

# Cutting-edge research on non-food biofuels

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Biofuels are playing an increasingly important role in our energy mix - between 2008 and 2010, the volume of biofuels consumed in the EU increased by 39 %. However, there is concern over the impact on sustainability and on biodiversity of some biofuels, particularly in relation to changes in indirect land use. Consequently, policymakers are increasingly interested in biofuels from woody plants that can grow on land unsuitable for agriculture.

With this in mind, the FP7-funded MULTIBIOPRO [project](#) is developing second-generation non-food oils and biomaterials from poplar and the tobacco tree (*Nicotiana glauca*). Both of these plants thrive on marginal land and may have the potential for large-scale production without directly competing with food crops.

Launched in 2012, the MULTIBIOPRO project is also exploring compounds that can be derived from waste biomass for use in pharmaceuticals, construction and other industries.

Dr Staffan Persson of the Max Planck Institute for Molecular Plant Physiology, coordinator of the project, notes, 'MULTIBIOPRO wants to let nature do the job for us. We want to have one species producing many different products.'

Dr Persson adds, 'Within MULTIBIOPRO , we have academic partners and industrial partners and we work very closely to try to utilise the compounds that are available in our species to then try to sell those products to bigger companies that can make them applicable for the rest of society.'

One element of the project involves the Neutral Group, a project partner, growing tobacco trees at a research farm in Dubai. Oil from the tree may act as a potential replacement for used cooking oil, the Neutral Group's current source of feedstock at its nearby bio-refinery.

During this testing period, the project team hopes to discover the quality of the biodiesel that can be produced from the tobacco plant, and in particular whether it will pass international standards.

Corporate partners within the project are already looking toward new products to meet market needs. James Hygate, of Green Fuels notes, 'When you actually look at the value of [the products], you're looking at EUR 300-400 billion worth of production. This is big business.'

Another important aspect of the project is that it is designed to seed research institutes with young talent ready to carry Europe's push for alternatives to fossil fuels into the future. The project provides training for these young scientists who can interact with laboratories and new

techniques across Europe.

The first annual MULTIBIOPRO project meeting took place late last year at the Royal Institute of Technology (KTH) in Stockholm, Sweden. The consortium has also recently published a short film which aims to provide the public with a better understanding of the dynamics of this cutting-edge research project.

**More information:** [multibiopro.eu/](http://multibiopro.eu/)

Provided by CORDIS

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