Possibilities offered by digitalization

Applications in woodworking sector

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Setting the scope: Digitalizing the end-to-end forest industry value chain

**Sourcing**
- Forestry & harvesting
- Logistics, Mill reception, Wood yard, Deinking
- Recycled fibre

**Production**
- Sawmill
- Pulp mill
- Biorefinery
- Other fibre-based production line
- Paper mill
- Tissue mill
- Board mill

**Distribution**
- Wood products
- Packaging
- Hygiene wholesale / retail
- Various – industrial materials, specialty papers, non-woven
- Newsprint, P&W

**Consumption**
- Biochemicals, Biomaterials, Biofuels
- Grid power & heat

**Setting the scope: Digitalizing the end-to-end forest industry value chain**

Converting
Wood Products: The impact of digitalization goes end to end

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**Consumption**

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What “Digitalization” really is

Disruptive business models

The age of the customer

Data explosion and real-time visibility

Globally networked economy

Ubiquitous connectivity, smart devices, big data, powerful analytics

Profound change in customer behaviour and expectations

New business models and ways to create value, new market entrants
Megatrends
Disruptive forces are hitting the industry

- Resource scarcity – competition for fibre
- Volatile energy and raw-materials cost
- Industry restructuring
- Demand volatility and short lead-times
- Ageing population – workforce imbalance
- Shift of balance in global economy
- Global marketplace

Global and industry

Bioeconomy

Innovation, technology and behaviour

- Additive manufacturing - 3D printing
- Vehicle automation and robotics
- Social connectivity, real-time, transparent
- Data-driven economy
- Demand-driven innovation
- Super-high expectation on customer experience

Digitalization
Digital business
New ways to create and share value

- Alibaba.com: The most valuable retailer has NO inventory.
- Facebook: The world’s most popular media owner creates NO content.
- UBER: The world’s largest taxi company owns NO vehicles.
- Airbnb: The world’s largest accommodation provider owns NO real estate.

Platform-based business

Knowledge Ecosystems
Innovation Ecosystems
Business Ecosystems

Created by YUMIGAMI digital marketing agency www.yumigami.com
Digitalization is progressing on different levels and at a varying speed in different industries. Nevertheless, all industries will be impacted.

Digitalization should be seen as an opportunity. Although, it can also be a threat if you are not willing or capable to transform and innovate.

From evolution to disruption:

**Re-innovate business**
New business models, value chains, networked business

**Digitalized products and services**
Digital, intelligent and connected

**Digitalized customer experience**
Intelligent channels, integrated with physical

**Digitalized business processes**
Intelligent, automated, agile
End-to-end wood products value chain
Digitalization possibilities*
on all levels and in all stages

**Sourcing**
Forestry, Harvesting, Logistics

- Dynamic harvesting optimization
- Logistics collaboration and optimization
- Digital wood market
- Digital marketing and forest owner engagement
- Digital inventory and forest asset data

**Production and Converting**

- On-line partner services
- Predictive asset management, monitoring
- Dynamic production planning and optimization
- Crowdsourcing
- Productivity tools

- Supply chain visibility
- New generation robotics
- Additive manufacturing, 3D printed wood products
- Distribution center automation
- Digital products

**Sales and Distribution**

- Dynamic demand capture
- Scalable services and business models
- Retailer e-channels
- Collaborative demand planning
- Big data, analytics, end-to-end optimization

**Consumption**

- Consumer e-channels
- Digital marketing
- Collaborative innovation
- Personalized services, on-line customization
- Global transparent market

*only selected examples listed here - future possibilities are practically endless
Digitalization journey

Orchestrate your future by leveraging the existing

**Leverage the existing**
Harvest the legacy including data and functionality. Modernize and create foundation for the digital.

**Run business in dual mode**
Balance the traditional and new while building digital future. Take up business as digital and digital as business.

**Orchestrate the future**
Become an ecosystem driven business. Invest in digital foundation for agility and business innovation.
Most of the time you cannot really manage digital disruption, but you can capitalize on it!