FTP Strategic Research and Innovation Agenda – achievements and future focus

Johan Elvnert, Managing Director, FTP

Structuring the European Forest Research and Innovation

EFI Annual Conference 2019

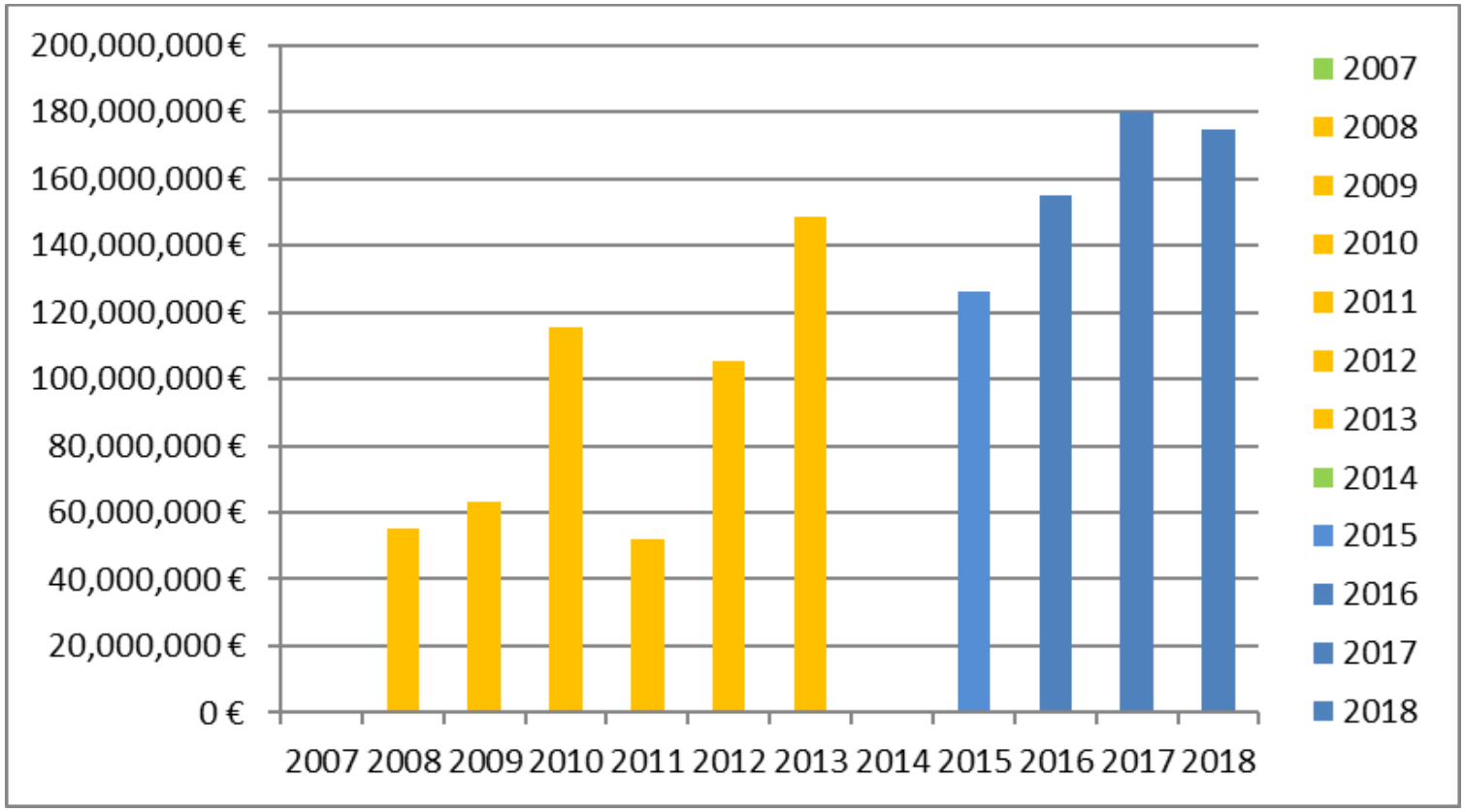
Aberdeen, UK

2019-09-18

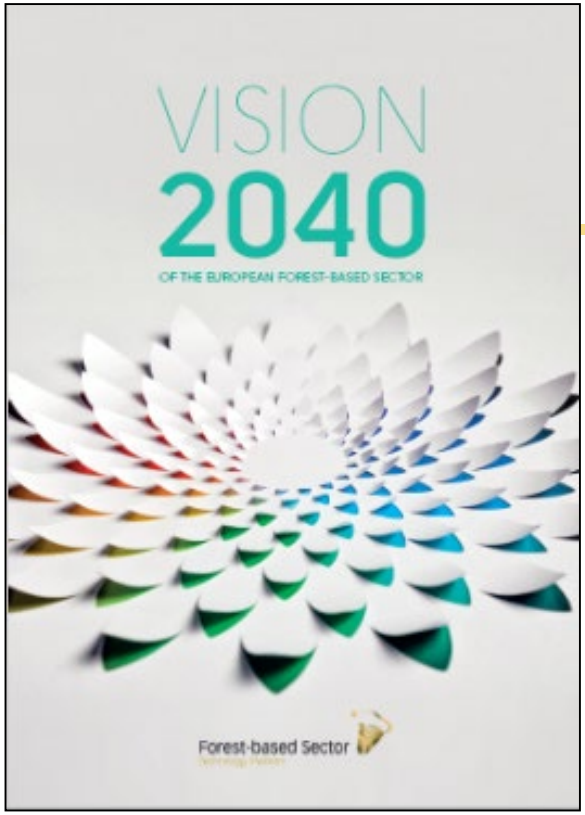
Forest-based Sector

Horizon 2020 Funding Statistics for 2018 ready

- 70 EU-funded projects with a total EU contribution of 175 M Euro



Many goals, visions, political targets…



ten vision targets for 2040

8 Renewable building materials for healthier living

Wood, the most commonly used renewable construction material in the world, has a bright future. In 2040, biobased construction in Europe has tripled its market share from the 2015 level, whilst the overall added value of the woodworking industries has doubled. Increased value will come from new products and services, as well as more widespread use of energy-saving, modular and flexible housing structures and functional furniture.

9 New fibre-based products and 80 per cent lower CO_2 emissions

The forest-fibre and paper industry is well on its way to reaching the targets – set out in the CEPI 2050 Roadmap – to cut its carbon emissions by 80 per cent, while creating 50 per cent more added value. While established product segments, mainly paper, packaging and hygiene, have evolved and remain the main source of income, almost half of the new added value is expected to come from other new biobased products such as textiles and green chemicals.

http://new-www.forestplatform.org/#!/pages/1

Forest-based Sector

Vision Targets defining our ambition

VT 2 : Increased, sustainable wood production and mobilization

- "Forest growth is increasing, leading to increased CO2 sequestration. Management practices are being further optimized for even higher productivity and stand quality. The creation of climate change-resilient and stress-tolerant forests is particularly important. Research, innovation and careful, long-term forest management have increased harvesting possibilities in Europe by 30 per cent, between now and 2040."

Vision Targets 1,2, … 10

- VT1 – Preserving biodiversity
- VT2 – wood harvesting - "**30% more forest biomass out of forests by 2040**"
- VT3 – non-wood ecosystem services - "**Increase tenfold the added value**"
- VT4 – Recycling & reuse - "**90% recovery and 70% recycling rates by 2040**"
- VT5 – Resource efficient processes
- VT6 – Digitalisation, KET and logistics
- VT7 – Meaningful, safe jobs
- VT8 – Living with wood - "**Tripling of value from wood-based construction**"
- VT9 – Paper products - "**On good way to reduce CO_2 footprint with 80%"**
- VT10 – Energy production - "**Electricity and biofuels equal to 100M oil barrels per year**"

The SRA – from Vision to Implementation

Defines the Vision Targets

2018

Outlines Challenges and matching R&I Activities

SIRA 2030

2019

Implementation phase

- Inspire Horizon Europe and national funding programmes
- Encourage high-impact projects
- Inspire technology investments
- Measure progress

2020 - 2030

Who have contributed to the SIRA 2030

1. FTP Secretariat (coordinating the process)
2. Editing Team, (processing stakeholder input)

- Eeva Jernström, Lappenranta Technical University, Finland (bioenergy, pulp&paper)
- Bernard de Galembert, CEPI, France (bioeconomy, bioeconomy policy)
- Crtomir Tavzes, InnoRenew, Slovenia (woodworking)
- Lars Wilhelmsson, Skogforsk, Sweden (forestry, forest logistics)
- Harald Mauser, EFI, Austria (forestry, forests)

3. Advisory Committee (25 National Support Groups – discussion & support)
4. FTP Task Forces (strategic consultations)
5. Two open stakeholder consultations (Primary input, All)
5. Supporting Companies (to be consulted on prioritization & strategy)
6. FTP Board (Final approval)

Major challenges identified for forestry VTs

1. Sustainable forest management, biodiversity and resilience to climate change

- A: Capitalizing on the interdependencies between forest management and functional diversity
- B: Strengthening forest ecosystem resilience and fostering Climate Smart Forestry
- C: Enhancing the vital role of forests in regional and continental water supply
- D: Mitigating wildfire risks in forested landscapes
- E: Improving the partnership with citizens

2. Increased, sustainable wood production and mobilization

- A: Improving seeds, seedlings and plants to increase productivity and resilience
- B: Utilizing the digital revolution for precision forestry
- C: Empowering small-scale forest owners
- D: Harnessing novel technologies and automation in forest operations
- E: Analysing and foresighting markets and material flows of forest-based products

3. More added value from non-wood ecosystem services

- A: Improving business opportunities for non-wood forest products
- B: Enhancing value creation with other ecosystem services
- C: Providing forest-based benefits for urban and peri-urban societies
- D: Identifying the benefits of forest expansion as a consequence of land-use change
- E: Innovation in forest governance to foster forest-based benefits for society

Structure of the new SRA (Vision Targets – Challenges – Activities)

Vision Target 2

Challenge A: Improving seeds, seedlings and plants to increase productivity and resilience

Changing growing conditions and new demands from more diversified forest-based products call for improved understanding of the genetics of trees. This refers to growth dynamics affected by climate change, susceptibility to interlinked disturbances including native and exotic pests, but also biomass characteristics relevant for the production efficiency, quality and value of traditional and novel wood products. Research is needed on new methods and strategies for tree breeding and propagation material provision, cultivating plants, establishing new forests, and effective regeneration. This has to include the design of protection measures for endangered genetic resources of high interest for climate change adaptation, and the design of measures for assisted migration. The consequences on the provision of high-quality seeds and plants of native and introduced species that grow better under future climate conditions, are more resistant to pest and diseases, and provide more suited wood qualities have to be analysed.

RIAs

- **Develop new tree breeding strategies including new genetic tools**
- **Collect genotype and phenotype data including genetic diversity from different species, regions and ages**
- **Develop new technologies for mass propagation of seedlings**

Forest-based Sector
Technology Platform

The European hub for research and innovation in the forest-based bioeconomy

www.forestplatform.org

@ForestETP