

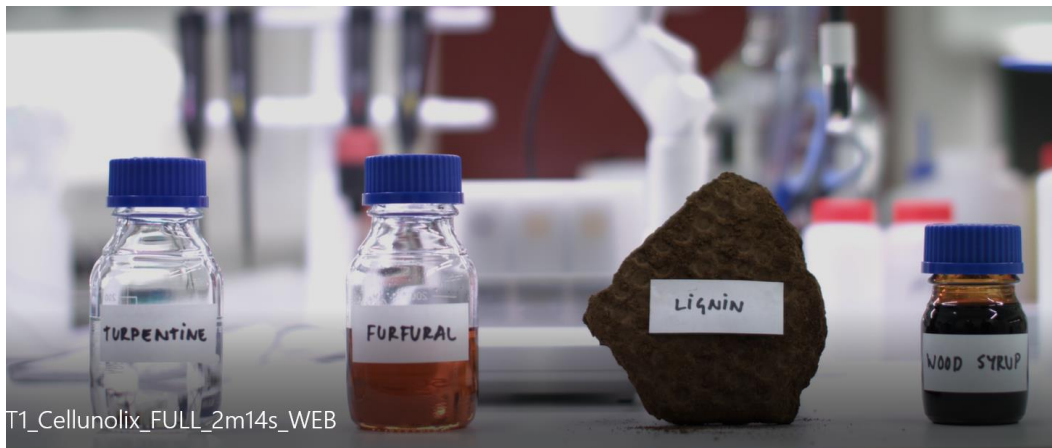
## EXCLUSIVE SIDE EVENT 22.10.2018 VISIT TO ST1 KAJAANI CELLUNOLIX® BIOREFINERY

NWBC 2018 – 8<sup>th</sup> Nordic Wood Biorefinery Conference participants have a unique opportunity to visit the biorefinery of St1 Renewable Energy Oy in Kajaani.



St1 produces advanced ethanol for traffic use and other renewable products Kajaani Cellunolix® demonstration biorefinery from sawdust. The plant is located at the paper mill site in Renforsin Ranta, Kajaani in Northern Finland. The production capacity of the plant is 10 million liters of advanced ethanol in a year. Production was started in the beginning of 2017. All produced ethanol is used as renewable traffic biofuel component. Kajaani Cellunolix® plant is the first in the world utilizing saw mill residues of softwood in ethanol production in commercial scale. Feedstock is sourced from saw mills located around the Kajaani plant. Lignin, wood vinasse, wood turpentine, furfural, carbon dioxide and biogas are produced in the Cellunolix® biorefinery .

The brown field location of the plant is optimal because Pölkky Kajaaniwood saw mill and Kainuun Voima power plant are located in the same area in Renforsin Ranta. Together St1, Pölkky and Kainuun Voima form an ecosystem where process residues from Pölkky's saw milling process are utilized in St1's ethanol production while Kainuun Voima is providing utilities to St1. Today St1 delivers side products to Kainuun Voima to be used in renewable heat and power production. St1 aims to develop together with partners these products to valuable renewable building blocks and products in various industries.



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St1 is planning to invest five times larger Cellunolix® biorefineries in Nordic countries in near future and further on in all softwood producing countries in the world. Feasibility studies and environmental impact assessments for three sites - two in Finland and one in Norway are already processed.

#### Site visit itinerary:

Arrival on earlier days is possible by train or plane. Please buy your tickets for train from VR [www.vr.fi](http://www.vr.fi) (tickets are available about three months before needed date) or for flights through your travel agency. Remember to arrange also your accommodation in Kajaani if you choose to travel earlier.

Transportation option arranged by the organizers is shown in the itinerary below, information on bus and train connections to Helsinki airport from Helsinki city center can be found from the airport [web page](#).

08:25 - Flight from Helsinki to Kajaani by Finnair

09:40 - Morning flight arrives at Kajaani Airport, also possible to arrive a day before by plane or train

10:00 - Depart from Kajaani Airport, the bus will also collect participants staying at Scandic Kajanus and Sokos Hotel Valjus

10:15 - Arrive at Renforsin Ranta. A short visit Pölkky Kajaaniwood saw mill and Kainuun Voima power plant by bus

10:45 - Tour of St1 Cellunolix Ethanol plant and presentation by St1

12:00 - Lunch (provided by St1)

12:45 - Depart to Kajaani airport

13:50 - Flight from Kajaani to Helsinki by Finnair

15:40 - Flight arrives at Helsinki Vantaa airport

Watch a video presentation of the Cellunolix® technology and a preview of the site in Kajaani.

Link: <https://www.youtube.com/watch?v=ncQV8Qc7H9E>

In all enquiries regarding the side-event please contact [NWBC2018@vtt.fi](mailto:NWBC2018@vtt.fi).