Study shows hemp captures as much carbon as forests when used for construction materials.

Brussels - The European Industrial Hemp Association (EIHA) has published a comprehensive study realized by the Nova-Institute, shedding light on the carbon transfer potential of wood and hemp in the production of construction and insulation materials. Titled “Unlocking Carbon Transfer: Wood and Hemp for Sustainable Construction”, this study delves into the environmental implications of utilizing these biomass sources in the construction industry.

In recent years, addressing climate change and reducing greenhouse gas emissions have become paramount objectives on political agendas. The construction industry, known for its significant carbon footprint, contributes an estimated 5 to 12% of national greenhouse gas emissions. To combat this, the EU’s circular economy action plan emphasizes the importance of resource efficiency, circularity, and the utilization of organic building materials, such as hemp and wood, to minimize the ecological impact of buildings and transform the construction sector into carbon sinks.

The study finds that hemp varieties cultivated today in Europe can store between 7 and 9.6 tons of CO2 equivalents every year, as much as wood. "This represents a significant carbon storage potential with the potential increase of hemp hectares and its applications in the construction sector," says Mark Reinders, EIHA Board member. "The absorption capacity of the construction industry goes well beyond the current 50,000 hectares of cultivated land. Hemp has the potential to substitute rockwool and cement; it is one of the most valuable resources for the construction industry and the perfect complement for wood-based projects. Additionally, hemp ensures massive energy savings when it comes to heating and cooling, resulting in the avoidance of more carbon emissions."

In the fourth quarter of last year, the EU economy emitted a total of 939 million tonnes of CO2 equivalents, a 4% decrease compared to the same quarter of 2021 (978 million tonnes of CO2 equivalents)1. Several measures are being put in place at the EU and national level to further pursue this direction and achieve climate neutrality by 2050. "At EIHA, we will continue working to ensure that EU institutions recognize the potential of hemp as a carbon storage crop" says Lorenza Romanese, EIHA Managing Director. "This study will serve as a basis for a transparent and science-based discussion that will hopefully yield regulatory results and greater visibility for hemp," she adds.

The complete document, providing comprehensive insights into the carbon transfer potential of wood and hemp in the construction industry, is available for download on the EIHA’s website.

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1 Source: Eurostat, last update May 2023
About the European Industrial Hemp Association:

The European Industrial Hemp Association (EIHA) is a leading organization dedicated to advancing the hemp industry in Europe. Representing hemp producers, processors, and other stakeholders, EIHA aims to promote the use of industrial hemp for various applications and foster sustainable practices throughout the value chain.

About Nova-Institute:

Nova-Institute is a leading research organization specializing in sustainability and innovative technologies. With a strong focus on bio-based industries, Nova-Institute is dedicated to advancing the transition towards a more sustainable and resource-efficient future.

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