Innovation in the forest-based sector: from idea to practise

Stakeholder seminar, Tallinn, Estonia, 24 October 2017

Hosted by FTP and the Estonian National Support Group (NSG), the FTP stakeholder seminar, as part of the Nature-Based Solutions (NBS) flagship conference, held in Tallinn on Tuesday October 24, was a great opportunity to meet with Estonian stakeholders and to bring more attention to the forest-based sector, under the Estonian presidency.

Bringing together more than 45 forest-based stakeholders from academies, industries, funding providers and local authorities, the seminar gave participants the opportunity to take part in diverse sessions hereby sharing knowledge on recent forest-based developments in Europe and with special focus on Estonia. Mr. Paavo Kaimre, vice-rector of the Estonian University of Life Sciences and Chair of the NSG Estonia opened the afternoon by kindly introducing first speaker, *Mr Rauno Reinberg, Senior Officer at the Ministry of the Environment of Estonia*, who started off with ‘**The interaction between Estonian forest policy and forest related R&D Initiatives**’. In his presentation he prioritized the fight against climate change, the promotion of sustainable forest management (SFM) and a science based approach towards forest management. This introduction to the topic of the day was followed by seven very interesting and relevant presentations which made for an interesting afternoon:

**Innovative developments in wood manufacturing in Estonia**, *Mr. Henrik* *Väljä, Managing Director of the Estonian Forest and Wood Industries Association (EFWIA)*

Mr. Väljä went through several interesting cases of how Estonia has been using innovative tools to enhance their forestry practises. Being the biggest employer in Estonia’s rural areas, legislation and efficiency for the whole supply chain can bring the sector to the next level. The E-waybill system ‘Elvis’, invented in Estonia, is a good example of technology enhancing the forest industry. Also measuring the volume of laying roundwood through the application, ‘Timbeter’, founded in Estonia, has never been easier. Optimizing production to real time energy prices and using wood instead of concrete for building will put Estonia on the map as a forest rich country.

**R&D- a multitool for balancing high expectations in state forestry**, *Ms Kristi Parro, Head of Communication Department, State Forest Management Centre (RMK)*

More than half of Estonia’s land is covered with forests. State forests take up 1M hectares, which means that some 50% of the forests is managed by the state. As a head of the communication department, Ms Parro explained the importance of public forest management while interacting with visitors’ ideas, views and needs. Forest areas are of high public interest. Trying to manage the forests according to their needs is key. Ms Parro also emphasized the need to use low value timber for high end products, such as chemicals, to aim for smart investments in wood logistics and to develop a decent road network, thereby optimizing costs and lowering environmental impact. R&D is needed to meet high expectations and ‘to do our work better and be smarter’.

**Metsä Group’s Bioproduct mill in Finland- The Largest biorefinery in Europe**, *Mr. Niklas von Weymarn, Vice President for Research & Development, Metsä Fibre*

The start-up of Europe's largest biorefinery in Finland has been a long process. 'If you want to become a pioneer in the forest-based sector, these days, you will have to be truly sustainable and certified’. The newly inaugurated biorefinery works in closed loops and cooperates with other sectors and companies aiming at maximum resource efficiency and producing various products ranging from wood to pulp, and from gas to bioplastics. At the same time Mr. von Weymarn acknowledges that environmental impacts should not be overlooked. ‘The stock in Finland is steadily growing. Current annual tree growth exceeds loss and the extraction of stem wood. But by knowing that a huge refinery does have a considerable environmental impact, the urge is even higher to aim for the highest transparency, efficiency and cooperation to get as much out of the harvested trees as possible.’

**Shape R&I programmes for the European forest-based sector**, *Mr. Johan Elvnert, Managing Director, Forest-based Technology Platform (FTP)*

Mr. Elvnert started by saying that the European forest-based sector needs to be innovative towards the future. This calls for a smart, strong and cooperative European forest-based consortium in which the National Support Groups (NSGs) play an important role. The Estonian NSG is fully active today and together with other lively NSGs this is an important basis to talk and cooperate with the European Commission. Mr. Elvnert set out the opportunities that the Commission provides and has provided. We can clearly see an increasing trend of funding towards our sector. Mr Elvnert explained how FTP has contributed to establishing the Bio-Based Industries Joint Undertaking (BBI JU), from 2008 towards 2014. The Commission has now pre-published the new call topics for funding projects in the final period 2018-2020, of the funding programme Horizon 2020. This includes very specific and interesting topics for the forest-based sector. Mr Elvnert therefore encouraged the participants to have a close look at the FTP website to find out about the opportunities that lay ahead.

**Forests in a rural landscape- a multi-service provider and/ or the harbour of biodiversity***, Mr. Jaan Liira, Senior Research Fellow, University of Tartu, ERA-Net Biodiversa project*

In his speech, Mr. Liira put a critical note towards biobased solutions, carbon sequestration and the loss of forests in Europe and Estonia. Instead he asked: ‘What do the small fragments of forests that remain in Estonia’s rural landscape mean regarding biodiversity, various uses and services?’. Ecosystem services should entail habitat, landscape and global levels. From the landscape context we should both include the type and intensity of the surrounding land-use and the land-use history. A lot of sources of variation remain unknown and their effects on human awareness, forest management as well as planning and policy, is poorly understood. Research through the joint project SmallFOREST, will test these various factors to get a clearer view and help build a sustainable relationship between humans and forests.

**Excellence in sustainable building research, The case of the Innorenew Centre of Excellence (CoE)**, *Mr. Crtomir Tavzes, Researcher, InnoRenew Centre of Excellence*

A good example of an EU funded project is the InnoRenew CoE. The goal of the InnoRenewe CoE is to become a world leader in the application and implementation of renewable materials and sustainable building research. In doing so, InnoRenew is a model for international research excellence, industrial outreach, and public engagement. To succeed in applying for EU funding, Mr Tavzes emphasised the importance of preparatory work, including thorough reading and understanding of the objectives as well as relying on the previous experience and knowledge provided by FTP. Lastly Mr. Tavzes advised applicants to gather a consortium that represents professional diversity. ‘This is of high importance to achieving a fruitful cooperation in EU projects’.

***R&D for the Estonian forest Based Sector***, *Mr. Paavo Kaimre, Chair of NSG Estonia*

Mr. Kaimre wrapped up by stating that we should meet various expectation when it comes to sustainable forest management. The development and implementation of ICT, improving the quality of harvesting and the implementation of research results will be of high importance to reach this goal. The promotion of multiple forest uses like recreation, biodiversity, energy production and timber production, need a closer look. Beleaguered by one another new initiatives like the Centre of Wood Technology and ‘Graanul Invest’ should advance production while minimizing environmental impact. Instead Timber residuals could add value and solve contradictions between energy production and wood manufacturing. Whereas appropriate policy tools can advance forest governance and improve the reputation of the forest sector and increase its competitiveness. Interesting National Programmes give a promising view towards the future in which public-private-academic partnership will prove to be crucial.