



# TIMBER FROM PRIVATE FORESTS AS A SOURCE FOR WOOD-PROCESSING INDUSTRY

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## PROBLEM MATTER

- Forestry and wood-processing industry are linked businesses,
- The quantities of timber available on the Croatian market **do not meet the demand**,
- The major issue for the wood-processing industry is exactly **timber availability**,
- Due to the fact that about 77% of forests are state-owned, the wood-processing industry is mainly dependent on this pool of timber.



## AIM OF THIS STUDY

1. Evaluate potential of private forests ( $\approx 552,000$  ha),
2. Evaluate wood-processing industry (416 subjects),
3. Give an answer to a question:

**TO WHAT EXTENT THE TIMBER FROM PRIVATE FORESTS CAN REDUCE THE SUPPLY SHORTAGE ON THE NATIONAL LEVEL?**



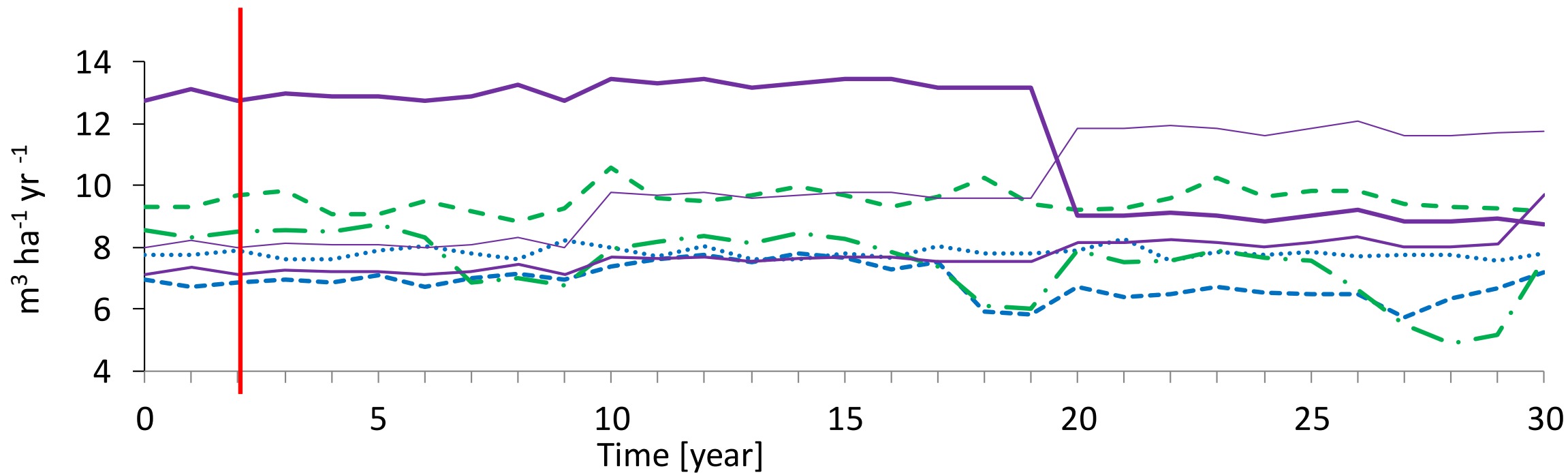
## METHODS

- For the period **2018-2048** we have used the simulations of private forests management (Beljan et al. 2020),
- Focused just on forest estates advertised for sale (about 740 ads advertised via on-line platform [Njuškalo.hr](http://Njuškalo.hr) in the period **2010-2021** was analyzed)

Due to that, the estimate on timber from private forests which is suitable for wood-processing industry will cover **2018, 2019** and the year **2020**.



# PRIVATE FORESTS ANNUAL CUT (2018-2048)



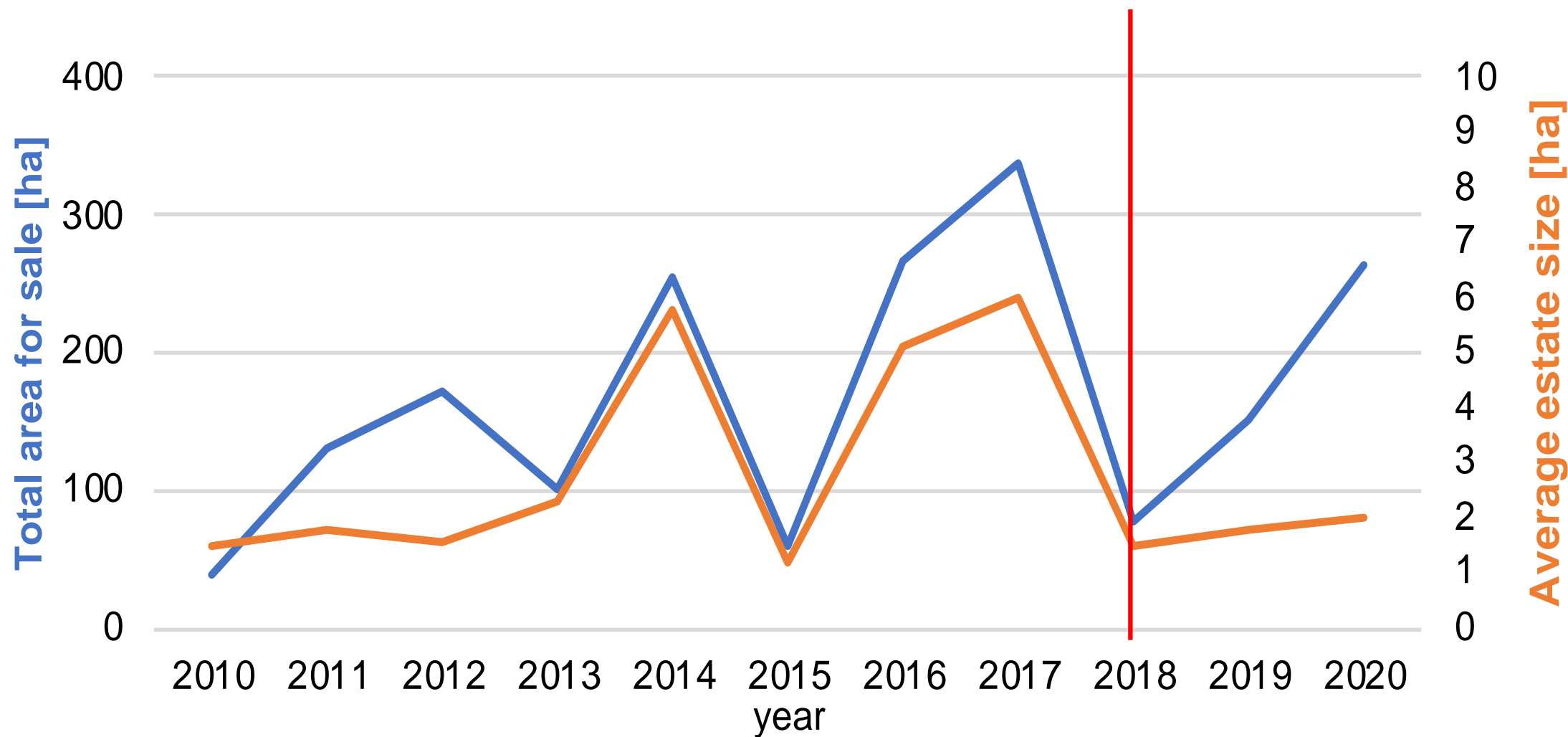
--- S. Oak even-aged  
--- Beech multi-aged  
--- Beech-Fir overstocked

..... S. Oak multi-aged  
--- Beech-Fir understocked

--- Beech even-aged  
--- Beech-Fir stocked



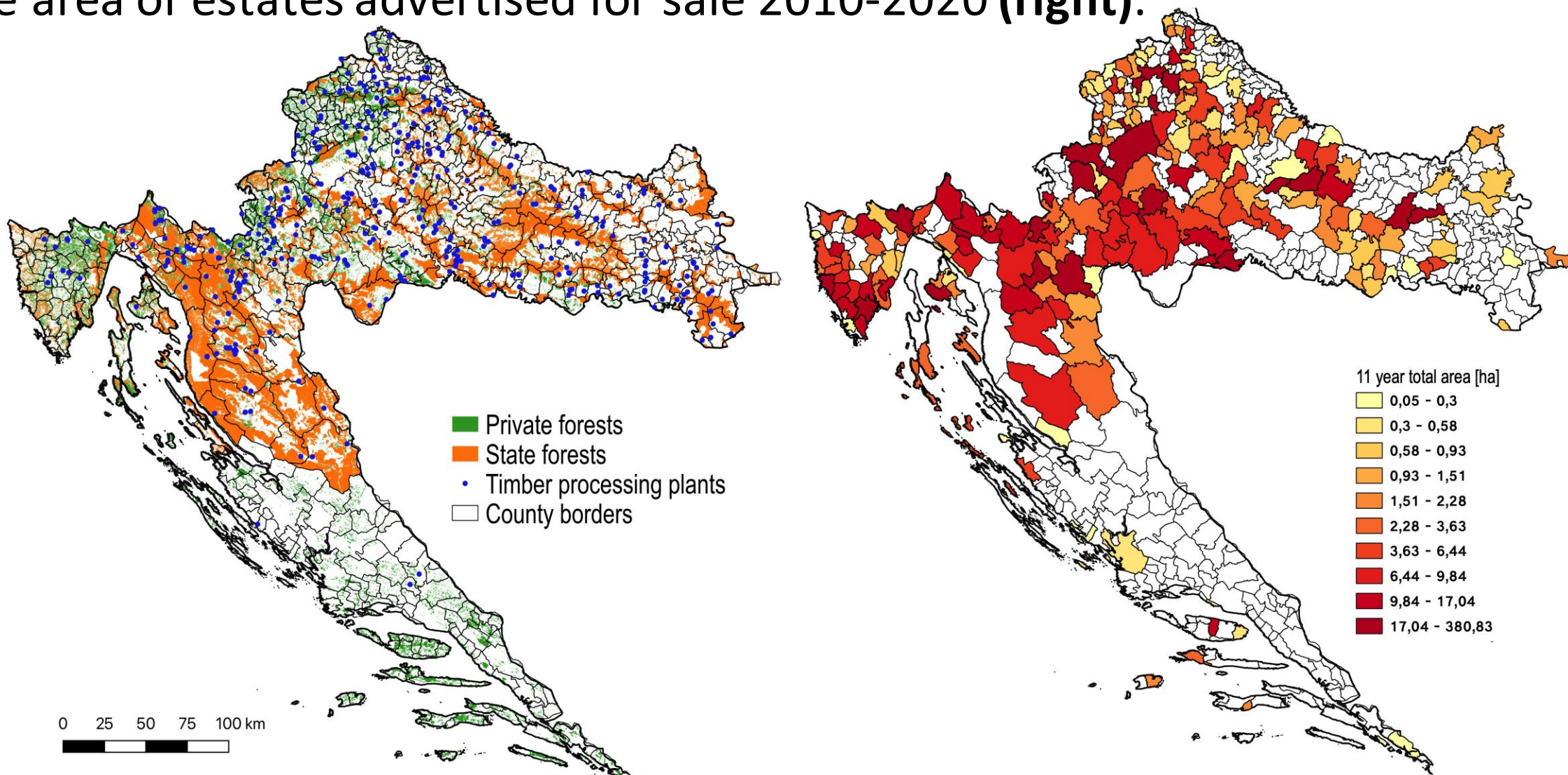
## Trends of total and average forest estate size advertised for sale





# RESULTS

Spatial interaction between forest resources and wood-processing industry (**left**).  
 The area of estates advertised for sale 2010-2020 (**right**).







## Timber assortments from private forest estates advertised for sale

Timber assortments suitable for wood-processing		year 2018			year 2019			year 2020		
		S <sup>1</sup>	B <sup>2</sup>	B-F <sup>3</sup>	S <sup>1</sup>	B <sup>2</sup>	B-F <sup>3</sup>	S <sup>1</sup>	B <sup>2</sup>	B-F <sup>3</sup>
		area of private estates advertised for sale [ha]								
		27.9	22.5	6.4	38.8	49.2	16.7	44.0	84.4	27.4
m <sup>3</sup>	veneer	7.0	4.7	1.8	9.2	10.8	4.6	11.3	18.0	7.6
	peeled veneer	2.3	3.6	2.0	3.8	7.4	5.2	4.8	13.4	8.5
	sawlog 1 <sup>st</sup> class	20.7	18.6	6.9	27.9	40.0	17.9	33.4	69.2	29.4
	sawlog 2 <sup>nd</sup> class	24.1	21.9	4.5	32.5	47.3	11.7	37.1	81.3	19.2
	sawlog 3 <sup>rd</sup> class	11.6	10.0	2.8	16.1	22.0	7.3	18.7	37.6	12.0
	thin roundwood	2.0	1.9	0.7	3.0	4.3	1.9	3.1	7.8	3.2
	Total per *f type	67.7	60.8	18.7	92.4	131.6	48.7	108.5	227.3	79.9
	Total per year	<b>147.2</b>			<b>272.8</b>			<b>415.7</b>		

*sessile oak forests<sup>1</sup>, common beech forests<sup>2</sup>, common beech-silver fir forests<sup>3</sup>, \*forest type*





## DISCUSSION AND CONCLUSION

- It should be considered that some of the estates are advertised via other platforms or by personal advertising (besides Njuškalo.hr),
- Forest management implies sustainable usage of forests which is not much looking from the perspective of the wood processing industry (yearly ranging  $5-13 \text{ m}^3 \text{ ha}^{-1} \text{ yr}^{-1}$ ),
- The quantities of felling could be higher, resulting in greater timber sources for the wood-processing industry, but it would have a negative influence on forestry.



# DISCUSSION AND CONCLUSION

- Private forest estates advertised for sale, by the timber suitable for processing, are far from filling the shortage gap,
- A lot of private forest land is necessary to be possessed and maintained in order to provide enough timber required for wood-processing,
- **The timber processing companies could consider buying private forest on a larger scale and using them as an independent source of raw material.**



For the end:

from **yahoo.finance** Sector: Basic Materials, Industry: Lumber & Wood Production (128 companies)

**48 companies possess or have forests via lease and**

do sawmilling (42 pcs.),

produce furniture (28 pcs.),

produce paper and packaging (23 pcs.)



# THANK YOU



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<http://www.woodema.org/>