

«*Wood* Construction *in Ukraine: Recent developments and current direction*»

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4. Modern Ukrainian constructions.
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Introduction





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https://tickikids.ams3.cdn.digitaloceanspaces.com/z1.cache/gallery/activities/58840/image_62552c6a65cea8.22505895.jpg

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Introduction







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Introduction



Historical facts

The first wooden churches in Ukraine were known from the 10th century





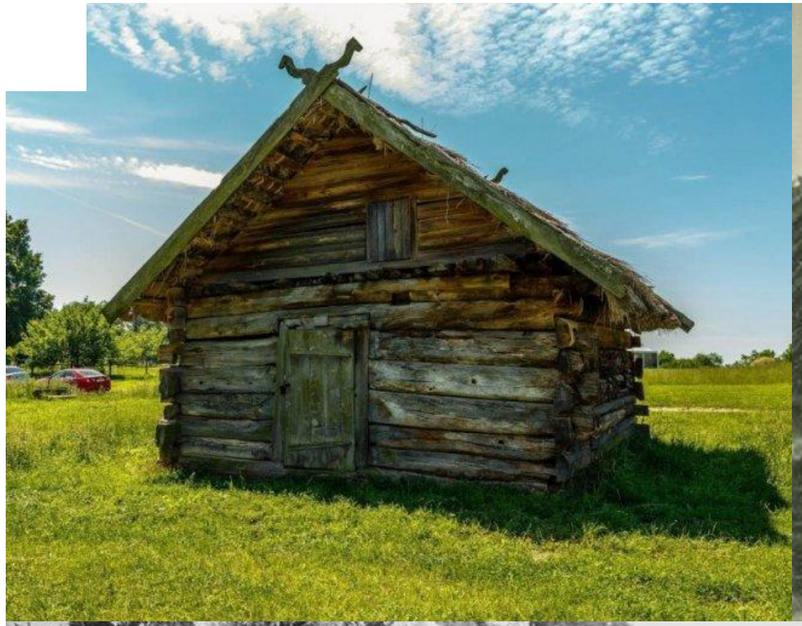
The architecture of the wooden temples of the Carpathian Ukrainians: culture and tradition. aspect / Yaroslav Taras

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Historical facts

The oldest wooden house in Ukraine was founded in the village of Samary, Ratniv district (Volyn region). It is noted that the year of construction dates back to 1587 (it was a house without a chimney). And this is the oldest house in Ukraine. The house was discovered by architect Serhiy Vergovsky in 1970.









https://www.volynpost.com/news/

Traditional building technique

- Clay, straw and wood are the most common and locally available construction materials in UA
- Traditional building technique for Mazanka (ukrainian country house): Walls made of a frame, limestone or raw bricks, coated with clay. Raw brick is briquetted by a mixture of clay and straw and dried in the sun.
- A big part of the actual housing stock in rural areas are Mazankas
- The construction technique is still used in rural areas, but the image of Mazankas is rather low: (poorness and an old-fashioned life style with small windows, small rooms, low technical standards)

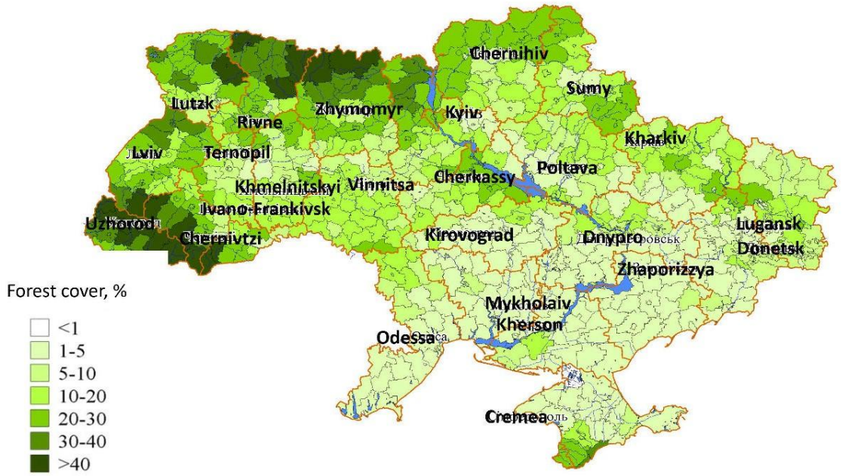


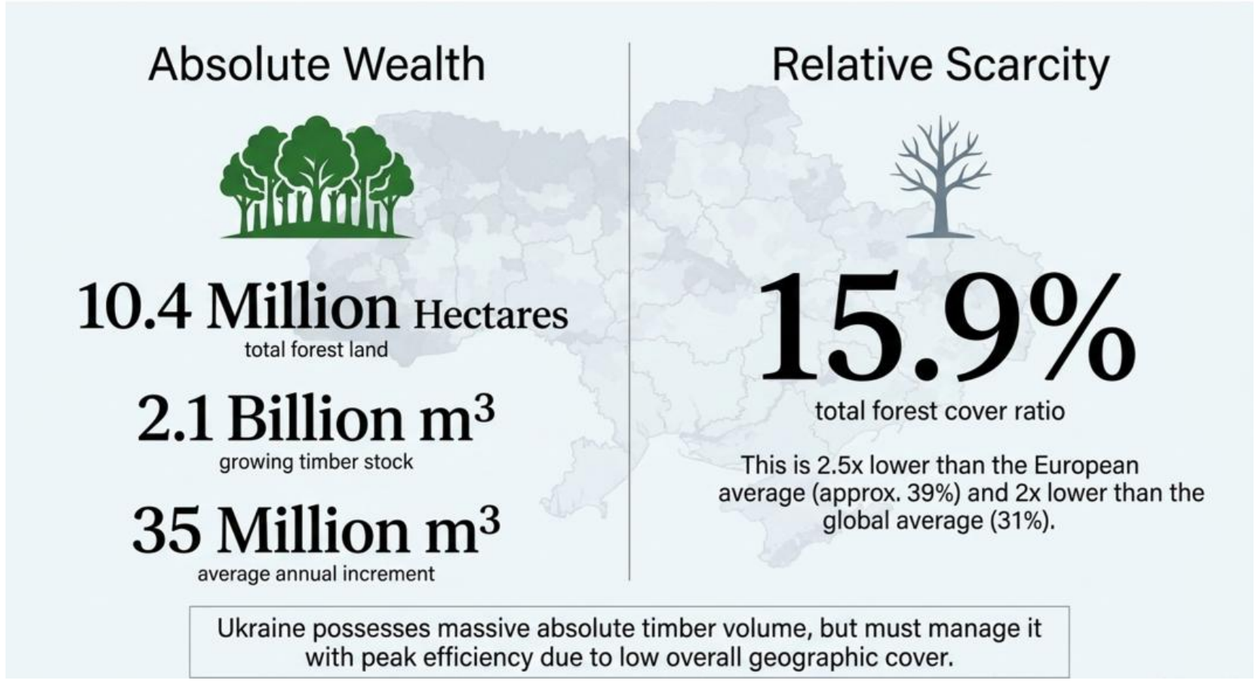
Typical Mazanka

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Wood-processing industry status quo





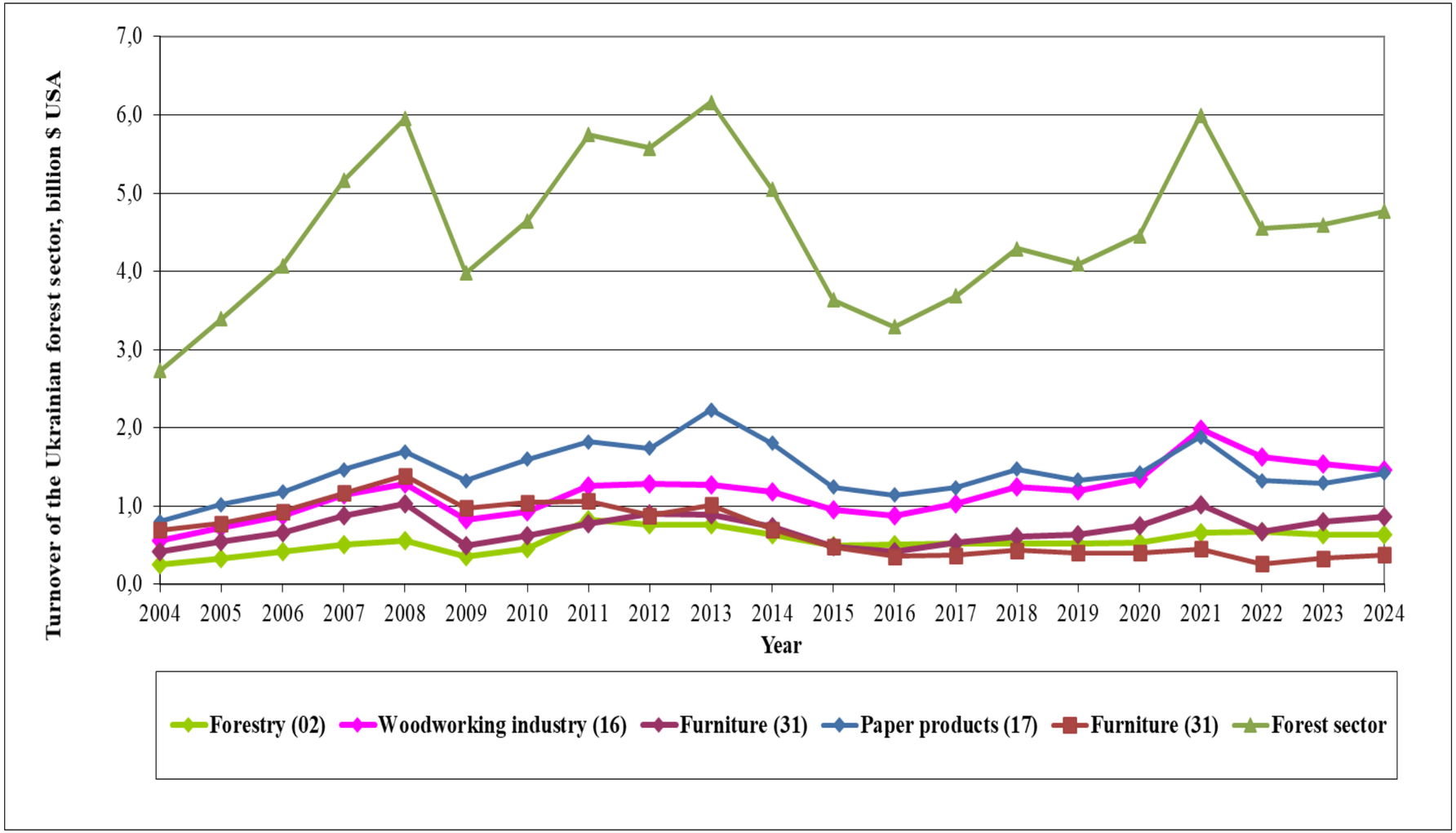
On the one hand, it is reasonable to regard Ukraine as a country rich in forest resources, since: (a) the total area of forest land in Ukraine amounts to **10.4 million hectares**; (b) the growing timber stock is estimated **at 2.1 billion m³**; (c) the total average increment of growing stock reaches **35 million m³**.

On the other hand, Ukraine can be considered poor in forest resources, since the forest cover ratio amounts to only **15.9% of the country's total area**. This is significantly lower than the European average (2.5 times less, as forests cover roughly 39% of the EU's land area) and also lower than the global average (about 2 times less, as forests cover approximately 31% of the world's total land area).

Wood-processing industry status quo

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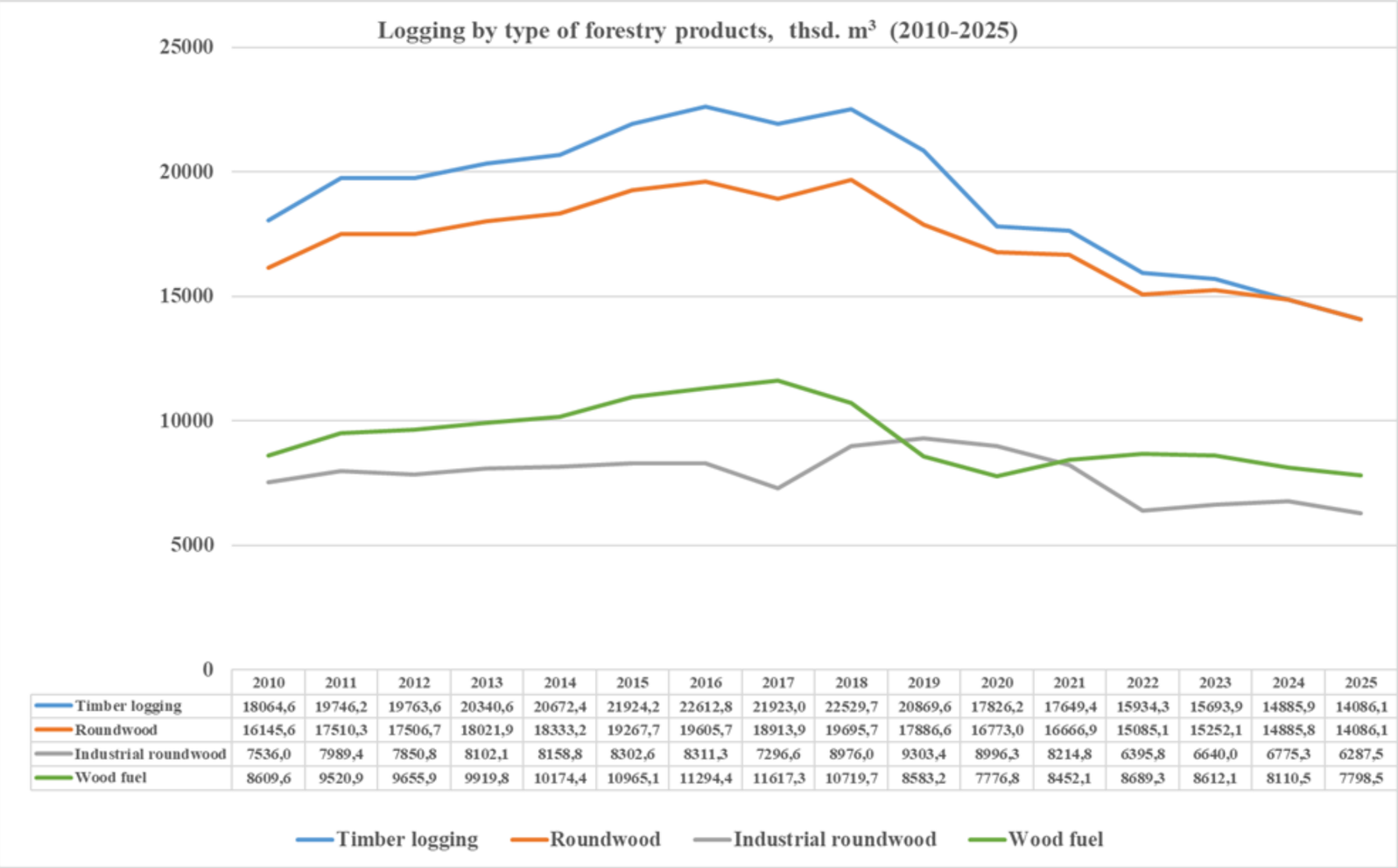


Development of the Ukrainian forest sector's turnover expressed in USD (State Statistics Service of Ukraine, 2025

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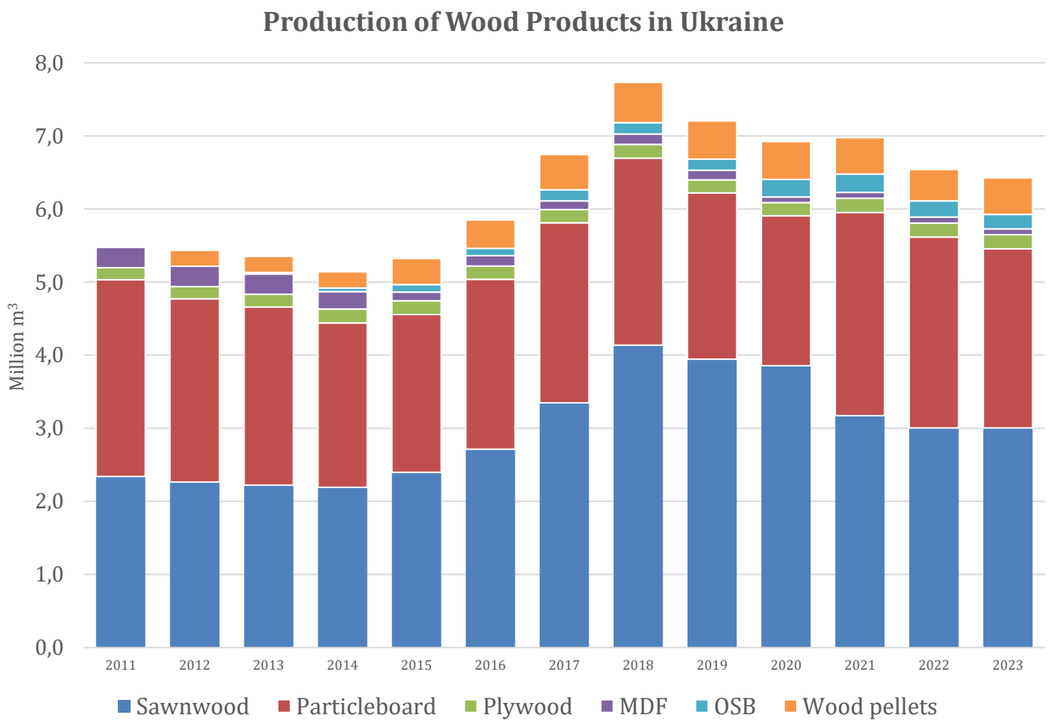


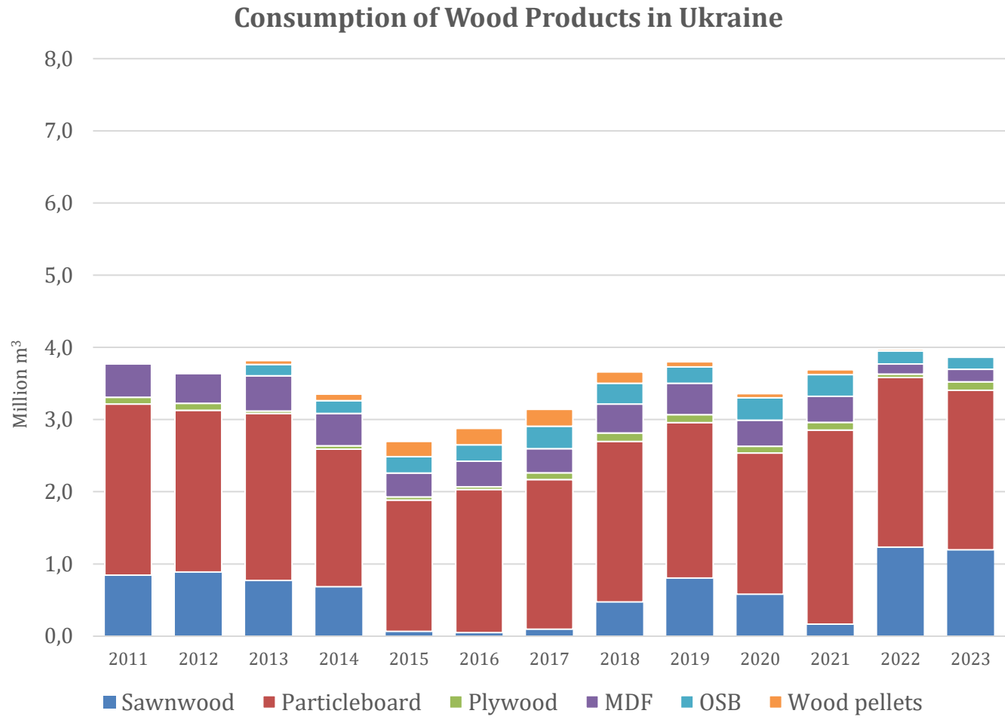
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Timber logging	18064,6	19746,2	19763,6	20340,6	20672,4	21924,2	22612,8	21923,0	22529,7	20869,6	17826,2	17649,4	15934,3	15693,9	14885,9	14086,1
Roundwood	16145,6	17510,3	17506,7	18021,9	18333,2	19267,7	19605,7	18913,9	19695,7	17886,6	16773,0	16666,9	15085,1	15252,1	14885,8	14086,1
Industrial roundwood	7536,0	7989,4	7850,8	8102,1	8158,8	8302,6	8311,3	7296,6	8976,0	9303,4	8996,3	8214,8	6395,8	6640,0	6775,3	6287,5
Wood fuel	8609,6	9520,9	9655,9	9919,8	10174,4	10965,1	11294,4	11617,3	10719,7	8583,2	7776,8	8452,1	8689,3	8612,1	8110,5	7798,5

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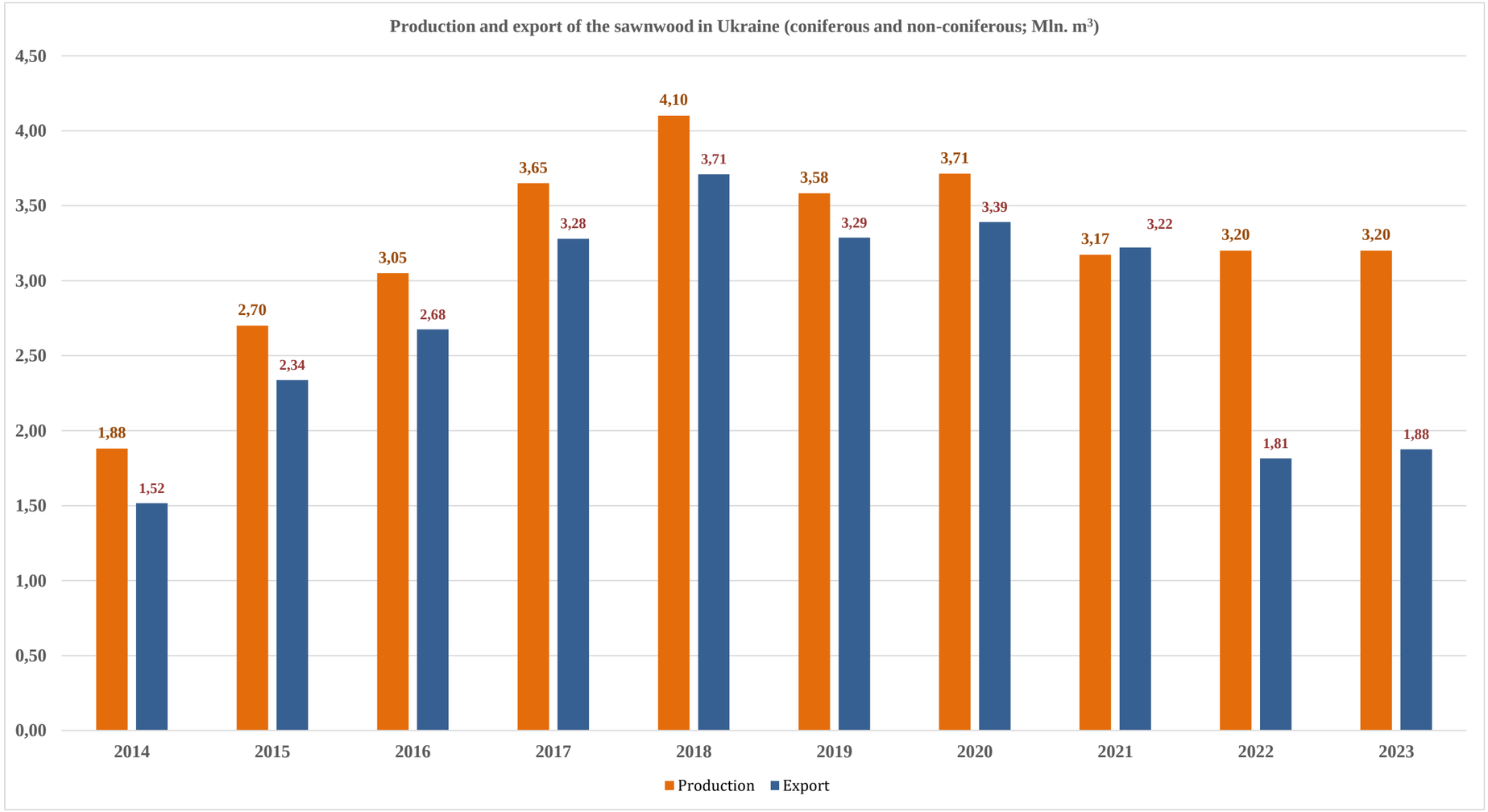




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In which way 12.8 million m³ of timber harvested in 2018 (60% of the total harvest) was used?

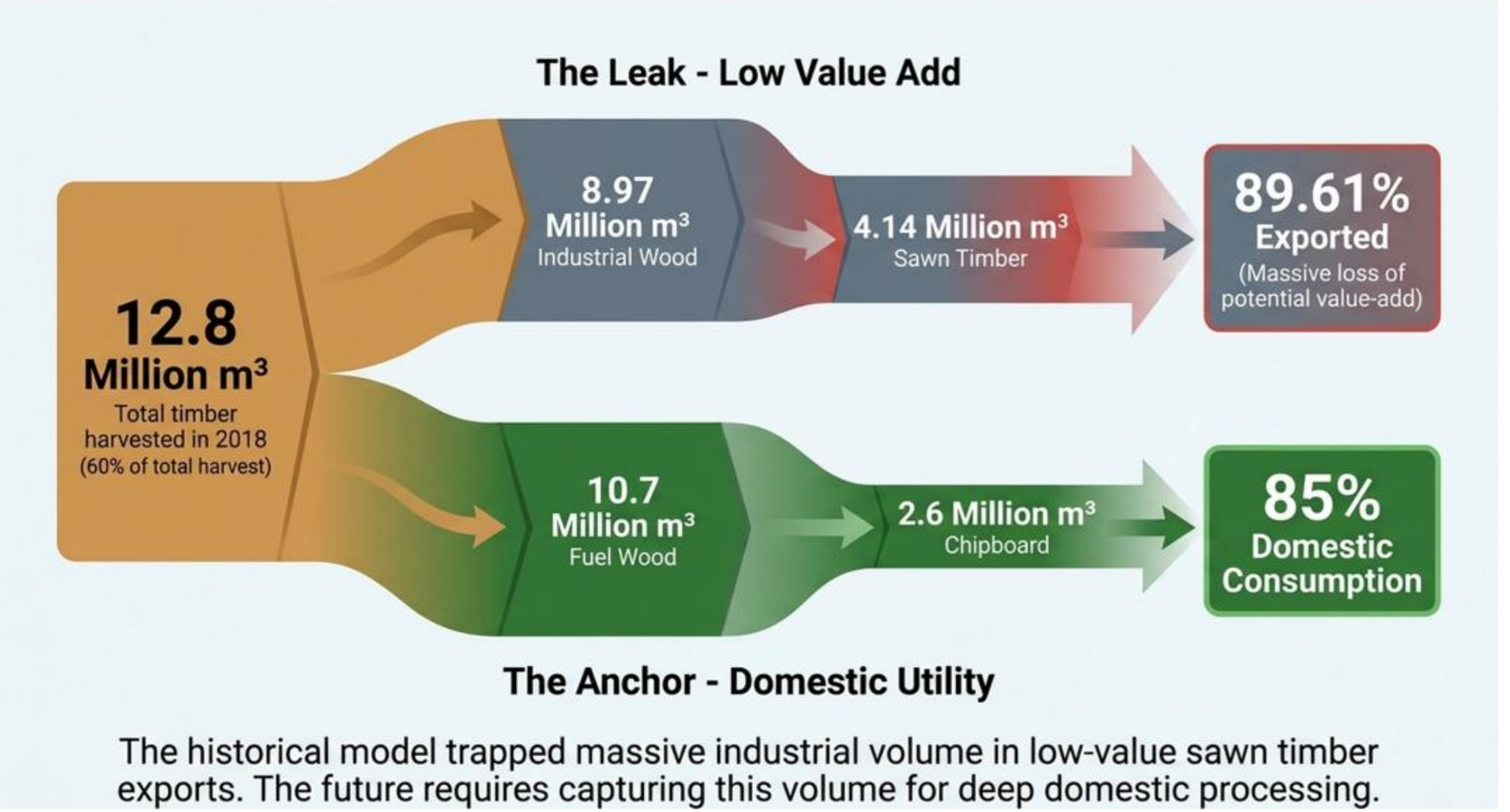
In 2018, **8.28 million m³** of industrial wood was used to produce **4.14 million m³ of lumber** (92% of the total volume of industrial wood) **and 3.9 million m³ of fuel wood** to produce **2.6 million m³ of particleboard** (37% of the total volume of fuel wood).



Word-processing industry status quo

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Modern Ukrainian constructions

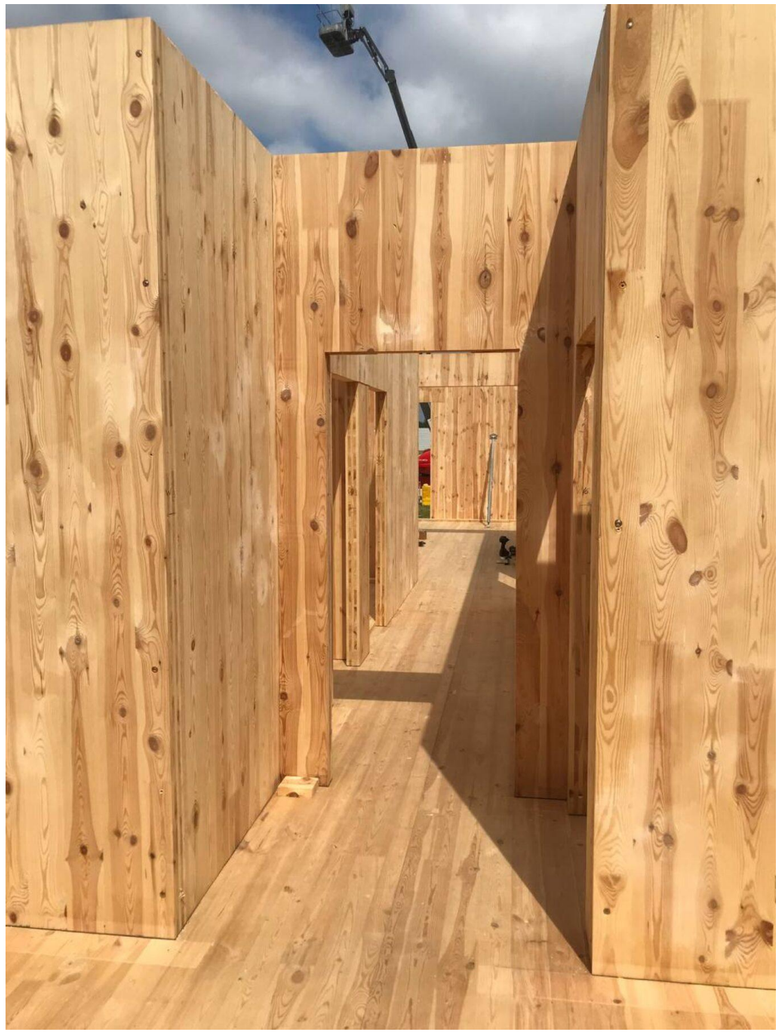


A family house built using CLT panels on a site with complex terrain. Photo courtesy of REZULT UKRAINE

Modern Ukrainian constructions

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CLT panels do not require finishing and can immediately become a spectacular element of the interior. Photo provided by REZULT UKRAINE



Installation of CLT panels on the construction site is a clean and fast process with minimal labor costs. Photo courtesy of REZULT UKRAINE

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Modern Ukrainian constructions

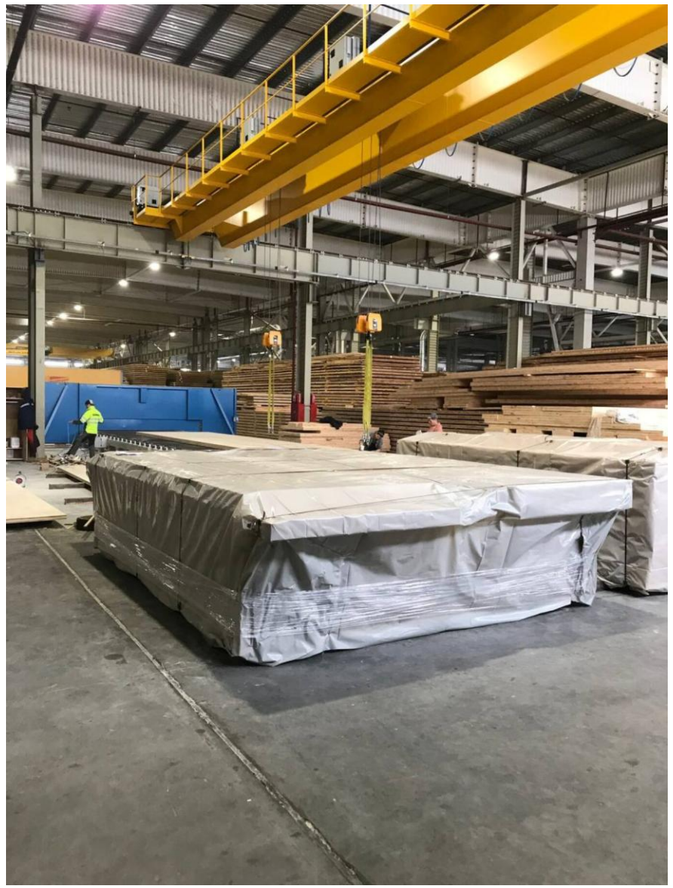


The use of wooden structures in recreational facilities helps create a relaxed atmosphere. Photo courtesy of YOD Group

Modern Ukrainian constructions

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In the workshop of the Ukrainian manufacturer of CLT panels REZULT UKRAINE. Photo provided by REZULT UKRAINE



The UNBROKEN prosthetics and orthotics workshop in Lviv was built using environmentally friendly glued wood. Photo courtesy of REZULT UKRAINE

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Modern Ukrainian constructions





Wooden framing build technology is becoming the most popular and used in the USA, Canada, Germany and more recently in Ukraine. Our company builds the wooden framing houses as warming, ecological and economical. Besides, the construction takes a short time from three to four months.

https://www.sofiavbk.com/en/our-projects/44-vishenki

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Modern Ukrainian constructions





The construction of private houses and cottages are developing rapidly. So much more relevant and became the construction structures as modular houses. “VBK “Sofia” is the leading company in Ukraine from the manufacture of wooden modular houses.

https://www.sofiavbk.com/en/

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Modern Ukrainian constructions



Glulam timber is the material which allows to realize everything architectural and even artistic ideas for a wooden house! Wooden houses from glulam timber from “VBK “Sofia'' is the decision of the people which wants to the ideal choose the house with the computation of the square and everything requirements.

https://www.sofiavbk.com/en/

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Modern Ukrainian constructions











Glulam timber in the Carpathian Region of Ukraine.

Straw-clay-wood prefabrication: Technology

- Very good insulation: 40 cm façade panels reduce heating and cooling up to 80% compared to standard walls;
- Wood-straw panels plastered with clay have Fire resistance class REI 60
- Exceptional sound insulation 56 Db (40 cm façade panels)
- Space requirements for production plant: approx. 1200 sqm covered production space, approx 250 sqm storage
- Production doesn't require expensive equipment
- Prefabrication allows for fast construction and decreases materials usage
- Current legislation: Wooden frame construction allowed up to 3 stories, more with concrete or metal frame construction
- Straw-clay-wooden prefabricated panels have great potential in UA to become available as non-load bearing wall material as alternative to standard insulation materials (foam concrete, mineral wool, foam plastics, etc.)



Panels and houses produced by Life House Building Company
Source: https://www.instagram.com/life.house.buildin

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КАРКАС
БУДИНКУ СЕРВУС

Каркасно-панельний будинок Сервус, технологія будівництва якого передбачує використання СІП-панелей зводиться у 3 рази швидше у порівнянні з аналогами, а будівельні роботи можуть виконуватися навіть взимку

WWW.SERVUS.UA



SERVUS is a national producer and the Ukraine-wide leader in the sphere of constructing energy efficient houses after SIP technology. We have built over 1911 projects: houses, recreation centers, hotels, offices, farms, warehouses and apartment blocks. And this proves our irreproachable leadership on the market. SERVUS was started in 2005. We specialize in projecting, constructing and reconstructing individual houses and household buildings. In 2008 we started a new line of constructing activity after up-to-date technologies having offered short-time erecting available accommodation, the quality of which corresponds to European standards, and ever since the sphere of our service embraces key-ready work, assurance of highly technological construction using newest heat insulation materials.

https://servus.ua/en/o-kompanii/

Modern Ukrainian constructions



TECHNOLOGY

Basement— monolithic reinforced concrete.
Bearing walls — SIP (164mm).
Roofing — bituminous or metal tile.
Exterior finishing — plaster, tile, facing stones.

NOTICE

Exterior finishing can be changed (plaster/brick/tile etc.) based on your suggestions. Also our architectural department can alter existing plans according to your wishes.

COST

Construction cost estimates are calculated individually considering your demands and desires. We can provide you with detailed construction cost estimates for desired house for a token fee.



The Drohobych community (Lviv region) accepts internally displaced persons who were forced to save their lives. To solve the problem of providing housing for internally displaced persons in the Drohobych community, work is underway to build a prefabricated frame multi-apartment residential building on P. Orlyka Street in the city of Drohobych, Lviv region. The project provides for the construction of a two-story residential building with a total area of 777 sq. m. for 12 apartments for temporary residence of 60 internally displaced persons. The estimated cost is 24,388,980 thousand UAH.

Modern Ukrainian constructions

BetaPort Systems

BetaPort Systems is a German company that developed a modular, timber-based circular construction system. It enables the rapid creation, expansion, modification, dismantling, and reuse of spaces, allowing building materials to be preserved in line with specific needs and contexts. The first project in Ukraine to utilize BetaPort Systems technology was a leisure and community space for internally displaced persons at the Mariapolis modular town in Lviv. The project was implemented with the support of GIZ.







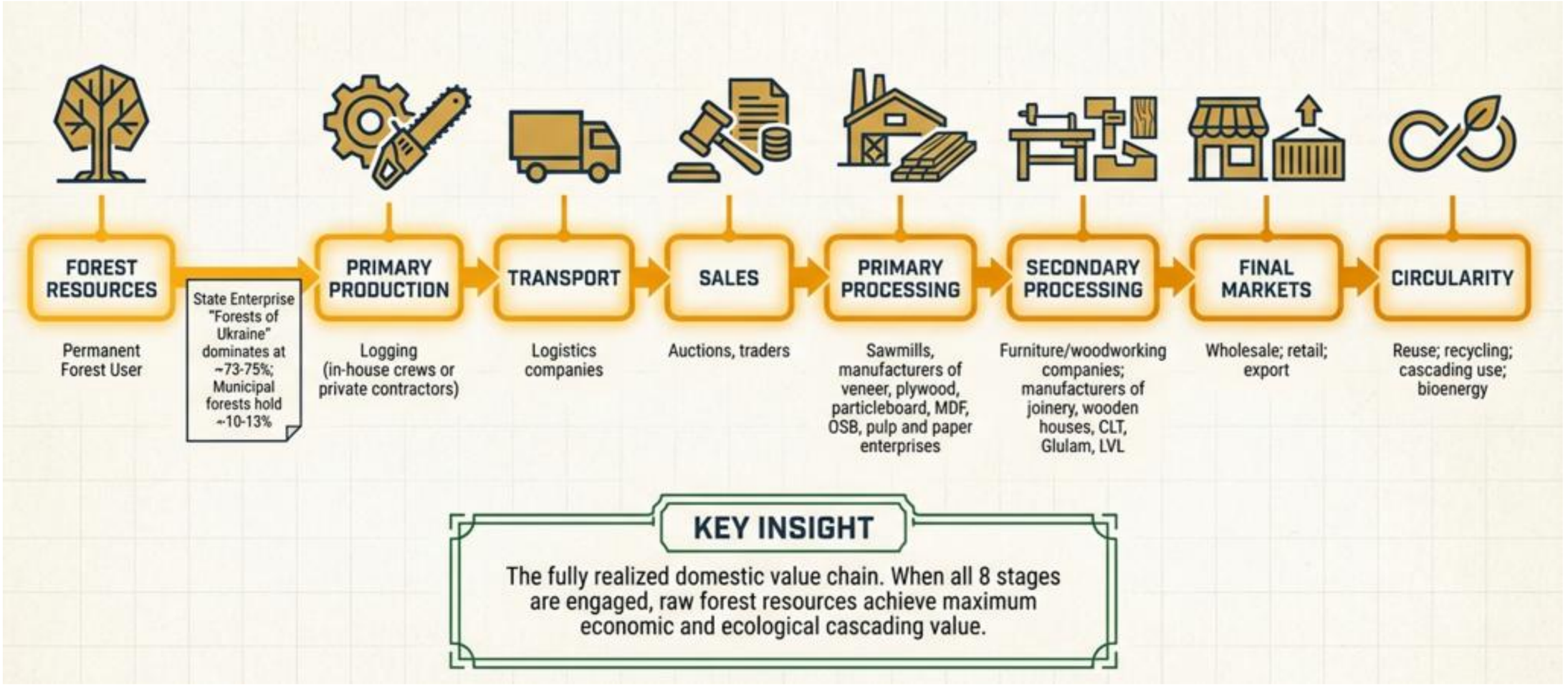


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Can Ukraine's existing timber supply chain provide sufficient quantity, quality, processing capacity and logistical reliability to support large-scale wood-based reconstruction, and where are the critical bottlenecks that constrain this transition?

TYPICAL TIMBER SUPPLY CHAIN



Conclusions

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UKRAINIAN TIMBER SUPPLY CHAIN MAP

Post-War Context & Global Market Integration

FOREST RESOURCES
10.4M ha | 2.3B m³ stock
Pine 33% | Oak | Beech | Spruce

HARVESTING & EXTRACTION
~15M m³/year harvested
Main: sawlogs, pulpwood, fuelwood

PRIMARY PROCESSING
Sawmills (25% of sector)
Veneer | Plywood | Pellets

SECONDARY PROCESSING
Furniture | Joinery | Flooring
Engineered Wood | Packaging

EXPORT MARKETS
EU ~70%
Asia
MENA
$1.4B+ exports
Rail → West
Sea → Black Sea

REGULATORY & INSTITUTIONAL
State Forest Enterprises 80%
Private/Communal 20%
State Forest Resources Agency
E-Auctions (Prozorro)
EUDR Compliance | EUTR
FSC/PEFC Certification
Roundwood Export Ban

DOMESTIC MARKET
Construction | Reconstruction
Energy (firewood, pellets)
Furniture | Housing

KEY CHALLENGES & RISKS

WAR IMPACT
10%+ forests occupied
83M m³ timber lost
UXO contamination
40-50% processors closed

GOVERNANCE
Single-agency control (SFRA)
Conflict of interest
Corruption in auctions
Illegal logging "with papers"

MARKET
Raw material export ban
Low value-added dominance
Logistics disruption
Energy crisis

COMPLIANCE
EUDR due diligence
FSC certification gaps
Traceability weaknesses
EU high-risk perception

GREEN RECOVERY & COMPETITIVENESS PATHWAYS

VALUE CHAIN UPGRADE
Engineered wood products
Cross-laminated timber
Bio-based construction

DIGITALIZATION
E-tracking & geolocation
Remote sensing monitoring
Digital market platforms

CIRCULAR BIOECONOMY
Wood waste cascading
Pellet & bioenergy
NWFP monetization

EU INTEGRATION
EUDR low-risk status
Standards harmonization
Green finance & carbon markets

8,000+	120,000+	$1.4B	$909M	4.73M ha	15.9%
Enterprises	Employees	Wood Exports (2024)	Furniture Exports	FSC Certified	Forest Cover

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10th-Century Roots. The ancient wooden temples of the Carpathian Ukrainians represent a millennium of unbroken architectural tradition and cultural heritage.



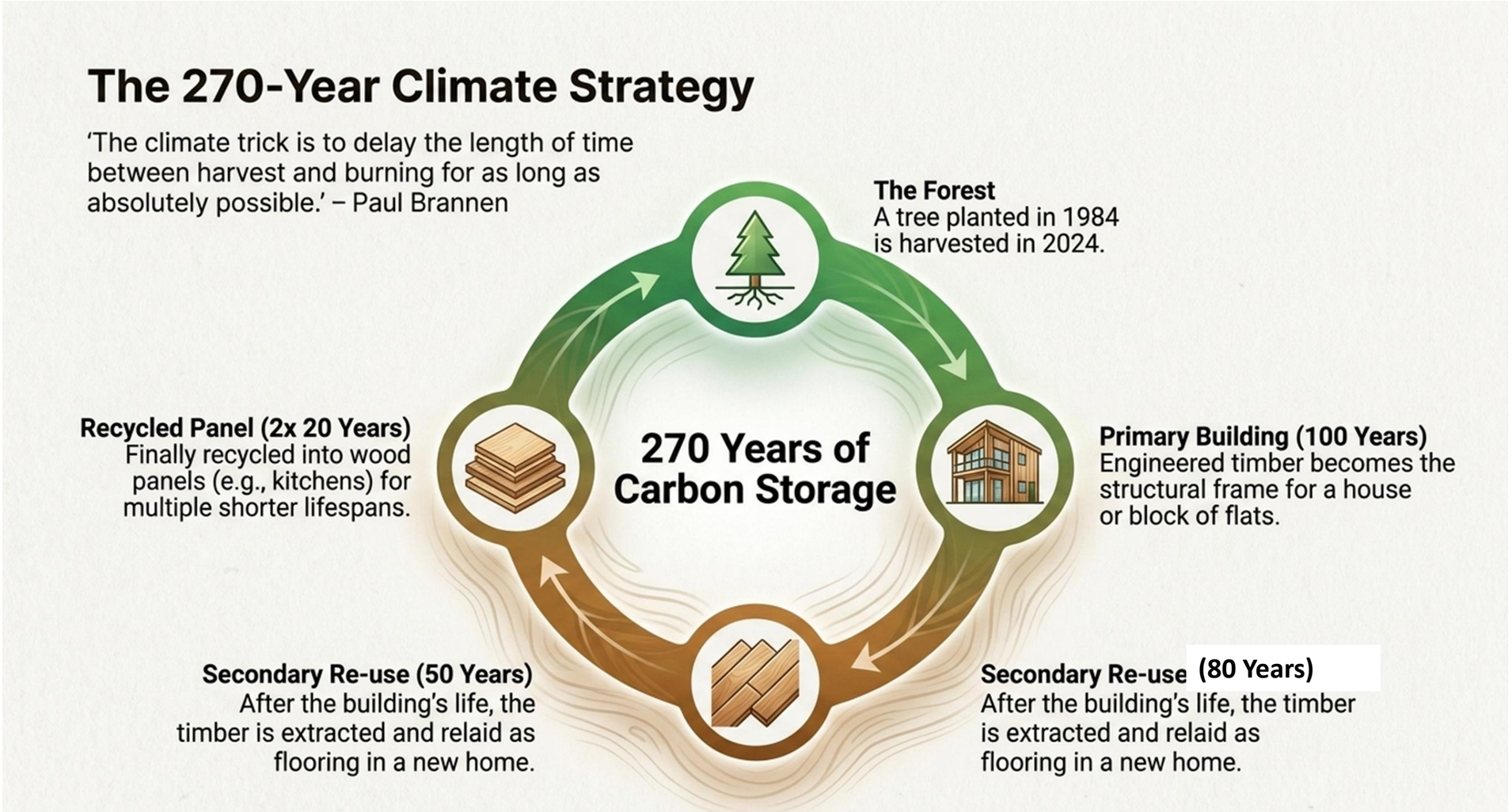
The 1587 Samary House. Located in the Volyn region, this structure stands as the oldest known wooden house in Ukraine—a testament to the enduring nature of local timber craftsmanship.

Ukraine does not just harvest wood; it has been engineering it for over a thousand years.

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Wooden building importance: global and regional context



What a life! 270 years!

Paul Brannen. Timber! How wood can help save the world from climate breakdown

Wooden building importance: global and regional context

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The Past



The dominance of **low value-added raw material export** belongs to the past.

The Horizon



Mass production of **CLT** and **Glulam** integrated with European norms.



Transition to a **zero-waste, circular economy** utilizing pellets and biofuel.

Ukraine's rebuilding is an opportunity to forge a **world-leading, high-value, sustainable timber economy.**

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Thank you for your attention!

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