

# Timber Harvesting and Long-distance Transportation of Roundwood 2023

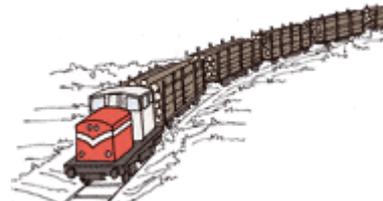
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Metsätehon tulokalvosarja 2-EN/2024  
Metsäteho Result Series 2-EN/2024

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Metsäteho Oy

# About statistics

- Includes volumes and direct harvesting / transportation costs of timber assortments concerning domestic roundwood by the forest industries and State forest enterprise as well as proportions of harvesting methods.



# Timber Harvesting Costs 2023

## Unit cost of timber harvesting increased from 2022

- The average cost of timber harvesting was 13.29 €/m<sup>3</sup> (over bark)
  - change +7.5%, real cost change +1.1%
- The average cost of mechanised timber harvesting was 13.29 €/m<sup>3</sup> (over bark)
  - change +7.5%
- Costs by felling method:
  - First thinning 21.28 €/m<sup>3</sup> (change +6.9%)
  - Other thinning 17.15 €/m<sup>3</sup> (change +7.5%)
  - Regeneration felling 9.85 €/m<sup>3</sup> (change +4.6%)
- The share of mechanised timber harvesting was 100.0%
- The share of timber from regeneration felling was 57.3% (change -2.0 percentage points)
- The share of delivery sales in domestic wood supply was 7.7%



# Long-distance Transportation Costs of Roundwood 2023

## Unit cost of long-distance transportation of roundwood increased from 2022

- The average cost of long-distance transportation was 11.43 €/m<sup>3</sup>
  - change +3.3%, real cost change +2.5%
- The average cost by timber truck to mill was 10.17 €/m<sup>3</sup>
  - change +3.7%, real cost change +2.9%
- The average transport distance lengthened and was 186 km
  - changes: road transportation (+0.4%), railway (+3.1%) and water transportation (+7.3%)
- The share of road transportation decreased by –2.6 percentage points and share of rail transportation and water transportation increased by +2.5 and +0.1 percentage points
- The average overhead of domestic wood procurement was 3.89 €/m<sup>3</sup>
  - change +13.1%



# Statistics 2023 Tables

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Metsäteho Statistics



# Costs and Timber Volume, 2023

	Costs		Timber volume	Transport volume	
	Mill. €	%	Mill. m <sup>3</sup>	Mill. m <sup>3</sup> km	%
Harvesting	603.2		45.4		
Long-distance transportation	595.6	100		9 530	100
Road transportation	468.3	79		4 420	46
Rail transportation	106.5	18		4 417	46
Water transportation	20.8	3		693	7



# Unit Costs in Harvesting by Felling Method, 2023

€/m <sup>3</sup>	First thinning	Other thinning	Regeneration felling	Total
Harvesting				13.29
Mechanised harvesting <sup>*)</sup>	21.28	17.15	9.85	13.29
- share of volume	7.8	34.9	57.3	100
- share of costs	12.5	45.1	42.5	100

<sup>\*)</sup> Includes mechanised felling as well as forest haulage related to mechanised and motor-manual felling



# Unit Costs in Harvesting and Long-distance Transportation by Timber Assortments, 2023

€/m <sup>3</sup>	Mechanised harvesting <sup>*)</sup>	Long-distance transportation
Pine logs	9.42	10.66
Spruce logs	8.63	9.20
Plywood logs	9.78	13.71
Logs average	9.04	10.05
Pine pulpwood	15.61	12.38
Spruce pulpwood	16.37	11.82
Birch pulpwood	18.54	12.68
Pulpwood average	16.52	12.31
Average	13.29	11.43

<sup>\*)</sup> Includes mechanised felling as well as forest haulage related to mechanised and motor-manual felling



# Long-distance Transportation of Roundwood, 2023

	Domestic roundwood				
	1 000 m <sup>3</sup>	%	km	cent/m <sup>3</sup> km	€/m <sup>3</sup>
Total long-distance transportation	52 102		186	6.2	11.43
Total by road	49 594	95.2	89	10.6	9.44
By road to mill	35 613	68.4	105	9.7	10.17
Rail transportation chain	14 383	27.6	355	3.9	13.69
By road to railway	12 006	23.0	48	16.1	7.69
Rail transportation	14 383	27.6	307	2.4	7.40
Water transportation chain	2 090	4.0	387	4.3	16.52
By road to floating/barge	1 967		55	12.7	7.08
Water transportation	2 090		331	3.0	9.84



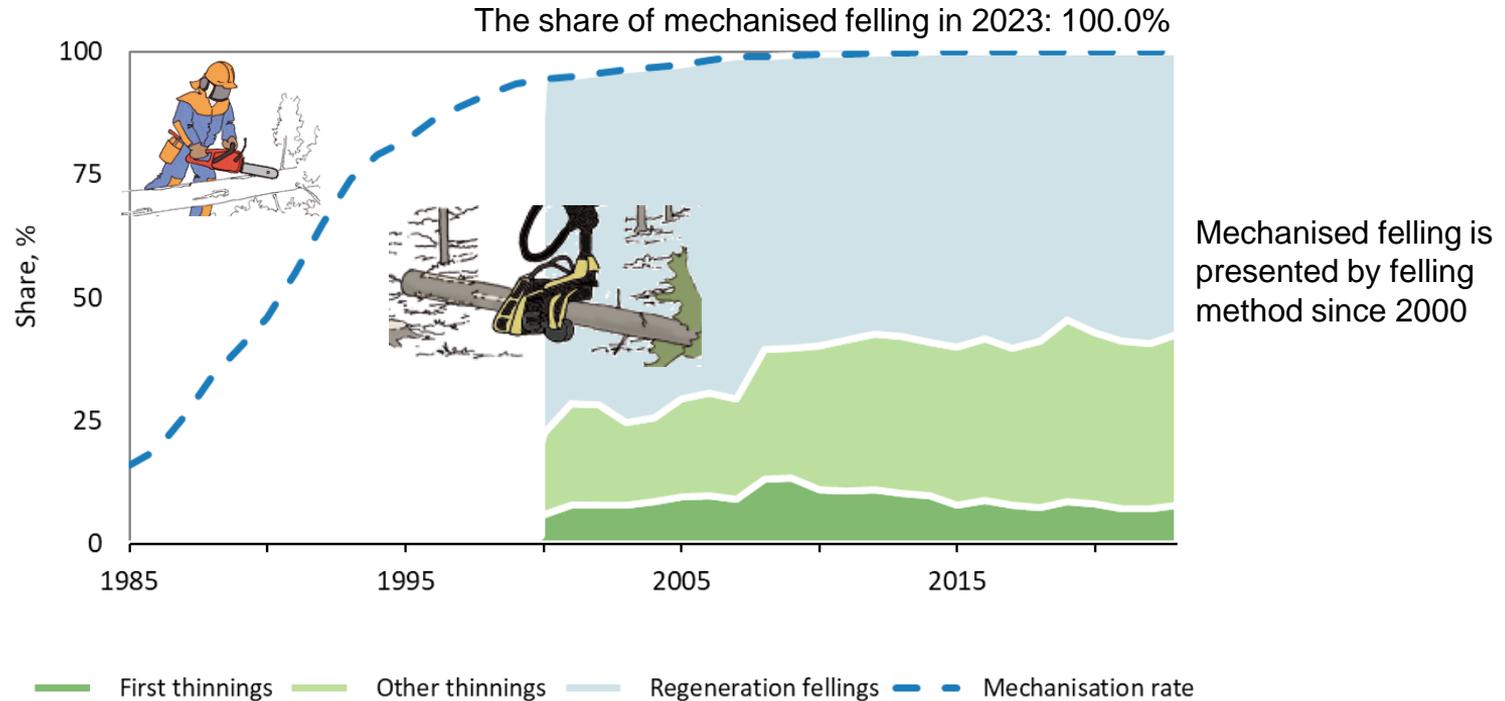
# Short Term Trends of Finnish Wood Supply

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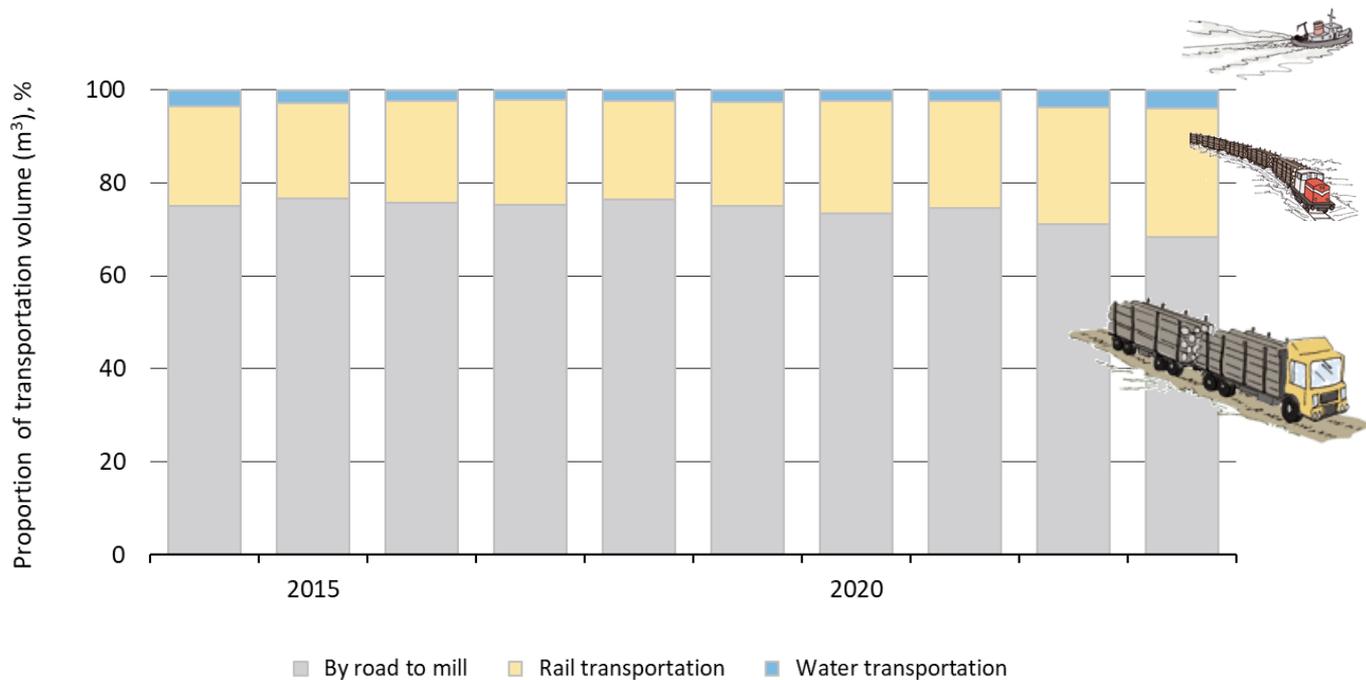
Metsäteho Statistics



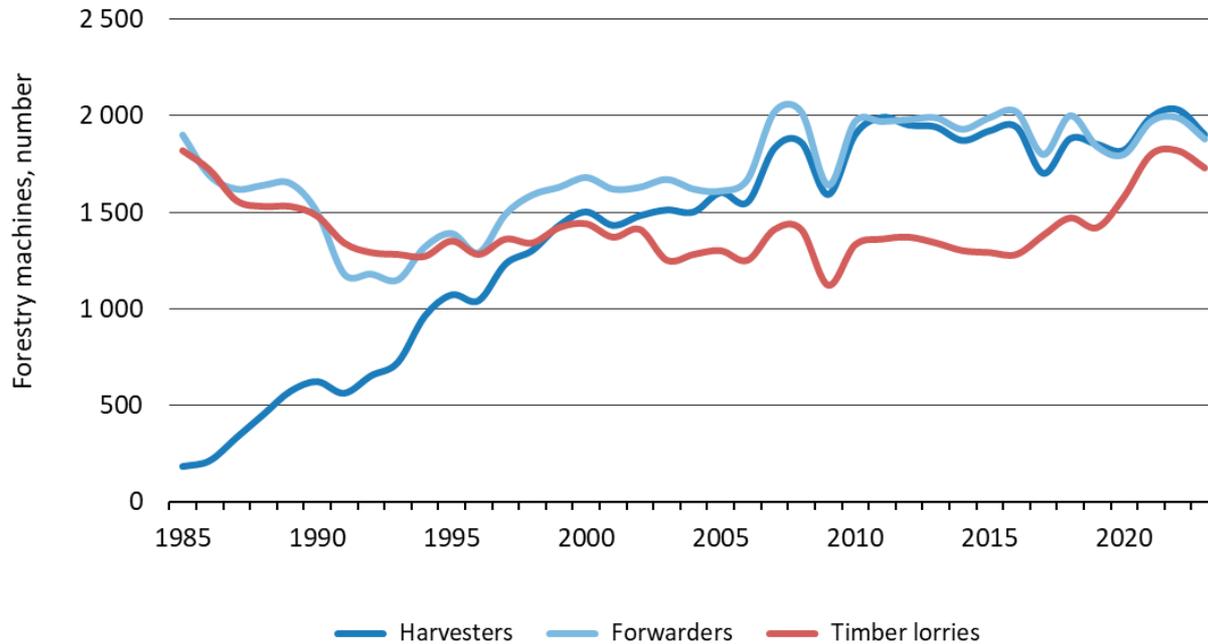
# Mechanisation of Felling, 1985–2023



# Long-distance Transportation Techniques, 2014–2023



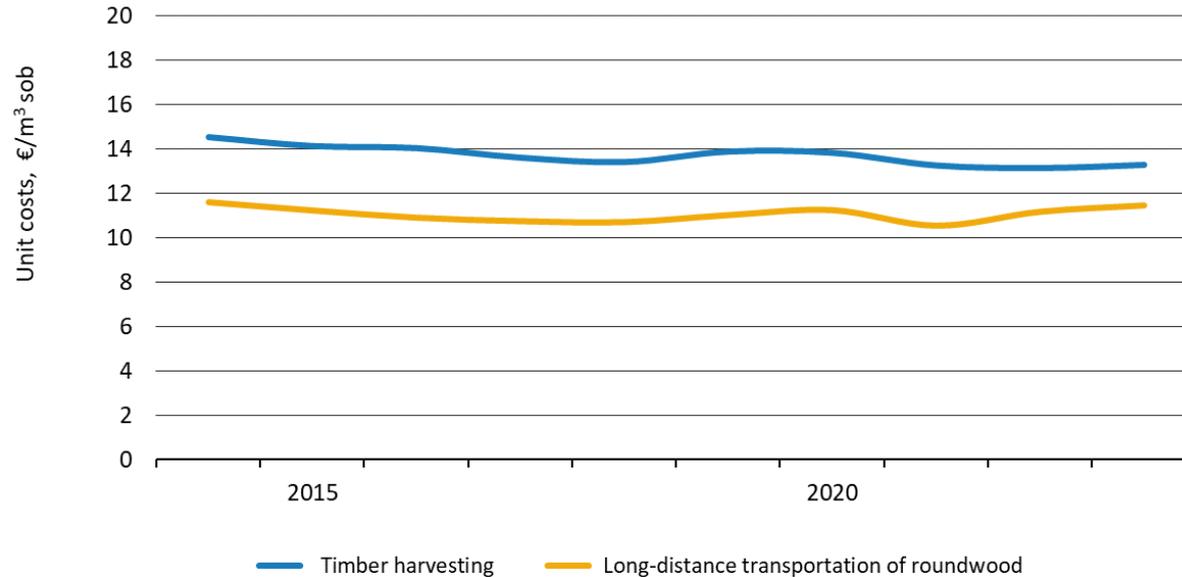
# Forestry Machines, 1985–2023



Source: Natural Resources Institute Finland



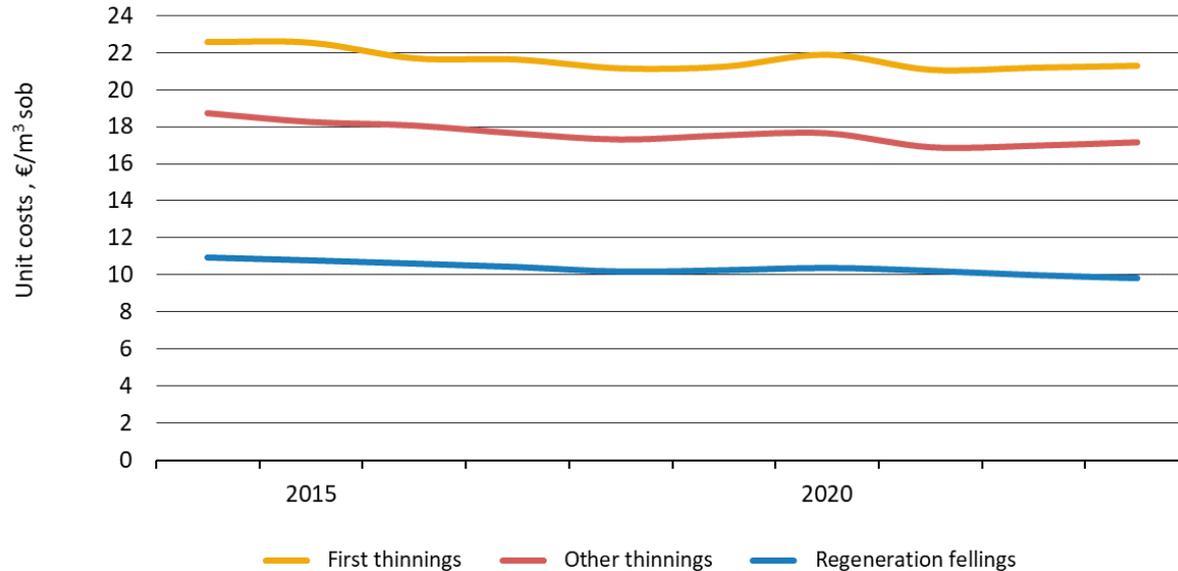
# Unit Costs in Timber Harvesting and Long-distance Transportation of Roundwood, 2014–2023



Costs have been deflated by Indexes of forest machinery costs and lorry traffic costs (2023=100).



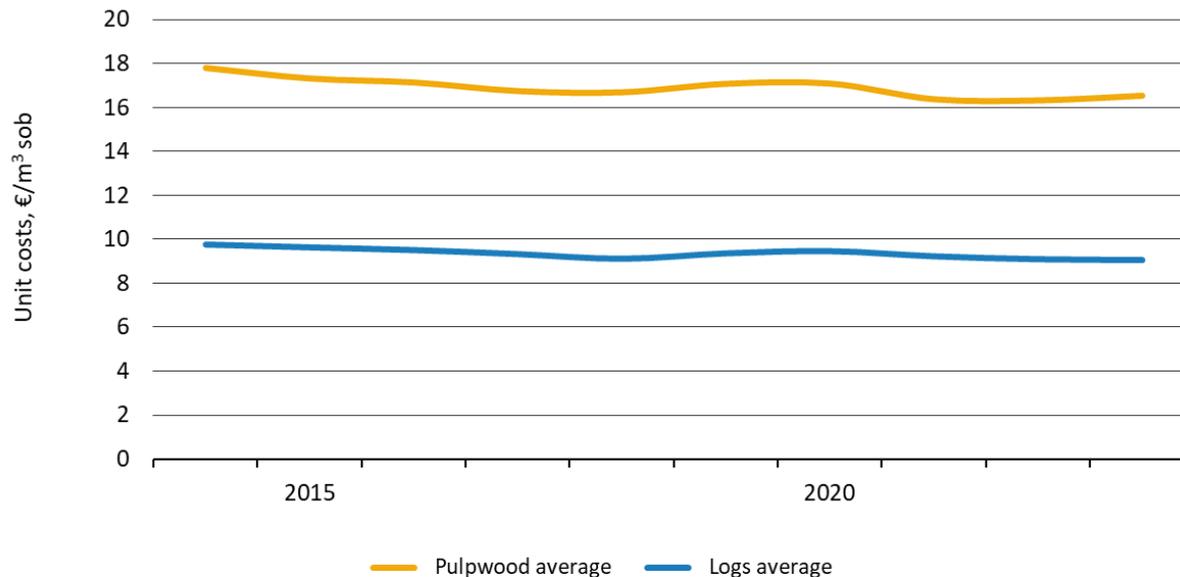
# Unit Costs in Mechanised Harvesting by Felling Method, 2014–2023



Costs have been deflated by Index of forest machinery (2023=100).



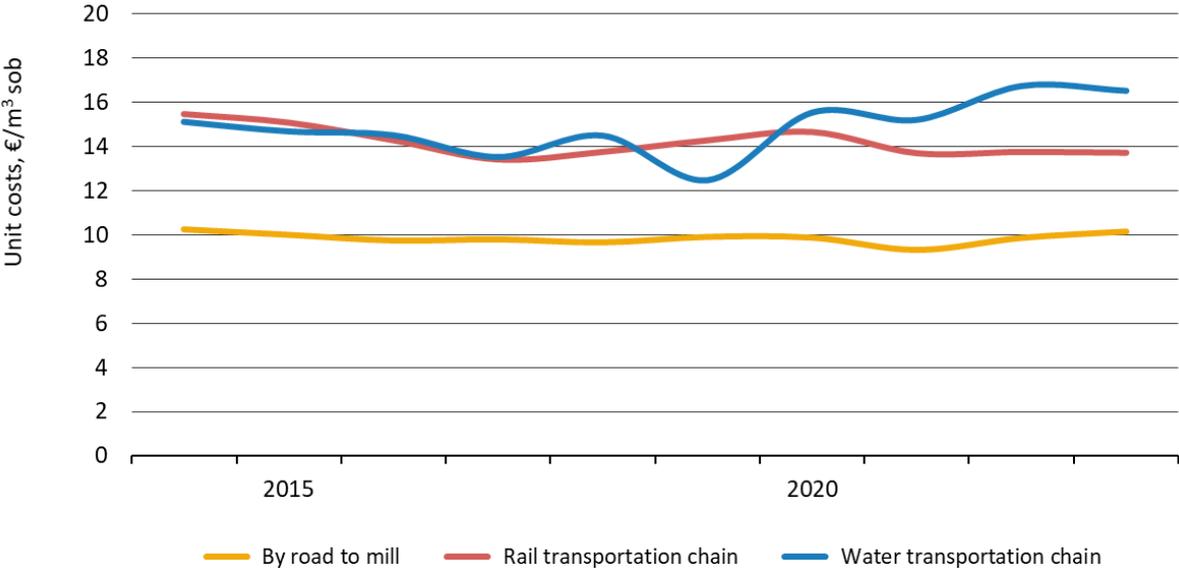
# Unit Costs in Mechanised Harvesting by Timber Assortments, 2014–2023



Costs have been deflated by Index of forest machinery (2023=100).



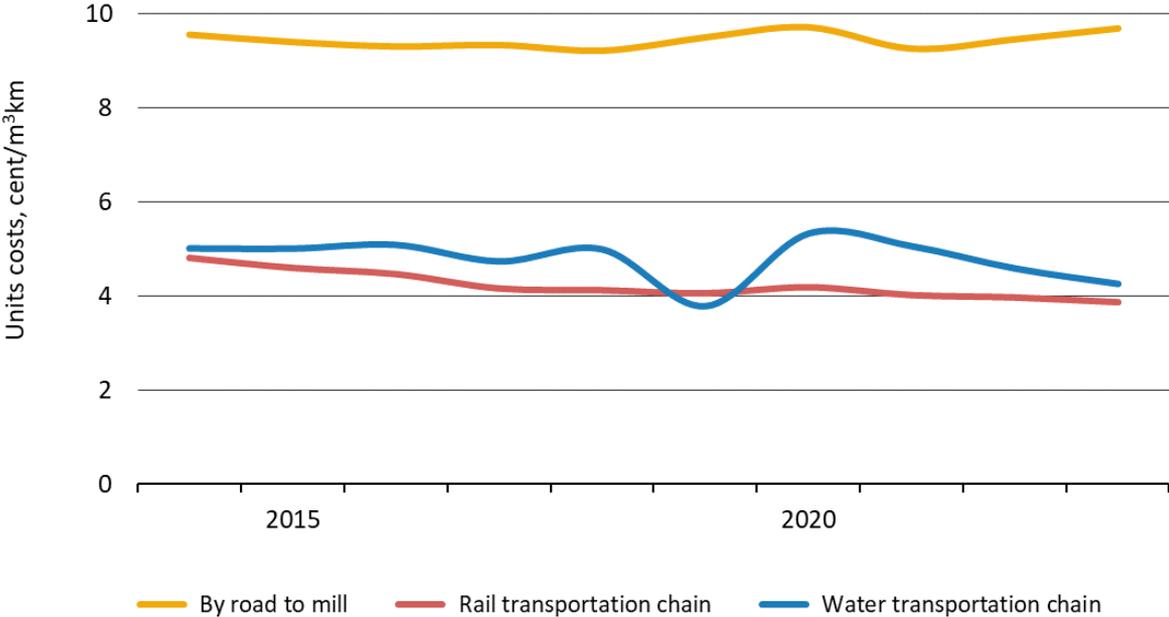
# Unit Costs in Long-distance Transportation of Roundwood 2014–2023 <sup>(1/2)</sup>



Costs have been deflated by Index of lorry traffic costs (2023=100).



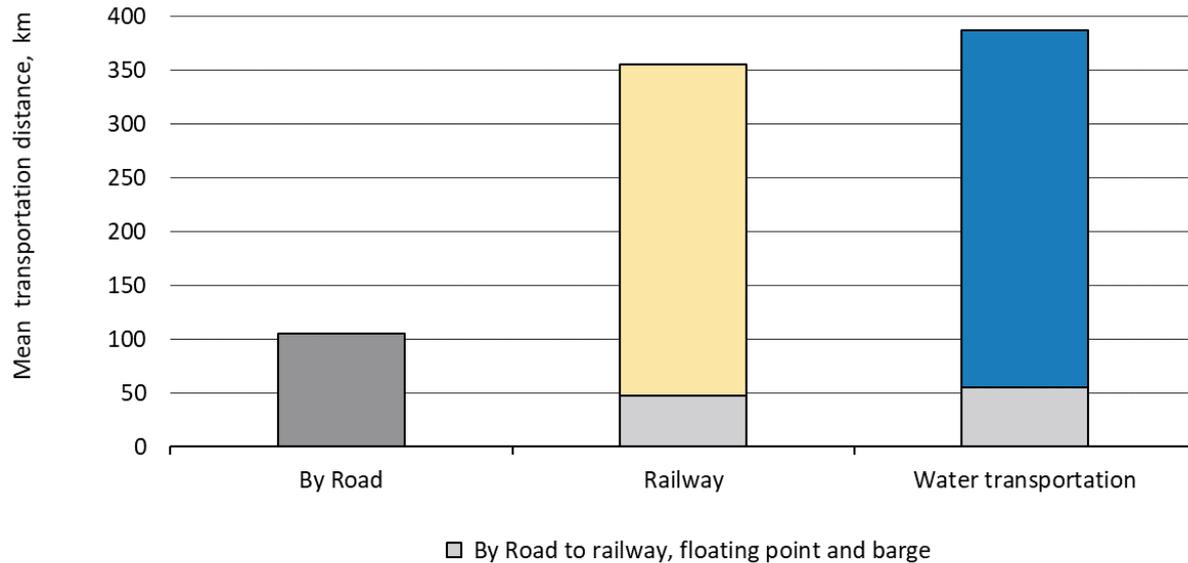
# Unit Costs in Long-distance Transportation of Roundwood 2014–2023 (2/2)



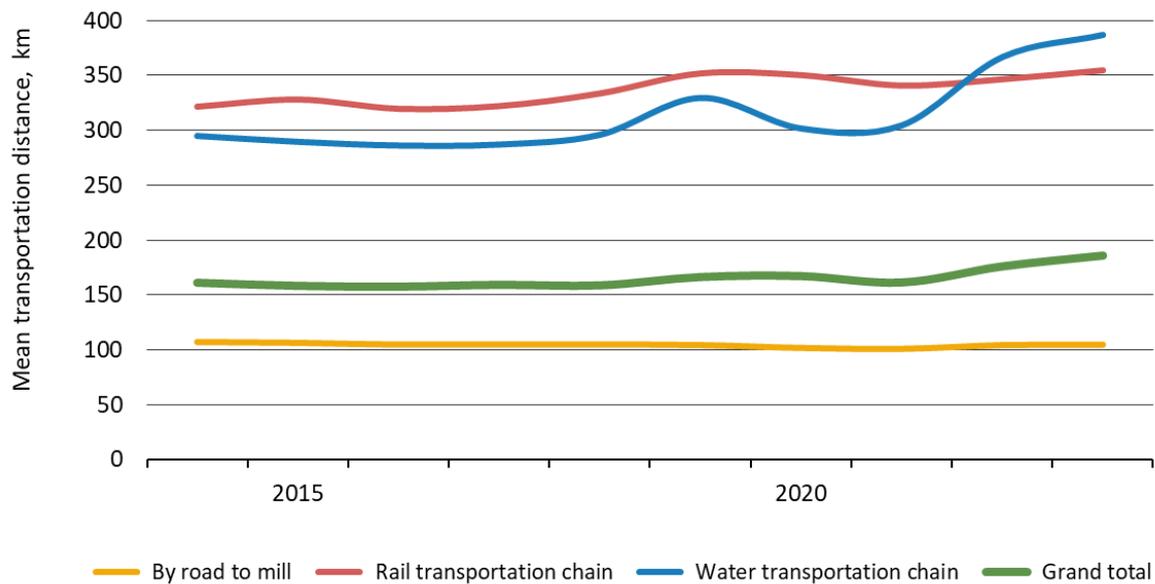
Costs have been deflated by Index of lorry traffic costs (2023=100).



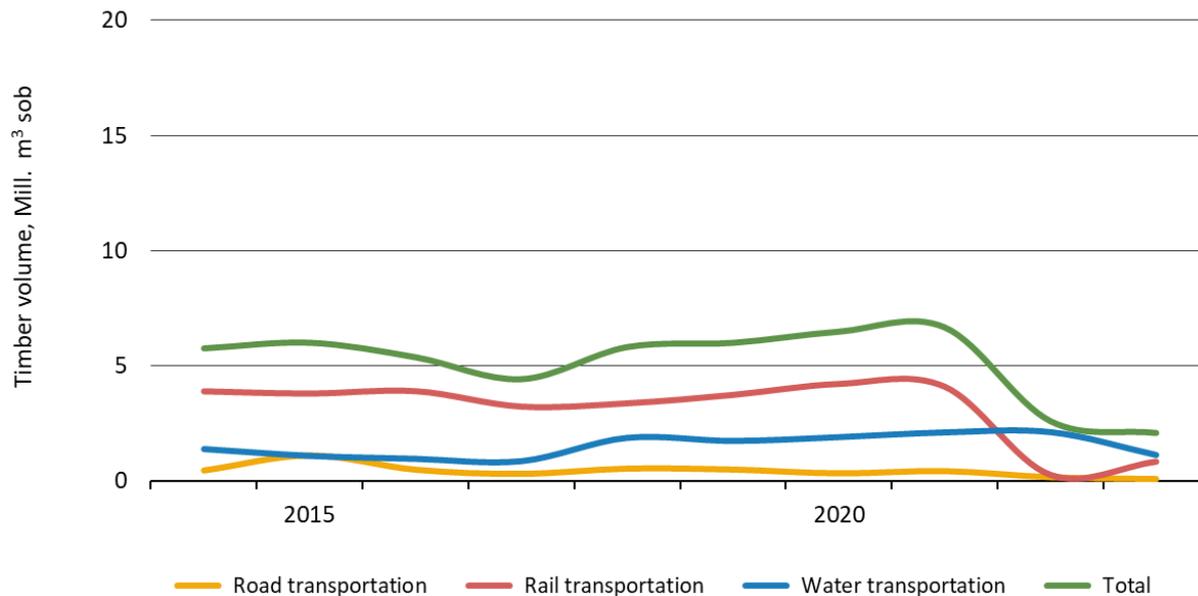
# Mean Transportation Distance, 2023



# Mean Transportation Distance, 2014–2023



# Volumes of Imported Roundwood by Transportation Method, 2014–2023



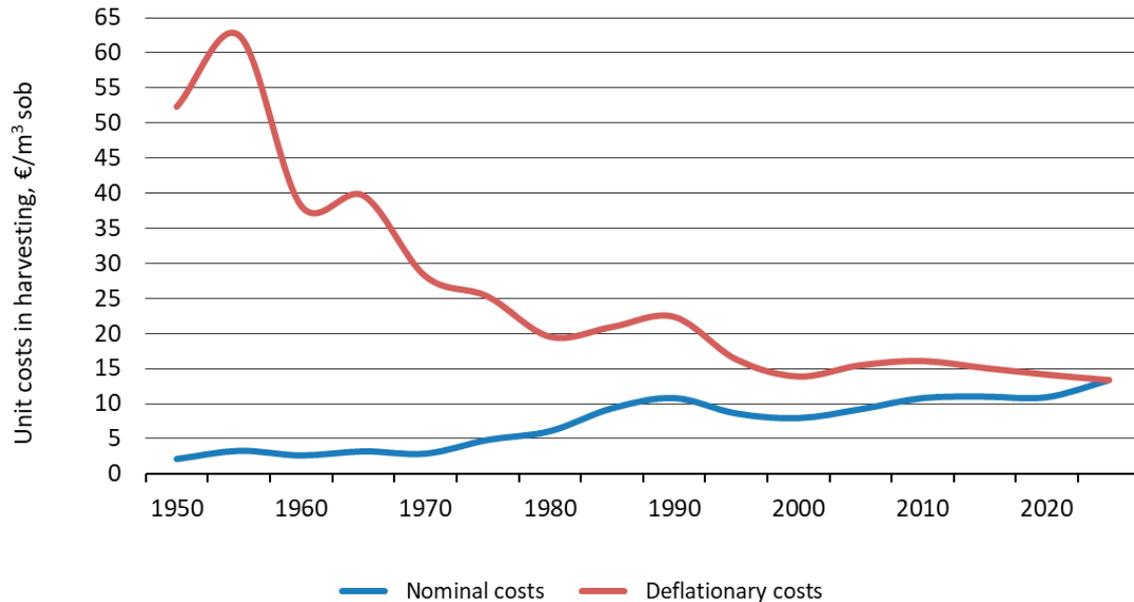
# Long Term Trends of Finnish Wood Supply

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Metsäteho Statistics



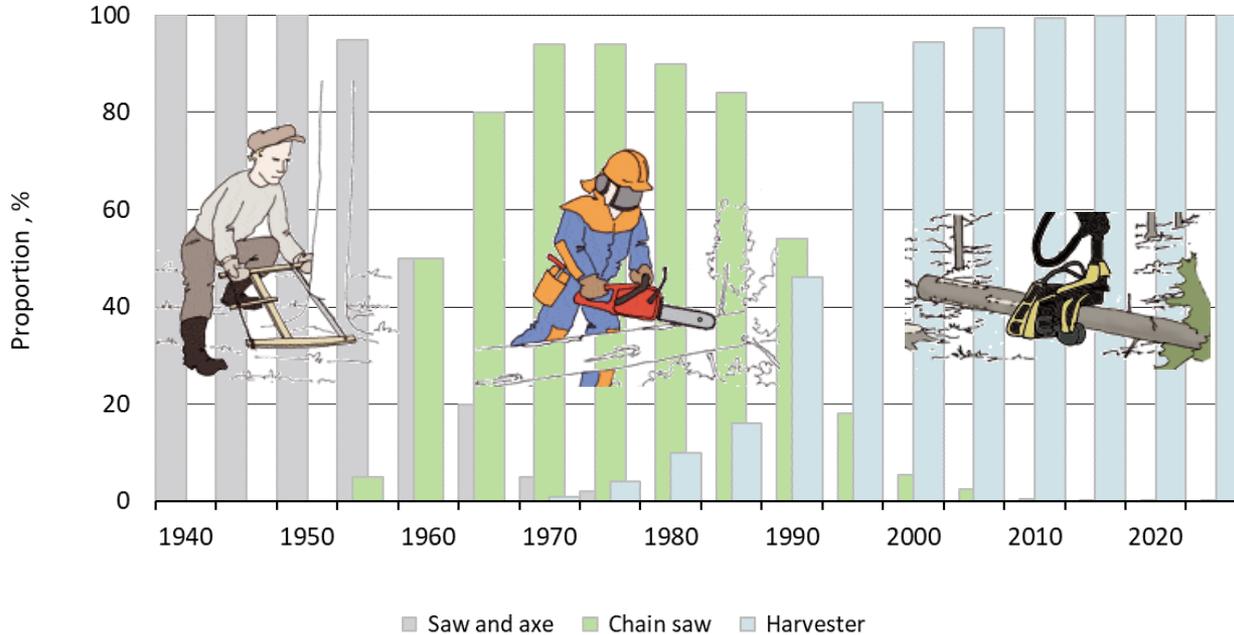
# Unit Costs in Timber Harvesting, 1950–2023



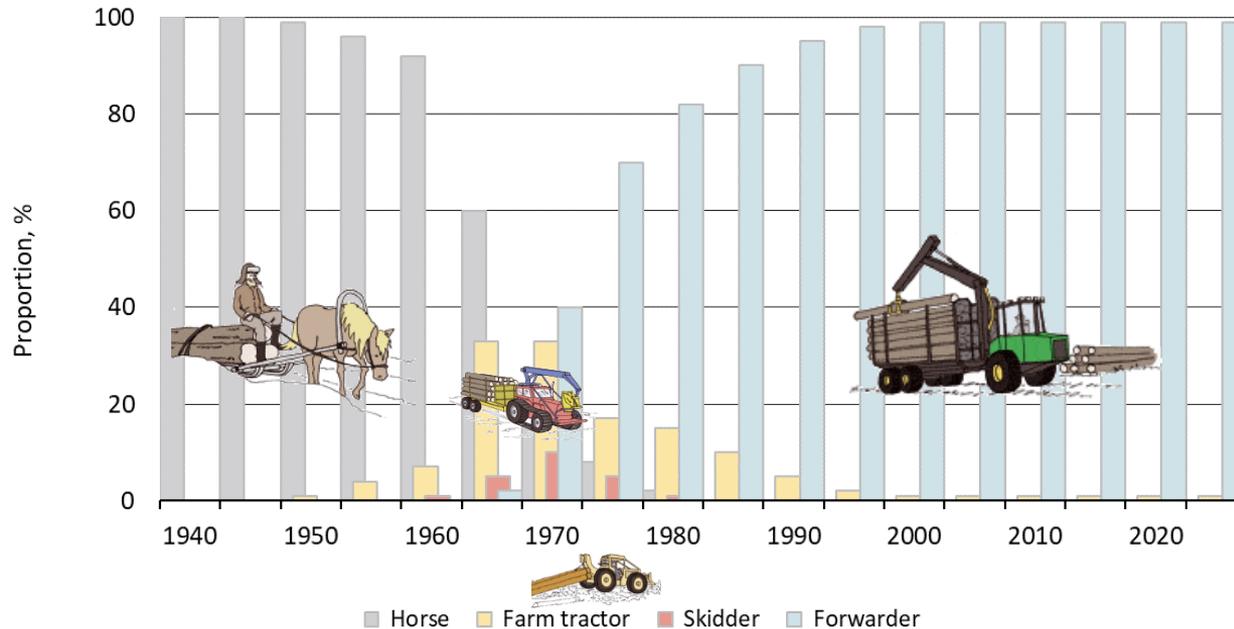
Costs have been deflated by the wholesale price index (2023=100).



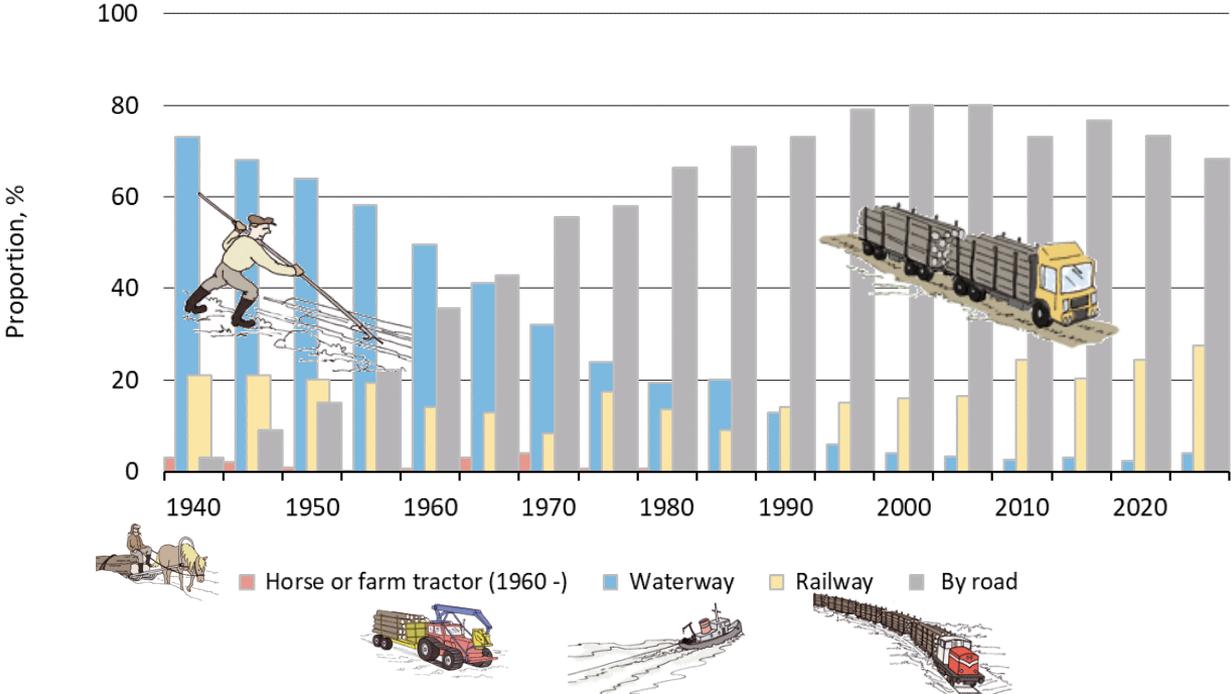
# Felling Techniques, 1940–2023



# Forest Haulage Techniques, 1940–2023



# Long-distance Transportation Techniques, 1940–2023

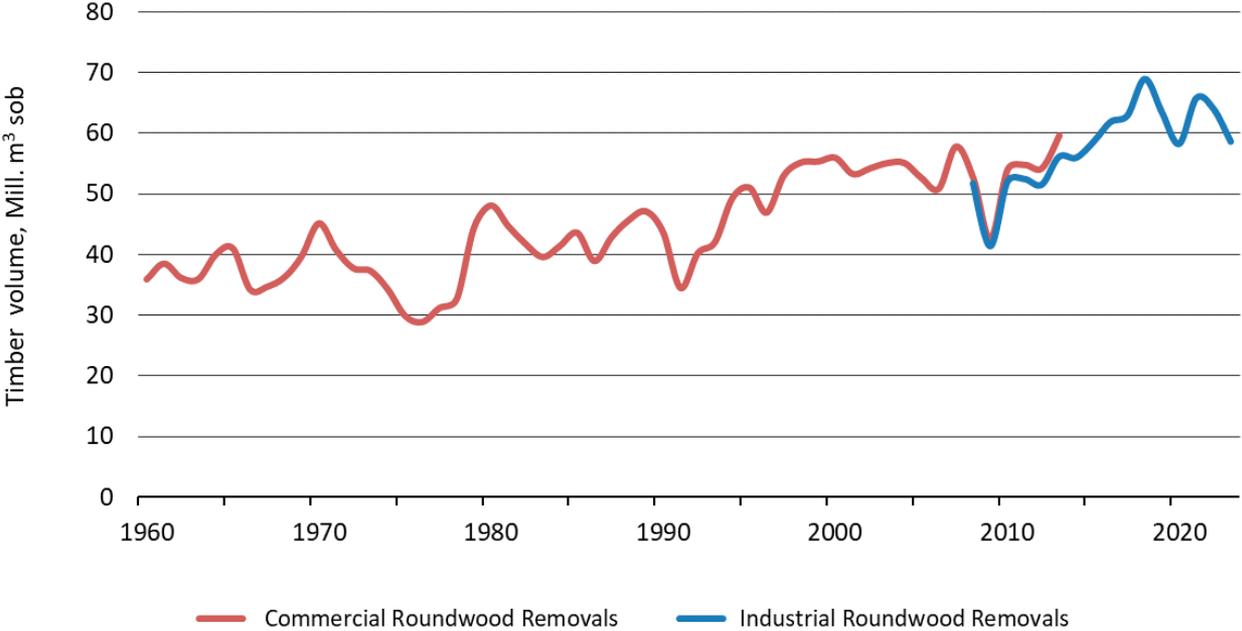


# Background Information of Finnish Wood Supply

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# Commercial Roundwood Removals, 1960–2023

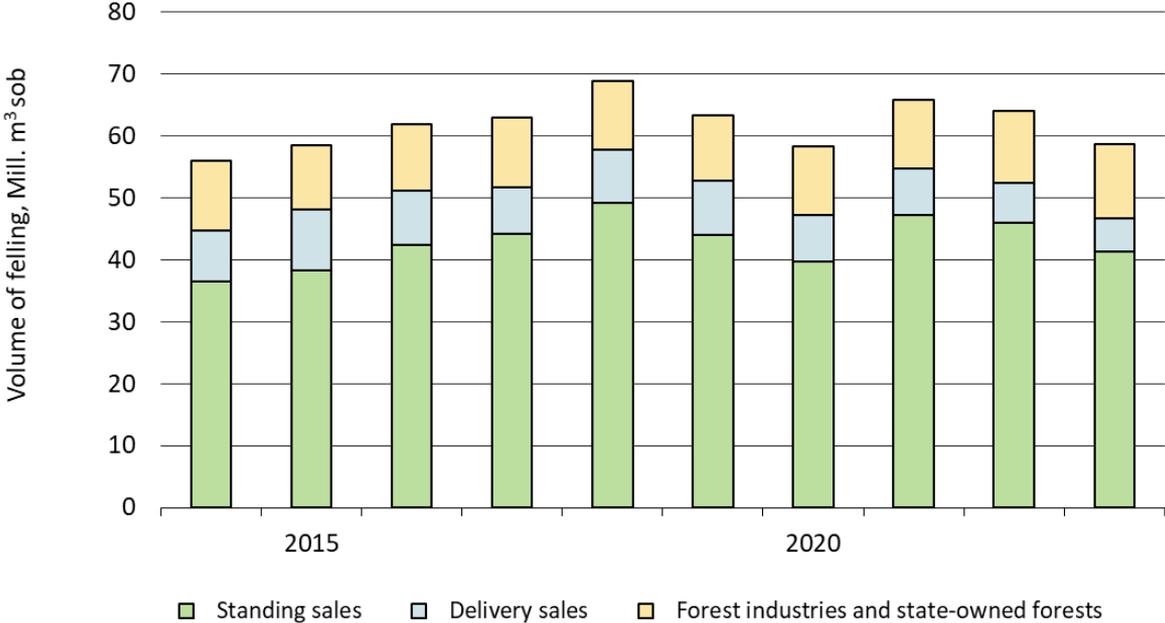


Commercial roundwood removal = industrial roundwood (logs and pulpwood) and energy wood (mainly small-sized trees)

Source: Natural Resources Institute Finland



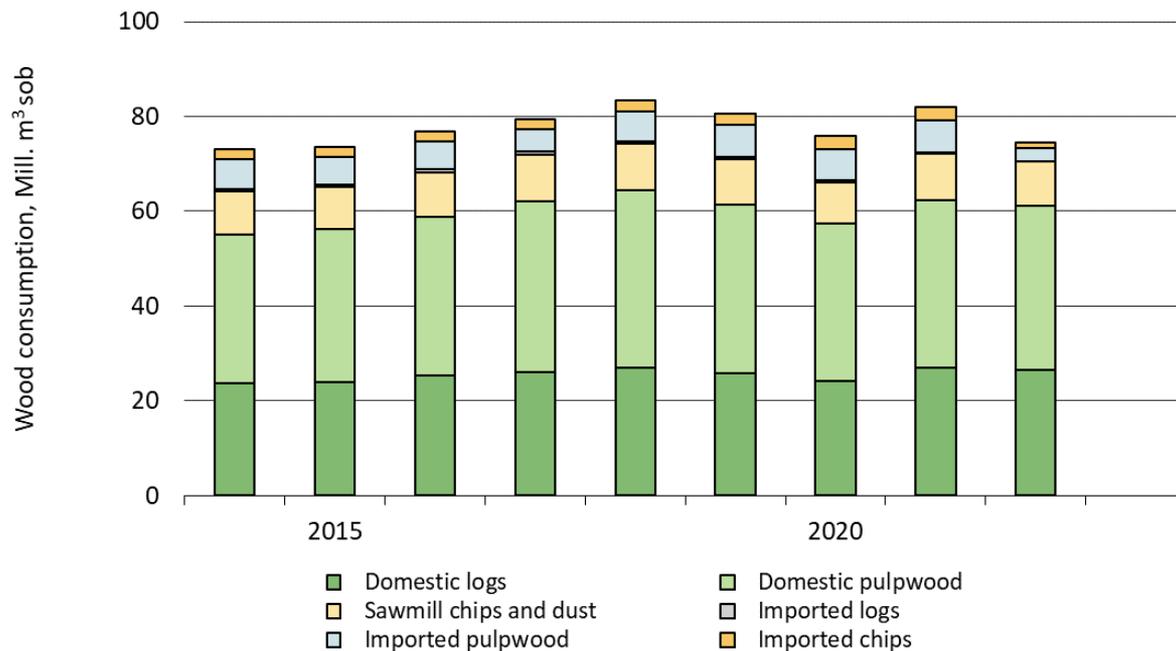
# Industrial Roundwood Removals by Forest Ownership Category, 2014–2023



Source: Natural Resources Institute Finland



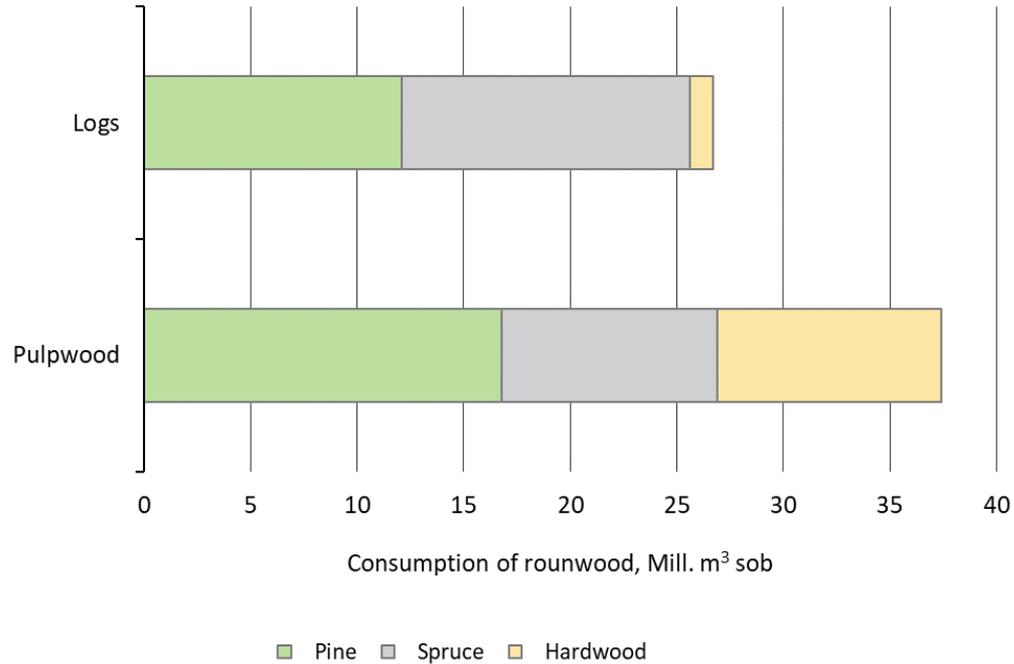
# Roundwood Consumption by Forest Industries, 2014–2023



Source: Natural Resources Institute Finland



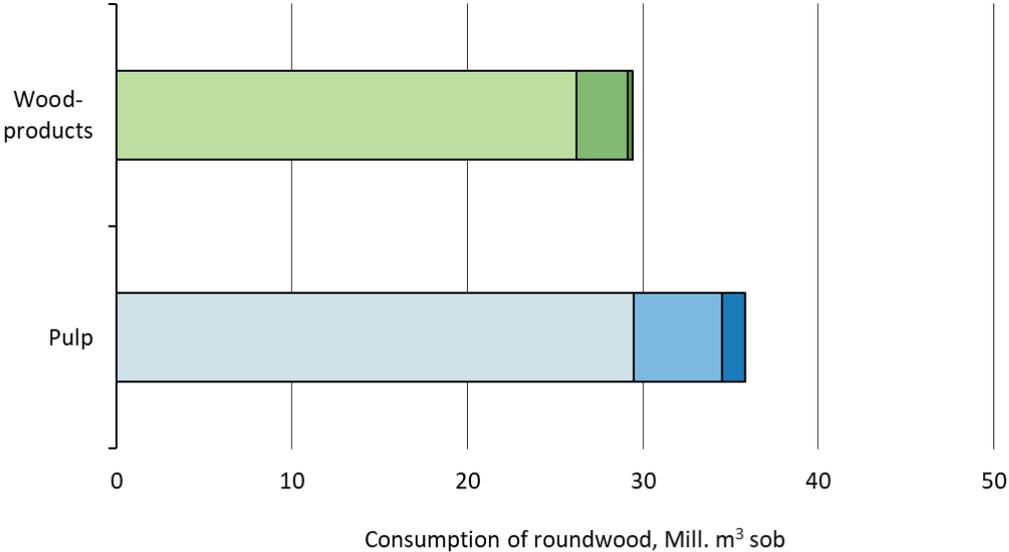
# Wood Consumption by Forest Industries, 2022



Source: Natural Resources Institute Finland



# Roundwood Consumption by Forest Industries by Branch of Industry, 2022



- Sawmilling
- Plywood and veneer industry
- Other wood-based
- Chemical pulp industry
- Mechanical pulp industry
- Semi-chemical pulp industry

Source: Natural Resources Institute Finland

