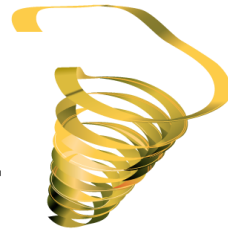# Forest-based Sector
Technology Platform

Shaping R&I programmes for the European forest-based sector

Innovation in the forest-based sector:
From idea to practice

1

Forest-based Sector
Technology Platform

Johan Elvnert
FTP Managing Director

FTP stakeholder seminar

24 October 2017 | Tallinn | Estonia

Shaping R&I programmes for the European forest-based sector

**Innovation in the forest-based sector:
From idea to practice**

The role of the European Forest-based Sector Technology Platform (FTP)

Mission

To implement the **European Strategic Research and Innovation Agenda (SRA)** for the benefit of the forest based sector's actors

- o Create opportunities for cooperative research and innovation on a European level

- o Set ambitious targets for research & innovation

- o Mobilise a critical mass of research & innovation

Forest-based Sector
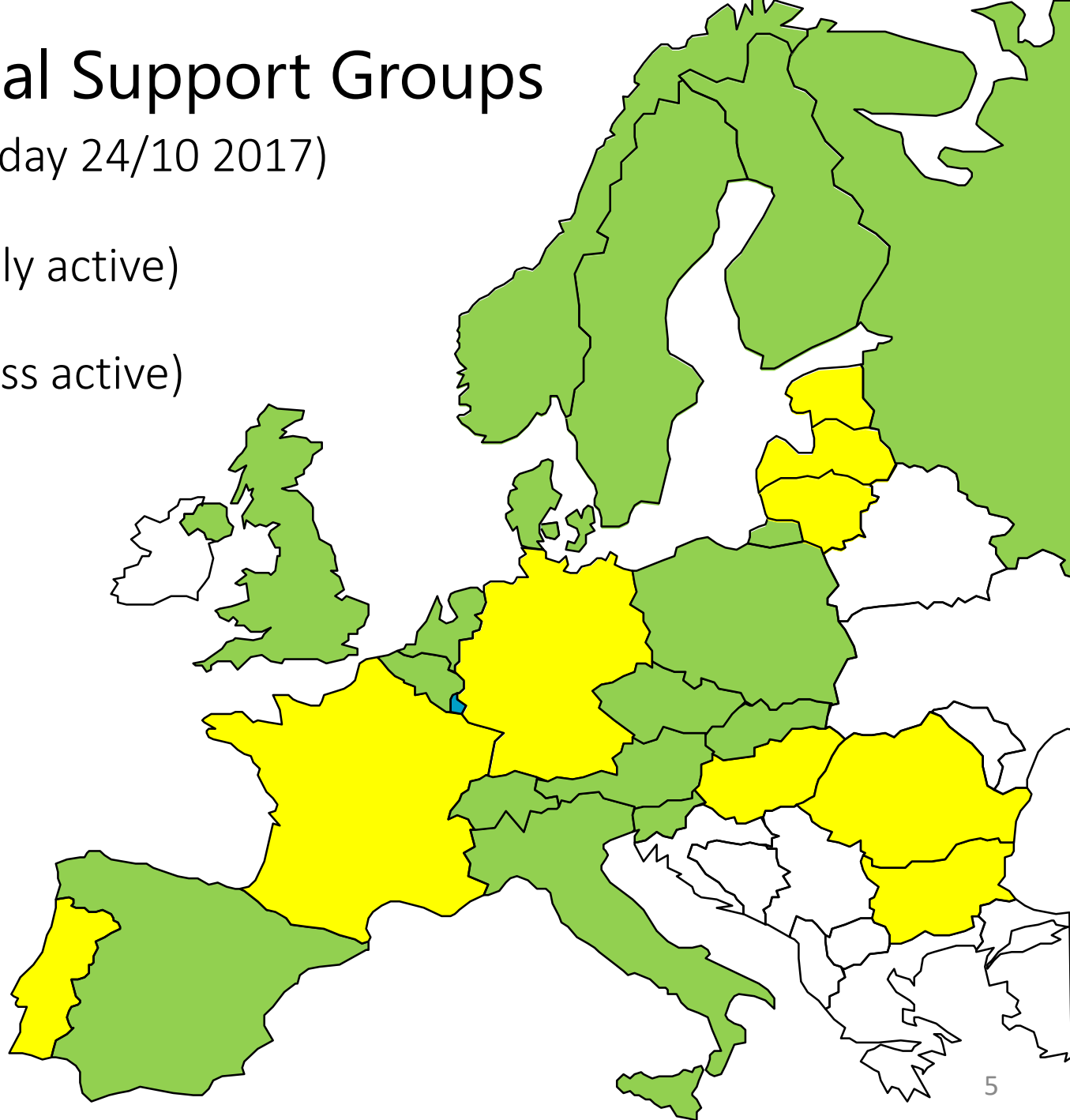
Bottom up approach – everyone contributes

The unique network of FTP National Support Groups mobilise a massive potential

FTP National Support Groups
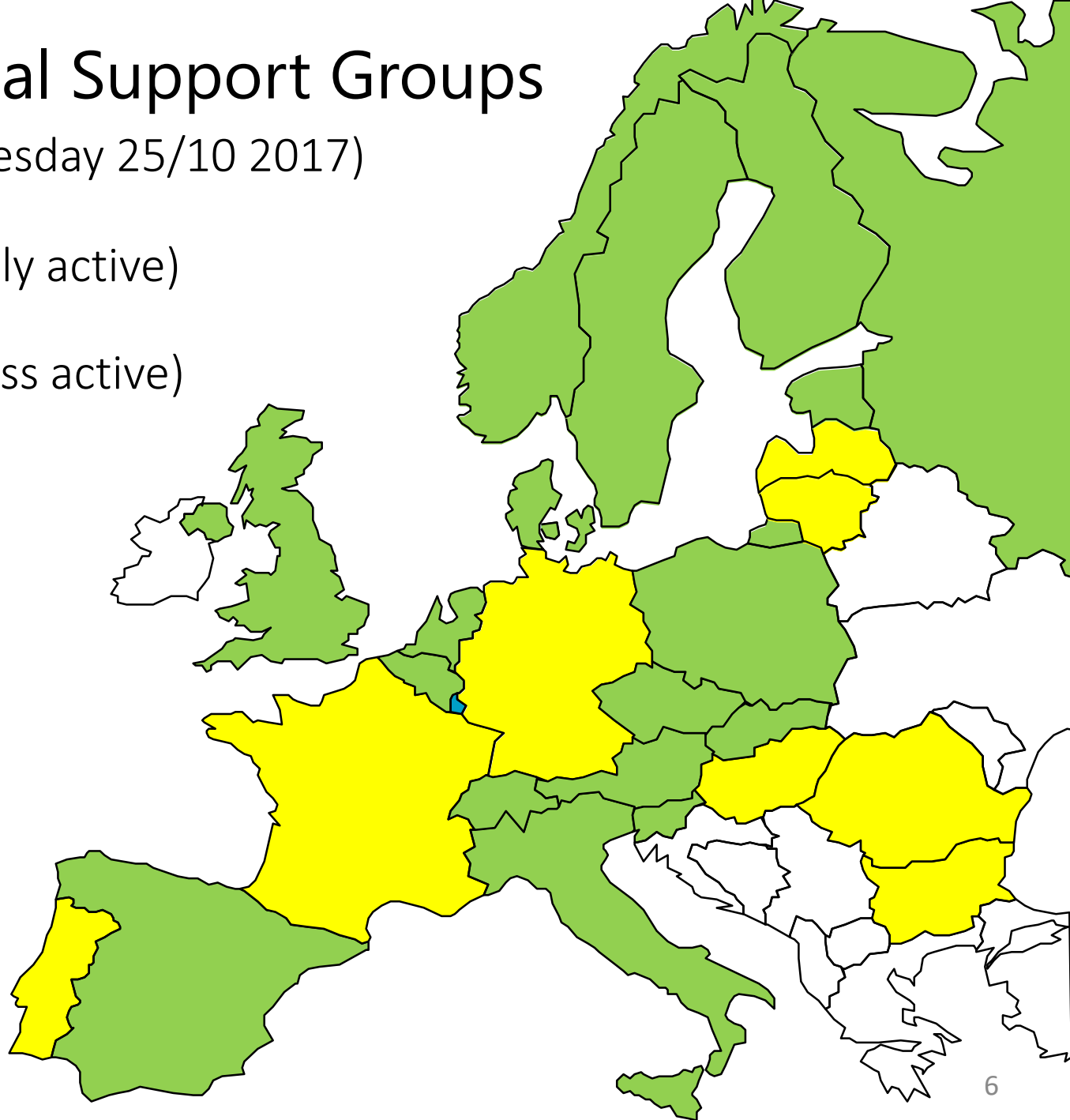## (Tuesday 24/10 2017)

■ FTP NSGs (fully active)

■ FTP NSGs (less active)

FTP National Support Groups

(Wednesday 25/10 2017)

FTP NSGs (fully active)

FTP NSGs (less active)

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Vision and Strategy of the sector **must match** societal concerns

Societal concern: use of forest biomass for energy

In EU   >> Intensive soil exploitation; harvesting exceeding forest stock

   >> Land use competition with agriculture crops

Global >> Import of wooden logs from other regions and increasing risk of deforestation and biodiversity loss

Societal concern: reduction of GHG emissions

In EU   >> compliance with Effort-Sharing regulation bill

   >> **LULUCF:** reduce GHG emissions by 40% below 1990 levels by 2030

   >> Intensive soil exploitation; harvesting exceeding forest stock

Global >> cap global warming; 2°C target; compliance with Paris Agreement

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Vision 2030
Vision Statement
10 Vision Targets for 2030

Example: FTP Vision Target #2

"…. Bearing in mind the full range of demand and production constraints*, harvesting possibilities in Europe have increased by 30% (until 2030), enabling forest owners to manage their forests more efficiently and sustainably. "

* In many regions specific forest growth is increasing and management is optimised for additional harvesting possibilities. In other regions, especially in the Mediterranean area, where the impact of climate change is predicted to be severe, creating resilient, stress-tolerant forest is particularly important. In some landscapes the main aim is nature conservation and providing ecosystem services.

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Benefits for society?

Some figures...

+120 Million m^3 timber harvested each year

+ 5 bn Euro value for forest owners*

Or alternatively*:

+20 days of EU's total petroleum products consumption

+ ca 20 bn Euro value

But if the timber is utilised by the forest-based industries* = +75 bn Euro in value

These figures are calculated using theoretical values and trade statistics. Precision is not guaranteed

Forest-based Sector

Annual production of roundwood, EU28

circa 650 m3 annual
increment below bark

500 000

400 000

300 000

200 000

100 000

0

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Non-coniferous
Coniferous

Forest-based Sector
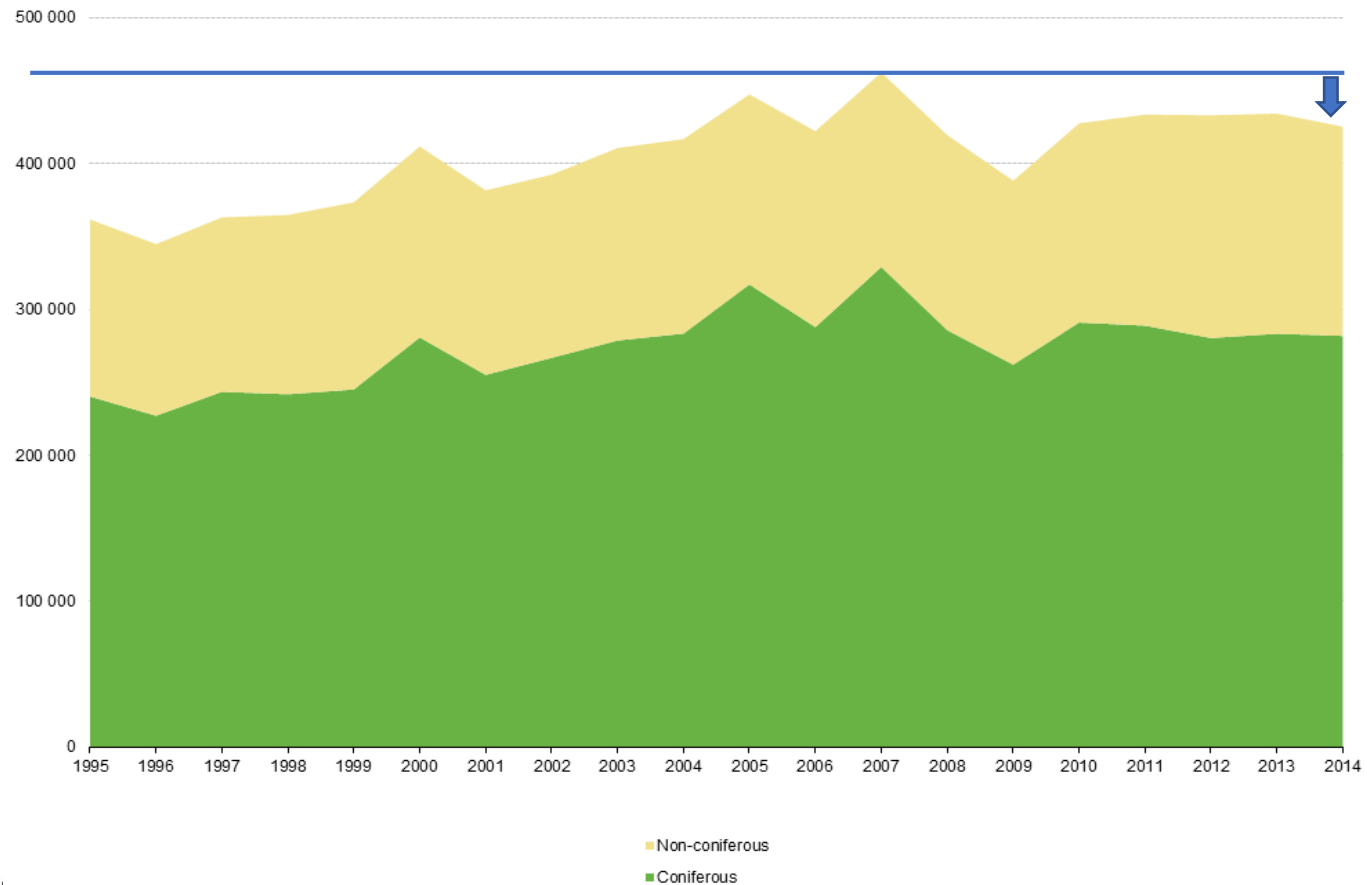
Practical challenges to increasing harvest sustainably

- Large collection areas and fragmented ownership (dispersed operations)

- Regeneration periods measuring 50-100 years

- Influence of climate and biotic disturbances (storms, drought, fire, pests)

- Need to respect additional roles of forests (biodiversity, recreation, soil, hunting, foraging, water protection etc)

- Micro-climate variations (e.g. elevation)

- EU has no regulatory mandate on forests

- 3D-challenge: Operations & logistics take place with spatial restrictions

- Rural business

- Open skies advantage

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Results of FTP work to shape R&I programmes to the needs of the forest-based sector

Steadily increasing EU R&D funding to our sector
(revised figures for 2016 close to 170MEuro)

Funding to the forest-based sector in FP7 and H2020

New funding
Identified

160000000

140000000

120000000

100000000

80000000

60000000

40000000

20000000

0

2007　2008　2009　2010　2011　2012　2013　2014　2015　2016

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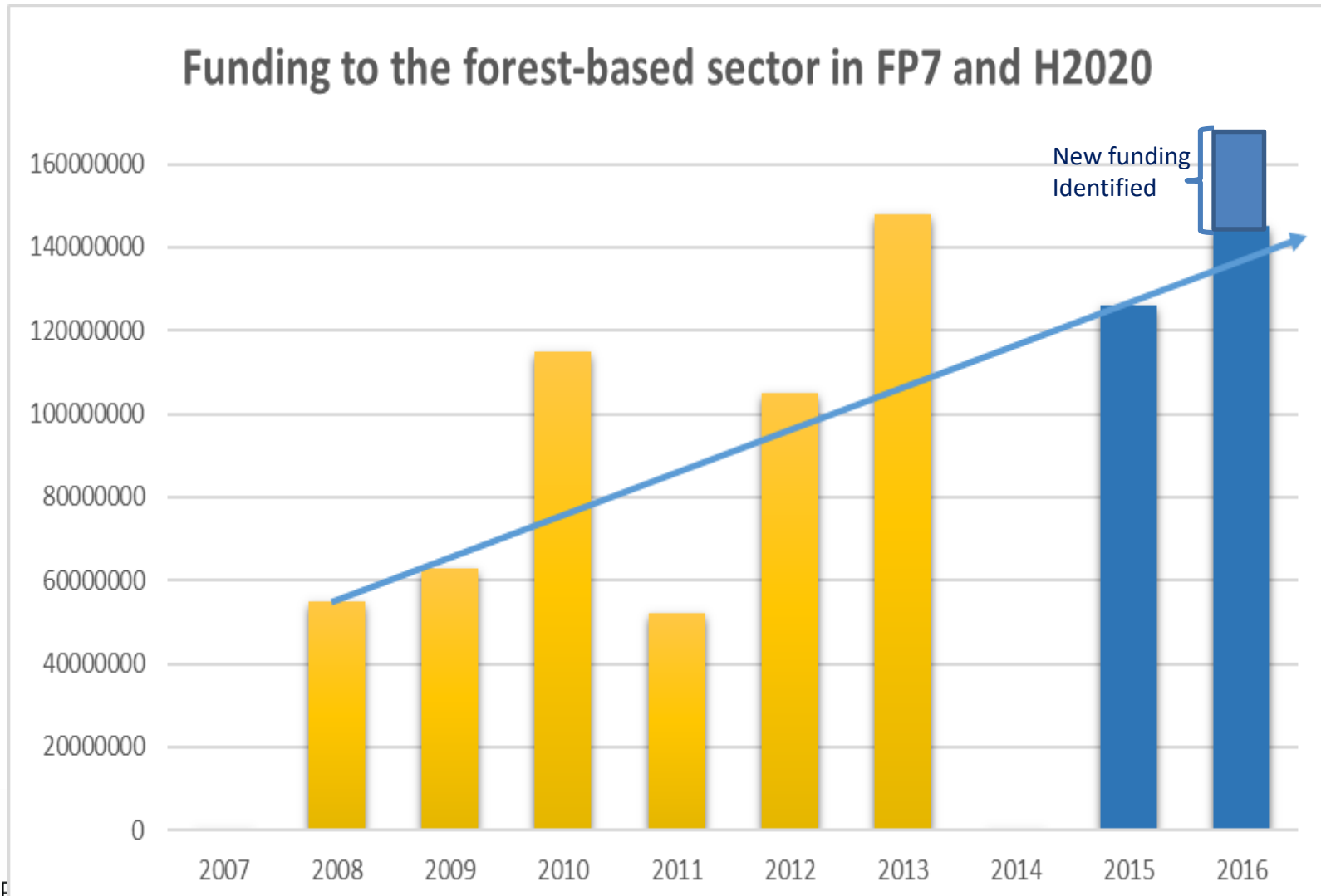
EU-projects with Estonian participation

Project Name	Start	Stop	Budget	EU-funding
BioRES / Sustainable Regional Supply Chains for Woody Bioenergy	Jan 2015	Jul 2017	1.865.411 €	1.865.411 €
BIOWAYS - Increase public awareness of bio-based products and applications supporting the growth of the European bioeconomy	Oct 2016	Sep 2018	965.750 €	965.750 €
DIABOLO / Distributed, integrated and harmonised forest information for bioeconomy outlooks	Mar 2015	Mar 2019	4.998.970 €	4.734.594 €
MOBILE FLIP / Mobile and Flexible Industrial Processing of Biomass	Jan 2015	Jan 2019	9.767.979 €	8.606.175 €
MORE-CONNECT / Advanced prefabrication of multifunctional building envelope elements for MOdular REtrofitting and CONNECTions	Dec 2014	Dec 2018	5.557.263 €	4.364.749 €
NERO - Cost reduction of new Nearly Zero-Energy Wooden buildings in the Northern Climatic Conditions	Sep 2017	Aug 2020	1.802.615 €	1.802.615 €
PEGASUS / Public Ecosystem Goods And Services from land management - Unlocking the Synergies	Mar 2015	Mar 2018	3.007.800 €	2.977.525 €
PROVIDE / PROVIding smart DElivery of public goods by EU agriculture and forestry	Sep 2015	Sep 2018	2.991.436 €	2.991.436 €

Examples of European Funding Opportunities
created by FTP and the FTP network

BBI JU Call 2017

Estimated budget: € 81 million

Status: calls are open

Deadline: 7 September 2017

New research programme!

ForestValue – Innovating the forest-based bioeconomy

Estimated budget: € 30 million

Status: pre-announced, calls will open in October 2017

Deadline: December 2017

This is how FTP contributed to establishing BBI JU

2008
- FTP prepares EU-project application. It is called **"Strategic Targets for 2020 – Collaboration Initiative on Biorefineries" (Star-COLIBRI)**

2009
- **Star-COLIBRI application is successful. Project kick-off!**

2011
- July: First discussion between EC + FTP + Europabio on establishing a Biorefinery PPP
- Nov: Star-COLIBRI successfully completed

2012
- **Feb: 1st meeting Industry representatives – European Commission**
- Apr: short 'Concept Note' submitted to EC, much based on Star-COLIBRI
- Jun: draft PPP Vision Paper submitted to EC
- May-Sep: drafting SIRA for PPP; EC preparing Impact Assessment
- Sep-Dec: Public consultation, First financial contribution from founding member companies
- Oct-Dec Commission to work on legislative proposal

2013
- Decision of European Parliament and Council
- Setting up of a PPP secretariat

2014 - Inauguration of Biobased Industries PPP and first Call for proposals!

3 years

2 years

Star-COLIBRI

Bio-based Industries Consortium

BIO-BASED INDUSTRIES
Public–Private Partnership

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New EU funding opportunities for 2018, 2019, 2020

- Just recently EC "Pre-Published" Horizon 2020 Work Programmes 2018-2020

- https://ec.europa.eu/programmes/horizon2020/en/what-work-programme

Industrial Technologies/NMBP (slide I)

- **LC-EEB-01-2019: Integration of energy smart materials in non-residential buildings (IA)**

- Specific Challenge: Europe is leader in the development of components for buildings retrofitting. Its leadership is based on the use of high-efficient insulation materials including concrete, steel, glass, composites, wood and hybrids, which should lead to achieving recyclable, nearly zero-energy building envelopes (roofs, façades) when applied to new buildings. However, these components do still not allow for the integration of smart energy storage and for an equal performance in existing buildings. This has proved to be very challenging, in terms of complexity, weight control and overall retrofitting costs. Therefore, work is required to advance the technology readiness level. Activities should include the demonstration of new hybrid-enabled prototypes for selected non-residential buildings.

- The Commission considers that proposals requesting a contribution from the EU between EUR 4 and 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

- Deadline: 21 Feb 2019

Industrial Technologies/NMBP (slide II)

- **LC-EEB-06-2018-20: ICT enabled, sustainable and affordable residential building construction, design to end of life (IA 50%)**

- … " Using ICT as an enabler in the building process and operation is a way to meet the challenges. ICT solutions need to incorporate the design, manufacturing, construction, material choice (including reusability, environmental performance and cost aspects), operation and end of life phases affecting the overall building lifecycle. "….

- Application deadline: 22 Feb 2018

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Industrial Technologies/NMBP (slide III)

- **DT-NMBP-04-2020: Open Innovation Test Beds for bio-based nano-materials and solutions (IA)**

- **DT-NMBP-01-2018: Open Innovation Test Beds for Lightweight, nano-enabled multifunctional composite materials and components (IA)**

- **CE-SPIRE-03-2018: Energy and resource flexibility in highly energy intensive industries (IA 50%)**

- **CE-SPIRE-04-2019: Efficient integrated downstream processes (IA)**

- **CE-SPIRE-05-2019: Adaptation to variable feedstock through retrofitting (IA 50%)**

- **CE-SPIRE-07-2020: Recovery of industrial water, thermal energy and substances contained therein (IA)**

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Societal Challenge 2 (slide 1)

- **LC-RUR-11-2019-2020: Sustainable wood value chains**
- "Specific Challenge: Forests play a vital role in Europe's economy, society and environment165. Scenarios likely to keep the global warming below 2oC (Paris Agreement goal) would entail a substantial reduction of anthropogenic GHG emissions, through far-reaching changes to energy systems, land use and associated value chains. The second consumer-driven factor of GHG emissions is the construction sector (ca. 15%), "…
- The Commission considers that proposals requesting a contribution from the EU of the order of EUR 10 million for sub-topic A and 5 million for sub-topic B would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Societal Challenge 2 (slide II)

- **LC-SFS-22-2020 - Forest soils Research and Innovation Action**

- **SFS-05-2018-2019-2020: New and emerging risks to plant health**

- **LC-SFS-19-2018-2019: Climate-smart and resilient farming**

- **SFS-28-2018-2019-2020: Genetic resources and pre-breeding communities**

- **RUR-01-2018-2019: Building modern rural policies on long-term visions and societal engagement**

- **RUR-03-2018: Contracts for effective and lasting delivery of agri-environmental public goods**

Societal Challenge 5

- **CE-SC5-07-2018-2019-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes**

- **CE-SC5-08-2018-2019-2020: Raw materials policy support actions for the circular economy**

- **LC-CLA-15-2020: Nature based solutions for forest fires risk reduction and multi-hazard risk management in the EU**

FP9 and EU funding post-2020

- FP9 = EU´s research budget 2021-2025

- What will be the budget size?

- How will the budget be structured?

- People talk about "Missions"?

- European Innovation Council (EIC)?

- Will large companies be allowed?

- When will FP9 be decided?

- **Please help to promote FTPs recommendations in regard of FP9!**
  http://www.forestplatform.org/#!/articles/99

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Be visionary! be smart! Act now!

Well managed forests and innovative people can make way to a better European society

© Södra Skogsägarna / Sjöbo, Åsenhöga.

If you wish to learn more!

www.forestplatform.org

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Perceptions of the forest-based sector...

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FTP structure