



## Featured Topic

### Wood-Based Construction in Russia Since 2000

*Juhani Marttila*

#### Considerable Growth in Construction

Residential construction in Russia has increased rapidly since 2000, when, according to Russia's Federal State Statistics Service, annual housing production totalled 30 million m<sup>2</sup>. In 2008, a post-Soviet record was achieved, at 64 million m<sup>2</sup>. The economic downturn led to a lower figure of 60 million m<sup>2</sup> in 2009 (see Fig. 1). Construction has focused on major urban areas and oil production districts. Besides the Moscow and St Petersburg regions the highest levels of construction have been in Krasnodar Krai and in the Republic of Tatarstan and Republic of Bashkortostan. For comparison purposes, residential construction in Finland totals around 3–4 million m<sup>2</sup> per year (Statistics Finland).

Although wood has traditionally been an important building material in Russia, the main materials today are concrete and brick. Wood has nevertheless accounted for a growing share in recent years. Although logs will probably retain a key position in the construction of detached, semi-detached and other two-family houses, a more prominent role is being taken by sawn timber. Figures from Russia's Association of Wood Housing indicate that wood accounted for 39% of one- and two-family dwelling construction in 2009, suggesting that there is further scope for increasing this share. In Fin-

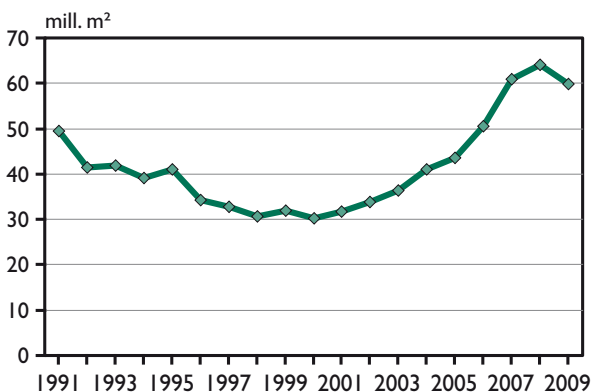


Figure 1. Volume of housing construction in Russia, 1991–2009 (Federal State Statistics Service).

land, wood has accounted for 80–90% of one- and two-family dwelling construction in recent years.

#### Timber Use Boosted by Federal Grants and Other Promotional Measures

Russia has launched a series of national programmes aimed at increasing wellbeing in society. One such programme focuses on promoting moderately priced, attractive housing. The need to increase and encourage wood-based construction for one- and two-family dwellings is seen as one element of this federal-level programme. The programme is also intended to encourage the development of the country's wood products industry. Although the programme focuses mainly on social aspects of construction, the political approval for promoting wood-based construction is likely to be reflected in other timber-using projects.

The standardisation reforms currently under way will also have an impact on the future of wood-based construction. The country's aim is to reform the outmoded Soviet-era standardisation system to meet today's needs. Key elements in this process will be the quality requirements and specifications for various structures (e.g. log houses and prefabricated element houses) and housing types (e.g. one- and two-family dwellings and terraced houses).

The adoption of international standards could provide a number of advantages for wood-based construction in Russia. It would be easier to use imported wood products, and the competitive position of Russia's own wooden housing industry on the international market would improve. It would also increase international competition on Russia's home market, which could offer new export opportunities in Russia for the Finnish wood products industry.

#### Housing Schemes in St Petersburg and the Leningrad Oblast

Alongside building projects for individual consumers, there are also developers' larger scale housing schemes using wood-based construction that offer an alternative

model for promoting the use of timber. On the plus side, such housing schemes offer the advantages of scale and of efficiency in industrial fabrication. The following are two different types of housing scheme using wood-based construction that have proceeded in the St Petersburg region in the past few years.

*Novaya Izhora* is a zone of wooden housing in the Kolpinsky district of the city of St Petersburg. The company behind the scheme is the vertically integrated Baltros consortium. Part of this consortium is the DSK Slavyanskiy company, which supplies houses for the scheme. *Novaya Izhora* covers 285 ha and the plan is to build a total of 4500 dwellings in the form of one- and two-family dwellings and terraced houses. The district strongly supports the quantitative construction targets for housing under the national programme and also offers the opportunity to own a house in the vicinity of St Petersburg. The zoning plan for the area is extremely linear, however, and the scope for individual design nonexistent (see Fig. 2).

*Kymleno* is a housing scheme for 36 homes and has been built by YIT Lentek in collaboration with Finnish wooden housing manufacturers. The site is at Koltushi in the Leningrad Oblast, about 25 km east of St Petersburg. The idea is to showcase Finnish wood-based construction in Russia. The key elements comprise the design of the surroundings, the design of the buildings and the design of the details. The challenge for this type of construction is to keep within a reasonable cost level and to ensure that the buildings suit the Russian environment.

The principal factors in promoting wood-based construction include establishing the right image and achieving sales. To this end, the wooden housing industry should ensure that it demonstrates the benefits of wood in construction from the viewpoint of the pro-

spective customer. Altering the commonly held view of wood-based construction in Russia will nevertheless take time. New experimental housing schemes would allow the development of wood-based construction to become a reality.

In Russia the challenge is to obtain suitable land for construction sites. Close cooperation with the planning authorities is important in such projects. In the major urban areas, intensive land use and high land costs are an effective barrier to the construction of low-rise wooden housing. Wood-based construction therefore tends to gravitate towards far-flung suburbs and smaller settlements. Swedish, British and North American models of apartment block construction have not yet made an appearance in Russia.

### Spread of New Forms of Corporate Cooperation and Partnership

In Russia, construction projects have traditionally been implemented by vertically integrated multi-sectoral companies. Many of these operate locally and date back to Soviet times. Alongside these companies, new specialised enterprises have also sprung up in recent decades. The main direction of development in the last few years has been the differentiation of construction segments and the increased presence of foreign companies.

According to a survey of Russian experts on wood-based construction carried out by the Finnish Forest Research Institute in 2009, vertically integrated multi-sectoral companies will still play the most significant role in implementing wood-based construction projects over the next five years. The second most common form of scheme was seen as the developer-led project in which a single company is responsible for the imple-



Figure 2. Uniformity in housing design at *Novaya Izhora* (photo: Juhani Marttila).

mentation. Western-style competitive tendering was considered to be the least common form. However, the order of importance of these three forms was expected to be reversed over the coming 5–10 years. The assessment was that competitive tendering would become the principal form, the developer model would retain its second rank and the conglomerates would be in third place. Such a radical change would be likely to improve the position of small companies in the wood products industry. It would also require an increase in the level of trust prevailing in the market. Land-purchasing policy would have to be stable and forms of cooperation reliable. Improved quality and keeping to timetables would also be essential.

Many international companies in the construction and wood products industries are planning to establish business operations in Russia. Some have already done so. There is also some movement in the opposite direction: Russian companies have already acquired a number of wood-product and log-housing manufacturers in Finland.

Contrary to the situation in Finland, in Russia completion of construction after a house's frame is ready has traditionally been the responsibility of the house buyer. However, rising living standards will probably lead to new business opportunities in the construction of house interiors. To ensure the availability of products, it is very important that the wood products wholesale trade and companies serving independent builders be further developed in the future.

### Future Outlook

In Russia, people still live in considerably more cramped conditions than in most European countries, and so the consequent need for more spacious dwellings is likely

to keep construction activity brisk in the years to come. There is a need both for advertised high-quality housing schemes of an individualised nature and for efficient, mass-produced housing based on the high-volume use of wood. The construction projects for the Sochi Winter Olympics in 2014 will gain a wider audience for modern wood-based construction.

A 2008 survey by the Finnish Forest Research Institute indicated that environmental factors are still not very significant in housing construction within the St Petersburg region, but in the future they may lead to an increase in the use of wood in construction. Timber is, after all, renewable and is also an efficient carbon store, which are important for slowing climate change.

As this overview has demonstrated, wood-based construction in Russia is experiencing considerable changes. The use of wood has increased rapidly, but it has not yet reached the position of concrete and brick. In Finland, the present annual construction use of wood per capita is about 1 m<sup>3</sup>, which is considerably more than in Russia. Since most timber is used in construction, an improvement in the usability and use of wood products in different types of construction projects will offer significant opportunities for Russia's own wood products industry, and also for Finnish exporters of wood products.

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