



# RDI for the Estonian Forest-based Sector: Expectations and Performance

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2010 2015 2020 2025 2030

Forest Based Sector  
Technology Platform



# Eesti metsasektori uurimis- ja arendustegevuse strateegia

2008–2013



<b>Value chains in forest sector</b>			
<b>Strategic goals</b>	<b>Forest management</b>	<b>Wood products</b>	<b>Bioenergy</b>
<b>Development of innovative products for changing markets and customers' needs</b>		<b>4. Adding value to timber as a material, increasing the wood usage</b>  <b>5. Establishing development centre of wood technology</b>	
<b>Mobilising forest biomass</b>	<b>1. Promoting sustainable forest management</b>		<b>6. Utilization of bioenergetic potential of forests</b>
<b>Sustainable forest management</b>	<b>2. Promoting multiple forest use</b> <b>3. Ensuring biodiversity</b>		
<b>Increasing the role of sector in society</b>	<b>7. Appropriate policy tools for efficient forest governance</b>		

# 1. Promoting Sustainable Forest Management

Expectations:

Resultant use of ICT in forest management;

Improvement in the quality and productivity of harvesting;

Implementation of research based forest management.

# Forest register

The screenshot shows the Metsaportaal web application interface. At the top, there is a browser window with the URL <https://mets-ave.envir.ee/#/>. The page title is "Metsaportaal" and it includes a search bar and navigation icons. The main content area displays a map of forest parcels with various identifiers. A specific parcel, ERALDIS 3416417, is highlighted in blue. To the right of the map, there is a metadata table for this parcel. Below the metadata table, there is a table showing the species composition of the forest. The map includes a scale bar (1:5000) and a coordinate display (697152.46, 6445285.38). The bottom right corner features the logo of the Keskkonnainvesteeringute Keskus.

**ERALDIS 3416417 taotluses MM-2653**

Maakond	Põlva maakond
Vald	Räpina vald
Üksus	Otsing
Katastritunnus	70701.001.0189
Kvartal	-
Eraldis	5
Pindala	0.7 ha
Kasvukohatüüp	jänese kapsa
Omandivorm	Eraomand, sega
Metsakorraldusettevõte	Metsaeksperdi Metsakorralduse OÜ
Inventeerimise kpv	25.02.2009
Registrikande kpv	17.03.2009

%	Puuliik	Vanus (a)	Kõrgus (m)
55	mänd	80	26
25	kuusk	80	25
10	kask	60	24
10	mänd	60	24

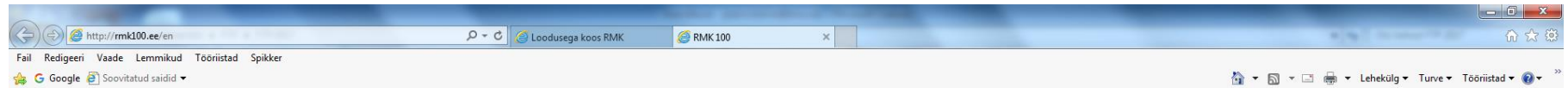
## **2. Promoting the Multiple Forest Use**

Expectations:

Maintaining the recreational value of forests nearby towns and settlements;

Increase in the use on non-wood forest products.

# Recreational services



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## ESTONIAN FOREST TELLS THE ESTONIAN STORY

To celebrate the year of Estonia's 100th anniversary, the State Forest Management Centre (RMK) has developed a network of hiking trails, which spans across the entire country. Learn about the trail's various branches, natural values, and 100 cultural objects; use the app and participate in the great group hike in August 2018.

A GIFT FROM RMK    100 CULTURAL OBJECTS

GREAT GROUP HIKE    NATURAL VALUES



# 3. Ensuring the Biodiversity

Expectations:

Functioning network of forest protection areas;

Relevant model of forest management for protected areas;

Maintaining biodiversity in commercial forests.



# Restrictions on Forest Management, % of Forest Area

Protected forests	11,7
Protection forests	12,6
Woodland key habitats	0,3
Commercial forests	75,4

Source: Yearbook Forest 2016

## **4. Adding Value to Timber as a Material**

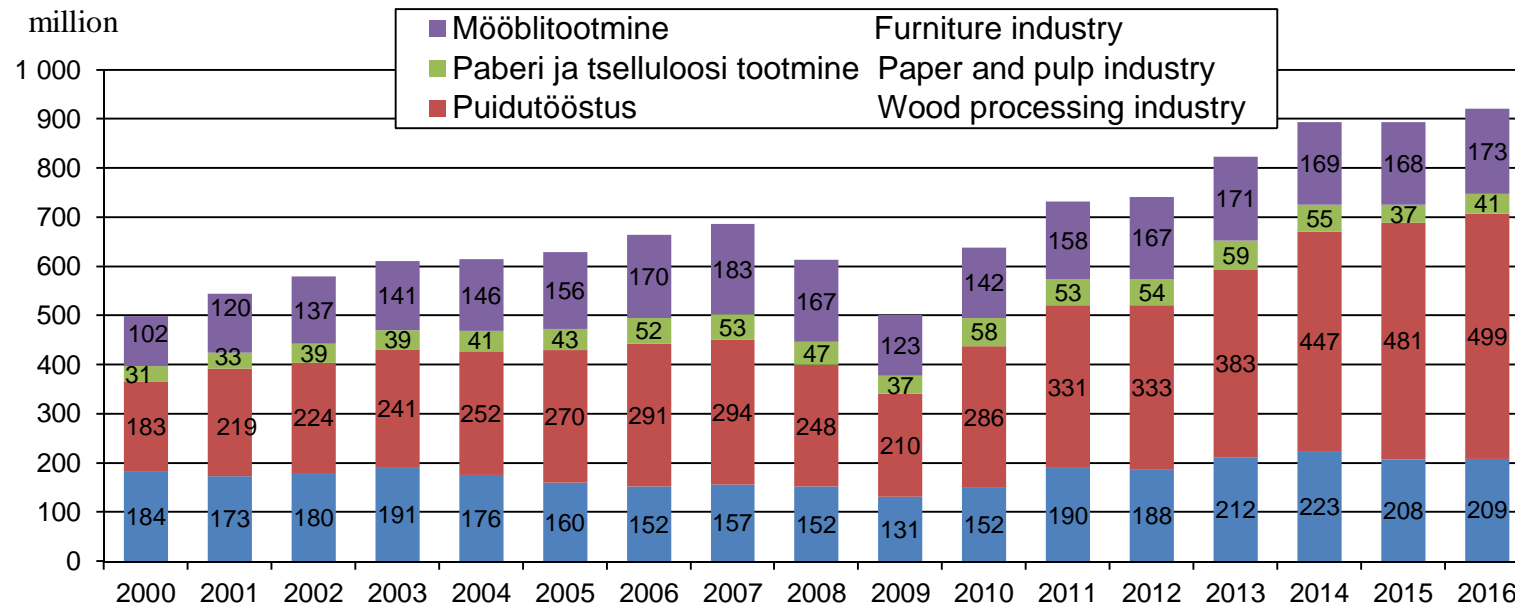
Expectations:

Increased use of domestic timber diminishes the dependence on imported wood;

Increased use of wood in construction;

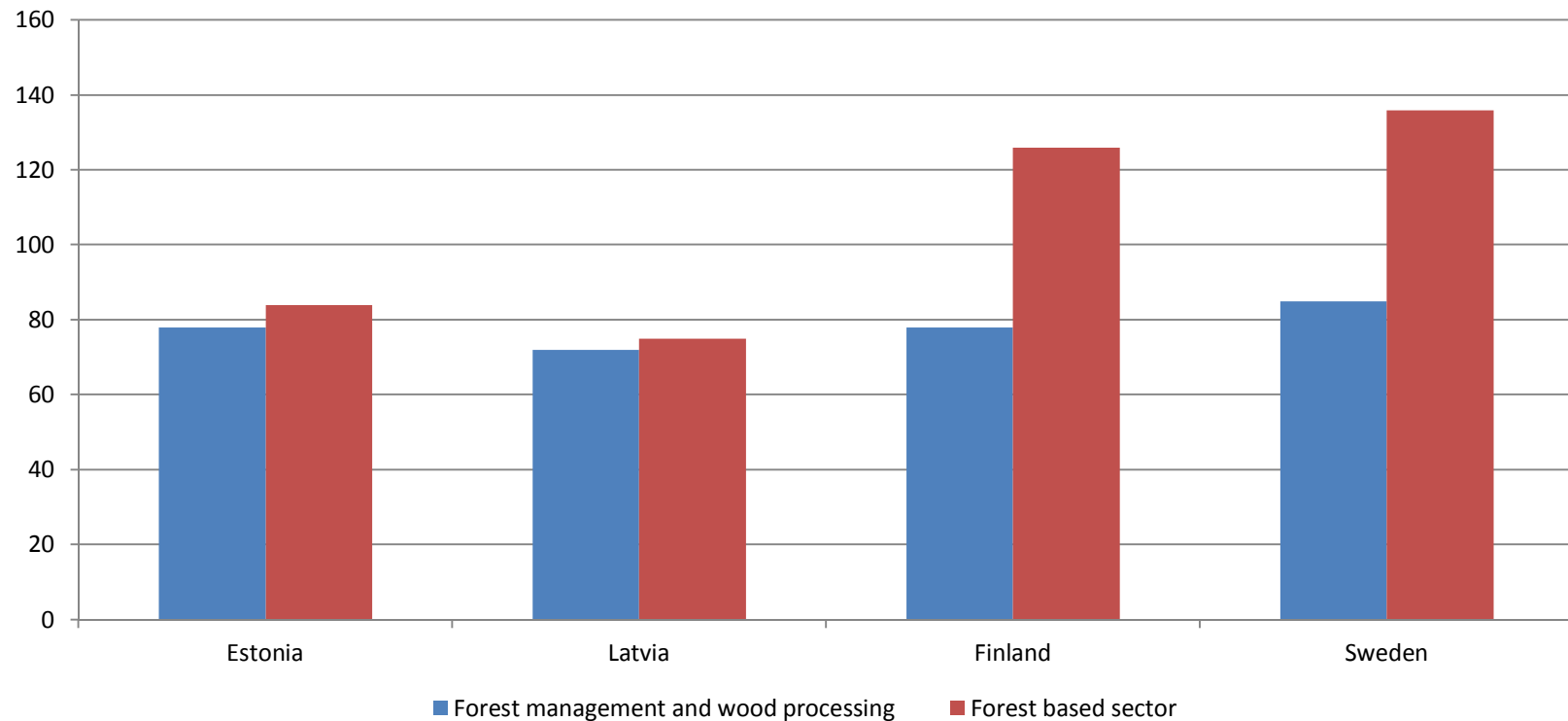
Investments into wood processing industry which supports the increase in added value.

# Adding value to timber



Added value of forest sector companies at chain-linked volumes (reference year 2005) in 2000–2016 Source: Yearbook Forest 2016

# Added value per harvested m<sup>3</sup> in 2013



Source: Finantsakadeemia OÜ, AB  
Eversheds Sutherland Ots, 2017

# 5. Establishing Development Centre of Wood Technology

Expected result:

Development centre of wood technology as an independent legal body

It was intended to establish the centre within the frames of Technology Development Centre's programme. Consortia of universities and enterprises  
The initiative failed, TDC was not established.

# Establishing Development Centre of Wood Technology

## The Centre of Competence for Wood Processing and Furniture Manufacturing

is a network linking the public sector, private industry, educational and research institutions, providing knowledge, skills and best practices in materials and technologies to advance production, management and product development in wood processing and furniture manufacturing.



# Garage48 WOOD

Oct 20 - 22, 2017  
@Väimela Tech House

Hack  
the  
WOOD!



# 6. Utilization of Bioenergetic Potential of Forests

“ Expectations:

Creation of added value by the use of forest and timber residuals;

Solving the contradictions between energy production and wood manufacturing;

Minimizing the environmental impact caused by using wood fuels.



# Use of Wood as a Source of Energy

*Graanul Invest* – the largest pellet producer in Europe, annual production capacity 2.3 million tons of pellets

Source: Graanul Invest [www.graanulinvest.ee](http://www.graanulinvest.ee)

Increase in using wood as a fuel grew between 2008 and 2015 from 3.7 million m<sup>3</sup> to 4.6 million m<sup>3</sup>.

Source: EMPL, M.Raudsaar, 2017

# 7. Appropriate Policy Tools for Efficient Forest Governance

Expectations:

Improvement of the reputation of the forest sector;

Efficient governance of the forestry;

Increase of the competitiveness of the sector.

# **Appropriate Policy Tools for Efficient Forest Governance**

National Forestry Program until 2020 was approved by the Parliament in 2011

Initiative to make changes in the Forest Act triggered „forest battle“ at the end of 2016 and the first half of 2017.

# Conclusions

Development of the sector is based on innovations implemented by private companies and public institutions;

Technology transfer from other sectors;

# Conclusions

Fundamental research is carried out mainly by universities and financed from public funds;

Mid- and long-term research programmes are essential;

Public-private-academic partnership is crucial in the future.



Thank you for your attention!

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