

Newsletter #3

June 2019

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Greetings from the coordinator

The 17 projects selected for funding under the 1st trans-national ForestValue Joint Call (JC2017) were officially introduced at the ForestValue Research Programme Kick-Off Seminar on 23rd and 24th of May 2019 at the National Museum of Finland in Helsinki. After listening the 6-minute pitch talks it is really to be expected that the projects will make an impact.

However, we need to remember that these 17 projects represent only the tip of the iceberg of the research needs related to the innovation of forest-based bioeconomy. Alone in this 1st ForestValue Joint Call there were altogether 114 projects seeking for funding which means that quite a few good ideas could not pass but have to look for other funding opportunities. Due to this and new RDI needs arising it is not surprising that “Will there be another ForestValue call?” is a question that me and my colleagues have heard quite often over the past few months. The answer is: yes, there are discussions.

After the ForestValue funding partners have now finished their administrative workload of getting the 17 projects started and after being back on track with their normal everyday tasks, discussions have been initiated on how to proceed with possible new funding opportunities. As soon as we have any more news on this, we will announce it on our website and through other communication channels like the social media, we will surely keep you up-to-date on any developments.

In the meantime, there are some ForestValue coming events that you might find interesting, too: you can visit our outreach seminar for international collaboration in October 2019 in Buenos Aires and learn about joint European/South American research (funding) opportunities (more below) – or you can look forward to the mid-term seminar of the JC2017 funded projects in 2020/21.

Finally, on behalf of the Finnish hosts of the ForestValue Research Programme Kick-Off Seminar - MMM, YM, AKA and Business Finland – once again our sincere thanks to all of you who made the event a success. We are proud and glad to be a part of this kind of a network, hope you, too.

Mika Kallio, MMM, ForestValue coordinator



ForestValue * Events *

ForestValue Research Programme Kick-Off Seminar

The public kick-off seminar of the 1st ForestValue Joint Call brought together around 70 participants from industry, academia and policy-making organisations in the forest-based sector. The call was launched in 2017 with support from the European Commission through the H2020 Framework Programme.

In order to optimise networking, the 17 projects were not only presented in a pitch talk format but also during the breaks in the poster exhibition, as well as in a specifically organised „speed networking“ session.

We were honoured to introduce Rhonda Smith (Minerva Communications UK Ltd) to give a talk on stakeholder engagement, C&D strategy and impact creation. Regarding the stakeholder engagement, we were also excited to introduce Johan Elvnert (Forest-based Sector Technology Platform) who explained about the recent developments in the forest-based sector, and Robert Mavsar (European Forest Institute) who discussed the role of the European Forest Institute in helping to build an ambitious European forest research and innovation area.

As a side event the participants visited Oodi, Helsinki's new Central Library which was opened in December 2018 and is a fascinating combination of glass, steel and wood.



Thanks to the Finnish organisers MMM, YM, AKA and Business Finland for this fruitful event!

Outreach seminar for international collaboration

*** SAVE THE DATE ***

Buenos Aires, Argentina, Oct 8th – 9th 2019

The international workshop “**Innovative Forest-Based Bioeconomy for the Future**” provides a platform for all initiatives engaged in forest-based Bioeconomy in Europe and South/Central America. Information exchange

on current research (funding) activities and excellent networking opportunities offer unique chances for the participants. Cordially invited to the 2-day workshop are Ministries, funding agencies, scientists and initiatives interested in intensification of cooperation and joint funding of R&D projects in the field of forestry and sustainable use of wood in Europe and South/Central America. (Contact: [dgaleano\(at\)mincyt.gob.ar](mailto:dgaleano(at)mincyt.gob.ar), [c.lemke\(at\)fnr.de](mailto:c.lemke(at)fnr.de))



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773324

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ForestValue JC2017 – co-funded projects

AVATAR – Advanced Virtual Aptitude and Training Application in Real Time

Consortium: DE, NO, SE

Coordinator: Dirk Jaeger, UNI Göttingen, DE
[dirk.jaeger\(at\)uni-goettingen.de](mailto:dirk.jaeger(at)uni-goettingen.de)

AVATAR will complement operator training programmes, such as the Rational Efficient Cost Optimization (RECO), through the development of quantitative support tools. These tools will analyse harvester and forwarder operator's pre- and post-training work through machine control systems and sensor technology, and compile directed feedback to guide the operator towards more balanced working methods and techniques.

Project presentations:

- * German Summer School for Human Factors in Ulm (Germany) from August 1st - 2nd, 2019 (in the context of the evaluation of "Cognitive Task Analysis" in the field of harvester operations)
- * 52nd International Symposium on Forestry Mechanization (FORMEC) from October 6th – 10th in Sopron/Forchtenstein (Hungary/Austria)
- * www.avatar.uni-goettingen.de
- * <https://twitter.com/AVATAR02673222>

VALOFOR – Small Forests – Big Players: Valorising small scale forestry for a bio-based economy

Consortium: AT, DE, FI, SE, SI

Coordinator: Silvio Schueler, BFW, AT
[silvio.schueler\(at\)bfw.gv.at](mailto:silvio.schueler(at)bfw.gv.at)

ValoFor's objective is to understand the contribution of small forest owners in the transition to a wood based Bioeconomy by considering the perception and management strategies of small forest owners. This includes analysing and comparing forest management strategies with respect to potential timber supply, ecosystem services and forest resilience in climate change.



AVATAR Kick-off meeting in Arnsberg, DE (6-8 February 2019)



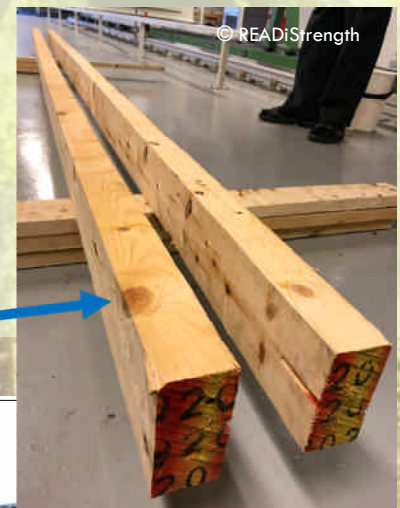
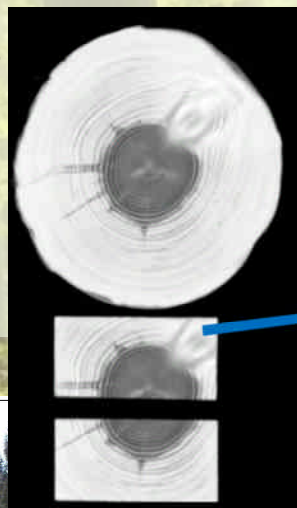
ForestValue JC2017 – co-funded projects

READiSTRENGTH – Resource-Efficient And Data-driven integrated log and board Strength grading

Consortium: AT, DE, SE

Coordinator: Olle Hagman, Luleå University of Technology, Sweden,
olle.hagman(at)ltu.se

Making use of the latest technological developments in round timber scanning, the project **READiStrength** aims to improve the current concept of sawn timber strength grading towards earlier, more flexible and adaptive approaches prior to conversion at the raw material stage to make the best use of Europe's wood resources.



© READiStrength

Sävar Sawmill. Logs ID marked



As part of the project 320 stems (160 pine + 160 spruce) are carefully marked and scanned with different devices

LTU-Lab-logs, 20 pcs, Stripy



Pine 150 pcs :

Green	Butt
Yellow	Middle
Red	Top

Spruce 150 pcs:

White	Butt
Blue	Middle
Orange	Top



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ForestValue JC2017 – co-funded projects

MULTIFOREST – Management for multifunctionality in European forests in the era of bioeconomy

Consortium: AT, DE, FI, NO, SE

Coordinator: Mikko Mönkkönen, University of Jyväskylä, Finland
[mikko.monkkonen\(at\)jyu.fi](mailto:mikko.monkkonen(at)jyu.fi)

MultiForest aims to provide novel insights to forest policy, forest management and land-use planning by quantitatively analysing impacts of policies, management practices and developing large scale forest programs that can simultaneously maintain or increase timber production and ensure the sustainability and resilience of multifunctionality in forests.

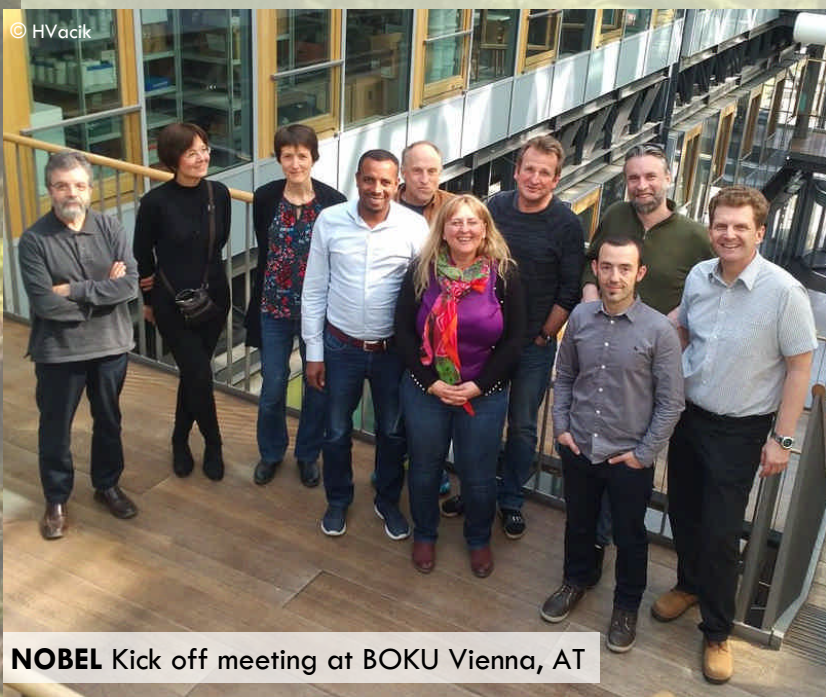
I-MAESTRO – Innovative forest MANag-Ement STRategies for a resilient bioecOnomy under climate change and disturbances

Consortium: FR, DE, PL, SI

Coordinator: Patrick Vallet, IRSTEA, France
[patrick.vallet\(at\)irstea.fr](mailto:patrick.vallet(at)irstea.fr)

The main aim of **I-MAESTRO** is to improve the scientific basis for developing management strategies that increase resilience of the Bioeconomy to future natural disturbances and climate change, while also maintaining a high level of wood production, carbon storage, and habitat quality for biodiversity.

© HVacik



NOBEL Kick off meeting at BOKU Vienna, AT

NOBEL – Novel business models and mechanisms for the sustainable supply of and payment for forest ecosystem services

Consortium: AT, DE, ES, FR, NO, PT, SE

Coordinator: Harald Vacik, BOKU, Austria
[harald.vacik\(at\)boku.ac.at](mailto:harald.vacik(at)boku.ac.at)

The objectives of **NOBEL** are (i) to develop business models & mechanisms to internalise the socio-economic value of forest ecosystems, (ii) combine public policy tools with business models for implementing payments for forest ecosystem services (FES) at multiple levels, and (iii) demonstrate and compare alternative approaches for payments in case studies in Europe.



ForestValue JC2017 – co-funded projects

DYNATTB – Dynamic Response of Tall Timber Buildings under Service Load

Consortium: FR, NO, SE, SI, UK
Coordinator: Marie Johansson, RISE, SE
marie.johansson(at)ri.se

In **DynaTTB**, dynamic properties of about 10 tall timber buildings in five countries in Europe will be measured and modelled. The aim of the project will be to develop a new generation of modelling guidelines, to calculate wind sway response of TTBs for their vibration serviceability at the design stage.

HARDWOOD JOINT – Innovative joints in hardwoods

Consortium: AT, FR, SE
Coordinator: Carmen Sandhaas, KIT, Germany
carmen.sandhaas(at)kit.edu

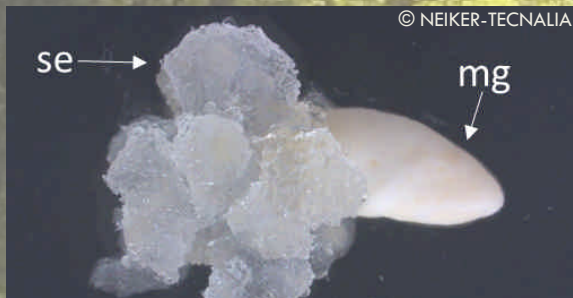
hardwood_joint's overall project objective is to foster high-performance hardwood structures in the European building sector by developing economic, reliable and innovative joint technologies for hardwood members and the design thereof. The objective is to pave the way for using more hardwood products in the building industry by giving added value to hardwood species which are currently mainly used as fuelwood.



The project **DynaTTB** held its start meeting the 28-29th of March 2019 at Mjøstårnet in Bru-munddal, Norway. Mjøstårnet is the tallest timber building in the world (highest floor 68,2m and architectural height 85,4 m) and includes a hotel and conference facilities. Mjøstårnet will be one of the buildings that will be used for in-situ measurements within the project.



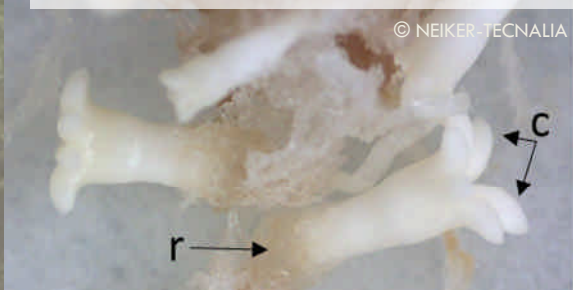
ForestValue JC2017 – co-funded projects



↑ Initiation of somatic embryogenesis (se) on megagametophyte (mg) as mother, seed explant (radiata pine)



↑ Somatic embryo development from early to cotyledonary stage (maritime pine)



↑ Mature, cotyledonary somatic embryos; r = root apex, c = cotyledons



↑ Ready-to-plant somatic seedlings (maritime pine)

MULTIFOREVER

Towards intensification of conifer production through multi-varietal forestry based on somatic embryogenesis

Consortium: AR, DE, ES, FI, FR, SE

Coordinator: Jean-François Trontin, FCBA, [jean-francois.trontin\(at\)fcba.fr](mailto:jean-francois.trontin(at)fcba.fr)

Co-coordinator: Andrea Rupps, HUB, [andrea.rupps\(at\)hu-berlin.de](mailto:andrea.rupps(at)hu-berlin.de)

MULTIFOREVER's ambition is to apply novel approaches for vegetative propagation (cloning) of selected varieties (somatic embryogenesis), not only from juvenile, but also from mature tissues. The overall aim is to develop a value added chain & joint strategy to bring high-quality somatic trees at acceptable costs towards multi-varietal forestry of economically relevant conifers (pine, spruce, larch, Douglas-fir).



Representatives of the **MULTIFOREVER** consortium who attended the IUFRO conference "Clonal Trees in the Bioeconomy Age: Opportunities & Challenges" (celebrating proposal submission!), 10-15 September 2018, Coimbra, Portugal // All partners represented except INTA, i.e. FCBA (J.-F. Trontin), HUB (J. Raschke), NEIKER (P. Moncaleán), LUKE (T. Aronen, S. Varis, M. Tikkinen), INRA (C. Teyssier) & UPSC (U. Egertsdotter)

ForestValue JC2017 – co-funded projects



GREENLANE – Fast-tracking value and resilience for industrial wood supply

Consortium: NO, AT, SE

Coordinator: Dag Fjeld, NIBIO, Norway
[dag.fjeld\(at\)nibio.no](mailto:dag.fjeld(at)nibio.no)

GreenLane will develop a virtual supply chain laboratory environment enabling value-tracking and interactive testing of harvesting and transport responses to challenging climate scenarios. The focus is on implementing weather-driven models for wood quality and availability.

STRONGCOMPOSITE – A novel material concept for high strength cellulose composites

Consortium: AT, CH, FI, SE

Coordinator: Ingo Burgert, ETH Zurich, CH
[iburgert\(at\)ethz.ch](mailto:iburgert(at)ethz.ch)

StrongComposite will explore invention originating from a material concept, which unifies delignification and densification of wood while retaining the beneficial fibre directionality, thus enabling a “green” high performance product. One of the technological objectives is to develop and upscale such industrial processes that enable large enough prototype geometries for the addressed fields of application.



ForestValue JC2017 – co-funded projects

FUNENZFIBRES – From fundamentals to valorisation: Enzymatic oxidation of cellulosic fibres & underlying mechanisms

Consortium: AT, FI, NO

Coordinator: Kristiina Kruus, VTT, FI
[kristiina.kruus\(at\)aalto.fi](mailto:kristiina.kruus(at)aalto.fi)

FunEnzFibres will explore the potential of lytic polysaccharide monooxygenases (LPMOs) in oxidative modification of cellulosic fibres. The research aims at developing sustainable refining & dissolving processes.

SMALLWOOD – Small diameter wood utilization with innovative stand management for multifunctional forests & a growing sustainable bio-economy

Consortium: ES, FI, SE, SI

Coordinator: Tomas Nordfjell, SLU, Sweden
[tomas.nordfjell\(at\)slu.se](mailto:tomas.nordfjell(at)slu.se)

The overall objective of **SMALLWOOD** is to develop and evaluate new technologies and business and operational models that can support a sustainable management and utilization of different types of small diameter wood, and further boost new SMEs and work opportunities in particular in rural areas.

INNOCROSSLAM -Innovative Solutions for Cross Laminated Timber Structures

[Project at ZAG](#), [Project at VINNOVA](#)

Consortium: AT, DE, ES, SI, SE / Coordinator: Tomaž Pazlar, ZAG, SI, [tomaz.pazlar\(at\)zag.si](mailto:tomaz.pazlar(at)zag.si)

InnoCrossLam aims at increasing even further the competitiveness of cross laminated timber (CLT) as a versatile engineered product, by increasing its predictability in demanding design situations not covered by the guidelines of today, or codes and standards foreseeable in a near future. In addition, the project will further develop a previously suggested (proof-of-concept) multi-functional use of CLT in terms of its thermal activation.

Picture: **InnoCrossLam** kick-off meeting 6-7 May 2019 at ZAG, Ljubljana © ZAG



ForestValue JC2017 – co-funded projects

CLICK DESIGN – Delivering fingertip knowledge to enable service life performance specification of wood

Consortium: CA, DE, FI, FR, NO, SE, SI, UK

Coordinator: Ed Suttie, BRE, UK; [ed.suttie\(at\)bregroup.com](mailto:ed.suttie@bregroup.com)

WebSite: www.bregroup.com/CLICKdesign



CLICK DESIGN Kick-off meeting 18-19.03.2019 Watford, UK

CLICKdesign will develop a software tool for architects for service life performance specification for wood as well as a public facing tool to support “fit for purpose” product specification and to raise levels of public understanding. So far progress has been made as performance models that exist in Europe and worldwide are surveyed and compared to enable identification of the most suitable elements to take forward. The approaches are investigated to fill already identified gaps in existing models such as microclimate, splashback of water, driving rain and shading from vegetation. It is vital for CLICKdesign to evaluate and quantify the effect of these influencing factors that have not been considered to date.

As a result of a research paper presented at the “International Research Group on Wood Protection 50th meeting (Quebec, CA; 13 May 2019) even an Australian team agreed to provide data for model testing and validation.

ForestValue JC2017 – co-funded projects



FIRENWOOD

FIRENWOOD - Improved fire design of engineered wood systems in buildings

Consortium: CH, DE, NO, SE

Coordinator: Karolina Storesund, RISE Fire Research Norway, [karolina.storesund\(at\)risefr.no](mailto:karolina.storesund(at)risefr.no)



Photo: RISE Fire Research

FIRENWOOD kick-off meeting Trondheim, 12 April 2019

FIRENWOOD's main project goal is to ensure a fire safe use of innovative, engineered wood systems in taller and larger buildings, by providing (i) improved fire design models, validated by small- and full-scale fire tests, and (ii) classification and test methods for adhesives with regard to elevated temperatures and fire. The main focus will be the effect of structural joints and adhesives in cross-

laminated timber (CLT), glue-laminated timber (GLT) and wood-based I-joists.

<https://risefr.com/services/research-and-assessments/firewood>

Research Gate: <https://www.researchgate.net/project/FIRENWOOD-Improved-fire-design-of-engineered-wood-systems-in-buildings>

INFUTUREWOOD – Innovative Design For the Future – Use and Reuse of Wood (Building) Components

Consortium: ES, DE, FI, IE, SE, SI, UK

Coordinator: Karin Sandberg, RISE, Sweden, [karin.sandberg\(at\)ri.se](mailto:karin.sandberg(at)ri.se)

InFuTUrEWood focuses on the reuse of current reclaimed wood in the circular economy as structural material but also on creating a “design for deconstruction” for future building. The main objective is to develop a method for ensuring future possibility of circulation of timber products with true consideration of whole life-cycle, and practical industry issues at design, construction and deconstruction phases.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773324

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News from SCAR FOREST

SCAR has implemented various Strategic Working Groups (SWG). One of them (SCAR Forest) is dedicated to forest related issues and has involved members from 19 countries and the European Forest Institute (EFI), the Forest Technology Platform (FTP), Innovawood and the EC (DG RTD) act as observers to the SWG Forest. SCAR Forest mission is to be a source of advice on European forest-based research and innovation (R&I), thus contributing to the development of a coherent and ambitious forest-based research area.

On 5th February 2019, a workshop on *“International cooperation in research and innovation for the future European forest-based sector”* was held in Brussels in order to create an opportunity for open discussions on the topic of international cooperation on forest research and innovation and its possibilities to help the forest-based sector respond to increasing environmental challenges and societal demands. Results include e.g. that transnational partnerships such as ERA-Nets are well suited to sectors with many small and medium-sized enterprises (SMEs) as is the case in the forest-based sector, but it does need an EC support in order to compensate for evaluation, negotiation and other transaction costs. Also, there is a great need for instruments that work in the long-term perspective to achieve goals which require action over time and on the basis of continuous improvement.

At present, the study *“Research and innovation on digitalisation and automation in the forest-based sector”* is conducted. The main objective of this study is to provide a first comprehensive overview of the state of the art of digitalisation and automation in the forest-based sector, as well as an initial assessment of needs and challenges ahead for research and innovation. This will provide key guidance for further EU policy development. Results are expected at the end of June 2019. SCAR Forest is currently preparing to renew their mandate, as the current mandate will end in June 2019.

© SCAR FOREST



SCAR FOREST

Chair: Jean-Luc Peyron, Ecofor, France (jean-luc.peyron(at)gip-ecofor.org)

<https://scar-europe.org/index.php/forest>



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Forest sector: SAVE-THE-DATEs

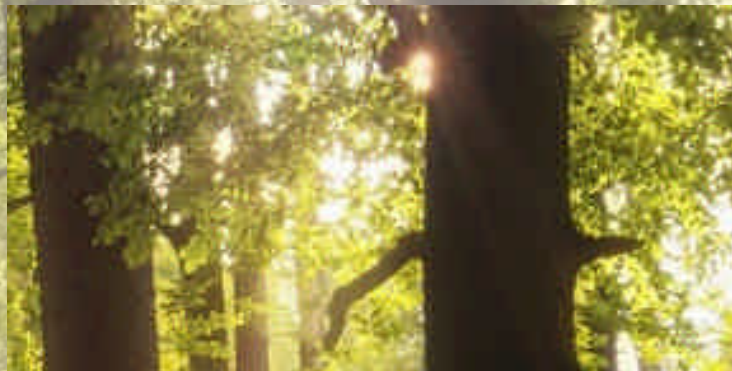
12.-14.06.2019 Palencia, Spain
Wild harvest in time of new pests, diseases and climate change

17.06.2019, Incheon, Republic Of Korea
Asia-Pacific Forestry Week 2019: Forests for Peace and Well-being

19-21.06.2019 Devon, England
Evolving the forest

25.-27.06.2019, Madrid, Spain
Expert Workshop and the Meeting of the Team of Specialists on Green Jobs in the Forest Sector

24.-28.06.2019, Waterford, Ireland
International Summer School 2019: Protecting the Forest Resource: Risk assessment & Management using Innovative Tools



18.-20.09.2019 Aberdeen, UK
EFI Annual Conference 2019

24.-27.09.2019, Freiburg, DE
21st International Nondestructive Testing and Evaluation of Wood Symposium

29.09.-05.10.2019 Curitiba, Paraná, Brazil
XXV IUFRO World Congress 2019

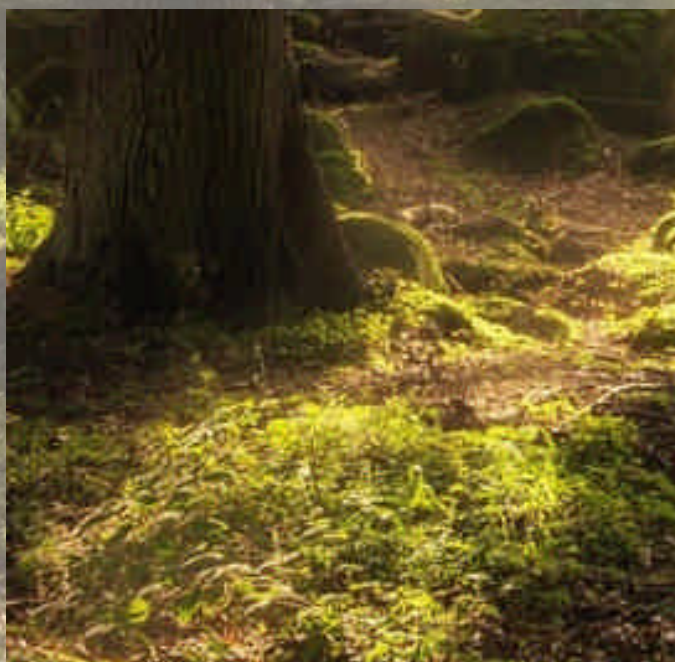
06.-09.10.2019, Sopron, HU/AT
FORMEC 2019. Exceeding the vision: Forest mechanisation of the future

08.-09.10.2019 Buenos Aires, Argentina
ForestValue Outreach seminar for international collaboration

15.-17.10.2019, Umeå, Sweden
Barents Forest Forum 2019

04.-07.11.2019, Geneva, Switzerland
Joint Session of the 40th European Forestry Commission (EFC) - 77th UNECE Committee on Forests & the Forest Industry FAO

27.11.2019, Helsinki, FI
FTP Conference 2019



ForestValue

You have just seen 157 people.

Just like the Kick-Off meetings of the ForestValue funded projects - on all levels of the forest-based bioeconomy people are meeting, discussing, agreeing on common goals and working together.

The topics are trees and wood (to put it very simple), but in the end - what matters are our collaborations, ideas, agreements and achievements, what we can do together and what we can learn from one another.

Just as Jack C. Westoby* already said in 1967:

**Forestry is not about trees,
it's about people!**

*(1913–1988) – Chief Forester, United Nations Food and Agriculture Organization, "father of world forestry"

www.forestvalue.org

<https://twitter.com/ForestValue2017>

<https://www.linkedin.com/groups/12110816/>



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