SEED
Innovation marketplace for forest industry digitalization

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Global pressure in digitalisation: Ind 4.0, Made in China 2025, Manufacturing USA,…

Leap ahead requires radical rethinking of national RDI processes

In Finland, this culminates to industry ecosystems with critical mass and proven way of operating

Reboot and SEED develop and implement ecosystem co-innovation model reusable in variety of industry ecosystems leveraging the overall Finnish impact
MARRIAGE OF TOP-NOTCH RESEARCH AND BUSINESS: FAST TRACK FOR RESULTS INTO BUSINESS SCENE THROUGH INDUSTRY BEYOND 4.0 (IB4.0) ECOSYSTEM GRID

1. Deep dive Research
   - Research with business value
   - Targeting top-notch research

2. IB4.0 Ecosystem grid
   - Hands-on innovation collaboration and tools to support commercialisation

3. Business Implementation
   - Industry needs & Challenges with value
   - Evaluation
   - Communication platform with critical mass of
SEE THE BIG PICTURE AND ACT HANDS-ON

Gateway

Commercialization and growth operations

Innovation
Market Places

Reboot IoT: Manufacturing

SEED: Forest industry

Navigator: Project industry

Cross-project learning themes

Ecosystem culture and strategies
Business models
Future work
Digital services & data
Platform architectures & sw lifecycles
Standards & APIs
Cyber-physical systems + enabling tech
SEED - transforming the forest industry into the digital era
SEED
Vision

Competitiveness is more and more dependent on the capability to exploit data. Combining the top-class IT competences in Finland with world-class forest industry knowhow generates substantial potential for export in both sectors and for improving forest industry’s competitiveness.
Projects are built around business oriented needs identified in the ecosystem
SEED GOALS

1. Alliance between forest industry and IT sector
2. Fostering digital transformation of forest industry through ecosystemic collaboration
3. Improving productivity and competitiveness of forest industry and strengthening its market position through digitalisation
4. New international business for IT
5. NOVEL innovation market place which attracts talents to joint learning and common innovation and business development, and which is supported by research
SEED – new level in productivity and competitiveness

We build new concepts for:
- Operations and work process models
- Product and service solutions
- Business and network models

AND we do research on enabling technologies and their application in these concepts

Next level maintenance performance
- Data integration and refinement for decision making
- Role and value of digital twins
- Operative collaboration between roles & companies
- Support for work, collaboration and decision making
- Tacit knowledge collection and utilization
- Tools and Market place concepts
- New models (business, process, operational)
- Enabling technologies
SEED
Innovation market place

Catalysers
Design, IT, SW and technology experts demonstrate their capabilities to solve challenges

Forest industry (Use case companies)
Industry having challenges to be solved

We will create together a common understanding of the challenges relevant for business, solve them, and approach future customer needs through innovation

Developers
Develop solutions and services as their projects

Researchers
Universities

Customers
Industry having challenges to be solved
Grand Challenges

OPERATIONAL EXCELLENCE
Next-gen asset management service models enabled by data and tacit knowledge utilisation

OPTIMAL USE OF DIGITAL TWINS
Significantly expedited digital twin development AND their life-time extension in manageable manner

FUTURE WORK ENVIRONMENT
Next-gen operator diary Tools for maintenance crew integrating all relevant knowledge

ECOSYSTEM ORCHESTRATION
Open market place for forest industry maintenance spareparts Tools for cross-plant and cross-company collaboration
"Humans and machines will dance together”*

* 5th Element Group: A Fifth industrial revolution / World Economic Forum, Davos 2019

Collaboration based on design thinking

Thinking through the 3 angles ensures impactful results
SEED
A unique, agile and evolving operating model

Case mills as real-life innovation platform
Studies and interviews
Rapid research experiments
Rapid concepting and POCs by all parties

Beside the desk
Desk studies to activate innovation

Sprint meetings
“Seeds for growth” pitch bazaar (Research, PoC, concept and consultation results)
“It’s a match” bazaar for Catalyzers, Project and Use case owners, and researchers
On-line news

Innovation and candidate scouting
SG meetings
Round table meetings and Innovation workshops
SEED visits (companies, mills, research institutes)

Challenging themes to be discussed with the whole value network
THIS GAME IS WON BY A TEAM

World-class forest industry companies
Leading Finnish IT companies

Use-case companies
Developers with own projects
Catalysers With in-kind work OR in-kind work and fee

Catalyser candidate scouting to fill competence gaps
SEED jointly-funded research

Company challenges & needs over the life-cycle of production lines

Concrete, business-oriented use-cases

- OPERATIONAL EXCELLENCE
- OPTIMAL USE OF DIGITAL TWINS
- FUTURE WORK ENVIRONMENT
- ECOSYSTEM ORCHESTRATION

Research and development

1. Innovation activating high-class research
   - WP1 ASSET MANAGEMENT IN DIGITAL ERA
   - WP2 ENGINEERING MEETS OPERATIONS
   - WP3 BENEFITING FROM PLATFORM ECONOMY
   - WP4 TECHNOLOGY ENABLERS

2. Development of successful next-gen innovation ecosystem operation
   - WP5 MANAGEMENT & ECOSYSTEM DEVELOPMENT

Validation in business (novel models & solutions and ecosystem operation)
Thank You!
Let’s venture beyond the obvious