

AcuWood.com – A new knowledge transfer portal

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The Swedish research funders, VINNOVA and Formas, have made valuable investments in research concerning acoustics in light weight constructions. We are grateful for that and the progress for the wooden industry is obvious as results grow up from the ongoing and completed projects. MICC, AkuLite and AcuWood are typical projects partly or fully funded by VINNOVA and / or Formas. Simultaneously, COST actions FP 0702 and TU 0901 are running and "Building With Wood" has carried out a feasibility study and some other national European projects are running. Standards are under revision and new building codes are discussed. In order to encourage knowledge transfer from the projects to the end users a web based portal is currently developed. The portal will be interactive in order to involve parties of interest and to become an attractive platform. It will have modern internet design, securing that the knowledge becomes available for different categories of end users, such as industry, consultants, universities, authorities, research institutes, students etc. The structure in the portal will be adapted in order to make the information easily accessible for each category of end users. The project includes a financing part, in order to secure a continuous update afterwards.

1 Introduction

Results from research projects such as AkuLite [1, 2] and AcuWood [2] and other related projects must be disseminated and made available to all who have invested time and money in the projects, but also for other active and interested parties in the industry, both outside and inside the borders of Sweden. These projects have proven to provide enormous synergy, which means that it is not only the direct results of these projects that are interesting, but also what goes on in other related projects and networks around the world. This work should not be wasted. The results must be further used in such a way that it can inspire more new students to become interested in building acoustics and vibrations. We need energetic, curious and knowledgeable students who can run a successful lightweight construction industry to greater heights, both in Sweden and abroad. The results must also become available for industrial partners for use in their own product development and also to promote developers to use more wood in new multifamily houses.

After the knowledge portal is completed, there will be data accessible that describe how a building can be designed and developed to meet new modern acoustic requirements for a completed building. Background material will be available for future research applications in the field, and for authorities and standardization organizations from across Europe (and even outside Europe) so that sensible decisions can be made when new regulations are supposed to be updated and modernised to fit a new building technology.

2 Background

VINNOVA and Formas have for a long time invested much money in doing research in lightweight structures. There have been various themes and some of these have been the acoustics, springiness and vibration. This is positive and the progress of Swedish wooden industry grows with the results emerging in both the ongoing and the finished projects.

AkuLite, but also AcuWood and MIKS (www.mfbmiks.se), are typical projects wholly or partly financed by VINNOVA and / or Formas.

Furthermore there are ongoing COST actions within Europe connected to light weight structures (for example FP 0702, FP 1101 and TU 0901) and in addition, several projects are recently completed or are ongoing in parallel, some examples:

- "Building With Wood" has quite recently conducted a study of acoustics in lightweight structures,
- EU project within the Interreg IV, "Silent Spaces", runs in parallel,
- Silent Wood runs in parallel,
- In Finland, a recent development application is granted in addition to those now under way. The focus is to describe how to measure and evaluate the lowest frequencies, when statistical methods no longer work.
- Standards within ISO are revised in parallel,
- In Sweden, a new BBR for section 7 is likely to be worked out - all to adapt to new requirements in buildings where light structures evolve at an accelerating rate.

In some of these projects (AcuWood and BWW) many countries are involved, for example Austria, Finland, Germany and Switzerland. COST networks include representatives from virtually all European countries and in some cases representatives also from New Zealand, Australia and Canada.

Applications from manufacturers of building systems to obtain the "European Technical Approvals" (ETA) are increasing. As a result, the number of issuances of ETA's for various lightweight building systems increased. The acoustic properties play a very important role here. To improve the basis for the EOTA guidelines the knowledge has to be collected and made easy accessible.

Hence, there should be need for a comprehensive web-portal that is attractive and interactive, thus creating interest among all parties invested in the projects but also for universities, government agencies, small businesses and future students. The portal will promote the transfer of knowledge from all ongoing projects to the final user, tailored to different "end users", such as:

- Industries,
- Consultants,
- Universities,
- Authorities,
- Research,
- Students etc.

3 Portal structure and its continuation

Using the portal, information should be easily searchable and retrievable. The structure of the portal is customized in such a way that each user gets access to information at the right level. The portal will be provided primarily in English, but the structure is built up so that there are parts in local language, at least those relating to industry and consultants. This is to provide information to small and medium-sized industrial and contracting companies and consultancies who normally work at a very local market. The principle of the portal structure is shown on the diagram / flow chart, see Figure 1.

Once the web-portal is completed, it should be maintained and updated. As a part of its mission is to finance itself, however access to specific sections of the portal might be restricted to paying users. There are also other ideas to finance the progress of the portal., The main objective however, is that most of the information should be made available freely. A growing interest in this portal could also provide an incentive to advertise on this platform. So far we have not locked ourselves in one model but listen attentively to the industries that are represented in the various projects.

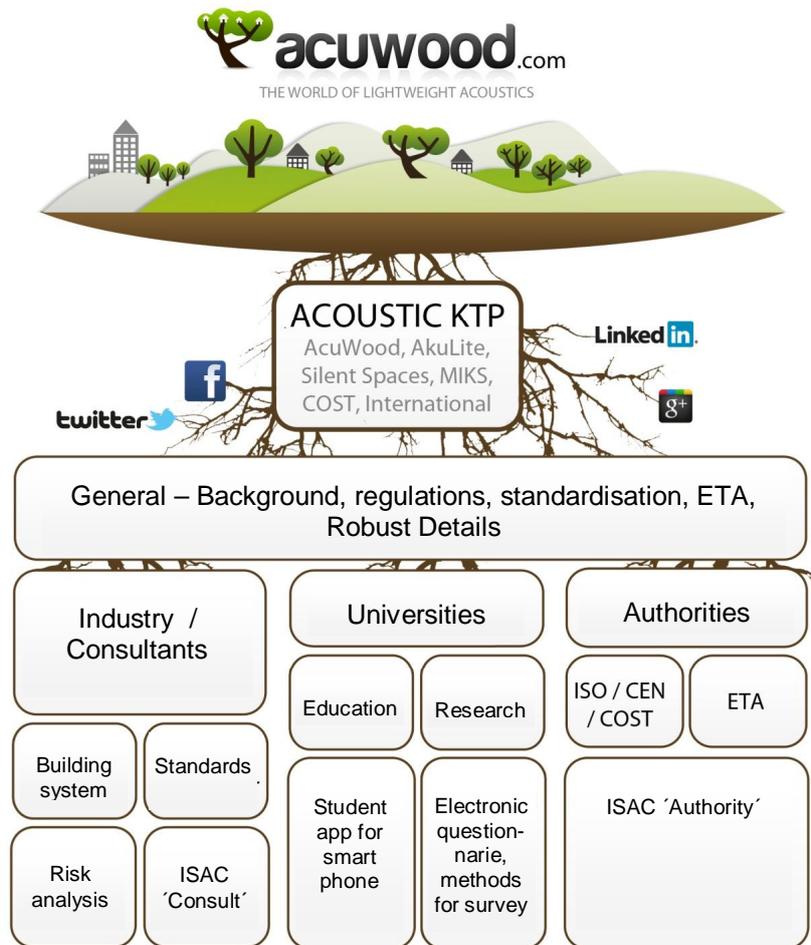


Figure 1: The portal structure

4 Summary

Please help us to spread information on this Web site and follow the developments in www.acuwood.com. It is of great interest to have this web page running and it will create a fantastic basis for future acoustic development and research within light weight constructions, and in particular wood.

References

- [1] AkuLite Newsletter No 1 2011, *Sound, Vibration and springiness in lightweight buildings*
 [2] K. Hagberg, D. Bard, *AkuLite, AcuWood and Silent Spaces – summary of results*. Proceedings BNAM 2012, Odense, Denmark