**Name of the case: Sustainable carbon sinks of Finland**

**Description:**

Let’s use the innovative technology and creativeness that we have in Finland to boost our technological know-how and scale it up to global business by using weed as the biomass for carbon sink of our own.

With our superior technology that we have built over the decades to be the world leader in Forest Industry know-how, we are in the privileged position to create the technology to harvest common reed (Aalto University Mechatronic project on-going), make bio gas out of it, use the solid reject of the bio gas production as the raw material for pyrolysis technology based bio char production, and use the flue gas of the pyrolysis process for methane production (QPower microbe based technology). The bio char itself can be used for improving the soil conditions for our agricultural activities thus guaranteeing the carbon will be stored for thousands of years.

By using and harvesting the annual growth of common reed at the end of its lifetime and using bio char on our crop fields, we do not only improve the status of Archipelago, but we can also create carbon sinks of our own instead of looking to buy them abroad.

The technology and business concept based on income from biogas production, methane production, bio char production and the income from carbon sinks, once created and demonstrated here in Finland, can be scaled up to global markets as the need for moving towards carbon neutrality is urgent and the existence of common reed is globally vast.

**What is the impact of your case:**

Business for Finnish export industry, mitigation of climate change, certified and transparent carbon sinks that are easily verified to be used for cities and countries to achieve their carbon neutrality targets, the project will demonstrate the value chain from unutilized biomass to biofuels, synthetic fuels and to sustainable carbon sinks to be scaled up for global markets.

**How is your case innovative:**

Currently common reed is rotten at the seafronts and thus causing methane emissions by itself without a possibility to be utilized as raw material in mass production. The innovative idea and related innovative technology combined with the urgent need to create sustainable carbon sinks worldwide can be developed and demonstrated with joint efforts between Universities and Companies today by using this idea. It is also an innovative way to boost bio fuel and synthetic fuel production worldwide.

More information:

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