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## **SUSTAINABLE HIGH-RISE BUILDINGS DESIGNED AND CONSTRUCTED IN TIMBER (HiTimber)**

KA2: Cooperation for Innovation and the Exchange of Good Practices. Strategic Partnerships

**Project number: KA203-2017-009**

“Sustainable High-Rise Buildings Designed and Constructed in Timber” (HiTimber) project aims to fulfill the future demands in higher education including innovation, sustainability, international, trans-disciplinary and entrepreneurial approaches for the development of a new study module/elective element in sustainable high-rise timber buildings.

According to National Oceanic and Atmospheric Administration (NOAA), atmospheric CO<sub>2</sub> has not been seen on the earth at this level (400 ppm) for millions of years. Most worldwide environmental agencies regarding climate change agree that it is a threat to our way of life and we can no longer stand back and be spectators. Therefore, sustainable environmental friendly building design and materials are now beginning to be implemented in the EU and worldwide. Professionals state that the age of high-rise timber buildings has started. They agree that timber is an ideal material when grown in sustainable managed forests. It is being used more and more extensively in the building and construction industry. However, education in high-rise timber construction is still very limited.

The wider objective of this project is to develop a trans-disciplinary and international course/ elective element in the EU HEIs in the design, construction and management of sustainable high-rise timber buildings in order to enhance the quality and relevance of students' knowledge and skills for future labour market needs.

### **THE SPECIFIC OBJECTIVES OF THE PROJECT:**

- To strategically research at which level sustainable design, construction and management of sustainable high-rise timber buildings are to be planned and implemented in the partner countries.
- To educate all participants (students, teachers, entrepreneurs) in the field of the sustainability and the emerging global problems.
- To develop and implement the new strategic trans-disciplinary module/elective element, which meets the needs of the HEIs and market representatives, fulfills the future challenges of sustainable design and construction of high-rise timber buildings.
- To improve competencies of students and teachers in problem solving and team work, innovative thinking, motivation, awareness of cross-professional project input and project management by using project-based learning approach.
- To ensure open awareness of the project results to local, national, EU level and international target groups.

### **INNOVATIVENESS OF THE PROJECT**

The HiTimber project is innovative and fulfills a great need for solving the sustainability issues and creating sustainable solutions for the construction and related sectors in addressing future challenges. It promotes sustainable, environmental friendly design and construction of high-rise timber buildings.

The project complements to traditional higher education, but uses the innovative teaching/learning approaches, including trans-disciplinary, project-based learning, learning by doing, problem solving and critical thinking. The teachers and students will be trained and motivated by the multidisciplinary, inter-cultural approach, leading to innovated know-how.

Through strategic cooperation among the EU HEIs and stakeholders, the HiTimber project will develop new teaching practices to improve the education satisfying the labour market needs. The proposed project will allow innovative know-how to be matured inside the companies, carried out and tested in real life conditions.

**Project is implemented by 5 higher education institutions and 2 companies from 5 EU countries:** VIA University College (Denmark), Southampton Solent University (United Kingdom), Vilnius Gediminas Technical University (Lithuania), Tallinna Tehnikakõrgkool (Estonia), Universidade de Lisboa (Portugal), Study and Consulting Center (Lithuania) and Estonian Woodhouse Association (Estonia).



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