

The sustainability agenda is moving forward and innovative companies are leading the way

Strength in sustainability

Responsibility is about values, commitments and actions. It is shown every day that innovative and responsible business can be efficient and profitable, bringing quality of life and prosperity to stakeholders. For decades, efforts have been put in responsible forest management, traceability, sourcing and supply chains.

For our company, driving top performance is clearly linked to sustainability. Our vision is captured in one word – Biofore. It means that we integrate the bio and forest industries as a frontrunner. Versatile use of recyclable and renewable wood biomass, combined with innovation, efficiency and responsibility are at the core of Biofore. The company's economic, social and environmental responsibility is verified by multiple

certificates and ecolabels.

The consistent work on corporate responsibility has been recognised by several external international parties. For example, UPM has been listed as the industry leader in the Dow Jones European and World Sustainability Indices (DJSI) for the fourth year in a row. Just recently, the company was ranked on the 25th place in the Global 100 list of the most sustainable corporations, and United Nations invited the paper and pulp specialist to join a group of world's top 50 sustainability leaders in the UN Global Compact LEAD platform.

Sustainability certification

Certification of different products and supply chains is well known at UPM. However, only in biofuels is the sustainability certification

a mandatory business enabler – a biofuel, such as UPM BioVerno, can be sold in Europe as a sustainable fuel only when it is certified against obligatory EU RED (Renewable Energy Directive) sustainability requirements. Otherwise the fuel is treated like fossil fuel.

UPM produces UPM BioVerno renewable diesel fuel in its Lappeenranta Biorefinery from crude tall oil (CTO), a residue of the company's own pulp production. Currently UPM BioVerno is certified both according to the Finnish national sustainability standard and ISCC-EU (International Sustainability and Carbon Certification) standard for biofuels. Certification proves that a supply and production chain is managed and operated according to the standard. Bringing the rules and requirements into action requires systematic processes and risk mitigation procedures.

In sustainability certification of biofuels, specific requirements are set for feedstock origin, traceability, mass balance and greenhouse gas emission emissions. These are systematically monitored in the entire supply chain from feedstock to production and the end user of a fuel. Each feedstock supplier is evaluated and monitored carefully, and each batch or truck of feedstock or fuel is followed one by one throughout the chain. Risk mitigation tools are used in all phases. Each renewable fuel truck holds a specific Proof of Sustainability (PoS). One can read the fuel's story in the PoS. It includes information about the properties of the specific truck content – used feedstock, feedstock origin and greenhouse gas reduction compared to its fossil reference. Each batch of a final biofuel can be traced



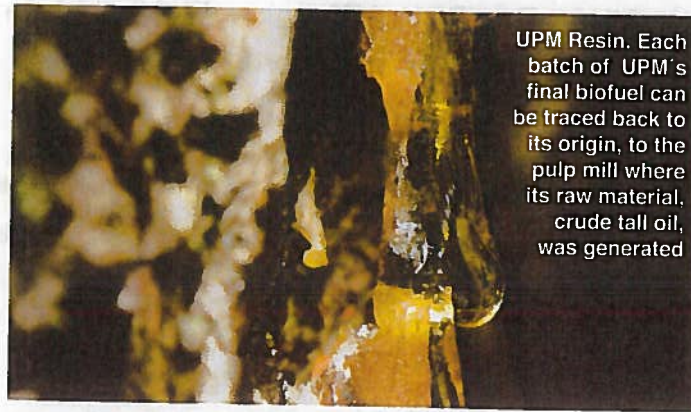
UPM Biorefinery UPM Lappeenranta Biorefinery in Finland produces annually 120m litres of renewable diesel reducing CO₂ emissions by 80% and tailpipe emissions significantly.

back to its origin, to the pulp mill where its raw material, crude tall oil, was generated.

Strict rules apply for the certification of the whole supply and production chain. Yet, passion for responsibility brings UPM deeper. In multiple areas, sustainability and responsibility verification goes far beyond the regulatory requirements.

Driving cleaner traffic

Sustainability certification of biofuels is an entry ticket to the regulated European renewable transport fuel market. However, the reasoning for the certification requirement lies mainly in environmental concerns. The main aim of biofuel policy is to mitigate climate change caused by increased CO₂ emissions and other greenhouse gases in the atmosphere. Therefore rules



UPM Resin. Each batch of UPM's final biofuel can be traced back to its origin, to the pulp mill where its raw material, crude tall oil, was generated

have been laid for the minimum requirements of greenhouse gas reduction in the life cycle. Also requirements for the origin of the raw material have been put in place to fight unwanted land use change and protection of valuable ecosystems.

Sustainable advanced biofuels therefore significantly reduce undesired greenhouse gas emissions. Often, high quality drop-in biofuels also reduce other air emissions,

such as particulates and nitrogen oxides. This is also the case with UPM BioVerno renewable diesel. Conversion of fossil fuel use into sustainable, advanced biofuel is a step towards more sustainable society.

Stakeholder dialogue

UPM continues strong engagement in responsibility. In order to constantly

improve, we cooperate widely with a diverse range of stakeholders, from customers to environmental and civic organisations. For instance, UPM and WWF Finland co-operate to promote the sustainability of wood-based liquid biofuels. UPM also participates in numerous research programs and projects looking at the various aspects of for example availability and sustainability of wood residues.

As a next step, UPM plans to expand its sustainability certification also on biochemical sector. We see a great potential in this growing area of interest. Sustainability is good business – also in the long run. ●

For more information:

This article was written by Maiju Helin, manager, sustainability and regulation, UPM Biofuels Finland. Visit: www.upm.com

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