Programme for **Sustainable Construction in Wood**

Skellefteå kommun

Sustainable construction in wood as part of a growing Skellefteå by 2030

New homes, new workplaces and infrastructure in new forms. A brand new Skellefteå is emerging right now, and over the next fifteen years there are plans to invest more than SEK 100 billion in Skellefteå Municipality.
The Sustainable Construction in Wood Programme is part of Skellefteå Municipality's governance for sustainable development and interacts with other policy documents such as the Energy Plan, the Environment and Climate Programme, the Public Health Policy Programme, the Waste Plan and the Business Policy Programme, as well as decision-making documents such as guidelines for sustainable construction.

Policy documents

Stimulus for increased sustainable construction in wood

Forests and nature are close and ever-present here in the north, but are also one of Sweden's most important natural resources. Processing wood creates both jobs within the wood industry and important revenue streams as export goods. Industrial production provides more efficient construction processes and creates new jobs and climate benefits, in both urban and rural areas.

Building sustainable cities, communities and living environments is a global challenge.

In Skellefteå, with the region's natural resources, taking responsibility by building in wood in accordance with established guidelines for sustainable construction comes naturally.

Sustainable construction creates attractive environments that consider the whole person and encourages interaction between people. This stimulates the development of the entire community and the goal of having 90,000 inhabitants by 2030, while also helping to achieve sustainability goals. There is plenty of research and other examples from academia and various research institutes to confirm this. Skellefteå is also a living example of how sustainable wood construction makes a difference.

Creating a sustainable, fossil-free city requires a holistic approach – a life cycle perspective – that takes into account the entire process from resource extraction, manufacturing and use, to demolition and waste management. Using renewable building materials, combined with innovations in energy-efficient wood construction, makes a clear contribution towards Skellefteå becoming a leader when it comes to keeping fossil carbon emissions low. Demands for economic, social and environmental sustainability – such as climate impact, competitiveness and skills provision – drive innovation and growth.

Skellefteå Municipality is helping to shape modern wooden architecture, both nationally and internationally. Construction in Skellefteå is characterised by good architecture and the ability to take advantage of the opportunities that wood offers.

Sara kulturhus, during building
Foto: Jonas Westling

Skellefteå Municipality's approach

The Skellefteå Municipality Group works for ecologically, economically and socially sustainable development in accordance with the definitions included in the municipality's sustainability programme and guidelines for sustainable construction. Skellefteå Municipality's sustainability work contributes towards achieving the global Sustainable Development Goals of Agenda 2030.

The Sustainable Construction in Wood Programme applies to the Skellefteå Municipality Group, with a focus on new construction, extensions or rebuilding. The guidelines for sustainable construction should also be applied in the case of private development of land offered to the market by the municipality.

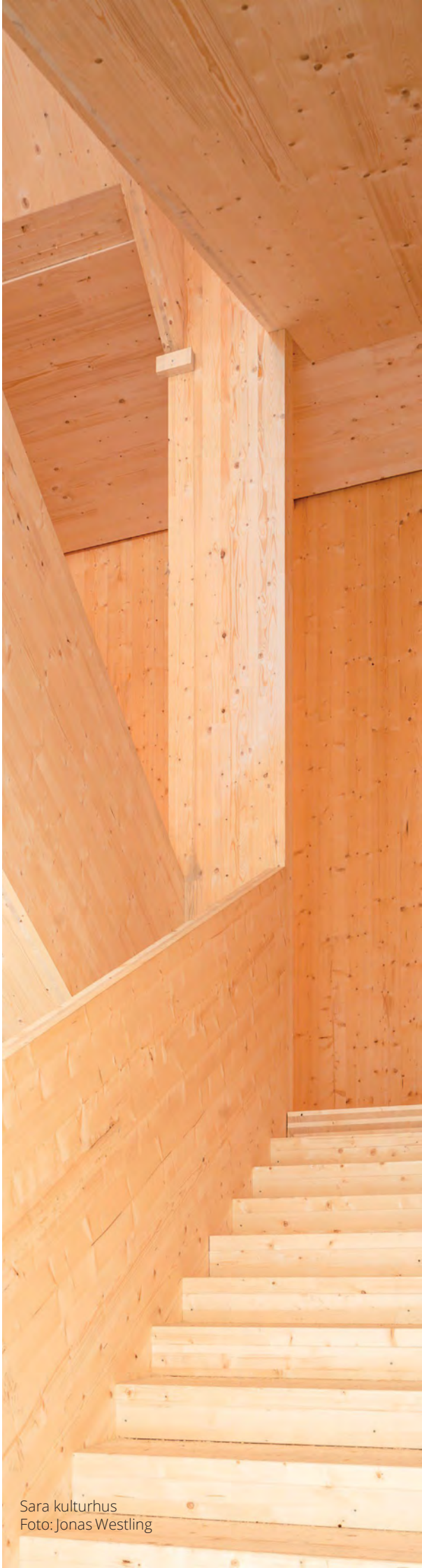
"All building construction" refers to new construction, extensions or rebuilding with a wooden frame. Construction projects such as pavilions, waste sorting rooms and minor renovations are not included, while extensions and additions may be included. The programme will be followed up in Skellefteå Municipality Group's environmental reporting.

Wood building targets for Skellefteå Municipality whitin societal development

The local wood building targets relate to the general targets found in the regional forest programme for the wood industry theme area for Västerbotten and Skellefteå Municipality's overall goals for 2030.
Together with stakeholders within the industry, we take national responsibility to push for wood construction and work together to highlight the opportunities that wood offers.

The basic principle is that the Skellefteå Municipal Group should trial the use of wood in all municipal building structures and in the municipal outdoor and indoor environments that are built, by:

- As far as possible, choosing construction systems with a low environmental and climate impact during the procurement stage.
- Focusing on circulation to encourage recycling and reusing buildings.
- Always considering the life cycle perspective and calculating the climate burden in accordance with Swedish Building Regulations.
- Focusing on the importance of the indoor environment for health.
- Focusing on social sustainability and good architecture that creates life between buildings.
- The Wood Innovation Cluster works together to strengthen and market the region's industry and skills.
- Measuring the proportion of sustainable wooden buildings, and summarising this in Skellefteå Municipal Group's financial reports. As far as possible, this proportion should show a positive long-term trend.
- Creating new jobs within the wood industry, in both urban and rural areas.

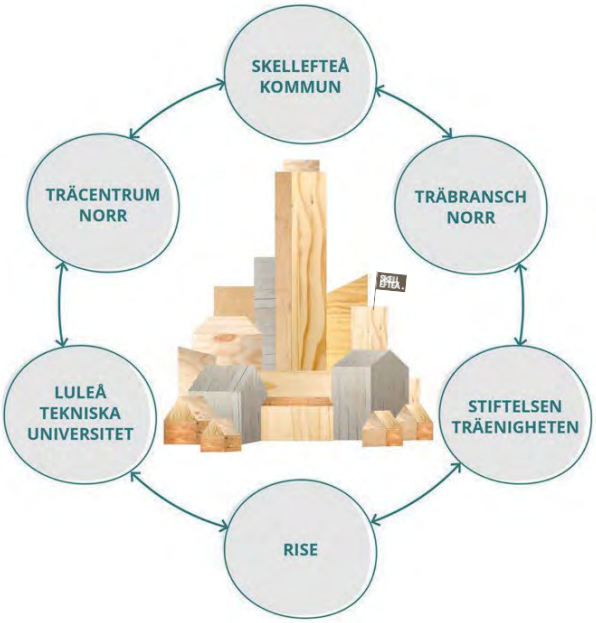


Sara kulturhus
Foto: Jonas Westling

Cooperation and dialogue via the Wood Innovation Cluster in Skellefteå

Skellefteå Municipality coordinates the Wood Innovation Cluster in Skellefteå, which links companies with research, development, training and testing, and encourages the public sector to become a better client.

Within the Skellefteå region, the development of wood in construction is promoted by involving research and innovation activities in construction projects. Improved technology and new innovations can be applied and create new knowledge for future construction.



Spreading knowledge togheter

In Skellefteå, we work together with academia and the wood industry to generate more knowledge about:

- Wood and other renewable construction materials, and how they can be used in building work.
- Innovation development regarding clean technologies in construction.
- Efficient processes within sawmills, wood construction and wood manufacturing.
- Increased focus on the circular economy within circular construction. For example, wood has advantages over other building materials during the dismantling phase, and is a good example of circular economy.

Organisation, roles and responsibilities

In order to stimulate a further increase in commitment to wood construction, it is important to ensure coordination, open dialogue, knowledge transfers and communication. This applies both internally within the municipal organisation and when working with external actors – locally, nationally and internationally.

The Sustainable Construction in Wood Programme is being adopted by the Municipal Council, and includes the entire Skellefteå Municipality Group:

- Engaging in dialogue with landlords and contractors about the programme, for example during land designation and land sales.
- Business linkages in connection with wood construction.
- Architecture and design issues linked to wood construction.
- Taking wood into consideration for sustainable construction in procurement.
- Taking advantage of the benefits of wood in the municipality's technical infrastructure.

The Wood Innovation Cluster's role is to promote sustainable growth in the region by strengthening the competitiveness and renewal of industry, and highlighting the wooden city of Skellefteå from national and international perspectives. The cluster also works to ensure a continuous exchange of information and knowledge, and cooperates on study visits, trade fairs and conferences.

The Sustainable Construction in Wood Programme is monitored and evaluated at least once during every term of office

Facts

Life cycle assessment (LCA)
This is a method that provides an overall picture of the total environmental impact during a product's life cycle, from the extraction of raw materials, via manufacturing processes and use, through to waste management, transportation and intermediate energy consumption.

Life cycle cost (LCC)
This is the sum of all costs, from the time of purchasing a product until it is disposed of. LCC is a tool that shows how a more expensive investment can pay off in the long term, thanks to lower operating and maintenance costs. For some products, this also provides a strong environmental argument.

Circular economy
This is an expression of economic models for business opportunities that use circular cycles within a company, a community or an organisation, rather than the linear processes that have dominated so far. The circular economy is inspired by industrial ecology, the performance economy and the cradle-to-cradle movement. The circular economy can also be used as a political concept.

Fossil carbon emissions
Burning oil, coal, peat and natural gas – fossil fuels – is the largest source of carbon dioxide, sulphur dioxide and nitrogen oxide emissions in Sweden. These emissions affect the climate, lead to the acidification of forests and soil, and cause health problems.

Glossary

Circular economy: A circular cycle that strives to ensure that waste is – in the first instance – reused, recycled or used to generate energy.

CO2 equivalent: Greenhouse gases converted into the equivalent amount of carbon dioxide.

Fossil-free energy: Energy that is not produced directly from fossil fuels such as oil, coal or natural gas. In Sweden, fossil-free electricity is produced using nuclear power and renewable energy sources.

Renewable energy: Energy produced from sources that are continuously renewed naturally, and will not run out. In Sweden, the main renewable sources are solar, wind, water and biofuel.

Carbon budget: A method for calculating how much the total carbon dioxide emissions of fossil origin must be reduced in order for the municipality to contribute towards the goals of the Paris Agreement.

LCA (life cycle assessment): A method for assessing the total environmental impact throughout a product's life cycle, from the extraction of raw materials to waste management, including manufacturing processes, transportation and intermediate energy consumption.

LCC (life cycle cost) analysis: An economic analysis that summarises the total costs and incomes over the lifetime of a system or a product. Can be used to include long-term effects in a purchasing decision, thereby contributing towards an economically and environmentally sustainable investment.

UN Sustainable Development Goals 2030

The Sustainable Construction in Wood Programme relates to several of the UN's global Sustainable Development Goals (SDGs):

3	Good health and well-being
5	Gender equality
7	Affordable and clean energy
8	Decent work and economic growth
9	Industry, innovation and infrastructure
11	Sustainable cities and communities
12	Responsible consumption and production
13	Climate action
17	Partnership for the goals

Skellefteå kommun

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