

PRINCIPLES & PURPOSE

Open book.

All stakeholders share knowledge and experiences from Hampens Hus to ensure maximum benefit for as many people as possible - both in the construction industry and in other parts of the bio-based value chain. This applies not only to material documentation, but also to the tendering model, the partnering agreement between the consultant and the main contractor and, in the long term, experience with the cultivation of hemp on Falster.

Practical experience with hemp in construction.

Hampens Hus shows how building materials made from a broad range of hemp-based products are used in practice. Moisture, heat and risk of mould will be measured so we can see how the materials perform over time.

Education.

To ensure a rapid transition to more bio-based building materials, it is important that the new materials are included in education programs at all levels. Hampens Hus will be build on the grounds of CELF higher education - open for all interested stakeholders to visit and explore.

From field to building.

Hampens Hus will be the focal point for the work on establishing new local value chains based on the cultivation of hemp.

More information here:

bioguldborgsund.dk/hampenshus



19.09.2024



BBOBB

Interreg
North Sea



Co-funded by
the European Union

Realdania

Hampens Hus

CELF, Merkurs Plads 1, Nykøbing F.

Offering a permanent building for further monitoring and exploring of pros and cons of the bio based materials and the breathable constructions.

Hampens Hus will house an other green transition solution: a pilot RAS (Recirculating Aquaculture System) production of warm water fish. The high humidity from the fish production will contribute to a stress test of the building material performance, which will be monitored.

CELFF

Agrovi
Den bedste løsning på jorden

/Business
Lolland-Falster

BIO
OKO
NOM
ISK
GRØNNE
CENTRE
HOLDNINGER

GULDBORGSUND

Visualisering: ZaStudio / nikolova@zastudio.com

STATUS Hampens Hus -an exsplorative project

Overall consultant & architect

nikolova/aarsø

'Industrial hemp is a fantastic crop that has great potential not only in construction, but also in the production of materials and solutions in society at large. As an architect, it's rare that you get the opportunity to focus on one basic resource as concentrated as in this project. We are therefore extremely pleased to have been chosen as the architect, as it is a direct continuation of our studio's uncompromising work to design and build as bio-based as we possibly can. The ambition to create Danish value chains for industrial hemp with Hampens Hus as a showcase is exactly what we need to get production and innovation going here in Denmark - and ultimately Danish-produced building materials. We have seized this opportunity and we can't wait to unfold it all and get started on the house together with a top-class Danish contractor.'

Jonas Aarsøe, arkitekt and founding partner.

Monitoring

'By monitoring Hemp House for moisture and temperatures, the risk of mould is assessed and new untested material compositions and construction techniques for hemp as a material are risk assessed. In addition, the aim is to map and summarise the necessary measures to make hemp construction a more risk-free part of Danish building practice.'

Negendahl, Project Manager, Sustainability and Indoor Climate.

Green project development

Hampens Hus is only 80 m², but it's built on a solid foundation of innovation from a wide range of partners. It's much more than 'just a small house'. I'm happy that I've been able to help bind all parties together around a common goal - a house that can become a very important stepping stone in the transition of Danish construction. The small house is packed with information for the industry that can be directly used to create new industrial or residential buildings with bio-based materials that are much less harmful to the climate. In this case, with materials made from hemp. With the house, we can now showcase materials, methods, prices and performance to everyone in the entire value chain. Crucial.'

Kristian Birkegaard, Director.



Main contractor



'Hampens Hus gives us a unique opportunity to work with the many different types of hemp materials that make up the house. And we can even look forward to collaborating with the local vocational high school and the researchers at DTU. We are taking our share of responsibility for the necessary change towards using sustainable building materials, and we will of course share our experiences. We are excited to be part of a strong team that will create a lot of new knowledge that we - and the entire industry - can use'.

Jakob Kock, Technical Director.

Load-bearing structures

'Hampens Hus is largely based on old knowledge and traditional building methods. To assemble the load-bearing wooden structures, the focus is on methods from before the use of metal brackets and screws. Where bio-materials are difficult to use, for example in foundations and at ground level, mineral materials are still used, but as the goal is low climate impact, a different approach is also taken here to avoid concrete and steel. It places special demands on the structural engineer to make static calculations for solutions that are not currently considered standard, but we are proud to be able to contribute to a new Danish standard where what we call natural materials are also prominent in the load-bearing structures of a building.'

Alan Burden, Structural Engineer and Director.



Co-financing

'I look forward to craftsmen, architects, builders and engineers finding inspiration in the solutions, unique properties and aesthetics of a house built with hemp. We have a lot of untapped biogenic resources in Denmark that have the potential to play a much bigger role in construction than they do today. And the Hemp House can concretely show the world how it can be done and what it will look like in the future.'

Stig Hessellund, Project Manager.

'A leap in scale - that's our goal!

In the BBOBB project, 16 partners across five countries in the North Sea region are working together to design, develop and strengthen value chains for the use of bio-based materials. In our partnership, all parts of the value chain are represented. We believe that the circular economy is an important means of addressing the climate challenge, with the prospect of new business models. Therefore, the use of bio-based materials in construction (built environment, interior construction and civil engineering) is a unique opportunity that we want to seize. Let's work on a circular economy together!'

Building Based on Bio Based

- the partners (NL, B, D, F and DK).



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