UNIQUE INNOVATION AND DEMONSTRATION PLATFORM FOR BIO- AND CIRCULAR ECONOMY BUSINESSES

We can help you solve your innovation challenges. With all the required expertise, modelling and piloting capability under one roof, VTT delivers optimal solutions, from initial development to end product.

BIORUUKKI supports business opportunities in:
- Low carbon energy solutions
- Efficient biomass refining
- New biomass-based products
- Recycling and waste utilisation
- Sustainable chemicals

VALUE FROM INTEGRATION

Techno-economic and concept studies
Pre-processing various raw materials
Process, chemistry and CFD modelling
Feedstock conversion processes: gasification, pyrolysis, green chemistry

GROUND-BREAKING INNOVATIONS

www.vttresearch.com/bioruukki
Our innovation accelerator lowers your risk

VTT has a long history of helping industrial partners to create and develop new process concepts—from the initial idea through the laboratory phase to industrial pilot demonstrations. With Bioruukki, VTT can help companies to accelerate their global market launches.

The flexible research and pilot project infrastructure in the 10,000 m² of Bioruukki offers a world-class platform for scale-up and demonstrations, as well as for small-scale manufacturing.

Make use of Bioruukki’s process equipment for your pilot program to avoid the set-up costs of in-house pilots. VTT’s considerable body of existing knowledge as well as 500 experts are at your disposal.

Bioruukki is seamlessly connected to other VTT pilots in biotechnology and biomaterials.

An international and networked hub of excellence

There is a significant community of sector specialists among the companies and research institutes at Otaniemi Technology Hub and in the capital region. Finland is an ideal location for your pilot programs.

We offer to our clients and research partners an international innovation ecosystem. VTT is an active player in EU Horizon 2020 initiatives and projects, and a partner in key European pilot program networks.
Bioruukki pilot centre offers:

**Thermochemical conversion:**
- Fluidised bed gasification and pyrolysis test facilities, from laboratory to pilot scale
- CFD modelling of conversion processes

**Biomass processing:**
- Development of biomass fractionation (biorefinery) processes
- Novel cellulose fibre applications
- Cellulose nanofibrils (CNF)
- Textile fibres from cellulose

**Green chemistry:**
- New bio-based chemicals and polymers
- Chemical storage of solar energy
- Flexible multi-purpose facilities
- Custom manufacturing services for specialty products
- Separation technologies

**Process concept modelling:**
- Techno-economic feasibility studies
- Process, chemistry and CFD modelling
- Steady-state and dynamic process simulation

ASUS US MORE!
Mikko Vänskä
Business Development Manager
+358 40 163 1387
mikko.vanska@vtt.fi

Mika Härkönen
Principal Scientist
+358 40 083 9577
mika.harkonen@vtt.fi