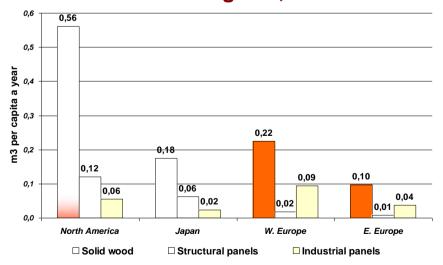
Use of wood in CONSTRUCTION present situation and challenges

Kārlis Būmanis Forest and Wood Product R&D Institute, LATVIA

Consumption of wood products in selected world regions, 2002



Consumption of wood products in EU,

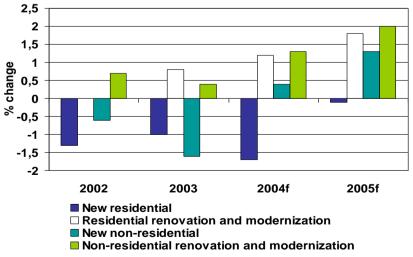
m³/person a year

Product	EU 15	EU 10
Sawnwood *	0.23	0.15
Wood-based panels	0.12	0.11
Paper and paperboard	0.20	0.08

* Consumption of sawnwood in Latvia is on the average level of EU10

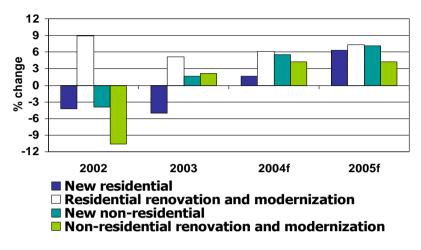
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Development of European construction sector



Source: Euroconstruct, 2004 4

Central and eastern European construction sector developments



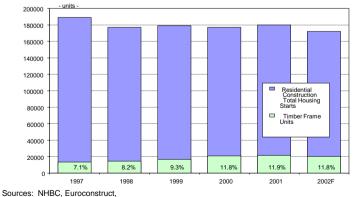
Source: Euroconstruct, 2004 5

Case UK: Results from Campaign/Programme Reviews

Impact on Wood Consumption - Timber Frame Housing

- The residential construction market has overall experienced an overall declining trend since 1997, reaching an estimated low this year at around 172 000 units.
- Contrary to this development, the total number and share of timber frame housing have increased over the same period, reaching over 20 000 units in year 2000 and accounting for nearly 12% of total housing starts, a level that has been maintained since, despite the falling overall number of starts.

The UK Residential Housing Starts and Share of Timber Frame Housing 1997 – 2002

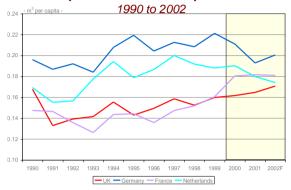


Sources: NHBC, Euroconstruct

Development of wood consumption, m³/ capita

- The per capita consumption of softwood sawnwood in the UK has experienced a considerable growth since year 1999, increasing to over 0.16 m³/capita during year 2000 and continuing to increase thereafter, reaching levels not experienced since the boom of the late 1980's.
- In view of the per capita consumption development in other major sawnwood markets in Europe it seems like the UK development has been particularly strong.

Development of softwood sawnwood per capita consumption in selected European countries



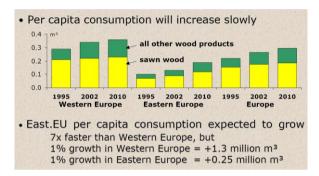
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Market situation for wood in construction over the past decade in selected European countries

		T .	ı	1
Country	Decrease	No Change	Increase	Comment
Germany			X	Market may be reaching saturation in current legislative and building tradition framework
Austria			X	Market may be reaching saturation in current legislative and building tradition framework
Netherlands			x	Government and industry are actively working towards increasing proportion of wood used in construction
UK		x	X	Increase in timber frame construction is recent, with growing government backing to encourage increased use of wood in the industry
Finland		х		Government and industry traditionally, and continue to, support extensive use of wood in construction
France		x		Wood is not associated with French building traditions, although the government is actively promoting the use of wood in construction

Situation and trends in EU

- Nordic countries and Scotland have a strong and enduring tradition of building with wood with 90% and 60% of small residential house markets respectively
- Southern European building traditions are based around stone and brickwork, e.g. the French market in small residential houses is dominated by masonry with timberframes having only 4% market share
- Fast growing markets in EU10 countries with strong building and construction sector growth both in new and reconstruction sectors



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Situation and trends in EU

- ➤ EU woodworking industries are greatly influenced by the robustness of the construction industry; even the furniture sector is heavily dependent on construction. In the short term, no growth is expected from new construction (residential and nonresidential) in Europe but RMI (Repairs, Maintenance and Improvement) is growing in importance and currently accounts for roughly 50% of the total residential, and 40% of the non-residential, construction markets in Western Europe; 35% and 25% in Eastern Europe.
- Timber frame's share of residential construction varies widely within Europe, at nearly 7% in Western, and around 3% in Eastern Europe. Overall, share is growing, particularly in Central Western Europe and the UK.

Situation and trends in Latvia

- Amount of construction in 2004 increased by 13.1% and reached 635.8 million LVL, while construction exports exceeded imports 1.6 times
- Manufacturing of up-to-date construction products continues development
- Improvement of legal acts for construction, development of standards and adaptation of EU standards continue
- Regional distribution of investments and construction activities in the country is uneven: 49% in Riga, 8.2% in Riga district, 5.8% in Ventspils and 4.7% in Liepāja
- Course of development of scientific potential in construction is slow
- The growing demand for skilled specialists in construction is not met

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Situation and trends in Latvia

- Almost 120 companies are working with timber frame and log houses in Latvia, mostly for local market with average production of 3-4 houses (150-200 m²) a year, consumption of timber is estimated about 100 thousand m³
- The most popular local wood species for construction are local spruce and pine, larch from Russia for outdoor applications (paneling, decking etc.)
- Around 10 companies export to EU and Norway, total number up to 250 houses with wood volume about 15 thousand m³

Perception of the wood products in building and construction

Wood is perceived as:

- Natural
- Renewable
- Economical
- Sound absorbing

> But wood is not perceived as:

- Strong
- Durable
- Modern
- Fire proof

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Main barriers in use of wood in construction

The barriers with the highest ranking are as follows:

- > Fire safety is questionable
- Wood has the image of poor durability
- There is a lack of knowledge and experience in timber engineering and construction
- Most designers do not consider wood a real structural material
- Traditional building practices (in certain parts of Europe) do not involve
- > Extensive use of wood

Activities planned in Roadmap 2010

building with w∞d

1	Standardisation and Eurocodes	leadership of industry, competitiveness, userfriendliness
2	Knowledge base	access, codes, application manuals, toolboxes
3	Training and education	harmonised level of education, job profiles, improve attractiveness
4	Construction process	analysis of market, potential, strategy
5	New EC-member states- market development	establish cooperation, market development

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building with wood

Environmental benefits of wood

- ➤ Preservation of fossil sources with renewable material
- ➤ Nearly closed product cycles
- ➤ Comparably low energy consumption
- ➤ Carbon storage