



# 70<sup>TH</sup> FEFPEB CONGRESS

WOODEN PALLETS AND PACKAGING IN THE CENTRE OF THE SUSTAINABLE ECONOMY

**Timber and sustainability**

Firenze ▪ September 2022





**conlogno**  
consorzio servizi legno sughero



70<sup>TH</sup> FEFPEB CONGRESS

Firenze • September 2022

Vision on certification and sustainability by the open pallet pool





Vision on  
**certification** and **sustainability**  
by the open pallet pool

# Timber and sustainability

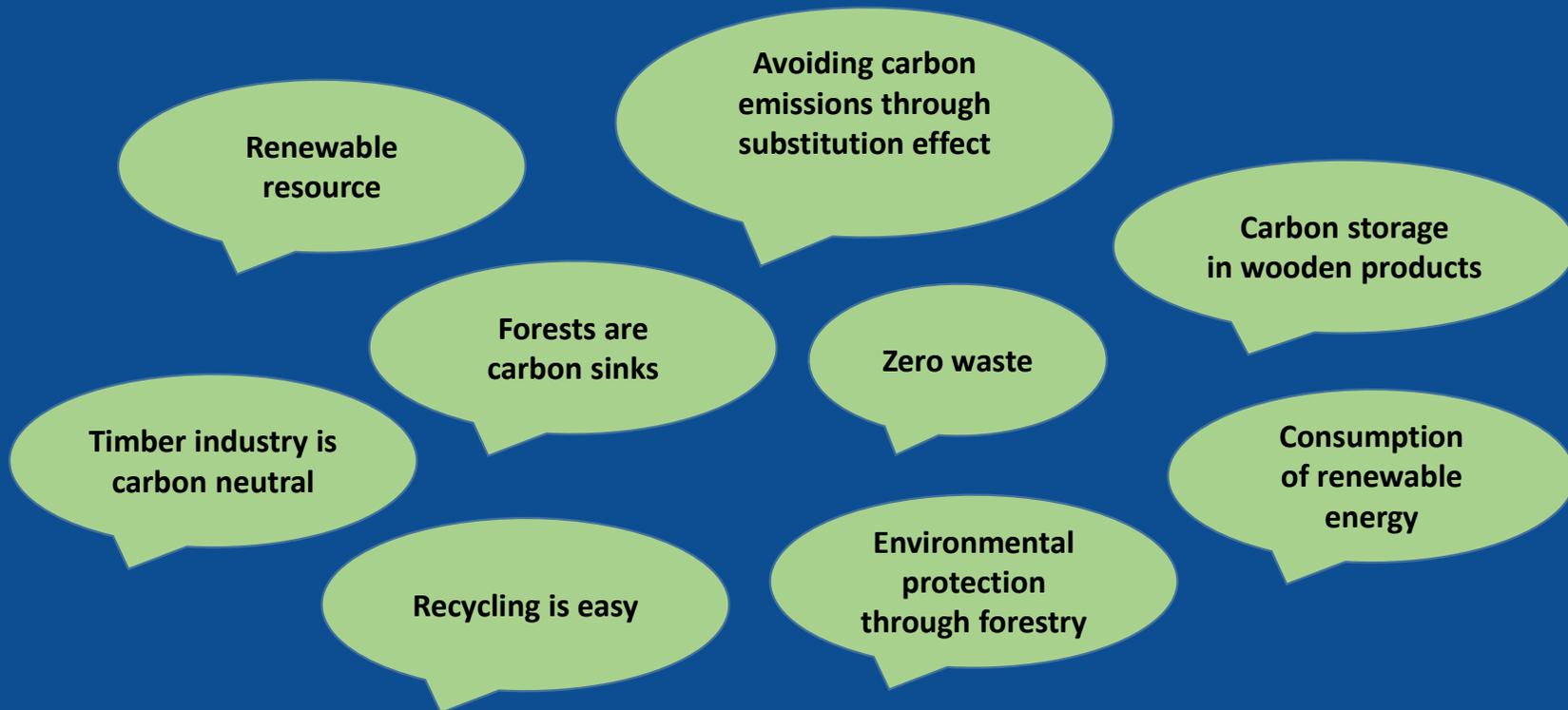
Timber and sustainability

Timber is sustainability

Timber industry is sustainable

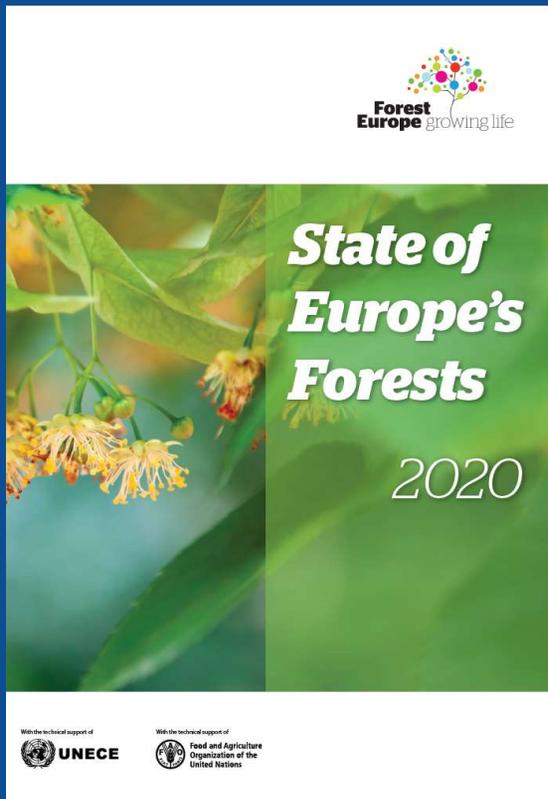
**Timber packaging industry is sustainable**

# Timber is sustainable



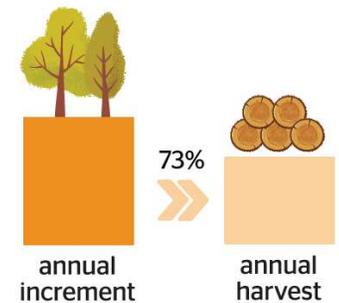
# Forest Europe State of Europe's Forests 2020

# Timber is sustainable



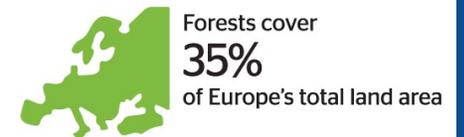
## Increment in European forests substantially exceeds felling

Every year, more wood grows than is harvested in European forests, leading to the accumulation of growing stock in forests. Net annual wood increment is higher than in earlier periods. Since 1990, it has increased by approximately 25%. The volume of timber harvested has been increasing steadily since 1990. On average, 73% of the net annual increment is felled, thus indicating the sustainability of wood supply from European forests.



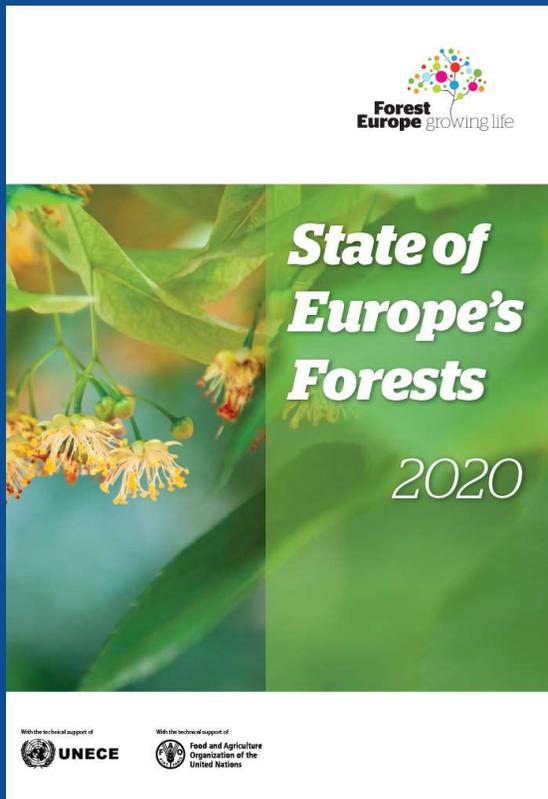
## Forest area has increased by 9% since 1990, although the rate of expansion is slowing down

The 227 million ha of forests in Europe cover 35% of total land area. Other wooded land accounts for an additional 27 million ha.



Around 75% of the forest area is available for wood supply.

# Timber is sustainable



## Growing stock has increased by 50% since 1990, although this trend is slowing down

The total growing stock of European forests adds up to 34 900 million m<sup>3</sup>, of which about 84% is located in forests available for wood supply. On average, there are 169 m<sup>3</sup> of growing stock per ha, which is 40 m<sup>3</sup> per ha more than thirty years ago.



## European forests are a major carbon sink; carbon stock increases in forests and in wood products



Between 2010 and 2020, the average annual sequestration of carbon in forest biomass reached 155 million tonnes in the European region. In the EU-28, sequestration corresponds to around 10% of gross greenhouse gas emissions. In the period 1990-2015, the carbon stock in harvested wood products increased from 2.5 to 2.8 tonnes of carbon per capita, thus contributing to CO<sub>2</sub> emission reductions.

# The (old) timber world

European timber market  
includes  
Russia and Belarus

Timber  
(packaging industry)  
is sustainable

Climate crisis  
is a next generation problem

The timber industry  
contributes to  
climate protection

Energy  
is cheap and always  
available

Timber  
is cheap and always  
available

Transport is cheap and  
truck drivers are always  
available

No war  
in Europe

Pallets and wooden  
packaging is cheap and  
always available



THE PALLET SYSTEM.



The new  
timber  
world order

70<sup>TH</sup> FEFPEB CONGRESS

Firenze ■ September 2022

Vision on certification and sustainability by the open pallet pool

# The new (timber) world

**Energy crisis**

**Climate crisis is here:  
Extensive forest fires,  
extreme droughts,  
pest infestations, storms**

**EU policy**  
European Green deal  
EU Biodiversity strategy 2030  
EU Forest strategy 2030



**Global timber market  
(without Russia and  
Belarus)**

**War in Ukraine  
and EU sanctions**

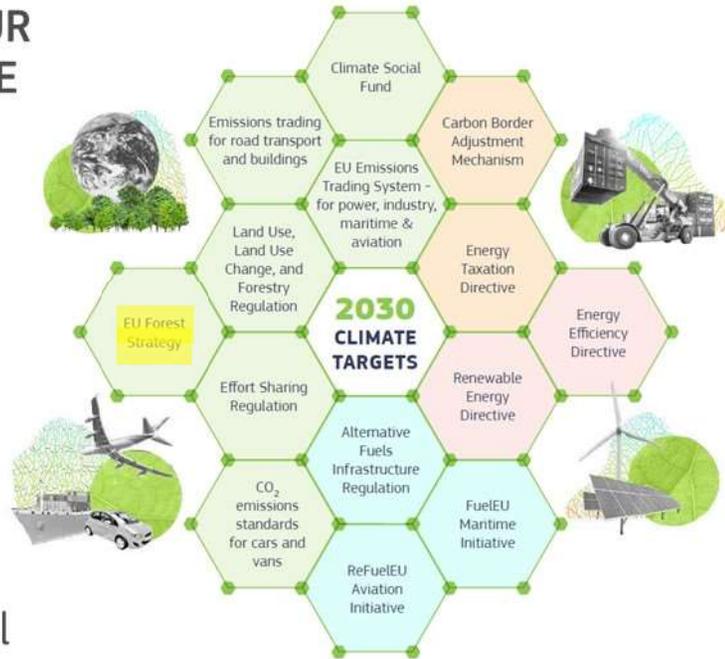
**High and volatile  
timber prices**

**Supply chain  
disruption**

**Shortage of  
employees and  
truck drivers**

# EUROPEAN GREEN DEAL

REACHING OUR  
2030 CLIMATE  
TARGETS



European Commission  
#EUGreenDeal

## EU legislation

and other policies and instruments affecting forests

### Fit for 55 package

EU Nature legislation

EU Timber Regulation

LULUCF Regulation

Renewable Energy Directive

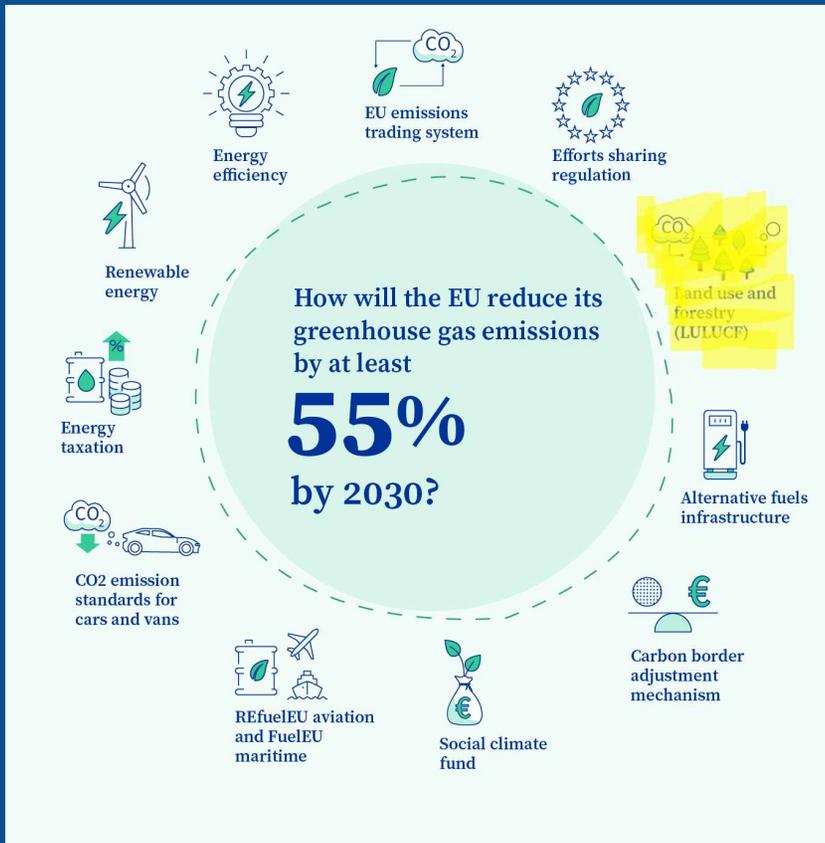
Rural Development Fund

Research support

Bioeconomy Strategy

EU LIFE programme

Forest Reproductive Material Directive



## EU Fit for 55 package

The LULUCF rules address the carbon footprint of activities related to the **conversion, use and management of land and forests** for both human and environmental benefits. These activities can occur in areas such as grassland, agricultural land and forests.

# EU Forest strategy 2030

## EU Forest strategy 2030

“We must ensure that the amount of wood we use remains within the sustainability limits.”

 EU Forest strategy 2030

“We will need larger, healthier and more diverse forests than we have today.”

 EU Forest strategy 2030

“We must equally importantly guarantee the availability of wood.”

 EU Forest strategy 2030

“It is crucial that we optimize the use of wood in line with the **cascading principle**. Wood should be used as much as possible for long-lived materials and products.”

 EU Forest strategy 2030

“We must ensure that the amount of wood is optimally utilized in line with the **circular economy** approach. Respect for circular economy principles is crucial.”

 EU Forest strategy 2030

## EU Forest strategy 2030

calls for a circular economy  
and long life cycle of wood products

**“Respect for circular economy principles is crucial.”**

**“Priority should be on better using, reusing and recycling  
all wood-based products, as enhanced circularity of products  
offers a possibility of maintaining all wood-based products longer in the  
economy for the multiple uses.”**



EU Forest strategy 2030

# EUROPEAN GREEN DEAL

## REACHING OUR 2030 CLIMATE TARGETS



### New EU forest strategy for 2030 To improve the quantity and quality of EU forests

The new EU forest strategy will support the socio-economic functions of forests for thriving rural areas and boosting forest-based bio-economy within sustainability boundaries. It will also protect, restore and enlarge the EU's forests to combat climate change, reverse biodiversity loss and ensure resilient and multifunctional forest ecosystems by

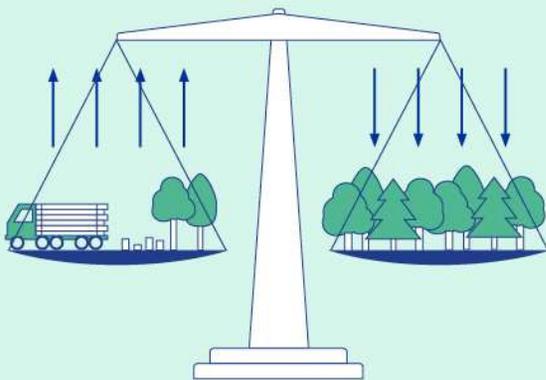
- promoting the sustainable forest bioeconomy for long-lived wood products
- ensuring sustainable use of wood-based resources for bioenergy
- promoting non-wood forest-based bioeconomy, including ecotourism
- developing skills and empowering people for sustainable forest-based bioeconomy
- protecting EU's last remaining primary and old-growth forests
- ensuring forest restoration and reinforced sustainable forest management for climate adaptation and forest resilience
- re- and afforestation of biodiverse forests, including by planting 3 billion additional trees by 2030
- providing financial incentives for forest owners and managers for improving the quantity and quality of EU forests

The strategy also focuses on

- strategic forest monitoring, reporting and data collection
- developing a strong research and innovation agenda to improve our knowledge on forests
- implementing an inclusive and coherent EU forest governance framework
- stepping up implementation and enforcement of existing EU acquis

# EU Forest strategy 2030

## Increased target for carbon removals



Under the current rules, EU member states must ensure that:

emissions from land use and forestry are **compensated by an equivalent removal of CO<sub>2</sub>** within the sector for the period 2021-2030 ('no debit' rule)



The new rules aim to set a more **ambitious EU-level target** for carbon removals by 2030.

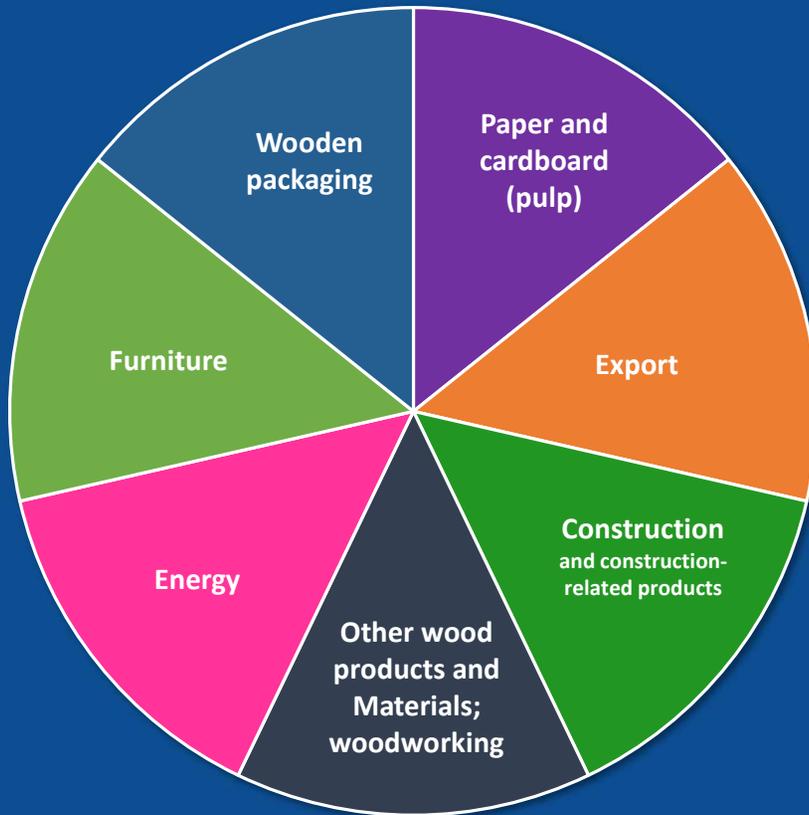
\*Mt=Million tonnes of CO<sub>2</sub> equivalent

Source: EEA

Increase of more than 20 %

## Timber industry: Demand and use of timber

Presentation does not correspond to real market shares



**More demand (sustainability)**

EU Forest strategy 2030  
EU Biodiversity strategy 2030

- Carbon storage
- Biodiversity
- Forest protection

**More demand (markets)**

**Energy**

**Export:**  
China and USA

“The demands on forests include  
**product supply,**  
a role in **bioeconomy**  
as well as role in

**climate change mitigation**

and provision of many other  
ecosystem services like  
**purification of air and water,  
biodiversity and recreation.”**

Forest Europe: State of Europe’s forests 2020



# Sustainability of the Timber industry

70th FEFPEB CONGRESS

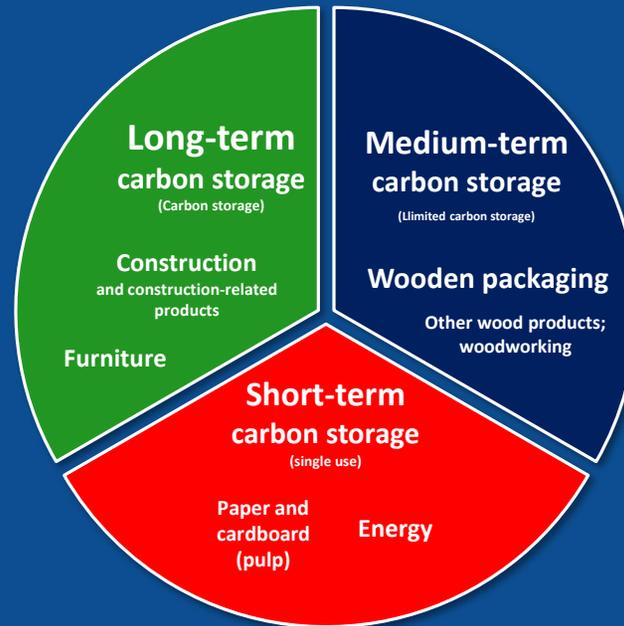
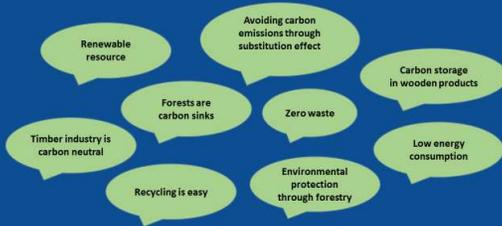
Firenze • September 2022

Vision on certification and sustainability by the open pallet pool



# Sustainability of the timber industry

Timber is sustainable



“Sustainably-produced and long-lived wood-based products can help to achieve climate neutrality by storing carbon and substituting fossil-based materials.

The carbon removal period can be significantly extended when transforming woody biomass into wood materials and products with a long-life cycle. Wood should be used as much as possible for long-lived materials and products to substitute their carbon intensive and fossil-based counterparts.”

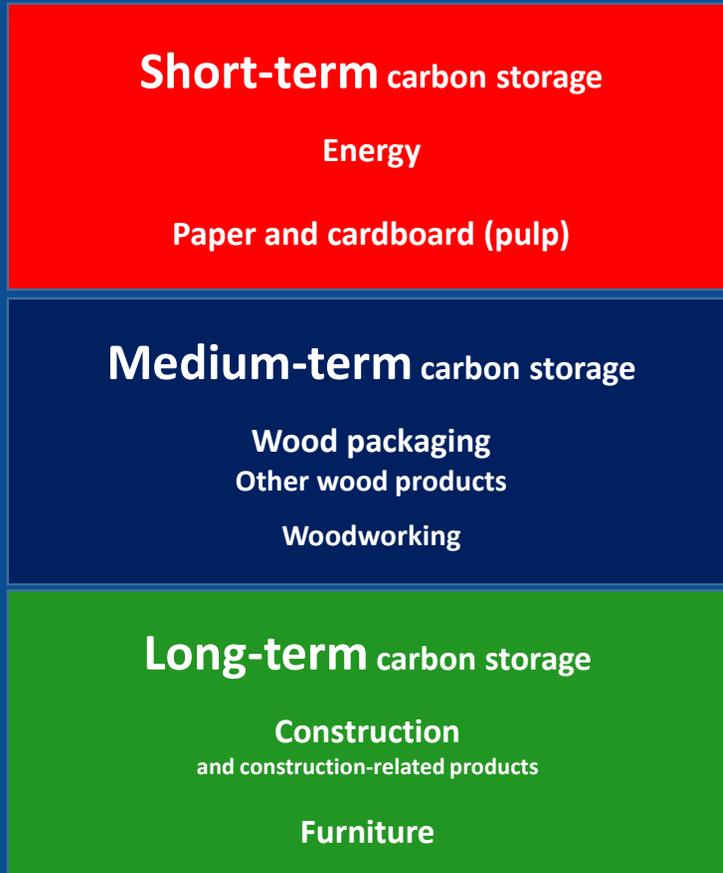
EU Forest strategy 2030

- Forests are carbon sinks
- Renewable resources
- Substitution avoids carbon emissions

- Carbon storage**
- Ensuring the availability of wood
- Forest protection
- Zero waste
- Circularity
- Cascading use of wood

# Sustainability of the timber industry

## Carbon storage



# Sustainability of the Wooden pallet and packaging industry

# Sustainability of the Wooden pallet and packaging industry

- Forests are carbons sinks ●
- Renewable resources ●
- Substitution avoids carbon emissions ●
- Carbon storage ● ●
- Ensuring the availability of wood ● ●
- Forest protection ● ●
- Zero waste ● ●
- Circularity ● ● ●
- Cascading use of wood ● ●

## Sustainability of the Wooden pallet and packaging industry

“It is crucial that, when building a sustainable and climate-neutral economy, we optimise the use of wood in line with the **cascading principle**.

This means that wood should be used as much as possible for long-lived materials and products to substitute their carbon intensive and fossil-based counterparts.”

EU Forest strategy 2030

“**Short-lived wood-based products** also have a role to play, especially in substituting their fossil-based counterparts. Wood used for the production of short-lived products and also for energy production should rely on wood that is unsuitable for long-lived materials and products, and secondary woody biomass such as sawmill by-products, residues and recycled materials.”

EU Forest strategy 2030

“Respect for **circular economy** principles is crucial.”

“Priority should be on better using, reusing and recycling all wood-based products, as enhanced circularity of products offers a possibility of maintaining all wood-based products longer in the economy for the multiple uses.”

EU Forest strategy 2030

# Sustainability of EPAL

# What is EPAL ?

Quality assurance.

Standardization.

Safety in logistics.

Open pallet exchange pool.

Resilience of (pallet) logistics.

Part of the wooden packaging industry.

Circular economy.



is Circular Economy !



adds  
**circular economy**  
to the wood packaging industry



**reuse  
repair  
recycle**



Vision on sustainability



better Circular economy  
more Circular economy



# better Circular economy

enhanced **Quality classification**

modernized **Terms of Exchange**

Permission of **repair with reclaimed components**  
(only class C pallets)

permanent **Quality inspections**

more **Certification**

**DIGITAL EPAL Euro Pallet**



# Quality classification and Terms of Exchange



# EPAL QUALITY CLASSIFICATION

Recommendations  
for the use and exchange  
of EPAL Euro pallets

better   
Circular economy

NEW		MCH-SUITABILITY* 
<b>Characteristics:</b> - ISPM 15 / IPPC - chamber-dried - 800 x 1,200 x 144 mm - guaranteed nominal load: 1,500 kg - max. 22% residual moisture content	Rough-sawn, consistent and repetitive nail positioning.	EPAL marking on all 4 corner blocks.
	No signs of use, light-coloured wood.	All bottom boards are chamfered on both sides.
	All 4 corners of the pallet are chamfered at an angle of 45°.	IPPC marking, licence number-year-month, control staple. 
*MCH = suitable for use in machines, with conveyor technology and high-bay racking in accordance with the GS1 DACH recommendation "Settings for monitoring in automated conveying and warehouse systems"		
<b>CLASS A</b>		<b>MCH-SUITABILITY* </b>
<b>Characteristics:</b> - pallet has already been used - mainly light coloured - NOTE: Lightness alone is not a guarantee of a particular quality class. The criteria for the other classes must also always be checked. - surface moisture due to use / environment is permitted	No adhesions e.g. cardboard, foil, tapes, labels. Some residue permitted.	At least one EPAL marking must be legible on each side.
	Signs of use. No dirt or contamination which may be transferred to the payload.	Some splitting permitted in the wood.
	Inspection criteria: No twisted blocks, fork clearance, legs firmly attached.	May have been repaired. Repair marking nail as proof of licensed repair. 
*MCH = suitable for use in machines, with conveyor technology and high-bay racking in accordance with the GS1 DACH recommendation "Settings for monitoring in automated conveying and warehouse systems"		
<b>CLASS B</b>		<b>MCH-SUITABILITY* </b>
<b>Characteristics:</b> - pallet has already been used - mainly dark coloured - surface moisture due to use / environment is permitted	No adhesions e.g. cardboard, foil, tapes, labels. Some residue permitted.	At least one EPAL marking must be legible on each side.
	Signs of use. No dirt or contamination which may be transferred to the payload.	Some splitting permitted in the wood.
	Inspection criteria: No twisted blocks, fork clearance, legs firmly attached.	May have been repaired. Repair marking nail as proof of licensed repair. 
*MCH = suitable for use in machines, with conveyor technology and high-bay racking in accordance with the GS1 DACH recommendation "Settings for monitoring in automated conveying and warehouse systems"		
<b>CLASS C</b>		<b>MCH-SUITABILITY* </b>
<b>Characteristics:</b> - pallet has already been used - mainly dark coloured - surface moisture due to use / environment is permitted	Adhesions, e.g. cardboard, foil, tapes, labels permitted. After removal, a higher classification is possible. 	At least one EPAL marking must be legible on each side.
	Signs of heavy use. No dirt or contamination which may be transferred to the payload.	Splitting permitted in the wood.
	Slightly twisted blocks ( $\leq 1$ cm protrusion). 	May have been repaired. Repair marking nail as proof of licensed repair. 
NOTE: Max. 1 nail shank visible per component, in total max. 2 nail shanks per pallet. The nail tips must not be visible or exposed.		

# EPAL

## TERMS of EXCHANGE

### Conditions for exchanging EPAL Euro pallets

better  Circular economy

TYPICAL DAMAGE AND FAULTS THAT RESULT IN LOSS OF EXCHANGEABILITY AND USABILITY:

<p>A board is missing in part or in full.</p>		
<p>A board is broken or split in such a way that more than one nail shank is visible.</p>		
<p>A board is broken crossways or at an angle.</p>		
<p>A block is missing or split in such a way that more than one nail shank is visible.</p>		
<p>One block is twisted and protrudes more than 1 cm beyond the outer edge of the pallet.</p>		
<p>EPAL marking is missing on both corner blocks of one long side.</p>		

# EPAL Innovation Lab

Development  
of the digital EPAL Euro pallet

better   
Circular economy





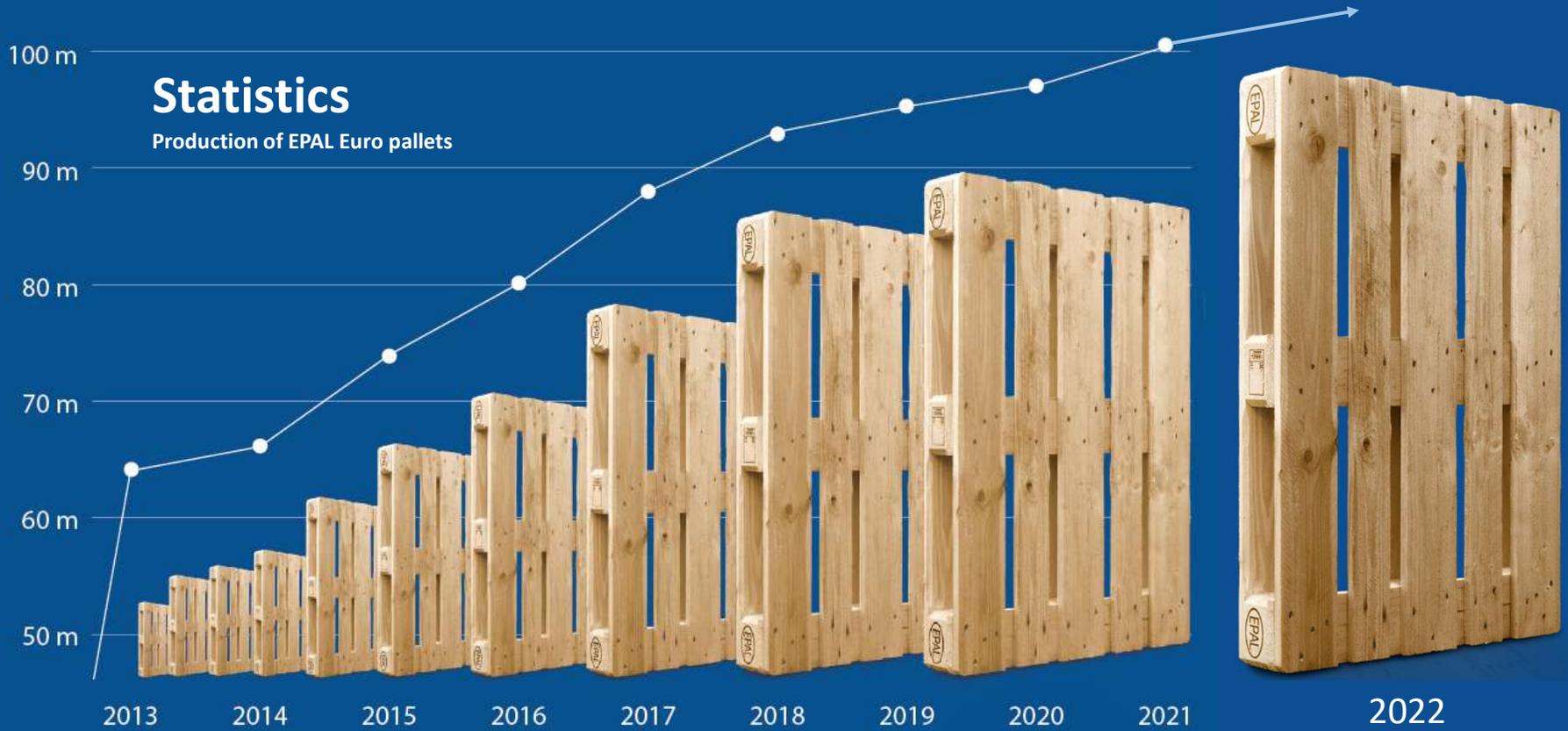
more Circular economy

70<sup>th</sup> FEFPEB CONGRESS

Firenze • September 2022

Vision on certification and sustainability by the open pallet pool

# more Circular economy





# Vision on certification

# Vision on certification



# Vision on certification

**Current survey:** approx. 75 % EPAL Euro pallets are made from certified timber

## Challenges:

- Partly insufficient volume of certified timber in several EPAL countries and regions
- Avoidance of longer transport routes for pallet timber
- Lack of certification of suppliers of manufacturers of EPAL Euro pallets
- Limited acceptance of certification, as timber from EU countries is almost exclusively timber from sustainable forests
- Insufficient possibilities for reliable and legally comprehensible control and guarantee
- Avoidance of disadvantages for small wood packaging companies

# Vision on certification

## Next steps:

- Transition period with quota schemes
- Specification of EPAL requirements on the origin of wood from sustainable forestry based on the EU Timber regulation and the EU Forest strategy 2030
- Establishment of a reliable control system within the framework of EPAL quality assurance
- Cooperation with certification providers to extend the system to more companies in the timber industry and the EPAL system

“Forests are a key ecosystem on our planet: without them, life as we know it now would not exist. Thus, protecting them is our essential task. Simultaneously, we depend on goods and services provided by forest ecosystems. Therefore, besides protecting the forests, we have to ensure their sustainable use.

That means the use of forests in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality, and their potential to fulfil, now and in the future, relevant ecological, economic, and social functions, at local, national, and global levels, in harmony with other ecosystems.”

Forest Europe, State of Europe's Forests 2020

GRAZIE.

