2	-7.8	1.8	-3.2
France	68,205	-17.6	12.2	8.0	3.2
Germany	95,998	-3.4	-4.0	1.2	2.0
Ireland	15,324	-14.7	5.7	-3.0	-0.1
Italy	53,322	-8.4	3.4	5.3	2.7
Netherlands	25,827	-2.9	-7.6	4.7	5.6
Norway	15,948	0.3	-1.9	4.2	-0.5
Portugal	6,008	-1.9	2.5	2.6	2.7
Spain	39,860	-15.5	2.8	2.0	2.3
Sweden	14,525	-4.6	-0.8	-1.0	3.0
Switzerland	20,152	-0.9	0.9	0.3	0.6
UK	87,586	-17.1	11.2	5.9	5.1
Total Western Europe	**500,796**	**-9.4**	**2.8**	**3.6**	**2.7**
Czech Republic	7,493	-8.6	-3.9	3.1	3.5
Hungary	6,685	-0.4	-2.2	1.4	0.9
Poland	22,937	-7.0	0.8	4.9	3.9
Slovak Republic	2,182	-7.9	-1.6	2.7	3.9
Total Eastern Europe	**39,298**	**-6.2**	**-0.7**	**3.8**	**3.3**
Total Europe	**540,093**	**-9.2**	**2.5**	**3.7**	**2.7**

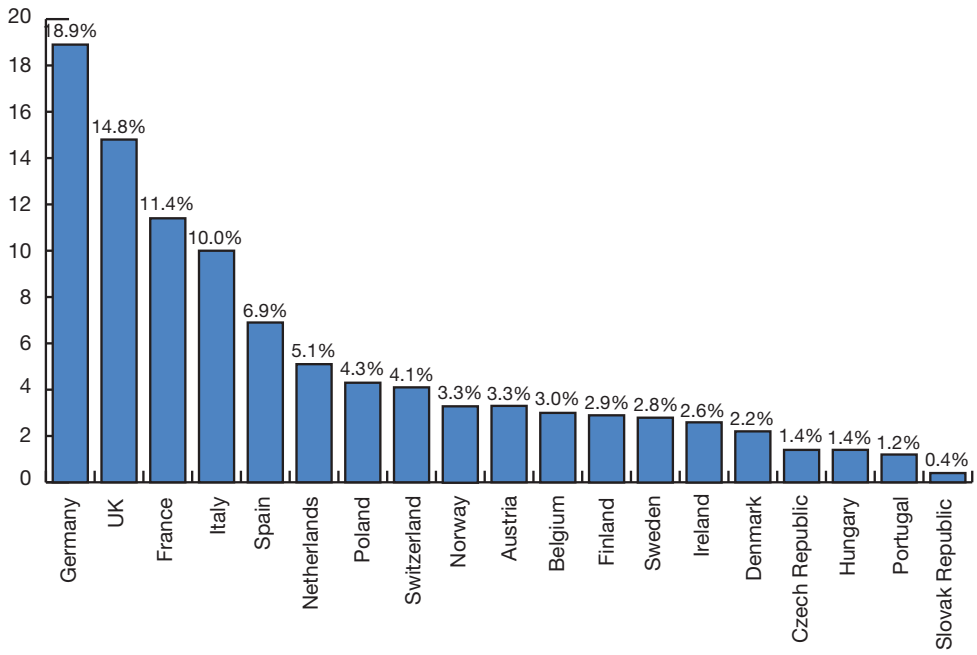
* estimates
** forecasts
Source: Euroconstruct

After posting the highest growth of 3.6% in 2017 since 2013, the non-residential construction segment continued to slow down in 2019 before contracting by 9.2% in 2020. (see Table 5.7). Both Western (-9.4%) and Eastern Europe (-6.2%) did not escape the consequences of the current crisis, although the non-residential construction remained stable or increased slightly in some countries (Finland and Norway). As in the case of the residential construction segment, the renovation activities in the non-residential construction (-10.3%) posted a lower contraction compared to the new non-residential segment (-7.9%). The Euroconstruct forecast suggests that non-residential construction should increase again from 2021 to 2023 onwards with an expected growth of 3% per year, which would be in line with historical averages. This

development can be explained by a positive assessment of the business environment by companies supporting the renovation investments and better availability of public funds for construction investment in education and sports.

At the same time, in a context where there is still plenty of concern about the economy and companies are not significantly expanding their staff and/or equipment, renovating their existing facilities remains a reasonable option. And from the point of view of property investors, the same atmosphere of caution also hints at the idea that buying assets in newly developed areas involves more risks than in consolidated areas, even if the latter are likely candidates to be renovated in order to make them competitive.

Figure 5.4: Relative share of Western and Eastern European countries in the overall non-residential construction market, 2020



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Germany represents about 18.9% of the overall non-residential construction market in Europe in 2020 according to Euroconstruct (see Figure 5.4), followed by the UK (14.8%), France (11.4%), Italy (10%) and Spain (6.9%). Together, those five countries represent 62% of the overall non-residential construction market in Europe in 2020. The other European countries hold a share of maximum 5.1%.

Table 5.8: Non-Residential Construction in Europe* by Sector x in million EUR and annual increases (%), 2019-2023

Total volume x million EUR		% change			
(current prices)	**2019**	**2020***	**2021****	**2022****	**2023****
Austria	16,781	-5.0	3.5	2.9	2.2
Belgium	16,415	-10.8	6.3	2.5	1.8
Denmark	11,186	-2.4	-3.1	2.4	2.5
Finland	13,659	3.2	-7.8	1.8	-3.2
France	68,205	-17.6	12.2	8.0	3.2
Germany	95,998	-3.4	-4.0	1.2	2.0
Ireland	15,324	-14.7	5.7	-3.0	-0.1
Italy	53,322	-8.4	3.4	5.3	2.7
Netherlands	25,827	-2.9	-7.6	4.7	5.6
Norway	15,948	0.3	-1.9	4.2	-0.5
Portugal	6,008	-1.9	2.5	2.6	2.7
Spain	39,860	-15.5	2.8	2.0	2.3
Sweden	14,525	-4.6	-0.8	-1.0	3.0
Switzerland	20,152	-0.9	0.9	0.3	0.6
UK	87,586	-17.1	11.2	5.9	5.1
Total Western Europe	**500,796**	**-9.4**	**2.8**	**3.6**	**2.7**
Czech Republic	7,493	-8.6	-3.9	3.1	3.5
Hungary	6,685	-0.4	-2.2	1.4	0.9
Poland	22,937	-7.0	0.8	4.9	3.9
Slovak Republic	2,182	-7.9	-1.6	2.7	3.9
Total Eastern Europe	**39,298**	**-6.2**	**-0.7**	**3.8**	**3.3**
Total Europe	**540,093**	**-9.2**	**2.5**	**3.7**	**2.7**

* estimates
** forecasts
Source: Euroconstruct

All sub-sectors of the new non-residential construction are forecast to increase again in 2021-2023 from the low levels reached in 2020 due to the economic crisis caused the current pandemic. (Table 5.8) This should lead to a renewed growth of 3% per year for the whole new non-residential construction segment.

The new-commercial construction suffered the most during 2020 (-15.1% compared to 2019) also due to an increasing shift to e-commerce negatively affecting the investments in the retail sales sector (Table 5.9). However, this segment is forecast to benefit the most from the assumed economic recovery from 2021, leading to a growth of 3.5% annually through 2023. However, the output levels in the new commercial construction are forecast to remain below the pre-pandemic levels of nearly 56 billion euros (in 2019 euros) by 3.8 billion euros in 2023, or 7%.

Table 5.9: New Commercial Buildings Construction in Europe x in million EUR and annual increases (%), 2019-2023

Total volume x million EUR		% change			
(current prices)	**2019**	**2020***	**2021****	**2022****	**2023****
Austria	3,505	-7.1	5.4	3.1	2.1
Belgium	2,221	-12.7	9.6	4.8	5.8
Denmark	1,500	-8.0	-12.0	2.0	4.0
Finland	1,130	-21.5	-5.5	9.6	10.5
France	2,809	-27.4	8.6	2.4	4.1
Germany	3,440	-7.5	-14.0	2.5	4.0
Ireland	1,598	-18.6	2.5	2.5	1.3
Italy	4,108	-16.8	1.8	7.0	2.5
Netherlands	2,141	-4.2	-18.4	4.2	9.6
Norway	1,490	-5.3	-12.2	4.1	6.5
Portugal	1,057	-4.2	2.8	3.0	3.2
Spain	5,500	-18.0	1.0	1.5	2.0
Sweden	1,164	-21.8	-25.1	-13.1	4.1
Switzerland	1,039	-0.4	1.6	0.1	0.5
UK	19,528	-19.1	9.3	6.3	5.8
Total Western Europe	**52,229**	**-15.5**	**1.7**	**4.3**	**4.6**
Czech Republic	655	-21.3	-10.0	1.7	9.6
Hungary	173	10.0	-10.0	-5.0	2.0
Poland	2,689	-7.0	-4.4	-1.7	0.9
Slovak Republic	193	-7.3	-6.5	-1.2	2.4
Total Eastern Europe	**3,710**	**-8.7**	**-5.7**	**-1.4**	**2.3**
Total Europe	**55,938**	**-15.1**	**1.2**	**3.9**	**4.4**

* estimates
** forecasts
Source: Euroconstruct

In the new office construction segment, a double-digit decrease of 13.2% at European level in 2020 was driven by all countries, except Sweden where the new office construction benefitted strongly (+19.6% compared to 2019) from the absence of lockdown measures in the country throughout 2020 (Table 5.10). Going forward, most of the assumed increase in new office construction investment is predicted to come from the economic recovery, as its further growth from the annual average growth of 2.5% in 2012-2023 is limited by the structural shift to teleworking throughout Europe.

Table 5.10: New Office Buildings Construction in Europe x in million EUR and annual increases (%), 2019-2023

Total volume x million EUR		% change			
(current prices)	**2019**	**2020***	**2021****	**2022****	**2023****
Austria	2,554.5	-5.8	3.7	2.3	1.9
Belgium	975.7	-26.4	16.0	8.9	-4.8
Denmark	1,100.0	-10.0	-10.0	2.0	2.0
Finland	548.0	-29.4	25.6	-2.0	-12.5
France	7,647.3	-22.5	-7.3	9.0	4.3
Germany	7,480.0	-7.0	-6.5	2.5	3.0
Ireland	4,147.6	-8.5	11.9	-14.9	-4.8
Italy	1,624.3	-16.2	1.5	3.5	1.6
Netherlands	804.4	-3.3	-23.0	31.0	33.0
Norway	1,087.1	-34.5	10.8	25.6	1.4
Portugal	572.2	-3.5	4.0	4.5	4.6
Spain	2,150.0	-8.0	8.0	5.0	4.5
Sweden	775.7	19.6	-4.2	-18.7	-6.3
Switzerland	1,935.0	0.1	0.0	0.0	0.0
UK	13,557.4	-16.7	10.8	6.1	5.7
Total Western Europe	**46,959.1**	**-13.3**	**2.6**	**3.2**	**3.2**
Czech Republic	587.5	-8.4	-0.6	0.5	-6.4
Hungary	546.9	-5.0	-20.0	-15.0	-3.0
Poland	1,700.0	-16.7	-7.6	-5.0	1.4
Slovak Republic	215.0	-9.5	-6.9	-1.7	0.8
Total Eastern Europe	**3,049.4**	**-12.5**	**-8.6**	**-5.2**	**-1.1**
Total Europe	**50,008.5**	**-13.2**	**1.9**	**2.7**	**3.0**

* estimates
** forecasts
Source: Euroconstruct

The improvement in public finance in European countries following a sustained economic growth contributed to a 5% annual growth in new buildings construction for education in 2019. The investments in this segment of the construction sector are likely to resume as of 2021 after a sharp contraction in 2020 (-9.8%). The majority of countries covered by Euroconstruct are expected to contribute to this growth, which would average 2.6% annually from 2021 to 2023.

Table 5.11: New Buildings Construction for Education in Europe x in million EUR and annual increases (%), 2019-2023

Total volume x million EUR		% change			
(current prices)	**2019**	**2020***	**2021****	**2022****	**2023****
Austria	861.5	0.8	2.1	3.5	5.0
Belgium	492.8	1.0	-0.7	-19.8	-5.7
Denmark	600.0	5.0	2.0	2.0	2.0
Finland	870.0	10.8	-10.5	-13.5	-15.7
France	3,099.1	-8.8	2.5	14.4	4.0
Germany	3,270.0	1.5	0.5	-4.0	-1.5
Ireland	444.9	-15.3	3.6	4.1	4.0
Italy	632.7	4.0	6.4	6.8	4.2
Netherlands	1,234.7	-4.8	-0.6	-3.0	-3.0
Norway	1,245.3	17.0	-9.4	11.4	-5.7
Portugal	620.6	-0.9	1.0	1.0	1.2
Spain	960.0	-12.0	2.0	1.0	2.5
Sweden	1,089.1	-6.2	12.9	-0.6	-14.3
Switzerland	1,373.0	-2.5	1.0	0.5	1.3
UK	13,819.2	-21.1	4.5	6.2	7.1
Total Western Europe	**30,612.9**	**-10.2**	**2.1**	**3.6**	**2.3**
Czech Republic	209.8	0.0	-0.2	-3.3	1.3
Hungary	252.9	5.0	-8.0	-5.0	-3.0
Poland	1,293.0	-4.8	3.0	4.9	2.3
Slovak Republic	73.0	-6.9	4.4	9.9	9.0
Total Eastern Europe	**1,828.7**	**-3.0**	**1.0**	**2.8**	**1.8**
Total Europe	**32,441.6**	**-9.8**	**2.1**	**3.6**	**2.3**

* estimates
** forecasts
Source: Euroconstruct

5.1.3. Civil Engineering Construction

In 2020, civil engineering construction contracted (-3.8%) to a lesser extent than the building sector (-9%) thanks to the continued investments from the public sector (see Figure 5.1), which benefitted from sustained availability of public funds. Both new (-3.6%) and renovation segments (-4.1%) contributed to this performance (see Table 5.1).

In Western Europe, the majority of countries covered by Euroconstruct registered a growth in total civil engineering construction in 2020 with Finland (+7.6%), Sweden (+6.4%) and Norway (+5%) posting the highest growth rate. In Eastern Europe, Poland and the Czech Republic posted a growth of 2.9% and 0.8% respectively.

In 2021-2023, the outlook for civil engineering construction is positive in Europe with a growth averaging 3.9% per year, slightly higher than the annual average growth registered during 2017-2019 (+3.5%).

5.1.4. Country Analysis of the Construction Market in Europe

Austria

The construction activity in Austria registered a milder contraction (-2.8%) compared to the European average (-7.8%) in 2020 compared to 2019. All segments of country's construction sector contributed to this decline, especially new non-residential construction (-5.8%). Total **residential** construction registered a first contraction in 2020 (-1.8%) since 2014 after rising by 3.5% annually between 2014 and 2019. Both new and renovation sub-segments contributed to this trend. For subsequent years, growth in total residential construction in Austria is expected to resume at lower rates than before pandemic crisis (+2% per annum during 2021-2023), however, due to the risk of an overheating market (caused by continued increase in house prices), higher unemployment levels and decreasing housing permits. The completions of multi-storey flats are likely to be affected negatively by reduced housing subsidies on the part of the Austrian government in the future. However, a stable level of completions of individual houses as well as resilient housing renovation, construction sector should support the country's residential construction in 2021-2023. The Austrian **non-residential** construction sector also posted a milder contraction (-5%) compared to the performance of this sector at EU levels (-9.2%) in 2020. Looking to the future, the growth is expected to come back to the recent historical ranges of 2.9% per annum between 2021 and 2023. All sectors of non-residential construction are forecast to contribute to this growth, especially new commercial building construction and new buildings for education (each increasing by 3.5% per year). The vacancy rate of offices is likely to remain low despite the consequences of the current pandemic crisis, which would support the new office construction investments in 2021-2023 (+2.6% per year). As for **civil engineering,** it is estimated to have posted a mild decrease in 2020 (-0.8% compared to 2019) supported by the continued public investment in infrastructure (i.e. i. rail construction works). The forecast calls for civil engineering construction to increase by 1.1% annually thanks to the resuming of several postponed projects from private (i.e. telecom) and the continued investment by public sectors (railway and highways). Total construction in Austria is expected to develop rather stable in the upcoming years from 2021 to 2023 at an average real growth rate of about 2.1% per annum.

Belgium

In Belgium, the total construction output dropped sharply in 2020 (-7.1%) for the first time since 2012 due to the building sector, which was particularly affected by the lock-down restrictions to combat the COVID pandemic and this despite a continued growth in civil engineering construction (+2.1%). The **residential** construction sector is forecast to rebound from 2021 onwards thanks to the easing of restrictions, acceleration of vaccination programs and economic recovery. The fundamentals of the Belgian residential construction market is likely to remain intact given a strong demand for housing throughout the country. An assumed annual average growth of 6.3% in 2021-2023 should largely help offset the estimated contraction of 7.4% in 2020, which would mean that the total residential construction output is forecast to reach nearly 2.4 billion euro above the pre-pandemic levels of 22.18 billion euros (in 2019 euro) by the end of 2023. On the other hand, the Belgian **non-residential** construction is unlikely to reach the pre-pandemic levels by 2023 despite the average annual growth of 3% per year between 2021-2023. This assumed growth is not forecast to offset a downturn in new commercial buildings (-12.7%), new office constructions (-26.4%) and non-residential renovation construction (-5.6%) registered in 2020. At the same time, a continued budget deficit in the country is predicted to limit the ability of regional governments to support new health and education buildings constructions. **Civil engineering** construction continued to grow by 2.1% in 2020 despite the downturn in the building sector, with

new and renovation civil engineering segments rising by 2.3% and 1.4% respectively. The on-going infrastructure projects supported by the availability of public funds (Oosterweel Link road, the extension of the Brussels metro, expansion of the Liège tram network and to a lesser extent the RER regional express rail network) should ensure a sustained growth in civil engineering construction in 2012-2023 (+5.2% per annum). Even though the total construction output in Belgium is expected to grow with an average of 3.5% per annum over 2021-2023, the construction market in Belgium can be identified as a mature and stable market.

Czech Republic

In 2020, the Czech construction sector posted the first decrease of -3.9% since 2016 driven by an economic downturn din all segments except new civil engineering construction. The **residential** construction sector is predicted to decrease again in 2021 by the current economic slump leading to a contraction of -1.4%, albeit at a lower rate compared to -3.4% registered in 2020. An assumed mild growth of 1.9% per year in 2022-2023 is unlikely to offset the contraction of the previous year due to lower housing starts over the same period. The **non-residential** construction was more severely impacted by the uncertainty created by the lock-down measures leading to a second consecutive year of dropping from 7.3% in 2019 to 8.3% in 2020. In the new residential construction, this was mainly driven by the new commercial buildings construction (-21.3%) and new office construction (-8.4%). The situation in the non-residential construction sector is unlikely to increase again until 2022-2023 (+3.3% per annum). After huge negative developments in 2016-2017, **civil engineering** continued to grow in 2020 (+0.8%) thanks to the performance of a new segment (+6.2%) offsetting the slump in renovation civil engineering construction (-1.9%) thanks to a continuation of the EU funds programme. The Czech construction sector is not forecast to return to growth until 2022-2023 (2.6% per year) due to a lower output in the building sector and despite an acceleration of growth in civil engineering construction in 2021-2023 (+2.4% per year). The approach of the end of the EU funds programme as well as the ability of Czech authorities to push enough shovel-ready projects to capitalise the total of EU funds approved in Brussels create a further downside risk to this forecast.

Denmark

The total Danish construction is estimated to have posted a mild drop in 2020 (-0.7% compared to 2019) thanks to the residential renovation and civil engineering. The **residential** construction sector continued to grow in 2020, albeit at a slower pace (+0.9%) compared to the previous year (+3.3%) thanks to the performance of renovation activity (+1%) offsetting a significant slump in new residential construction (-5%). Rising real estate prices in association with increasing housing needs are likely to lead to a renewed growth in new residential construction from 2021 onwards. Renovation in residential construction will probably be promoted by a government scheme supporting energy conservation, climate-related projects and broadband internet installation. Total housing construction is forecast to increase by 2.5% annually during 2021-2023. The **non-residential** construction sector is expected to contract further from 2.4% in 2020 to 3.1% in 2021 after growing for several consecutive years since 2014. The growth is not expected to resume until 2022 once the overcapacity in commercial buildings and office constructions could be absorbed thanks to an assumed improvement in economic activity and a continued governmental programme of new hospitals. **Civil engineering** is estimated to have increased mildly by 0.9% in 2020 driven essentially by the renovation segment (+2.5%). Looking into the future, civil engineering construction is forecast to accelerate its growth to 1.9% annually from 2021 to 2023 thanks to public investments in infrastructure and improved confidence in the private sector. The total construction activity in Denmark is predicted to post a stable growth of 1.8% annually in 2021-2023 thanks to the residential and civil engineering sectors and a renewed growth in non-residential construction from 2020.

Finland

In Finland, the construction output is estimated to have performed at odds (+1.3%) with a general slump at the EU level in 2020 despite a sharp contraction in new residential construction. The **residential** construction sector is estimated to have declined further by 2.9% in 2020 driven by an oversupply of flats in many urban areas, declining rent prices exacerbated by economic slump due to the COVID pandemic. However, this was essentially driven by new residential construction (-7%) as the lock-down restrictions seem to support the renovation sector (0.8%). The structural oversupply in the country's residential construction market is predicted to persist in the future, leading to a continued decrease of 1.8% per year in 2021-2023. Even if renovation housing construction is forecast to continue growing at 1.5% annually, it is unlikely to compensate for the contraction in new housing construction (-6.1% per year)

during this period. The positive outlook for renovation is explained by the fact that a considerable number of flats and attached houses are reaching the age when renovation will be required. The **non-residential** construction sector remained also resilient to the general economic slump in 2020 by posting a second consecutive year of growth of 3.2%. However, this growth was essentially driven by new non-residential other buildings construction (e.g. storage and warehousing, agricultural buildings) and new buildings for education (+10.8%) offsetting the significant decline in other new non-residential construction segments such as new commercial buildings (-21.5%) and new office construction (-29.4%). After a renewed growth in 2018, **civil engineering** construction contracted again in 2019 (-7%) before rebounding by 7.6% in 2020 driven by both new (+8.7%) and renovation (+4.6%) segments thanks essentially to the strong public and private investments in several projects (e.g. infrastructure, data centres) that have been postponed in the past. In the light of the sluggish economy and a saturated real estate market, the Finnish construction market is expected to continue its downward trend in 2021-2023 (-2.5% annually).

France

The French total construction output is estimated to have contracted sharply for the first time since 2015 by 15.8% in 2020 due to the lock-down restriction to combat the COVID pandemic. A strong upward trend from 2016-2017 (+5.2% per year) and a slowdown in 2018-2019 (+1.3% annually) turned into a significant decrease of 12.5% caused by the developments in the new (-9.8%) and renovation (-14.5%) housing segments. The dedication of the supportive fiscal measures (the “Pinel” and PTZ loan (“Prêt à taux zéro” – zero loan rate) only to tense areas (where home prices are already high) also contributed to this decrease in new housing construction. The situation is expected to improve in 2021 provided that the vaccination programs are accelerated, which should allow residential construction to rebound by 10.6%. An expected further growth of 2.2% per year in 2022-2023 should allow the country’s residential construction to slightly surpass the pre-pandemic levels of 110 billion euros by 1.3 billion euro in 2023 (in 2019 euro). The year 2016 witnessed the end of a 7-year long downward trend in **non-residential** construction buildings which continued to increase by another 1.6% in 2019 before contracting by 17.6% in 2020. Except the new office building construction, the growth is forecast to resume in all other segments of non-residential construction in 2021, especially the new commercial buildings construction (+8.6%) and renovation (+20.6%). However, the growth in non-residential construction is forecast to slow from 12.2% in 2021 to 8% in 2022 and 3.2% in 2023. Like the building sector, **civil engineering** is predicted to recover from a sharp slump in 2020 (-17.6%) and to grow by 7.8% each year between 2021 and 2023. Both the new and renovation sub-segments would contribute equally to this performance mainly thanks to the accumulated backlogs of publicly financed projects (roads, high speed train) and private investments (telecom, energy, water). The total construction output in France is forecast to increase strongly by 13.6% in 2021 with growth slowing down to 3.7% in 2022-2023.

Germany

The German construction output is estimated to have posted a mild drop of just 1.6% despite the pandemic crisis in 2020. It performed better than in the majority of European countries covered by Euroconstruct. Both building and civil engineering constructions contributed to this performance. A small decline of 0.8% in the **residential** construction sector was essentially driven by new segment, which contracted by -1.5% in the face of a relatively stable and resilient renovation sector (-0.5%). Despite a continued decline in housing permits (-4.6% annually during 2021-2023) and housing starts (-4.7%), housing completions are expected to resume their growth thanks to a strong demand for housing. Despite growing new housing construction, the main constraining factors include the limited supply of construction areas and the sharp increase in construction and development costs exacerbated by tougher energy regulations. Residential renovation measures have been at an exorbitantly high level for a decade, significantly reducing the need for refurbishment in the years ahead. Also, a number of constraints (such as often little additional potential for energy savings, unclear usage horizons, buildings with complex ownership structures, complex state funding combined with ambitious target) point to a cool-down in the renovation market. Still, renovation in residential housing is predicted to remain by far the largest sub-segment by volume in the German construction industry. The **non-residential** construction sector is predicted to continue declining from 3.4% in 2020 to 4% in 2021 due to the developments in all segments, except for new buildings construction for education, which has been benefitting from a strong support from regional and federal governments. Despite an assumed growth in all segments of non-residential construction from 2022, its levels are likely

to remain below the pre-pandemic levels by the end of 2023 by 10%-20% depending on the sector. At the same time, the lack of building lands is forecast to create a downward pressure on non-residential construction in Germany during this period. In the renovation segment, given the size it has already achieved, it appears that little further expansion can be foreseen in near future. **Civil engineering** is predicted to decrease again in 2021 by another 1.4% before resuming its mild growth of 1% annually in 2022-2023. The German construction output is forecast to remain stable between 2021 and 2023 given the country's saturated construction market.

Hungary

After several years of a double-digit growth, the construction output in Hungary posted its first decline in 2020 (-8.3%), which is predicted to continue again in 2021 (-4.5%) due the lagged effect of the pandemic crisis, the end of most of European funded programs and the negative demographic trends. The **residential** construction is forecast to renew its growth in 2022-2023 (+12%) thanks to the state support for housing accessibility and assumed economic recovery sector. Additional growth in residential construction should also be the result of the current permit numbers and the number of announcements of intention to build a home within the simplified permit procedure. After growing at a double-digit rate during 2017-2019 annually thanks to various factors (solid economic fundamentals, on-going absorption of EU funds, low interest rate and Hungary's upgrade by international rating credit agencies) the **non-residential** construction sector remained stable in 2020 (-0.4%) thanks to new segment (+1.7) offsetting the contraction in the residential renovation (-6.2%). Despite a divergent trend between these two sub-segments in 2021-2023, the total non-residential construction is forecast to remain stable. After increasing at a double-digit rate between 2017 and 2019, the **civil engineering** sector halted its growth in 2020 (-13.2%) due to developments both in the new (-16%) and renovation (-9%) sub-segments. The delay caused by the pandemic in further implementation of four mega infrastructure projects called 'Paks II' is likely to be extended into 2021, which means that the production contraction in civil engineering construction is forecast to continue at -7.9%. The output growth in this sector is expected to resume in 2022-2023 and average 8.8% per year. On the other hand, due to bottlenecks (higher development costs, labour shortages, emigration of expertise) created in association with the quick rebound in construction demand, it will probably be challenging for Hungary to register the pre-pandemic double-digit growth in the future.

Ireland

The Irish construction sector was on a sustained recovery mode from the financial crisis since 2013 up until 2020, when it was severely affected by the pandemic related restrictions. All sectors of the country's construction industry posted a significant drop in 2020 (-16% compared to 2019), the first one since 2012. The **residential** construction sector is forecast to resume its double-digit growth from 2021 and entirely offset the contraction of 16.7% registered in 2020 by the end of 2023 (+10.6% annually). The level of housing supply in Ireland is substantially below where it needs to be. Thanks to state support for the housing market, Irish residential construction is forecast to surpass pre-pandemic levels by 2023, albeit still below the pre-financial crisis levels of 2007. The **non-residential** construction sector in Ireland is highly dependent on the investment activities of multinational companies located in the country. Therefore, the current pandemic crisis and the uncertainty it creates tend to reduce the investments of private companies, which means that after contracting by -14.7% in 2020, the expected recovery in 2021 (+5.7%) in non-residential construction will be short-lived and the decline is forecast to resume in 2022-2023 (-1.6% per annum). The oversupply situation in the office is likely to be the main driver behind the drop in overall new non-residential construction offsetting the projected growth in other segments in 2022-2023. The **civil engineering** sector already experienced a contraction in 2019, which accelerated in 2020 (-18.9%) due to the pandemic related restrictions. At the same time, a commitment in the "Programme for Government" to leverage additional private investments in sectors struggling with large infrastructure deficits, including residential care, housing, regional transport and third level education should continue supporting civil engineering construction going forward (9.7% per year in 2021-2023). The overall volume of construction output is forecast to grow again from 2021 (+5.3% per year in 2021-2023) supported by residential and civil engineering constructions. The Irish construction industry is still in a recovery phase, but is on course to experience a positive outlook, provided Brexit does not adversely impact this encouraging trajectory.

Italy

Following an upturn in 2015, the Italian construction sector experienced continued growth through 2019 before being

negatively affected by the pandemic crisis in 2020 (-7.4% compared to 2019) despite a continued growth in civil engineering construction. The delays caused by restrictions to combat COVID-19 created significant backlogs of unfinished flats and houses, which is likely to lead to the above-average growth in **residential** construction output from 2021. The assumed increase through 2023 (+5.2% per year) should allow the country's residential construction to offset the contraction registered in 2020 (-10.4%) and surpass the pre-pandemic levels of 86.1 billion euro by 5.2 billion euro by the end of 2023 (in 2019 euro). At the same time, this factor would probably temporarily hide the structural issues in the country's housing market such as poor demographic evolution, high real estate prices and a relatively high level of unsold stock of houses. The **non-residential** sector ended with the first decrease (-8.4%) in 2020 since 2015 driven by both new (-11%) and renovation (-7.1%) segments. Except for the new buildings construction for education (+4%), thanks to government support, all sub-segments of non-residential construction posted a decrease in 2020. An assumed economic recovery from 2021 is likely to help the non-residential construction renew with growth, which should average 3.8% annually between 2021 and 2023. After two consecutive years of decline (-3.1% annually during 2016-2017), **civil engineering** construction continued its third consecutive year of growth in 2020 (+1.1%) thanks to the public investments (e.g., in roads) from the Central Government and by some of the biggest national and local companies. The allocated funds for these investments should help civil engineering construction to increase further by 3.6% annually during 2021-2023. The Italian market is still wrapped up by the stabilising effects of a prominent renovation market, representing a share of 60% of the total construction market. Although the fiscal incentives for different renovation and energy saving projects are expected to slow down in the building sector, the stable growth rate of renovation output in both residential and non-residential constructions as well as the projected rebound in new residential and non-residential construction should support a sustained growth rate of the Italian construction industry in the 2021-2023 period. This, in combination with continued expansion in new civil engineering construction, is expected to lead to an annual average growth of 4.4% per year over the same period.

Netherlands

Following an upturn in 2014 and a healthy growth in 2015-2019, the construction sector in the Netherlands posted only a minor drop (-2.2%) in 2020 compared to the majority of countries covered by Euroconstruct. This was the first decrease since 2013 and driven by developments in new residential and new non-residential construction sub-segments. The **residential** construction sector was mainly affected by a sharp drop in new residential construction (-7%) which offset a mild increased registered in renovation sub-segment (+1.7%). The restrictions related to combat the COVID pandemic redirected the increased household savings to renovation projects, which explain the better performance of residential renovation construction. At the same time, several bottlenecks in the residential construction markets (a lack of immediately available building locations and manpower in developing firms and local governments to make locations available and to prepare locations and projects for construction, scarcity of labour force and construction materials) have already been negatively affecting housing starts (-5%) in 2020. This is likely to affect growth in housing construction in 2021 (-5.4%). The situation is not expected to improve until 2022 (thanks to the growing involvement of the central government among other factors), which means that housing construction is forecast to increase by 6.8% annually during 2022-2023. The **non-residential** construction sector contracted by 2.9% in 2020, posting the first contraction since 2015 due to the developments in new sub-segment (-7%) offsetting a small increase in renovation activities (+1.7%). The downtime in non-residential construction is predicted to accelerate in 2021 (-7.6%) driven by both new and renovation sub-segments. The construction of new office and commercial buildings is expected to be particularly affected by the economic uncertainty, leading to a sharp decrease of 23% and 18.4% respectively. The situation is not forecast to improve until 2022 thanks to an assumed rebound in economic activity and improved visibility with total non-residential construction output posting an average annual growth of +5.2% per year in 2022-2023. **Civil engineering** is gradually recovering from the economic crisis and austerity measures in the past and registered a continued growth of 2.4% in 2019 and stabilising in 2020 (+0.2%) as the projects financed by the state and regional supports continued to be performed despite the pandemic. However, the delays caused by the pandemic restrictions in approving some of these projects by the public authorities are likely to weigh on the performance of civil engineering construction in 2021 (-5.6%). The devoted public budget by the Dutch government to beat the mobility problem

should help resume growth in civil engineering in 2022-2023, mainly in new construction and renovation of roads and railways. The Euroconstruct forecast reveals stable growth expectations of around 2.3% growth per annum for 2022-2023, which will likely be driven by the continued investment by local governments. The renewed growth in the building area and the civil engineering constructions is predicted to help the construction industry to grow by 5.1% annually between 2022 and 2023, which should largely offset the estimated contraction experienced in 2020-2021 (-4.1% annually).

Norway

The Norwegian construction sector has experienced very few cases of significant recession, and yet, it still has some more room for growth. After a robust increase of 3.9% in 2019, the construction output remained stable in 2020 (+0.1%) despite the pandemic related restrictions. After contracting by -3.6% in 2019 due to various negative factors in new housing construction (decreasing housing prices since May 2017, a lack of production capacity meaning that developers find it difficult to attract construction firms to their projects, as well as a lower population growth), the **residential** construction sector is estimated to have contracted further by 7.6% in 2020 driven by new segment (-6.4%). The housing construction is not expected to rebound until 2022-2023 (+4.4% per year) thanks to a combination of assumed economic visibility and the implementation of some delayed projects from 2020-2021. After increasing by 3.9% in 2019, the **non-residential** construction sector remained stable in 2020 thanks to a growth in new buildings construction for education (+17%) and new construction for agricultural and storage buildings offsetting a sharp contraction in the commercial (-5.3%) and office (-34.5%) construction. The renovation sub-segment remained largely stable (-0.3%) in 2020. The situation is unlikely to change until 2022 thanks to the improved economic visibility (+4.2%), which is forecast to be short lived as the non-residential construction is predicted to decrease again in 2023 (-0.5%). **Civil engineering** output continued to move up strongly in 2020 by 5% with the new sub-segment expanding by nearly 7.7% offsetting the mild decrease in renovation (-0.6%). This market has experienced a strong growth since 2010 and there are no signs of weaking. In general, new investments are growing faster than maintenance. The Norwegian construction output is expected to remain stable in 2021 thanks to civil engineering and to grow again in 2022-2023 by 3.4% per annum. With new residential construction evolving from high levels, growth comes from civil engineering (roads and energy) and building renovation segments. Contrary to most European countries, in Norway public demand for construction is stronger than private demand.

Poland

Following a slump in 2016, the rebound in the construction output in Poland up to 2019 was interrupted by the COVID pandemic in 2020, which led to a drop of 3.1%, despite a continued growth in civil engineering construction on the back of on-going investments co-financed with EU funds. The **residential** construction sector is estimated to have experienced the first decrease in 2020 (-4.4%) since 2009 with new sub-segment declining by 4.9% and renovation by 2.9%. The continued delays in implementation of construction projects caused by the situation in 2020 and early 2021 are forecast to lead to a further decline in housing starts (-10%), housing completions (-2.1%) and finished flats (-5.7%) in 2021. Another factor behind lower residential construction output in 2021 (-3.5%) would be the fading out of “Flat for the Young” in 2020 and the implementation of the “Flat Plus” programme easing access to ownership and rental to medium and low incomes. However, the fundamentals of the Polish residential construction market remain intact. As in previous years prior to the pandemic crisis, the main drivers of growth in the housing market remain the investments in the construction of flats carried out mainly by developers, housing demand fuelled by the growing affordability of mortgages and lower interest rates, supported by improving labour market conditions and the extended government-subsidised housing programme. This is likely to affect housing construction in 2022-2023 with renewed growth predicted at 1.7% annually. The **non-residential** construction sector experienced the first contraction in 2020 (-7%) since 2016 with growth projected to renew mildly in 2021 (+0.8%), which would be dragged down by a continued weaknesses in new office construction (-7.6%) and new commercial construction (-4.4%). The situation in these two sub-segments is unlikely to improve until 2023 thanks to an assumed improvement in economic visibility. However, the predicted continued growth in new buildings construction for education and renovation should allow the total non-residential construction in Poland to increase by 4.4% annually in 2022-2023. **Civil engineering** was the only construction sector which posted a growth in 2020 (+2.9%) driven by both new (+3.1%) and renovation (+2.5%) sub-segments. In 2020, the delivering of some delayed construction investments, related to the use of funds

from the EU financial framework 2014-2020 was the main driver for this growth. Despite the new cycle of EU Funds as of 2021, civil engineering is likely to continue its growth by 2.4% annually in 2021-2023 thanks to the continued state support and private projects (e.g. telecom, energy). After stabilising in 2021 at previous year's level thanks to non-residential and civil engineering constructions offsetting a continued downward trend in residential construction, total construction output is expected to grow by 3% per year in 2022 and 2023. The biggest threat to the Polish construction sector may be the further increase in labour costs and prices of building materials, which limit the growth in construction output.

Portugal

In 2020, the construction sector in Portugal is estimated to have remained stable in association with the negative effects of pandemic, which halted its uninterrupted growth between 2017 and 2019. The **residential** construction sector is estimated to have slowed its growth from 4% in 2019 to 1% in 2020 thanks to continued construction works despite the pandemic. New housing construction posted a minor growth of 0.4% with the renovation sub-segment registering a slightly higher growth of 0.9%. For the near future, the outlook for the evolution of the housing market is still positive provided that the vaccination programs accelerate as expected. The growth in total residential construction is forecast to average 2.5% annually during 2021-2023 thanks to both higher housing starts and housing permits. However, despite this growth, the residential construction in Portugal is unlikely to reach the pre-crisis level of 2007 by the end of 2023. The growth in the **non-residential** construction sector moderated in 2019 at 6.6% (versus +16.7% in 2018) in line with a slowing Portuguese economy. However, the uncertainty created by the pandemic in 2020 led to the first contraction (-1.9%) with both new non-residential building construction and renovation continued to this performance. In the renovation and maintenance works segment, the pre-pandemic drivers are likely to remain in place in the future such as private investment, largely of foreign origin, attracted to Portugal by the availability of liquidity in financial markets and low interest rates combined with an undervaluation of real estate assets. From 2021 to 2023, the non-residential building segment is expected to register a positive but declining growth rates from 6.6% in 2019 to 2.6% annually during 2021-2023. After contracting sharply in 2016 (-12.6%), **civil engineering** construction continued its growth in 2020 (+1%) driven by a continued recovery in public investment despite the pandemic. Being by far the largest sub-segment, new civil engineering construction contributed the most to this performance thanks to a 1.3% growth, which compares to a 0.6% growth in the renovation sub-segment. Civil engineering is expected to continue on a growth path similar to historical levels (2.4% per year during 2021-2023) thanks to the continued support from EU funds and improving public finance. Nevertheless, the case of Portugal has some similarities with Spain. It is also a market that has suffered from a long and deep recession in 2008-2009 that the positive outlook figures (2.5% per annum for 2021-2023) are giving a false perception of recovery since it starts from very low levels. As in Spain, there are plenty of uncertainties in the non-residential segment, but some hope in new housing remains stirred by property investors.

Slovakia

After a strong growth of 8% in 2018 and a contraction in 2019 (-4.7%) the Slovakian construction sector continued its downward path in 2020 (-9.5%) due to a downward trend in new civil engineering, residential and non-residential constructions. A continued drop in housing starts (-7.9%) and in building permits (-8.8%), the **residential** construction sector contracted sharply in 2020 for the first time since 2016 by 12.8% in 2020. Despite the demand for housing, affordable mortgage lending and the purchase of apartments as an investment, the negative consequences of the pandemic crisis created a delay in the implementation of construction projects. The situation is unlikely to change until 2022 with residential constructions moving up by 6.6% annually in 2022-2023. However, the negative demographic evolution, limited land availability and tighter credit regulations are forecast to affect the industry beyond 2023. This is despite Slovak State support for thermal insulation of houses and apartment buildings as well as construction of municipal housing. The **non-residential** construction sector, being the largest segment of the Slovak construction market is forecast to contract again in 2021 (-1.6%), albeit at a slower pace compared to a sharp reduction in 2020 (-7.9%). In 2022-2023, non-residential construction is expected to rebound by 3.3% annually thanks to public investment in education (+9.4% annually) and health care buildings and other segments of non-residential market, including renovation offsetting the subdued performance in the office sector (-0.4% annually) and new commercial buildings constructions (+0.6% annually). While **civil engineering** was one of the driving forces of the construction sector in 2017-2018, the sector is

estimated to have continued its downward trend in 2020 (-8.6%) driven by the negative developments in new (-12.4%) construction offsetting significant gains in renovation sub-segment (+13.5%). Main factors of this development are the postponement of the start of construction (especially in transport infrastructure), issues in the selection of contractors and delay in implementing already approved new and renovation projects due to restrictions to combat the COVID spread. The growth is forecast to resume from 2021 onwards thanks to the resolution of above-mentioned bottlenecks, infrastructure projects backed up by both the Slovakian government and EU funds. A renewed growth is expected for the Slovakian construction industry at 2.7% annually in 2021-2023 thanks to the resolution of bottlenecks in civil engineering and an upturn in residential and non-residential constructions.

Spain

In 2020 the construction sector in Spain is estimated to have contracted for the first time since 2014 due to the COVID crisis (-12.5%) driven by all sub-segments. The **residential** construction sector is forecast to resume its growth from 2021, but the projected average annual growth of 3.6% per year during 2021-2023 is unlikely to allow the residential construction to return to its pre-pandemic levels by 2023 given a sharp contraction in 2020 (-12.7%). Indeed, even before the pandemic crisis, there have already been some signs of fatigue in the Spanish housing market (e.g. a slow-down of housing price inflation) reflected in a slowing growth in housing starts and housing permits. The growth potential in the **non-residential** construction sector was also affected by a sharp decrease in 2020 (-15.5%), which interrupted its sustained four-year growth. The growth is expected to resume in 2021 provided that the spread of COVID is contained thanks partly to the acceleration of vaccin programs. All segments of non-residential construction (+2.6% annually during 2021-2023) are forecast to benefit from assumed economic recovery, especially the new office buildings construction (+5.8% annually). After two consecutive years of growth, **civil engineering** construction contracted by 7% driven more by new (-10%) than renovation (-1.5%) segments. For 2021-2023, Euroconstruct expects a steady growth in new civil engineering (+5.8% annually), while the strength in the development of stated developed projects, especially railways, manifests itselfonce again. Total construction growth is forecast to average 3.7% per annum during 2021-2023 thanks to the recovery in the building sectors and civil engineering. However, this would probably not be enough to reach the pre-pandemic levels in 2023 and still generate very modest output compared to 2008-2009 pre-crisis levels.

Sweden

During 2018-2019, Sweden experienced no growth in construction output due to the negative developments on thehousing markets. Despite very limited restrictions that the country imposed to combat the COVID spread in 2020, the uncertainty created by this pandemic led to lower output in residential and non-residential construction which were offset by continued gains in civil engineering construction. In 2020, the lower output in the **residential** construction (-2.4%) was mainly driven by new sub-segment (-6.1%) despite a growth in renovation residential construction (+1.9%). The development can be explained by lower employment growth, declining house prices, rising taxes, shortages of labour and higher interest rates. These factors are forecast to continue to negatively affect the residential construction in 2021 as a high level of completions of previous years would need to be absorbed by the market. The market is not forecast to renew its growth until 2023 (+2.8%) thanks by a continued growth in housing permits (+4.9% annually) and housing starts (+2.7% annually) in 2022-2023. The **non-residential** construction sector did not experience any decline between 2016 and 2019. However, the uncertainty due to the pandemic situation reduced the investments in new (-8.2%) and renovation (-0.8%) non-residential constructions in 2020. The only segment which is estimated to have grown was the new office construction (+19.6%), but this growth came after two consecutive years of drop. Looking forward, despite a projected growth in renovation sub-segment from 2021 onwards, total non-residential construction is unlikely to return to growth until 2023 (+3%) once the new sub-segment resumes its growth in 2023 (3.1%). **Civil engineering** increased by 6.4% in 2020 with new and renovation increasing by 6.8% and 5.8% respectively. Transport infrastructure is taking a leap upwards following the transport infrastructure plan in 2014. Many new and large projects are reaching a more intensive phase. However, the extensive need for renovation and maintenance will continue to enforce priorities. The Swedish construction industry will likely be featured by contrasting trends in its sub-segments in 2021-2023. A sustained growth in civil engineering is unlikely to offset the weak recovery in building activity, which means that the Swedish construction market is forecast to remain

stable in 2021-2022. The situation will probably improve in 2023 (+1.8%) when building activity is expected to resume growth in the face of a continued growth in civil engineering.

Switzerland

In 2020, Swiss construction output is estimated to have decreased by 2%, an acceleration of the drop in2019. The structural issues (e.g. rising interest rates, sluggish demand for housing and an increasing number of vacant flats) in the **residential** construction sector accentuated by the pandemic crisis led to a further drop in output in 2020 (-3.4%). These factors are forecast to have a further effect on the housing market, which means that it will probably remain stable at best during 2021-2023. In 2020, the **non-residential** construction sector decreased for the first time since 2017 by just 0.9% driven by both new (-0.7%) and renovation (-1%) sub-segments. Big projects such as the "Circle" at the airport in Zurich or investments of biotechnology and pharmaceutical companies supported the non-residential construction sector. At the same time, despite a moderate economic recovery, manufacturing firms have some room for investments in production facilities. Also, the health and educational sector is likely to support non-residential construction on the back of an aging population and outdated infrastructure. Therefore, non-residential construction in Switzerland is predicted to post a stable output growth in 2021-2023, which is forecast to average 0.6% per year. After two consecutive years of growth in 2018-2019, **civil engineering** construction posted a mild drop in 2020 (-0.8%) driven by new (-3.1%) sub-segment in the face of stable renovation output (+0.3%). The civil engineering segment is expected to continue benefitting from the national road and agglomeration transport fund from 2018 onwards. The renovation segment will particularly benefit from a higher share of investments over the next three years. Despite positive fundamentals and high investments in hospitals and infrastructure projects, the construction output should post a mild growth of 0.5% per year in 2021-2023 thanks to non-residential and civil engineering constructions. The limited potential for growth and high production levels in the Swiss construction market indicate a situation of saturation.

United Kingdom

After several years of uninterrupted growth, the British construction sector is estimated to have contracted sharply by 19.5% in 2020 due to the pandemic crisis. All sub-segments of the construction sector were affected by this situation. The **residential** construction sector is forecast to rebound in 2021 by 16.4% as the economy is assumed to turn back to growth. The forecast for private housing has remained relatively buoyant as the underlying market dynamics of high latent demand and lack of supply have not changed. The prospects of the public house building market have also improved with a goal of the UK government to build 250,000-270,0000 new homes a year. On the public renovation projects, there can be an increase in activity going forward linked to the remedial work on high-rise apartment blocks. Thanks to the recent trade deal between the EU and the UK and an assumed economic recovery, the **non-residential** construction sector is forecast to rebound with the annual average growth of 7.4% in 2021-2023. All sub-segments are forecast to contribute to this positive development: office construction (+7.6% annually), new commercial construction (retail, leisure) (+7.1% annually). At the same time, a substantial number of buildings stocks of more than 40 years old in the education sector will require renovation and maintenance (R&M), which explains the outlook for the R&M segment (+7.4% annually during 2021-2023). **Civil engineering** construction is forecast to rebound by 8.5% annually during 2021-2023 and recover the whole negative situation registered in 2020 (-5.5%). While no change is expected in projects launched, in the future, the government intents to maintain capital spending to mitigate the impact of the post-Brexit effects. Looking into the future, the road, rail and energy infrastructure will probably create new works, while the existing ones still require substantial renovations. There is little doubt that the vote in favour of leaving the European Union will have a significant impact on the UK's economic and political landscape in the ensuing years. The resilience of the housing market, the state support for large infrastructure projects and regained confidence in non-residential market should allow the UK construction industry to register growth rates of 12.6% in 2021,8.4% in 2024 and 4.8% in 2023.

Perfection in Timber.

It starts with selecting logs from sustainable forestry and culminates in high-tech manufacturing and processing. We utilize 100% of the raw material, for our products, for the further processing of by-products, or for the generation of renewable energy from the bark of our saw logs. Each piece of wood is checked individually to determine its precise qualities. Each year, we sort up to 60 million boards at each of our sawmills. Our aim is clear: to meet and exceed customer expectations. As a team, it is our job to do so – right down to the very last detail. Our sales team appreciates to work with our customers on new ideas and innovations.

A safe and secure supply chain.

We focus on high-quality sawlogs as a starting point for our sustainable products. It is crucial to ensure that the timber we buy comes from sustainable sources. We take long-term relationships with trusted suppliers and strict traceability of the legal origin very seriously. That's why we invented the Timflow GPS tracking system four years ago, to monitor all deliveries to our Romanian sawmills. The expertise and teamwork of our SCCC Team paired forestry know-how made it a success story.

www.timflow.com

Foster Innovation with WoodComp3D.

How to make more out of wood particles than pressing them to pellets for heating, and thereby supporting the long-term storage of CO_2? This is the question for an interdisciplinary TU Wien research project supported by HS Timber Group, which aims at using wood particles to develop new sustainable materials that are also suitable for 3D printing. The objective of the 'WoodComp3D' project is to develop a process for converting wood particles into a high-quality bio composite material. This special wood-based material needs to have high stability and load-bearing capacity, so that it can also be used in the construction industry. It may also be suitable for producing tailormade objects in 3D printers.
Follow the progress #WoodComp3D.

HS TIMBER GROUP

Perfection in Timber.

HS Timber Group is a long-established wood processing company of Austrian origin with very strong roots in Central and Eastern Europe, especially Romania. HS Timber Group exports products to over 70 countries worldwide. Employing more than 4,000 people, HS Timber Group primarily operates in the timber industry but is also involved in lumber trading and bioenergy production as well as supplier for the solar industry. The timber industry division of HS Timber Group operates three sawmills and two wooden panel productions in Romania and one sawmill in Germany.

www.hs.at

6. EOS Advocacy Actions

Decision making procedures in EU affairs is complex and not uniform they require their own appropriate targeted and tailor made lobbying strategy. This fragmented nature of the policy environment and larger set of players involved in policy making means that advocacy actions increasingly need to incorporate other elements beyond traditional messages. 80% of the Commission proposals, remain in the final text and this is why, it is essential to have an early involvement in the decision procedure.

The lobby arena is rapidly changing in Brussels and the European wood industries need to be more effective and make their voice heard. This can be possible only through strategic planning, enforced collaborations among the different wood value chains and a strong network, both with policymakers and with all the other relevant stakeholders. The identity of the wood industries is not strong enough, it is essential to have a more proactive role. In order to strengthen the EOS advocacy actions, EOS, jointly with CEI-Bois, the European Confederation of the Woodworking industries decided to hire the former Member of the EU Parliament, Mr Paul Brannen.

Brussels, 29 October 2020

European Woodworking Industries appoint former MEP to new role of Director of Public Affairs

CEI-Bois and EOS have appointed Paul Brannen, former UK Member of the European Parliament, to the newly created role of Director of Public Affairs. Paul Brannen will start his mandate on the 1st of November 2020.

CEI-Bois, which represents the European Woodworking Industries, and the European Organisation of the Sawmill Industry (EOS) have created this role with the intention of boosting their advocacy activities towards the European Commission and the European Parliament.

Commenting on the move CEI-Bois Chair Anders Ek said: "The time has come for us to make a much stronger case to European decision makers that wood-based products are a part of the solution to mitigate the climate crisis. Paul Brannen established a strong reputation during his time as a MEP as an advocate for increased timber use to help create a more sustainable society hence we are very pleased to have secured him as a member of our team".

Sampsa Auvinen, EOS President, added: "We were delighted to see the President of the Commission, Ursula von der Leyen, specifically reference the important contribution building in wood can make to tackling climate change in her recent speech to the European Parliament. We are hoping the appointment of former MEP Brannen to this new advocacy role can help turn our collective aspirations into the legislative and policy changes that will deliver a significant increase in timber use especially in the construction industry to the benefit of the climate".

Paul Brannen commented: "As a MEP I served on both the Parliament's environment and agriculture committees and was rapporteur on the last forest strategy and also on the LULUCF legislation. I'm convinced, in part as a result of visiting some of the world's largest timber buildings, that the sequestration of carbon in long life timber products is one of the most significant ways in which we can tackle climate change".

Notes to editors

Paul Brannen was a MEP 2014-2019 representing the North East of England. He was a member of the S&D Group and a Vice-Chair of the Parliament's Canada delegation and of the Club de Bois.

This appointment follows the recent decision to merge the general secretary roles of both CEI-Bois and EOS, a role taken by Silvia Melegari who since 2015 is the Secretary General of EOS.

Paul Brannen: From the EU Parliament to the Wood industries, different role, but same passion !

Back in 2006 while working for HSBC I sat and listened to Al Gore, former Vice President of the USA, give his famous Powerpoint presentation on climate change. As 'wake up' calls go it was a master class. A few days later I was approached by the development NGO Christian Aid asking if I would be interested in applying to be their head of advocacy to run a major campaign aimed at bringing the attention of the UK and Irish publics to the negative impact that climate change was already having on many of the world's poorest countries. I was and I did run that campaign including the media, PR and policy.

Fast forward eight years by which time I have been elected as a Member of the European Parliament (MEP) with an election pledge to continue to work on climate change. This opportunity quickly availed itself when, having been appointed to serve on both the agriculture and environment committees, I took on a role as a rapporteur on the EU Forest Strategy.

This work had a strong link back to my constituency in north east England which included Kielder Forest, one of the largest man-made forests in Europe with all the associated jobs including a very large Egger plant at Hexham.

The potential of forests to sequester and store carbon and of timber to store and substitute were now top of my political thinking and drove me to ensure that as a rapporteur on the Land Use, Land Use Change and Forestry legislation (LULUCF) we persuaded the European Parliament to include an endorsement of Long-Life Harvested Wood Products (LLHWP) especially for use in construction. Currently we are waiting for the Commission to come forward with its recommendations on how the use of LLHWPs will be incentivised – a direct consequence of the LULUCF legislation.

Due to Brexit it appeared it would be no longer possible for me to continue to work in support of the ways in which forestry and timber can contribute to tackling climate change, creating green jobs and helping deliver a dynamic and sustainable bioeconomy however as one door closed another opened.

As Director of Public Affairs for both EOS and CEI-Bois I have a specific focus on developing relationships with MEPs and the Commission with a view to identifying areas of commonality where we can work together to make Europe the first carbon neutral continent by 2050. This is a mighty challenge indeed and one that cannot be met without Europe's forests and timber production being fully utilised in helping tackle climate change.

New build and renovation with wood are the two biggest opportunities for timber over the next 30 years and the challenge will be to push both of these activities beyond a 50% market share sooner rather than later. At the same time we need to maintain, and ideally increase, the size, health, biodiversity and amount of carbon stored in Europe's forests. Now there's a challenge I'm up for.

6.1 The New European Bauhaus

The New European Bauhaus is a think-do tank. A design lab, accelerator and network at the same time. A creative and interdisciplinary movement, convening a space of encounter to recuperate and revisit sustainable practices from, empower the most inspiring practices of today, and design future ways of living, at the crossroads between art, culture and science.

With this new project, the EU Commission wants to build a sustainable future through creativity, innovation and imagination. To enable experimental places and spaces for people to reimagine how to live better together after the pandemic.

The New European Bauhaus is a transformational project. It aims to lead the thinking, inspire behaviours, attract the markets and influence public procurement to make new ways of living possible. The ultimate focus is "beyond buildings" – the project should bring benefit to the whole of society. It will help to revisit Europe's cultural heritage and shape its future.

Reported below, joint press release co-signed by EOS, CEI-Bois, the European Forest Technology Platfor, and the European Federation of the Parquet Industries (FEP) welcoming this new initiative and recalling the role of wood products in a sustainable living.

CEI-Bois EOS FEP Forest-based Sector Technology Platform

JOINT PRESS RELEASE

Brussels, 18 January 2021

Europe's woodworking industries welcome The New European Bauhaus

Europe's woodworking industries have warmly welcomed today's launch of the design phase of The New European Bauhaus initiative and the accompanying website.

Aimed at bringing the European Green Deal to life in an attractive, innovative and human-centred way the New European Bauhaus will have an initial five projects, two of which are of particularly interest to Europe's woodworking industries, namely natural building materials and energy efficiency.

Commenting on the launch:

Silvia Melegari, Secretary General, CEI-Bois & EOS:

"This is a welcome initiative from the European Commission and we will be encouraging our members from across Europe to join the conversation to ensure we have a sustainable but also a beautiful future, two key attributes of the New European Bauhaus that wood products can help deliver."

Isabelle Brose, Managing Director, European Parquet Federation

"FEP welcomes the launch of the European Bauhaus which will show that tackling climate change can be done in style, by bringing nature and wood products such as real wood flooring solutions into citizens' homes."

Johan Elvnert, Managing Director, Forest-based Sector Technology Platform

"Quietly, without much flash and bang, the woodworking sector is going through a renaissance of innovation. New, nature-based materials are being developed and digitalisation, improving resource efficiency throughout the value-chain. Our sector is eager to contribute to the European Bauhaus initiative."

6.1.1 The Wood4Bauhaus Alliance

In March 2021, the European wood-based sector launched the Wood Sector Alliance for the New European Bauhaus (Wood4Bauhaus) to establish an open platform that brings together its manifold stakeholders. Wood, an extremely versatile natural material being part of a multitude of products, is a circular material par excellence.

Long-life products using wood can store carbon for decades or even centuries in buildings and living spaces. They can also be reused, remanufactured and recycled to further prolong the storage time. This new alliance aims to raise awareness for the transformative power of the Circular Economy, put a spotlight on the versatility of innovative wood products and building systems, and facilitate dedicated co-creation partnerships with the wood sector for the New European Bauhaus. They can also be reused, remanufactured and recycled to further prolong the storage time. This new alliance aims to raise awareness for the transformative power of the Circular Economy, put a spotlight on the a spotlight on the versatility of innovative wood products and building systems, and facilitate dedicated co-creation partnerships with the wood sector for the New European Bauhaus. They can also be reused, remanufactured and recycled to further prolong the storage time. This new alliance aims to raise awareness for the transformative power of the Circular Economy, put a spotlight on the versatility of innovative wood products and building systems, and facilitate dedicated co-creation partnerships with the wood sector for the New European Bauhaus.

"*We know that the construction sector can even be turned from a carbon source into a sink, if organic building materials like wood and smart technologies like AI are applied.*"

Ursula von der Leyen
President of the European Commission
State of the Union Address, 16/09/2020

The European Commission's New European Bauhaus calls for a creative, interdisciplinary, novel movement embedded in the society to imagine together a sustainable future and to engage on a transformative path towards affordable and beautiful living spaces in the urban and rural environment. A key step is the transformation of the building sector into a circular model that can also counteract the escalating climate crisis.

Wood4Bauhaus aims to contribute to shaping a better and sustainable future with beautiful, healthy and inclusive living spaces as part of a sustainable, low carbon-built environment. Our platform shall foster an open, long-term dialogue with all interested stakeholders and help sharing good practices about the Circular Economy and Green Buildings. Our goal is to inspire as many actors as possible to co-create in a bottom-up approach and develop contributions to the New European Bauhaus from European to regional and local level, all in the common interest to advance and exploit as much as possible nature-based materials, innovative building systems and smart solutions for the benefit of European citizens. The alliance will therefore:

- Encourage research and innovation for novel and innovative use of wood in the built environment,
- Foster new collaborations and cocreation of different stakeholders across disciplines, sectors, and society, and
- Facilitate knowledge sharing and skills development especially also towards future generations.

The alliance has been initiated by several umbrella organisations: the InnovaWood EU network for wood research, innovation and education, the European Panel Federation (EPF), the European Confederation of Woodworking Industries (CEI-Bois), the European Federation of Building and Woodworkers (EFBWW), the European Organisation of the Sawmill Industry (EOS). It has also the support of the Horizon 2020 project consortia BASAJAUN and WoodCircus. The ambition is to grow the network of supporters and contribute to forming a major hub of the sector for the New European Bauhaus.

The long term goal is to consolidate the alliance as main platform and interlocutor for co-creation and dissemination reaching the whole wood-based innovation ecosystem, i.e., through member companies, national member associations, unions, research institutes, universities, vocational education partners, cluster organisations, press channels, among others.

Why is the New European Bauhaus relevant to the European wood sector?

A major focus of the New European Bauhaus is the built environment. If we fail to engage this could result in wood receiving a reduced profile and other materials (concrete, steel, brick & block) might well dominate the conversation.

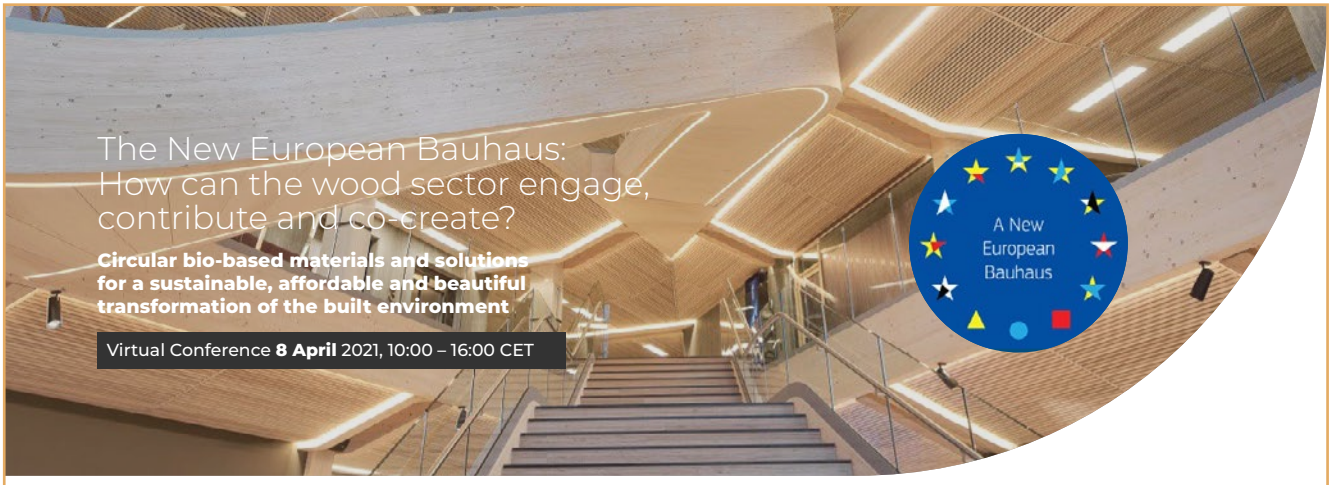
Initiated by the President of the Commission herself the Bauhaus is commanding attention at the highest level in Brussels and it would therefore be remiss of the wood sector not to engage. Additionally, the three key attributes of the Bauhaus – sustainable, affordable, beautiful – work very well for wood hence we have a lot to offer.

On Thursday 8 April 2021, the wood4bauhaus alliance organised the Wood4Bauhaus Virtual Conference “Making the New European Bauhaus a great success: Nature-based solutions for citizens, society and our climate”.

Mrs Reichstein who is the pivotal European Commission official in charge of developing the New European Bauhaus, including liaising between the cabinet of President Ursula von der Leyen and the European Commission’s Joint Research Centre, delivered a key speaker at the event.

Her intervention was followed by Professor Hans-Joachim Schellnhuber of the Potsdam-Institute for Climate Impact Research in Germany, who has recently been named as an ambassador for the New European Bauhaus High-level Roundtable.

These leading figures of the New European Bauhaus provided a first-hand insight of the President’s visionary new initiative and will seek to inspire the wood sector to contribute to the design and targets of the New European Bauhaus. Additional speakers - architects, designers, industrialists, researchers and social partners - shared first projects, ideas and best practices responding to the President’s call for wood to play a key role in transforming the built environment into a carbon sink. They demonstrated that zero-emission buildings can be beautiful, offering pleasant and affordable living spaces, accessible to all.



The New European Bauhaus: How can the wood sector engage, contribute and co-create?

Circular bio-based materials and solutions for a sustainable, affordable and beautiful transformation of the built environment

Virtual Conference **8 April** 2021, 10:00 – 16:00 CET

> We know that the construction sector can even be turned from a carbon source into a sink, if organic building materials like wood and smart technologies like AI are applied."

Ursula von der Leyen
President of the European Commission
State of the Union Address, 16/09/2020

The European Commission's New European Bauhaus calls for a creative, interdisciplinary, novel movement embedded in the society to imagine together a sustainable future and to engage on a transformative path towards affordable and beautiful living spaces in the urban and rural environment. A key step is the transformation of the building sector into a circular model that can also counteract the escalating climate crisis.
Welcoming this initiative, the European wood-based sector aims to create an open platform "Wood4Bauhaus" that brings together its manifold stakeholders.

Wood is an extremely versatile material, and a circular material par excellence. Long-life products using wood can store carbon for decades or even centuries in buildings and living spaces. The conference aims to raise awareness for the transformative power of the Circular Economy, put a spotlight on the versatility of innovative wood-based products and building systems, and propose dedicated co-creation partnerships with the wood sector for the New European Bauhaus.

InnovaWood is EU network for wood science, research, innovation and education of 60 organisations in 28 countries, including RTOs, universities, VET centres and cluster organisations.

innovawood.com

The European Panel Federation (EPF) represents 100,000 direct jobs and counts more than 5,000 wood-based panel manufacturing and furniture companies in 25 countries.

europanels.org

The European Organisation of the Sawmill Industry (EOS) represents 35,000 sawmills in 12 countries.

eos-oes.eu

The European Confederation of Woodworking Industries (CEI-Bois) is an umbrella organisation of 21 European and national organisations from 15 countries backing the interests of the whole wood sector.

cei-bois.org

The European Federation of Building and Woodworkers (EFBWW) is the European Trade Union Federation grouping 76 national free trade unions from 31 countries with members in the Building, Building Materials, Wood, Furniture, Forestry and Allied sectors.

efbww.eu

BASAJAUN and WoodCircus are Horizon 2020 project consortia fostering sustainable wood supply chains from forest harvesting to final buildings and Circular Economy solutions in the sector.

basajaun-horizon.eu

woodcircus.eu

GO TO REGISTRATION FORM

BASAJAUN and WoodCircus received funding from the EU Horizon 2020 research and innovation programme under grant agreements no. 820892 and 862942.

wood4bauhaus.eu

PART I
10:00 - 12:00

Vision of the New European Bauhaus and its opportunities

wood4bauhaus.eu

10:00 - 10:10 **Welcome & objectives of programme** — Prof. Dr. Andreja Kutnar

The New European Bauhaus: a beautiful, sustainable and inclusive transformation movement for Europe

10:10 - 10:30

Ruth Reichstein

European Commission, I.D.E.A. Advisory Board to the President, Green Deal & New European Bauhaus

Keynote presentation: The vision of a New European Bauhaus

10:30 - 11:00

Prof. Dr. Dr. h.c. Hans-Joachim Schellnhuber

PIK Potsdam-Institute for Climate Impact Research, Germany

11:00 - 11:15 **Q&A: questions from audience**

Moderator:
Prof. Dr. Andreja Kutnar
University of Primorska & InnoRenew CoE, Slovenia

Impulses: Future perspectives of the New Bauhaus for the wood and furniture sector

Co-creating for a new era of sustainable building solutions

11:15 - 11:25

Paul Brannen
Director of Public Affairs for CEI-Bois and EOS, Former MEP

Circular products enabled by the multi-talent material wood

11:25 - 11:35

Martin Brettenthaler
CEO of Swiss Krono Group, on behalf of EPF Managing Board

How can the wood sector co-create with other disciplines in the New Bauhaus?

11:35 - 11:45

Dr. Uwe Kies
Secretary General of the InnovaWood network, Belgium

11:45 - 12:00 **Q&A: questions from audience** — Prof. Dr. Andreja Kutnar

12:00 - 12:10 **Short break**

BASAJAUN and WoodCircus received funding from the EU Horizon 2020 research and innovation programme under grant agreements no. 820892 and 862942.

PART II
12:15 - 13:30

Natural building materials and energy efficiency: strengths of wood solutions

Creative urban renewal with New Bauhaus: construction sector rediscovers wood

12:15 - 12:30

Francisco Mangado & Fernando Oiza
Architects, Spain

Green solutions in public buildings: the Olympic village 2024 in Paris, France

12:30 - 12:45

Georges-Henri Florentin
President of France Bois 2024, France

Innovative industrial building solutions for better living and working

12:45 - 13:00

Andrew Waugh
Director, Waugh Thistleton Architects, UK

Biophilic design: wood for interior delivering health benefits and well-being

13:00 - 13:15

Oliver Heath
Designer, UK

Q&A: questions from audience
Short wrap-up/first conclusions

13:15 - 13:30

Prof. Dr. Andreja Kutnar
University of Primorska & InnoRenew CoE, Slovenia

13:30 - 14:30 **Lunch break (1:00h) / with animated presentation**

BASAJAUN and WoodCircus received funding from the EU Horizon 2020 research and innovation programme under grant agreements no. 820892 and 862942.

wood4bauhaus.eu

PART III
14:30 - 16:00

Good practices and solutions of Circular Economy and Green Building

14:30 - 14:35 **Welcome back & overview**

Moderator:
Dr. Anne-Christine Ritschkoff
VTT Technical Research
Centre of Finland

Circular building materials and systems – Session I

Climacustic : a modular, sound-absorbent insulating panel element from wood-fibres

14:35 - 14:45

Alessandro Fantoni
Commercial Director,
Fantoni SPA, Italy

Wood construction solutions for a better living and a better future

14:45 - 14:55

Michelle Quintão
Group Marketing Director,
Sonae Arauco, Portugal

Structural insulating panel using wood and biobased materials

14:55 - 15:05

Alfonso Muñoz
Commercial and Marketing Director,
Grupo Garnica Plywood, Spain

15:05 - 15:10 **Q&A: questions from audience** — Dr. Anne-Christine Ritschkoff

Circular building materials and systems - Session II

Design for disassembly: a circular expo amphitheatre in wood

15:10 - 15:20

Steven Ware
ArtBuild, France

Furniture and interior: Windows using recovered wood

15:20 - 15:30

Uroš Gantar
Project manager R&D
M'Sora d.o.o., Slovenia

End of life / Recycling: Furniture boards from recovered wood

15:30 - 15:40

Veronique Hoflack
President, Unilin Panels, Belgium

15:40 - 15:45 **Q&A: questions from audience** — Dr. Anne-Christine Ritschkoff

15:45 - 16:00 **Closing statement and outlook** — Dr. Anne-Christine Ritschkoff and Prof. Dr. Andreja Kutnar

GO TO REGISTRATION FORM

BASAJAUN and WoodCircus received funding from the EU Horizon 2020 research and innovation programme under grant agreements no. 820892 and 862942.

wood4bauhaus.eu

Finally, on 26 April 2021, the EU Commission launched the application' calls are for the first New European Bauhaus prizes. The ten prize categories – from 'products and lifestyle', to 'reinvented places to meet and share' –are all themed around the core pillars of the initiative: sustainability, quality of experience, and inclusion. The New European Bauhaus prizes will celebrate excellent examples to help inspire the project that was first announced by President Ursula von der Leyen during her 2020 State of the Union address.

For each of the ten categories there will also be a specific 'New European Bauhaus Rising Stars' strand, open to under-30s. The idea is to support and encourage the younger generation to continue developing new ideas and exciting concepts. The application period is open until 31 May 2021. Both EU and non-EU nationals can apply, as long as their concepts, ideas and projects are actually developed or physically located in the EU.

6.1.2 The Wood4Bauhaus Alliance Members: What they say about wood!

"Wood and wood-based panel products are natural, sustainable and climate positive. They offer multiple benefits including energy efficient construction and innovative furniture materials and are therefore a perfect fit for the objectives of the New European Bauhaus".
Mr Clive Pinnington, EPF Managing Director

"The arrival of the New European Bauhaus is a timely initiative from the Commission as it can help ensure that the Renovation Wave not only makes European homes more energy efficient but that we do so in a sustainable, affordable and beautiful way. Give us bread but give us roses!"
Paul Brannen, Head of Public Affairs for CEI-Bois & EOS

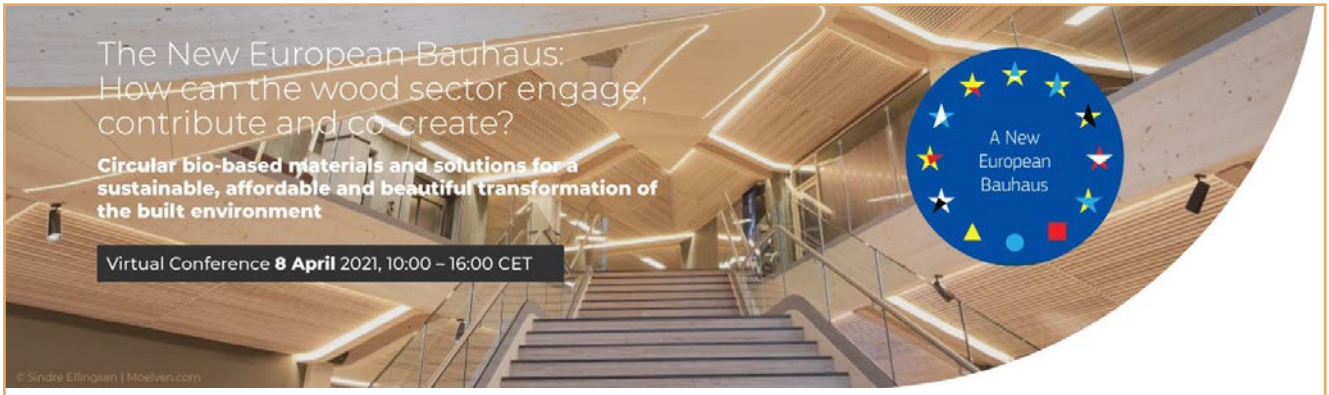
"It is well known that using wood helps keep carbon out of the atmosphere and mitigate climate change. But it is far lesser known that wood has also positive psychological effects on people, similar to the reduction of stress when being in nature. Wooden built environments reduce anxiety and lower the blood pressure while favouring positive social interactions. These benefits are particularly important if we consider that modern society spend approximately 90% of their time indoors."
Silvia Melegari, Secretary General of EOS

The New European Bauhaus is a great opportunity for companies, researchers and students in the wood sector to become part of this transformative movement. Joining our forces and knowledge we can co-create climate-friendly solutions and literally build a more sustainable future for our cities and rural areas. We welcome all who wish to take this first step with us".
Dr Uwe Kies, Secretary-General of InnovaWood

"The alliance will demonstrate that more building and renovation with wood will contribute to the EU's ambition to turn the building sector into a carbon sink. It will also be demonstrated with plenty of examples that climate friendly and energy-efficient buildings can be attractive and comfortable and, the sector can also be a driver for quality jobs in rural areas."
Tom Deleu, General Secretary of the European Federation of Building and Woodworkers (EFBWW)

"Resource-wise use of materials is a global must. The four R's reduce, reuse, recycle and regenerate – are critical also to the European woodworking sector. Wee need better knowledge and higher awareness of the circularty of our products to foster a competitive wood building sector for the future, that can provide a main solution for climate change."
Anne-Christine Ritschkoff, Coordinator WoodCircus Horizonon 2020, VTT Technical Research of Finland

"Wood construction industries connect buildings with sustainable forest management in Europe. Bringing together innovative architecture, biobased products and digitalisation of the forest to building chain will allowto have a real impacts and boost both rural development and urnab transformation. That is why we need a New European Bauhaus movement to connect all involved players."
Javier Garcia Jaca, Coordinator BASAJAUN HORIZON 2020, Tecnalia Research and innovation



PRESS RELEASE from the Wood4Bauhaus Virtual Conference held Thursday 8 April 2021 - Over 1,200 attend online event

"REFOREST OUR PLANET, RETIMBER OUR CITIES"

Professor Schellnhuber delivers strong message in support of a key role for wood in President Ursula von der Leyen's New European Bauhaus

Professor Hans-Joachim Schellnhuber of the Potsdam-Institute for Climate Impact Research in Germany today delivered a powerful climate change message backing the use of more wood in the built environment.

Speaking to his theme - "Reforest the planet, retimber the cities" - Prof Schellnhuber stated: "We need to create an alternative carbon sink and wood construction is the perfect answer. We can turn the timber into construction material in the built environment, recycle most of the wood [...] you have cascade utilisation and immediately replant the trees that you have taken away and even increase the forest area, then you have what I call the '**Forestry-Construction Pump'**.

Prof Schellnhuber is acknowledged as being the mastermind behind the Commission President's initiative for a New European Bauhaus.

Mrs Ruth Reichstein of the European Commission made it clear that:

"The President of the European Commission has become a huge fan of building in wood and is delighted to see the New European Bauhaus conversation growing every day. It is a project of hope, a project of recovery. Within it, renovation can be as valuable and beautiful as new construction. With this in mind, let us turn our cities into urban forests."

BASAJAUN and WoodCircus received funding from the EU Horizon 2020 research and innovation programme under grant agreements no. 820892 and 862942.

Reichstein is the pivotal European Commission official in charge of developing the New European Bauhaus, including liaising between the cabinet of President von der Leyen and the European Commission's Joint Research Centre.

Brussels, 8 April 2021

Background information

The virtual wood4bauhaus conference brought together over 1,000 participants, including business, designers and civil society representatives and it showcased the aesthetic beauty and sustainability of wood as a key driver in construction and living for a carbon neutral society. A video of the entire conference and the complete programme, including a full list of the speakers, can be found here: wood4bauhaus.eu

The virtual conference was organised by the newly constituted Wood Sector Alliance for the New European Bauhaus which was formed in part as a response to the President's call for wood to play a key role in transforming the built environment into a carbon sink. The Alliance has been accepted by the Commission as an active Partner of New European Bauhaus

The European Commission's New European Bauhaus calls for a creative, interdisciplinary, novel movement embedded in the society to imagine together a **sustainable** future and to engage on a transformative path towards **affordable** and **beautiful** living spaces in the urban and rural environment. A key step is the transformation of the building sector into a circular model that can also counteract the escalating climate crisis.

The Wood4Bauhaus Alliance comprises the following founding partners:

InnovaWood is EU network for wood science, research, innovation and education of 60 organisations in 28 countries, including RTOs, universities, VET centres and cluster organisations.

The European Confederation of Woodworking Industries (CEI-Bois) is an umbrella organisation of 21 European and national organisations from 15 countries backing the interests of the whole wood sector.

The European Panel Federation (EPF) represents 100,000 direct jobs and counts more than 5,000 wood-based panel manufacturing and furniture companies in 25 countries.

The European Federation of Building and Woodworkers (EFBWW) is the European Trade Union Federation grouping 76 national free trade unions from 34 countries with members in the building, building materials, woodworking, forestry and allied industries and trades.

The European Organisation of the Sawmill Industry (EOS) represents 35,000 sawmills in 12 countries.

BASAJAUN and WoodCircus are R&D project consortia fostering sustainable wood supply chains from forest harvesting to final buildings and Circular Economy solutions in the sector. They have received funding from the EU Horizon 2020 research and innovation programme under grant agreements no. 820892 and 862942.

Contact: info@wood4bauhaus.eu | Web: wood4bauhaus.eu

[1] State of the Union Address 2020, 16/09/2020

6.2 Club du Bois meeting

EOS, jointly with its partners CEI-Bois and EPF, organised the first 2021 Club bu Bois meeting on the 27 of May 2021 at 12:00 CET. Due to the travel and meetings restrictions imposed by the COVID-19 propagation, the meeting was organised in an online format only.

The meeting focused on: "What is the potential of The Renovation Wave to store carbon via the use of sustainable wood products?" This meeting of the Club de Bois presented some initial research findings that seek to quantify the amount of carbon The Renovation Wave has the potential to store.

On 14 October 2020 the European Commission presented the "Renovation Wave strategy" aiming for more and deeper renovation in Europe. With this Strategy, the Commissions' target is to at least double this rate by 2030, while increase the average gains in term of energy efficiency. This could lead to renovate 35 million buildings in the coming decade.

As recognised by the EU Commission, delivering the depth and volume of renovation Europe needs, ultimately requires a strong and competitive construction sector, embracing innovation and sustainability to increase quality and reduce cost.

In this respect "**the Commission promotes environmental sustainability of building solutions and materials, INCLUDING WOOD and bio-based materials, nature-based solutions and recycled materials on the basis of a comprehensive life-cycle assessment approach**. It will address the sustainability performance of construction products in the context of its revision of the Construction Product Regulation and **it will develop by 2023 a roadmap leading up to 2050 for reducing whole life-cycle carbon emissions in buildings**. The Commission will also accelerate work with standardisation organisations on climate resilience standards for buildings."

KEY INFORMATION ABOUT THE RENOVATION WAVE.

1. The strategy aims to double the rate of energy renovations by 2030, from 1% of the EU's stock a year to 2%. Central to that aim will be revising the Energy Performance of Buildings Directive next year to introduce mandatory minimum energy performance standards for existing buildings, possibly introduce a 'deep renovation' standard and revise rules for energy performance certificates (EPCs).

2. Amongst the different areas of intervention and lead actions critical to enable a step-change in the depth and scale of renovations, the EU Commission has identified:
   - ☞ Making the construction ecosystem fit to deliver sustainable renovation, based on circular solutions, use and reuse of sustainable materials, and the integration of nature-based solutions. The Commission proposes to promote the development of standardised sustainable industrial solutions and the reuse of waste material. It will develop a 2050 roadmap for reducing whole life-cycle carbon emissions in buildings, **including through the use of biobased products**, and review material recovery targets.
     - To boost know-how and workers' skills in the renovation sector the Commission will work with Member States through the Skills Agenda and its upcoming Pact for Skills and through Cohesion policy funds and the Just Transition Fund to finance training and re-training initiatives, in close cooperation with social partners.
   - ☞ Promoting comprehensive and integrated renovation interventions for smart buildings, integration of renewable energy and enabling to measure actual energy consumption. **In the framework of the ongoing Construction Products Regulation revision the Commission will consider how sustainability criteria could support the uptake of more sustainable construction products** in construction works and foster the uptake of the latest technologies.

CLUB DU BOIS

The "Club du Bois" is a joint initiative of the European Organisation of the Sawmill Industry (EOS), the European Confederation of the Woodworking Industries (CEI-Bois) and the European Wood-based panel Federation (EPF) in the form of a periodical and informal gathering of Members of the EU Parliament, to discuss issues of particular interest to our Woodworking industries.

Further information is available at the official website: www.clubdubois.eu

3. By the end of 2024, **the Commission will review the material recovery targets set in EU legislation for construction and demolition waste**. The Commission will put in place measures to increase reuse and recycling platforms and support a well-functioning internal market for secondary raw materials. Level(s), the Circular Economy principles for buildings design and the EU Construction and Demolition Waste management protocol guide the user to apply these principles in renovation projects.

4. The Commission will aim to use the power of public procurement for building renovation, also via green public procurement criteria related to lifecycle carbon emissions and climate resilience. As part of the review of the Energy Efficiency Directive, the Commission will examine by June 2021 the need to extend the scope of the renovation requirements to all public administration levels and to increase the annual renovation obligation. The Commission will also develop comprehensive guidance on sustainable public investment through procurement.

5. **KEY PRINCIPLES FOR BUILDING RENOVATION TOWARDS 2030 AND 2050**: The EU must adopt an encompassing and integrated strategy involving a wide range of sectors and actors on the basis of the following key principles:
   - 'Energy efficiency first' as a horizontal guiding principle of European climate and energy governance and beyond, as outlined in the European Green Deal and the EU strategy on Energy System Integration, to make sure we only produce the energy we really need;
   - Affordability, making energy-performing and sustainable buildings widely available, in particular for medium and lower-income households and vulnerable people and areas;
   - Decarbonisation and integration of renewables. Building renovation should speed up the integration of renewables in particular from local sources, and promote broader use of waste heat. It should integrate energy systems at local and regional levels helping to decarbonise transport as well as heating and cooling;
   - Life-cycle thinking and circularity. Minimising the footprint of buildings requires resource efficiency and circularity combined with turning parts of the construction sector into a carbon sink, for example through the promotion of green infrastructure and the use of organic building materials that can store carbon, such as sustainably-sourced wood;
   - High health and environmental standards. Ensuring high air quality, good water management, disaster prevention and protection against climate-related hazards, removal of and protection against harmful substances such as asbestos and radon, fire and seismic safety. Furthermore, accessibility should be ensured to achieve equal access for Europe's population, including persons with disabilities and senior citizens.
   - Tackling the twin challenges of the green and digital transitions together. Smart buildings can enable efficient production and use of renewables at house, district or city level. Combined with smart energy distribution systems, they will enable highly efficient and zero-emission buildings.
   - Respect for aesthetics and architectural quality. Renovation must respect design, craftsmanship, heritage and public space conservation principles.

To be noted: The Staff Working Document acknowledges that "*the use of prefabricated systems for the energy-efficient building renovation allows the reduction of on-site works, minimising the consumption of raw materials and increasing the energy and resource efficiency in the construction sector. H2020 projects funded under EeB PPP reached very good results through industrialisation of deep renovation with low intrusiveness, reduced time by 30%, return on investment <10 years and cost reduction > 15 %. For example, the project BERTIM developed timber prefabricated modules and holistic methodologies for the deep renovation. It also developed computer based tool (RenoBIM), which enables reduction of renovation operation time and make more efficient the renovation process, through the customization of the mass production, from data gathering, designing, manufacturing and installation*." (please see page 7 of the Staff Working Document)

6. The Renovation Wave will use regulation, funding and technical assistance across the whole renovation value chain to meet its targets.
   A detailed list of actions and the planned timeline for their implementation are included in the annex to the Communication and here reported:
   - 2021. Revising the climate-proofing guidelines for projects supported by the EU 2021;
   - 2021: Revising the RED and the EED and considering strengthening the renewable heating and cooling

target and introducing a requirement for minimum proportions of renewable energy in buildings. Also facilitating access of waste and renewable heat and cool into energy systems;
- 2021: Assessing the extension of the use of emission trading to emissions from buildings;
- 2022: Based on Level(s), developing green public procurement criteria related to life cycle and climate resilience for certain public buildings;
- 2023: Developing a 2050 whole life-cycle performance roadmap to reduce carbon emissions form buildings and advancing national benchmarking with Member States;

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- 2024: Reviewing material recovery targets and supporting the internal market for secondary raw materials.

6.3 Forests and forestry in the European discussions

As the Treaties make no specific reference to forests, the European Union does not have a common forestry policy. Although there is no single competence for forests within EU primary law, a dense regulatory network has developed over time covering different forest-focused and forest-related policies. Therefore, in practice, we see an existing European Forest Policy.

"In the European Union the formulation of forest policies is the competence of the Member States within a clearly defined framework of established ownership rights and with a long history of national and regional laws and regulations based on long term planning. However forests are affected by a broad array of Community policies and initiatives arising from diverse EU sectoral policies. For several decades now, environmental forest functions have attracted increasing attention mainly in relation to the protection of biodiversity and, more recently, in the context of climate change impacts and policies". (Source: EU Commission, EU Forest policies).

Reported below, the answer provided by the Environment, Oceans and Fisheries Commissioner, Mr Sinkevičius, on behalf of the European Commission to the question for written answer submitted by the Finnish MEP Petri Sarvamaa (PPE) on the EU competence on forests.

Answer given by Mr Sinkevičius, on behalf of the European Commission (4.9.2020)

While the EU competences listed in the Treaty on the Functioning of the EU do not explicitly mention 'forest policy', ***the EU has a range of competences relating to forests such as climate, environment or rural development****. Within these* ***areas of shared competences, forests and forestry do not fall within exclusive Member States' competence.*** *In these areas, Member States exercise their competence to the extent that the EU has not exercised its one. To date, several acts affecting forestry were adopted. The EU has thus exercised its competence in those areas.*

Work is ongoing by the Commission in view of developing a new EU Forest Strategy, as announced in the European Green Deal and the EU Biodiversity Strategy .

A public consultation is planned and discussions will be held in the Standing Forestry Committee, the Civil Dialogue Group on Forestry and Cork, the Coordination Group on Biodiversity and Nature *and their relevant subgroups (e.g. the sub-working group on forests and nature)* ***and the Working Group on Forest-based industries.***

The Forest Strategy will reflect and take full account of the variety of forests and forestry models in the EU and will tackle the multiple functions of forests from the environmental, economic and social perspectives*, aiming to securing a coordinated and robust contribution of the different EU forests to the EU policy priorities, including climate change, biodiversity, the bioeconomy and the maintenance of lively rural areas.*

6.3.1 The New European Forest Strategy

One of the many actions planned under the Green Deal is the New EU Forest Strategy, a non-legislative initiative which the Commission was expected to prepare by the end of 2020. Indeed, the current EU Forest Strategy was adopted in 2013 and reviewed in 2018.

On 7 October 2020, the European Parliament gave a "go" to the AGRI Committee report prepared by MEP Petri Sarvamaa on the "European Forest Strategy – the way forward": copy of the report can be download here: https://www.europarl.europa.eu/doceo/document/A-9-2020-0154_EN.html

The EP Report stresses the need to promote the use of wood as a sustainable construction material as it enables us to move towards a more sustainable economy; encourages the Commission to explore different market-based mechanisms in order to incentivise substitution of fossil fuels by renewable raw materials which offer climate benefits. Moreover, it stresses the crucial role of wood-based materials in substituting fossil-based alternatives and alternatives with a higher environmental footprint in industries such as construction, textiles, chemicals and packaging, and the need to fully take into account the climate and environmental benefits of this material substitution. Moreover, it points out that achieving the EU's goals for environment, climate and biodiversity will never be possible without forests that are multifunctional, healthy and sustainably managed applying a long-term perspective, together with viable forest-based industries; stresses that under some circumstances there are trade-offs between protecting the climate and protecting biodiversity in the bio-economy sector and particularly in forestry, which plays a central role in the transition towards a climate-neutral economy.

Ahead of the plenary vote, on the 28 of September 2020, EOS and 16 organisations from the forest-based sector published a joint statement "The New EU Forest Strategy: 3 reasons to endorse the committee report" calling MEPs to endorse and confirm the AGRI Committee report. The statement highlighted that the report provides the upcoming EU Forest Strategy with all the essential ingredients to allow forests and the forest-based sector to play their central roles in achieving the objectives of the European Green Deal, including climate neutrality by 2050 and biodiversity preservation.

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Brussels, 28 September 2020

JOINT STATEMENT

The New EU Forest Strategy: 3 reasons to endorse the committee report

Ahead of the European Parliament's vote on the report "*The European Forest Strategy – The way forward*" planned for next week, the EU forest and forest-based sector would like to share three reasons why the report voted in the AGRI committee should be supported. In our opinion, the report provides the upcoming EU Forest Strategy with all the essential ingredients to allow forests and the forest-based sector to play their central roles in achieving the objectives of the European Green Deal, including climate neutrality by 2050.

1) All forest functions count

The report builds on sustainability principles which foster the environmental, economic and social benefits of forests and forest management in a balanced manner. It strives to find an equilibrium between biodiversity preservation, climate protection and economic output, in which no function dominates the others. This is well-summarised in the report which points out *"the need to develop a coherent approach to bring together biodiversity protection and climate protection in a thriving forest-based sector and bio-economy*". Regarding climate change, the report reiterates the necessity to strengthen the overall climate benefits stemming from forests and the forest-based value chain, namely fostering CO_2 sequestration and carbon storage in forests and wood products as well as substituting for fossil-based materials and energy. The report also makes clear that only resilient and healthy forests can continue to deliver these multiple ecosystem services.

This holistic "field reality" approach, based on sustainable forest management, is what the forest and forest-based sector needs from the future EU Forest Strategy in order to continue to fulfil the increasing expectations of the wider society.

2) People, jobs and rural areas count

The report puts human aspects into focus by referring, in particular, to people who work and make their living directly or indirectly from forests and the forest-based sector, but also to citizens who enjoy the multiple benefits forests provide on a daily basis.

The positive role that forests and the forest-based sector play in terms of employment and safe jobs is also pointed out and supported by the report. The value chains of the forest and forest-based sector provide nearly 4 million green European jobs, mostly located in rural areas. The report rightly mentions the importance of preventing a rural exodus by attracting industries to invest in Europe and by investing in ecosystems. In this period of economic, climatic and health crises, it is important to endorse the support the report provides to the forest and forest-based sector in the latter's role as job providers. This support is key for the sector to continue rolling out viable solutions which can contribute to a sustainable and green economic recovery in a sustainable and resource-efficient way.

3) Coherence, coordination and teamwork count

The report calls for an ambitious, independent and self-standing EU Forest Strategy post-2020 and highlights the need for it to be coordinated and better integrated with relevant EU legislations. It also stresses the important role Member States and stakeholders need to take in this process. The future EU Forest Strategy should be a reference tool which provides guidance, expertise and examples of good practices necessary to develop and implement other EU forest-related policies. The Strategy's role is also to ensure that all these policies work together towards the overall international (UN SDGs) and EU goals to be achieved during the next decades. Over the last years, a growing number of EU policies stemming from various sectors, including provisions for forests and the forest-based sector, have been agreed. This has led to a fragmented and complex policy framework. In this context, coherence and teamwork are even more relevant and important and the role of consistency in the future EU Forest Strategy, as described in the report, should be supported.

For all the reasons provided above, we are calling on the European Parliament to endorse and confirm the report "*The European Forest Strategy – The way forward*" when it comes to the plenary vote.

Following the plenary vote of the report by MEP Sarvamaa on the "European Forest Strategy – the way forward", the European Woodworking industries published a joint press release to welcome this adoption.

Brussels, 8 October 2020

JOINT PRESS RELEASE

THE EUROPEAN WOODWORKING INDUSTRIES WELCOME THE PARLIAMENT REPORT ON THE FUTURE OF THE EU FOREST STRATEGY

On 7 October 2020 the European Parliament, gathered in Plenary session, adopted the own initiative report "The European Forest Strategy – The way forward", led by the Rapporteur Petri Sarvamaa (Finland, EPP Group).

The European Woodworking Industries endorse the adopted report, which stresses the need for a balanced, independent and self-standing EU Forest Strategy for the post-2020 period, built on a comprehensive understanding of Sustainable Forest Management. This approach is the way forward to enable the European forests and forest-based Industries to tap into their potential of climate change mitigation and sustainable job creation, in line with the 2050 climate-neutrality objective of the EU. As the report rightly acknowledges, "*stepping up the circular bio-economy is an essential approach to achieving a low-carbon society in the implementation of the Green Deal*", and the European Woodworking Industries play an essential role in that transition.

The sector also offers an example of a circular bio-based industrial ecosystem, where materials, by-products and residues are supplied across the various parts of the value chain to make the most efficient use of resources, including through re-use and recycling.

Promoting the use of wood-based products also provides a robust and immediate solution for reaching a carbon-neutral EU economy, thanks to the effects of carbon storage in wood and substitution of fossil-based materials. This offers the potential to decarbonise the building sector, both in sustainable new construction and in the energy efficient renovation of the existing building stock: wood products used in renovation provide excellent insulation properties and require less energy in manufacturing and transport, thereby reducing the final embodied energy in the building.

The Forest-based bioeconomy brings jobs and growth mainly in rural areas: the number of employees in the Woodworking Industries alone should be estimated at substantially more than 2.1 million, for a total number of 180.000 companies and a production value of €240 billion in 2018. The European Woodworking Industries are committed to the legal and sustainable sourcing of raw materials. The provision of wood is one of the many key functions of sustainably managed forests, and one that provides the income to be reinvested in climate change mitigation and adaptation measures, to preserve the health and resilience of European forests against the increasing threats of disturbances and diseases.

THE EUROPEAN WOODWORKING INDUSTRIES

The European Woodworking Industries drive the development of a sustainable European bioeconomy and are key contributors to jobs and growth. In 2018 the production value of the sector reached closed to 240 billion EUR. The sector counts almost 180.000 companies in Europe, most of which are small and medium sized. Given the SME structure of the industry (it should be borne in mind that some countries do not take into account firms with less than 20 employees, thus the global figures tend to substantially underestimate the employment in small and medium-sized industrial sectors) the actual total number of employees in the EU-28 wood industries should be estimated at substantially more than 2.1 million in 2018.

Signatories:

***CEI-Bois is the European Confederation of the Woodworking Industries**. It represents 21 European and National organisations from 15 countries and is the body backing the interests of the whole industrial European wood sector. www.cei-bois.org*

*The **European Panel Federation (EPF)** represents the manufacturers of wood-based panels being particleboard, dry process fibreboard (MDF), oriented strand board (OSB), hardboard, softboard and plywood. EPF has members in 32 European countries. The EU wood panel industry creates over 100,000 jobs directly and counts more than 5,000 enterprises in Europe. Annual turnover is approximately €22 billion. www.europanels.org*

*The **European Federation of the Parquet industry (FEP)** reunites more than 80 members in 20 countries: European parquet manufacturers, national parquet associations and suppliers to the industry. The primary goal of FEP is to strengthen and improve the position of wood flooring as a sustainable floor covering solution. www.parquet.net*

*The **European Organisation of the Sawmill Industry (EOS)** represents some 35,000 sawmills manufacturing sawn boards, timber frames, glulam, decking, flooring, joinery, fencing and several other wood products. EOS represents around 80% of the total European sawn wood output in a sector that has a turnover of around 35 billion EUR and employs about 250,000 people. www.eos-oes.eu*

6.3.2 Delays in the publication of the New European Forest Strategy and EU Council discussions

Last November, the European forest and forest-based sector were informed that the Forest Strategy expected to be delayed to Q1 2021, was further postponed to Summer 2021.

For this reason, with a joint letter, the private and public forest owners and managers, forest-based industries as well as the representatives of workers, contractors and professionals, called on the European Commission to make swift progress with the Forest Strategy post-2020. The letter, addressed to the President of the European Commission, Mrs Ursula von der Leyen was signed by the EOS President, Mr Auvinen.

Ms Ursula von der Leyen
President of the European Commission
European Commission
Rue de la Loi 200
BE-1049 Brussels

Brussels, 20th November 2020

Re: Delay in the publication of the EU Forest Strategy

Dear President of the European Commission,

The European forest and forest-based sector, represented by the private and public forest owners and managers, forest-based industries as well as the representatives of workers, contractors and professionals, are very much concerned about the delay of the publication of the Communication on the new EU Forest Strategy. As mentioned in the Commission work programme for 2020, the new EU Forest Strategy, originally expected to be published in 2020, was already postponed until Q1 2021. Recently we heard in one of the Commission working group meetings that its publication could be postponed once again, for summer 2021.

As representatives of the entire forest value chain, we do not understand why the EU Forest Strategy post-2020 is not a higher priority for the Commission, considering forests' and the forest-based sector's potential for tackling the ongoing climate and health crises. Also, increasing natural disturbances such as bark beetles and forest fires pose a threat to these vital resources and require long-term commitment as well as timely and well-coordinated action from the EU and its Member States. We welcome the publication of the Roadmap, but looking at the delay with which it was launched, we are still concerned about a possible further delay that could have a negative impact on achieving the key objective to continue the transition to a greener and more sustainable economy.

The European forest and forest-based sector calls on the European Commission to make swift progress with the Forest Strategy post-2020, taking into account the recommendations given by the Member States in the Council Conclusions of 11 November 2020[1] and the EP Resolution of 8 October 2020[2].

[1] https://data.consilium.europa.eu/doc/document/ST-12695-2020-REV-1/en/pdf
[2] https://www.europarl.europa.eu/doceo/document/TA-9-2020-0257_EN.pdf

The EU Forest Strategy is the main policy instrument for integrating European forests and the forest-based sector into other EU policy areas relevant to the sector. The upcoming strategy should provide a cross-cutting, holistic, multi-dimensional and inclusive framework, with sustainable forest management principles at its core. It should ensure an effective, well-coordinated and balanced further development of the EU instruments related to forests and the forest-based sector. A swiftly delivered robust EU Forest Strategy is crucial to unlocking the full potential of sustainably managed and multifunctional forests, and their products and services, in order to reach the objectives of the EU Green Deal and contribute to the EU's recovery from COVID-19 as well as the UN Sustainable Development Goals.

We therefore kindly ask you to consider the steps necessary to ensure that the Commission and Member States, supported by relevant stakeholders, reach an agreement on the new EU Forest Strategy post-2020 within the deadline included in the Commission work programme for this year. We remain at your disposal and available for continued collaboration with your services with a view to defending the importance of this strategy for the sector and for achieving the objectives of the European Green Deal.

Yours faithfully,

Hannes Tuohiniitty,
President of BIOENERGY EUROPE

Klaus Pentzlin,
President of CEETAR

Anders Ek,
President of CEI-BOIS

Hubert de Schorlemer,
President of CEPF

Ignazio Capuano,
President of CEPI

Ramón Armengol,
President of COGECA

Christiane Lambert,
President of COPA

Pierre-Olivier Drège,
President of ELO

Sampsa Auvinen,
President of EOS

Reinhardt Neft,
President of EUSTAFOR

Pierre Grandadam,
President of FECOF

Lars Gunnar Andersen,
President of FEP

Johan Elvnert,
Managing Director of FTP

Michael Diemer,
President of UEF

Leire Salaberria,
Managing Director of USSE

On the 18 March 2021, on occasion of the informal videoconference of environment, the Commissioner for Environment, Oceans and Fisheries, Mr Sinkevičius and the national Ministers made the following comments in discussing the point of the agenda: "AOB: Preparation of the EU Forest Strategy post 2020"

Virginijus Sinkevičius, Commissioner for Environment, Oceans and Fisheries:

- the Commission welcomed the interest of the Council in the upcoming EU Forest Strategy;
- forests covered 43% of land in Europe and were crucial for Europe's economy and well-being. However, he described the current state of the EU's forest ecosystems as "*truly dire*";

- there was an urgent need to reverse the declining trends of EU forests if they wanted forests to continue to provide socio-economic benefits and their essential ecosystem services;
- **he stressed that forests had a crucial role to play in achieving the objectives of the Green Deal**;
- **the Commission agreed with the need to further promote and enhance sustainable forest management, including protection, restoration and reforestation**. He noted the importance of forests for biodiversity and climate, and their role in developing the bioeconomy
- a holistic forest strategy was also necessary for the communities that depended on forests;
- the Commission recognized the importance of acknowledging the different characteristics of different forests and country-specific challenges and specificities;
- work is still needed to ensure the resilience of forests, particularly damage caused by extreme weather events, pests and diseases;
- the Commission acknowledged the central role of Member States (MS) in the implementation of the new EU forest strategy and recognised the important work being done by the Standing Forestry Committee;
- the Commission also recognized the constructive work being done in the Working Group on Forests and Nature, notably on the development of 'closer to nature' guidelines;
- all EU forest strategies had been built upon the principle of subsidiarity and shared responsibility for setting up the respective frameworks for forest-related actions, building on comparative beneficial links between EU and MS policies and initiatives;
- many challenges went beyond national borders and could be better addressed at the EU-level, such as the global drivers of climate change and biodiversity loss and the transboundary effects of disasters and disturbances;
- the Commission would explore how to strengthen the governance framework and reflect the multifunctionality of forests in order to enhance collaborative and cross-border work, and research and knowledge sharing on different relevant areas, including rural development, bioeconomy, forest resilience and enhanced integration of nature conservation into sustainable forest management;
- the Commission would continue to engage with stakeholders during the preparation of the strategy and looked forward to the continued dialogue with the MS. The Commissioner reiterated that the dialogue needed to include both agriculture and environment ministers.

Finland

- Finland considered it important that all EU policies promoted preservation and restoration of European natural capital, taking into account long-term sustainability;
- the EU forest strategy should improve consistency of initiatives;
- **it should cover the entire value chain, from promoting sustainable management and use to products;**
- the forest strategy should be developed as a coordination tool for biodiversity objectives and other policies regarding forests;
- it was essential to mainstream EU biodiversity policy objectives into other policy fields. Finland mentioned that the Birds and Habitats Directive, the Water Framework Directive, Floods Directive, and the Marine Strategy Framework Directive needed stronger integration into other policy sectors, including forest policy;
- it was important to improve the knowledge base and the state of biodiversity in the forest sector;
- biodiversity protection needed to be mainstreamed into the everyday management of forests. This had been developed for commercial forests in Finland;
- it was also taken into account in the management of recreational areas and other specially designated areas;
- Finland stated that all MS had their own circumstances and **forest management strategies should be based on science**;
- it was important that the forest strategy enabled the sustainable use of forests and respected property rights, while ensuring the achievement of climate and biodiversity objectives;
- **Finland concluded by stating that the forest strategy could also be used as a tool for promoting wood construction.**

Germany

- the EU biodiversity and forest strategies were closely linked;
- Germany urged the forest strategy to be based on consistency with other initiatives, such as the one on deforestation-free supply chains.

Estonia

- the EU forest strategy had functioned very well as a framework for MS varying interests in forests and forest management;
- Estonia believed that the new forest strategy should

continue to set goals to ensure that European forests had sustainable management, were healthy and productive;
- the strategy should also offer solutions for adaptation and mitigation of climate impacts. It should also promote biodiversity, bioenergy, and the bioeconomy;
- Estonia concluded by stating **the strategy should also support rural development**.

Austria

- Austria welcomed the active involvement of the Environment Council in the new forest strategy, as it would be a key element for achieving the 2050 targets;
- consistency with other policies is needed;
- Austria also mentioned the **proper use of building materials**;
- the strategy would contribute to protecting biodiversity and adapting to climate change;
- maintaining forests was very important for Austria as 45% of Austria's territory was forest. Protecting secondary forests was absolutely essential;
- the new approach to planting new forests without necessarily cutting it down was very important. It would optimise the use of forests as carbon sinks;
- **wood continued to be an important resource**;
- multi-functional and future-looking management was necessary and would contribute to the objectives of the Green Deal.

Slovenia

- Slovenia had traditionally been involved in sustainable and multi-purpose forest management;
- annual management activities took place in both private and state forests. This was important for biodiversity and effectively managed the use of wood as a resource. Slovenia wanted the new strategy to recognise this type of management as the main type of forest management;
- the strategy should take into account the specificities of the MS and should balance all of the functions that forests performed;
- Slovenia recalled that 68% of its territory was covered in forests;
- **Slovenia called for a balance between the social, economic and environmental factors of forests as this would have a positive impact on rural development;**
- this would enable them to reach the EU's goals.

France

- France supported a renewed EU strategy for forests, which would address the socio-economic aspects of forests and guarantee the coherence of European efforts;
- France supported the Commission's intention to protect primary forests and to plant new forests;
- **concerning climate neutrality, France stressed that the contributions of forests and the wood sector needed to be taken into account**;
- the resilience of European forests needed to be increased;
- the EU also needed to make sure that it was in line with international efforts with regard to halting deforestation and stopping the illegal import of forestry products;
- France believed that the Commission's efforts were very important.

Belgium

- Belgium considers the forest strategy as very important, for a number of reasons such as biodiversity, sustainable development and meeting the EU's climate objectives;
- it is important to have sustainable forest management which was also multi-functional;
- Belgium had some concerns about the approach currently followed by the Commission, for example in the implementation of the biodiversity strategy.

Sweden

- Sweden welcomed the Commission's initiative to update the EU forest strategy;
- Sweden wanted the strategy to continue to emphasise the many important aspects of forests. The starting point of the strategy should be sustainable forestry, and it should include both sustainable use and conservation as equal goals;
- the new strategy needed to safeguard the climate benefits of forests. Sweden mentioned the role of forests in carbon sequestration and forest-based products as key in the transformation of society.

Romania

- Romania stated that the new strategy should be adopted as soon as possible. Romania recalled the Council Conclusions on the issue which should be taken into consideration;
- the most important element to include in the strategy was enhancing the resilience of forests and their ecosystems;
- the **competitiveness and sustainability of the EU forest industry should be ensured**;
- Romania stressed the need to take into consideration

national circumstances, ongoing efforts and the starting points of each MS when establishing the objectives of the future strategy.

Poland

- Poland underlined that the new strategy should be an independent strategy that provided a coherent policy framework for forests and the forest sector;
- Poland believed that there was a lot of potential for forests in the implementation of the Green Deal, but stressed the need to balance different goals and measures, as well as the need to respect the principle of subsidiarity;
- information related to the new forest strategy should primarily be presented and discussed at the Agriculture Council.

Luxembourg

- Luxembourg thanked the Commissioner for the presentation and stressed that it was important to involve the environment ministers to ensure coherence;
- a holistic and coherent approach was necessary. They needed to ensure healthy and resilient forests, as well as protect biodiversity in line with the biodiversity strategy;
- the **EU needed to be more circular and use wood,** and also prevent deforestation in other parts of the world.

Netherlands

- the Netherlands supported the Commission's plan to plant 3 billion trees by 2030 and to strongly protect all primary and old-growth forests;
- the Netherlands would welcome a strategy that highlighted the different functions of forests in the EU such as biodiversity, bioeconomy and climate mitigation. The Netherlands also emphasised the world-wide goal of stopping deforestation by 2030;
- **a focus on deforestation was necessary within the EU and also in cooperation with third countries**. It was important to ensure coherence between the EU's internal and external forestry related policies;
- the EU's internal actions would also influence its actions globally.

Spain

- Spain thanked the Commission for their work and for integrating the suggestions that Spain had made from the beginning of the process;
- it was **important to highlight that forests were first and foremost an environmental resource, and not a 'plantation'. Sustainable forestry was key for maintaining biodiversity, soil health and the recovery of ecosystems. It was also essential to have sustainable management of forests that was in line with the circular bioeconomy;**
- Spain believed that it was essential to have nature-based solutions and welcomed the fact that the issue was being discussed in the Environment Council, which Spain stated was the main actor in these issues, including on carbon;
- Spain stated that it would be key for MS to be able to participate in the forest working group.

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6.3.2 The European Consultation on the European Forest Strategy

From the 25 January 2021 to the 19 April 2021, the EU Commission launched a consultation on the EU Forest Strategy. The European Green Deal announced in December 2019 that, building on the 2030 EU Biodiversity Strategy, the Commission will prepare a new EU Forest Strategy covering the whole forest cycle and promoting the many services that forests provide. According to the EU Commission, the EU Forest Strategy is expected to enable the contribution of the forest sector to the new Commission priorities of building a new growth model through the European Green Deal, including advancing rural areas.

EOS, jointly with the European Confederation of the Woodworking industries, prepared an answer to the questionnaire and a joint additional informative paper in order to provide the EU Commission with a comprehensive response to the consultation. The joint informative paper is here reported:

Towards a new EU Forest Strategy: position of the European Woodworking Industry

16 April 2021

CEI-Bois, the European Confederation of the Woodworking Industries, and EOS, the European Organisation of the Sawmill Industry, encourage the EU Commission to prepare the new Forest Strategy having an holistic and coherent view of the different EU policies that already cover forestry aspects. In particular, CEI-Bois and EOS call for a **coherent framework** for all the initiatives planned under the European Green Deal that bear an impact on European forests, ranging from climate and environmental policy to agricultural development and circular bioeconomy.

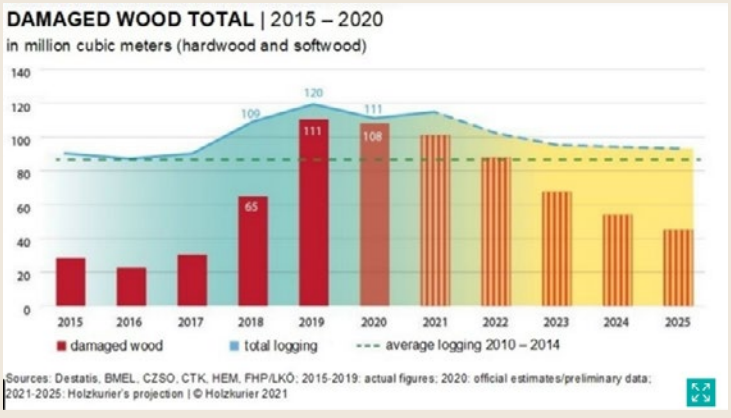
In line with the European Parliament resolution of 8 October 2020 on the European Forest Strategy - The Way Forward, EOS and CEI-Bois call for an ambitious, independent and self-standing EU Forest Strategy for the post-2020 period in parallel with other relevant sectoral strategies.

The 2013 Forest Strategy was built on 8 different priority areas that addressed all three pillars of sustainability (environmental, economic and social) in a balanced way; this approach should be maintained also in the new Strategy. The new EU forests strategy should support Members States in maintaining healthy forests and, at the same time, boost the competitiveness of forest-based industries. Research programs dedicated to the forestry sector should be also a key component of the new Strategy; in particular understanding and quantify the forest vulnerability to forest disturbances is a crucial factor to first develop adaptation strategy and secondly to support the forest based industries to continue to operate.

Threats and challenges for EU forests

European forests play a key role in Europe's transition to a modern, climate-neutral, resource-efficient and competitive economy. As shown in the State of European Forests 2020 report, **Sustainable Forest Management (SFM)** in Europe provides adequate instruments to ensure that forests fulfil environmental, social and economic functions: the **area of forests** in Europe has **increased by 9%** over the last 30 years; the **volume of wood and the weight of carbon stored** in the biomass of European forests have **grown by 50%** over the last 30 years as forest area expanded and only a part of the net annual increment (around 75%) is being harvested. The **volume of wood supply has grown**, reaching **550 million m³**, which is 40% more than in 1990[1]. This implies the possibility to both develop the forest-based industries and at the same time maintain or increase our European forests resources, provided that adequate climate change adaptation policies are in place.

Simultaneously, concerns are legitimately raised over the deterioration of the condition of EU forests, shown for example by the increase of mean foliage loss of trees. The European assessment of forest ecosystems shows that both in the short term and in the long term, the largest number of indicators suggesting degradation falls within the category of climate change indicators (e.g., area burnt by forest fires, effective annual rainfall, mean annual temperature, extreme drought events)[2]. Pest attack also increased in the recent years; the figure below shows the exceptional magnitude of the damage provoked by the bark beetle outbreak in Europe:



1 FOREST EUROPE, 2020: State of Europe's Forests 2020

2 JRC Report "Mapping and Assessment of Ecosystems and their Services: An EU ecosystem assessment", 2020

This trend is expected to worsen with climate change. According to a recent study[3] 33.4 billion tonnes of forest biomass could be seriously affected by disturbances, with higher relative losses when exposed to windthrows (40%) and fires (34%) compared to insect outbreaks (26%).

➔ **It is therefore urgent to increase the support to sustainable forest management to increase the resilience and long-term stability of European forests and related ecosystem services. This should be the overarching objective of the new Forest Strategy**.

➔ **The spread of the beetle in spruce-dominated forests is a great challenge for Europe. An EU forest resource monitoring system aiming at providing real-time information on the European forest resources, materials flows, stocks and capable to make forecast should be created. The wood processing Industry needs information about the wood resource with a time horizon long enough to forecast possible changes in technology investment and products design. This tool should purely address the wood resource and flow and should not serve at regulating timber markets in Member States.**

The role of the wood industry in SFM and climate change mitigation

While one might not connect healthy forests with the commercial use of wood, they are actually connected. Income from wood is essential for forest owners to invest in sustainable forest management and enhance their resilience. In turn, ensuring a sustainable wood supply enables the **transition to a circular bioeconomy**. Wood is renewable, recyclable, has a low carbon footprint over its life-cycle, and is an ally against climate change.

The total positive climate effect of the forest-based sector is estimated at **-806 million tons of carbon dioxide** equivalents annually (EU27+UK, Switzerland and Norway)[4]. This corresponds to around 20% of all fossil emissions in the European Union. This is calculated as a sum of:

- **net sink** (increased carbon storage) in forests and **storage** in forest products;
- fossil emissions caused in the forest sector value chain;
- **prevented fossil emissions** by substituting fossil-based materials and fossil energy, which appears to be as relevant as the forest sink.

Such development has the potential to decarbonise key sectors of the European economy. Carbon saving figures for the use of wood in construction can be substantial: for instance, in the Netherlands it was calculated that scaling up the building sector with 10.000 timber houses could alleviate 10-42% of the total CO2 emissions produced by the building sector[5].

➔ **The new Forest Strategy should recognize that the full climate mitigation potential of the forest sector is best achieved when (a) forests are growing fast through active and sustainable forest management and (b) renewable and recyclable wood-based products replace products made of fossil-based raw materials. It should enhance the three functions of forests: carbon sink carbon stock, and the substitution effect of forest products for functionally equivalent materials.**

➔ **In the framework of the revision of the LULUCF Regulation a mechanism should be put in place to fully recognise the carbon capture of wood products and the material substitution effect.**

Integrating timber production with biodiversity protection

The EU hosts a broad variety of forest ecosystem types; around 27% of the total forest area is protected under the Natura 2000 scheme, and forest ecosystems make up 50% of the entire Natura 2000 network. Encouraging trends are displayed

3 Forzieri, G., Girardello, M., Ceccherini, G. et al. Emergent vulnerability to climate-driven disturbances in European forests. Nat Commun 12, 1081 (2021). https://doi.org/10.1038/s41467-021-21399-7

4 Climate effects of the forest-based sector in the European Union, Peter Holmgren FutureVistas AB. 2020 https://www.cepi.org/wp-content/uploads/2020/07/Cepi_-study.pdf

5 https://www.w-e.nl/portfolio-item/200-000-ton-minder-co2-uitstoot-meer-houten-woningen

in the latest Forest Europe report: European forests are predominantly semi-natural, with forests plantation representing only 3.8% of the total. The tree species diversity of forest stands has been increasing since 2005: today only one third of Europe's forests are dominated by a single species (usually conifer); half of the forest stands are composed by two to three species. Forests composed of several tree species are often richer in biodiversity and more resilient. The amount of deadwood in European forests is also growing[6].

In the EU Biodiversity Strategy 2030 further targets are set: namely the Strict protection of 10% of EU land, including all remaining primary and old-growth forests, and protection of 30% of land; guidelines on "close-to-nature" forestry practices are expected to be developed at EU level. Preliminary assessments show that the impact of an implementation of the EU Biodiversity strategy on the roundwood supply in the EU could be as high as a 42% reduction up to 2050, driving higher imports from non-EU countries[7].

➔ **Sustainable Forest Management ensures that the conservation of biodiversity is encompassed within management activities according to local conditions. The Industry calls for addressing knowledge gaps on which mixtures of trees species can provide the best resistance and stability to climate change while preserving biodiversity without negatively affecting the quality and quantity of wood production.**

➔ **The identification of additional protected areas should be based on participatory planning, also taking into consideration the principle of subsidiarity and the competence of Member states on forest policy and regional differences.**

Forest-based circular economy and rural development

Too narrow policy would hinder the forest-based sector's possibility to contribute to the European Green Deal and to rural development. Including the furniture sector, the total production value of the woodworking industries in the EU, according to Eurostat, reached 240 billion EUR in 2018. The woodworking industries employ over 2 million people in over 300,000 companies across Europe. The forest-based sector as a whole represents around 420.000 enterprises for a total turnover of over 520 billion euros and around 3,5 million workers.

Moreover, the forest-based industries are supplied primarily from European forests, as import reliance for industrial roundwood was 5.6 % in 2015 and has been below 10% in the last 15 years[8]. From the point of view of supply security, this gives the industry a special position. In a more polarised world, the forest-based sector provides supply for production of both current and future products and materials that can replace materials with less security of supply.

The forest-based value chain already offers a positive example of circular bioeconomy in action: -European timber processing and wood products manufacturing generates low to zero waste, as resulting by-products and residues can be used as raw material for other wood-based products and renewable energy source. Timber products are not only long-lasting, but can be easily repaired, re-purposed or recycled, thus prolonging the carbon storage effect.

➔ **The industry calls for a new Strategy that recognises the role of the forest-based circular bioeconomy in the creation of additional green jobs and growth in rural and urban areas.**

➔ **Primary residues and by-products (like chips and sawdust) and post-consumer wood represent an important part of wood consumption in the EU that will grow in the future. Industries which are responsible for the first transformation of raw-materials and for the provision of vast quantities of by-products are essential suppliers of materials to develop new bio-based products. The forest-based value chain as a whole should be seen as strategic to achieve the Green Deal objectives.**

6 FOREST EUROPE, 2020: State of Europe's Forests 2020

7 Assessment of possible leakage effects of implementing EU COM proposals for the EU Biodiversity Strategy on forestry and forests in non-EU countries. Thünen Working Paper, No. 159. 2020

8 Source: European Commission, EIP on Raw Materials, Raw Materials Scoreboard 2018

➔ **When trees are sustainably harvested, wood continues to store carbon in the thousands of products we use every day, from lumber to paper products, to wood-based panels. Measures to boost the supply of secondary raw materials should encouraged. Where economically and logistically viable, recovered waste such as post-consumer wood should ideally re-enter the supply chain.**

6.3.3 Assessment of possible leakage effects of implementing the EU Biodiversity Strategy on forestry and forests in non-EU countries

Last December 2020, the Thünen institute published a so called working paper titled "*Assessment of possible leakage effects of implementing EU COM proposals for the EU Biodiversity Strategy on forestry and forests in non-EU countries*".

This document provides an estimate of the decline in roundwood production in EU member states as a result of implementing partial or full production restrictions in forests, in line with the EU Biodiversity Strategy for 2030 targets. In a second step, implications of reduced roundwood production within EU-27 on global wood markets are assessed. Finally, leakage of roundwood production to non-EU countries is evaluated using indicators related to governance, sustainable forest management, biodiversity, forest condition, deforestation pressure and socio-economic aspects.

In particular, the working paper assess the impact of an implementation of the EU Biodiversity strategy on the roundwood supply in the EU, assuming the implementation of the following EU objectives:

i. 10 % share of forest area set-aside,
ii. non-utilization of "old-growth forest" and
iii. 30 % share of protected forest areas with Habitats Directive (COM 1992) management requirements.

The Thünen institute projects a very strong reduction of the roundwood production in the EU-27. As reported, "an overall roundwood production decrease of 42 % in the EU-27 for the year 2050. Increased roundwood production in non-EU countries would compensate for 73 % of the de-creased roundwood production in the EU. Until 2050 EU-27's decreased roundwood production would mainly be offset by increased production in the USA. According to the modelling results, 26 % of decreased roundwood production are leaked to the USA. Further leakage occurs to Russia (12 %), Canada (9 %) und Brazil (8 %)."

The working paper evaluates that the implementation of the EU biodiversity strategy would have different effects on the timber market due to the different forest resources of the individual EU member states. Also, the intensity of the roundwood extraction on the productive areas would probably be different.

When looking at processed wood-based products, it can be seen that the production of paper and paperboard is hardly influenced by a possible implementation of the EU biodiversity strategy. The production of the paper sector within the EU is only reduced by 3 % from 120 million tons to 117 million tons, while consumption only decreases by 1 % to 97 million tons.

The situation is different for the **production of sawnwood and wood-based panels EU production (270 million m^3) is 31 % lower than in the projected reference scenario** (392 million m^3). At the same time, consumption of these two product groups decreases by only 4 % to 317 million m^3. This is mainly due to the sharp **drop in exports, while imports increase**. Globally, the production of sawnwood and wood-based panels is 8 % lower, which means that the discrepancy between a significantly reduced production with only slightly lower consumption of sawnwood and wood-based panels in the EU leads to a shift of production to non-EU countries.

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Finally, it is important to recall that, in the framework of the EU Biodiversity Strategy for 2030, the EU Commission put forward the following objectives (reported as "areas for actions"):

Existing Forests	Enhance forest protection and restoration to meet the EU biodiversity and climate objectives; Preserve stocks and increase the EU carbon sink in forests, their soils and harvested wood products; Enhance prevention of disaster risk events and of damages and resilience to natural hazard; Secure forest health with a view to change climate conditions and environmental degradation; Support restoration of damaged areas and degraded ecosystems; Ensure the sustainable management of all EU forests, maximising the provision of their multiple functions while enhancing their productive capacity.
New Forests	Roadmap for planting at least 3 billions additional trees by 2030; Adaptation of forests to climate change and strengthening resilience; New training, skill and jobs; Rural development, including local enterprises and value chains; Innovative forest based services and products, replacing carbon intensive counterparts; Strong research and innovation agenda, including for the bioeconomy.
All Forest	Stronger coordination between national forest policies and the EU Green Deal; Improve and harmonise monitoring to demonstrate the contribution to the EU objectives; Secure financing, including for research, ensuring a consistent approach of funding instruments; Innovative financial incentives, including payments for ecosystem service; Improve communication on forests and their roles, considering the rural/urban interface; Consistency with international commitments, reinforcing EU's international leadership.

6.3.4 ThinkForest event on Public Perception on Forests

On 27 October 2020, EOS was invited to speaks at the ThinkForest event on Public Perception on Forests and Bioeconomy on 27 October 2020. The event was chaired by Janez Potočnik, ThinkForest President and aimed to understand and discuss the public perceptions of forestry and the forest-based bioeconomy.

On this occasion, EFI launched its new study on 'Public perceptions of forestry and the forest-based bioeconomy in the EU'.

Participants heard how trees are universally loved, and cause strong emotions in people. This appreciation has been heightened during the COVID lockdowns, with visitor numbers to forests and national parks increasing. However, Tom Heap, BBC News Rural Affairs correspondent, pointed out that the narrative has changed from the haunted forests of the past to forests which are now haunted and disturbed by human actions.

The public care hugely about forest loss in other countries, with fires in Siberia and Brazil hitting the headlines. This strong media narrative of "forests in peril" makes things difficult for productive forestry and the bioeconomy.

Both Christopher Raymond, an IPBES lead author, and Göran Berndes, an IPCC lead author reflected on the role scientists (and international science-based panels) also play in shaping public perceptions. We need transdisciplinary and action-oriented scientists who can help to set agendas, but there is the caveat that scientists come with their own particular background and values, and advocate for certain ways of investigating issues. This is often difficult to see for

the public, with the impression given that the scientists just disagree.

Collaborating across disciplines is vital, and here panels like IPCC and IBPES can help to produce a coherent perspective, providing summaries for policymakers and soundbites for media which are underpinned with a huge amount of science. These can be quickly used and disseminated and lead to societal and political discussion. However, it is very difficult to reach out strongly with a message saying "it depends", or on a complex issue like the bioeconomy.

The importance of communication was also highlighted from the policy maker perspective, when shaping policy agendas. Terhi Lehtonen, State Secretary for Climate and Environment in Finland, spoke about the recent actions the Finnish government has taken to combine different forest needs in policy. The collaboration of all stakeholders was of key importance, she pointed out. This was echoed by Maria Patek, from the Federal Ministry for Agriculture, Regions and Tourism, Austria, who said that communication with stakeholders (via the Austrian Forest Dialogue) was key to gain trust and enhance collaboration both inside and outside the sector.

Lea Ranacher from Wood K Plus presented the results of a new EFI metastudy, which reviews and summarises studies from the last decade to give a European-level perspective on public attitudes to forests and forest bioeconomy. The study team's analysis showed that forest ecosystem services are highly valued, with environmental benefits seen as more important than social and economic ones. The public had a preference for forest protection and diversity. Although wood products are perceived as environmentally friendly, there is little awareness of new wood-based products, and in fact little known about consumer purchasing decisions.

During the event, CEI-Bois and EOS SG Mrs Melegari explained that the forest-based industries are characterized by a wide range of diversity in type, size, raw materials, products, management and market requirements. The Industry is confronted with a constant need for improvement and adaptation to changing patterns in order to establish, maintain an/or increase efficiency and to remain economically competitive. All of this while at the same time making the best use of the forest resources. She explained that there is a need to strengthen information exchange in order to design the best management and evolving utilization strategies to meet the diverse needs of those involved while simultaneously maintaining the environmental integrity of the forest.

According to her, the sector should find the resources to invest in shaping values because, in reality, many people are simply unaware that through the very production of wood products, whose sale provides the vast majority of forest owners' income, forest owners have the resources to ensure the other two functions of sustainably-managed forests (social and environmental).

Linde Zuidema from FERN commented that wood is seen as a sustainable raw material, but that the general public already understands that wood products are not necessarily sustainable products.

Summing up, ThinkForest President Janez Potočnik, reflected that effective communication is vital. The public is quite environmentally conscious, as can be seen from the EFI study, but acts and reacts intuitively due to a lack of information. A precondition for the bioeconomy to be acceptable for the public is that it is sustainable and contributing to sustainability efforts. This does not happen automatically – trust will be needed as well as explaining with science to the public and media.

All information about the event and a recording is available here: https://efi.int/policysupport/thinkforest/public_perception

6.4 Bioenergy in the EU policy

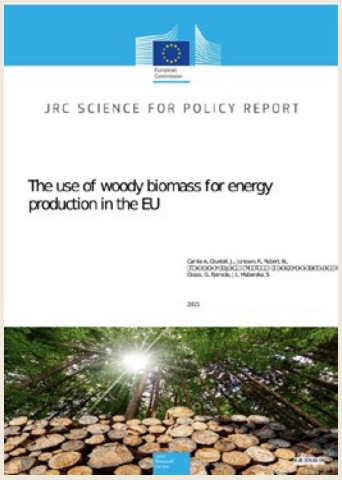
The Renewable Energy Directive, Directive (EU) 2018/2001, (REDII), established a common framework for the promotion of energy from renewable sourcesin the EU and set a binding target of 32 % for the overall share of energy from renewable sources in the EU's gross final consumption of energy in 2030. It also established sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels and lays down rules on financial support to enhance the use of renewable energy usage. The REDII is a recast of the Directive 2009/28/EC (REDI) and it:

1. established a common framework for the promotion of energy from renewable sources;

2. set a 32% target for the overall share of energy from renewable sources in the EU's gross final consumption of energy in 2030;
3. laid down rules:
   - on financial support for electricity from renewable sources,
   - on self-consumption of such electricity,
   - on the use of energy from renewable sources in the heating and cooling sector and in the transport sector,
   - on regional cooperation between Member States, and between MemberStates and third countries,
   - on guarantees of origin, on administrative procedures and established sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels.

In August 2020, the Commission published an Inception Impact Assessment (IIA) to support the legislative proposal for the amendment of the REDII to potentially increase the 2030 renewable energy targets. Additionally, the amendment of REDII may have the objective of providing specific new actions in line with energy initiatives and strategies presented in 2020 so the EU can adapt to a higher climate ambition for 2030, which will be key to achieve climate neutrality in 2050.

JRC REPORT: THE USE OF WOODY BIOMASS FOR ENERGY PRODUCTION IN THE EU



In May 2020, the EU Biodiversity Strategy for 2030 (COM(2020) 380) was adopted. In the text, under section 2.2.5 ("Win-win solutions for energy generation"), there is reference to a report on the use of forest biomass for energy production by the end of 2020, and there is an accompanying Action of the EU Bioeconomy Strategy entitled "Assessment of the EU and global biomass supply and demand and related sustainability". JRC has written this report in response. In this document we cover the whole value chain of woody biomass, from the primary wood production, to the processing and uses of wood; to its re-use and end of life. In this document JRC covers the whole value chain of woody biomass, from the primary wood production, to the processing and uses of wood; to its re-use and end of life.

"The forest-based sector has been identified as part of the solution to many global challenges and a key contributor to EU objectives. Many EU policies influence forest management, the forest-based sector and forest ecosystems. The principal questions surrounding the use of woody biomass for energy production in the EU and impacts on forests are indeed very broad. It was therefore necessary to set boundaries to the study at the onset: the study would take stock of the available data related to the use of woody biomass for bioenergy; assess the uses of woody biomass in the EU with a focus on bioenergy; provide suggestions on how to improve the knowledge base on forests in a harmonised way; and expand the evidence basis by highlighting pathways that minimise trade-offs between climate mitigation and biodiversity conservation. The study does not rely on quantitative foresight exercise to establish the scale of future bioenergy demand, and consequently the interventions assessed are potential ones, but we do not claim they are the most likely to take place. This study presents the policy implications deriving from the evidence basis. To address the mandate of this study, and in an attempt to provide concrete support to policymakers, we summarise the main implications of the findings from this study in the framework of the policy areas that address the governance of wood-based bioenergy at the EU level." Source: JRC Report, https://publications.jrc.ec.europa.eu/repository/handle/JRC122719

On 15 April the EOS Secretariat attended the online meeting of the the European Parliament's environment committee, chaired by MEP Canfin (Renew Europe Group), where the Joint Research Centre (JRC) report on "The use of woody biomass for energy production in the EU", was discussed having as well an exchange of views with the Commission.

On behalf of JRC, one of the authors of the Report, Ms Mubareka Sarah stated that prioritizing wood residues and

having a "cascade use of wood" should be a key overarching principle for the biomass production. This point was echoed also by the DG ENERGY representative, although stressing that local and market conditions should be taken into account. DG ENERGY also agreed with JRC about the so called "no go area" meaning specific forests area where harvesting should not take place: "Carbon sink is going down and our forests are in a bad status and for this reason we are very much attentive to the impact of bioenergy on our forests" . The new legislative proposal "Amendment to the Renewable Energy Directive to implement the ambition of the new 2030 climate target" is expected to be published at the end of June, this year.

Catharina Sikow-Magny, Deputy Director-General, Directorate-General for Energy (DG ENER), European Commission, presented the following considerations:

- biomass is the main renewable energy source in the EU, amounting to a total of 60% and it is an indispensable source for several Member States;
- the Commission considers that bioenergy would play an important role in the decarbonisation of certain hard to abate sectors such as heavy duty vehicles or aviation;
- however, sustainability requirements are of increasing importance as with increasing sourcing of biomass inside of Europe, the total forests carbon sinks is in decline. She argued that 30% of EU's forests are in a bad situation;
- she highlighted the enhanced sustainability criteria under RED II concerning biofuels, biomass and biogas;
- the REDII promotes the shift to advanced biofuels based on residues and non-recyclable waste. Focusing on non-recyclable waste and avoiding the usage of whole trees is in line with the aim of the Biodiversity Strategy;
- the sustainability criteria in REDII is complementary with the criteria set under the LULUCF, ETS and the CAP;
- the Commission was finalising an implementing act concerning forest biomass aimed to ensure proper implementation of the REDII by MS;
- she highlighted two recommendations made in the JRC Report:
  - to apply additional no-go areas to forest biomass, in order to reduce biomass harvesting in primary and old growth forests;
  - to extend the scope of sustainability criteria to cover heat and power installations below 20 MW;
- the Commission is aiming at striking a balance between the promotion of sustainable production of biomass for energy and material uses while preserving biodiversity and enhancing carbon sinks.

From a MEPs prospective only MEP Guteland (S&D, Sweden) and MEP Torvalds (Renew, Finland) attempted to explain the role of forestry biomass in sustainable forest management and recalled abut the importance of forest biomass in achieving the renewable energy targets. MEP Wiesner (RE, Sweden) recalled the climate contribution of wood products in substituting materials sucha s concrete and steel. Although not connected with the biomass discussion, MEP Häusling (Group of the Greens, Germany) alerted about possible shortage of wood in the future due to export of wood to China.

6.4.1 The "whole trees" concept

In the context of the European Commission's ongoing work on the draft delegated act on the Taxonomy regulation, Bioenergy Europe, CEPF, COPA- COGECA, EUSTAFOR and EOS addressed a letter to the competent offices of the EU Commission in order to clarify the practice of using "whole trees" for bioenergy. In the attached paper, the organisations representing the bioenergy value chain and the supply of solid biomass, argue that such an arbitrary physical criterion will not help to ensure the sustainability of the biomass feedstock but, on the contrary, risks disrupting supply chains, with adverse effects on the efficient use of available wood resources and, ultimately, on all forest benefits; economic, social and environmental.

The joint paper has also been sent to: Commissioners for Agriculture, Energy, Environment; Executive Vice President on European Green Deal; Economy; Transport; Financial Stability; Internal Market, Head of Cabinets and Director Generals for Agriculture; Energy; CLIMA; ENV; FISMA and GROW.

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SUSTAINABLE BIOMASS: CLARIFYING THE "WHOLE TREES" CONCEPT

A number of strategic documents recently published by the European Commission have stigmatised the practice of using "whole trees" for bioenergy, calling instead for a "transformative approach" aimed at minimising their use. Organisations representing the bioenergy value chain and the supply of biomass argue that such an arbitrary physical criterion will not help to ensure the sustainability of the biomass feedstock but, on the contrary, risks disrupting supply chains, with adverse effects on the efficient use of available wood resources and, ultimately, on all forest benefits: economic, social and environmental.

The term "whole trees" was first used by the European Commission in the context of the *Biodiversity Strategy for 2030*, and more recently in the *2030 Climate Target Plan Communication* alongside several public consultations. The term is non-technical and largely used emotively.

The archetype of a forest product supply chain is constituted of complex flows of materials through a myriad of players. High exchange rates between waste products and raw materials have become highly efficient over time, with market-based systems optimising the allocation of these resources. Markets have been developed to distribute the full quality-spectrum of wood and wood fibres which, in turn, stimulates productive and sustainable forest management. Not only do these specialized systems provide forest-based employment and income for rural areas, they also support a large sector of the European bioeconomy. The role of forests extends beyond this, however, providing communities with numerous services, including the promotion of biodiversity and climate change mitigation.

Sustainable forest management is embedded in individual Member States' national forest legislation. At EU level, the RED II sustainability criteria for forest biomass ensure the sustainability of this raw material. Market mechanisms and supply chains follow due diligence and use this resource in the most efficient way possible.

What is a "whole tree" and why should this definition not become a driving principle in defining sustainable biomass feedstock?

While the bioenergy industry largely utilises residues and side streams, low-value timber assortments resulting, among others, from thinning, maintenance and sanitary cuttings can also be utilised, while continuing to ensure that the sustainability of the value chain is fully respected.

The term "whole trees" cannot be used to define the quality of sawlogs and timber used for added value purposes. Furthermore, the idea that, in order to guarantee its sustainability, bioenergy should be prevented from using certain categories of feedstock is based on a misconception.

Joint Paper | *Sustainable Biomass: Clarifying the "Whole Trees" Concept*

1. Tree diameter is not a prescription for its end use

A sawlog (i.e. a log suitable for being processed in a sawmill and sawed into lumber) is not chosen solely based on its size and diameter but also on its quality, determined by the absence of faults. The term

"whole tree" can describe a log with a large diameter and of good quality, but it can also describe logs with a too small diameter or a low-grade tree of poor quality. Pest-damaged wood, for example, does not usually meet the necessary mechanical characteristics for use in the construction sector or the required humidity to be processed as fibre. Rather, it needs to be removed from the forest for sanitary reasons and to limit infestations. Endowing an economic purpose to this damaged wood supports this process.

2. Enhancing economic viability while increasing forest resilience

Early thinnings are part of a long-term investment to produce high-quality timber. Contrary to decreasing forest stock, these operations support the higher carbon uptake and quality of the stand as a whole. In addition, in areas which are prone to forest fires, these early thinnings are among the key preventive actions aimed at reducing the risk of disaster and increasing forest resilience.

It therefore follows that markets which use lower grade products, such as those which result from thinnings, allow forest owners to offset the cost of these necessary management operations. This aspect is especially important in order to support the sustainable forest management of both small-scale forest owners as well as large-scale forest management organisations.

Both the Circular Economy Action Plan and the Renovation Wave count on embedding carbon in the construction sector and using renewable materials such as wood. Forest management operations which enhance the production of high-quality timber must, therefore, be supported in order to accomplish Europe's decarbonisation goals.

3. Market dynamics result in the most efficient use of wood resources

Following decades of development, markets have become reliable and efficient mechanisms for allocating wood resources. They ensure that high-quality logs are reserved for those items which demand the most longevity - such as timber for construction and furniture. Conversely, the lowest quality woody biomass can sometimes only be used for bioenergy. This well-established market system should not be tampered with by ill-advised policymaking.

Introducing diameter-related restrictions as additional sustainability criteria for bioenergy could impede the flow of raw materials to the marketplace, making it impossible to sell certain large low-quality logs due to administrative barriers. Similarly, prohibiting the use of "whole trees" could have a perverse effect on forestry practices and result in negative implications for forest productivity in general. Furthermore, reducing income opportunities for forest owners and managers would subsequently be reflected in increased prices for downstream producers and consumers, not to mention those individuals that rely heavily on biomass for energy.

Joint Paper | *Sustainable Biomass: Clarifying the "Whole Trees" Concept*

Legislation minimising the use of "whole trees" would ultimately increase the burden on operators and trigger a number of unintended and undesirable results. European and national authorities should focus on the implementation and enforcement of the sustainability criteria as defined in the Renewable Energy Directive recast. The potential revision of these criteria should be based on a substantial consultation process that takes direct stock from practices in the field post-implementation (starting in July 2021).

Bioenergy Europe *is the voice of European bioenergy sector. The association aims at developing a sustainable bioenergy market based on fair business conditions. Founded in 1990, Bioenergy Europe is a non-profit, Brussels-based organisation bringing together more than 160 members from across Europe.*

CEPF *The Confederation of European Forest Owners (CEPF) is the umbrella association of private forest owner organisations in Europe. At EU level, CEPF promotes the values of sustainable forest management, private property ownership and forest sectors economic viability.*

COPA-COGECA *are the united voice of farmers and agri-cooperatives in the EU. Together, they ensure that EU agriculture is sustainable, innovative and competitive, guaranteeing food security to half a billion people throughout Europe. Copa represents over 22 million farmers and their families whilst Cogeca represents the interests of 22,000 agricultural cooperatives. They are one of the biggest and most active lobbying organisations in Brussels.*

EOS *European Organisation of the Sawmill Industry, is a Brussels-based non-profit association representing the interests of the European sawmilling sector on European and International level. Through its member federations and associated members, EOS represents some 35,000 sawmills in 12 countries across Europe. Together they represent around 80% of the total European sawn wood output in a sector that has a turnover of around 35 billion EUR and employs about 250,000 people in the EU.*

EUSTAFOR, *the European State Forest Association, represents the voice of European state forest management organizations who have sustainable forest management and the production of wood as major concerns.*

Joint Paper | *Sustainable Biomass: Clarifying the "Whole Trees" Concept*

6.4.2 Draft rules for demonstrating how forest biomass complies with the sustainability criteria laid down under Article 29 of the Renewable Energy Directive (2018/2001)

The European Commission opened a period for feedback from interested parties on the **draft rules for demonstrating how forest biomass complies with the sustainability criteria laid down under Article 29 of the Renewable Energy Directive (2018/2001)** - Draft Implementing Regulation in the attached file.

The 2018 Directive introduces new sustainability criteria for biomass and biogas in heat and power, which also cover forest biomass. These criteria have not been implemented by Member States yet. The draft Implementing Regulation lays down operational guidance for Member States and economic operators on how to demonstrate compliance with these new sustainability criteria. As well as outlining auditing and verification rules, the text establishes how to demonstrate compliance with the harvesting criteria at national or sub-national level or if necessary at the forest sourcing area level, and the compliance with land use, land use change and forestry (LULUCF) criteria.

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The commission is set to propose reforms to RED II in June as part of the 'fit for 55%' package of climate and energy legislation designed to implement the EU's new 2030 emissions reduction target. While the feedback period closed at midnight **on 28 April 2021**.

EOS RESPONSE: Biomass complies with the sustainability criteria laid down under Article 29 of the Renewable Energy Directive (2018/2001)

Key message:

The European Organisation of the Sawmill Industry (EOS) underlines the importance of a robust and harmonised implementation of the new sustainability criteria for forest biomass by Member States and economic operators.

- ☞ **Coherence in the interpretation of the measures and timeliness in transposition and implementation are of paramount importance in preventing the arising of barriers in the EU internal market**. EOS regrets the delay in publication of such draft guidance, that has generated further uncertainty in the operators. The preparedness of the system and tools to certify compliance will be paramount to its functioning.

The proposed regulation appears to include new key elements regarding harvesting and forestry criteria, rather than being a guidance document for supporting economic operators in applying the REDII 's sustainability criteria.

This draft regulation in its current formulation, stretches the boundaries of the criteria as laid down in the Renewable Energy Directive, by adopting several recommendations from the 2021 Joint Research Centre report on woody biomass. EOS considers that the inclusion of these criteria should be avoided, particularly at this stage. Introducing additional requirements that are unfamiliar to member states and economic operators could jeopardize the implementation of REDII.

Moreover, it should be noted that sustainability criteria although related to bioenergy only, they actually impact the whole forest industry value chain and finally, the use of renewable energy in the EU.

Looking at the text proposed by the EU Commission, EOS believes that the following amendments should be made in order to improve the draft legislation and ease operationalisation of sustainability criteria.

Reference	Proposed amendment	Justification/ Comment
(6) Where there is no evidence of compliance at the national level with one or more of the harvesting criteria laid down in point (a) of Article 29 (6) of Directive (EU) 2018/2001, forest biomass should be considered high-risk. sustainability evidence which should be provided by economic operators through management systems at forest sourcing area level, when compared to that required under the national and sub-national compliance assessment.	(6) Where there is no evidence of complianceat the national level with one or more of the harvesting criteria laid down in point (a) of Article 29 (6) of Directive (EU) 2018/2001, **(DELETE)** ~~**forest biomass should be considered high-risk.**~~ sustainability evidence which should be provided by economic operators through management systems at forest sourcing area level, when compared to that required under the national and sub-national compliance assessment.	The qualification of forest biomass as high-risk is incorrect and misleading. If 29.6(a) does not apply, evidence at sourcing area level will guarantee that the biomass is sourced sustainably and does not pose risks. This is rather a reflection of the fact these issues are governed and regulated at a sub-national level in some jurisdictions.
(9) In order to ensure a robust verification of the new sustainability criteria on forest biomass, the information provided by economic operators should be transparent, accurate, reliable and protected against fraud, and economic operators should be able to rely on reliable certification rules. Those rules should take into account the role of voluntary national or international certification schemes, recognised by the Commission, pursuant to paragraph 4 of Article 30 of Directive (EU) 2018/2001		The recital rightly mentions the important role of voluntary national and international certification schemes and their recognition by the European Commission. Bioenergy Europe underlines the importance of timeliness in the recognition process, to make sure sufficient tools are available for market operators to demonstrate their compliance.
Article 1 (2) (a) (a) primary biomass from forests, from which solid biomass fuels have been produced that are used in installations producing electricity, heating and cooling or fuels with a total rated thermal input below 20 MW;	(a) primary biomass from forests, from which solid biomass fuels have been produced that are used in installations producing electricity, heating and cooling or fuels with a total **biomass** rated thermal input below 20 MW;	Red II and its sustainability criteria apply to biomass, the threshold should therefore only apply to unit using biomass and avoid covering other possible backup installations.
Article 2 (j) 'deadwood' means all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil, including wood lying on the surface, coarse debris, dead roots, and stumps larger than or equal to to 10 cm in diameter or any other diameter used by the country concerned;	'deadwood' means all non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil, including wood lying on the surface, coarse debris, dead roots, and ***large*** stumps or any other definition used in by the country concerned ~~**larger than or equal to 10 cm in diameter or any other diameter used by the country concerned;**~~	The definition of deadwood includes an impractical diameter related requirement. While diameter is not a prescription for its end use, the introduction of this restriction will complicate compliance and have in return no impact on forest sustainability. This should be deleted leaving to the Member State to decide based on local sustainable forest management practices

Article 3.1 (b) iii The effective protection of areas designated by international or national law, or by the relevant competent authority, for nature protection purposes, including areas being defined as wetlands and peatlands;	the effective protection of areas designated by international or national law, or by the relevant competent authority, for nature protection purposes, including areas being defined as **in** wetlands and peatlands;	Article 29 (6) (a) (iii) refers to areas designated by international or national law or by the relevant competent authority for nature protection purposes, including **IN** wetlands and peatlands. This means areas that are part of wetlands and peatlands rather than all wetlands and peatlands.
Article 3 (b) (iv) that forest harvesting is carried out in a way that minimises negative impacts on soil quality and biodiversity, by demonstrating that the applicable laws ensure, during the harvesting operations, the protection of soils, species and habitats, and regulate the removal of stumps, roots, deadwood, and where appropriate, needles or leaves;	that forest harvesting is carried out in a way that minimises negative impacts on soil quality and biodiversity, by demonstrating that the applicable laws or management systems ensure, during the harvesting operations, the protection of soils, species and habitats, and **regulate ensures** the removal of stumps, roots, deadwood, and where appropriate, needles or leaves;	In several EU member states (including forest rich countries) removal of stumps is not regulated by national authorities, rather is ensured by certification which are in these cases covering more than 90% of the forest area.
Article 4.1(b)(ii) *(ii) forest regeneration is carried out in a manner that at least maintains the quality and quantity of the harvested forest areas, including by ensuring that the forest is allowed a regeneration period of at least five years after the harvesting operation; and there is no biodiversity degradation in the regenerated forest area, including that primary forests and natural or semi-natural forests are not degraded to or replaced with plantation forests.*	*(ii) forest regeneration is carried out in a manner that at least maintains the quality and quantity of the harvested forest areas, including by ensuring that the forest is allowed a regeneration period of at least five years after the harvesting operation; and there is no biodiversity degradation in the regenerated forest area, including that primary forests and natural or semi-natural forests are not degraded to or replaced with plantation forests* ***as a consequence of management activities carried out*** *for* ***the bioenergy sector****.* In general, the text of Article 4 goes beyond REDII sustainability criteria and also the criteria for national legislation.	Forest management activities are not driven by the bioenergy sector; for this reason it is important to specify that the possible negative impacts on biodiversity or soil quality should not be provoked directly by the sector that is regulated by the REDII and present guidance. The deleted paragraph proposes new measures and goes being REDII.

Article 4.1(b)(v)		
the harvest maintains or improves the forest's long-term production capacity. This includes ensuring that annual felled timber amounts do not exceed net annual increment in the relevant sourcing area on average within the five-year period prior to the harvesting intervention, unless different amounts are duly justified in order to enhance the future production capacity of the forest; or because of documented forest pests, storms or other natural disturbance. That shall be proven by using, inter-alia, public or private forest inventory data.	the harvest maintains or improves the forest's long-term production capacity. This includes ensuring that annual felled timber amounts do not exceed net annual increment in the relevant sourcing area on average within the five-year period prior to the harvesting intervention, **or ensuring that harvest levels are justified by forest inventory and growth data**, unless different amounts are duly justified in order to enhance the future production capacity of the forest; or because of documented forest pests, storms or other natural disturbance. That shall be proven by using, inter-alia, public or private forest inventory data.	This addition is necessary for regions that do not have a formal national or regional net annual increment as defined by the EU. REDII should apply equally among all regions, inside and outside the EU.

Introduction:

The European forest-value chain is very complex and several value chains within the sector can be identified (e.g. forestry, wood products, pulp & paper products, bioenergy, wood biorefinery...). If we look at its multifunctional impacts on society, environment and the role model for sustainable development, the European forest-based sector is one of the most important sectors in Europe to achieve a sustainable economic growth. Thanks to the production of wood, the European forestry value chain guarantees storage and sequestration of carbon in forests; these climate benefits are even increased through the substitution effect of sustainably produced harvested wood products.
As part of the European forestry value chain, and being in particular the first processor of logs, the European Sawmill Industry is an instrumental sector to achieve a EU-wide circular bio-economy as well as climate neutrality.

Specifically, the European Sawmill Industry legally sources most of its raw materials (over 95%) from forest located in the EU, which already ensures that the logs used come from sustainably managed forests. The sawmill production process consists of debarking the incoming timber, sawing timber into planks and boards, and drying the sawn wood. Many sawmills are also integrated with planing and carpentry businesses to further upgrade the sawnwood. Nearly **no waste is generated in the sawmill process**. Wood chips are sold as raw material to the pulp industry while sawdust can be sold either as a raw material to the particle board industry or used as bioenergy (thus corresponding to the concept of "secondary biomass from forests"). Sawdust can also be used as sand replacement in concrete in order to produce a low-cost and lightweight material for use in construction. Bark is normally used to fuel the heat production but also for animal bedding. While the European Sawmill Industry mostly generates its income from the sales of sawnwood, the sector has historically low margins and **placing by-products such as chips, sawdust and bark in the market is essential for the financial viability of the sector. The sales of by-products for bioenergy purposes is thus very important.**

Feedback on Forest Biomass Compliance Rules:

In its climate and energy policy, the European Union is committed to the objectives of reducing greenhouse gas emissions. In this respect, bioenergy plays a key role in achieving these ambitious targets and in contributing to climate change mitigation. Additionally, it should be recalled that the use of forest biomass in substitution of more energy-intensive products, such as fossil fuels or other materials, is another major contribution that forest products can provide.

Coherence in the interpretation of the measures and timeliness in transposition and implementation are paramount in preventing the arising of barriers to the internal market. The sector regrets the delay in publication of such draft guidance, that has generated further uncertainty in the operators. The preparedness of the system and tools to certify compliance will be paramount to its functioning.

The European Sawmill Industry strongly supports the commendable drive of the EU institutions to increase the role that renewable energy plays in the EU energy mix. We believe that bioenergy was, is and must continue to be a vital renewable energy source: bioenergy is one of the most cost-efficient and versatile options we have and can complement variable renewables such as solar and wind power in order to bring **stability to the grid**. It is abundant in Europe, thus contributes to **energy security**. A thriving bioenergy sector has a positive impact on **rural development and employment.**

In the opinion of the European Sawmill Industry, the EU's existing climate and energy legislation ensures the sustainability of bioenergy.
The sustainability and GHG gas emissions saving criteria for bioenergy (Articles 29-31) are currently implemented by national authorities. With this framework in place, the use of sustainable bioenergy can grow and displace the use of fossil products and fuels. A revision of these Articles could severely delay the necessary investments. Moreover, revised sustainability criteria would likely have a small impact on fulfilment of the revised climate goals. **EOS therefore advises against a revision of Articles 29-31. Sustainability criteria for the production of bioenergy from forest biomass should not be modified:** in particular, sustainability criteria for forest bioenergy should continue to be applied only to biomass utilized in installations producing electricity, heating and cooling or fuels with a total rated thermal input equal to or exceeding 20 MW. Member States should refrain from applying the sustainability criteria to installations with lower total rated thermal input as this creates market distortions. Overall, we should avoid detailed regulations on the use of forest biomass for bioenergy: we should rather continue to rely on the market to optimize the use of forest biomass.

While maintaining a stable regulatory framework, focus should be on options for supporting the members states in achieving their national energy and climate plans in cooperation with industries that can provide sustainable solutions. This includes creating a predictable environment and market needed for investments in a growing circular bioeconomy: we should stick to the REDII framework and let businesses continue their investment plans for the next few years.

Finally, wood burning is CO_2 neutral and a cost-effective solution for domestic heating. The residential sector is still heavily reliant on fossil fuels. The largest contributor of low carbon energy to this sector is by far bioenergy.

6.4.3 EOS Task Force Meeting "Forestry and Raw Materials" on Bioenergy

On May 11, the EOS Task Force on Forestry and Raw Materials met online in order to discuss about the ongoing legislative development on "woody biomass for bioenergy in the EU". The two invited speakers, Mrs Calderon and Mrs Cancian from Bioenergy Europe have delivered presentations. Their presentations deal with, respectively, bioenergy statistics and bioenergy sustainability policy with a focus on renewable energy directive issues and taxonomy.

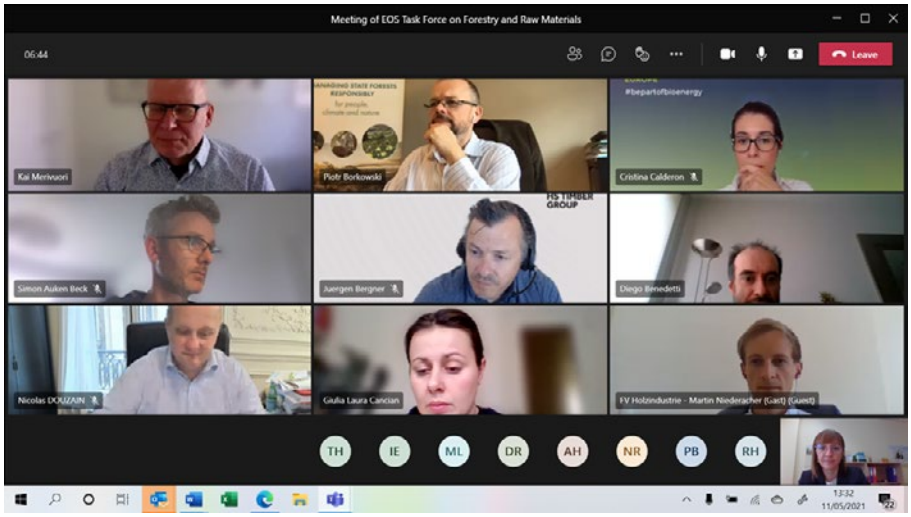
The representatives of the EU Forest Owners, CEPF (Mrs Heikkonen) and EUSTAFOR (Mr Borkowski) were also present and have delivered some oral comments which have been summarized on the next page.

It is worth emphasizing that while forest owners do not grow trees to be burned, collection and sale of lower-quality wood as a result of thinnings is fundamental to provide income to forest owners and ensure that management activities at least guarantee a break even if not a profit. The purpose of thinnings is to increase the quality of the raw materials, so the industry can benefit, but also the carbon uptake of standing trees is increased. Policymakers should not lose sight of the fact that active forest management is important and forest owners need to be given the appropriate means and frame conditions to properly carry out management activities.

Additionally, it is important to remember that clearcuts are important for healthy forests and we also have to consider

that fuelwood quality is 20/25% of annual European harvest, thus this percentage of harvesting can be used only for bioenergy purposed. Expanding no-go areas would be detrimental, there is full alignment on this with Bioenergy Europe. *What would be the point of setting diameter thresholds of roundwood for bioenergy if the roundwood is completely rotten? There is a lot of deadwood per hectare in the European forests: who is going to pay for this if it is left in the forest?*

Overall, there is a consensus that the value chain has to stick together and refrain from saying that there are superior and inferior wood-based products, particularly when the discussion is related to bioenergy.



List of participants:
Giulia Cancian, Bioenergy Europe
Cristina Calderon, Bioenergy Europe
Daniel Reinemann, Bioenergy Europe
Lotta Heikkonen, CEPF
Tim Hartl, CEPF
Piotr Borkowski, EUSTAFOR
Juergen Bergner, HS
Ieva Erele, Association of Latvian Timber Producers and Traders
Nicolas Douzain-Didier, FNB
Rainer Handl, Fachverband der Holzindustrie Österreichs
Martin Niederacher, Fachverband der Holzindustrie Österreichs
Anna Holmberg, Skogsindustrierna
Marten Larsson, Skogsindustrierna
Nils Ringborg, Holmen
Simon Auken-Beck, Traeindustrier
Kai Merivuori, Sahateollisuus
Anniina Kostilainen, Sahateollisuus
Diego Benedetti, EOS Secretariat
Silvia Melegari, EOS Secretariat
Paul Brannen, EOS Secretariat
Sampsa Auvinen, EOS President

6.5 European Climate Policy

The EU is competent to act in most areas of environment and climate policy, although its action is limited by the principle of subsidiarity and the requirement for unanimity in Council on certain topics (such as tax, land use and the energy mix). Although large parts of environmental and climate policy are set at EU level, the main responsibility for implementation lies with Member States, and in some cases with regional and local authorities. Under Articles 191 to 193 of the Treaty on the Functioning of the European Union, EU environmental policy is designed to provide 'a high level of protection' and is based on four principles (precaution; preventive action; rectification of damages at source; and 'the polluter pays').

6.5.1 The European Climate Law

As part of the European Green Deal, on 4 March 2020, the European Commission adopted a legislative proposal for a European climate law, setting the objective for the EU to become climate-neutral by 2050 and establishing a framework for achieving that objective.

On 21 April, a provisional agreement between the co-legislators on the EU Commission's legislative proposal for a European climate law, setting the objective for the EU to become climate-neutral by 2050 and establishing a framework for achieving that objective, was reached.

As one of the key elements of the European Green Deal, the European Climate Law enshrines the EU's commitment to reaching climate neutrality by 2050 and the intermediate target of reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. Negotiators did not agree to set a net-zero obligation for 2050 for each member state, with the target remaining an EU-wide. However, they did introduce new wording calling on governments to strive towards reaching negative emissions beyond 2050. Moreover, the deal requires the commission to work with industrial sectors to prepare "voluntary roadmaps" to cut their emissions in line with the EU net-zero target.

In addition to the 2050 climate neutrality target, the political deal "recognises the need to **enhance the EU's carbon sink through a more ambitious LULUCF regulation, for which the Commission will make proposals in June 2021"** and to **expand the EU's total carbon sink to 300 million tonnes of CO_2 a year by 2030**.

Additionally, in the framework of the Climate Law, an European Scientific Advisory Board on Climate Change will be established having the responsibility to provide independent scientific advice to the EU legislators. The European Environment Agency will serve as the secretariat for the new 15-member body, which will also propose ways to speed up emissions cuts.

Once the provisional agreement will be formally approved by Parliament and Council, the European Climate Law will be published in the Official Journal of the Union and will enter into force 20 days after its publication.

6.5.2 The climate benefits of building with wood

On the 8 and 9 October 2020 the EOS and CEI-Bois joint technical expert, Dr. Andrew Norton attended two online events focused on the role of wood construction in climate change mitigation.

On 8 October 2020 Dr Norton participated in the webinar ***"Can building in wood contribute to delivering the Green Deal? – a regional and city perspective"***, organised the Region of Småland Blekinge Halland South Sweden in cooperation with the European Regions Research and Innovation Network (ERIAFF). On this occasion he provided the keynote speech highlighting the role of wood construction in the policy objective of the EU Green deal, followed by presentation on how to incentivise wood construction at regional and municipal level.

On 9 October 2020 Dr. Norton was invited as a panellist in the event organised by DG Climate Action of the European Commission: ***"Climate neutral food and wood: Showcasing best climate practices in agriculture, forestry, food systems and the bioeconomy".*** Participating in the session dedicated to the climate mitigation potential of wood, he explained the importance of quantifying the benefits associated to temporary carbon storage and substitution effect in LCA analysis of buildings and building products.

During this event DG CLIMA announced the plan to launch a **study on the method to quantify and verify carbon storage in buildings**. The study project is led by Trinomics in collaboration with VITO, Wageningen University & Research and Ricardo. The project will run from September 2020 and will finish by August 2021. The study is supported by a series of stakeholder interviews, including EOS, that will enable to better understand the **drivers and difficulties** encountered by players along the value chain in developing their usage.

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Brussels, 12 October 2020

WOOD PRODUCTS DRIVE THE DECARBONISATION OF THE BUILDING SECTORS IN LINE WITH THE GREEN DEAL CLIMATE MITIGATION OBJECTIVES

The European goal has been set: becoming the first climate-neutral Continent by 2050. However, to achieve climate neutrality and comply with the ambitious Paris Agreement target, all economic and business players should take a step further in their commitment to a greener society and economy.

"*The success of this commitment relies on measuring the climate impact of economic activities. In this respect the European Woodworking Industry believes that it is essential to develop criteria for a robust and transparent carbon accounting method to monitor and verify the emissions associated with materials and construction processes, including the benefits associated with carbon storage*" stated Dr A. Norton, LCA/Technical Expert on behalf of the European Confederation of the Woodworking Industries (CEI-Bois) and the European Organisation of the Sawmill Industry (EOS) during his attendance to two high-level events on the 8 and 9 of October, respectively organised by the European Regions Research and Innovation Network and by DG Climate Action of the European Commission. Throughout his interventions he focused on the role of wood in delivering the Green Deal objectives, including the climate change mitigation commitment.

"European policies aimed at improving the environmental performance of the building sector, such as the forthcoming Renovation Wave Strategy and the Sustainable Built Environment Strategy, should take the reduction of whole-life carbon at their centre", added Dr. Norton.

Research proves that increasing the use of wood in construction and in products such as furniture, cabinets, flooring, doors and window frames offers a significant opportunity to reduce emissions. This answers the need of designers and architects, who are more and more being called upon to balance functionality and cost objectives with reduced environmental impact.

In the production phase, wooden houses require less energy than houses built with functionally equivalent materials. Comparative analysis show that a wood-based construction allows to reduce carbon dioxide emissions by 40-50 %, excluding the carbon storage effect. As for the demolition phase, buildings should be designed to maximize the recovery and reuse of materials and components. In this respect wood gives the opportunity to recover doors, windows, and other elements that can be used again in new construction or remodelling. Reclaimed wood is primarily used in the manufacture of durable goods, and whatever is left over can be transferred to energy or heat generation. Additionally, using wood applications in the renovation of existing buildings can contribute significantly to the sustainable urban redevelopment. The renovation of building covers such as façades and roofs, with highly insulated wooden components, can reduce the transmission heat losses and related heating energy demand of existing buildings significantly.

To learn more about the contribution of wood for a sustainable and circular economy, download our booklet: Wood: Building the Bioeconomy.

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Circular Economy and Renovation Wave: Potential to increase sustainability of the built environment by using bio-based products.

On 17 December, the Council approved conclusions entitled "Making the Recovery Circular and Green" in response to the European Commission's "Circular Economy Action Plan for a cleaner and more competitive Europe" published in March.

The conclusions aim at providing comprehensive political guidance on the broad range of actions foreseen in the correlated EU Commission Action Plan. Although "wood" is not explicitly mentioned, in its conclusions the Council welcomed the adoption of the Commission Communication on "A Renovation Wave for Europe" pointing out that such a renovation wave has significant potential to increase sustainability of the built environment by reducing resource and energy consumption and greenhouse gas emissions during building operation and embodied in the building, by using bio-based products. Furthermore, the Council underlined that that "as a basis for the construction or renovation of buildings the availability of safe, high-quality resource- and energy-efficient construction products is a prerequisite and highlighted that, as far as possible, high-quality and certified secondary raw materials, or **sustainably produced bio-based products and materials** should be used to manufacture them".

The following Council's points also deserve to be mentioned:

1. The Council welcomes the updated EU Bioeconomy Strategy and its focus on **incorporating circular economy across sectors using bio-based materials** and recognises that a circular bioeconomy can support developing new high value products made from suitable industrial waste or from by-product inputs; points out that in order to play a substantial role in the future, **bio-based products and materials have to be, like any other products, safe for the environment** and must not compromise recycling of waste streams or waste prevention measures; **underlines the need to apply full life cycle methodologies to determine their environmental and energy consumption impacts**;
2. The Council notes that **the Product Environmental Footprint (PEF) has the potential of being one underlying methodology for various product policy tools in the EU and the framework for sustainable products,** taking also other suitable methodologies into account;
3. The Council highlights the **need to provide comprehensive, verifiable, standardised and easily accessible product sustainability information** (for instance in digital formats) that prevent greenwashing and respects trade secrets and intellectual property; therefore calls on the Commission to define environmental information requirements for products, including their reparability, and **study the feasibility of introducing a regulatory environmental label**.

The Council welcomes the intention of the Commission to underline the importance of public procurement of circular products and services in boosting circular markets and investments and **supports, as far as appropriate and feasible, mandatory Green Public Procurement (GPP) criteria based on life-cycle impact analyses and targets** and stresses the need for reporting and monitoring to evaluate outcomes of GPP policies while minimising administrative burdens.

6.5.3 New EU Strategy on Adaptation to Climate Change

On 24 February 2021, the EU Commission published the new EU Strategy on Adaptation to Climate Change aiming at setting out how the European Union can adapt to the unavoidable impacts of climate change and become climate resilient by 2050. As reported in the document, economic losses from more frequent climate-related extreme events are increasing and estimated over EUR 12 billion per year, in the EU.

Since it is evident that climate change has impacts at all levels of society and across all sectors of the economy, the Commission will incorporate climate resilience considerations in all relevant policy fields. Moreover, it will support the further development and implementation of adaptation strategies and plans with three cross cutting priorities: integrating adaptation into macro-fiscal policy, nature-based solutions for adaptation, and local adaptation action.

In contrast to other 'green' communications, the Adaptation Strategy lists just a few proposals for legislative action, instead largely promising non-binding initiatives and efforts to strengthen existing programmes. However, the commission will consider some legislative changes as part of the new strategy. In revisions of the Energy Performance of Buildings Directive and the Construction Products Regulation, it will also "explore options to better predict climate-induced stress on buildings".
Europe's building stock should be prepared to withstand the impacts of climate change. Extreme weather and long-lasting climatic changes can damage buildings and their mitigation potential e.g. solar panels or thermal insulation after hailstorms. However, buildings can also contribute to large-scale adaptation, for example through local water retention that reduces the urban heat island effect with green roofs and walls. The Renovation Wave and the Circular Economy Action Plan identify climate resilience as a key principle.

☞ The Commission will explore options to better predict climate-induced stress on buildings and to **integrate climate resilience considerations into the construction and renovation of buildings through Green Public Procurement criteria for public buildings, the Digital Building Logbook**, and as part of the process to revise the Energy Performance of Buildings Directive and the Construction Products Regulation.

Finally, the Strategy has four principle objectives: to make adaptation smarter, swifter and more systemic, and to step up international action on adaptation to climate change.

EXPECTED ACTIONS - THE COMMISSION WILL:

- propose nature-based solutions **for carbon removals, including accounting and certification in upcoming carbon farming initiatives**;
- develop the **financial aspects of nature-based solutions and foster the development of financial approaches and products that also cover nature-based adaptation**;
- continue to **incentivise and assist Member States to rollout nature-based solutions** through assessments, guidance, capacity building, and EU funding;
- **integrate adaptation in** the update of Natura 2000 and climate change guidance, and in **guidelines on biodiversity-friendly afforestation and reforestation, and in the forthcoming Forest Strategy**;
- strengthen its support to **protect the potential of genetic resources for adaptation, including by proposing legislation on the production and marketing of seeds**;
- further develop the EU taxonomy for sustainable activities for climate adaptation;
- support the **integration of climate resilience considerations into the criteria applicable to construction** and renovation of buildings and critical infrastructure;

FORESTS ASPECTS IN THE EU STRATEGY ON ADAPTATION TO CLIMATE CHANGE:

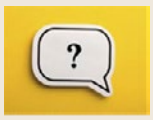
Effects on forestry due to climate change include increased risk of droughts, storms and fires (abiotic) and pests and diseases (biotic) – all leading to disturbances to forest health. The impact of fire events is particularly strong on already degraded ecosystems in southern Europe, and is projected to worsen in the future, with longer and more severe fire seasons projected in this area. Forest growth is projected to decrease in southern Europe and to increase in northern Europe. However the biodiversity of forests is expected to change across Europe, with changing tree species and increasing threats for specialised plant communities. The limited diversity of tree species in boreal forests is expected to enhance the risk of significant pest and disease impacts.

Next steps:
The strategy's four objectives are underpinned by 14 actions and the steps to be taken to deliver them. The Commission will discuss the strategy with the Member States in the Environmental Council. The Council is expected to agree to conclusions on the new strategy when it meets in June 2021. To be mentioned: on 17 December 2020, at the Parliament's plenary session, a resolution was adopted advising that the upcoming strategy should set binding and quantifiable goals for all - EU-wide and at Member States levels - while allowing further developments in EU science, services, technologies and practices directed at adaptation.

Useful links:
Press release: Building a Climate-Resilient Future - A new EU Strategy on Adaptation to Climate Change (all EU languages)
Q & A: Questions and Answers: New EU strategy on adaptation to climate change (all EU languages)
EU Adaptation Strategy: https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/eu_strategy_2021.pdf
Film: https://audiovisual.ec.europa.eu/en/video/I-201845 (all EU languages)
Press conference with EVP Frans Timmermans (recording): https://audiovisual.ec.europa.eu/en/video/I-202216

6.5.4 Climate change mitigation and climate change adaptations in the Taxonomy

What is the EU taxonomy?



The EU taxonomy is a classification system, establishing a list of environmentally sustainable economic activities. The EU taxonomy is an important enabler to scale up sustainable investment and to implement the European Green Deal. Notably, by providing appropriate definitions to companies, investors and policymakers on which economic activities can be considered environmentally sustainable.

The Taxonomy Regulation was published in the Official Journal of the European Union on 22 June 2020 and entered into force on 12 July 2020. It establishes the framework for the EU taxonomy by setting out four overarching conditions that an economic activity has to meet in order to qualify as environmentally sustainable.

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The Taxonomy Regulation establishes six environmental objectives:

1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

The European Commission launched the public consultation on **the draft Delegated Regulation with the Sustainable Finance Taxonomy criteria for climate change mitigation and climate change adaptations.**

- The Taxonomy Regulation establishes the framework for the EU taxonomy by setting out four conditions that an economic activity must meet in order to qualify as environmentally sustainable. While, the draft delegated act specifies the technical screening criteria under which specific economic activities qualify as contributing substantially to climate change mitigation and climate change adaptation and for determining whether those economic activities cause significant harm to any of the other relevant environmental objectives.

In relation to Forestry, the draft Delegated act introduces an additionality principle that makes it even more difficult for Sustainable forest management to comply with the requirements and be considered eligible of sustainable finance. As such, a correction and alignment with Red II Criteria should be ensured.
Please find reported on the next page copy of the EOS draft reply.

EOS ANSWER TO THE DRAFT DELEGATED REGULATION OF THE TAXONOMY REGULATION

The European Organisation of the Sawmill Industry (EOS) expresses concern on some of the technical screening criteria proposed by draft Delegated Act establishing a EU taxonomy of sustainable economic activities.

As a general goal, EOS welcomes the legislative proposal to mobilise investment in the EU to achieve sustainable growth in line with the Union's climate goals and its Paris Agreement commitments. A common EU taxonomy for sustainable finance could play an important role in this process if drafted in a way that takes the specific characteristics of the affected industries into account, based on robust scientific evidence.

Moreover, sustainable finance should support the transition to a circular bioeconomy. This requires a holistic assessment of **all the benefits that the forest-based sector can provide to society**, including the climate benefit of **carbon storage in harvested wood products** and **substitution of GHG-intensive materials**.

Remarks on Forestry Criteria (Annex I, sections 1.4-1.8)

Our Organisation expresses serious concerns on the criteria elaborated on the five forestry activities in Annex I: *Afforestation, Rehabilitation and restoration, Reforestation, Improved forest management* and *Conservation forestry*.

- Forests can make significant contributions to the development of a climate friendly economy and provide multiple products and services that support livelihoods and protect the environment, now and in the future. This idea is at the core of the Sustainable forest management (SFM) in place all around Europe. Criteria and indicators of SFM have been developed through the work of many actors, including countries involved in the Montréal Process, FOREST EUROPE, the International Tropical Timber Organization (ITTO) and the Food and Agriculture Organization (FAO). **Sustainable forest management carried out in line with national legislation should be considered eligible for sustainable investments purposes**.

- By introducing an additionality criterion the Commission proposal departs from existing legislative framework on SFM and undermines investment predictability, which may prevent the investments that will enable a sustainable transition to climate neutrality. Sustainable finance should support the sustainable supply of wood for material and energy use and further development of the bioeconomy. As more is invested in sustainable forestry, more companies can look to sustainable materials to manufacture their products. It should be taken into account that forest managers recognize that managing the entire ecosystem – soils, plant life, watersheds and wildlife – is critical to improving both forest health and wildlife habitat. At the same time, there is not a one-size-fits-all approach. Different forest types require individual prescriptions.

- Overall, it will be a challenge as well as an administrative burden to apply such criteria to small forest owners, which may ultimately undermine the goal of the Regulation, also considering the fragmentation of forest ownership in Europe. **Full alignment with the criteria for sustainability of solid biomass as defined in the Renewable Energy Recast Directive should be ensured**.

Remarks on Construction criteria (Annex I, Section 1.8)

It is commendable that the disclosure of the Global Warming Potential for each stage of in the life cycle of the building is made mandatory for very large buildings. However, to stimulate whole life-cycle carbon assessment in the construction sector, such requirement should apply also for buildings smaller than 5000m^2. This is crucial to drive the climate sustainability in the sector: as new construction will have to comply with Nearly Zero Energy Buildings requirements in the use phase, reducing the embodied GHG emissions in production phase will become more relevant for tackling the overall footprint of a building.

6.5.5 Revision of the Regulation on Greenhouse Gas Emissions and Removals from Land Use, Land Use Change and Forestry

On 19 October 2020 the Commission Work Programme for 2021 was adopted announcing the revision of the regulation on greenhouse gas emissions and removals from land use, land use change and forestry (LULUCF) for the second quarter 2021 jointly with an impact assessment. The existing LULUCF regulation was amended in the the context of the 2030 climate and energy framework as proposed in 2014. The Regulation (EU) 2018/841 was published in the Official Journal on 19 June 2018 and entered into force on 9 July 2018.

The LULUCF revision will be part of the Commissions 'Fit for 55 Package', which will cover wide-ranging policy areas to ensure emission reductions of at least 55 % by 2030. The importance of the LULUCF sector for climate action and the necessity of revision of the current regulation was also mentioned in the 2030 climate target plan adopted by the European Commission and published on 17 September 2020.

6.6 Internal Market

6.6.1 The new Sustainable Products Initiative

The European Commission is planning to publish a new **Sustainable Products Initiative** by Q4 2021, with the goal of "*reducing the overall life-cycle climate and environmental footprint of the products placed on the EU market, achieving longer product lifetimes for example through more durable and reparable products, increasing circular material use rate, reducing waste and achieving higher recycling rates*."
To this aim, the Commission is assessing a number of policy options, among which:

- widening of the scope of the **Ecodesign directive** to cover additional environmental indicators
- establishing EU rules to make producers responsible for providing **more circular products** and intervening before products can become waste;
- establishing EU rules for setting requirements on **mandatory sustainability labelling** and/or disclosure of information to market actors along value chains in the form of a digital product passport;
- measures on production processes, for example to **facilitate recycled content** or remanufacturing and to track the use of hazardous substances in such processes

Following the invitation of the EU Commission to provide feedback on this initiative, EOS sent its contribution to the online consultation.

Feedback to the Sustainable Products Initiative Inception Impact Assessment

EOS, the European association representing the interests of the European Sawmill Industry, hereby submits its comments on the Inception Impact Assessment of the Sustainable Products Initiative. The European Woodworking industry is aligned with the objective of the initiative, that is to reduce the overall life-cycle climate and environmental footprint of the products placed on the EU market.

The sustainable use of natural resources, including forests and forest products, is a key tenet of the 2030 Agenda for Sustainable Development. The 2015 Paris Agreement also highlights the contribution of forests to climate change mitigation and adaptation. Technical and methodological progress has facilitated better monitoring of the life cycle of harvested wood products. This gives them a key role in strategies for transitioning to low-carbon economies.

A natural, renewable material, wood has a uniquely low impact and resource-efficient production and processing cycle, which has numerous applications in construction, furniture products and interiors, packaging and more, contributing to develop a sustainable green economy:

- The European timber industry is committed to sourcing only **legally and sustainably harvested raw material**.
- European timber processing and wood products manufacturing also generates **low to zero waste**, as resulting by-products and residues can be used as raw material for other wood-based products and renewable energy source.
- The service life of wood structures and products can be increased through **improved building design** and also **maintenance, repair and renovation** of existing materials and structures.
- Timber products are not only long-lasting, but can be easily repaired, re-purposed or recycled. Even when the useful life of a timber product has ended, it can still be burned in order to generate heat (as excellent alternative to fossil fuels) and/or can be shredded or cut for a range of sustainable uses, including products such as insulation and animal bedding.
- The wood pallet and **packaging sectors** are now among the most highly geared industries to **recovery, repair and reuse**. A whole business has developed to give used pallets a new lease of life several times over through replacement of worn and damaged sections with new timber and blockboard.
- **Wood is a natural insulator**. Wood is a natural insulator due to air pockets within its cellular structure. As an insulator wood is 15 times better than masonry, 400 times better than steel, and 1,770 times better than aluminium.
- **Wood products store carbon** and, at the end of multiple lifecycles, can be used as a carbon neutral energy source.
- Finally, since the beginning of the COVID-19 pandemic, people are spending more time in their home than ever before. Homes have been serving as makeshift workplaces, schools and gyms. Wood can contribute to **happier living spaces**. Research has shown that reducing the amount of man-made materials and introducing natural alternatives, such as wood, lowers stress and anxiety levels at home. Marjut Wallenius, a doctor of psychology at the University of Tampere (Finland), declared: *"Wood has psychological effects on people and a similar stress-reducing effect to nature"*.

To accelerate the transition to a sustainable, circular economy, the upcoming Sustainable Products Initiative should incorporate the following measures:

- **Life-cycle assessment of the environmental impact of products** should be the guiding principle of the initiative. Where already available, the use of harmonised standards to perform LCA should be supported. This is the case of construction products: standards developed by CEN/TC 350, and in particular the standard EN15804, offer a harmonised methodology already in place to transfer environmental information about a product along the value chain. EN15804 provides a platform for presenting the environmental impact of construction products for whole building assessments, especially through the use of machine readable EPDs and Building Information Modelling (BIM). This allows professionals to assess environmental impacts as well as the benefits from all stages of construction activities, from design and planning to demolition.

- The uptake of **climate-friendly materials** should be incentivised. To that aim, criteria for a robust and transparent carbon accounting method to monitor and verify the emissions associated with materials and construction processes, including benefits associated with **carbon storage**, should be developed at EU level. This is preliminary to designing effective incentives for increasing the share of low-carbon construction and renovation, for example in **Green Public Procurement** criteria.

- More specifically, **the utilization of wood as a building material should be incentivised**. The Commission has acknowledged that buildings in the EU are responsible for 40% of our energy consumption and 36% of greenhouse gas emissions, which mainly stem from construction, usage, renovation and demolition. While, in the past, wood constructions required specific, high-quality logs, nowadays industrial prefabrication as well as the use of engineered wood products such as cross-laminated timber (CLT) and glue-laminated timber (glulam) make it possible to build buildings that are much taller and more durable and do not especially need high-quality logs but can be built out of wood from normal quality raw materials.
  This construction method can help reduce emissions in many ways, including:
  - Wood is relatively light as a building material. This reduces the need for foundation work and saves fuel and reduces emissions when transporting materials. Construction of prefabricated houses is 5 to 10 times faster than the time required to build a solid house.

- Houses built of wood usually have a good energy-efficient performance. Wood-framed buildings have very good insulation, which means significant energy savings for heating in winter and summer acclimatization

- Measures to facilitate recycled content or remanufacturing in products are welcome; however, product-specific targets for minimum recycled content in construction products should be carefully assessed and imposed only when technically applicable and economically feasible. For example, the usage of recovered wood has reached on average 40% of raw material needs in the European particleboard industry, with some countries using recovered wood for up to 90% of their wood procurement. However, this is not technically feasible for, e.g., solid lumber beams. Market factors driving demand for recycled wood also play an important role and vary across Europe. Furthermore, it should be noted that the "recyclability" and "reusability" factors depend very much on the global market. Any mandatory demand in relation to these two concepts would be highly problematic.

- The Initiative should be developed in synergy with the updated 2018 Bioeconomy strategy: the special role and importance of **renewable materials in the circular bio-economy** should be taken into account, and support should be given to the development of innovative biobased products through Research, Innovation and Development funding.

Created in 1958, the European Organisation of the Sawmill Industry (EOS) is a Brussels-based non-profit association representing the interests of the European sawmilling sector on European and International level.

Through its member federations and associated members, EOS represents some 35,000 sawmills in 12 countries across Europe manufacturing sawn boards, timber frames, glulam, decking, flooring, joinery, fencing and several other wood products. Together they represent around 77% of the total European sawn wood output in a sector that has a turnover of around 35 billion EUR and employs about 250,000 people in the EU.

6.6.2 EU Communication titled "A New Industrial Strategy for Europe"

On 10 March 2020, the Commission laid the foundations for an industrial strategy that would support the twin transition to a green and digital economy, make EU industry more competitive globally, and enhance Europe's open strategic autonomy. The day after the new industrial strategy was presented, the World Health Organization announced the COVID-19 as a pandemic.

This update neither replaces the 2020 Industrial Strategy nor completes the processes launched by it – much of that work is in progress, and requires dedicated efforts. This is a targeted update, which focuses on what more needs to be done and what lessons need to be learned.

As a primary vehicle of innovation in the various ecosystems, small and medium enterprises (SMEs) need to be borne in mind in all actions under this Strategy. This is reflected in a horizontal manner by increased attention to regulatory burdens for SMEs.

According to the EU Commission, three lessons should be learnt from the COVID-19 crisis:

1. Importance to maintain the free movement of persons, goods, services, and capital in the Single Market;
2. Need to analyse and address strategic dependencies, both technological and industrial. The EU and its trading partners gain resilience from world markets being open and integrated in global value chains;
3. Importance to prioritise the green and digital transition.

The Strategy is accompanied by three working documents: Annual Single Market Report - analysing the impact of the crisis detailed for each of the 14 industrial ecosystems, an initial analysis of the EU's strategic dependencies and capacities with in-depth reviews of six strategic areas: raw materials, li-on batteries, active pharmaceutical ingredients, hydrogen, semiconductors and cloud & edge technologies and finally, analysis of the Steel sector in 'Towards a Clean and Competitive European Steel".

The document emphasises that new actions will strongly benefit SMEs and start-ups, whether it be from a strengthened Single Market, reduced supply dependencies or the accelerated green and digital transitions. The Strategy also includes some

measures dedicated to SMEs such as on increased resilience, combating late payments, and supporting solvency.

In its document, the commission aims to set out by the third quarter of this year a strategy aiming to establish "global leadership" on standards for emerging green industries. It will assess whether it needs to amend its Standardisation Regulation to carry out a more "assertive" role abroad, the document adds, while a task force comprising commission officials and the European Standardisation Organisation will work on the swift adoption of "crucial" new standards.

As reported in the Strategy, the EU will continue to showcase its preference for international cooperation and dialogue, but also its readiness to combat unfair practices and foreign subsidies that undermine the level-playing field in the Single Market. In this respect, the Commission announces to propose a **Single Market Emergency Instrument** to provide a structural solution to ensure the availability and free movement of persons, goods and services in the context of possible future crises. This instrument should guarantee more information sharing, coordination and solidarity when Member States adopt crisis-related measures.

The new document also provides new details on what it is considering as part of its '**fit for 55' package – now expected to be presented in July.**

6.7 The European Trade Policy

6.7.1 The EU Trade Policy Day 2021

On 26 April 2021, the EOS Secretariat attended the event – *"The EU Trade Policy Day 2021".* The aim of this event was to discuss the Commission's new Trade Strategy to promote an open, sustainable and assertive trade policy for the EU.

Three core objectives of the new EU Trade Strategy are: 1) Supporting the recovery and fundamental transformation of the EU economy in line with its green and digital objectives; 2) Shaping global rules for a more sustainable and fairer globalisation, and; 3) Increasing the EU's capacity to pursue its interests and enforce its rights, including autonomously where needed.

☞ **In extreme synthesis, in the evaluation of the EOS Secretariat, "green" motives will be driving more and more the trade policy of the EU.**
To watch again the event: https://webcast.ec.europa.eu/virtual-eu-trade-policy-day

In the opening session, Commission's Executive Vice-President and Commissioner for Trade, Valdis Dombrovskis and WTO Director-General, Dr. Ngozi Okonjo-Iweala presented the current global trade challenges and the role of the EU and the WTO in finding global responses to them.

Please find reported below some relevant trade issues, and the recent and new actions the European Commission has launched to address these emerging global trade challenges, which might be of interest:

1. **Addressing distortions caused by foreign subsidies and unfair trade practices** (mainly from China), **restoring the WTO negotiating and monitoring functions, as well as the WTO Dispute Settlement** à the Commission's DG TRADE has published a few days ago its 2021 Paper on "Reforming the WTO", providing the EU proposal on the WTO reform. Indeed, this paper provides details on how to reform WTO towards a sustainable and effective multilateral trading system. The reform will include updated and "fit-for-purpose" WTO rules to tackle modern trade challenges, including new technologies and digitalization, climate change, health issues, labour and human rights.
2. **Creating an effective EU trade and competition toolbox**, incl. autonomous measures to counter unfair trade practices from third countries when they are not playing by the multilateral rules and other longstanding issues such as market access. à A new Anti-Coercion instrument will be presented by the Commission by the end of 2021. In addition, the Commission is currently working on a new legal instrument on levelling the playing field and tackling distortions caused by foreign subsidies (a legislative proposal is expected in May 2021).
3. Ensure ethical and responsible supply chains for all

companies, including protection of human and labour rights, environment and good governance.

4. Use bilateral cooperation (Free Trade Agreements) to **promote higher sustainability standards in third countries** and build stronger trade relations especially with the US and China. In particular, the trilateral agreement between EU-US-Japan was mentioned as a model for future international trade relations.
   - On EU-China trade relations: China is the world second largest economy and it will soon become the leading economy, hence according to EVP Dombrovskis, we need to **engage China and find a way to balance our relations to ensure level playing field and fair competition**. China still claims preferential treatment as a developing economy, but this is not true any longer. The EU-China Comprehensive Agreement on Investment (CAI) concluded in December 2020 is a first step, and if its terms are respected, the EU will preserve the same level of openness with China. Moreover, issues linked to transparency and trade distortions (due to foreign subsidies, state-owned enterprises and forced technology transfer) also need to be addressed both bilaterally and multilaterally, including through the WTO rules and EU's autonomous toolbox. However, as WTO Director-General noted, we need to find the right attitude towards China: if it feels targeted, we will get resistance.
   - On EU-US relations: the Commission has launched a proposal for a new forward looking transatlantic agenda. While the Trump era has been characterized by bilateral tensions and unilateral trends, the victory of US President Joe Biden combined with a more assertive EU are an opportunity for stronger EU-US cooperation based on our common values and interests, including moving forward on WTO reform, removing trade tariffs and addressing trade distortions from China.
   - On EU-UK relations and disruptions for businesses caused by Brexit: Commissioner Dombrovskis stressed the need for companies to adjust to changes and to take into account the new customs border that now exists between the EU and the UK. As he noted, the new EU-UK Trade and Cooperation Agreement (TCA) was "less disruptive" than a "no deal", including zero tariffs and zero quota access (this, he said, is better than any other FTA we have with other countries). As for the long term effects of Brexit, he mentioned a permanent impact on goods and services, not as "frictionless" as before. There are also increasing costs and procedures for businesses due to the UK's decision to leave the EU Single Market and Customs Union. However, he said, "businesses can learn to navigate those procedures".
5. **Addressing sustainability issues through trade policy**, **incl. environmental protection, climate change & deforestation, fostering the EU's green recovery and sustainable economies.** The new EU Trade Strategy puts emphasis on sustainability issues and tackling climate change challenges as one of its core objectives. à In response, the Commission is preparing a "Fit for 55 package" under the EU Green Deal to help the EU reducing emissions by at least 55% by 2030. New measures in the pipeline look at different policy areas, including an energy taxation directive to incentivize a shift away from fossil fuels. In addition, the EU will seek commitments to carbon neutrality from third countries through existing provisions in FTAs and in the Paris Agreement and intensify cooperation with its international partners as – he noted – climate change is a global issue.

Following this opening session, one panel was especially relevant:

"Global trade rules for more sustainable and fairer globalization"

The discussion highlighted the essential role of global collaboration. The competitive risks are indeed manyfold and, were the EU to act alone, the results would be negative. With regards to due diligence, Heidi Hautala – Vice-President of the European Parliament, MEP Green group – described the EU as a pioneer and trusts that the new legislation will be regarded as a global standard, applying not only to EU Companies but all over the world. When asked if due diligence regulation could discriminate against smaller players, Ms. Hautala confirmed that measures will be taken to support SMEs, foster their access to market and reduce the informational gap. Finally, she also shared her opinion on voluntary partnership agreements: the EU should build on them and collaborate with other countries on sustainability parameters, and not only in the field of legality.

One of the arising questions is, do we have the right diplomacy in place to ensure global trade rules are sustainable? Rupert Schlegelmilch – DG Trade, European Commission – explained that the Green Deal contributes to the objective through a system of top-down incentives built on 3 pillars:

1. Multilateral trade: pursuing the WTO as part of the solution
2. Free-trade agreements
3. Autonomy: Timber Regulation, due diligence, Carbon Border Adjustment Mechanism to avoid carbon leakage

☞ **Regarding the EU Timber Regulation, it was mentioned that a uniform application across the various EU Members is fundamental**.

Another prominent dilemma is, how the EU can ensure the synergies between the Green Deal and economic policy? Does sustainability goals hinder economic growth? Ms. Hautala said the EU should re-shape the market to change the rules of competition - a very difficult challenge, indeed, and there will be losers. That's why the Green Deal also foresees a just transition to let nobody behind. Mr. Schlegelmilch added that there's no contradiction: with the right fiscal policy and structural reform, and having the capital, the EU can achieve both growth and sustainability.

Closing comments by Sabine Weyand, Director-General, DG TRADE, European Commission

A few takeaways from Ms. Weyand's remarks:

1. Centrality of multilateral trade system to tackle most of the challenges we discussed.
2. How can market and non-market economies cooperate
3. Implementation and enforcement: here there is a convergence of view from civil society. What we need is a doctrine of use and proportionality + Review of the Trade and Sustainable Development (this year) with input from civil society and academia: it will not be a matter of "sanction vs cooperation"
4. Strong determination: with a new WTO Director-General and US administration we perceive optimism and spirit of commitment.
5. Climate and in general sustainability is the key challenge. There are great expectations but also awareness of the potential for conflict if we are not to bring the partners along. This requires transparency, inclusiveness and consultation.

Finally, a poll was launched among participants to identify what is today's biggest challenge for global trade policy: **economic recovery** was the most popular answer, followed by climate change, the health crisis, and non-market economies. EVP Dombrovskis said that all these challenges are important, but indeed, we need to achieve EU's economic recovery to be able to properly address the other trade challenges.

6.7.2 Proposal for a Regulation on foreign subsidies distorting the internal market

On 5 May 2021, the European Commission published a new instrument to address potential distortive effects of foreign subsidies in the Single Market. This legislative proposal follows the adoption of the White Paper in June 2020 and an extensive consultation process with stakeholders. It aims at closing the regulatory gap in the Single Market, whereby subsidies granted by non-EU governments currently go largely unchecked, while subsidies granted by Member States are subject to close scrutiny. The new tool is designed to effectively tackle foreign subsidies that cause distortions and harm the level playing field in the Single Market in any market situation. It is also a key element to deliver on the updated EU Industrial Strategy adopted on the same day, the 5th May, by promoting a fair and competitive Single Market thereby setting the right conditions for the European industry to thrive.

6.7.3 Ukraine temporary logs export ban

Ukraine since 2015 has put in place a temporary logs export ban, which limits the supply of raw materials in some EU countries bordering with Ukraine in spite of a Deep and Comprehensive Free Trade Agreement between Ukraine and the EU. Over the years, EOS has supported with data and qualitative information the European Commission in its judicial fight to get the ban removed. Since Ukraine did not want to remove the ban, an Arbitration panel to rule on the case has been established.

On 11 December 2020 the Arbitration issued the final report on the case. The ruling found that Ukraine's 2015 temporary export ban is incompatible with Article 35 of the AA forbidding export prohibition, and that it is not justified under Article XX(g) of the GATT 1994, as made applicable to the Association Agreement by Article 36 of the AA (General Exceptions), because that export ban is not "relating to the conservation of exhaustible resources…made effective in conjunction with restrictions on domestic production or consumption." The ruling also found that the export ban limited to ten specific wood species introduced in 2005 could be partially justified under plant life protection exceptions. The Panel ruling means that Ukraine must swiftly remove its 2015 export ban on all unprocessed wood.

Ukraine will have to prove that they took action to comply with the ruling **by 27 July 2021**. By **mid-June 2021** Ukraine will have to send a report describing the remedial measures they are taking.

Meanwhile, Ukraine has become the second largest exporter to China at global level. In the opinion of the European sawmill industry, this is a relevant element when it comes to assessing the consequences of the 2015 temporary export ban and is not easily squared with the arguments brought up by Ukraine to justify the logs export ban.

China softwood lumber imports | January - February 2021

in 1,000 m³

Country	1-2 2020	1-2 2021	Diff. in %
Russia	1,934	**1,305**	-33
Ukraine	112	**156**	39
Canada	499	**148**	-70
Finland	129	**119**	-8
Belarus	65	**86**	33
Germany	120	**83**	-31
Chile	97	**82**	-16
Sweden	122	**82**	-33
Brazil	34	**48**	41

6.7.4 Russia: ban on the export of unprocessed or roughly processed wood from January 1, 2022

President Vladimir Putin has ordered a complete ban on the export of unprocessed or roughly processed wood from January 1, 2022. The president also ordered that a program of subsidized loans for upgrading wood processing facilities be launched in January 2021.

The president also added that: "A single system should record timber and transactions with it. This should be done in order to be able to trace the entire chain: from felling to manufacturing finished products. And its export outside the Russian Federation". According to Putin, this will allow eliminating all kinds of loopholes. Finally, he said: "In the pilot mode, the system of accounting for timber and transactions with it should start working from January 1 of next year, and from July 1, its use should become mandatory".

Russia has been one of the largest roundwood traders globally for many years having roughly 10-20% share of the market between 2010-2020. Based on the announcement of President Vladimir Putin last year, instructing the country's government to ban the export of untreated or roughly processed wood, the roundwood exports might be heavily limited from next year on, should the legislation enter into force as proposed. While the proposed ban is still under discussion, it is widely expected to be in force already in 2022. According to the plans, the ban should apply to softwood logs and pulpwood, as well as birch veneer logs. The ban would not mean an absolute prohibition of exports but would raise the export tax to 80%, which in practice would mean the same.

The European Sawmill Industry deplores this proposed ban. EOS, together with the European Panel Federation, The Confederation of the European Wood Working Industries, and the Conferederation of the European Paper Industries has submitted a Non-Tariff Barrier Factsheet to the European Commission to voice the opposition to this ban.

6.7.5 Brexit

On December 24 the European Commission reached an agreement with the United Kingdom on the terms of its cooperation with the EU from January 2021 onwards. The draft Trade and Cooperation Agreement consists of three main pillars:

1. **A Free Trade Agreement**

The agreement covers not just trade in goods and services, but also a broad range of other areas such as investment, competition, State aid, tax transparency, air and road transport, energy and sustainability, fisheries, data protection, and social security coordination.

It provides for zero tariffs and zero quotas on all goods that comply with the appropriate rules of origin.

Both parties have committed to ensuring a robust level playing field by maintaining high levels of protection in areas such as environmental protection, the fight against climate change and carbon pricing, social and labour rights, tax transparency and State aid, with a binding dispute settlement mechanism and the possibility for both parties to take remedial measures. Finally, the agreement enables the UK's continued participation in a number of flagship EU programmes for the period 2021-2027 (subject to a financial contribution by the UK to the EU budget), such as Horizon Europe.

2. **A new partnership for our citizens' security**

The Trade and Cooperation Agreement establishes a new framework for law enforcement and judicial cooperation in criminal and civil law matters. It recognises the need for strong cooperation between national police and judicial authorities, in particular for fighting and prosecuting cross-border crime and terrorism.

3. **A horizontal agreement on Governance**
To give maximum legal certainty to businesses, consumers and citizens, a dedicated chapter on governance provides clarity on how the agreement will be operated and controlled. It also establishes a Joint Partnership Council, who will make sure the Agreement is properly applied and interpreted, and in which all arising issues will be discussed. Binding enforcement and dispute settlement mechanisms will ensure that rights of businesses, consumers and individuals are respected. Both parties can engage in cross-sector retaliation in case of violations of the agreement. This cross-sector retaliation applies to all areas of the economic partnership. Foreign policy, external security and defence cooperation is not covered by the Agreement.

Changes from 1 January 2021
Notwithstanding the Agreement, the UK left the EU Single Market and Customs Union, as well as all EU policies and international agreements on the 1st of January. The EU and the UK will form two separate markets and two distinct regulatory and legal spaces. The Withdrawal Agreement and the Protocol on Ireland and Northern Ireland also came into effect on the 1 January.

The implications of such change for the EU woodworking industries (e.g. on EU TR, FLEGT, CE Marking) have been covered by a webinar organised by TTF (UK Timber Trade Federation), whose materials and recordings are available here.

The negotiations on the Trade and Cooperation Agreement were reached only at a late stage before the end of the transition period (31 December 2020). According to the Treaties, the European Parliament has the right of scrutiny and to give consent to the Agreement before it comes into effect. In light of these exceptional circumstances and to prevent disruptions for citizens and businesses, the Commission proposed to apply the Agreement on a provisional basis, for a limited period of time until 28 February 2021.

The European Parliament will then be asked to give its consent to the Agreement with a Plenary vote, in February or March 2021 at latest. After that, and as a last step on the EU side, the Council must adopt the decision on the conclusion of the Agreement.

The text of the Agreement is available here in all EU languages.

As a result of Brexit **businesses exporting to the UK must prepare for the end of recognition of the CE mark** in GB and affix the UK marking using a UK-recognised 'approved body'.
The UK's intention is to end recognition of the CE mark by 1 January 2022 and to introduce new legislation to do that in due course.

The UKCA marking applies to most goods previously subject to the CE marking, including construction products. It is possible that due to this change, companies will have to face additional costs if a mutual recognition of CE marking and the UKCA marking won't be granted.

In a presentation given to the EOS Board on March 10, Nick Boulton of the UK Timber Trade Federation stressed that only UK Approved Body can issue UKCA certification. EU suppliers should encourage their respective national bodies to sign a subcontract with a UK Body or engage a UK Approved Body directly.

During the presentation, Nick stressed that that national associations should:
- Ensure their sawmill members are aware of this issue
- Make contact with local EU Notified Bodies
- Find out state of play - Some subcontracts are already well progressed
- Get rough idea of costs and timeline to implement
- Help members to minimise these costs
- Make European and UK associations aware

On 29 April 2021, the EU Member States endorsed the Council's position on a five-billion-euro fund designed to mitigate the immediate impact of the United Kingdom's withdrawal from the European Union. The fund, known as the Brexit adjustment reserve, will focus on the most affected regions, areas and sectors in the EU and will be used to pay for a variety of measures such as compensating businesses for lost trade, keeping people in employment and setting up customs checks at ports. The Council's position endorses a four-year period from 1 January 2020 until 31 December 2023, meaning that costs incurred during that time as a result of Brexit can be covered in full or in part. Since the economic consequences of the UK's withdrawal are multiple and unpredictable, the draft regulation establishing the reserve provides an indicative and non-exhaustive list of eligible measures.

7. High Level Conferences co-organized by EOS

The International Softwood Conference (ISC) and the International Hardwood conference (IHC) are co-organized by EOS and ETTF, which are also the holders of the event. The International Softwood Conference (ISC) is organised annually, instead the International Hardwood Conference (IHC) is a biannual event. The conferences are organized in turn by a member federation of EOS or ETTF: this means that the conferences take place every year in different countries, which are usually decided one year in advance.
In 2020 due to the pandemic, the ISC took place online only. Nevertheless, it was a record-breaking edition in terms of attendance and as usual the quality of presentations was top class. Below, we provide a summary of the presentations given during the ISC 2020.
In 2021 the ISC, due to the ongoing health challenges, will take place as a hybrid event in Helsinki and online. While the online format worked well last year, stakeholders in the sawmill industry are eager to meet once again in person. But given the high uncertainty participants that will not be able to join the physical event can still enjoy the presentations from their own countries.
As for the next IHC, due to the pandemic, it has not been decided at the time of writing (May 2021) when and where this will take place.

7.1 The International Softwood Conference 2020

On 8 October 2020 the 68th edition of the International Softwood Conference was held for the first time ever online. Not even the Covid- 19 pandemic could stop producers and traders of softwood lumber from organizing their annual gathering. The Conference was, as usual, organized by the European Organization of the Sawmill Industries (EOS) and the European Timber Trade Federation (ETTF).

Extract of the official Press release: Brussels/Berlin, 8th October – While the appeal of a physical International Softwood Conference remains unaltered, participants of the first-ever online International Softwood Conference which took place on October 8 were not disappointed: as usual, the presentations were first-class and attendees could draw many useful insights from them.
The remit of this year's presenters was particularly challenging as the goal of the organizers was to provide a forward-looking event which anticipates what the short- and long-term consequences of the Covid-19 outbreak would be on the softwood market – from the two angles of producers and traders.

The development of softwood production and consumption suggests that in 2020 there would be a general decline across Europe. However, this is projected to be lower than the GDP's decline which points to the fact that the softwood markets were overall resilient. The outlook for 2021 is for a moderate recovery but uncertainty is very high.

Morten Bergsten, Vice-President of ETTF, and Sampsa Auvinen, President of EOS, delivered similar messages in their presentations from their respective vantage points of user and producer. Overall, they emphasized, the Covid-19 crisis had an extremely diverse impact on the sector. In some European countries – notably in Germany and Scandinavia – the construction market held up relatively well, which had a good effect on the sawmill industry. In other countries, such as the UK and Southern Europe, where the first wave of the virus was stronger and lockdowns tighter, the local construction markets and the general economy were hit much harder, which also had a negative effect on the softwood market. The picture is very varied also when it comes to the virus impact on the subsectors: as people spent more time at home, DIY did actually very well and renovation in general held up. In most countries, on the other side, the furniture sector was hit particularly hard by the crisis.

During the conference it was stressed several times that for the future, construction markets will be key. Overall, they fared better than expected in parts of Europe, but some countries emphasized that this was due mainly to completion of existing projects. What will happen to new projects in case investments are subdued remains to be seen. A reason to be optimistic is the increasing recognition of the potential of wood to mitigate climate change and the rising market share of wood as a building material, as Mr. Auvinen showed in his presentation. Mr. Bergsten mentioned that the President of the European Commission has recently stated in her State of the Union address that using more wood in the building sector has environmental benefits. It was also emphasized that the coronavirus crisis – depending also on its length, as of yet unpredictable – might have structural effects on the economy as people would spend less time in the office and more at home, which could have consequences also on the softwood market.

The trends mentioned above were broadly echoed by most speakers of the Conference from all parts of the world. Even in North America the DIY market did well and there is a growing trend of people choosing to leave cities to have a bigger single-family home – which comparatively uses more wood – in the suburbs or in rural areas. European exports to the US were record-high so far this year. In Asia, China after a difficult Q1 has recovered faster than most analysts expected, and shipments of sawn softwood from Europe are doing very well. Japan remains a stable market and the looming Olympic Games will boost wood consumption. The short-term outlook for the MENA area is locally challenging but in the long-term a young population and a more stable political landscape bode well for softwood consumption.

An ongoing challenge for the sector – which will probably outlast the coronavirus crisis – remains the bark beetle outbreaks that even this summer have ravaged many parts of Central Europe damaging high quantities of logs, in particular spruce. The quantity of damaged logs in Central Europe is estimated to be 120 million m3 only in 2020, as much as last year. During the conference, an interesting comparison between the European bark beetle crisis and the British Columbia crisis was drawn, and it was shown that such climate-induced calamities had and will have massive effects on prices of raw materials. In sum, it is likely that the main issues for the sector looking forward will probably come rather from the supply side than from the demand side.

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For more information, please visit the website: https://ettf.info/isc-2020/. Reported below a synthesis of the main information provided during the ISC's presentations.

KEY MESSAGES of the International Softwood Conference 2020

Karlis Danevics (SEB Bank) – Economic Developments

Mr Danevics argued that the pandemic crisis has completely changed the mindset of economic operators: the pre-pandemic concerns and post-pandemic concerns will be completely different. He showed an interesting chart regarding electricity consumption, which plummeted in the spring but then slowly went back to pre-pandemic levels at the end of the Summer. Corona cases are again rising, however.

In his presentation, Mr Danevics outlined three scenarios for the global economy:

- The reference scenario sees a GDP recovery at pre-pandemic levels in 2022
- The positive scenario sees a GDP recovery at pre-pandemic levels in Q2 2021
- The negative scenario sees GDP staying depressed for some years

It is interesting to see the uneven effect on economies (slightly unlike perhaps more "normal" economic crisis): the UK will post a double-digit GDP slump in 2020, while China is expected to grow 2%. In between all other major economies with Japan and the US dropping by 5-6% and the Euro area declining by 9%.

Mr Danevics also argued that the stimulus that governments injected in the economy surpasses by far the stimulus of the previous crisis. He went on to explain that the pandemic has been driving change such as digitalisation at a much faster pace than previously thought possible. Some of these changes are undoubtedly positive. In the short-term, though, economies will be confronted with high unemployment, lower consumption and declining capital spending.

Some challenges/risks to look at going forward include:

- High government expense might distort economies and tame incentives to efficiency
- Climate change accelerating pace
- Tense relationship between the US and China (trade wars might continue and globalisation could be severely constrained)
- Increasing divide between wealthy elite (stock exchange is not feeling effect of pandemics) and majority of population

Both at country, societal, and personal level those who will thrive will do so thanks to adaptability – the ultimate quality needed in a fast-changing world.

Morten Bergsten (ETTF) and Sampsa Auvinen (EOS) – the Softwood Market in Europe

Morten Bergsten, Vice-President of ETTF, and Sampsa Auvinen, President of EOS, delivered similar messages in their presentations from their respective vantage points of user and producer. Overall, they emphasized, the Covid-19 crisis had an extremely diverse impact on the sector. Sawn softwood production in Europe is expected to decline by 3% in 2020 but to increase by 1.5% in 2021. In some European countries – notably in Germany and Scandinavia – the construction market held up relatively well, which had a good effect on the sawmill industry. In other countries, such as the UK and Southern Europe, where the first wave of the virus was stronger and lockdowns tighter, the local construction markets and the general economy were hit much harder, which also had a negative effect on the softwood market. The picture is very varied also when it comes to the virus impact on the subsectors: as people spent more time at home, DIY did actually very well and renovation in general held up. In most countries, on the other side, the furniture sector was hit particularly hard by the crisis.

During the conference it was stressed several times that for the future, construction markets will be key. Overall, they fared better than expected in parts of Europe, but some countries emphasized that this was due mainly to completion of existing projects. What will happen to new projects in case investments are subdued remains to be seen. A reason to be optimistic is the increasing recognition of the potential of wood to mitigate climate change and the rising market share of wood as a building material, as Mr Auvinen showed in his presentation. Mr Bergsten mentioned that the President of the European Commission has recently stated in her State of the Union address that using more wood in the building sector has environmental benefits. It was also emphasized that the coronavirus crisis – depending also on its length, as of yet unpredictable – might have structural effects on the economy as people would spend less time in the office and more at home, which could have consequences also on the softwood market.

Mr Bergsten concluded his presentation with un upbeat note stating that most countries in 2021 foresee a consumption increase. It is difficult to generalize and there are many caveats but expectations for 2021 are overall positive. Mr Auvinen stressed that other factors in the long-term will play a more important role in the sawmill industry than the Covid-19 crisis. Even this summer has been characterized by extremely high quantities of damaged logs across Central Europe (estimates suggest around 120 million m^3).

- In the short term we are seeing that lower prices for Central European logs are improving the competitive position of many companies in Central Europe.
- This has repercussions all over Europe as companies in areas which are not affected by high quantities of damaged logs, will be continuingly challenged.
- European softwood industry can increase market share overseas (we have already seen this year in the US and in China)

However, in the medium-term:

- the damaged-wood binge will be over. The supply of raw materials in Central Europe will greatly diminish and there might be scarcity.

- As of today, companies need to be able to position themselves through targeted investments to survive in a much tougher competitive landscape.
- There might be further industry consolidation in Central Europe.

Finally, Mr Auvinen predicted that in the next few months prices and new export orders will go up while stocks will go down.

Yasuo Toyoda (Itochu Kenzai Corporation) – Japan

Mr Toyoda's presentation started with showing that coronavirus cases in Japan are relatively low. Still, the country's economy has been severely impacted by the crisis. Housing starts are a bit down compared to 2019 and 2018, while imports of softwood lumber are also around 10% lower (imports from Europe are substantially the same though, with glulam imports actually on the rise).

Housing starts are expecting to remain relatively subdued (around 90% of the 2019 level) even next year. Inventories at Tokyo port are high.

Looking at the future, Mr Toyoda sees a steady influx of European lumber driven by housing and DIY sectors but dropping glulam imports due to high inventories and costs. There might be a bit of a switch to local producers of glulam. Imports of Russian lumber are expected to be steady, too, while imports of North American could decline.

The outlook for the industry in Japan is challenging, in general, but there are some positive signs, including demand driven by upcoming Olympic Games, wooden non-residential building sector and strong DIY.

Håkan Persson (SCA Wood Hong Kong LTD) – China and South East Asia

Mr Persson stated that Chinese imports of softwood lumber in the first half of the year decreased 10% vis-à-vis H1 2019 (overall imports in 2019 equalled 27.7 million m3). The Chinese economy is now doing better than all large economies – growth has returned – and there is also a domestic consumption recovery.

The Chinese government has made decarbonization of economy a priority and wants to be carbon neutral by 2060. This is a positive trend for wood consumption.

The furniture sector is an important user of softwood in China, but exports of Chinese furniture are down and due to rising labour costs and trade tensions, the outlook might not be too positive. Home decoration however is on a growing trend within China, while there is no local DIY tradition.
In the softwood construction market, the building market is slowing down from a high level. Infrastructure projects were delayed in first half year and there is a growing market for strength graded timber. Inventories are very high.

Regarding other South-East Asian markets, Taiwan is the only one which has seen its imports rising in H1 2020. South Korea remains the largest market, but its imports have peaked in 2017 and slowly declining since (1.8 million m3 of softwood lumber imports in 2019). In South Korea building and packaging markets are weak at the moment.

Vietnam is a small market (600,000 m^3 imports of softwood lumber) but with stable demand, though with a tradition of Chilean radiata imports.
In sum, Mr Persson concluded that the growing middle class in China and South East Asia make those markets extremely relevant and will remain so in the future. To gain market share exporters need to:

- Learn more about the customer conditions and customize the lumber
- Add value to products
- Improve logistic services
- Influence regulations favoring wood

Vadim Eresko (Segezha Group) – Russia

Mr Eresko started his presentation by giving some key facts about Russia:

- 82% of Russian sawn timber exports go to China, Europe, and MENA
- There aren't any significant production growth opportunities.
- Russian producers compete primarily for raw materials rather than for markets, and this competition is set to increase.
- Rising production costs (due to rising costs of raw materials)

The key market for Russia remains China with more than 19 million m^3 of softwood lumber (63% of total Russian exports) exported in 2019 on the back of many years of growth. A decline of 10% is expected in 2020, which should be followed, though by a recovery in 2021 by 6%. Land

transportation of goods to China is becoming more relevant as it is faster than shipments by sea.

Europe and MENA are the other two relevant markets for Russia. Europe is a stable market with Russian exports to Europe hovering between 3 and 3.5 million m3 over the last few years. Russian producers will be shifting focus from increasing total sales to targeting niche segments. The increasing utilization of wood as a building material even for mass construction projects is definitely an opportunity for Russian exporters as well, even though increasing production capacity within Europe does not bode well for Russian players.

When it comes to the MENA area it is apparent that Russia has lost a lot of market share over the last couple of years (from 2.4 milllion m3 to 1 million m3 exported in 2020 – no growth is expected in 2021). Russia is expected to shift focus to markets that offer higher margins. Deliveries to MENA are limited by import tariffs in some countries as well as specifications restrictions. Looking forward, while the region has huge potential (young population needing housing), loss of oil revenue, economic instability and increasing utilization of wood replacement products are all risks.

Mr Eresko also presented two markets with opportunities for Russian players:

- The US: it is the largest market but most major Russian mills don't produce sawn timber to North American specifications
- India: huge country with low per capita consumption and has just removed ban on timber construction. However, the market is mostly interested in low quality sawn timber and there are specifications restrictions

In case of a strong second wave of Covid-19 Mr Eresko outlined two possible scenarios:

- A recurrence of the first wave dynamics with a temporary decrease of sawnwood production but a recovery already at the beginning of 2021 (supply shortage)
- A more negative scenario with long, deep construction industry reduction (demand crisis)

Tano Khan (Timber Base) – India

India is a huge and diverse country with a young population and an impressive growth potential. Main hubs of Indian wood industry are scattered around the country with a focus on the western part.

In India, majority of softwood lumber is used for packaging material & construction. Total wood import stood at around 1.4 billion dollars in 2019. Of this, 177 million dollars is represented by sawn softwood (97 million in 2017, 149 million in 2018).

Softwood timber import grew significantly over the last years but it remains to be seen what the effects of the pandemic will be on this: Covid hit India hard and post Covid impact on economy and wood imports is hard to forecast.

Developments in international wood market add an additional challenge for Indian buyers as many producers are attracted to high prices in other regions, such as the United States.

For aspiring exporters it is important to know that:

- Timber from Europe is required to comply with IPPC standards specified in a phytosanitary certificate
- Non-heat-treated timber has to undergo fumigation with methyl bromide
- Certain species are (or have been) banned from import to the Indian market (e.g. European Douglas fir)

Mr Khan also showed interesting polls that he launched live during the Conference. In one of these it turned out that 46% of participants don't sell to India, 21% of them expect a growth of their business with India over the next 12% month period, 12% expect stability, and only 9% expect a decline. The remaining were undecided.

Ulf Gabrielsson (Uni4Marketing AB) – MENA area

MENA is traditionally an interesting area for European businesses: the region is deprived of forests and has a youthful and growing population which needs housing: MENA construction sector is estimated to grow on average about 7% per year until 2022. The region imported over 10 million m3 in 2019, the largest market remaining Egypt (4.3 million m3), followed by Saudi Arabia (1.5 million m3) and Algeria (1.4 million m3).

Mr Gabrielsson showed that the economic impact of coronavirus is expected to be very diverse across the MENA countries with Iran projected to have a deep recession in 2020 (linked also to a tense geopolitical situation) and Egypt instead projected to be the only country to have a positive growth rate. On average the MENA region's GDP is expected to decline by 4%.

Mr Gabrielsson proceeded to show how the largest softwood markets are faring in 2020 and also gave some indications for the future.

In Egypt, in spite of sharp slowdown in tourism, construction sector, oil refinery, and agriculture remain fairly robust. At the end of May, the Egyptian government cancelled all residential building permits in the four biggest cities for a period of six months. The reason for the stop is to reduce all illegal building activity. Still, Egypt is to construct 765,000 homes in three years and a new administrative capital. Softwood imports dropped 13% in the period Jan-Jul 2020 with all largest exporters declining, but with the significant exception of Sweden, which increased its exports by 23%. It is now by far the largest exporter, followed by Finland and Russia with other countries shipping relatively small quantities.

Algeria is strongly dependent of revenue from oil and gas which stands for 60% of the total budget and these sources of income have dried up in the last few years. Imports of sawn softwood declined 15% in the period Jan-Jul 2020. Like in Egypt there are three large players: Austria, Sweden and Finland. All of them have seen their shipments declining, but Austria and Sweden are in the single-digits, whereas the decline of Finland was almost 40%.

Morocco's GDP is expected to decline 4% this year and softwood imports in Jan-Jul 2020 have dropped by 18% with Sweden, Finland – the two large exporters – followed by Austria all seeing their shipments declining. The positive news in Morocco is that the government announced a plan to build 800,000 housing units by 2022.

In Saudi Arabia the government has not abandoned his vision to modernize the country. One pillar in the vision is the housing program where the main target is to provide homes for most Saudi citizens. Since the Saudi Riyal is fixed to the USD the decline of USD has a negative impact on the import of Euro rated products. Saudi imports increased 16% in Jan-Jul 2020 with Finland and Sweden, the two largest players both gaining ground. But it was Romanian and Austrian exports which did particularly well. Interestingly, pine demand for joinery and furniture is good, while spruce boards for construction are slightly decreasing.

Overall, with the exception of Egypt in the short-term, Mr Gabrielsson saw a positive future for European business in these four large countries in the MENA Area.

Mark Brinkmeyer (Idaho Forest Group) – USA

Mr Brinkmeyer emphasized the abrupt impact of the coronavirus pandemic on the US economy and on the softwood business in particular.

The US entered the crisis in March on the back of a very strong housing market. There was immediately a decline of the lumber markets, but it was positive that lumber manufacturing was designated as an essential industry. There were significant mill curtailments and inventory reductions. Customer inventories were also reduced and logging operations were curtailed.

Luckily, the government injected a massive dose of stimulus, completely unprecedented: three times as much as in 2008 at 19% of GDP which helped turned the tide, especially for people earning lower incomes.

Having massively declined over the spring, home builder confidence turned the tide in the Summer and in September it was at record high. The current pace of sales is near prior peaks and the pandemic prompted unprecedented spending as shown by home depot and home improvement combined domestic same-store sales growth. Lumber prices were also at record high but then dropped.

Mr Brinkmeyer also showed that unemployment is currently higher than it looks like; he argued that working from home trends, if sustained, will have a positive impact on single-family houses demand and a more negative demand on the multi-family sector as people spending more time at home would look to move outside city-centres towards bigger homes. This, however, does not look a main catalyst of strength for the construction market. Lower mortgage rates remain instead the most important factor, followed by government stimulus and demographic dynamics.

Mr Brinkmeyer concluded his intervention by presenting the following predictions:
New Home Starts: ➢ 2019 +12% ➢ 2020 +23% ➢ 2021 +6% ➢ 2022 -8%
Home Improvement Spending: ➢ 2019 +3% ➢ 2020 +12% ➢ 2021 -6% ➢ 2022 +3%
Multi-Family Starts: ➢ 2019 +7% ➢ 2020 -1% ➢ 2021 -9% ➢ 2022 -7%

Don Kayne (Canfor) – Canada

Mr Kayne started his intervention by showing the extraordinary developments linked to the Covid-19 pandemic as states and provinces across North America went into various levels of lockdown due to COVID-19. Unemployment rates in the US soared from 6+ million in February to 20+ million in May.

Lumber prices were very topsy-turvy, as they fell in April but then went up to record high later at the beginning of the summer. By mid-June Canfor had returned to essentially full operations across all operating regions.

Surprisingly, when people were sent home to work, they started doing DIY projects. Repair-and-Remodel sectors were consistently resilient. There is a growing trend of people choosing to leave cities to have a bigger single-family home in the suburbs or more rural areas, supporting the prediction that single-housing home construction will continue to increase.

We moved from a situation of low prices and high inventory to one of high prices of low inventory.

A supply-side relevant development is definitely increasing forest fires, which this year are significantly more intense and are the worst ones in 18 years. After the fires there will be an increase in production to process the burned wood. After the burned wood is processed, a fibre shortage is expected, which will further constrain supply.

Canfor sees an opportunity to redefine the North American pricing model as they are working with customers to lock into longer-term agreements to provide more sustainable and consistent returns.

Looking forward, Mr Kayne argued that there continues to be uncertainty in our industry. Inventories will begin to level out in Q1 2021, but overall, supply should remain tight.

Paul Jannke (Forest Economic Advisors) – Bark beetle epidemics

In his presentation Mr Jannke drew an interesting comparison between the bark beetle attacks in Central Europe and the British Columbia mountain pine beetle outbreaks between 1999 and 2014. The main similarity between British Columbia's mountain pine beetle outbreak and Europe's spruce bark beetle epidemic is the scale of the devastation.

Mr Jannke argued that similarities also include:

- Climate change involving hotter, drier summers, lower rainfall, and warmer winters.
- Monoculture forests that were often even-aged and mature to over-mature (100+ years old).
- The outbreaks expanded quickly, and the dead timber could not be harvested fast enough to control the spread of the beetle (very similar to the situation in the Czech Republic).
- Harvesting capacity was a limiting factor relative to the annual volume of beetle-attacked timber.
- Domestic log prices dropped to essentially cost levels in areas with heavy beetle kill.
- Sawmills increased shifts to process more of the beetle-killed timber, causing an oversupply of lumber that created lower prices in some markets.
- At the end of the mountain pine beetle cycle in BC, 750 million m3 of lodgepole pine forests were killed, and this resulted in 35 sawmills (an average of 200 million BF or 300,000 m3 of sawtimber) closing from 2006 to 2019. This last chapter has yet to be written for Central Europe.
- Canadian exports increased during the crisis and European offshore exports continue to rise despite Covid-19 recession.

Mr Jannke is optimistic because there is a strong pent up demand in North America and the outlook for wood products demand looks good across the world with more and more people and policy-makers realizing the benefits of wood. Mass timber is part of a global trend toward vertically integrated offsite construction in response to poor construction labor productivity and shortages of skilled construction labor on site. British Columbia's annual allowable cut will fall further.

At the end of his intervention, Mr Jannke delivered the following take-home messages:

- A combination of climate change and monoculture precipitated both the European spruce bark beetle and British Columbia's mountain pine beetle
- The scale of the mountain pine beetle epidemic was massive. The scale of Europe's spruce bark beetle epidemic will likely exceed that in British Columbia
- The shelf life of the spruce is shorter than that of the pine, so the European timber will enter the markets more rapidly than in British Columbia
- Demand will be higher over the next five years, so we don't expect a similar period of weak pricing like we saw during the MPB epidemic

Disclaimer: This summary of the International Softwood Conference 2020 has been prepared by the EOS Secretariat based on the presentations given during the Conference. It has been done to the best of the knowledge of the Secretariat, but it does not necessarily reflect the views of the presenters of the Conference nor it claims completeness.

7.2 SAVE THE DATE: The 2021 International Softwood Conference

In 2021 the ISC, due to the ongoing health challenges, will take place as a hybrid event in Helsinki and online. While the online format worked well last year, stakeholders in the sawmill industry are eager to meet once again in person. But given the high uncertainty participants that will not be able to join the physical event can still enjoy the presentations from their own countries.

Due to pandemic-related challenges, no extra programmes will be organized, but the co-organizers will make sure that even this edition of the Conference will live up to its fame and the expectations of participants.

69 th
INTERNATIONAL SOFTWOOD
Conference 2021
HELSINKI, OCTOBER 13-14

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8. European Standardisation – Update

CEN/TC 124 "Timber structures"

***Chairperson*: Mr Frédéric Rouger**
***Secretary*: Mr Benoît Croguennec**

Structure of the technical committee

Reference	Title	Convenor
CEN/TC124/WG 1	Test methods	Christophe Sigrist
CEN/TC124/WG 2	Solid timber	Frédéric Rouger
CEN/TC124/WG 3	Glued laminated timber	Tobias Wiegand
CEN/TC124/WG 4	Connectors	Barbara Sogato
CEN/TC124/WG 5	Prefabricated wall, floor and roof elements	Simon Aicher
CEN/TC124/WG 6	Wood poles	Willie Clason

Published standards

Reference	Date	Title
EN 12512:2001/A1:2005	2005-09-28	Timber Structures - Test methods - Cyclic testing of joints made with mechanical fasteners
EN 409:2009	2009-04-01	Timber structures - Test methods - Determination of the yield moment of dowel type fasteners
EN 15736:2009	2009-08-19	Timber Structures - Test methods - Withdrawal capacity of punched metal plate fasteners in handling and erection of prefabricated trusses
EN 26891:1991	1991-02-21	Timber structures - Joints made with mechanical fasteners - General principles for the determination of strength and deformation characteristics (ISO 6891:1983)
EN 14545:2008	2008-10-01	Timber structures - Connectors - Requirements
EN 16737:2016	2016-05-25	Structural timber - Visual strength grading of tropical hardwood
EN 16784:2016	2016-06-29	Timber structures - Test methods - Determination of the long term behaviour of coated and uncoated dowel-type fasteners
EN 1912:2012/AC:2013	2013-08-21	Structural Timber - Strength classes - Assignment of visual grades and species
EN 380:1993	1993-07-18	Timber structures - Test methods - General principles for static load testing
EN 595:1995	1995-03-22	Timber structures - Test methods - Test of trusses for the determination of strength and deformation behaviour
EN 16351:2021	2021-03-03	Timber structures - Cross laminated timber - Requirements
EN 14081-1:2016+A1:2019	2019-08-14	Timber structures - Strength graded structural timber with rectangular cross section - Part 1: General requirements
EN ISO 8970:2020	2020-04-01	Timber structures - Testing of joints made with mechanical fasteners - Requirements for timber density (ISO 8970:2020)
EN 14081-2:2018	2018-10-24	Timber structures - Strength graded structural timber with rectangular cross section - Part 2: Machine grading; additional requirements for type testing
EN 16929:2018	2018-12-12	Test methods - Timber floors - Determination of vibration properties
EN 1380:2009	2009-04-01	Timber structures - Test methods - Load bearing nails, screws, dowels and bolts
EN 14374:2004	2004-11-24	Timber structures - Structural laminated veneer lumber - Requirements
EN 14592:2008+A1:2012	2012-05-23	Timber structures - Dowel-type fasteners - Requirements
EN 15497:2014	2014-04-30	Structural finger jointed solid timber - Performance requirements and minimum production requirements
EN 384:2016+A1:2018	2018-11-21	Structural timber - Determination of characteristic values of mechanical properties and density
EN 338:2016	2016-04-06	Structural timber - Strength classes
EN 1382:2016	2016-02-17	Timber Structures - Test methods - Withdrawal capacity of timber fasteners
EN 1381:2016	2016-02-17	Timber structures - Test methods - Load bearing stapled joints
EN 1383:2016	2016-02-17	Timber structures - Test methods - Pull through resistance of timber fasteners
EN 14081-3:2012+A1:2018	2018-10-24	Timber structures - Strength graded structural timber with rectangular cross section - Part 3: Machine grading; additional requirements for factory production control
EN 14358:2016	2016-06-22	Timber structures - Calculation and verification of characteristic values
EN 14250:2010	2010-01-27	Timber structures - Product requirements for prefabricated structural members assembled with punched metal plate fasteners
EN 383:2007	2007-01-10	Timber Structures - Test methods - Determination of embedment strength and foundation values for dowel type fasteners
EN 1912:2012	2012-04-18	Structural Timber - Strength classes - Assignment of visual grades and species

Reference	Date	Title
EN 912:2011	2011-07-13	Timber fasteners - Specifications for connectors for timbers
EN 12512:2001	2001-11-21	Timber structures - Test methods - Cyclic testing of joints made with mechanical fasteners
EN 408:2010+A1:2012	2012-07-25	Timber structures - Structural timber and glued laminated timber - Determination of some physical and mechanical properties
EN 14251:2003	2003-12-03	Structural round timber - Test methods
EN 789:2004	2004-10-20	Timber structures - Test methods - Determination of mechanical properties of wood based panels
EN 14080:2013	2013-06-26	Timber structures - Glued laminated timber and glued solid timber - Requirements
EN 594:2011	2011-06-29	Timber structures - Test methods - Racking strength and stiffness of timber frame wall panels
EN 336:2013	2013-10-02	Structural timber - Sizes, permitted deviations
EN 596:1995	1995-03-22	Timber structures - Test methods - Soft body impact test of timber framed walls
EN 1075:2014	2014-12-17	Timber structures - Test methods - Joints made with punched metal plate fasteners
EN 15737:2009	2009-08-19	Timber Structures - Test methods - Torsional resistance of driving in screws
EN 15228:2009	2009-03-25	Structural timber - Structural timber preservative treated against biological attack
EN 14229:2010	2010-10-06	Structural timber - Wood poles for overhead lines

Pending standards

Project	Title	Status	Initial Date	Forecasted voting date
EN 14081-2:2018/prA1(WI=00124182)	Timber structures - Strength graded structural timber with rectangular cross section - Part 2: Machine grading; additional requirements for type testing	Under Approval	2019-03-12	2021-09-21
EN 14592:2020(WI=00124149)	Timber structures - Dowel-type fasteners - Requirements	Approved	2015-05-12	2019-07-31
EN 384:2016+A1:2018/prA2(WI=00124183)	Structural timber - Determination of characteristic values of mechanical properties and density	Under Approval	2019-03-12	2021-09-21
FprEN 14374(WI=00124137)	Timber structures - Laminated veneer lumber (LVL) - Requirements	Under Approval	2015-10-20	2018-08-31
prEN 12512 rev(WI=00124173)	Timber structures - Test methods - Cyclic testing of joints made with mechanical fasteners	Preliminary		
prEN 14080 rev(WI=00124186)	Timber structures - Glued laminated timber and glued solid timber - Requirements	Preliminary		
prEN 14081-3(WI=00124181)	Timber structures - Strength graded structural timber with rectangular cross section - Part 3: Machine grading; additional requirements for factory production control	Under Approval	2019-03-12	2021-09-21
prEN 14250 rev(WI=00124187)	Timber structures - Product requirements for prefabricated structural members assembled with punched metal plate fasteners	Preliminary		
prEN 14545 rev(WI=00124180)	Timber structures - Connectors - Requirements	Preliminary		
prEN 15736 rev(WI=00124169)	Timber Structures - Test methods - Withdrawal capacity of punched metal plate fasteners in handling and erection of prefabricated trusses	Preliminary		
prEN 1912 rev(WI=00124178)	Structural Timber - Strength classes - Assignment of visual grades and species	Preliminary		
prEN 383 rev(WI=00124185)	Timber Structures - Test methods - Determination of embedment strength and foundation values for dowel type fasteners	Preliminary		
prEN 408 rev(WI=00124184)	Timber structures - Structural timber and glued laminated timber - Determination of some physical and mechanical properties	Preliminary		
prEN 409 rev(WI=00124174)	Timber structures - Test methods - Determination of the yield moment of dowel type fasteners	Preliminary		
prEN 594 rev(WI=00124172)	Timber structures - Test methods - Racking strength and stiffness of timber frame wall panels	Preliminary		
prEN 912 rev(WI=00124167)	Timber fasteners - Specifications for connectors for timbers	Preliminary		
(WI=00124190)	Timber structures - Prefabricated wall, floor and roof elements - Structural (load-bearing) elements with adhesively bonded sheeting made of wood-based panels on one or both faces (EN 14732-2)	Preliminary		
(WI=00124170)	Timber structures - Glued laminated timber and glued solid timber made from harwood species - Requirements	Preliminary		
(WI=00124191)	Timber structures - Prefabricated wall, floor and roof elements - Structural elements with mechanically fixed sheeting made of wood-based boards/panels or gypsum boards/panels on both faces (EN 14732-1)	Preliminary		

CEN/TC 175 "Round and Sawn Timber"

***Chairperson*: Mr Philippe Pangault**
***Secretary*: Mr Frédéric Henry**

Structure of the technical committee

Reference	Title
CEN/TC 175/WG 1	General matters, definitions, measurement methods
CEN/TC 175/WG 2	Sawn timber
CEN/TC 175/WG 4	Round timber
CEN/TC 175/WG 30	Specific user requirements - Consolidation
CEN/TC 175/WG 32	Specific user requirements - Timber in joinery
CEN/TC 175/WG 33	Specific user requirements - Timber in flooring
CEN/TC 175/WG 34	Specific user requirements - Timber in packaging and pallets
CEN/TC 175/WG 36	Specific user requirements - Other timber products
CEN/TC 175/WG 37	Specific user requirements - Timber in stairs
CEN/TC 175/WG 38	Specific user requirements - Timber in cladding and panelling
CEN/TC 175/WG 39	Specific user requirements - Fire retardant treated wood

Published standards

Reference	Date	Title
EN 1313-2:1998/AC:1999	1999-06-30	Round and sawn timber - Permitted deviations and preferred sizes - Part 2: Hardwood sawn timber
EN 14221:2006	2006-11-08	Timber and wood-based materials in internal windows, internal door leaves and internal doorframes - Requirements and specifications
EN 13183-2:2002/AC:2003	2003-09-17	Moisture content of a piece of sawn timber - Part 2: Estimation by electrical resistance method
EN 13183-1:2002/AC:2003	2003-09-17	Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method
EN 14342:2013	2013-07-10	Wood flooring and parquet - Characteristics, evaluation of conformity and marking
EN 1927-2:2008/AC:2009	2009-04-01	Qualitative classification of softwood round timber - Part 2: Pines
EN 1611-1:1999/A1:2002	2002-08-21	Sawn timber - Appearance grading of softwoods - Part 1: European spruces, firs, pines, Douglas fir and larches
CEN/TS 13307-2:2009	2009-12-02	Laminated and finger jointed timber blanks and semi-finished profiles for non-structural uses - Part 2: Production control
EN 975-1:2009/AC:2010	2010-09-29	Sawn timber - Appearance grading of hardwoods - Part 1: Oak and beech
EN 16755:2017	2017-10-11	Durability of reaction to fire performance - Classes of fire-retardant treated wood products in interior and exterior end use applications
EN 844:2019	2019-08-28	Round and sawn timber - Terminology
EN 14298:2017	2017-10-25	Sawn timber - Assessment of drying quality
EN 13489:2017	2017-09-27	Wood-flooring and parquet - Multi-layer parquet elements
EN 13756:2018	2018-09-12	Wood flooring and parquet - Terminology
EN 13227:2017	2017-11-01	Wood flooring - Solid lamparquet products
EN 17009:2019	2019-03-13	Flooring of lignified materials other than wood - Characteristics, assessment and verification of constancy of performance and marking
EN 13228:2011	2011-05-18	Wood flooring - Solid wood overlay flooring elements including blocks with an interlocking system
EN 13647:2021	2021-04-14	Wood flooring and wood panelling and cladding - Determination of geometrical characteristics
EN 17456:2021	2021-04-14	Wood flooring and parquet - Determination of top layer delamination of multilayer elements - Test method
EN 1534:2020	2020-01-08	Wood flooring and parquet - Determination of resistance to indentation - Test method
EN 1927-1:2008	2008-03-26	Qualitative classification of softwood round timber - Part 1: Spruces and firs
EN 13183-1:2002	2002-04-17	Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method
EN 1927-2:2008	2008-03-26	Qualitative classification of softwood round timber - Part 2: Pines
EN 1927-3:2008	2008-03-26	Qualitative classification of softwood round timber - Part 3: Larches and Douglas fir
EN 942:2007	2007-03-14	Timber in joinery - General requirements
EN 1316-1:2012	2012-10-17	Hardwood round timber - Qualitative classification - Part 1: Oak and beech
EN 1309-3:2018	2018-01-24	Round and sawn timber - Methods of measurements - Part 3: Features and biological degradations
EN 13488:2002	2002-12-18	Wood flooring - Mosaic parquet elements

Reference	Date	Title
EN 16755:2017/AC:2018	2018-07-18	Durability of reaction to fire performance - Classes of fire-retardant treated wood products in interior and exterior end use applications
EN 14915:2013+A2:2020	2020-01-15	Solid wood panelling and cladding - Characteristics, requirements and marking
EN 1313-1:2010	2010-01-27	Round and sawn timber - Permitted deviations and preferred sizes - Part 1: Softwood sawn timber
EN 12248:1999	1999-06-23	Sawn timber used in industrial packaging - Permitted deviations and preferential sizes
EN 1910:2016	2016-04-27	Wood flooring and wood panelling and cladding - Determination of dimensional stability
EN 13629:2020	2020-03-18	Wood flooring - Solid individual and pre-assembled hardwood boards
EN 12246:1999	1999-06-23	Quality classification of timber used in pallets and packaging
EN 14220:2006	2006-11-08	Timber and wood-based materials in external windows, external door leaves and external doorframes - Requirements and specifications
EN 13556:2003	2003-06-25	Round and sawn timber - Nomenclature of timbers used in Europe
EN 1309-2:2006	2006-03-15	Round and sawn timber - Method of measurement of dimensions - Part 2: Round timber - Requirements for measurement and volume calculation rules
CEN/TS 14464:2010	2010-07-21	Sawn timber - Method for assessment of case-hardening
EN 14761:2006+A1:2008	2008-07-09	Wood flooring - Solid wood parquet - Vertical finger, wide finger and module brick
EN 1316-2:2012	2012-10-17	Hardwood round timber - Qualitative classification - Part 2: Poplar
EN 16449:2014	2014-03-12	Wood and wood-based products - Calculation of the biogenic carbon content of wood and conversion to carbon dioxide
EN 13442:2013	2013-03-13	Wood flooring and wood panelling and cladding - Determination of the resistance to chemical agents
EN 14951:2006	2006-03-15	Solid hardwood panelling and cladding - Machined profiles elements
CEN/TS 15680:2007	2007-11-28	Prefabricated timber stairs - Mechanical test methods
EN 13696:2008	2008-12-10	Wood flooring - Test methods to determine elasticity and resistance to wear and impact resistance
EN 14076:2013	2013-12-11	Timber stairs - Terminology
CEN/TS 15679:2007	2007-11-28	Thermal Modified Timber - Definitions and characteristics
EN 1315:2010	2010-01-27	Dimensional classification of round timber
EN 12249:1999	1999-06-23	Sawn timber used in pallets - Permitted deviations and guidelines for dimensions
CEN/TS 12169:2008	2008-01-30	Criteria for the assessment of conformity of a lot of sawn timber
EN 1438:1998	1998-08-19	Symbols for timber and wood-based products
EN 13307-1:2006	2006-11-08	Timber blanks and semi-finished profiles for non-structural uses - Part 1: Requirements
EN 13226:2009	2009-05-27	Wood flooring - Solid parquet elements with grooves and/or tongues
CEN/TS 15717:2008	2008-04-16	Parquet flooring - General guideline for installation
EN 1309-1:1997	1997-04-23	Round and sawn timber - Method of measurement of dimensions - Part 1: Sawn timber
EN 975-1:2009	2009-03-18	Sawn timber - Appearance grading of hardwoods - Part 1: Oak and beech
EN 16485:2014	2014-03-26	Round and sawn timber - Environmental Product Declarations - Product category rules for wood and wood-based products for use in construction
EN 1611-1:1999	1999-08-18	Sawn timber - Appearance grading of softwoods - Part 1: European spruces, firs, pines and Douglas firs
EN 1313-2:1998	1998-11-18	Round and sawn timber - Permitted deviations and preferred sizes - Part 2: Hardwood sawn timber
EN 15146:2006	2006-12-13	Solid softwood panelling and cladding - Machined profiles without tongue and groove
EN 13183-3:2005	2005-03-16	Moisture content of a piece of sawn timber - Part 3: Estimation by capacitance method
EN 13183-2:2002	2002-04-17	Moisture content of a piece of sawn timber - Part 2: Estimation by electrical resistance method
EN 1533:2010	2010-08-04	Wood flooring - Determination of bending strength under static load - Test methods
EN 16481:2014	2014-06-18	Timber stairs - Structural design - Calculation methods
CEN/TS 15676:2007	2007-11-21	Wood flooring - Slip resistance - Pendulum test
EN 975-2:2004	2004-07-07	Sawn timber - Appearance grading of hardwoods - Part 2: Poplars
EN 13990:2004	2004-02-11	Wood flooring - Solid softwood floor boards
EN 14519:2005	2005-12-21	Solid softwood panelling and cladding - Machined profiles with tongue and groove
EN 14762:2006	2006-02-15	Wood flooring - Sampling procedures for evaluation of conformity
EN 1312:1997	1997-02-19	Round and sawn timber - Determination of the batch volume of sawn timber
EN 15644:2008	2008-12-10	Traditionally designed prefabricated stairs made of solid wood - Specifications and requirements

Pending standards

Project	Title	Status
prCEN/TS 13307-2 rev(WI=00175187)	Laminated and finger jointed timber blanks and semi-finished profiles for non-structural uses - Part 2: Production control	Preliminary
prEN 13226 rev(WI=00175194)	Wood flooring - Solid parquet elements with grooves and/or tongues	Preliminary
prEN 13307-1 rev(WI=00175186)	Timber blanks and semi-finished profiles for non-structural uses - Part 1: Requirements	Preliminary
prEN 13307-1 rev(WI=00175175)	Timber blanks and semi-finished profiles for non-structural uses - Part 1: Requirements	Preliminary
prEN 13442 rev(WI=00175193)	Wood flooring and wood panelling and cladding - Determination of the resistance to chemical agents	Preliminary
prEN 13489 rev(WI=00175190)	Wood-flooring and parquet - Multi-layer parquet elements	Preliminary
prEN 13556 rev(WI=00175185)	Round and sawn timber - Nomenclature of timbers used in Europe	Preliminary
prEN 13556 rev(WI=00175170)	Round and sawn timber - Nomenclature of timbers used in Europe	Preliminary
prEN 14220 rev(WI=00175184)	Timber and wood-based materials in external windows, external door leaves and external doorframes - Requirements and specifications	Preliminary
prEN 14220 rev(WI=00175171)	Timber and wood-based materials in external windows, external door leaves and external doorframes - Requirements and specifications	Preliminary
prEN 14221 rev(WI=00175189)	Timber and wood-based materials in internal windows, internal door leaves and internal doorframes - Requirements and specifications	Preliminary
prEN 14342 rev(WI=00175172)	Wood flooring and parquet - Characteristics, evaluation of conformity and marking	Preliminary
prEN 14342 rev(WI=00175192)	Wood flooring and parquet - Characteristics, evaluation of conformity and marking	Preliminary
prEN 16449 rev(WI=00175188)	Wood and wood-based products - Calculation of the biogenic carbon content of wood and conversion to carbon dioxide	Preliminary
prEN 16485 rev(WI=00175181)	Round and sawn timber - Environmental Product Declarations - Product category rules for wood and wood-based products for use in construction	Preliminary
(WI=00175180)	Guidance for the preparation of the declaration of performance and CE marking	Preliminary
(WI=00175191)	Product Category Rules (PCR) for wood flooring including parquet	Preliminary

EOS organisation 2020/2021

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EOS Secretariat - Offices

EOS is located, together with CEI-Bois and other European wood associations at Rue Montoyer 24 in Brussels, Belgium. The office building provides opportunities for meetings of national federations too and members are always welcome to use the various facilities when in Brussels.

EOS Member Federations – May 2021

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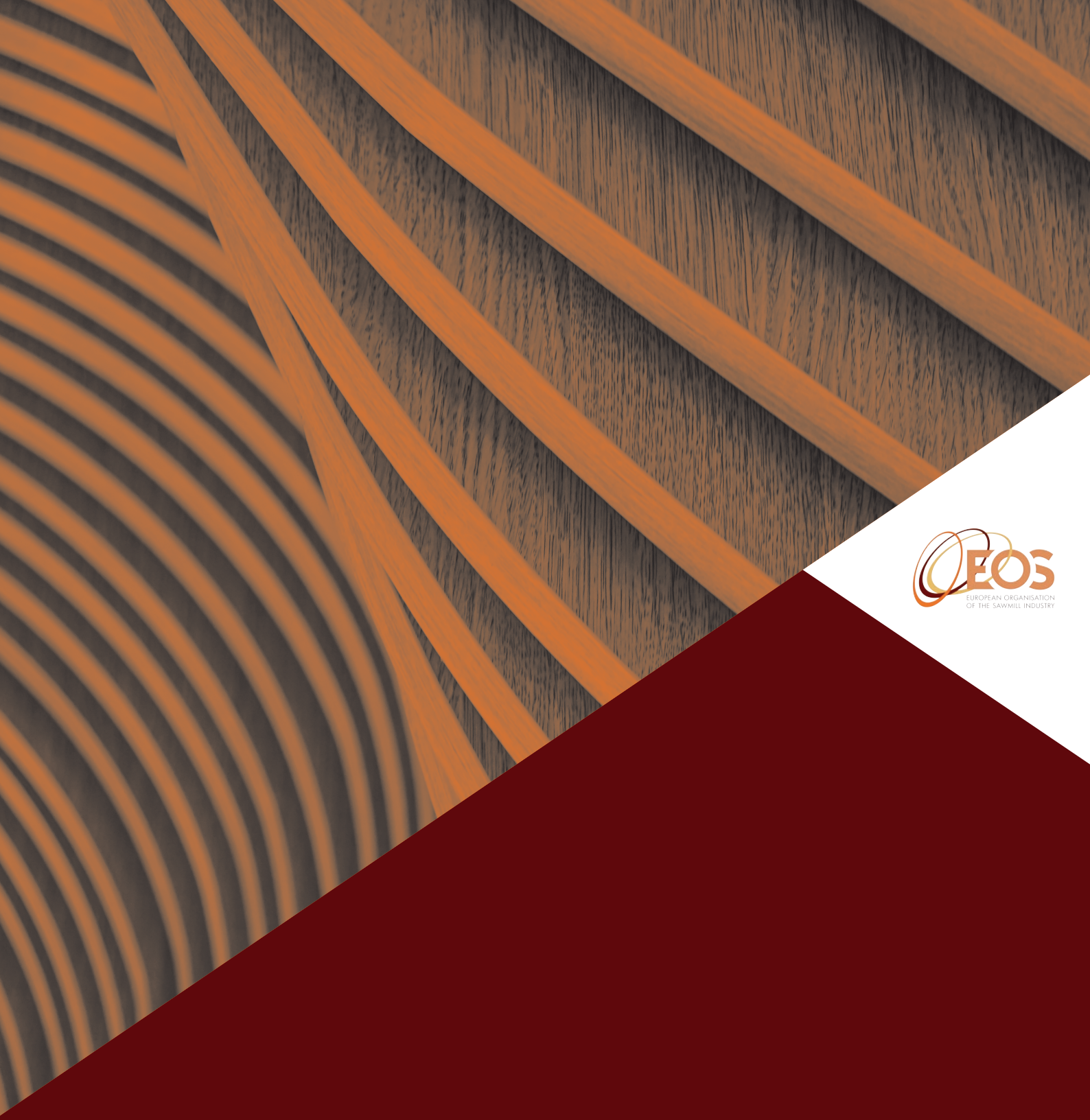
ANNUAL REPORT
2020/2021

The European Organisation of the Sawmill Industry (EOS) aisbl, an international non-profit association according to Belgian law, represents the interests on the European and international level of the sawmill industries from 11 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Latvia, Norway, Romania, Sweden and Switzerland), producing about 80% of the total European sawn wood output. The sector represents a turnover of around 37 billion EUR and 16% of the overall woodworking and furniture industry in EU27.

The EOS secretariat extends its thanks to all persons and organisations that have contributed to the publication of this report.

Note: the information provided in Chapter 4 “Main results from the EOS Market Survey April 2021” as well as in the country reports is based on information supplied by the EOS member federations and may differ from the information included in other databases or reports. If the EOS member federations could not provide the required information, the EOS secretariat has used information derived from other sources in order to present the full picture.

EOS
EUROPEAN ORGANISATION OF THE SAWMILL INDUSTRY



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