

Bringing it all together: the Forestry Cluster

Quesnel, 2023





Jukka Matikainen

Multi-skilled Sales & Business Development professional with a Double Master's degree in Business & Technology.

Overview

Jukka is a highly regarded and successful driver of business growth with a diverse background in **Direct & Indirect Sales, Marketing, Strategy, Product & Service Management**. For the past 10+ years, he has worked in global multi-billion sized corporations (construction, automotive, and forest product markets) in Canada, UK, the Philippines, Australia, and Finland. Double Masters in Industrial Engineering and Corporate Finance.

Key strengths

Business Development, Direct Sales, Distribution Management, Consultative Selling, Technical Sales, Business Planning, Product Marketing, Market Research

Nordic Trading House

Nordic Trading House is a **Vancouver**-based company **helping Nordic companies** to access the North **American market**. We can **sell, market, and distribute** your **products on behalf of you** or we can help you to conduct market research before deciding to expand to North America. We have combined experience of 20+ years in business development, sales, and marketing. We are passionate about **selling and marketing innovative products, increase productivity, reduce the total cost of ownership or make lives better**. Our Nordic background helps to understand cultural differences and to avoid potential pitfalls due to a lack of cultural and local understanding and knowledge.

Education

- Master of Science, Industrial Engineering (DI, LUT)
- Master of Science, Economics & Business Administration (KTM, LUT)

Career

- CEO, Nordic Trading House, Vancouver, CA
- Senior Account Manager, 3M, Vancouver, CA
- Senior Account Manager, Hilti, Vancouver, CA
- Product Marketing Manager for Northern Europe, Hilti, Manchester, UK
- Business Development Manager, Hella Australia & Philippines, Melbourne, AU
- Business Development Engineer, UPM, Melbourne, AU
- Analyst - Corporate Strategy, UPM, Helsinki, FIN





Some of our clients (Canada and the U.S. Projects only)



Valon Kone



Contents

- The Forest Bioeconomy Cluster Benchmark
- International collaboration
- Logging operator training

The success factors of five forest bioeconomy clusters were studied in the study for BC's Ministry of forests



Bioeconomy Clusters Scan



Bioeconomy Clusters Scan

An analysis of how Forest Bioproduct Manufacturing Clusters have been successfully realized in jurisdictions outside of B.C. and what can be learned from the successes to realize clusters in B.C.

Nordic Trading House Ltd.

Submission date: March 28, 2022



Some of the key findings

- **Planning:** Cluster planning and preparation should follow an analytical, thorough, and well-thought process
- **Ownership:** The cluster is recommended to be owned by its members, which creates long-term commitment and secures some of its funding
- **Funding:** Continuity is important when establishing a cluster
 - Commercial success with new companies and products might take 5 to 8 years
- **Management:** The cluster should be led by a person who is trusted by all stakeholders (e.g., , First Nations, companies, government, public organizations, R&D)
 - The cluster cannot be led by a university or a research organization
- **Labour:** Availability of skilled workforce for R&D, management, operations, and commercialization is a critical success factor
- **Companies:** Successful clusters have strong and large companies capable of making large investments
- **Collaboration:** Siloed thinking between stakeholders needs to be overcome
 - Collaboration between multiple stakeholders should be a prerequisite for government grants/funding for large projects

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Joensuu is the Forestry Capital of Europe. Their innovation ecosystem includes world-class companies, research and education organizations.

Why Joensuu

Why Joensuu is Forestry Capital of Europe?

- Our **Climate Smart Forestry** Joensuu innovation ecosystem includes
 - City of Joensuu
 - Province of North Karelia
 - Our world-class companies
 - R&D and education organizations
 - University of Eastern Finland, Karelia, Riveria, LUKE, FFC
- Joensuu is recognized **Global Hub of Digital Forestry**
 - Welcome to our flagship event Forest & Photonics Nov 2023!
- The **Forestry know-how hub of Europe**
 - European Forest Institute located in Joensuu
 - Natural Resources Institute Finland (LUKE)
 - Finnish Forest Centre
 - Finnish Environment Institute (SYKE)



BUSINESS JOENSUU

JOE

J•ENSUU



Insights

- The Joensuu region and Quesnel have similar challenges
 - Fiber supply will decrease over the next 10 years
 - Bulk pulp production shifts from Finland to the Southern Hemisphere
 - Burning of wood fiber will be more restricted in the future, and new end-uses for wood residues need to be invented

Climate Smart Forestry Joensuu Finland innovation ecosystem. Forest Capital of Europe

Funding and public services

- European Union
- Business Joensuu
- JOE
- StartUp Fund
- City of Joensuu
- North Karelia Growth Fund
- Private funds, investors and banks

Research, Development, Education

- University of Eastern Finland
- LUKE
- EFI
- SYKE
- Karelia
- Business Joensuu
- JOE
- RIVERIA
- Lämsäkeskus
- PenTen
- APILA
- M. PAPPINEN
- BCon

Wood procurement

- storaenso
- binderholz
- Metsä
- UPM
- HARVESTIA
- Keräwood
- VÄSKÄRINEN OY
- GreenKasvi
- ITÄMOTO
- RAJAFORST OY
- YLEISET SAANNON OY
- Melanjo Oy
- SekeraOy
- IKK-KULJETUS OY

Forestry

- TORNATOR
- metsäkeskus
- Forest owners
- Soil preparation, silviculture
- MAKELIN OY
- BUOMEN KASVUOHJELMAT OY
- Pohjanjärvi

Wood processing

- binderholz
- storaenso
- PANKABOARD
- KAVOSPUU
- FM Timber
- ANAKA WOOD
- UPM
- SCAN|POLE
- HUYLAAMO KY
- LUNAWOOD
- PRIMA|TIMBER
- PUUMERKKI
- PUUPIETARI

Bioenergy + bio products

- SAYON VOIMA
- ADVEN
- Enonenergia.fi
- KUPILKA
- Local DH companies
- storaenso
- GREEN FUEL
- NORDIC KOIVU

Sustainable construction

- EERO REIJONEN OY
- Kesälahden Rakennus Oy
- TERVO
- KARLO
- TimberBros
- ARCADIA
- SAANNTELURINNA
- KARRAN OY

ICT, AI, tech & services

- arbonaut
- BITCOMP
- TORNATOR
- BLOM
- SAO FINLAND
- SEE TRUE TECHNOLOGIES
- dispelix
- KELLUU

Forest machinery

- JOHN DEERE
- MANTSINEN
- waratah om
- LIPE
- KONEOSAPALVELU
- VEEKMAS OY
- PENTIN PAJA OY
- KONEKOJAAMO RIIKONEN OY

National networks

International networks

International collaboration

British Columbians will get an opportunity to join an excursion to Joensuu, where they will showcase forestry expertise in September. The tour is organized by the UBC.

Canada British Columbia Smart Forest Joensuu tour

innocities
JOENSUU

Part of Finnish Forestry tour Sep 23 – Oct 3 organized by UBC

Sep 26-30, 2023
in Joensuu, Eastern Finland

Smart Forest Seminar at Joensuu Science Park and networking with GreenHub Joensuu:

September

26

- Forest Innovation Hub
- John Deere, the biggest forest machinery factory in the world
- Natural Resources Institute

September

27

- Field tour with Kesla: commercial thinning
- University of Eastern Finland
- Forest management roundtable with the University of Eastern Finland, Natural Resources Institute and Arbonaut

September

28

- Joensuu bioindustry and circular energy park
- Tornator: partnerships with industry and forest owners

September

29

- Eno Energy Cooperative
- Valtimo Forest Machinery Training Center

September

30

- Koli National Park
- Small bioheat and power plant

Welcome to the Forest capital of Europe!

For detailed information:



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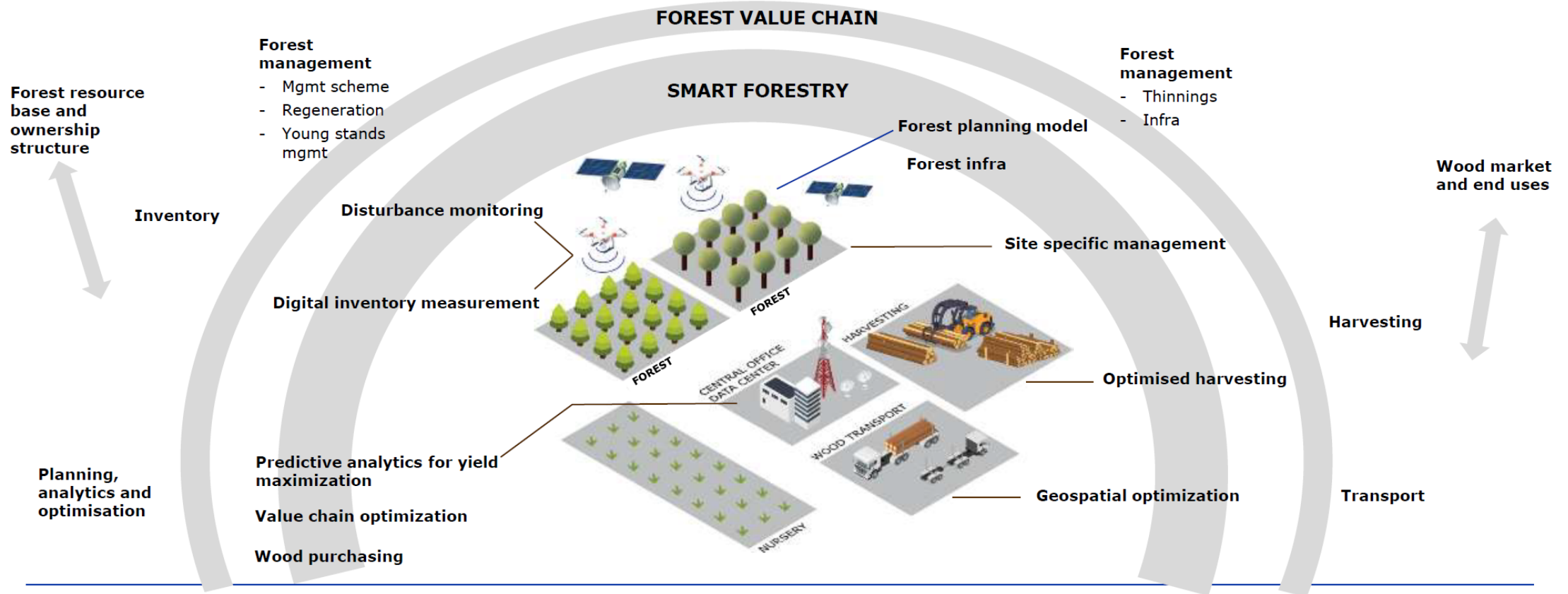
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The tour material has been produced as a part of the Joensuu city's innovation ecosystem agreement activities, which are co-funded by the European Union and the City of Joensuu.



Climate Smart Joensuu Finland can provide SOLUTIONS FOR THE FULL VALUE CHAIN

Smart forestry focuses on digital solutions to improve accuracy and efficiency in the forestry value chain from forestry operations to harvesting and wood transport, including planning, analytics and optimisation



Finland has MOUs with the Canadian federal gov't and BC. The Joensuu region/North Karelia is interested in signing MOUs with Quesnel and PG to make the collaboration more concrete.



Press releases and news

[suomi](#) | [svenska](#) | English

Canada and Finland to continue and strengthen forestry sector cooperation

Ministry of Agriculture and Forestry

24.5.2019 14:58 PRESS RELEASE



Canada and Finland have renewed their forestry sector cooperation agreement. The parties to the five-year Memorandum of Understanding are the Ministry of Agriculture and Forestry of Finland and Natural Resources Canada.

The updated Memorandum of Understanding includes a new section on forest-based bioeconomy. Both countries have a long history of work in the forest industry. The past few years have seen the development of new wood products based on new production technologies on the one hand, and more effective use of forest industry side-streams, for instance, on the other. Cooperation between Finland and Canada will continue to be based on research and development activities, which are expected to lead to an increase in commercial operations.

"The countries' research expertise and infrastructures complement each other very well, so both countries

benefit from the cooperation," says **Jaana Husu-Kallio**, Permanent Secretary at the Ministry of Agriculture and Forestry.



Jobs, Economic Development and Innovation



Joint action plan will benefit people in B.C., Finland

Translations

- 繁體中文
- Suomi
- Français
- हिन्दी

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News Release

Victoria
Wednesday, June 1, 2022 11:00 AM

Media Contacts

Ministry of Jobs, Economic Recovery and Innovation
Government Communications and Public Engagement
250 893-3705

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(flickr.com)

As B.C. moves forward with the recently released Mass Timber Action Plan, the Province has signed a significant agreement with Finland to continue collaboration on research, advancement, development and commercialization of the forest bioeconomy and mass timber.

The letter of intent was signed between B.C.'s Ministry of Jobs, Economic Recovery and Innovation and Finland's Ministry of Environment and Ministry of Forestry. The agreement is a key part of the European trade mission by Ravi Kahlon, B.C.'s Minister of Jobs, Economic Recovery and Innovation, and another step in the Province's StrongerBC Economic Plan.

"We are entering a new world with a fast-changing global economy, and I'm determined to have B.C. right at the forefront," said Kahlon. "Like B.C., Finland is a leader in sustainable forestry and through collaboration and sharing cutting-edge

<https://vnk.fi/en/-/1410837/kanada-ja-suomi-jatkavat-ja-tiivistavat-yhteistyota-metsaalalla>

<https://news.gov.bc.ca/releases/2022JERI0026-000844>

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Riveria is a provider of vocational training. They have a state-of-the-art logging operator training program and facilities in Valtimo, Finland



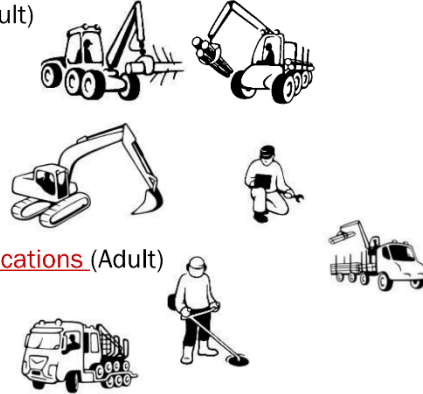
Curriculum in Valtimo

Vocational qualifications (Youth and adult)

- Harvester operator
- Forwarder operator
- Excavator operator
- Mechanic
- Timber truck driver
- Lumberjack (manual worker)

Specialist and further vocational qualifications (Adult)

- Harvester pro-operators
- Forwarder pro-operators
- Pro Mechanic
- Supervisors



Insights

- Logging operator profession:
 - requires a three-year degree
 - is a respected and wanted job
 - pays reasonably well
- New machines are highly sophisticated:
 - require a skilled workforce
 - youth see them as an attractive work environment
- Proper training ensures profitable harvesting operation, and the machines won't face unnecessary break-downs due to the misuse

Joensuu // Kitee // Lieksa // Nurmes // Outokumpu // Valtimo // RIVERIA



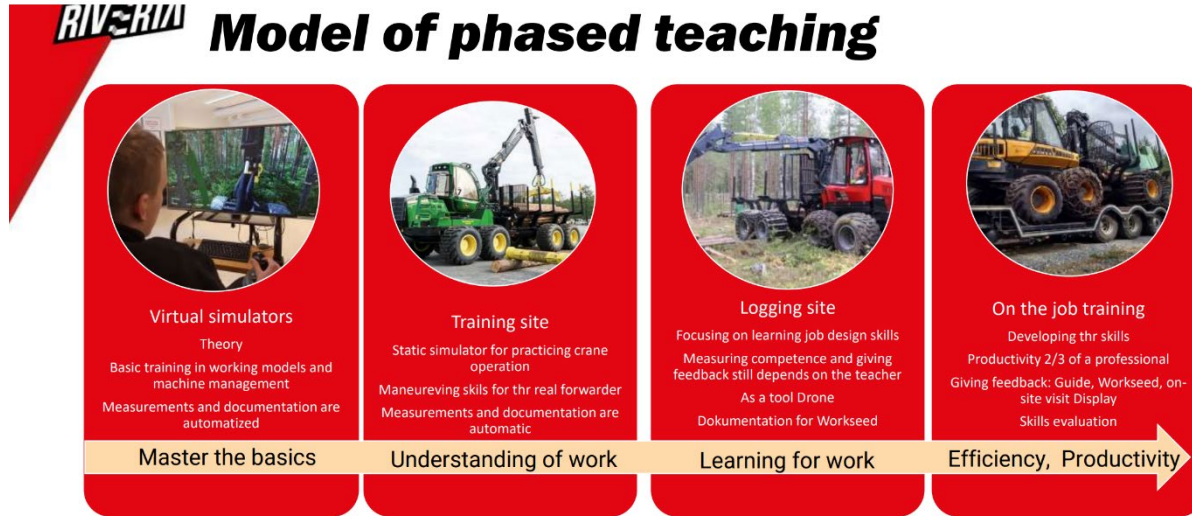
Curriculum competence based credits (180 credit)

- > Introduction to
 - forest operations, 20 credit (13-week program)
 - forwarder operation, 20 credit (12-week program)
 - maintenance, 20 credit
- > Mandatory topics 35 credit
 - math, physics, Finnish, Swedish, English, life skills
- > Specialization 65 credit
 - Forwarder - Harvester - Excavator - Logtruck driver - Mechanic - Logging/Forestry skills
- > Elective 20 credit. Introduction to
 - excavator operation 10 credit (spot mounding)
 - heavy truck license 10 credit (transporting machines)



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The training program lasts 3 years, starting from basic training with simulators and theory lessons. Later on, the students get to work on real machines on training and logging sites



Harvester

- > 65 Credit
- > Forest operations, thinning & clear cutting
- > ICT devices, adjustment, calibration, logging site managing, maintenance and repair
- > Planning the own work
- > On the job training
- > Efficiency - Productivity



The training campus has great facilities, including 38 machines and 24 simulators. The training field has static electric simulators providing a safe environment to operate real machines.

Insights

- The training centre has machines from three major machine manufacturers including: Ponsse, John Deere, and Komatsu



Facilities of Valtimo



- Machines
- = 8 pcs
 - = 20 pcs
 - = 5 pcs
 - = 4 pcs
 - = 1 pcs

- Simulators
- = 20 pcs
 - = 4 pcs

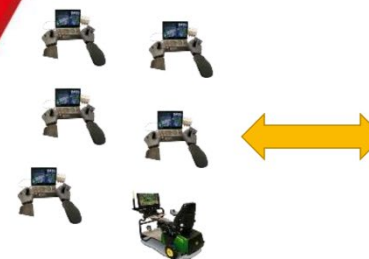
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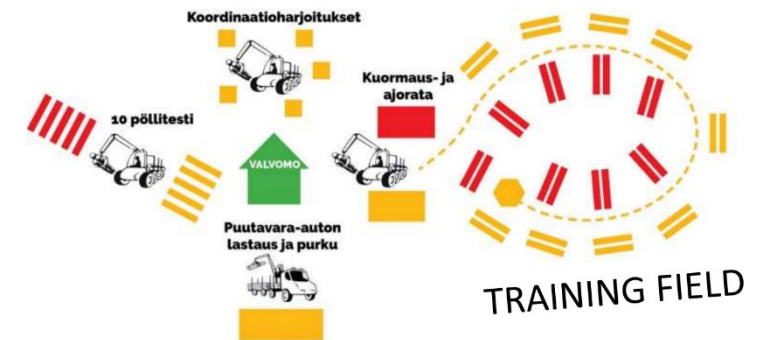
Unique learning environment

1	2	3	4	5	6	7	8	9	10	11
FBE	FBE	FBE	FBE	FBE	2-shift work / on the job training			Material evaluation		

Static simulators are not just devices



Automation of teaching, helped by reports
 → More time to do guidance and feedback



They are a well-designed entity as part of a managed teaching process.

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Thank You

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