English Summary

Starting Situation

The scientific and technical developments in the timber industry are manifold. At colleges, universities, associations and industry elaborate constructive and technical solutions of new materials to develop and thus existing deficiencies. As a result, the industry significant development progress gains to a know-how to develop leadership.

The industry of wooden house construction, however, has a large deficit in terms of market development. These include lack of market analysis on the industry to targeted questions for market strategies to be able to answer. For example: Which market segment is suitable for entry into the wooden house sector or especially how can the potential of customers of municipal and cooperative housing companies should be made accessible? These issues relate in particular to the market segments of the building in stock, multi-story-buildings in wood construction. A number of existing data of official statistics on the general trends of the construction industry have not been answered the following question: How does the future wooden house and what obstacles stand him?

The Federal Office of Statistics, the Federal Office for Building and Regional Planning and the Federal Office for Transport, Building and Housing data being developed, are still the basis for general market estimates. They serve, together with various publications of associations, such as the Central Association of German construction industry, as the basis for concrete questions concerning the development of the construction industry.

To assess the market development of specialized wood house, a large number detailed data are necessary. These are only partly supported by the national statistical offices and trade associations, such as the Federal Association of German prefabricated Association (BDF) in Bad Honnef, the Confederation of German carpenters (BDZ) in Berlin, the German Association of Prefabricated Wooden Houses (DFV), the Federation of windows and facades (VFF) and private market research institutes, for example, B + L market data in Bonn, the Laboratory for wood and drywall (VHT) in Darmstadt and the Bauoffice Heinze GmbH developed, maintained and published. It is known that on behalf of the timber sales fund the Bauoffice Heinze GmbH, belonging to Springer Medien GmbH, published the relative market shares of one-/two family houses on construction volume, the number built multi-family houses and erected by the non-residential buildings. The data deficit of all publications, however, is that the market shares depending mainly used building material and the increases in wood construction and multi-residential buildings and non-residential buildings on the number of projectiles can not be detected. Currently, due to lack of data is not possible, the current state and development of the timber way in all market segments comprehensive manner.

Project Goals

The content of the project 08 is the market research and market development of market segments “building in stock”; and “multi-story residential buildings” in wood construction. It was the determination of insightful market intelligence to assess the future potential of the wooden house is currently missing in the foreground. They are:

- Quantitative and qualitative data conventional construction methods with potential to extend buildings
- Data analysis of extended residential houses in wood construction since 2001
- Data analysis of multi-story buildings made in wooden structures since 2001
- Assessing the growth of the market segments of building in stock for the timber
- Prognosis and development of market segments multi-story buildings in wooden structures with regard to requirements and architecture
- Determination of growth forecasts for the timber in the future

Project Results

The situation on the labour market consolidates. The reverse trend of building permit numbers in the residential and non-residential, 2008 will be slowed and even reversed. Public-Private Partnership projects will become increasingly important and bankruptcies in the construction industry will decrease, like the employment figures rise again. However, a significant increase in employment will only be expected if the companies investment, which in recent years decreased again continue. Here lies the key to a higher consumption and for higher growth. Consumption is cyclical in the end important to the growth spurt, by increased investment activity originates in a sustainable upward movement further.
For example, the business investment from 2007 to 2009 initially in the areas of non-residential building, particularly the expansion of warehouses and workshops are for more capacity. Subsequently, from 2008 to 2010 for further investment in the ambitious expansion.

In developing the newly-built residential buildings in recent years, the wooden building materials since 2000, the nationwide average of 2.7 percentage points to 13.0%. In a consideration of individual provinces in Figure 1 can clear a separation of change by region are detected. The southern states are primarily responsible for the growth. Generally, the new development in recent years in decline, so that the growth rate of timber through a redistribution of building materials took place. Here are the number of building permits, and the staggered schedule resulting building completion less important for the development of wooden buildings.

The positive development in the south of the Federal Republic can establish with a wooden structures within the population justified. In addition the federal states of Baden-Wuerttemberg and Bavaria over 45% of the total of 350 RAL quality verified timber companies. The four fastest growing federal states reported a total 55.1% of outstanding operations. This high density and the resulting increased awareness of the wooden building material contribute to this. Through this positive development a further increase in the timber industry can be expected, mainly in southern Germany.

In the northern half of the Federal Republic growth rates are lower, but still positive. Here are 38.3% of the RAL quality verified timber companies. In northern part of Germany were especially brick masonry wall and other stones as building materials for many decades. The lower growth of wood as building material, as opposed to southern Germany, is listed herein. Nevertheless, a weak growth is very positive too.

In most of the new federal states is a strong decrease in the use of wood as building material visible. The entire are only 6.3% of all RAL quality verified timber companies. The declining numbers are mainly a result of “building boom”; in these regions after the reunification. After the peak in the years 1994 to 1998 is the construction industry in the downhill.

In Bremen and Hamburg are due to the urban structure residential buildings for housing units tend more in multi-family house to find, in which wood is generally poorly represented. Likewise, especially bricks and other masonry building materials are popular.

As the relative market shares of the building in wooden structure have changed shows the Figure 1. Although the total number of building permits and building completions, in absolute figures, clearly went back (see Figure 2), could in the years 2000 to 2005 in the southern states, the proportion increased. It can be seen, is the housing since the turn of the millennium on descent. This was due to the absence of the homeowner

supplement to the turn of the year 2006/07 again accelerated. However, it is likely that in 2007 and 2008 a low point in housing will be reached and then with a slow recovery can be expected.
The non-residential building in the Federal Republic of Germany has changed far more positive developed as housing in recent years. Since 2000 the proportion of timber buildings became by 3.4 percentage points to 15.9% in 2005. Although the non-residential buildings in comparison to the housing only by 0.7 percentage points has changed, when considering the growth regions of a completely different picture. As shown in Figure 3 is clearly visible, are nearly all federal states for the positive growth rate. Here are the east-based federal states and by the increase of market shares.
The growth in wooden structure established non-residential building extends to all types of buildings. A large proportion, which as a mainstay in the use of wood in non-residential buildings, particularly the agricultural premises. But the non-agricultural farm buildings have a significant part of growth. It is understandable that this wood as building material for many applications may be ideal. Especially the economic aspects are responsible for the emergence of wood.
In addition, the increase in use of wooden building material for example offices and administrative buildings, hotels and restaurants as well as the academy buildings, are a welcome development. These are in addition to the economic and environmental aspects to the essential parameters for the decision of those responsible for the building material wood. Especially in these types of buildings in the coming years a very expandable potential to be seen. By regain strength environmental awareness among the public builders, new fields of activity for the timber companies can be new created.
The increase in timber quota is the non-residential buildings not only in the percentage increase, but as shown in the Figure 4 shows, including the number of new building. That increase timber rate refers to the data for the year 2005. How to recognize, was a significant increase since the buildings figures listed. The development in non-residential buildings is exactly opposite to the residential buildings.
Generally, the wood construction in the Federal Republic of Germany developed in the last few years and will continue to orient this trend. Ultimately it is up to the timber companies, with their building materials by a high-quality construction customers and clients to benefit from the timber way to convince. Through the successful work in recent years as regards the continued establishment of the wooden building material in

the society for a positive future development of wooden houses in the residential and non-residential buildings the course.
In order to tap the market segment of the multi-story wood houses and house building in stock in wood construction in Germany in number to be recorded, with the trade associations the “Federation of German Carpenter” (BDZ) connected with the Communion of Quality wooden building and roof development (GHAD), the Federal Association of German prefabricated wooden houses (BDF) with the Federal Quality Association assembly and prefabricated houses (BMF), the German Association of Prefabricated Wooden Houses (DFV) with the Communion of Quality of German finished house (GDF) and the Association Carpenter House (ZMH) in co-operation created an address list and a survey of all primary quality verified wooden building companies.
For the survey of wooden building companies in Germany were only of interest which a member of one of the three RAL Quality Communities on the wooden house (GZ 422), or a member of the Association of master carpenter house (ZMH). The number of companies depending Quality Association is as follows (see Table 1).
The table 1 shows the number of 350 to be surveyed RAL quality verified wooden house enterprises. This represents about 70% of all wood house enterprises in Germany. The remaining 30% are companies, for example only a Ü-mark, or foreign companies that their homes abroad to Germany to produce and import. There are only a few companies that aren’t external controlled at the moment. The Figure 5 shows the distribution of firms on the federal states. It turns out that in the city states Berlin, Bremen and Hamburg only one quality verified wooden house enterprise is located.
Particular attention in the survey was on the acquirement of the data to build in stock. We have the most important sub-market segments of this area closely analysed. Now does exist more detailed data on market development.
If we calculating all construction projects, new development and reconstruction, housing and non-residential construction, than the 350 RAL quality verified companies manufactured a total of 18,342 wooden buildings in 2005. They share as follows. 16,248 or 88.6% are new buildings and 2,094 or 11.4% are conversions (see Figure 6).
Based on the compiled list of addresses of all RAL quality verified companies, the first time the locations of the company in each federal state are presented (for example, Bavaria, see Figure 7). The city states of Berlin, Bremen and Hamburg remain unconsidered.
Finally, the tables 2, 3, 4, 5 and 6, give an overview of how the individual

market segments of the timber industry by the RAL quality verified timber companies should be tapped. These include housing, broken down by floors, non-residential and market segments of the building in stock. These include roof extending, extensions buildings, large, prefabricated facade elements in wood panel construction and renovation of wooden buildings.

Table 2 shows that the market segment of the residential buildings to two storeys to 65% by the RAL quality verified timber companies tapped. By the segment of three or more storey residential buildings are even 99%.

The data in Table 4 show the non-residential buildings, who were erected by the RAL quality verified timber companies. These include kindergartens and schools just as the offices and administration buildings. It turns out that the derived figures from the survey of non-residential buildings already about twice the values of the Federal Statistical Office. We don’t know why this is so is unclear. We suspect, however, that this difference from a variety of aspects. Anyway, the RAL quality verified timber companies holding 100% in this market segment.

In addition to the primary survey of RAL quality verified timber companies were done further market research and expert interviews. Finally, at this point, the results of expert interviews will be presented.

The aim of the expert’s survey was, to sketch the political and social changes in relation to the wooden house. The results of this investigation, approaches to market development strategies for the future timber both at the enterprise as well as on the political level can be derived.

There were 45 experts in the field of wooden house construction questioned in writing. The composition of the target group was conditionally systematically, as the whole people of all wood construction are unknown. Because so statistically neither a defined quota sample, a random sample could be defined, was therefore an address list of experts prepared, jointly with the German Society for Wood Research (DGfH). This is divided into five groups (see table 7).

It is encouraging to understand that there are exist now a number of market studies on timber. Then only on the basis of such studies can forecasts and trends identified. So these experts will also help survey the market segments of the timber industry closer to understand and trends early stage. Companies must get a feel for how to develop their market segments. Therefore, at this point is a headline summary of the main findings of the expert survey.

It is noted that ...

• by the required reduction in greenhouse gases, especially carbon dioxide, the issues of energy-efficient and sustainable construction remain the main agenda items.
• at the moment important decisions are taken, for instance under a sustainable future buildings to understand. Later this year a model for building signage will be issued by the Federal Ministry of Transport, Building and Urban Development.
• a Renewable Material Law with a focus on the sustainable supply of raw materials could help jobs in the timber industry to safeguard and further. This meant the relative market shares of individual segments of the wooden house construction well be developed in 2030. According to estimates of experts…
o in the segment of one and two family houses the market shares will be grow of 14% (2006) to 30% (2030),
o in the segment of multi-story wooden houses of 2% (2006) to 10% (2030),
o in the segment of non-residential buildings by 18% (2006) to 30% (2030),
o the number of employees during the carpenters and wood construction would be approximately increase of 60,000 (2006) to 80,000 (2030) and
o the number of employees at the RAL quality verified timber companies would be approximately increase from around 16,000 (2006) to ca.20.000 (2030)
up to 2020 all federal state building regulations will be amended in accordance with the master building regulation (MBO) 2002. In order that the new buildings class 4 will be exist about all federal states.
• up to 2020, sufficient fire protection technical components will be tested, what the criteria for encapsulation of (K60). However, this criterion in the future still looks down on K30 to be remedied so economically in wood can be built.
• In future the market segment of the multi-story wooden housing, will be served mainly by medium-sized timber companies (20 to 49 employees), due to the greater manufacturing flexibility.
• Free Communities builders will be the most interesting target group for multi-story building in wood construction before the real estate and housing industry
• there is still no clear trend to recognize, whether solid wood elements, such as board staple, plywood board the multi-standard

components in wooden buildings will be.

• the greatest potential for increases roof construction in wood keeps ready the real estate and housing industry, but the social housing is excluded.

• it also will be exist a few timber companies, which will be capable of large-scale projects with a roof increases in the real estate and housing industry in the future.

• the medium-sized timber companies (50 to 249 employees) will be have the largest relative increase in market share of roof increases. This will be increase of 50-60 units (2005) to 200 - 300 units (2020) per year.

• by 2020 prefabricated facade elements in wood panel design will be a standard product for the facade renovation of simply structured residential buildings and object to 6 floors.

• the market segment of facade renovation with prefabricated facade elements in wood panel design will be served through the medium-sized timber companies (20 - 49 and 50 - 249 employees) in the future. At least three of the 160 operating companies in this size, it will specialize in technology and market leader.

• prefabricated bonded wood-glass facade elements can be industrial and competitive produced by 2020

• the segment of the prefabricated facade elements in wood panel design will double from the current approximately 90 construction projects (2005) to 180 construction projects per year until 2020.

• In the future at least 20% of all newly built wooden buildingswill be compaction or extend buildings.

• the market segment of the renovation of wooden buildings will be further on a niche market for smaller carpentry and timber companies. in the future