



# Metsäteho

---

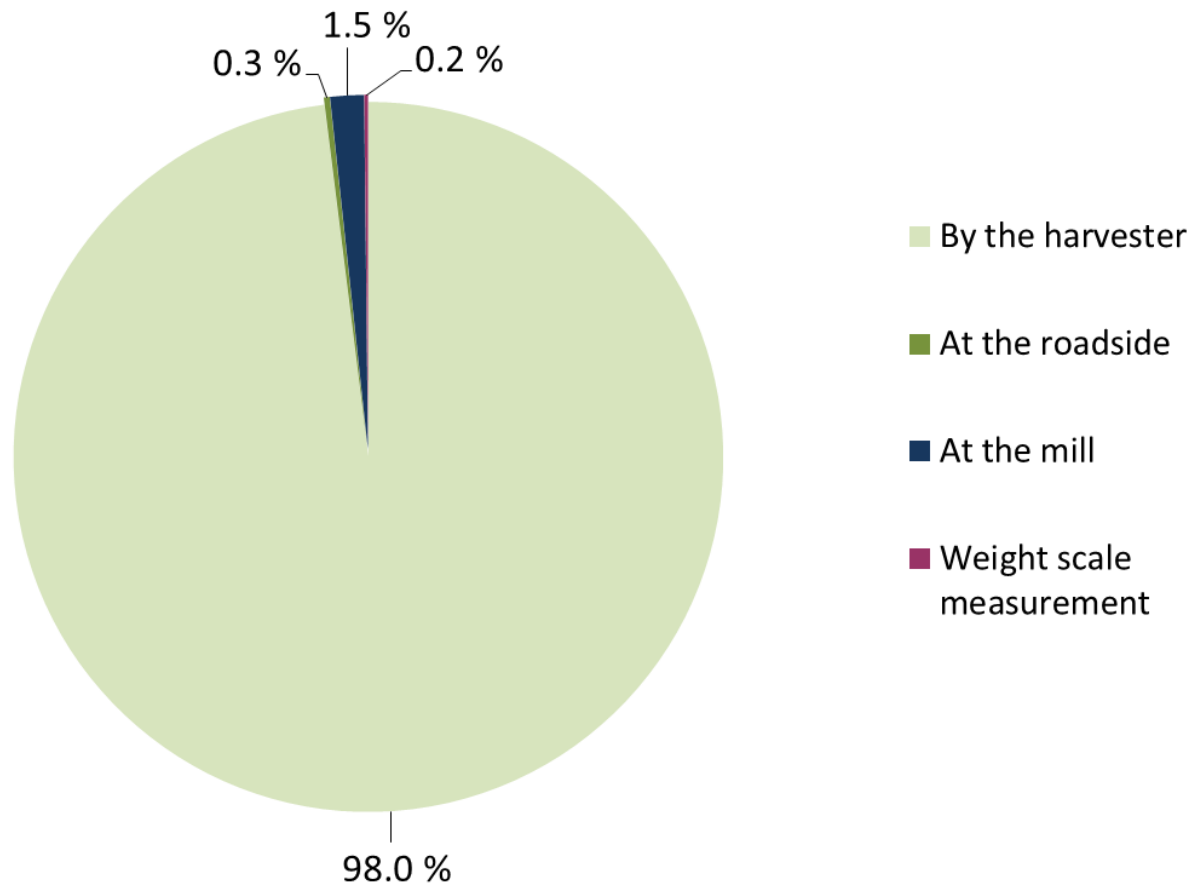
Wood measuring methods used  
in Finland 2010

Timo Melkas

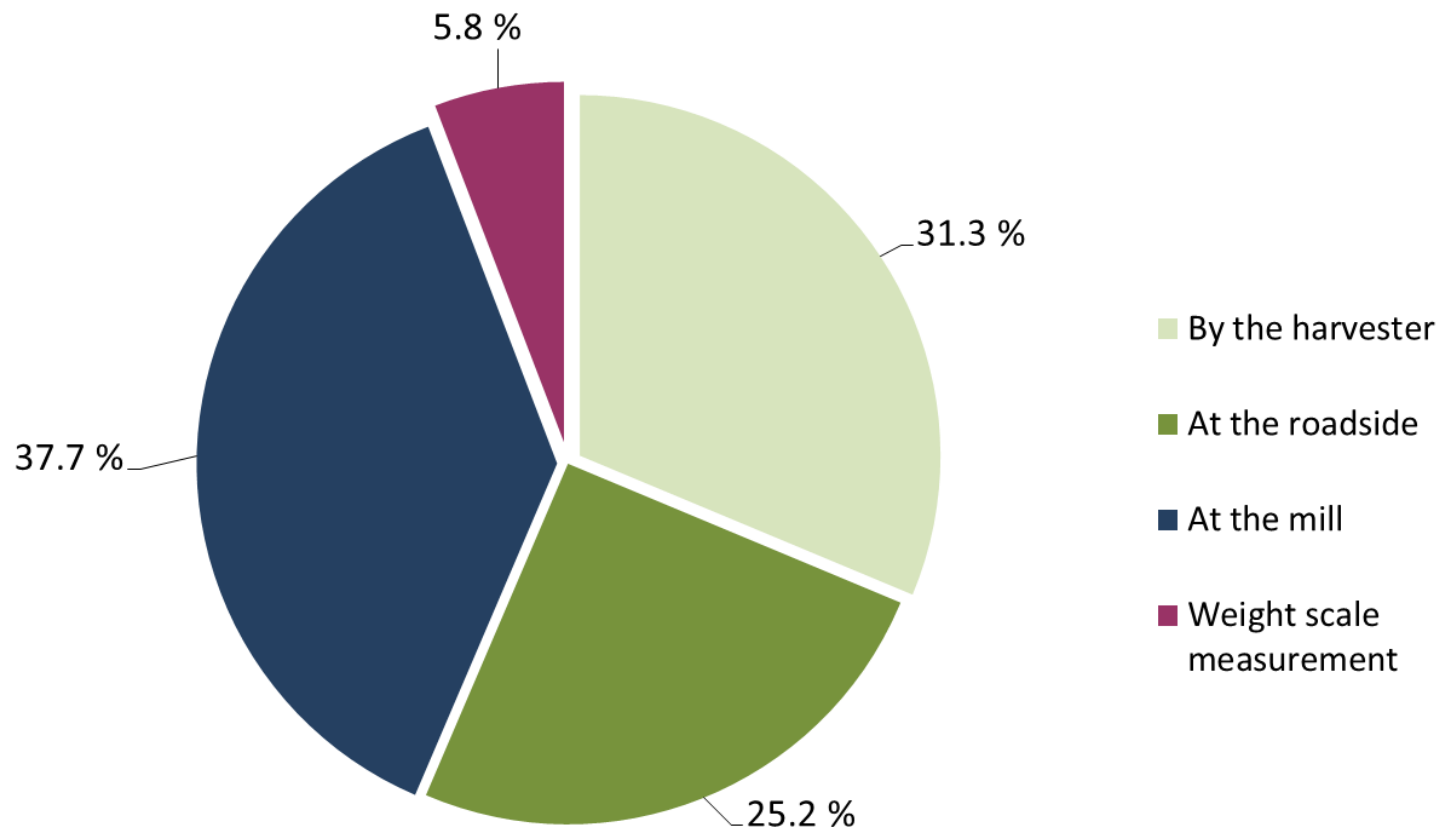
# The volume of wood measuring in 2010

- Wood measuring methods used in 2010 –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 27.0 million m<sup>3</sup>
  - Delivery sales in private-owned forests 5.1 million m<sup>3</sup>
  - Forest industry-owned forests and state-owned forests managing by Forest and Park Service 11.2 million m<sup>3</sup>
  - Together 43.3 million m<sup>3</sup>
- In 2010, the volume of standing sales was **34,5** million m<sup>3</sup> sob and delivery sales **6.2** 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 **11.3** million m<sup>3</sup> sob. (Source: Metla)
- Commercial roundwood fellings in 2010 stood at **52** million m<sup>3</sup> sob in Finland, of which sawlogs amounted to **21.6** and pulpwood **30.0** million m<sup>3</sup> sob. (Source: Metla)
- Timber volume is expressed in cubic metres, real solid volume over bark.

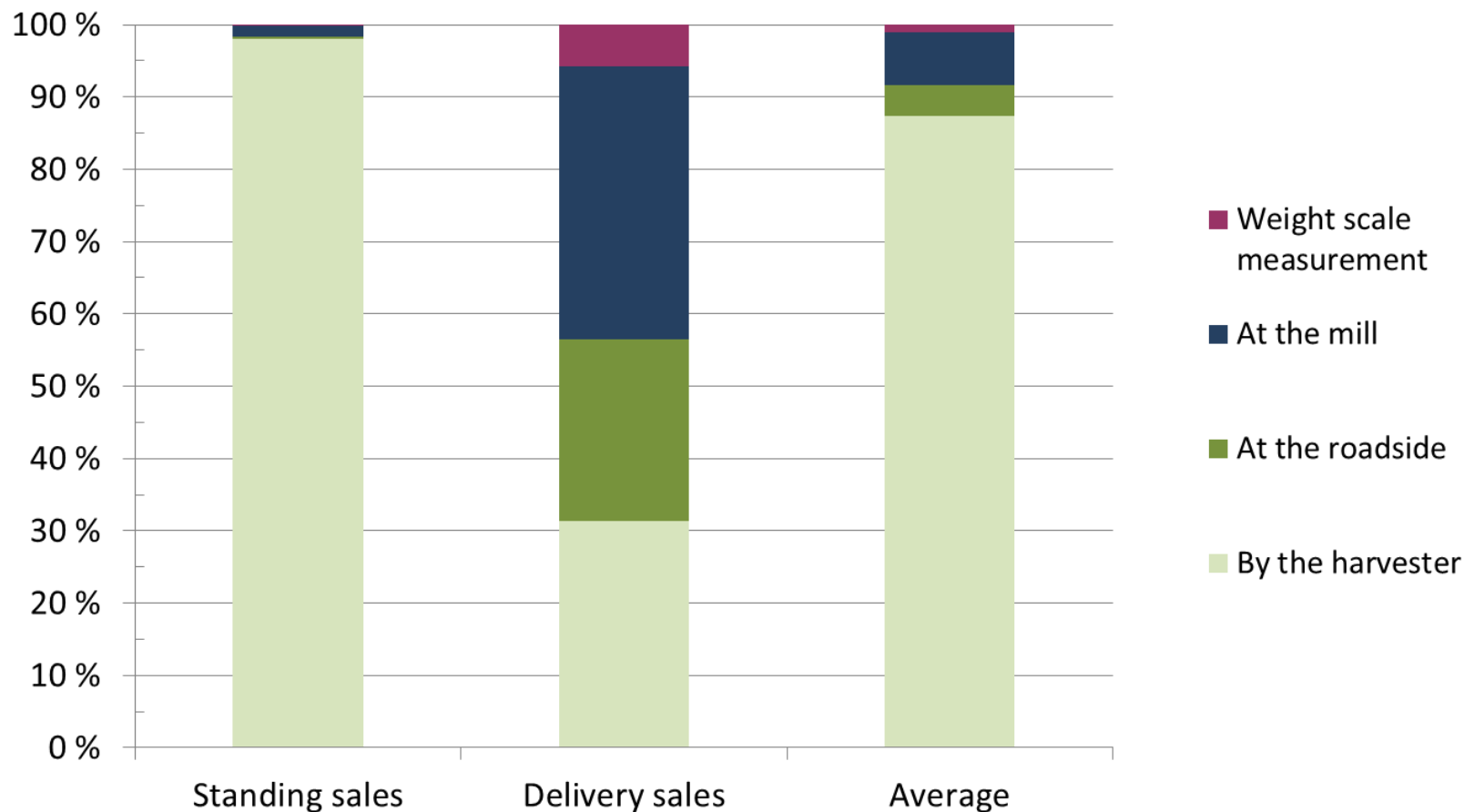
## Measurement methods in standing sales of private-owned forests in 2010 (about 27.0 million m<sup>3</sup>)



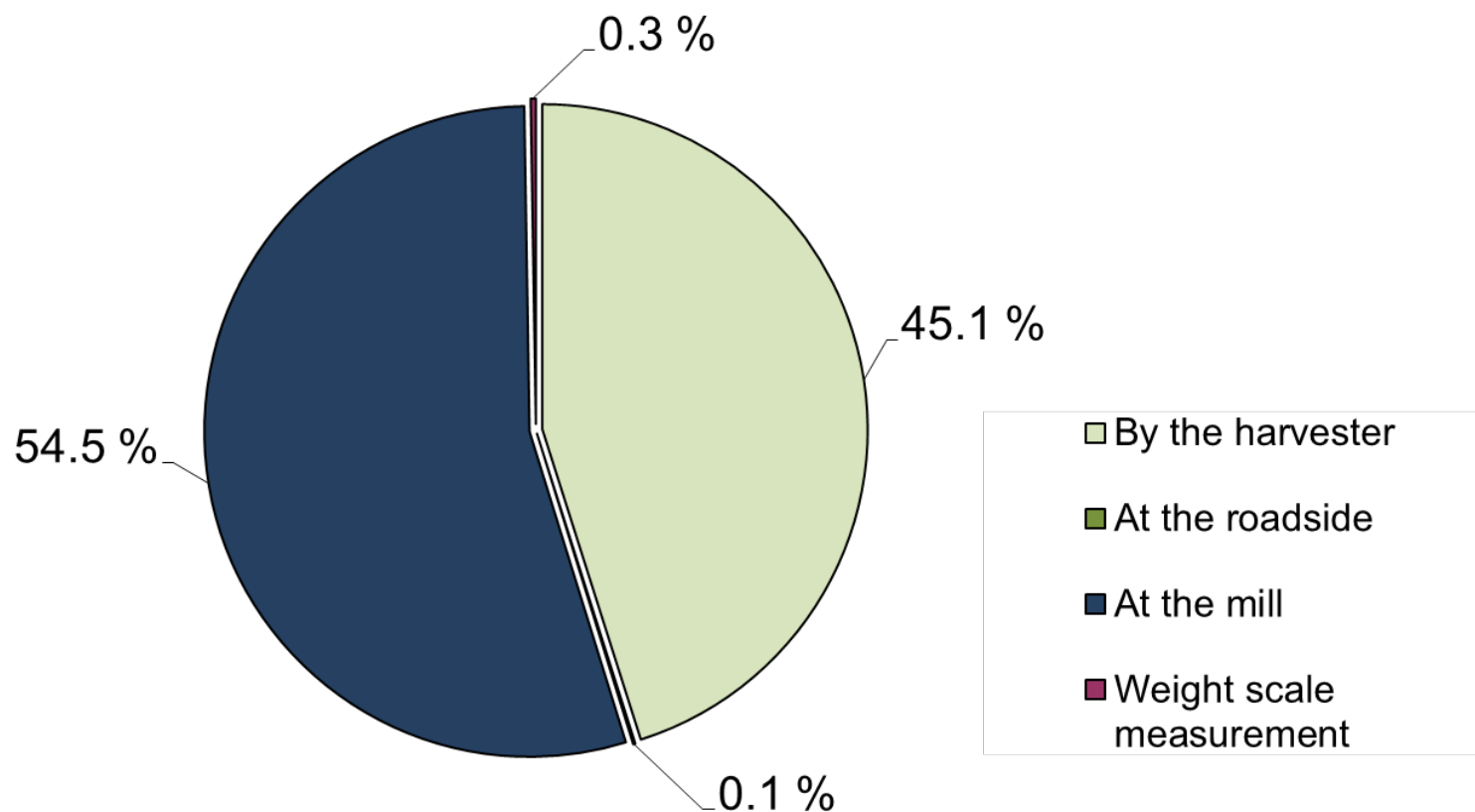
## Measurement methods in delivery sales of private-owned forests in 2010 (about 5.1 million m<sup>3</sup>)



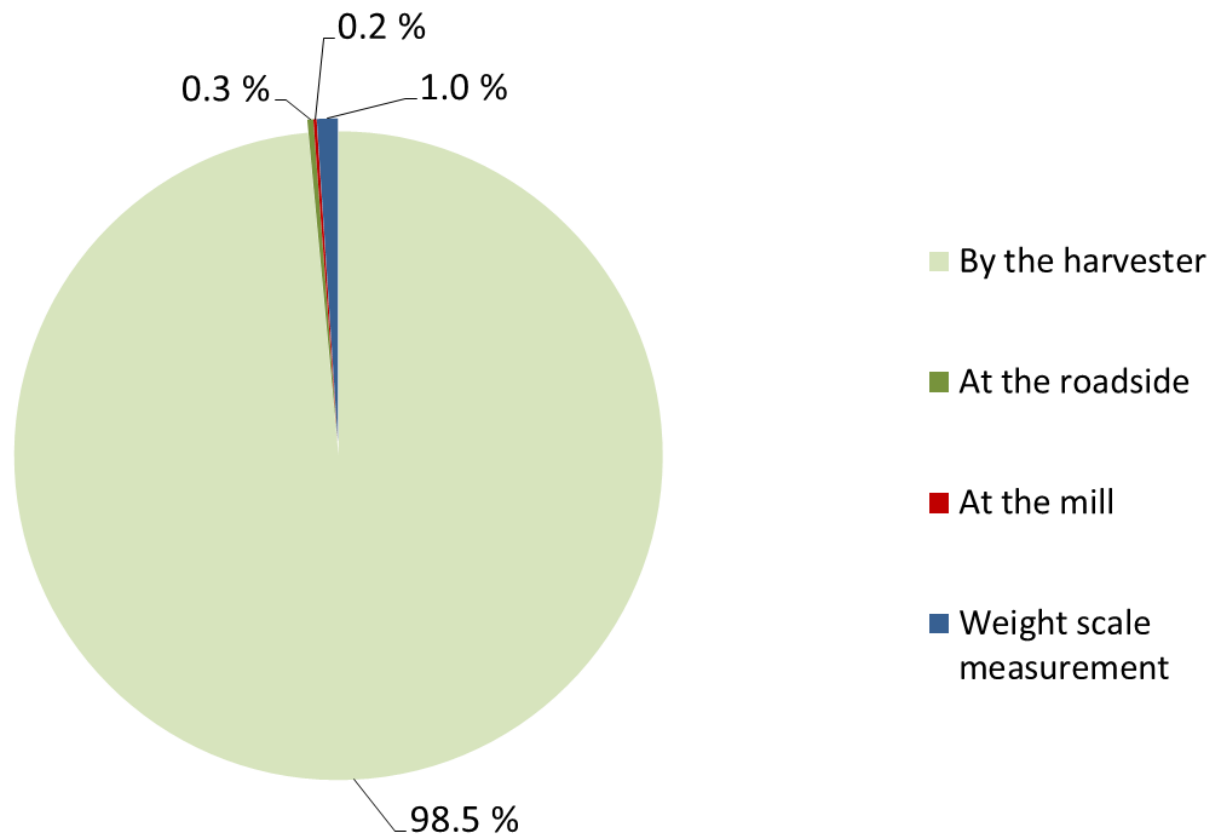
## Measurement methods in private-owned forests in 2010 (standing and delivery sales, about 32.1 million m<sup>3</sup>)



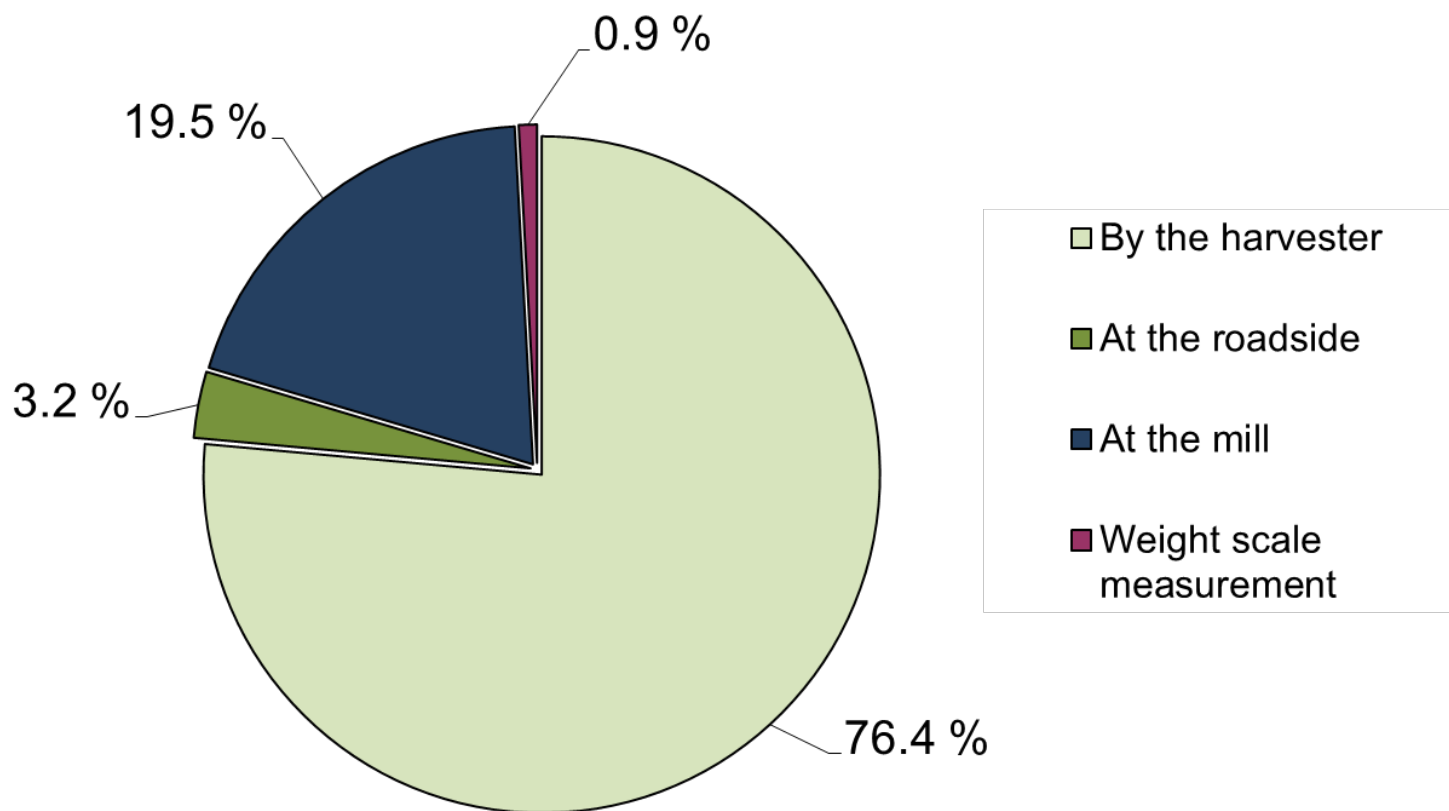
## Measurement methods in industry-owned forests and state-owned forests in 2010 (about 11.2 million m<sup>3</sup>)



## Work measurement methods in industry-owned forests and state-owned forests in 2010 (n. 11.2 milj. m<sup>3</sup>)



## Measuring methods in the total commercial roundwood fellings in 2010 (about 43,3 million m<sup>3</sup>)

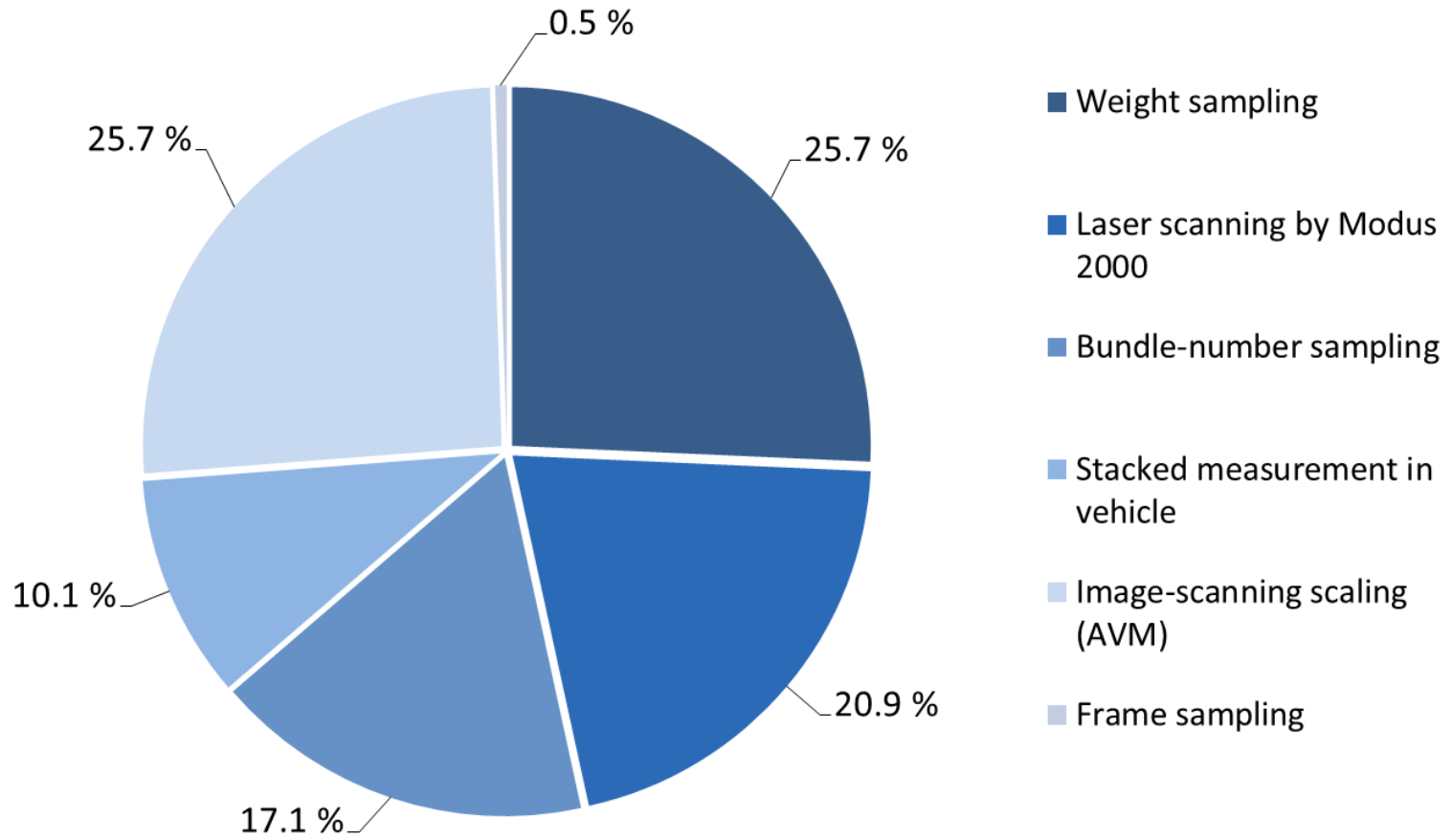




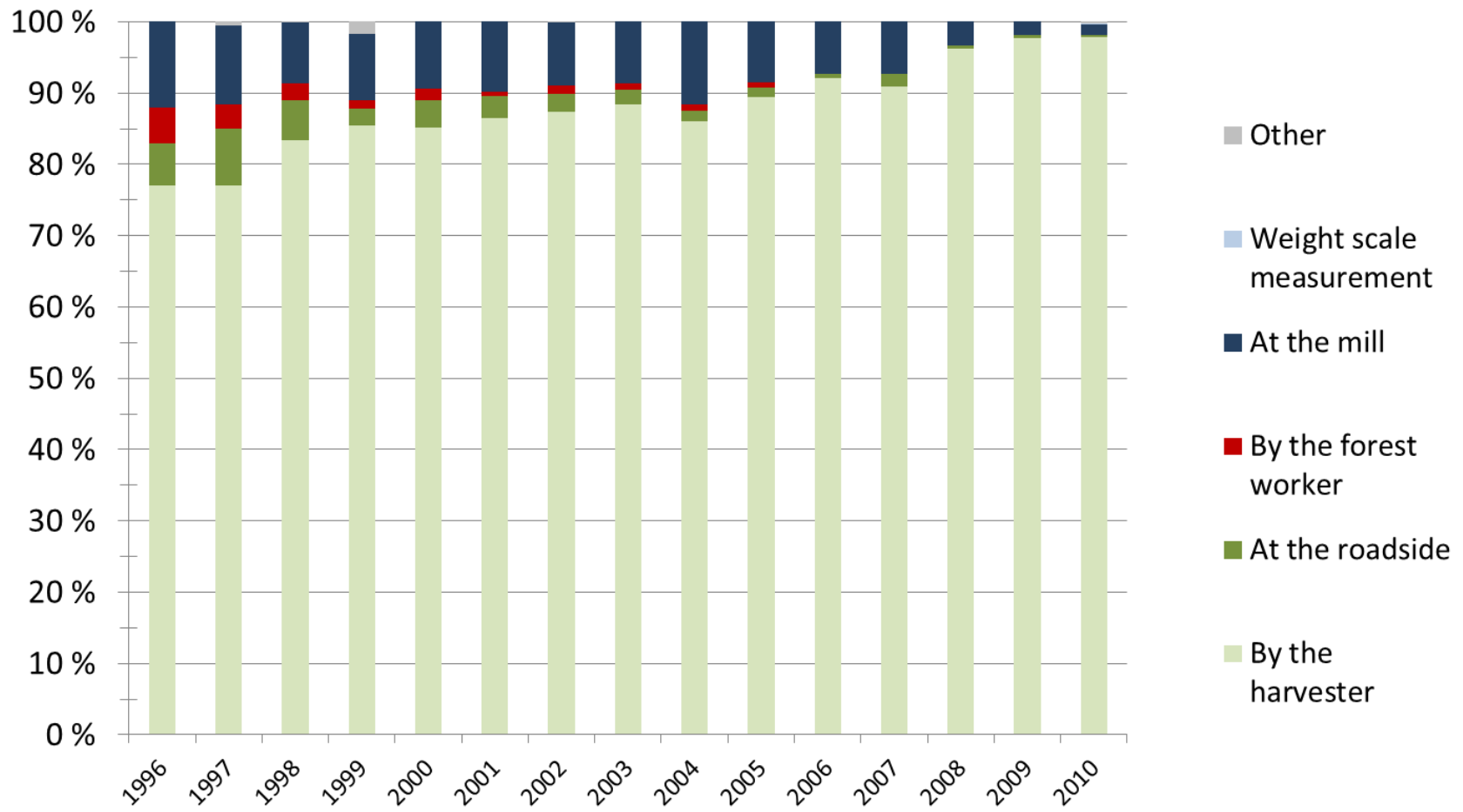
## Sawlogs and pulpwood measured at the mill and at the roadside in 2010

- At the mill altogether 8.4 million m<sup>3</sup> was measured, which represents 19.5 % of total commercial round wood fellings in 2010. The proportion of the sawlogs measured at the mill was 42.1 % and pulpwood 57.9 %.
  - 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 1.4 million m<sup>3</sup> was measured, which represents 3.2 % of total commercial round wood fellings in 2010. The proportion of sawlogs measured at the mill was 18.2 % and pulpwood 81.8 %.
  - The sawlogs were measured based on the top diameter of the log and the pulpwood was measured by using pile scaling method.

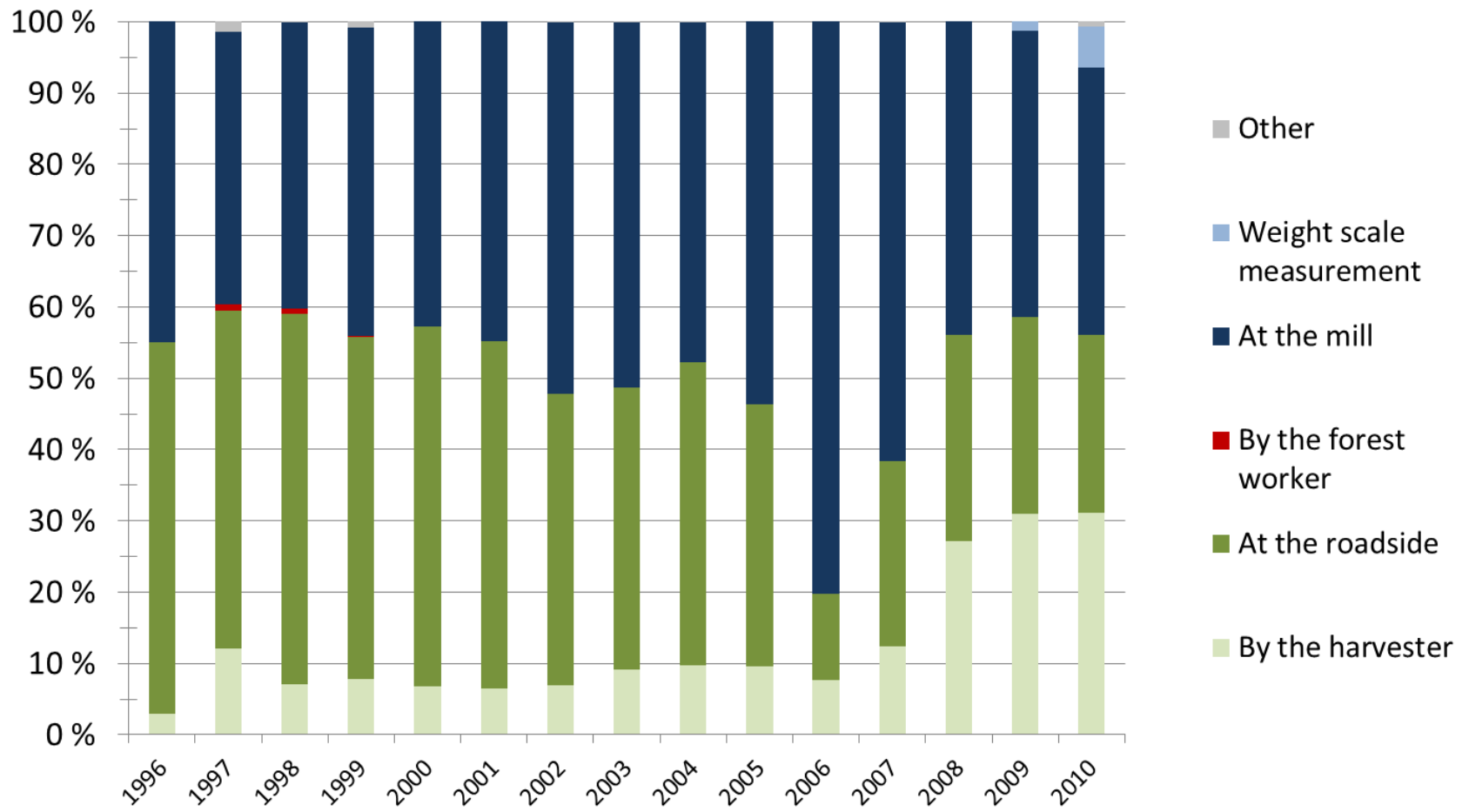
## Methods used for pulpwood measuring at the mills in 2010 (about 5.0 million m<sup>3</sup>)



## Proportions of different wood measuring methods in standing sales, 1996 - 2010



## Proportions of different wood measuring methods in delivery sales, 1996 - 2010



## Wood quantities and proportions of methods in 2010

### Private-owned forests

Method	Total, 1000 m <sup>3</sup>			Total, %		
	Standing sales	Delivery sales	Together	Standing sales	Delivery sales	Average
By the harvester	26 350	1 594	27 944	97.8	31.1	87.1
At the roadside	73	1 281	1 354	0.3	25.0	4.2
At the mill	413	1 922	2 335	1.5	37.5	7.3
Weight scale measurement	47	297	343	0.2	5.8	1.1
Other	71	33	103	0.262	0.6	0.3
<b>Total</b>	<b>26 953</b>	<b>5 127</b>	<b>32 079</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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

Method	Total	
	1000 m <sup>3</sup>	%
By the harvester	5 037	45.0
At the roadside	12	0.1
At the mill	6 089	54.5
Weight scale measurement	29	0.3
Other	14	0.1
<b>Total</b>	<b>11 181</b>	<b>100.0</b>

## Proportions of wood measuring methods, 1996 - 2010

### STANDING SALES OF PRIVATE-OWNED FORESTS

Year	Proportion of method, %						Total
	By the harvester	At the roadside	By the forest worker	At the mill	Weight scale measurement	Other	
1996	77	6	5	12	-	0	100
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

### DELIVERY SALES OF PRIVATE-OWNED FORESTS

Year	Proportion of method, %						Total
	By the harvester	At the roadside	By the forest worker	At the mill	Weight scale measurement	Other	
1996	3	52	0	45	-	0	100
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