



# Metsäteho

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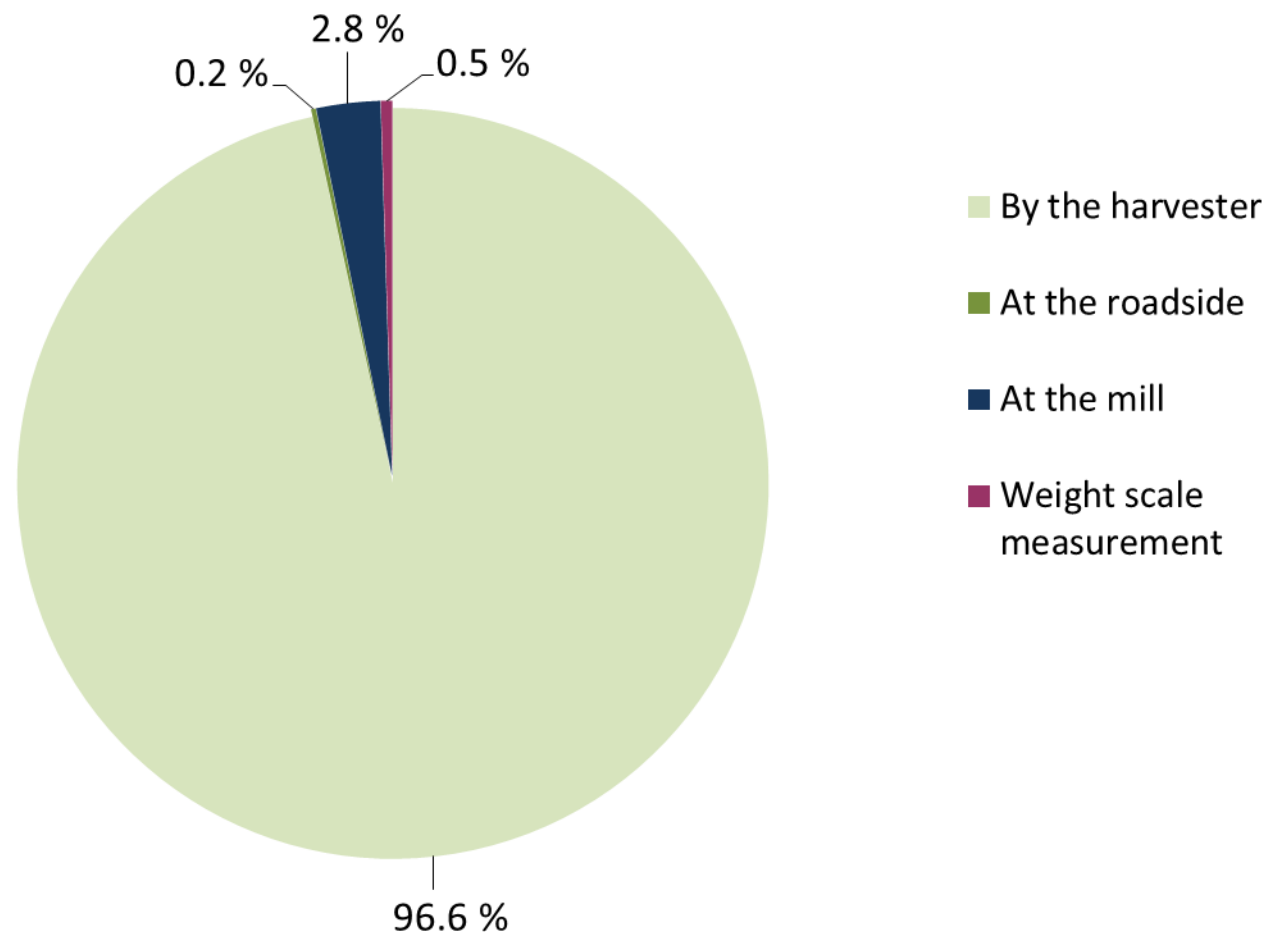
## Wood measuring methods used in Finland 2011

Timo Melkas

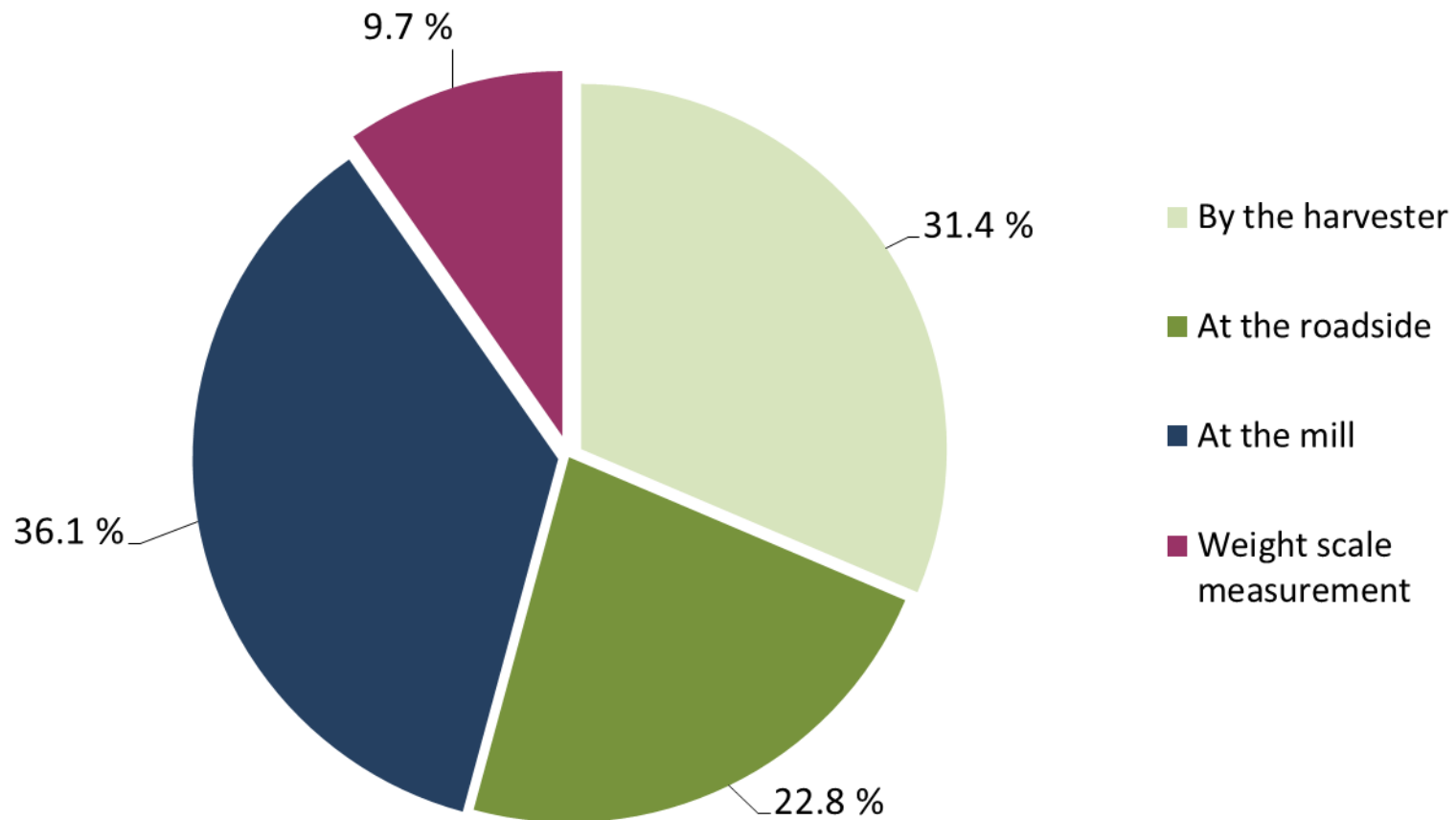
# The volume of wood measuring in 2011

- Wood measuring methods used in 2011 -statistics based on the answers which Metsäteho owners, the Finnish forest industry companies and Metsähallitus, have reported. It consists of only domestic timber felling.
- The used volumes (m<sup>3</sup> sob) in statistics are the next:
  - Standing sales in private-owned forests 26.8 million m<sup>3</sup>
  - Delivery sales in private-owned forests 5.3 million m<sup>3</sup>
  - Forest industry-owned forests and state-owned forests managing by Forest and Park Service 11.3 million m<sup>3</sup>
  - Together 43.5 million m<sup>3</sup>
- In 2011, the volume of standing sales was **34,6** million m<sup>3</sup> sob and delivery sales **6.3** million m<sup>3</sup> sob from private-owned forests. (Source: Metla = Finnish Forest Research Institute)
- Timber felling from industry-owned and state-owned forests totalled **11.4** million m<sup>3</sup> sob. (Source: Metla)
- Commercial roundwood fellings in 2011 stood at **53.9** million m<sup>3</sup> sob in Finland, of which sawlogs amounted to **23.2** and pulpwood **30.7** million m<sup>3</sup> sob. (Source: Metla)
- Timber volume is expressed in cubic metres, real solid volume over bark.

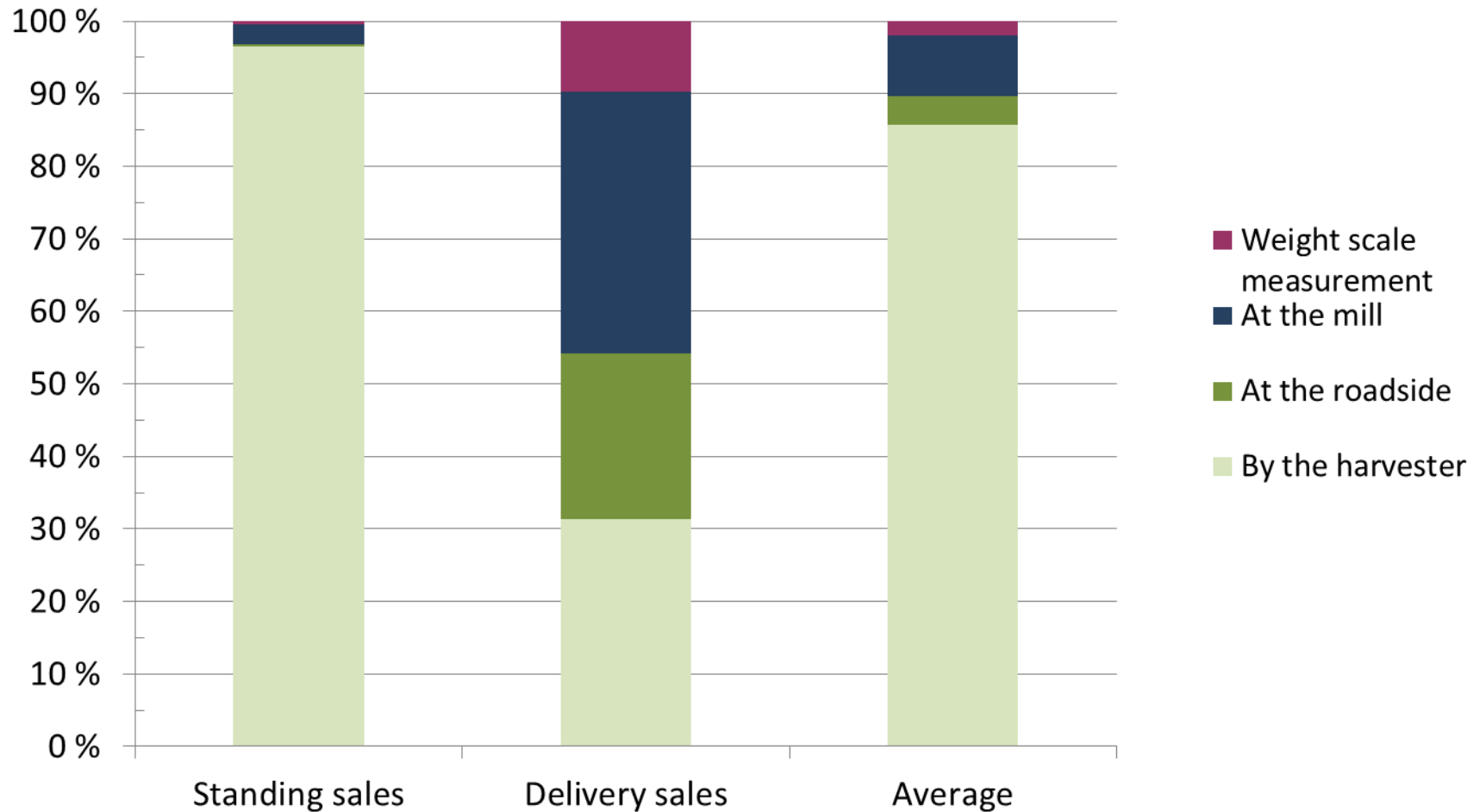
## Measurement methods in standing sales of private-owned forests in 2011 (about 26.8 million m<sup>3</sup>)



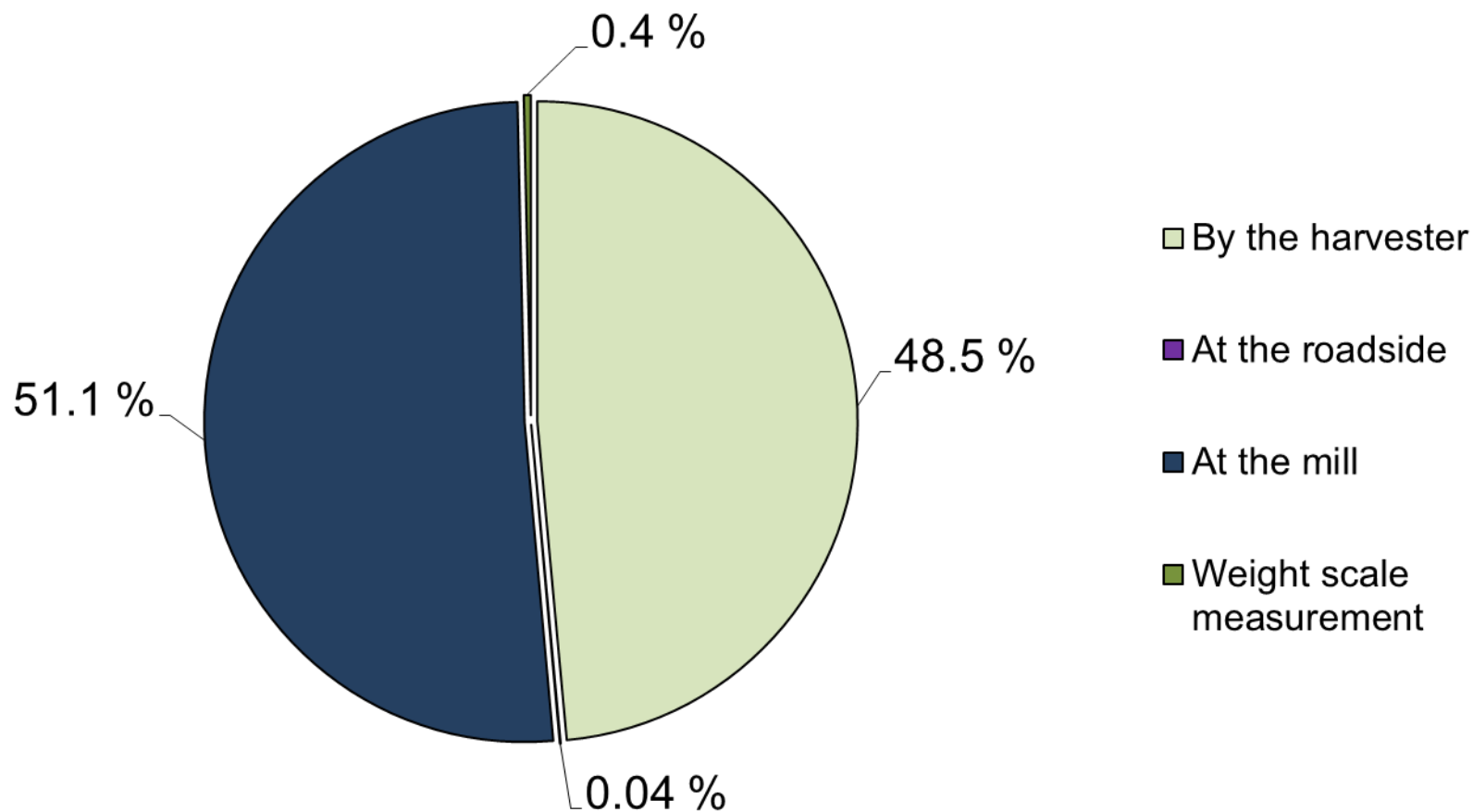
## Measurement methods in delivery sales of private-owned forests in 2011 (about 5.3 million m<sup>3</sup>)



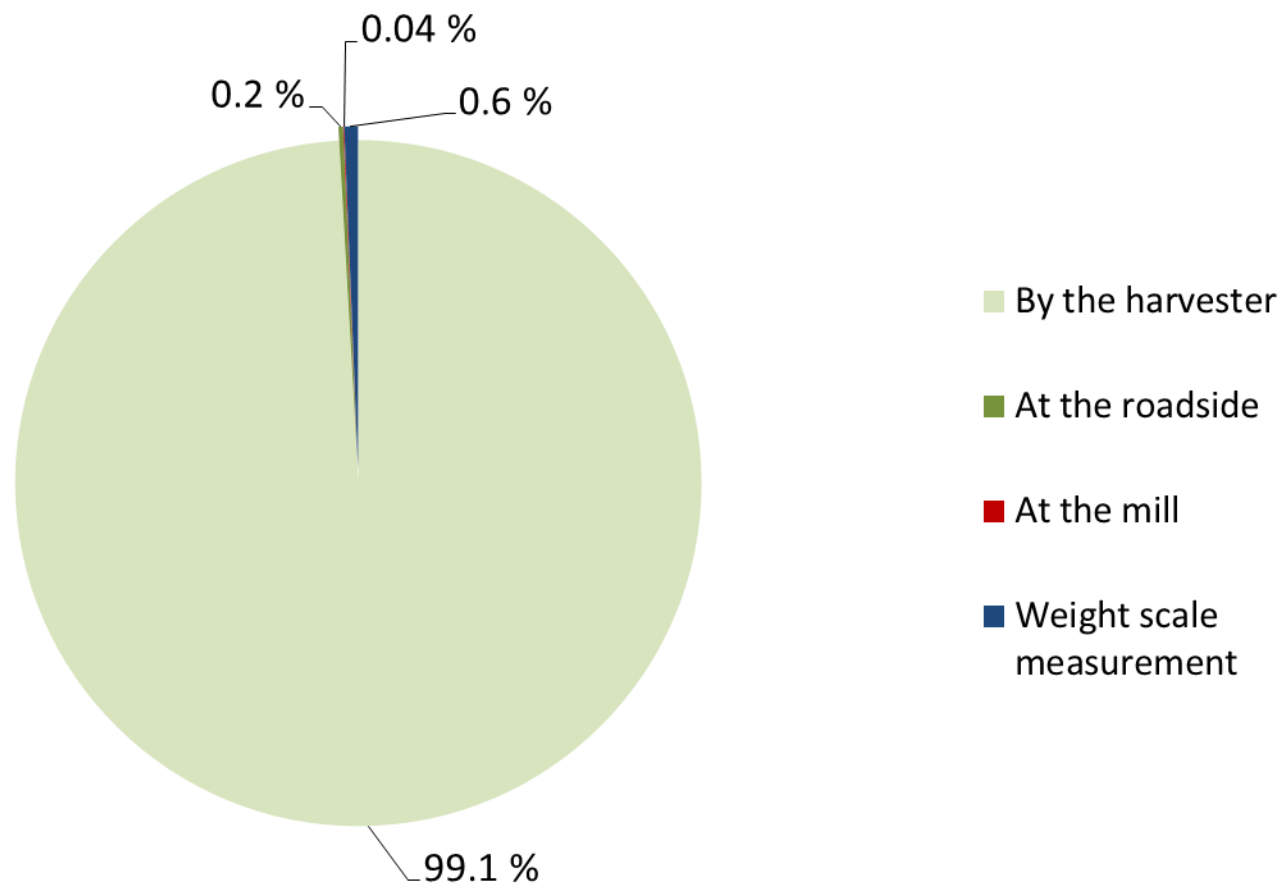
## Measurement methods in private-owned forests in 2011 (standing and delivery sales, about 32.1 million m<sup>3</sup>)



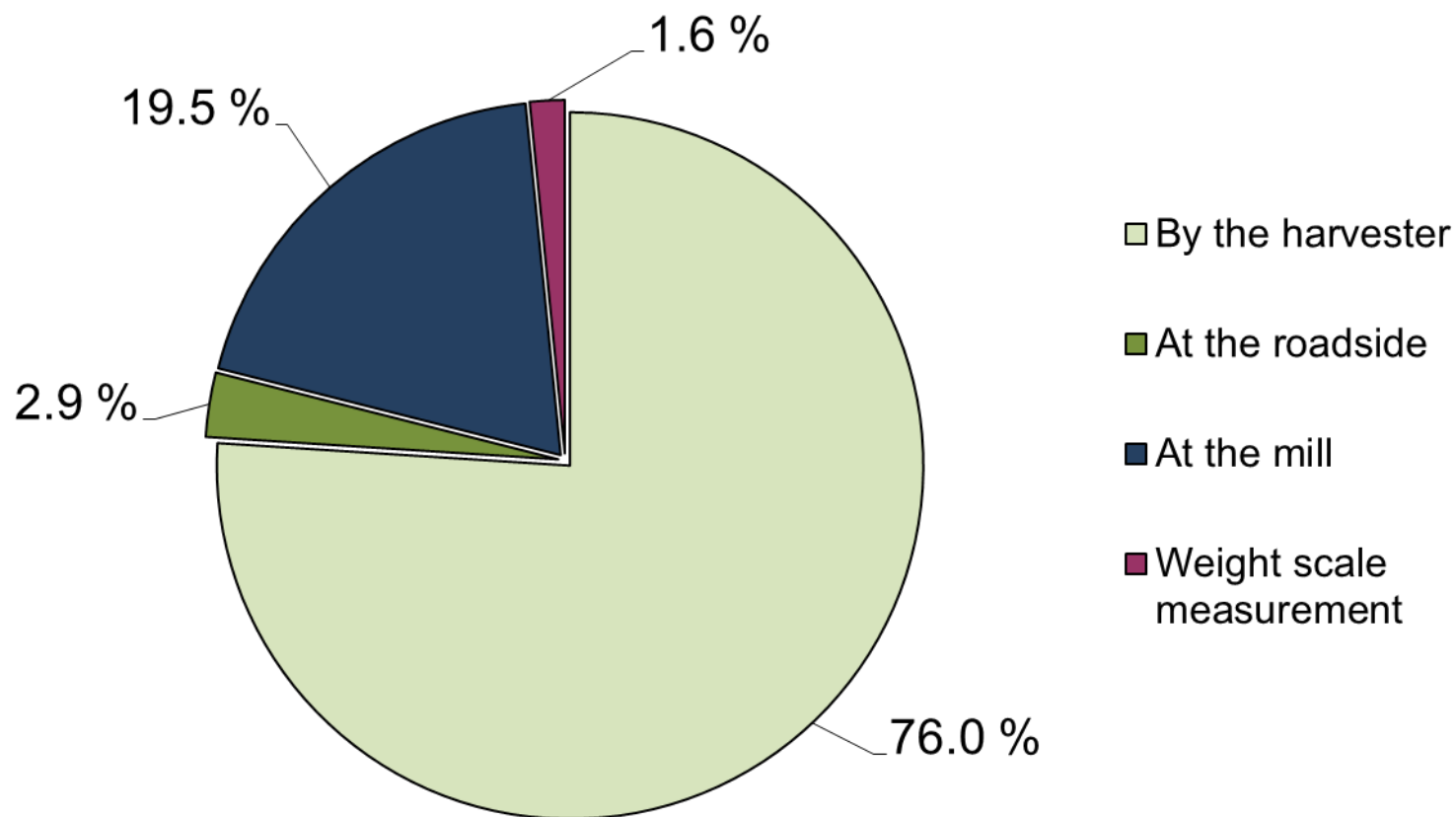
## Measurement methods in industry-owned forests and state-owned forests in 2011 (about 11.3 million m<sup>3</sup>)



## Work measurement methods in industry-owned forests and state-owned forests in 2011 (n. 11.6 milj. m<sup>3</sup>)



## Measuring methods in the total commercial roundwood fellings in 2011 (about 43,5 million m<sup>3</sup>)

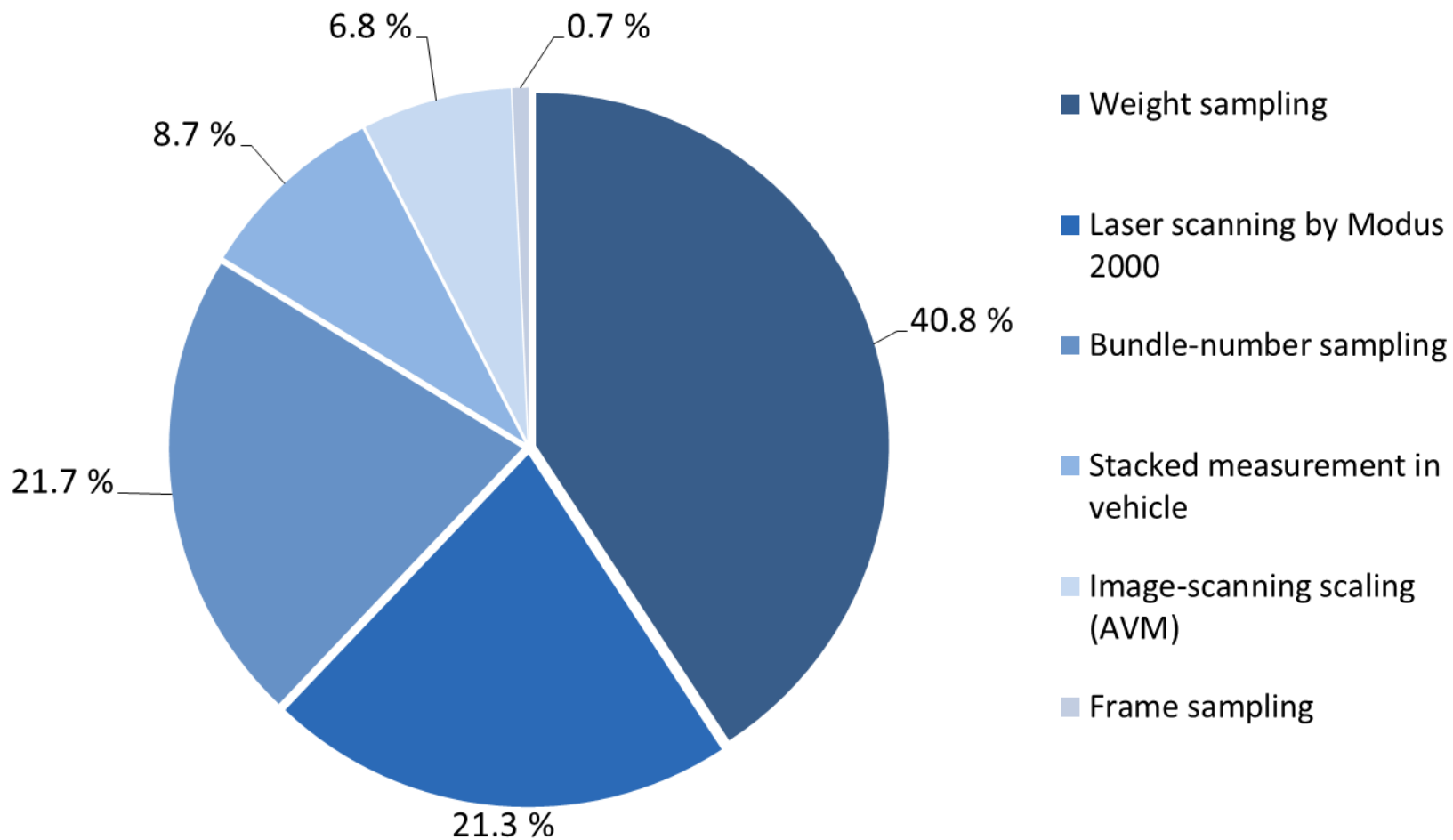




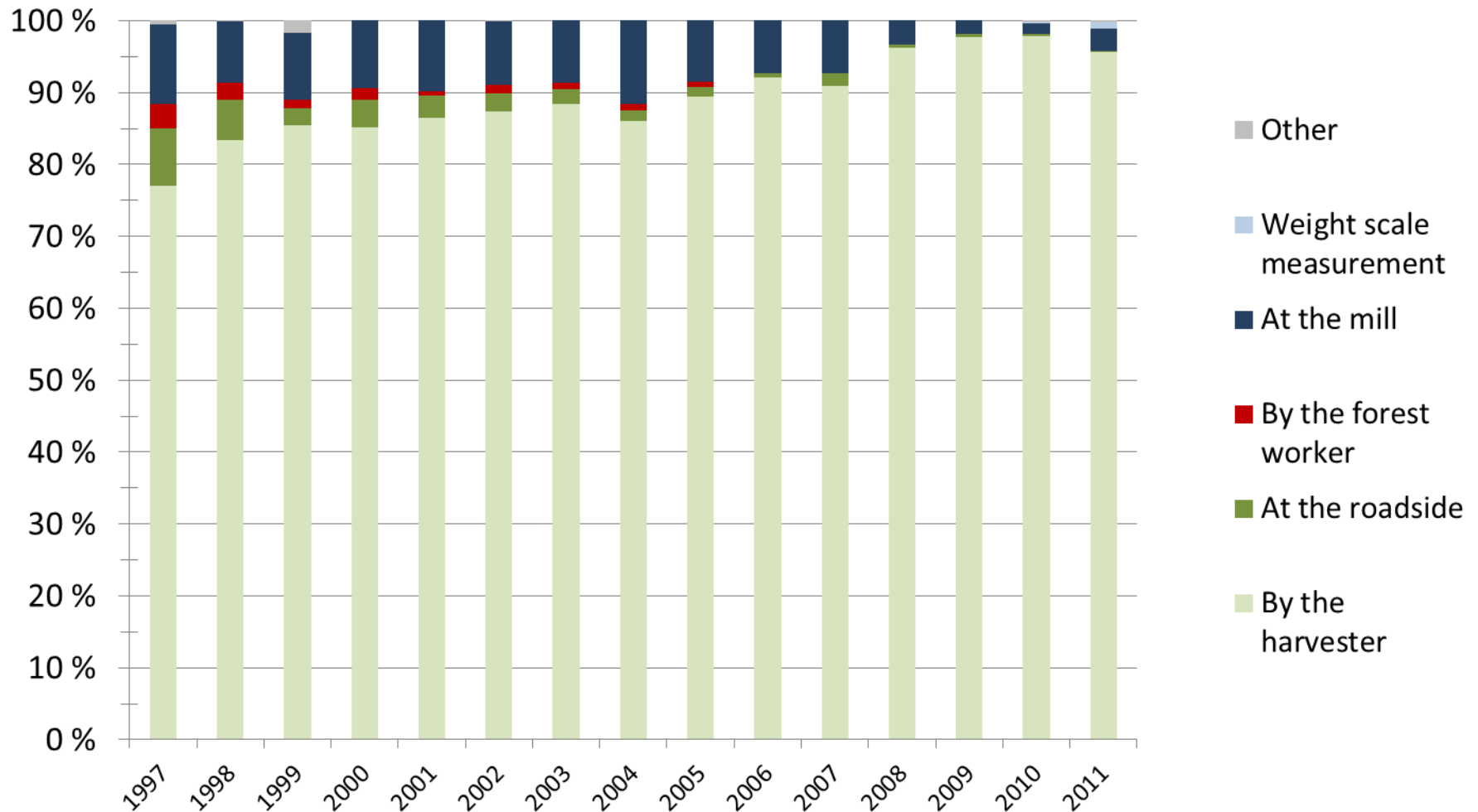
## Sawlogs and pulpwood measured at the mill and at the roadside in 2011

- At the mill altogether 8.4 million m<sup>3</sup> was measured, which represents 19.5 % of total commercial round wood fellings in 2011. The proportion of the sawlogs measured at the mill was 43.7 % and pulpwood 56.3 %.
  - The sawlogs were mainly measured by using log scanners.
  - The pulpwood measuring methods are presented in the next slide (slide number 10).
- At the road side altogether 1.3 million m<sup>3</sup> was measured, which represents 2.9 % of total commercial round wood fellings in 2011. The proportion of sawlogs measured at the mill was 19.9 % and pulpwood 80.1 %.
  - The sawlogs were measured based on the top diameter of the log and the pulpwood was measured by using pile scaling method.

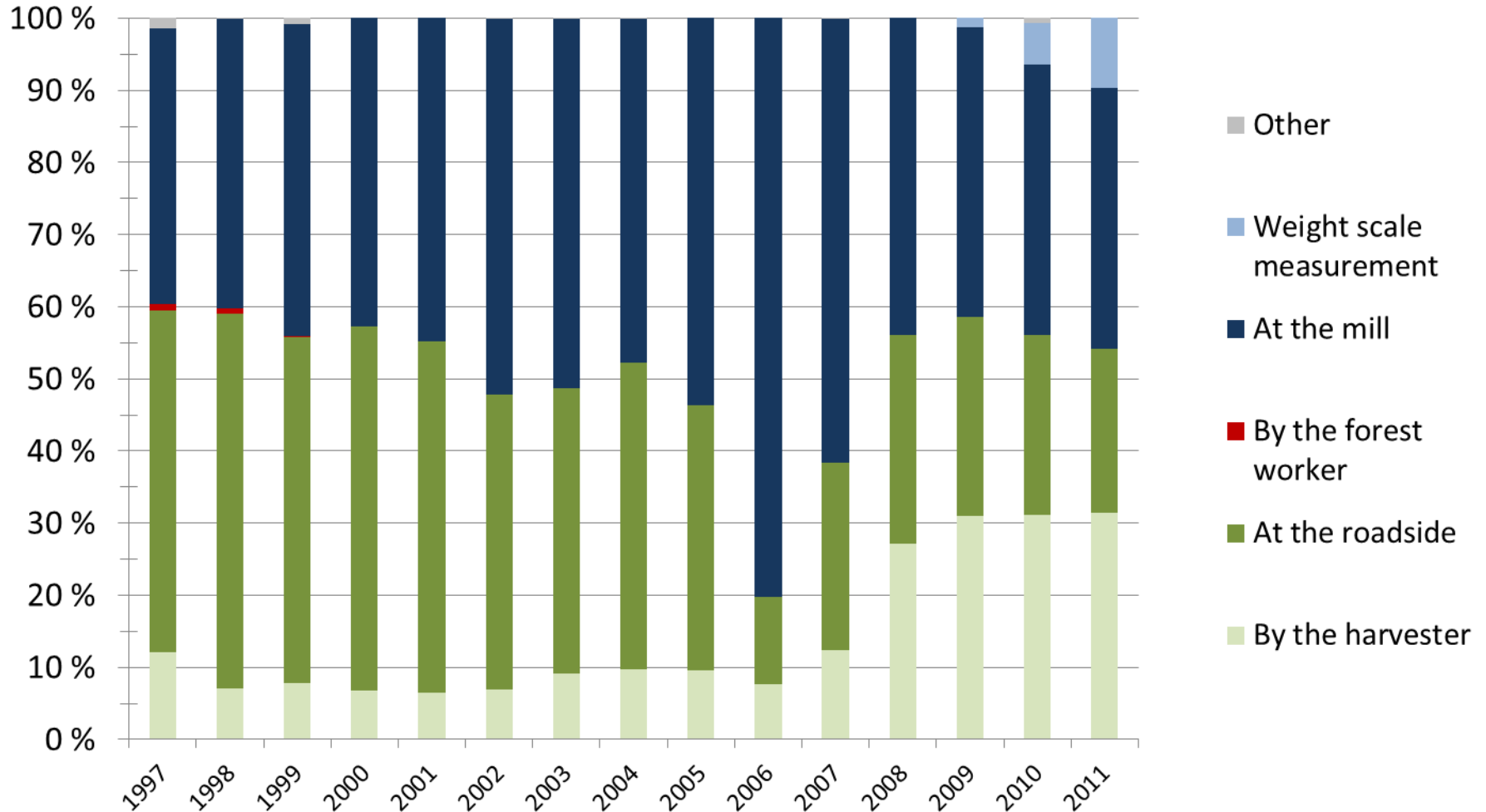
## Methods used for pulpwood measuring at the mills in 2011 (about 4.9 million m<sup>3</sup>)



## Proportions of different wood measuring methods in standing sales, 1997 - 2011



## Proportions of different wood measuring methods in delivery sales, 1997 - 2011



## Wood quantities and proportions of methods in 2011

### Private-owned forests

Method	Total, 1000 m <sup>3</sup>			Total, %		
	Standing sales	Delivery sales	Together	Standing sales	Delivery sales	Average
By the harvester	25 854	1 680	27 534	96.5	31.4	85.7
At the roadside	54	1 219	1 273	0.2	22.8	4.0
At the mill	737	1 931	2 668	2.8	36.1	8.3
Weight scale measurement	133	518	651	0.5	9.7	2.0
Other	3	0	3	0.0	0.0	0.0
<b>Total</b>	26 780	5 348	32 128	100.0	100.0	100.0

### Industry-owned forests and state-owned forests

Method	Total	
	1000 m <sup>3</sup>	%
By the harvester	5 499	48.5
At the roadside	4	0.0
At the mill	5 787	51.1
Weight scale measurement	40	0.4
Other	0	0.0
<b>Total</b>	11 330	100.0

## Proportions of wood measuring methods, 1997 - 2011

### STANDING SALES OF PRIVATE-OWNED FORESTS

Year	Proportion of method, %					Other	Total
	By the harvester	At the roadside	By the forest worker	At the mill	Weight scale measurement		
1997	77	8	3	11	-	1	100
1998	83	6	2	9	-	0	100
1999	85	2	1	9	-	2	100
2000	85	4	2	9	-	0	100
2001	86	3	1	10	-	0	100
2002	87	3	1	9	-	0	100
2003	88	2	1	9	-	0	100
2004	86	1	1	12	-	0	100
2005	89	1	1	8	-	0	100
2006	92	1	0	7	-	0	100
2007	91	2	0	7	-	0	100
2008	96	1	0	3	-	0	100
2009	98	1	0	2	-	0	100
2010	98	0	0	2	0	0	100
2011	96	0	0	3	1	0	100

### DELIVERY SALES OF PRIVATE-OWNED FORESTS

Year	Proportion of method, %					Other	Total
	By the harvester	At the roadside	By the forest worker	At the mill	Weight scale measurement		
1997	12	47	1	38	-	1	100
1998	7	52	1	40	-	0	100
1999	8	48	0	43	-	1	100
2000	7	50	0	43	-	0	100
2001	6	49	0	45	-	0	100
2002	7	41	0	52	-	0	100
2003	9	40	0	51	-	0	100
2004	10	42	0	48	-	0	100
2005	10	37	0	54	-	0	100
2006	8	12	0	80	-	0	100
2007	12	26	0	62	-	0	100
2008	27	29	0	44	-	0	100
2009	31	28	0	40	1	0	100
2010	31	25	0	37	6	1	100
2011	31	23	0	36	10	0	100