



Overview about Estonian Forest Centre's outcomes in Net4Forest project

Livia Pošlin

Estonian Private Forest Centre

28.10.2021

Project outcome nr 1: Handbook Overview about the situation in forestry in Estonia

- Total area of forest land is 2.33 mln ha, which is half of the territory
- Half of the forest land is private
- Main trees are pines (31%), birches (30%) and spruces (19%)
- 14.2 % of forest land is in strict protection zone and 11.4% in limited management zone.



The pathway for
efficient operations in
private forests

O1: Handbook

Forest ownership

- About 80 000 private forest owners
- The average size of private forest ownership is 10.7 ha:
 - Individual persons – 6.6 ha
 - Legal persons – 78.6 ha
- 44.4% of individual forest owners own less than 2 ha of forestland
- 95% of the forest owners are individual persons and the rest are legal persons
- Slightly over half of private land is owned by private people and a bit less is owned by forest companies

Ownership by genders and by age

- Slightly more than half of the private forest owners are females, but they own 37% of private forest land
- Males own more forest land and the average property size is bigger
- The middle aged owners own the the biggest size of forest land, the young and elderly people have less forests

Who is an average forest owner? (based on forest owners' research in 2019)

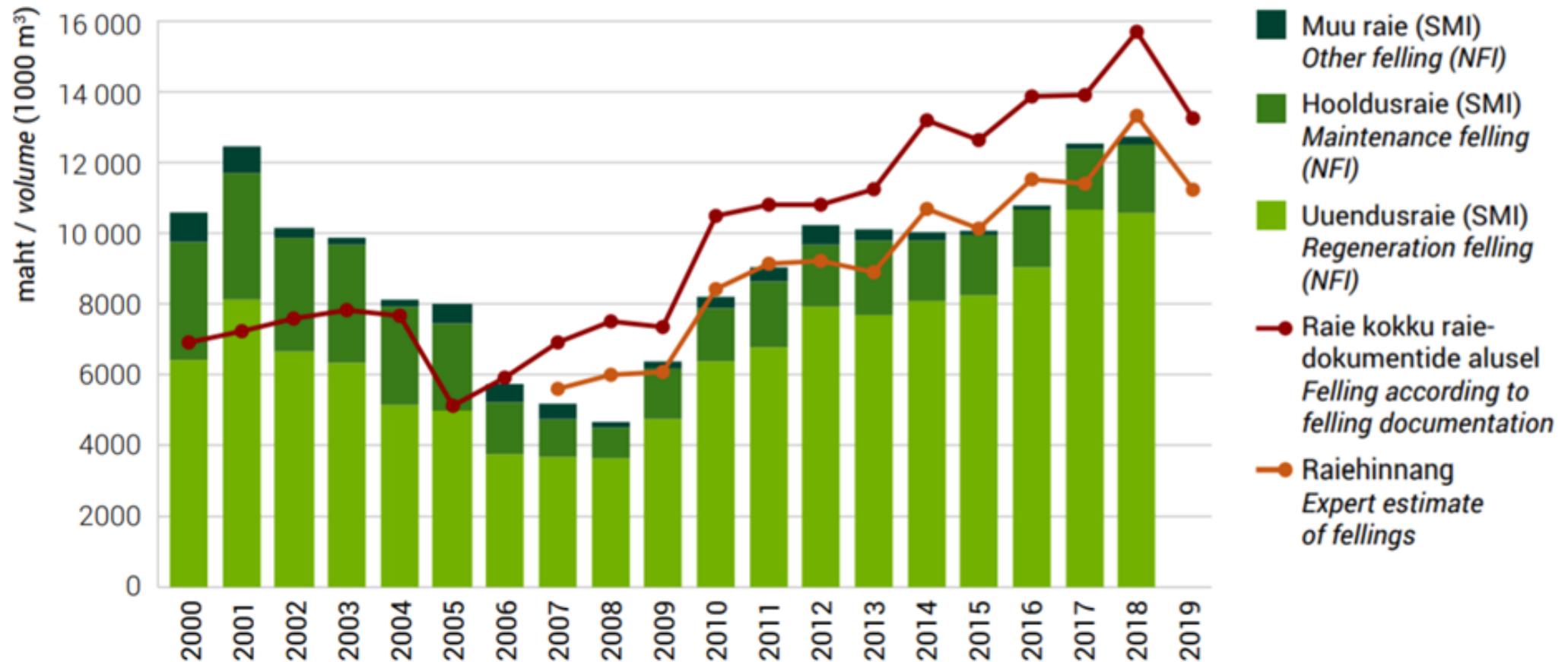
- The average forest owner is 56-year-old Estonian man
- Has a 2nd level education
- Works and lives in rural settlement in the immediate vicinity to his forest
- Doesn't belong to any forest association

The tree composition of private forests

- More inclined towards deciduous trees – (58% of the area and 52% of the growing stock), while in state forests deciduous trees cover roughly 34% of the forest area.
 - One of the primary reason for the greater representation of deciduous trees in private forests is that afforestation tended to occur on former (private) agricultural land

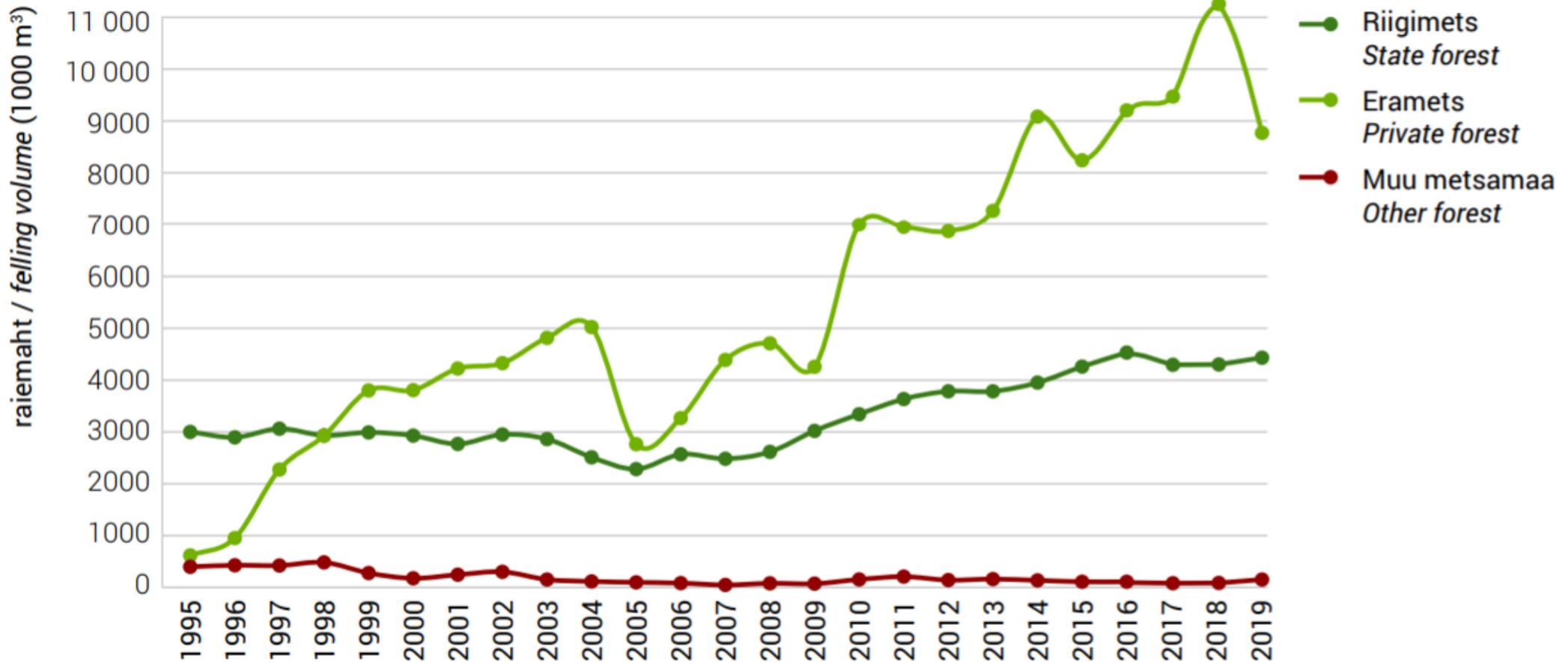
Felling volumes in Estonia

Felling volume by different data sources in 2000–2019



Felling volumes by forest owners

Distribution of felling volume by ownership category in 1995–2019



How forest owners can contribute to the development of bio-economy?

- Reforestation (planting, sowing or leaving forest to natural regeneration) and later its maintenance
- After forest thinning producing fire wood or wood chips from residues or bush
- Nature friendly forest land improvement
- Maintaining forest objects of cultural heritage
- Preserving biodiversity – forest felling should be avoided during the bird nesting season; forest cutting should be preferred during the winter mostly because it also minimizes the damage for the soil and roots

Role of forest owners in development of bio-economy

- Using lighter forestry machinery. If a forest owner has skills, will and the time, then why not to do the forestry work manually...as physical exercises :)
- Using forest more for its byproducts:
 - picking berries, mushrooms and herbs
 - fresh leaves, buds, and sprouts from different tree species can be used for food and drinks - teas, syrups
 - Beekeeping
 - etc.

Project outcome nr 2: Hands-on Guidelines Using miniharvesters and drones in forestry



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Erasmus+ Programme
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Teadmusvõrgustik tõhusalt
majandatud erametsadele (*Network of
knowledge for efficient private forests*)

Praktiline juhend
miniharvesteeri kasutamisest
metsanduses

2020



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Praktiline juhend droonide
kasutamisest metsanduses

2020



Using miniharvesters in forestry

- Modern forestry technology helps forest owners to do forestry works more conveniently and in some cases also more efficiently
- Miniharvesters cause less negative impact on soil and roots and due to its small size, there is no need for skidding roads in the young forest.
- Weight 2.3 t, width 1.5 m, fuel consumption 3 l/h
- Fits on a car trailer



Miniharvester and miniforwarder



...and a combimachine

- Acts like harvester, forwarder and brush cutter – 3 in 1

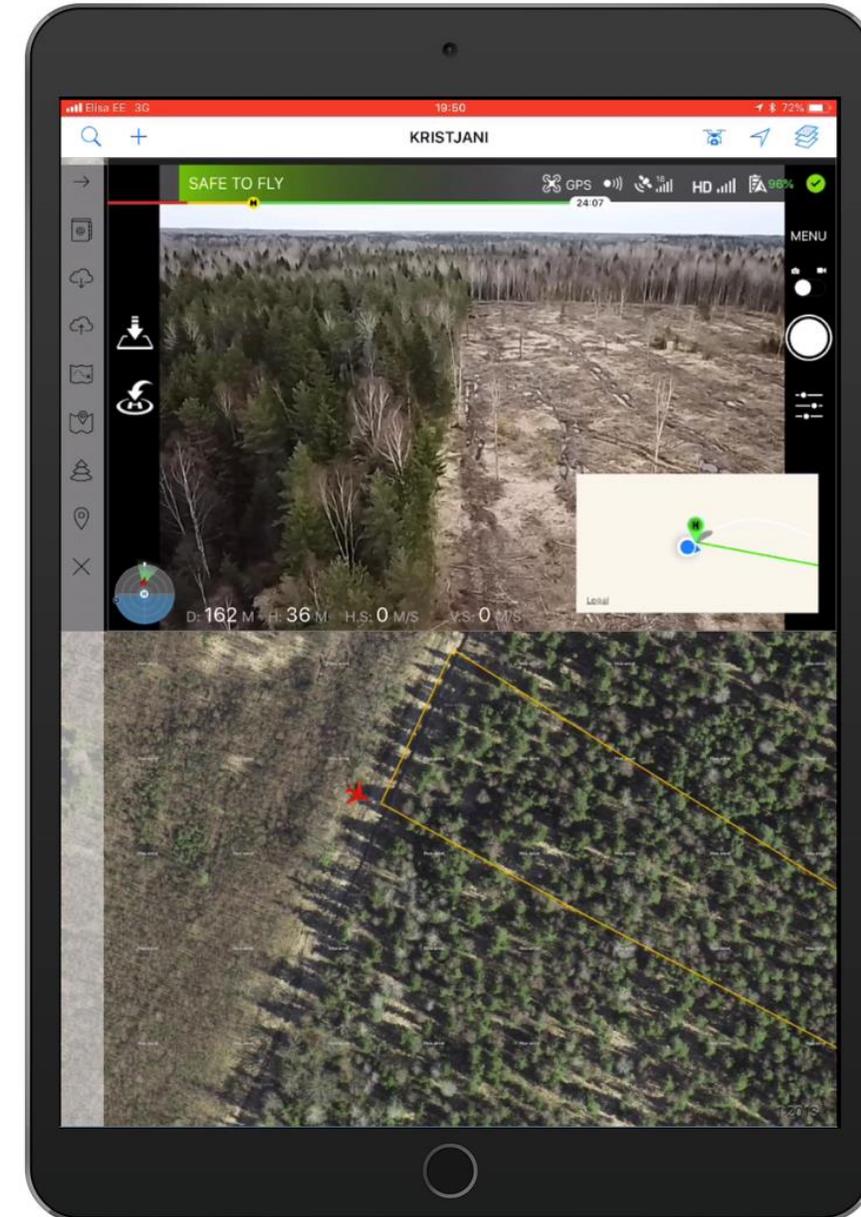
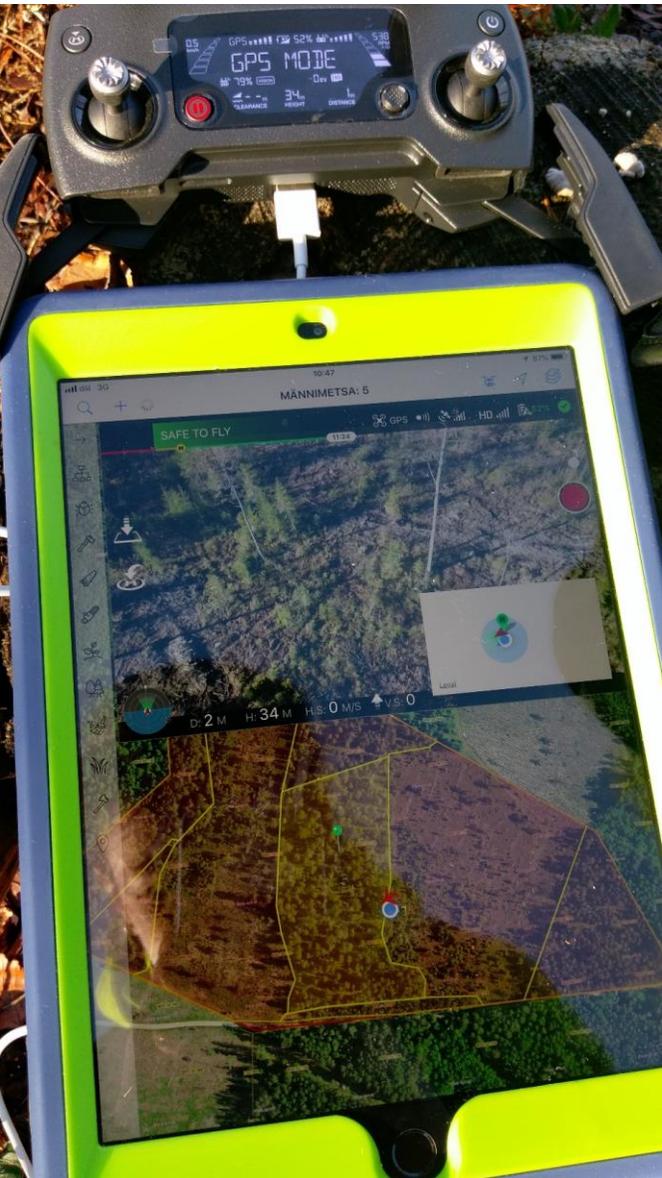


Using drones in forestry

- Using drones in forestry help to save time and physical hassle
- Drones help to get overview about different **forestry works** and for example about **storm debris**, **beaver dams** and when **monitoring FSC** or **PEFC** certified forests, where the certificate owner has to prove that the properties are systematically monitored. One way to prove it is to show the video of the visited forest.



Drones in forestry



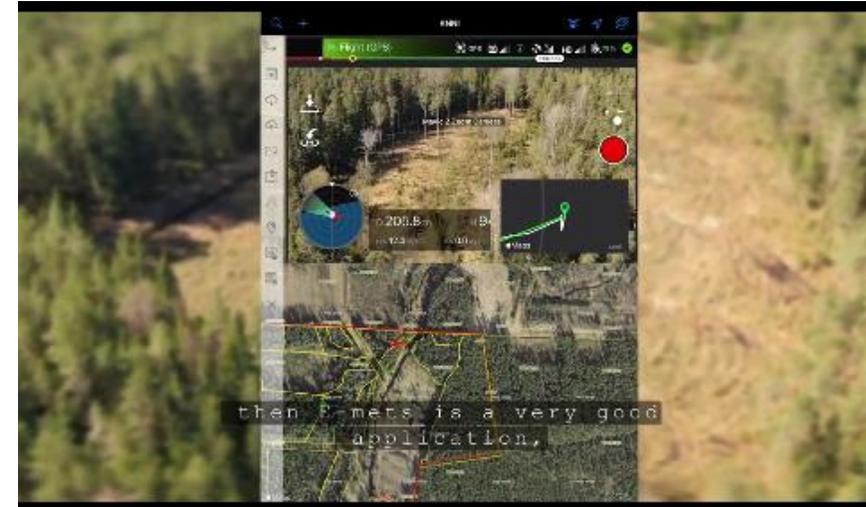
Project outcome nr 3: Learning tool kit

Tutorial videos of using miniharvesters in forestry



Project outcome nr 3: Learning tool kit

Tutorial videos of using drones in forestry



Project outcome nr 4: Good practice examples in Estonian forestry



Network of knowledge for efficient private forests

Advisory system as part of the forest association system

Estonia 2020



Network of knowledge for efficient private forests

Joint sale of wood

Estonia 2020



Advisory system as part of the forest associations in Estonia

- About 30 active forest associations in Estonia
- Distributed across the country
- 14 100 are members of associations, with about half of the forest land (ca 570 000 ha) of total private forest land



What forest associations provide?

- Information and know-how for forest owners
- Gather owners from the same area, so there is possibility to order different forestry works at the same time, and this makes the costs lower for the owners

Forestry advice from forest associations

- Forest associations have agreements with consultants who provide forestry advice for forest owners. Most of the forest **consultants** work at **forest associations**
- First a private forest owner will contact a regional forest association and an association will find a suitable forestry consultant for the owner
- Consultants are forestry specialists and they have proven their knowledge with professional exam in forestry; usually with higher or vocational education in forestry and work experience usually at least 3 years

Forestry consultants

- Their task is to give neutral advice for forest owners on various forest issues
- Advisory about all kind of forestry planning and forestry works, prevention of forest damage, ownership, taxation
- Advisory service is partially being covered from advisory support that is being provided for forest associations
- In most forest associations the first advice session (2-3 hours) is free for the owners. Advisory support is up to 100 EUR per advised forest owner

Joint sale of wood

- After the reindependence in 1991 began to emerge first forest associations with activities such as counselling, training and introducing the subsidies
- In 2000s associations became engaged in forest management of their members
- They also started stimulating the sale of timber by private forest owners through forest associations
- An idea started to develop - it would be more beneficial to offer timber from several associations at the same time, than only from one association

Joint sale of wood

- As a result of revival of timber sales of forest associations, **Central Association Private Forest (Keskühistu Eramets)** was established in 2009.
- At the beginning there were 4 forest associations who belonged to Keskühistu Eramets, but in 2010 this number increased to 11
- Despite the forest association-centric structure, forest owners in particular still benefit from the Central Association – more opportunities for timber sales and **better price** for every owner due to larger quantities.

Joint sale of wood

- In 2013 another joint sale of wood union – **Estonian Timber Sales Centre (Eesti Puidumüügikeskus)**
 - Created by 4 forest associations
 - Goal is to be a single sales channel for forest associations to get best price for harvested timber through larger quantities and longer-term contracts
 - Central Association is more engaged in the sale of timber from small forest owners, but Estonian Timber Sales Centre sells more timber that comes from companies' own properties.



Thank you for listening!