



# Metsäteho

## Wood measuring methods used in Finland 2012

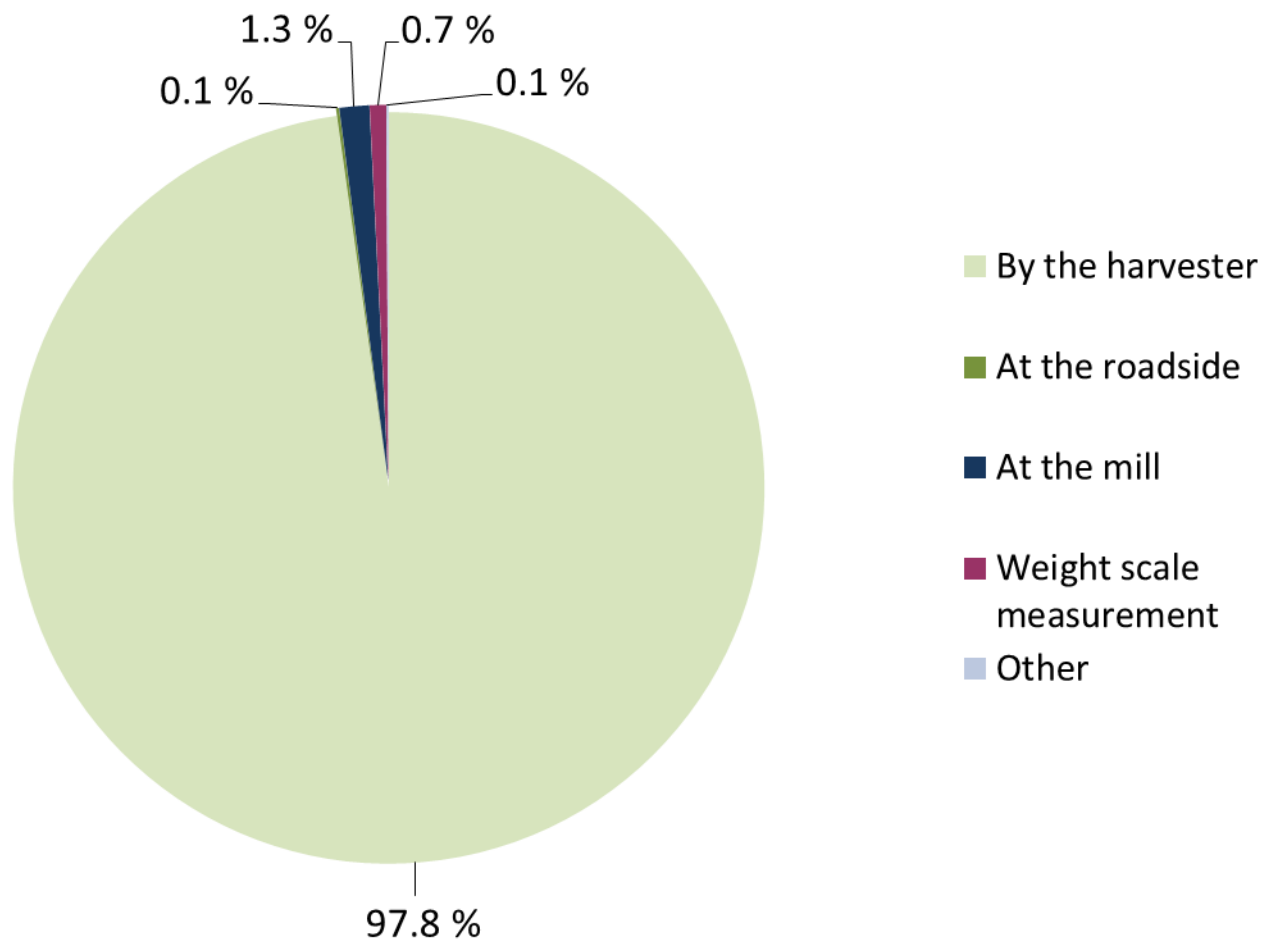
Timo Melkas



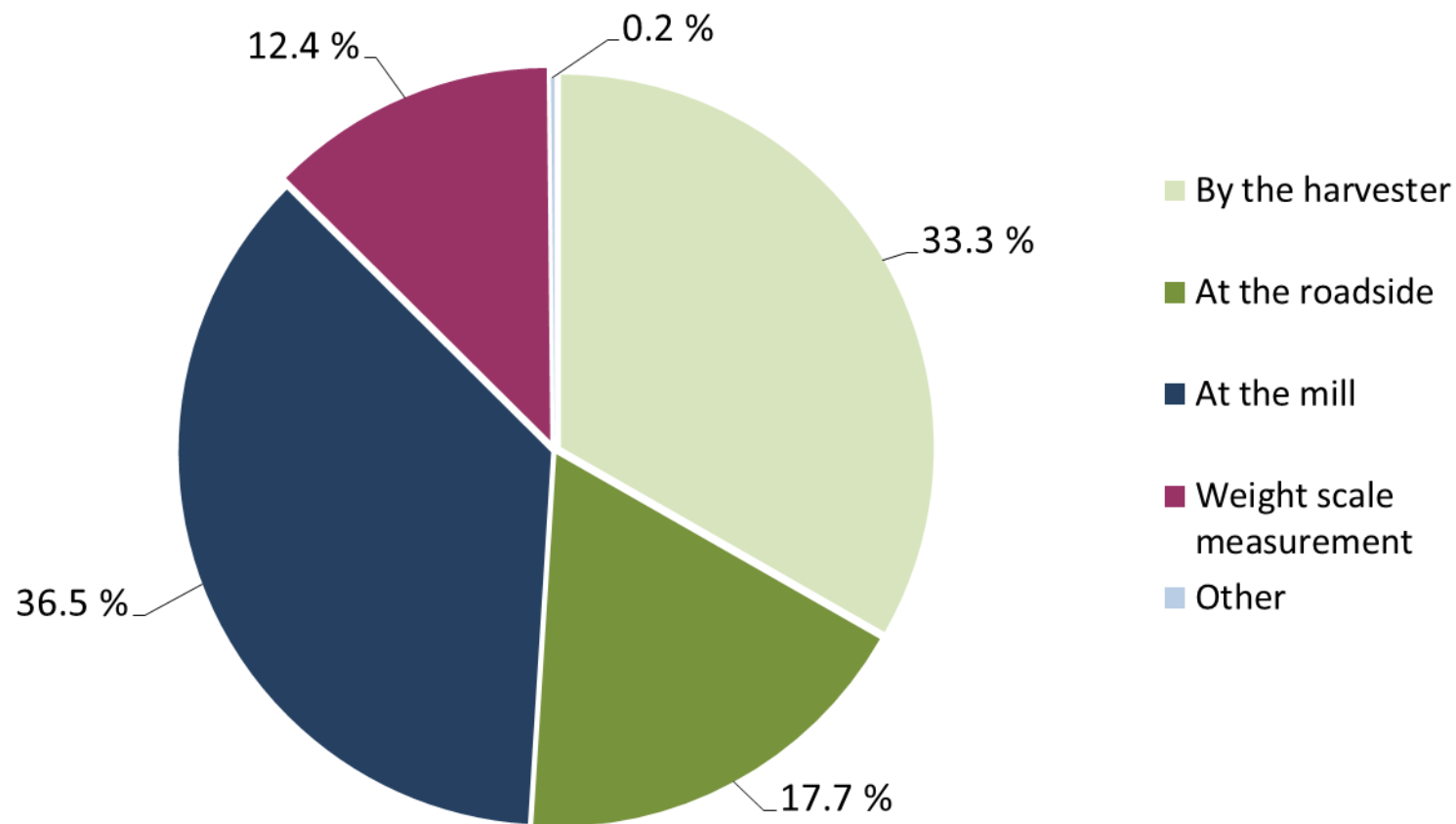
# The volume of wood measuring in 2012

- Wood measuring methods used in 2012 -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 25,0 million m<sup>3</sup>
  - Delivery sales in private-owned forests 5.9 million m<sup>3</sup>
  - Forest industry-owned forests and state-owned forests managing by Forest and Park Service 11.6 million m<sup>3</sup>
  - Together 42.5 million m<sup>3</sup>
- In 2012, the volume of standing sales was **32,4** million m<sup>3</sup> sob and delivery sales **7.3** 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 **11.8** million m<sup>3</sup> sob. (Source: Metla)
- Commercial roundwood fellings in 2012 stood at **51.5** million m<sup>3</sup> sob in Finland, of which sawlogs amounted to **21.4** and pulpwood **29.3** million m<sup>3</sup> sob. (Source: Metla)
- Timber volume is expressed in cubic metres, real solid volume over bark.

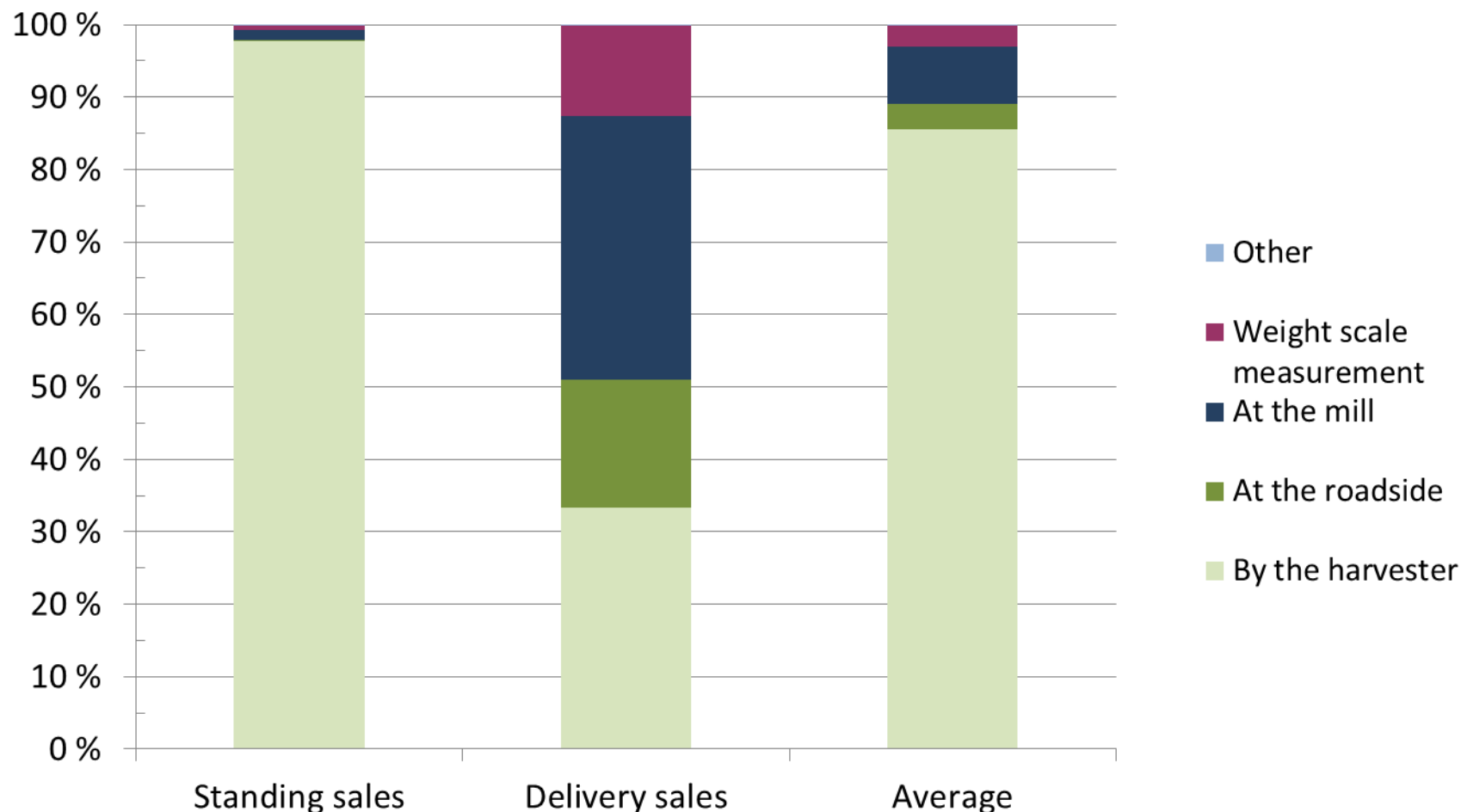
## Measurement methods in standing sales of private-owned forests in 2012 (about 25.0 million m<sup>3</sup>)



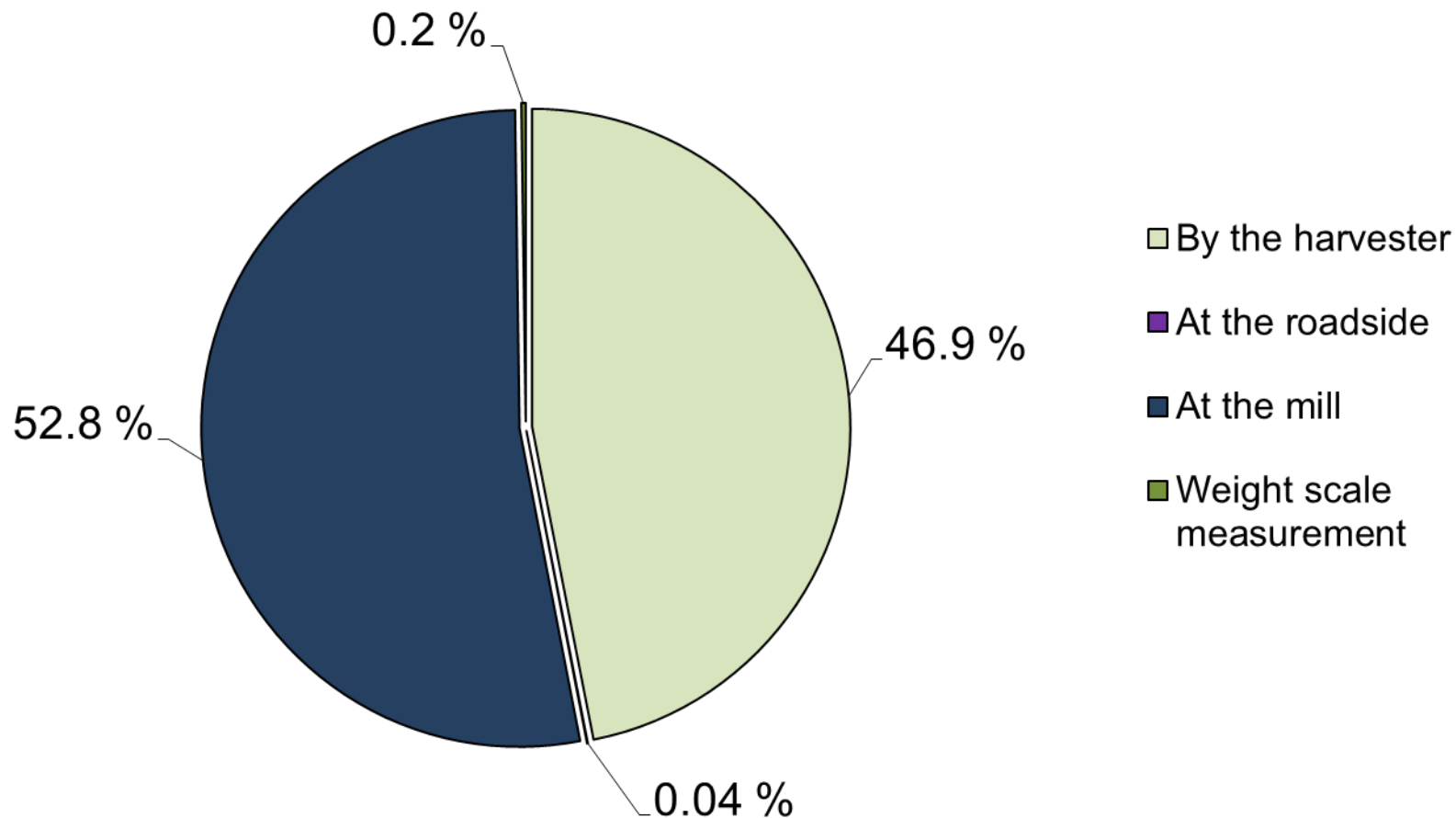
## Measurement methods in delivery sales of private-owned forests in 2012 (about 5.9 million m<sup>3</sup>)



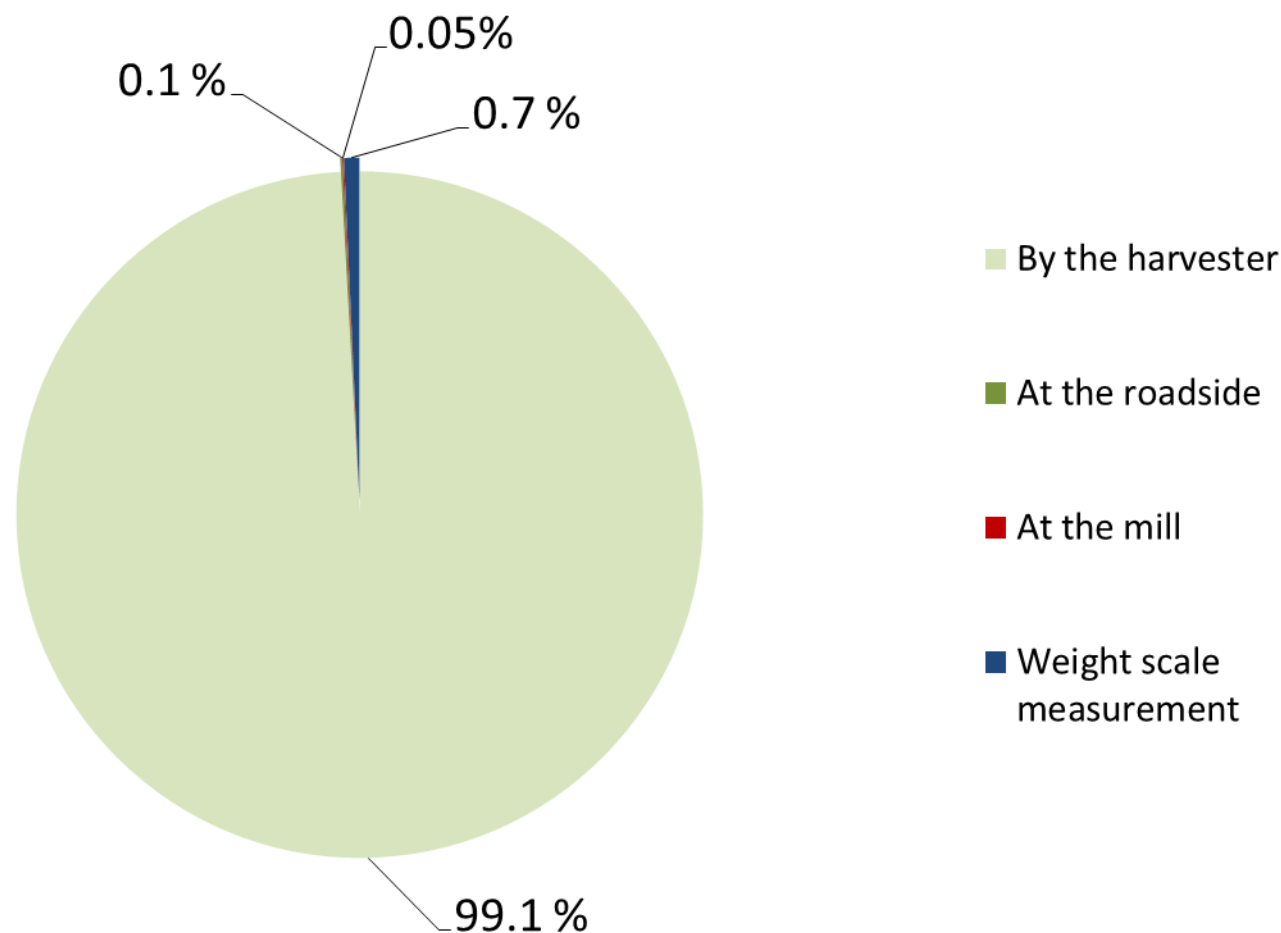
## Measurement methods in private-owned forests in 2012 (standing and delivery sales, about 30.8 million m<sup>3</sup>)



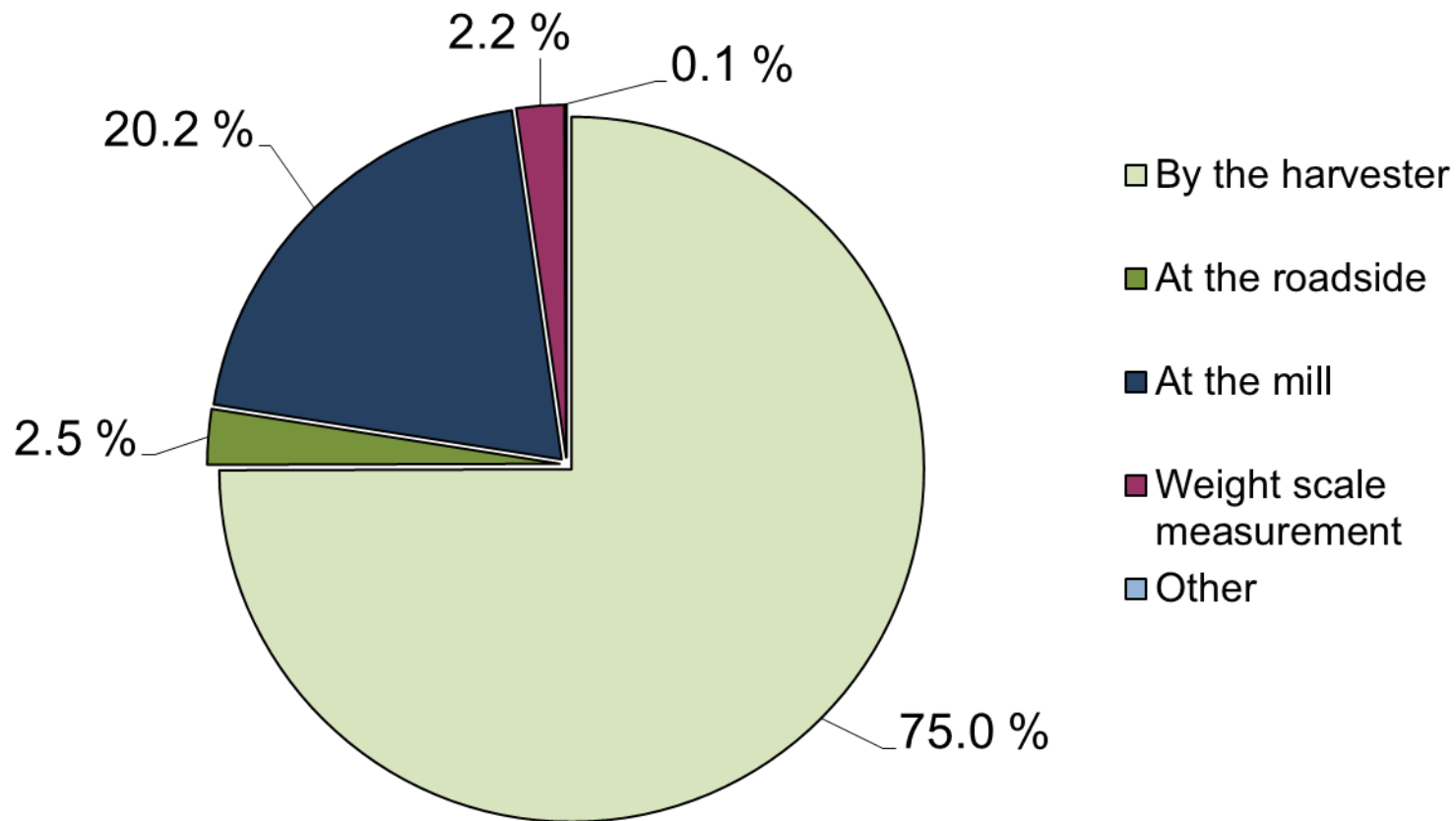
## Measurement methods in industry-owned forests and state-owned forests in 2012 (about 11.6 million m<sup>3</sup>)



## Work measurement methods in industry-owned forests and state-owned forests in 2012 (n. 11.6 milj. m<sup>3</sup>)



## Measuring methods in the total commercial roundwood fellings in 2012 (about 42,5 million m<sup>3</sup>)

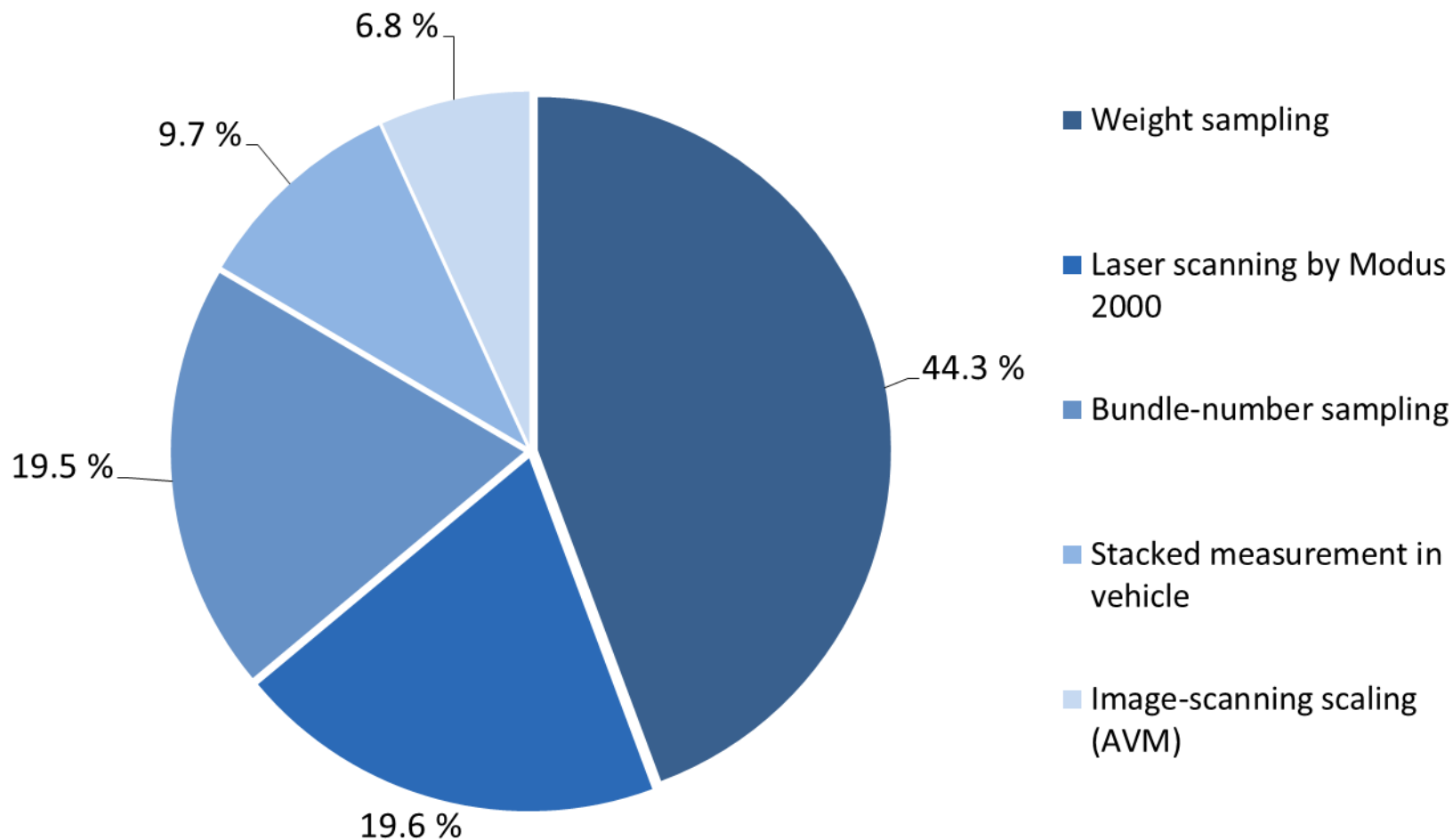




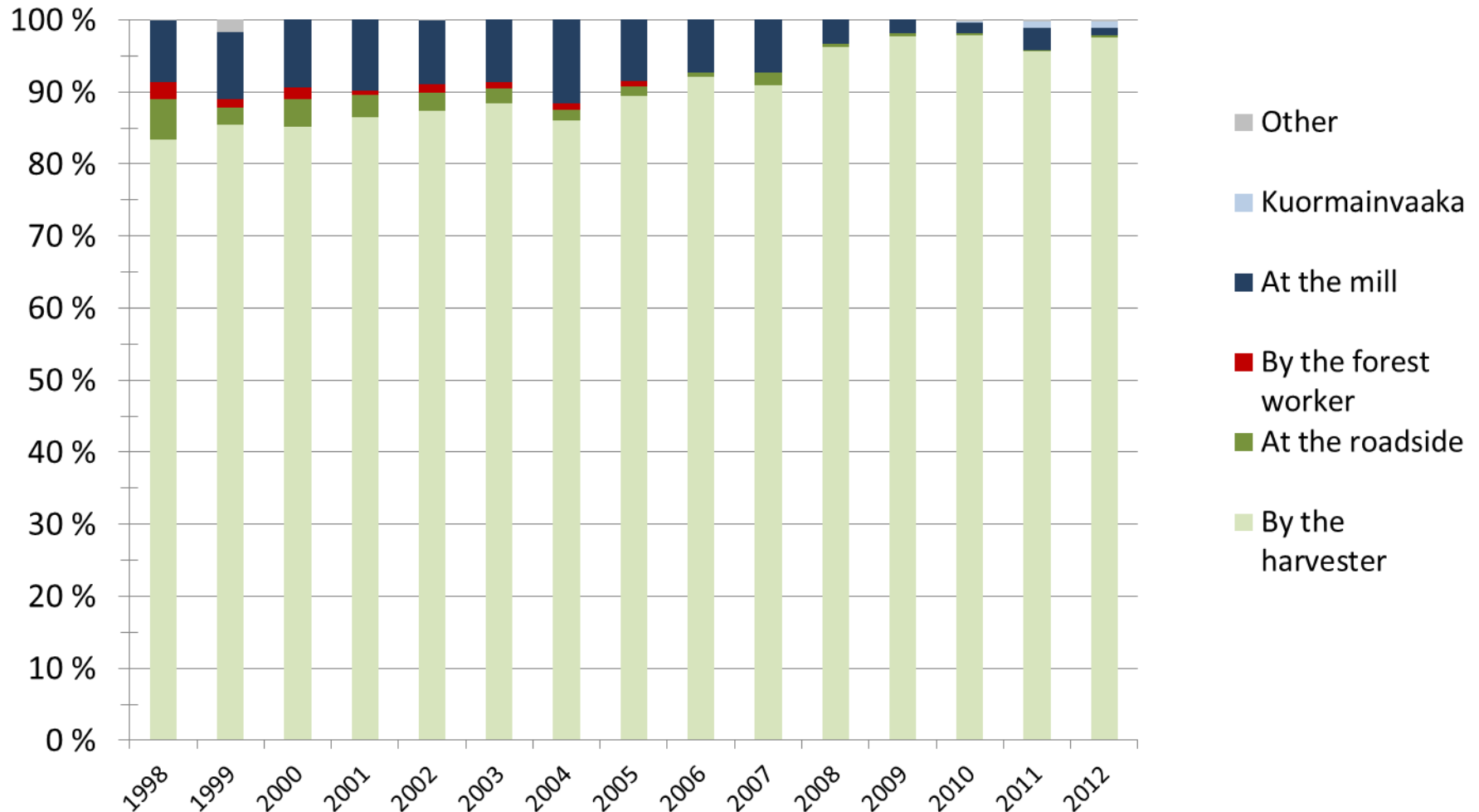
## Sawlogs and pulpwood measured at the mill and at the roadside in 2012

- At the mill altogether 8.6 million m<sup>3</sup> was measured, which represents 20.2 % of total commercial roundwood fellings in 2012. The proportion of the sawlogs measured at the mill was 40.2 % and pulpwood 59.8 %.
  - 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 1.1 million m<sup>3</sup> was measured, which represents 2.5 % of total commercial roundwood fellings in 2012. The proportion of sawlogs measured at the mill was 18.1 % and pulpwood 81.9 %.
  - The sawlogs were measured based on the top diameter of the log and the pulpwood was measured by using pile scaling method.
- Altogether 0.9 million m<sup>3</sup> was measured with loader scales, which represents 2.2 % of total commercial roundwood fellings in 2012.

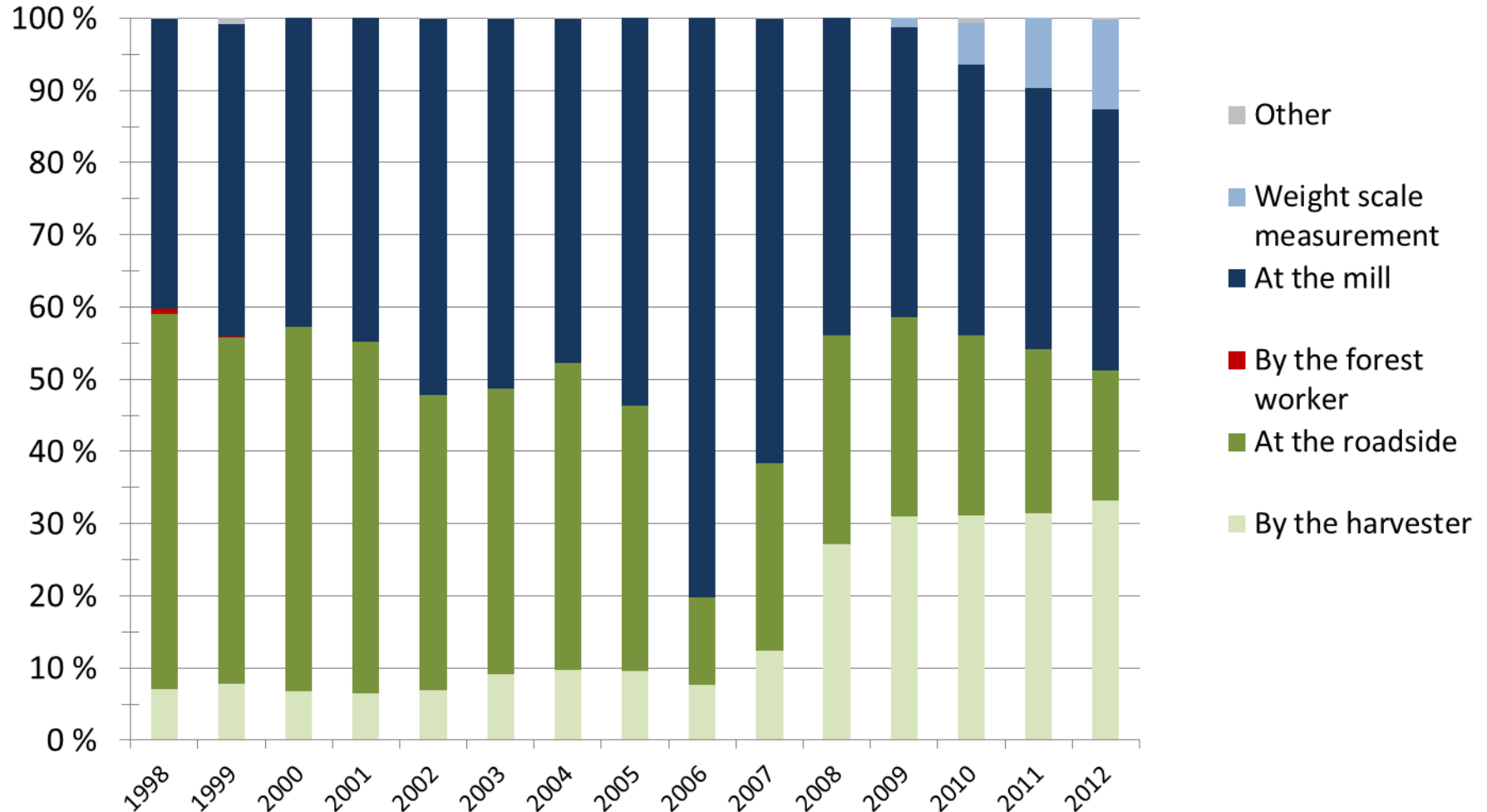
## Methods used for pulpwood measuring at the mills in 2012 (about 5.1 million m<sup>3</sup>)



## Proportions of different wood measuring methods in standing sales, 1998 - 2012



## Proportions of different wood measuring methods in delivery sales, 1998 - 2012



## Wood quantities and proportions of methods in 2012

### Private-owned forests

Method	Total, 1000 m <sup>3</sup>			Total, %		
	Standing sales	Delivery sales	Together	Standing sales	Delivery sales	Average
By the harvester	24 423	1 949	26 372	97,8	33,3	85,5
At the roadside	33	1 039	1 072	0,1	17,7	3,5
At the mill	321	2 136	2 456	1,3	36,5	8,0
Weight scale measurement	176	726	903	0,7	12,4	2,9
Other	24	9	33	0,1	0,2	0,1
<b>Total</b>	24 976	5 859	30 835	100,0	100,0	100,0

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

Method	Total	
	1000 m <sup>3</sup>	%
By the harvester	5 451	46,9
At the roadside	4	0,04
At the mill	6 139	52,8
Weight scale measurement	26	0,2
Other	1	0,01
<b>Total</b>	11 622	100,0

## Proportions of wood measuring methods, 1998 - 2012

### 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	
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
2012	98	0	0	1	1	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	
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
2012	33	18	0	36	12	0	100