«BIRCH PROGRAM» – FOREST INDUSTRY DEVELOPMENT PLATFORM

ZABAKI – ONE OF THE MOST INNOVATIVE BIRCH NURSERIES IN THE REGION

Ukrainian State Forestry Office visit

Zabaki tree nursery / Birini Castle

18 July 2023

Latvijas Finieris

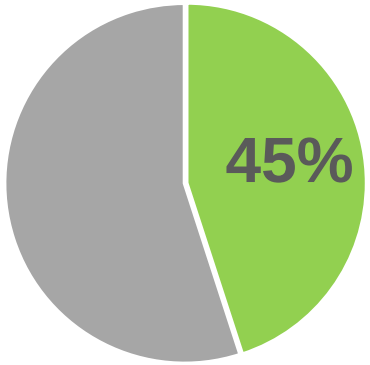
IMPORTANT TO REDUCE OUR REGION'S DEPENDENCE ON FOSSIL AND IMPORTED RESOURCES

FROM:
Fossil resources
Carbon emissions
Limited availability
Overflooded landfills

TO:
Renewable resources
Carbon sinks
Infinite circulation
Biological disposal

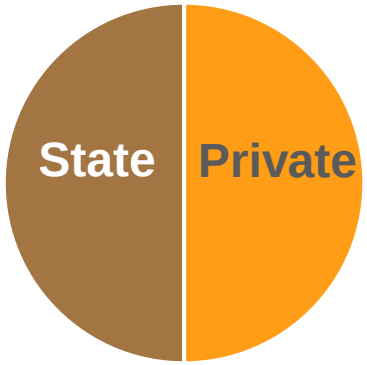
FORESTS PLAY A CRUCIAL ROLE IN THE BALTIC ECONOMIES

Coverage



Forests

Ownership

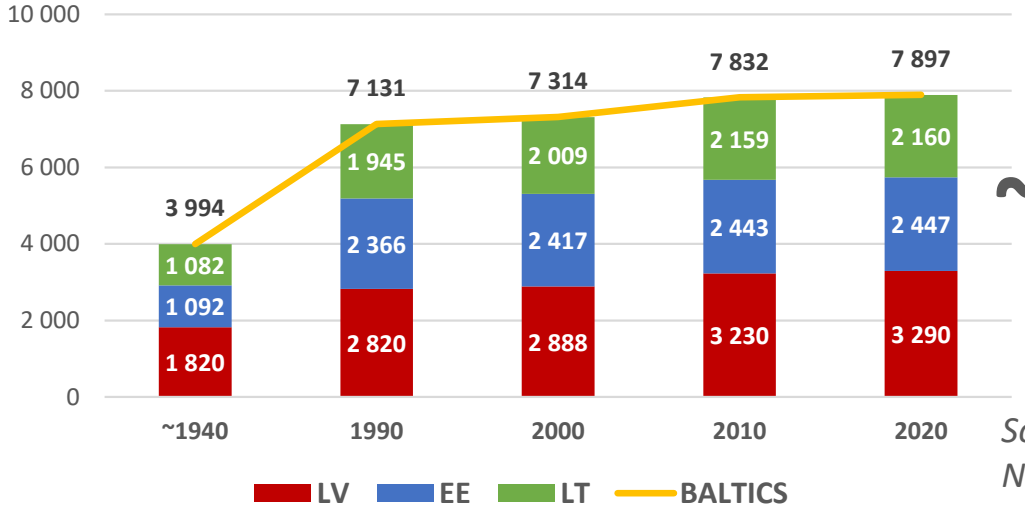


SUSTAINABLE FORESTRY:

- ✓ Long-term forest management
- ✓ Certified supply chains
- ✓ Growing forest areas

FOREST RESOURCES: BALTICS ≈ UKRAINE

Forest Area, thousand ha



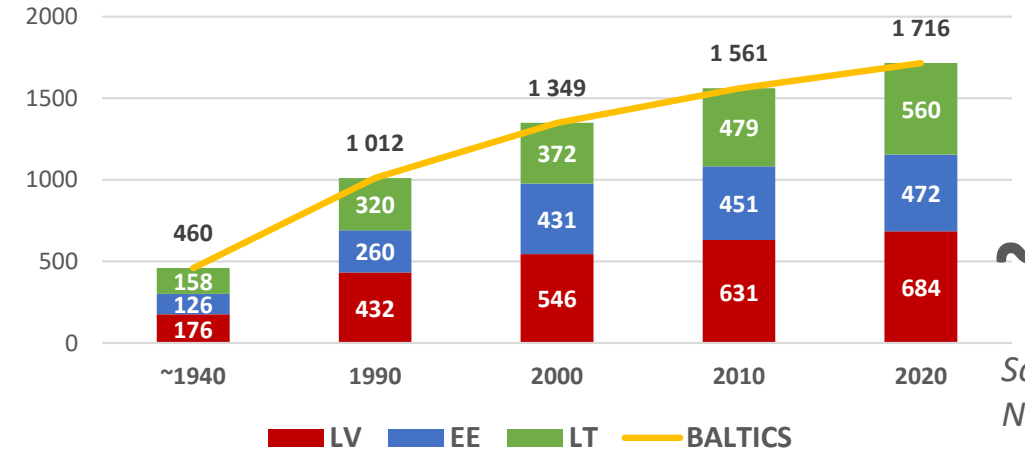
~8

Source: National Statistics

~10

million ha

Growing Stock, million m3



~1,7

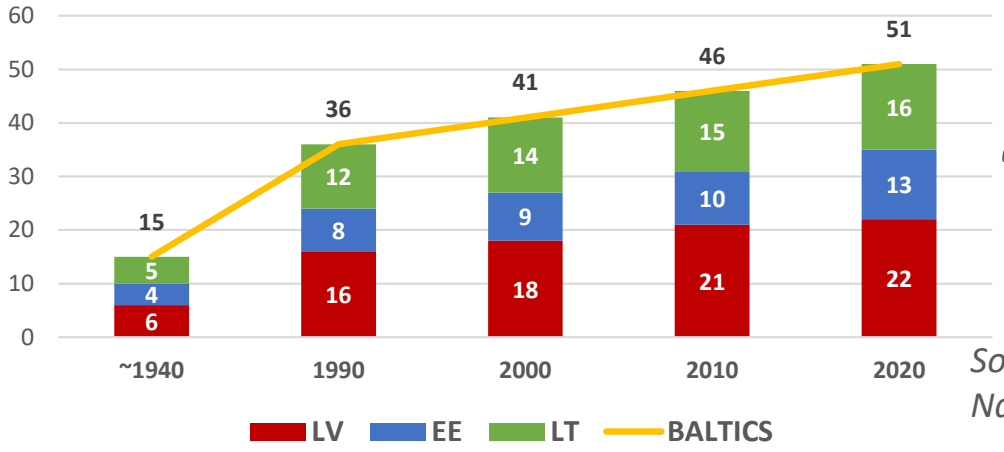
Source: National Statistics

~2

billion m3

FOREST MANAGEMENT: BALTICS - UKRAINE

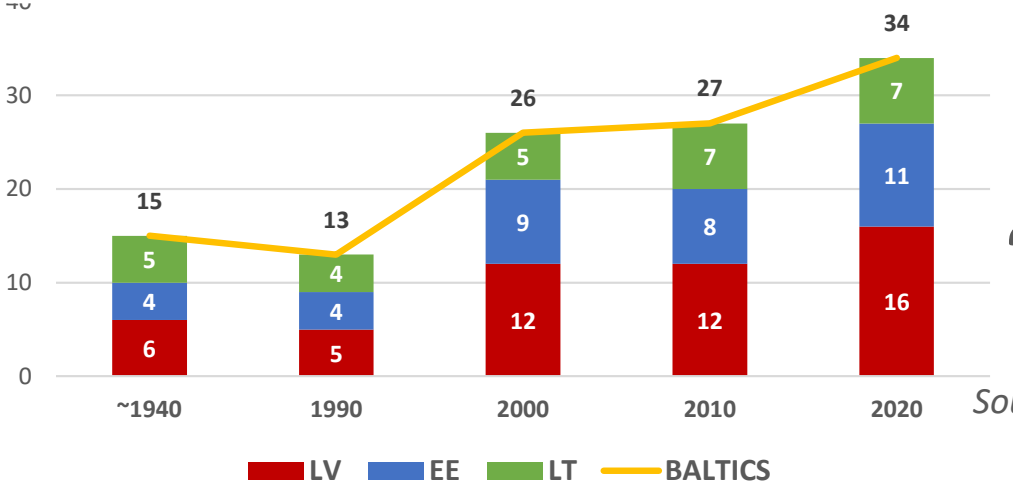
Annual Increment, million m3



~51

Source: National Statistics

Annual Logging, million m3



~34

Source: Eurostat

More than in UA forests:

~40

million m3

~13

million m3

POTENTIAL TO INCREASE FOREST RESOURCES
BOTH IN RELATIVE TERMS AND ABSOLUTE VOLUME

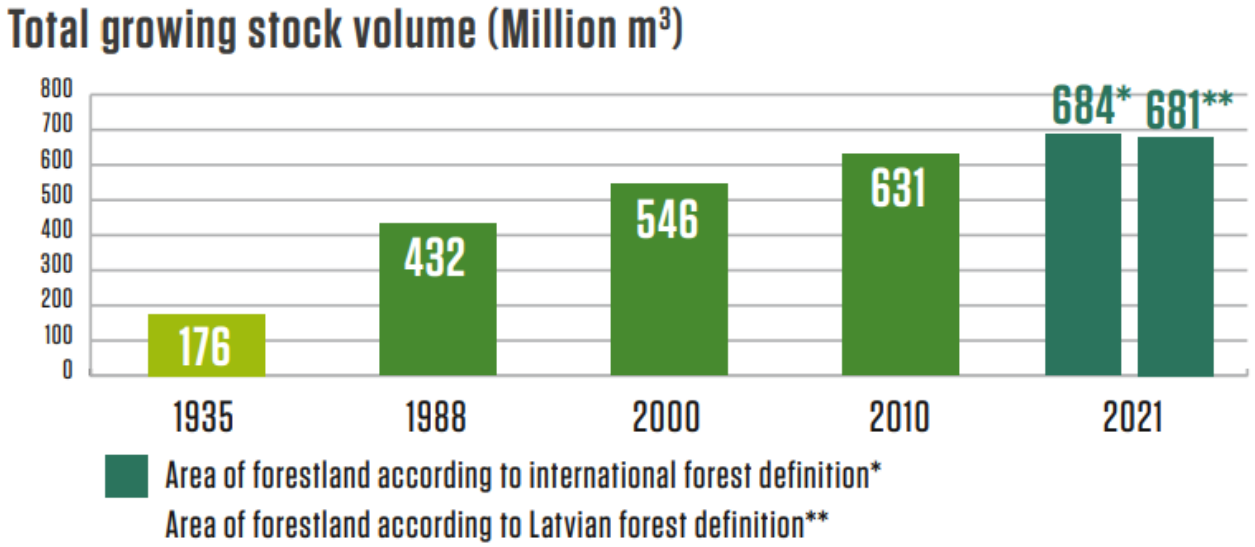
- **More intensive use** of existing forest land areas, observing sustainability principles

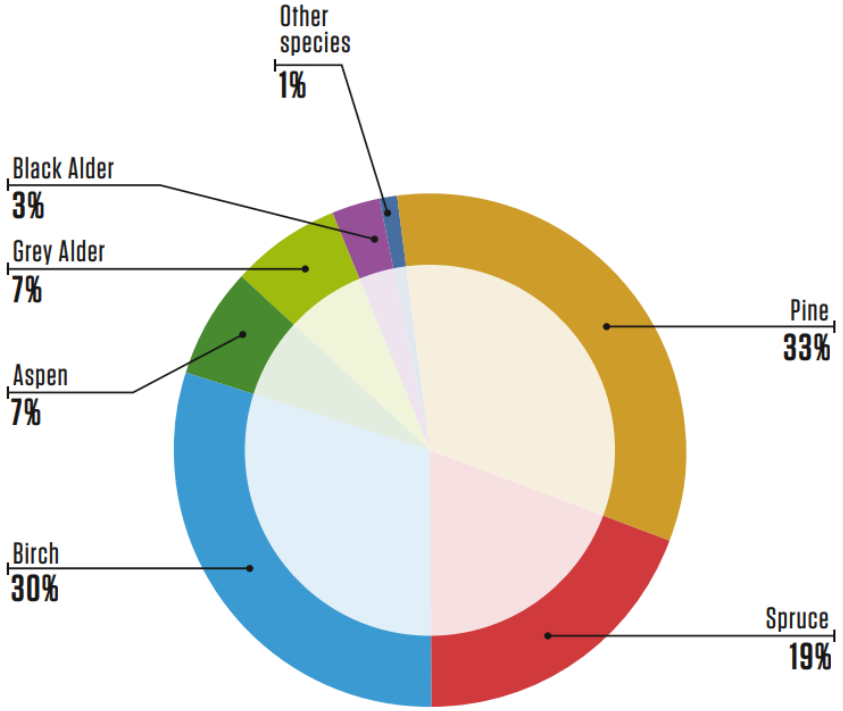
Annual Increment	~4 m3/ha	6-7 m3/ha
Felling / Increment	~33%	60-80 %

- **Planting new forests**, with modern & sustainable methods (improved trees / selection)

~16%	~45%
of area	of area

SUSTAINABLE USE OF LATVIAN FORESTS AND AVAILABILITY OF BIRCH RESOURCES





Source: Skaitlifakti_ENG_2022 (zalasmajas.lv)

CREATION OF DEVELOPMENT PLATFORMS
«BIRCH PROGRAM»

- Latvijas Finieris initiated *Birch Program* (active since 1996), a common platform for land owners, scientists, professionals from forest industry and beyond
- It strengthened the conviction to be united, to discuss together, to set goals & work for achieving them
- Over the years, working together has developed close mutual trust

LATVIJAS FINIERIS – LONG-TERM PARTNER FOR LAND OWNERS

- Actively engaged in forest management (**~10 thousand ha** forest property and a modern tree nursery capable of growing **~1,5 million saplings p.a.**)
- Exploring & evaluating new technologies together with scientists, thus ensuring **long-term & cutting edge benefits** to forest/land owners
- Our 25+ years experience in birch wood selection tells us for sure that **quality saplings & professional forestry methods are worth it**!
- For land owners this means considerably **higher property value**, whereas for industry this raises work efficiency & product quality for future materials made from renewable resources
- Applying knowledge-based forestry methods in commercial forest areas increases maneuver options to **balance social & environment needs**

Example – Benefits from Knowledge-Based Forestry

Semi-Natural Forest

Wood harvest

Natural forest regeneration

70 year cycle

200 - 250 m3/ha

25-30% veneer logs

«Birch Plantation» (targeted forestry)

Wood harvest

Soil pre-paration

30-40 year cycle

400 - 450 m3/ha

45-50% veneer logs

Quality saplings

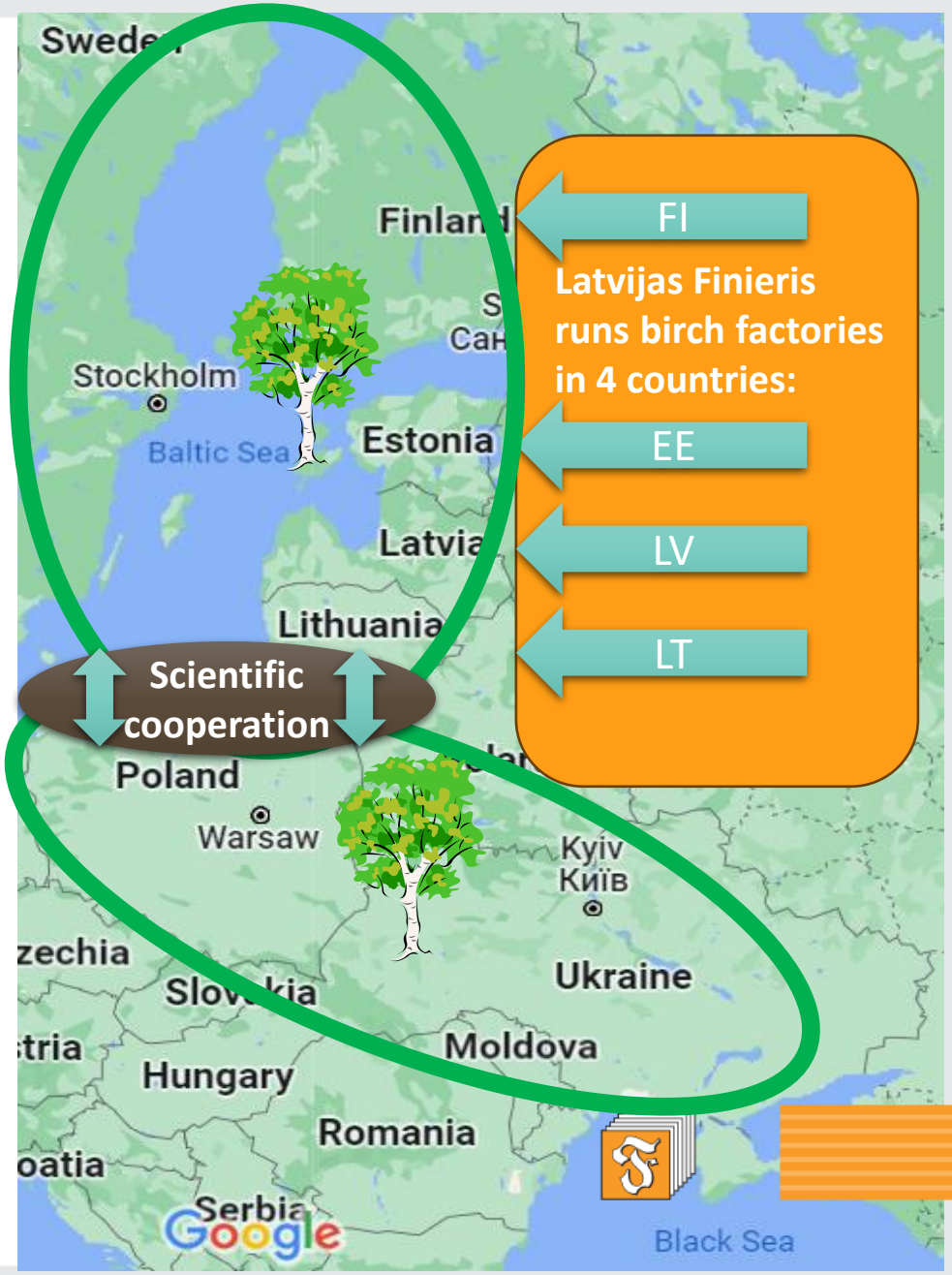
Optimal planting conditions

Targeted thinning

Benefits to Forest Owners:
2x faster + 2x more + 2x higher quality

BIRCH AND CLIMATE CHANGES

- Climate changes open up new opportunities for «southern birch coming to northern forests»
- At the same time, long-tested northern methods can be applied in growing «best birch anywhere»
- Scientific cooperation needed to ensure best sustainable results
- Adapting business models for traditional mills consuming «northern or southern birch»



Shortly about Latvijas Finieris Mežs

SIA "Latvijas Finieris mežs" is 100% daughter company of "Latvijas Finieris" group, est. 2007. with aim to manage forest properties.

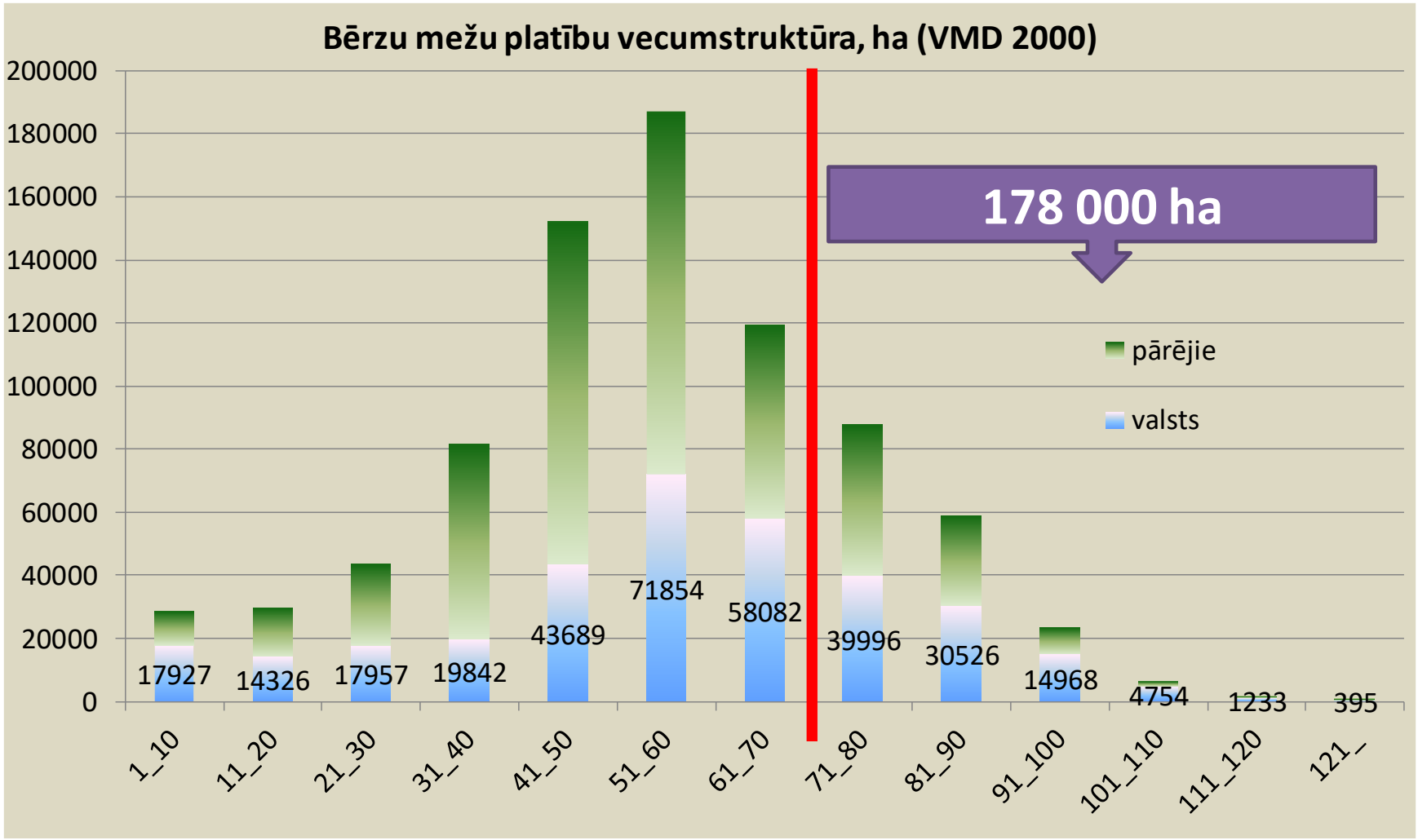
Today we manage ~ 11 000 ha (incl. 9337 ha forest land).

Birch plantations established ~2500 ha.

First plantations est. 1998 (25 years old).

In 2016 we started first commercial thinnings (Ukri, Auces novads).

Birch resources in Latvia by the end of ~90 -ies



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What should we do?

- Afforestation → Plants → Cooperation → Education → Research
- Thinnings → Cooperation → Education → Research
- B selection → Cooperation → Education → Research
- Legislation

SILAVA

Cooperation with forest sector

- State forest service (VMD)
- Scientists (Silava, LLU MF, KĶI etc.)
- Private owners (private companies, LMĪB etc.)
- Latvian state forests (LVM)

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Selection of planting site

Soil preparation

Seedling quality

Weather conditions

Planting quality

Grass control/thinnings

Wild animals damages

Climate extremes

Other risks ??

Main conclusions after 25 years

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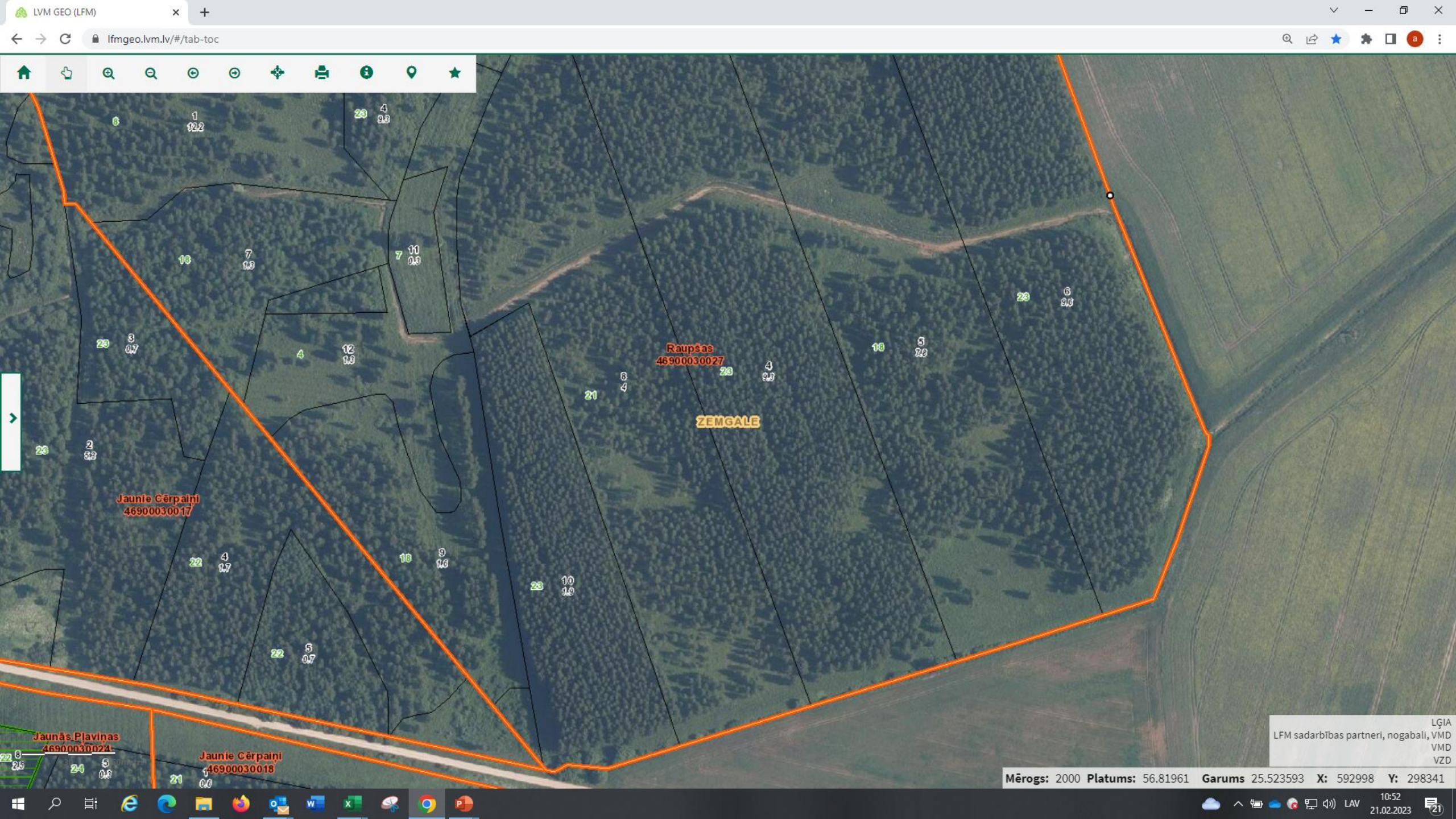
LVM GEO (LFM)
lfmgeo.lvm.lv/#/tab-toc
Raupšas
46900030027
ZEMGALE
Jaunie Cērpaiņi
46900030017
Jaunās Plaviņas
46900030024
Jaunie Cērpaiņi
46900030018
LĢIA
LFM sadarbības partneri, nogabali, VMD
VMD
VZD
Mērogs: 2000 Platums: 56.81961 Garums 25.523593 X: 592998 Y: 298341
LAV
10:52
21.02.2023

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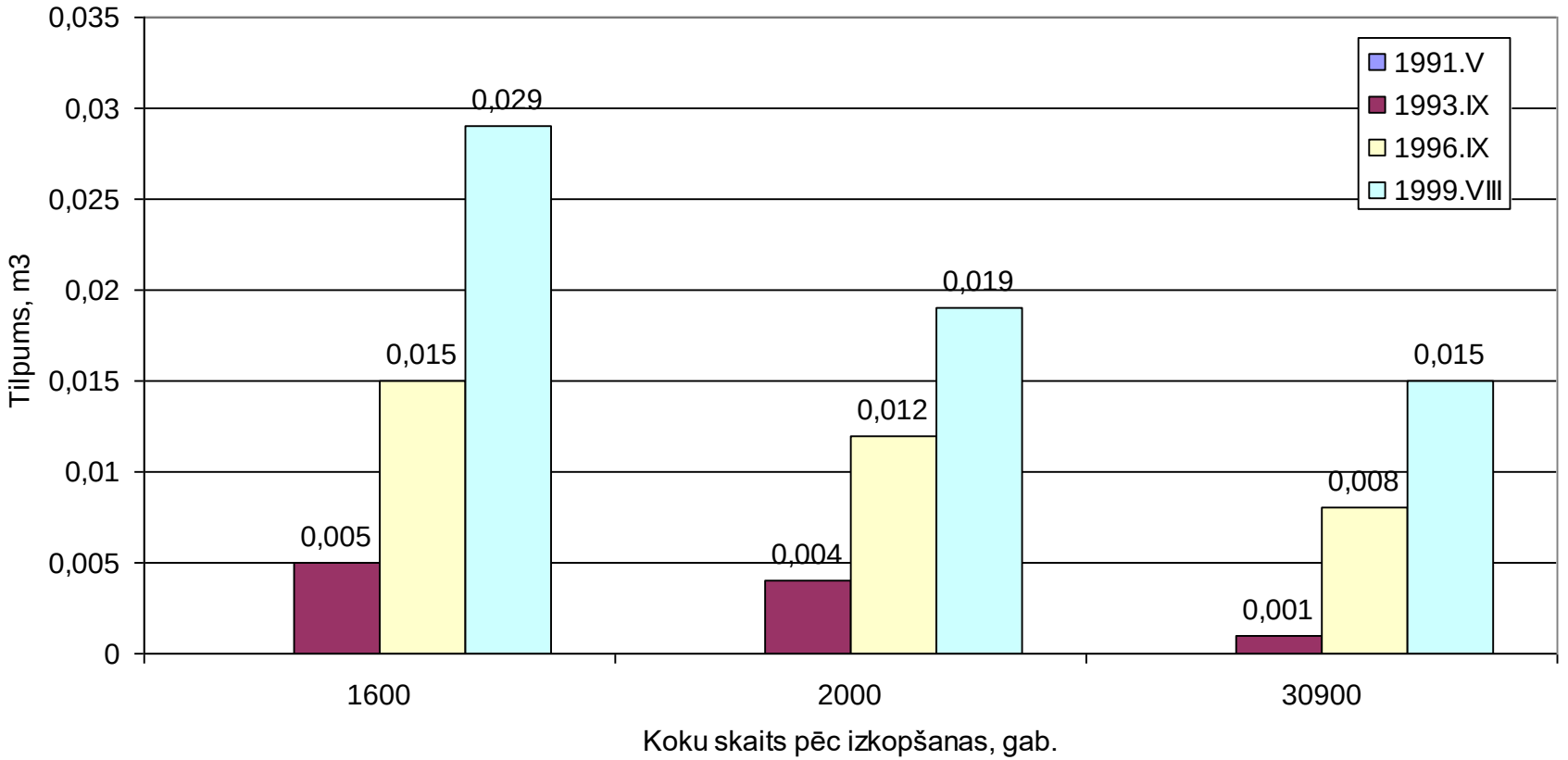
Changes of birch stump volume by birch stands managed with different intensity (prof. P.Zalitis)



Bērzu jaunaudzei ar sākotnējo koku skaitu 30900 koki/ha pie vidējā augstuma 3,2 m veikta kopšana ar 2 dažādām intensitātēm (atstāto koku skaits 1600 un 2000 koki/ha). Viens parauglaukums atstāts nekopts. Ik pēc 2 - 3 gadiem parauglaukumi pārmērīti un salīdzināts viena koka tilpums.

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Planting birch

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Treatment with repellents (Trico)

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Thinning.
If 1600 seedlings/ha planted, than grass control only needed first 2-3 years.

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22 year old plantation, first veneer logs prepared in 2.commercial thinning

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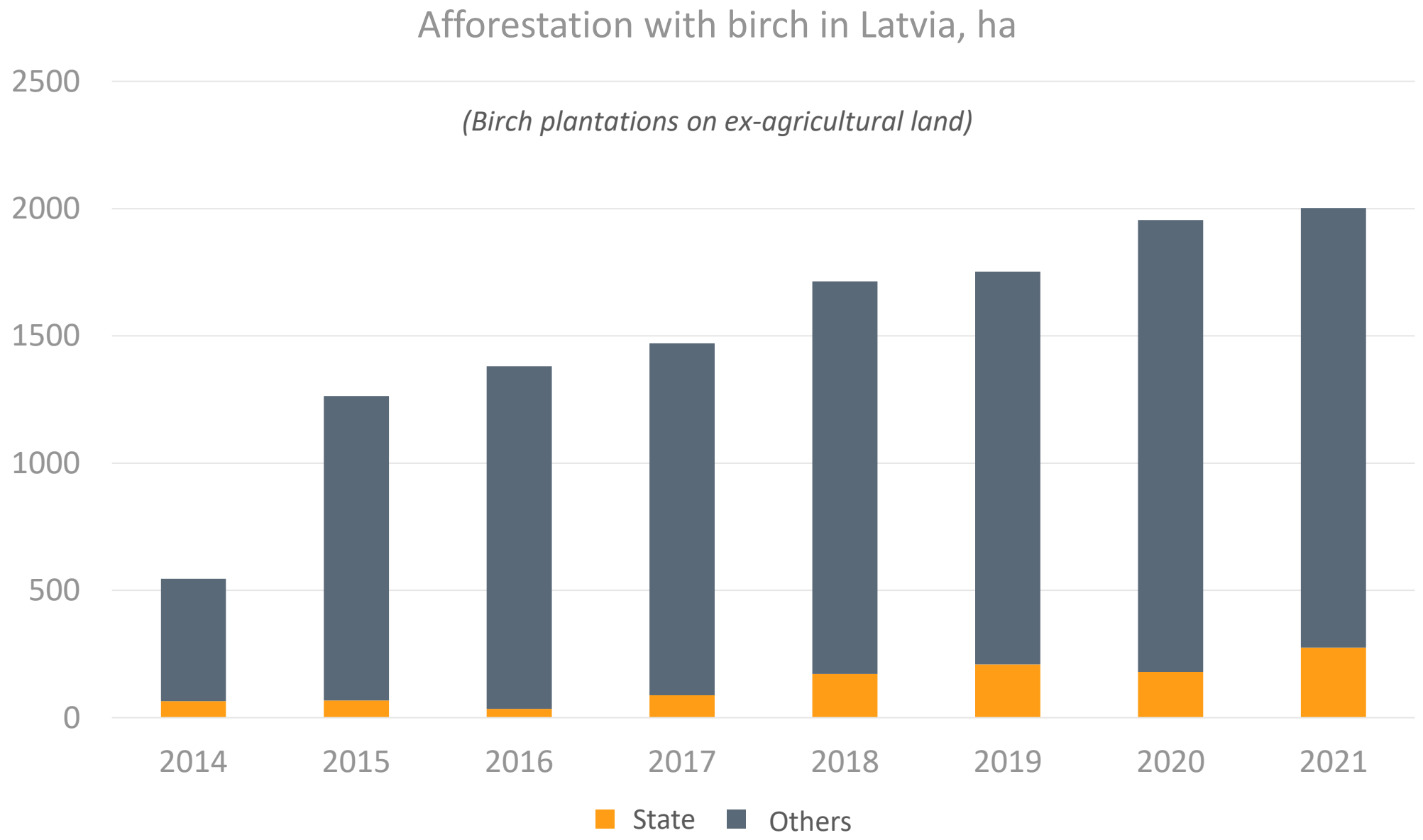
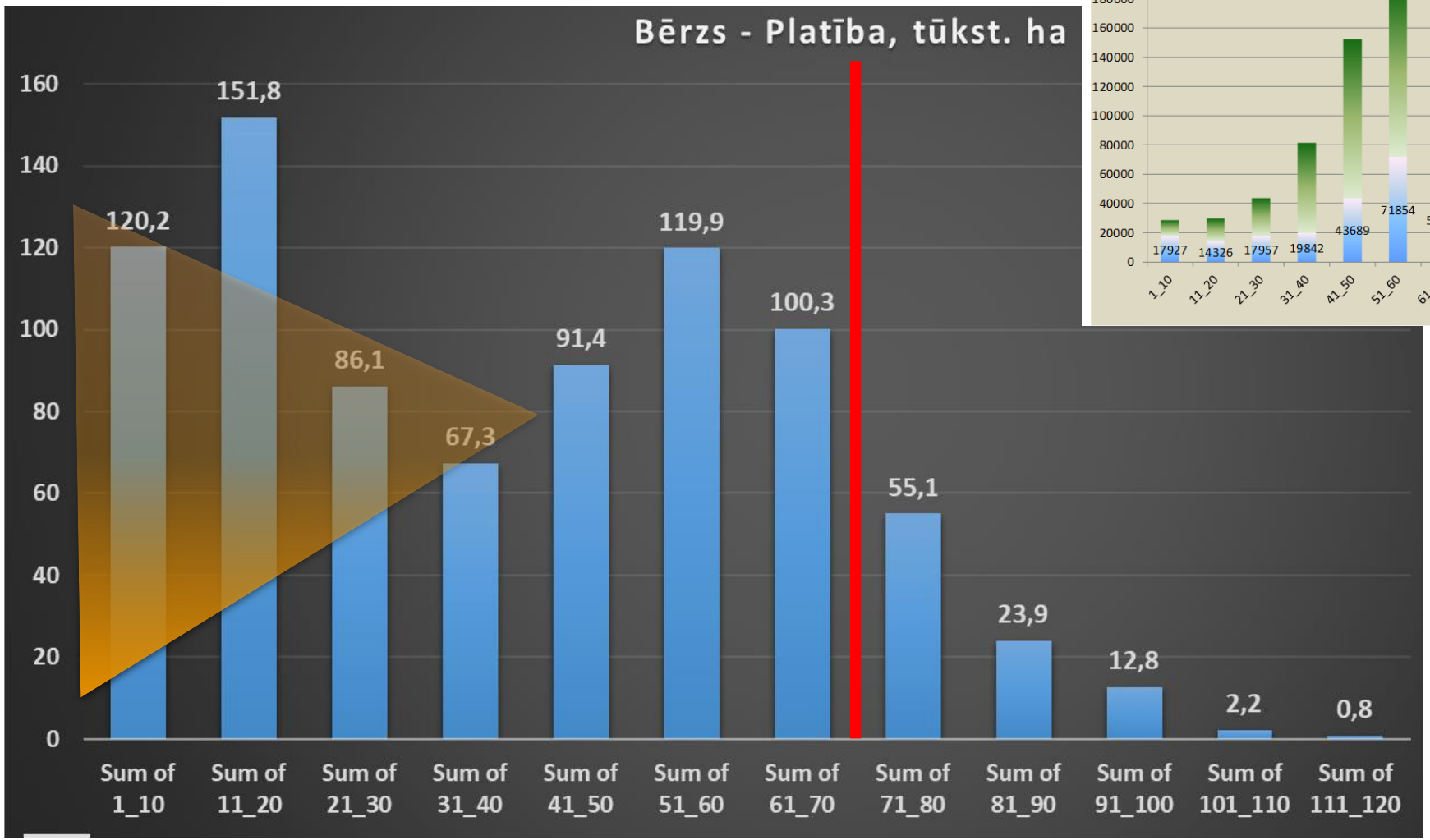
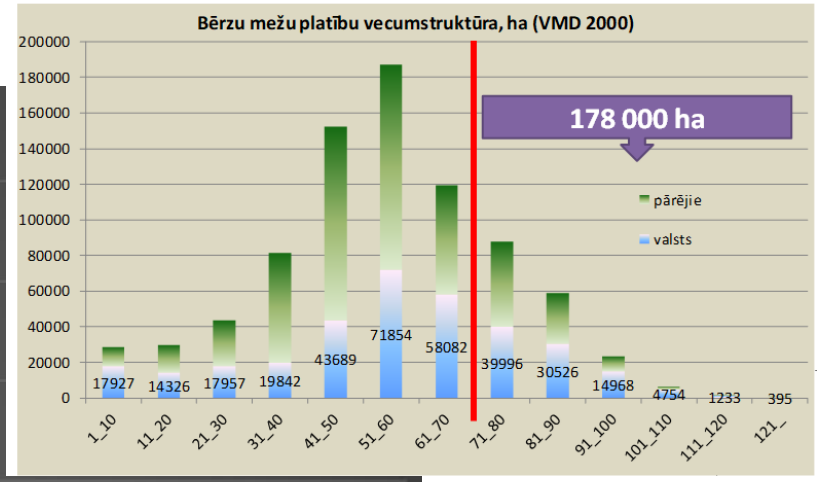


Birch resources, 2020.g.(Silava)



Birch resources in Latvia by the end of ~90 -ies



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Economic calculation (Ukri example)

(all prices, 2022.)

Season	Costs / incomes	Sum, EUR/ha	
1.year	Soil preparation(excavator)	-400	
	Seedlings (1600/ha)	-400	
	Planting	-200	
	Grass control	-240	
	Protection(Trico)	-180	+4 810 EUR
2.year	Grass control	-240	+218 EUR/year
	Protection(Trico)	-180	
16.year	1. commercial thinning (45m3/ha)	+4 050	
22.year	2. commercial thinning(40m3/ha)	+3 600	
All period	Other costs (property tax, managment etc.)	-1 000*	
	FORECAST:		
30.year	Last commercial thinning (50m3/ha*)	+5 050	+43 050 EUR
40+ year	Clearcut (330 m3/ha*)	+38 000	

*Assumption

All calculations simplified, without discounting

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CHALLENGES

Scarcity of birch seeds, especially in Eastern region!!!!!

Lack of seedlings

Wild animal damages

Shortage of employees/ increase of costs

Bureaucracy in agricultural land afforestation

Implementation of birch selection results in forest?


MĒS VEIDOJAM SAKOPTU, NEATKARĪGU UN PĀRTIKUŠU LATVIJU
AS "LATVIJAS FINIERIS" KOKAUDZĒTAVA "ZĀĢERI"

Дякую!