

Munich, February 1, 2018

Press Release

INTERFORST Topic

Forestry 4.0—Digitalization in the Forest Industry

- Innovative Technology for Progress and Prevention
- Networks, Data Transfer and Cooperation
- INTERFORST Congress: Digitalization as a Focus Topic

As in other sectors, digitalization is proceeding apace in the forest and timber industries. At INTERFORST, which will take place at the Munich exhibition grounds from July 18 to 22, 2018, this topic will be reflected in the accompanying scientific congress, the special shows and the exhibitors' booths alike. All relevant groups of forest management and forest technology will gather at the five-day industry highlight where representatives of science, politics and practice will exchange views, experiences and ideas.

Timber volumes, data volumes, databases

The topic of digitalization is accorded ever-greater importance, not only in the industry but also in forestry. Managing and cultivating forests according to silvicultural principles is a great challenge, which is not becoming easier but increasingly more complex despite state-of-the-art technology. Nowadays, the amount of data recorded in the forest is huge—for example inventory data such as geographical or geological data or those referring to wildlife biology. In addition, there are operational data, feasibility studies, risk analyses, accident statistics, forest-damage surveys, timber inventory, sales and much more. The comprehensive evaluations of these data contribute to improving forest protection and management.

Decision-making processes in forest management must take account of a vast number of different components, and processes are to undergo continuous optimization simultaneously, just as in the industry. In this context, the significance

Johannes Manger
PR Manager
Phone +49 89 949-21482
Johannes.manger@messe-muenchen.de

Messe München GmbH
Messegelände
81823 München
Germany
www.messe-muenchen.de



Press Release | February 1, 2018 | 2/2

of information and communication technologies is on the increase, regardless of whether the structure of forest ownership is private or public. Large databases are required to cope with and analyze such data quantities. At the same time, the use of mobile networks, the mobile “office”, is increasingly becoming an everyday experience, even if network coverage in rural areas is not yet completely implemented.

“Digitalization within forestry consortia offers great time-saving potential”, says Dipl. Forstwirt Gerhard Penninger [*graduated forester*], Managing Director of the Holzkirchen Forest Owners’ Association [*Waldbesitzervereinigung Holzkirchen w. V.*]. “The new information and communication technologies mean an extension of capacities for the existing staff provided that digitalization is actually taken advantage of. It is important and not always easy to develop the readiness of potential users to create and maintain the required databases. If this works out well, staff members use this tool frequently and successfully”, states the WBV Managing Director. In his lecture at the INTERFORST CONGRESS, Gerhard Penninger will present digital solutions for forest owner associations.

Mobile data input and use of drones

Although it is not very long ago that the leap from the handwritten sheet of paper to the mobile data input device was achieved, the times of manual timber recording are no definitely coming towards an end. Today, harvester data are directly linked with timber bookkeeping, and the next step, i.e. cost-effective stack measurement by means of photo-optical procedures, has gradually left the experimental stage as well and is increasingly gaining acceptance. Drones are already successfully in use for forestry remote sensing, complex planning processes and the documentation of tree felling actions, for example, which results in a variety of technical applications.

Although the use of drones in forestry is still at an early stage, this technology will definitely have great potential in the near future, Martin Herkommer says, convincedly. “Drones simplify planning in forest management and virtually enable forest inventory from the air. In addition, measures and actions, just as wind

Press Release | February 1, 2018 | 3/3

throws or damage to the soil caused by vehicles, can be documented. Another application focus is the detection and documentation of pests and diseases. By means of drone technology, outbreaks are detectable at an early stage, which allows taking counter-measures immediately. With this knowledge, land owners can take preventive action”, explains the Sales Manager of Quantum Systems, the developing company. On the second day of the INTERFORST Congress, Martin Herkommer will describe the contributions that drones can make in forest management.

Early warning systems for the prevention of forest fires

Innovative technology has found its way into other areas, too. The risk of forest fires affecting large areas has increased in the wake of climate change. Sensor-supported and automated early warning systems that ensure protection against forest fires around the clock have replaced forest workers and volunteers doing duty on watchtowers. After a fire, the use of drones is a very efficient possibility of detecting hotspots that risk causing the resurgence of the fire, emphasizes Martin Herkommer.

Nowadays, forest visitors and rescue forces can orientate themselves in the area and go to emergency points, if necessary, because the forest is not only a workplace; it is also famous for being a place for many forms of recreation, sport and tourism.

Opportunities and risks

However, increasing technological development in the green forest also entails new problems. What about the accurateness of the measured data? Who determines the type and scope of their assessment? This relates to questions as to the legal certainty of measurement results if the latter serve as a basis for billings, for example. Who is granted access or the rights of use for sensitive data? What about copyright, e.g. for picture material? In this context, the task of ensuring that staff members are appropriately qualified and offering adequate further qualification opportunities is becoming ever more important. However, becoming an IT expert might not be everyone’s vocation in the green industry—

Press Release | February 1, 2018 | 4/4

which gives rise to the question whether there will be a need for more external experts in forest management in the future.

Cooperation across sectors

Forestry institutes and organizations are already cooperating successfully with relevant companies in many high-technology areas. New technologies, as for example the backtracking of a raw material or product, render valuable services in the battle against economic criminality (keywords: illegal logging, timber theft). One example is the development of some type of digital fingerprint of a tree trunk (tree re-identification).

In particular, new applications help further improve the logistics chain. Wood processing and woodworking companies expect to be supplied with wood all year round. The networking of a forest enterprise, ranging from the entrepreneur to the carrier to the sawmill, requires the interlinking of various data sources and systems. Besides the purely technical feasibility, sufficient confidence-building measures and interpersonal communication between all partners will count in these systems.

Within the framework of INTERFORST, Martin Müller from the Bavarian State Forest Enterprise will explore the topic of “Industry 4.0 in logistics” in depth in a Congress lecture. The Manager of the Logistics, Technology and Technological Production Department sees the greatest chance for forest and timber industry 4.0 in higher efficiency thanks to faster and more accurate data. “Every efficiency-oriented organizational unit fine-tunes the improvement of its work flows, the standardization of its processes and the preparation of data in order to be able to take better decisions and secure sustainability for itself. In our industry, digitalization is primarily a matter of achieving better networking among one another. Digitalization will help us network people, forests and machines better than ever before!”

Press Release | February 1, 2018 | 5/5

About INTERFORST

Every four years, INTERFORST as one of the internationally leading trade shows for forestry and forest technology, presents the entire logistics chain, ranging from afforestation to timber harvesting to the sawmill. Another focal point is the energetic use of wood. A comprehensive supporting program with congress and various forums and special shows brings science, politics and practice together. In 2014, INTERFORST recorded 451 exhibitors from 27 countries and some 50,000 visitors from 72 countries. The next INTERFORST will take place from July 18 to 22, 2018 on the exhibition grounds of Messe München.

Messe München

Messe München Messe München is one of the leading exhibition organizers worldwide with more than 50 of its own trade shows for capital goods, consumer goods and new technologies. Every year, a total of over 50,000 exhibitors and around three million visitors take part in more than 200 events at the exhibition center in Munich, at the ICM – Internationales Congress Center München and the MOC Veranstaltungszentrum München as well as abroad. Together with its subsidiary companies, Messe München organizes trade shows in China, India, Brazil, Russia, Turkey, South Africa, Nigeria, Vietnam and Iran. With a network of associated companies in Europe, Asia, Africa and South America as well as around 70 representations abroad for over 100 countries, Messe München has a global presence.