



PROJECT

EUCANWin!

An EU-Canada research cooperation action to develop a climate positive and cost-efficient forest-based biomass-to-biopower supply chain

EUCANWin! has three ambitious goals. Firstly, to increase the viability of the biomass supply chain from forests by involving artificial intelligence, secondly, to increase the electrical efficiency of combined heat and power through Biomass-fired Top Cycle technology (BTC), and lastly, to achieve this in combination with negative carbon emissions.



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10
PARTNERS

6
COUNTRIES

€6,5 M
TOTAL BUDGET

4
YEARS



IN ONE CLICK		
Coordinator	Programme	Period
RISE	Horizon 2020	2021-2024
Sector	Web	
Energy	https://eucanwin.eu/	

01
Objectives

Despite ongoing research efforts, harvesting, quality and cost of forest biomass remains a significant challenge for the bioenergy sector due to the lack of accurate volume estimations, minimal operational experience of practitioners, challenging economics and a lack of transparency in the supply chain. In addition, Conventional technologies for power production from biomass (biopower) suffer from low electricity efficiencies. Europe and Canada need improved technologies that are more cost-efficient and open the possibility for carbon capture and storage.

02
Solutions

Based on a EU Biomass Atlas, EUCANWin! will build a prototype Forest Biomass Atlas to be applied across Canada, enabling a more accurate evaluation of forest biomass resources and will develop and test an On-Board Intelligent Biomass Analyser. Partners will analyse the feasibility of tree-length harvesting in Nordic conditions. The project will also develop and validate the Biomass fired Top Cycle (BTC) concept that integrates the gasification of biomass residues with a novel steam-injected gas turbine (Top Cycle), will quantify the CO2 capture cost for the conditions in the BTC process.

03
Impacts

Eucanwin! Will Strengthen the European and Canadian technology base and accelerate the development of sustainable fuels to replace fossil fuel alternatives, increase the viability of advanced biofuels and bioenergy in the EU and Canada and create new market opportunities, reduce the environmental impact of energy production and Contribute to Mission Innovation, a global initiative to catalyse action and investment in research.