International studies predict a fantastic future for wood construction. Whilst the ecological component was previously the primary factor, it is now rock-hard economic arguments that are in the foreground.

The residential complex in Jenbach is an exemplary project when it comes to the innovative use of wood construction products, practical implementation, architectural quality and energy efficiency in modern housing construction.
Wood is good for more building types than just houses - for instance multi-storey commercial and leisure buildings as well as halls with large span widths. Wood is even suitable as a building material for bridges and other structures; it combines good heat insulation properties with outstanding stability and can be used for load-bearing components.

Wood is therefore the construction material of choice in any case with regard to both ecology and economy. Building with wood keeps the CO₂-balance of buildings low across every part of the life-cycle.

Project description

Building owner Neue Heimat Tirol
www.neueheimat.at

Completion 2010

Architecture Hermann Kaufmann ZT GmbH
www.hermann-kaufmann.at

Timber construction company Schafferer Holzbau GmbH
www.schafferer.at

Project management DI Marlies Sofia

Collaboration Martin Rümmel

Cost planning DI Roland Wehinger

Support structure planning merz.kley partner GmbH
www.mkp-ing.com

HVAC design E-Plus Planungsteam
www.e-plus.at

Electrical systems Schagginger GmbH
www.schagginger.at

Building physics Holzforschung Austria
www.holzforschung.at
“Multi-storey residential buildings made of timber are becoming more commonplace as an alternative to conventional building methods, especially for rented accommodation. In addition to achieving a demonstrable reduction in CO₂ pollution (approx. factor 3) one also hopes that the construction itself will represent an alternative to the conventional materials used in rented residential buildings.”

Architect Hermann Kaufmann (photo © Copyright : Anne Vatén)

Non-profit building owner Neue Heimat Tirol (NHT) has erected a residential complex with 67 apartments on the “Niedermühlbichler Gründen” plot in Jenbach in the form of timber structures based on the passive house standard (energy-saving for operation approx. factor 4 in comparison with low-energy houses). This complex is NHT’s third residential timber construction, although it is the first in passive house quality. 42 units were erected during the first construction phase. They form a courtyard from where all the units are supplied and that also serves as a children’s playground and a large communication area. This is also where all the large apartments are located - the focus here is on family-friendly living. The second construction phase of 25 units is arranged in a south-facing row due to the shape of the plot. Underground garages with a capacity of 107 spaces accommodate the vast majority of parked vehicles. All of the apartments are distributed over three floors.

Each ground floor apartment has a private garden. The living areas have floor-to-ceiling windows looking out onto covered front terraces facing south or west. Most bedrooms face north or east and have smaller windows fitted with shutters. The houses are equipped with controlled aeration and ventilation systems with heat recovery.
The remaining energy requirements are covered by natural gas; underfloor heating keeps the apartments warm whilst hot water is provided separately for each house by remote solar collectors. The external facade is clad in larch wood boards with a natural finish, as are the windows. The pivoting window shutters have different colours and are reminiscent of historic timber buildings. Inside the apartments the residents can experience wood as a construction material in the form of the visible binderholz CLT BBS ceilings. Each building has a roof ventilation centre. The system is semi-central in design where the booster fan and heat recovery plant are centrally arranged. Small fan systems regulate the customised air quantity requirements in each apartment.
Site plan
Scale 1:1000

Standard floor layout plan
Scale 1:333
Standard floor, unfurnished
Scale 1:1000