

Bridge – WIM

In Sweden

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Bridge - WIM

- **Brief overview of the project**
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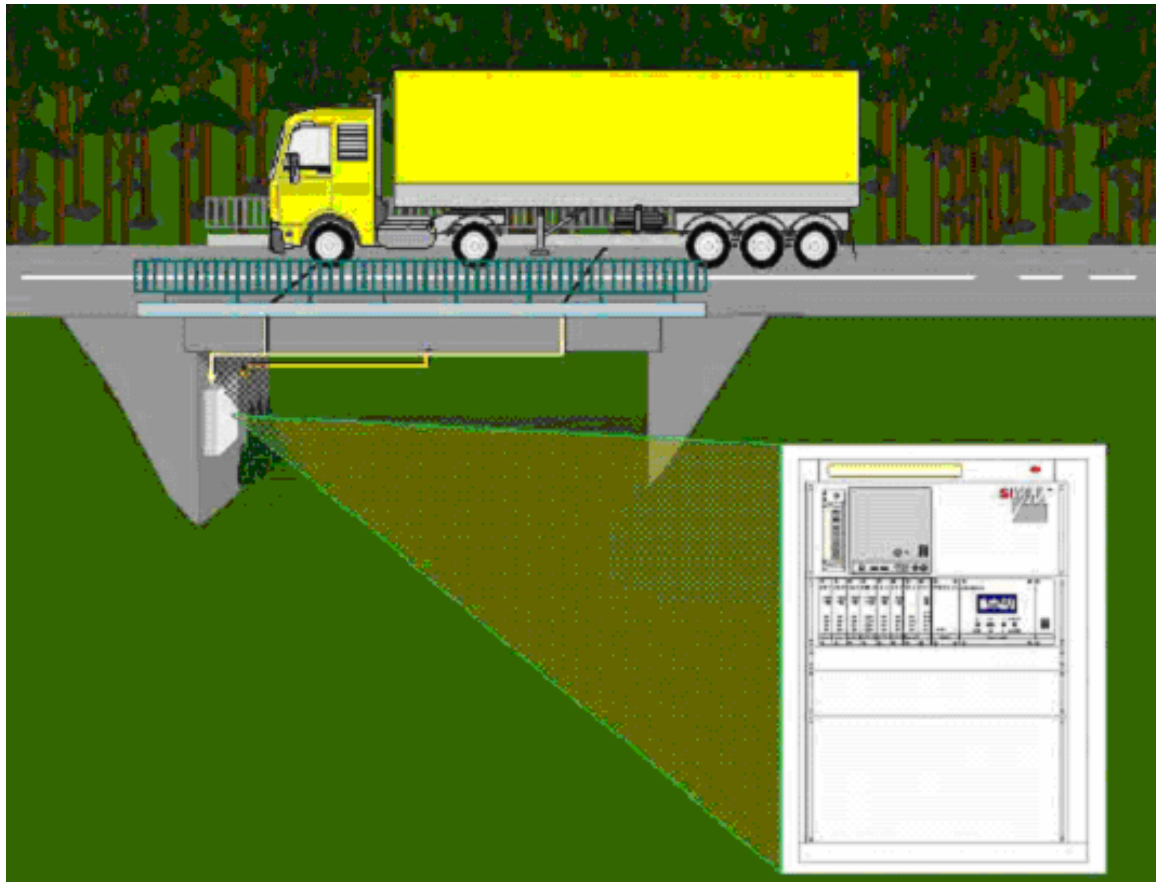
Brief overview of the project

- Test of a Slovenian BWIM system in 2001
- Two year project started in 2002 - 2003
 - Heavy vehicle mix on the road network
 - Loads
 - Overloads
- Evaluation
- Four year project 2004 - 2008

Project goals

- Evaluate the measuring system
- Try to develop a method for estimating loads from spot samples
- Evaluate load inputs for bearing capacity calculations
- Establish a "loading picture" for the network

The system used in Sweden



The system used in Sweden



The system used in Sweden



National sites in Sweden

- Measure in all of the regions
- Get data over four years
- Gain knowledge of actual loads
- Distribution of loads

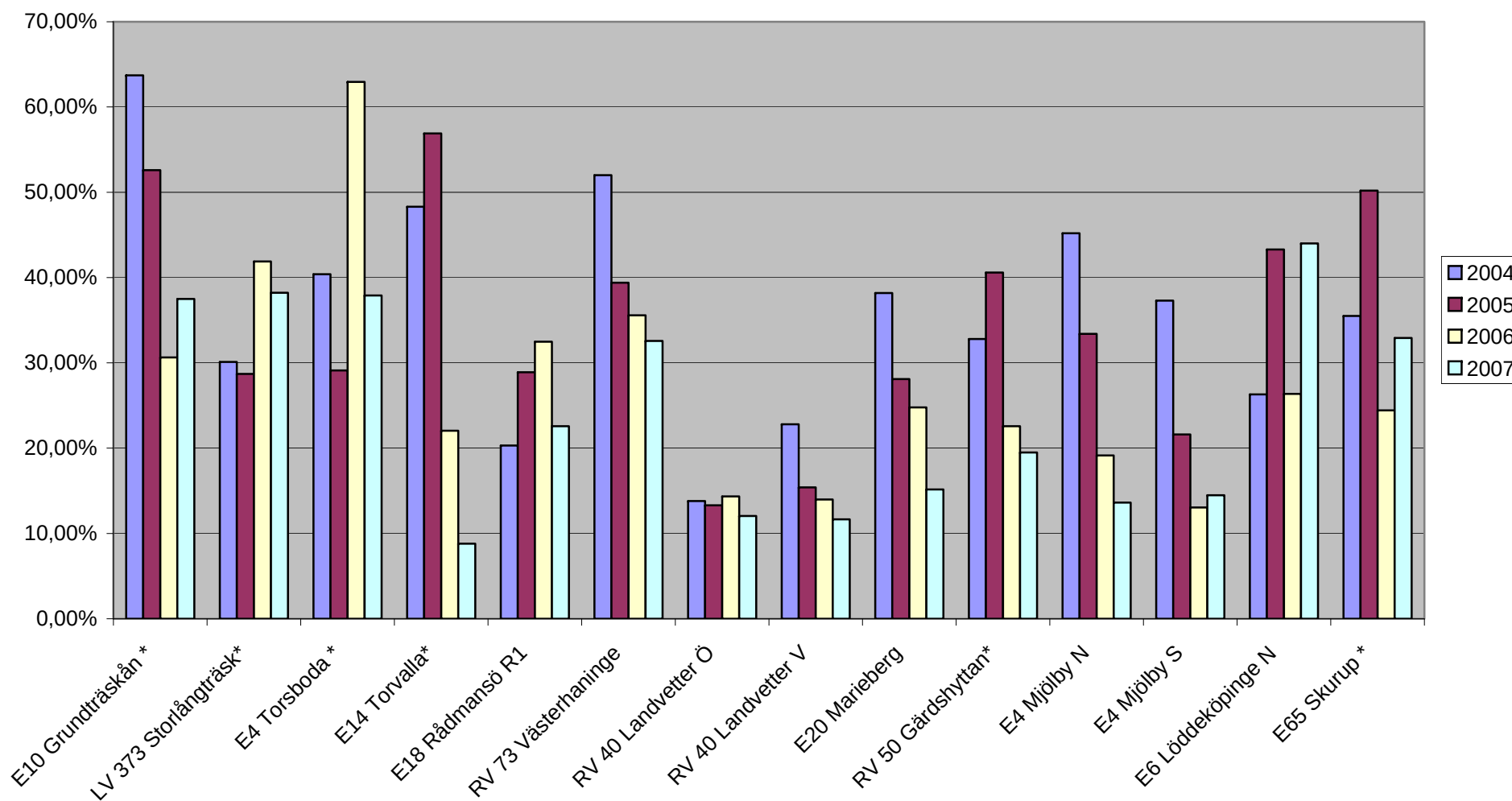


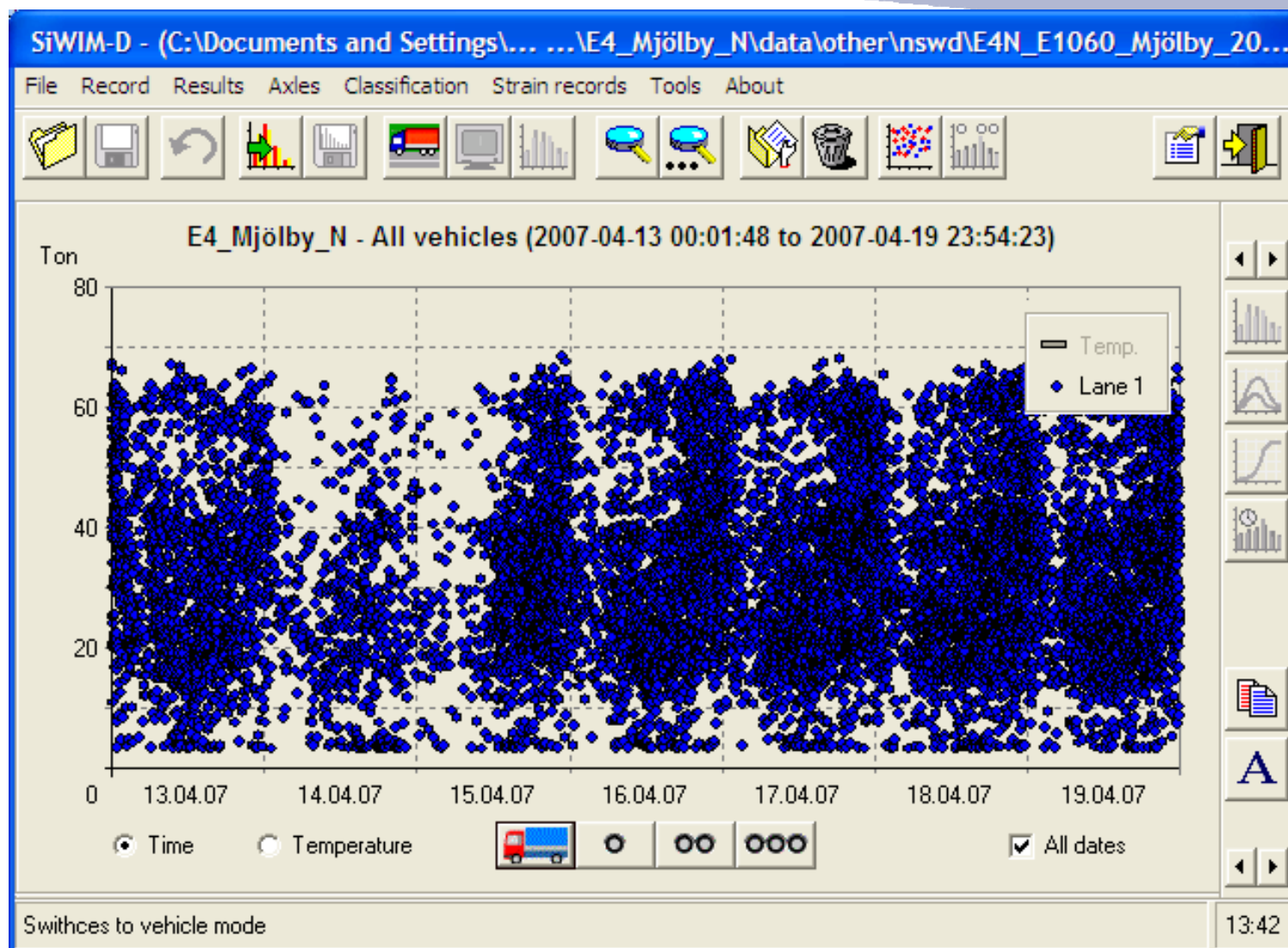
● National sites

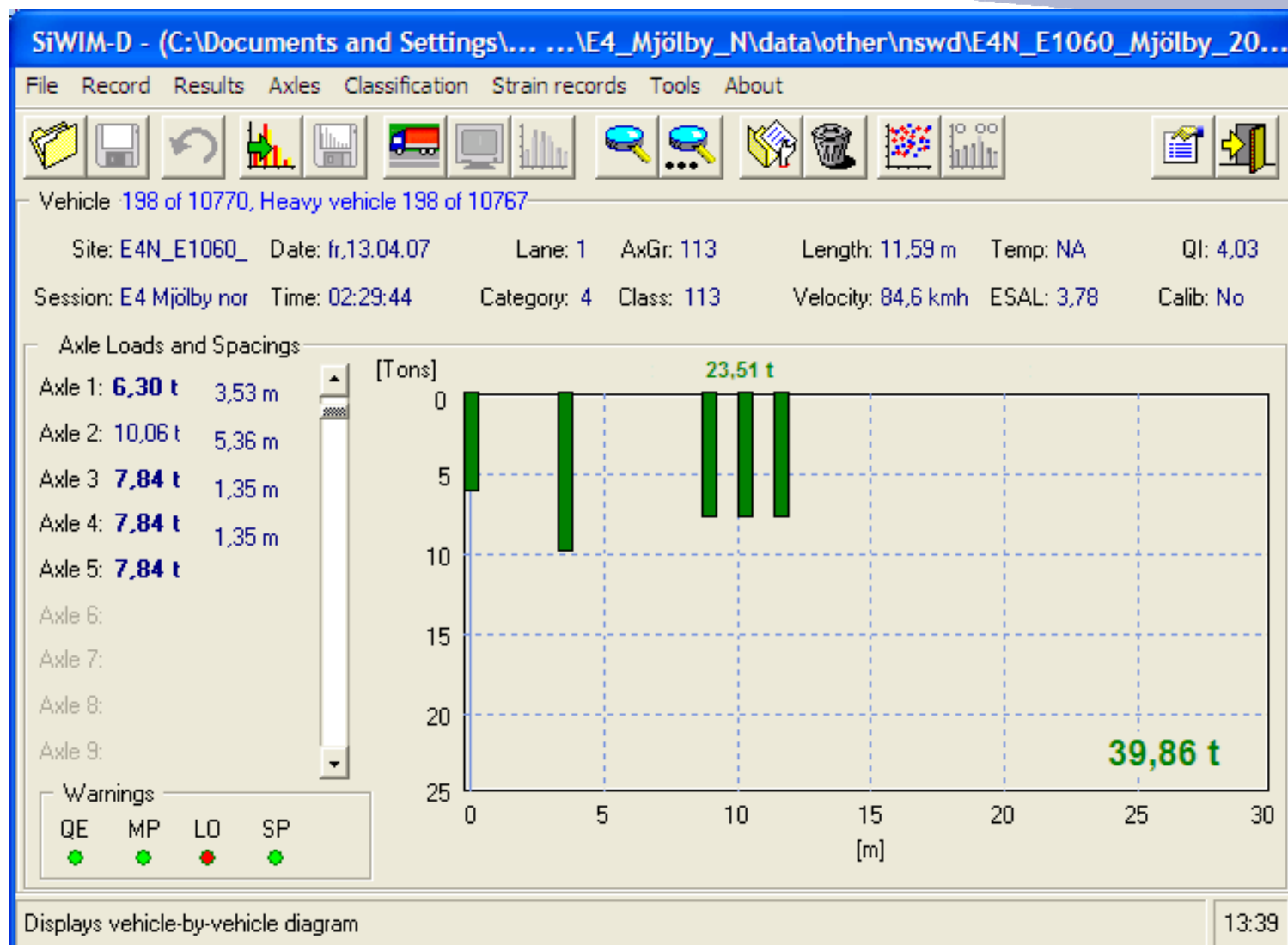
Results

	Antal	Weight [ton]	GVW Mean
<i>2004 National</i>	77 380	2 230 936	30,22
<i>2005 National</i>	77 917	2 262 921	29,04
<i>2006 National</i>	85 426	2 483 987	29,08
<i>2007 National</i>	90 676	2 716 820	30,20
	331 399 st	9 694 664 ton	29,63 ton
<i>2004 Regional</i>	42 012	1 123 162	26,73
<i>2005 Regional</i>	62 960	1 847 878	29,35
<i>2006 Regional</i>	68 327	1 918 559	28,08
<i>2007 Regional</i>	65 907	1 861 585	27,26
	239 206 st	6 751 184 ton	27,85 ton
<i>Total 04 - 07</i>	<i>570 605 st</i>	<i>16 445 848 ton</i>	<i>28,75 ton</i>

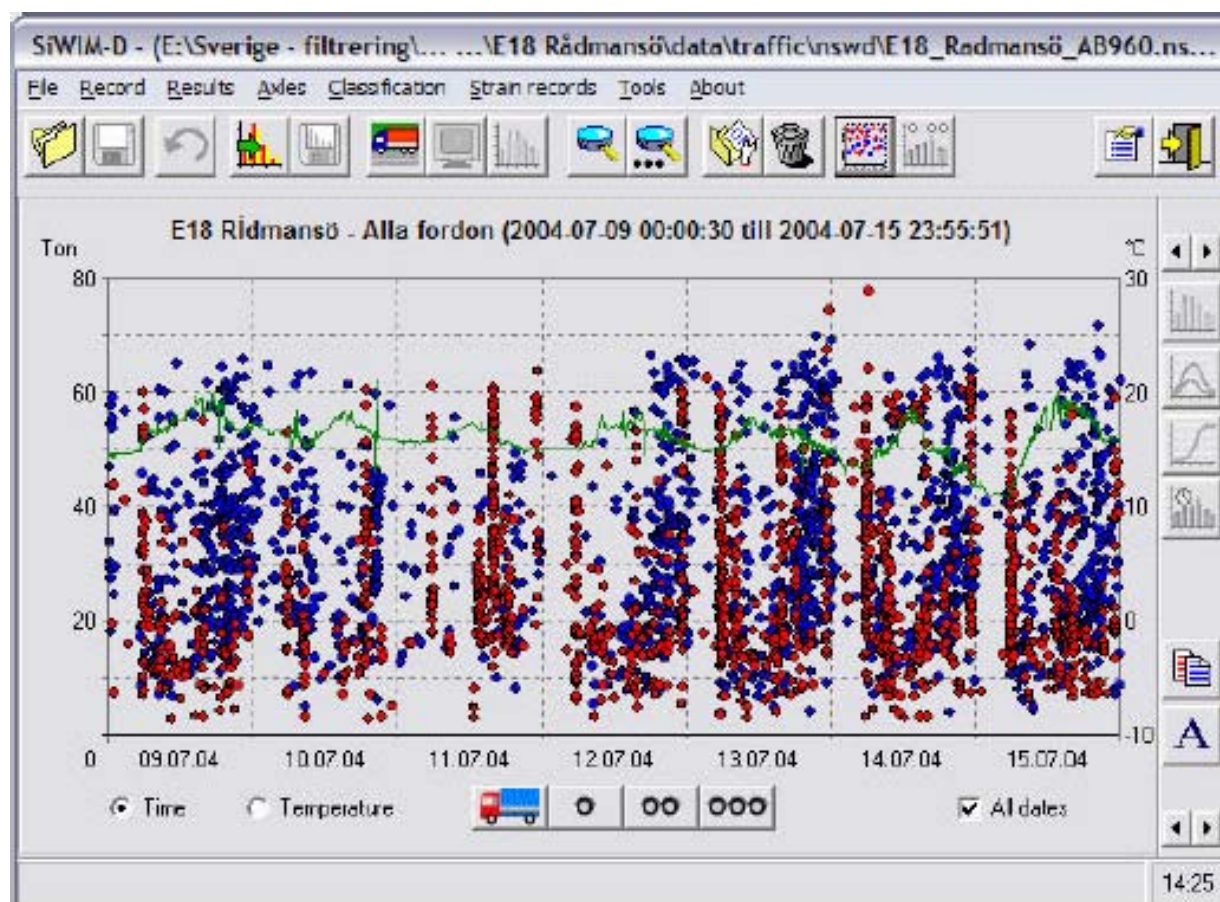
Results +35 tons 5% filter



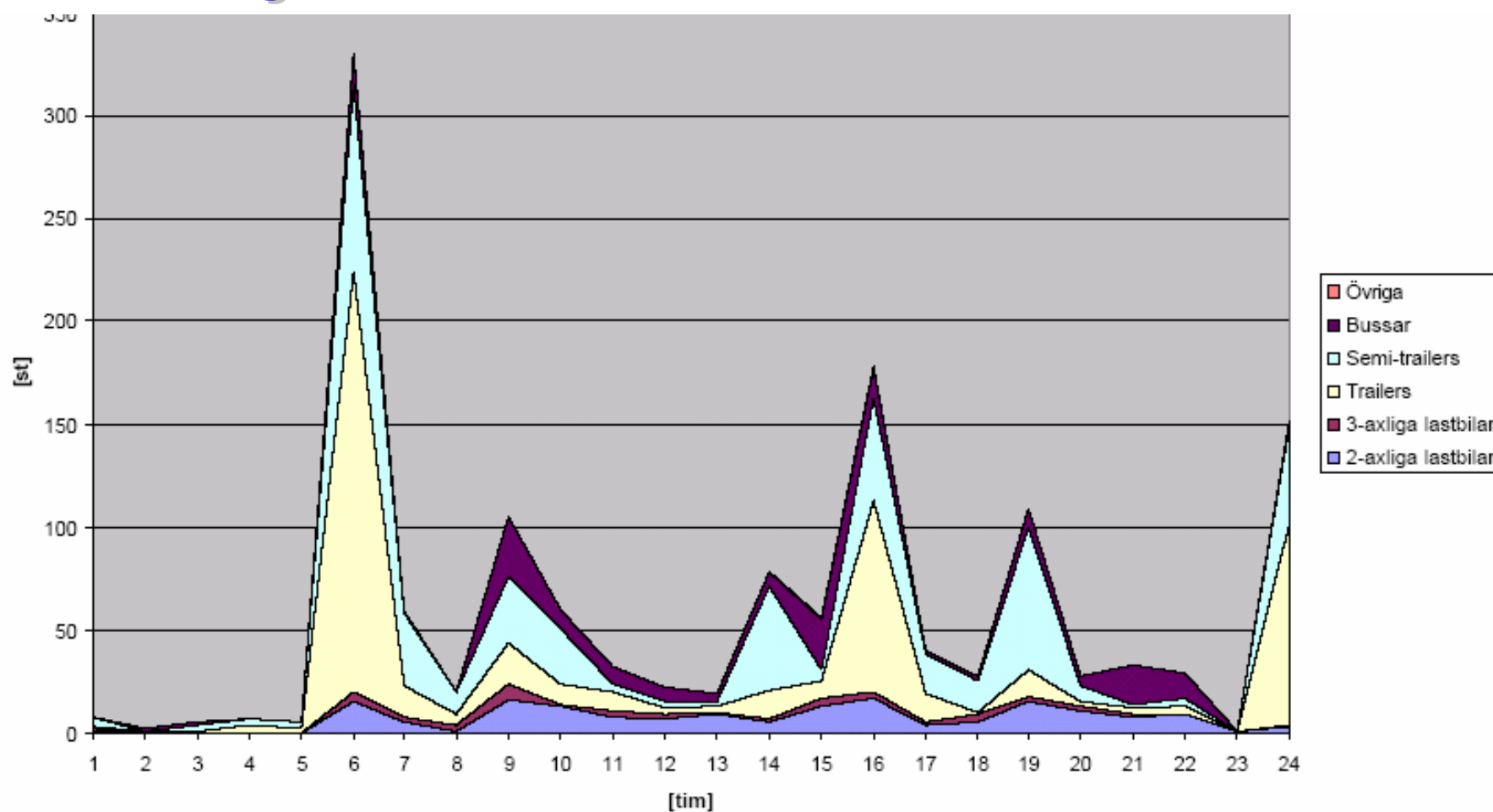




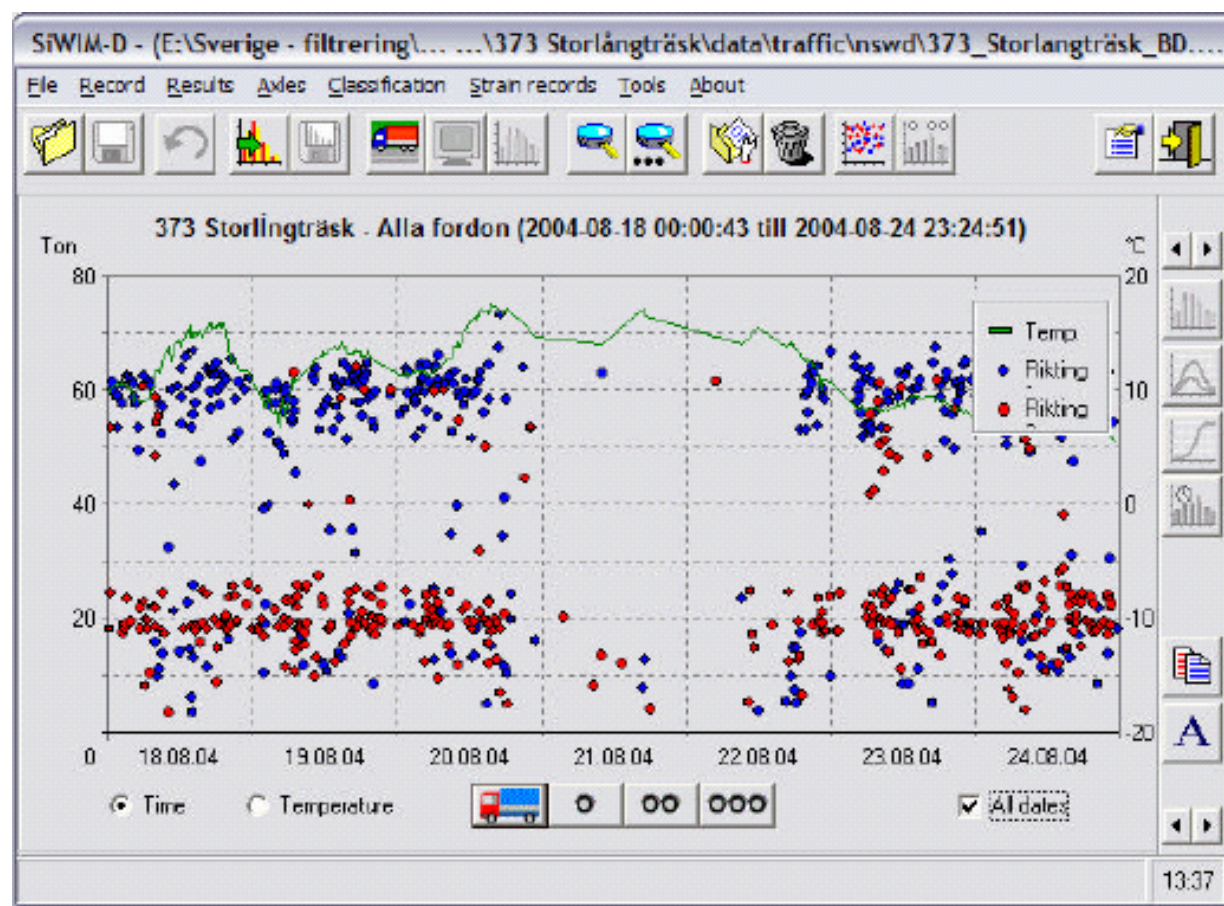
A ferry harbour



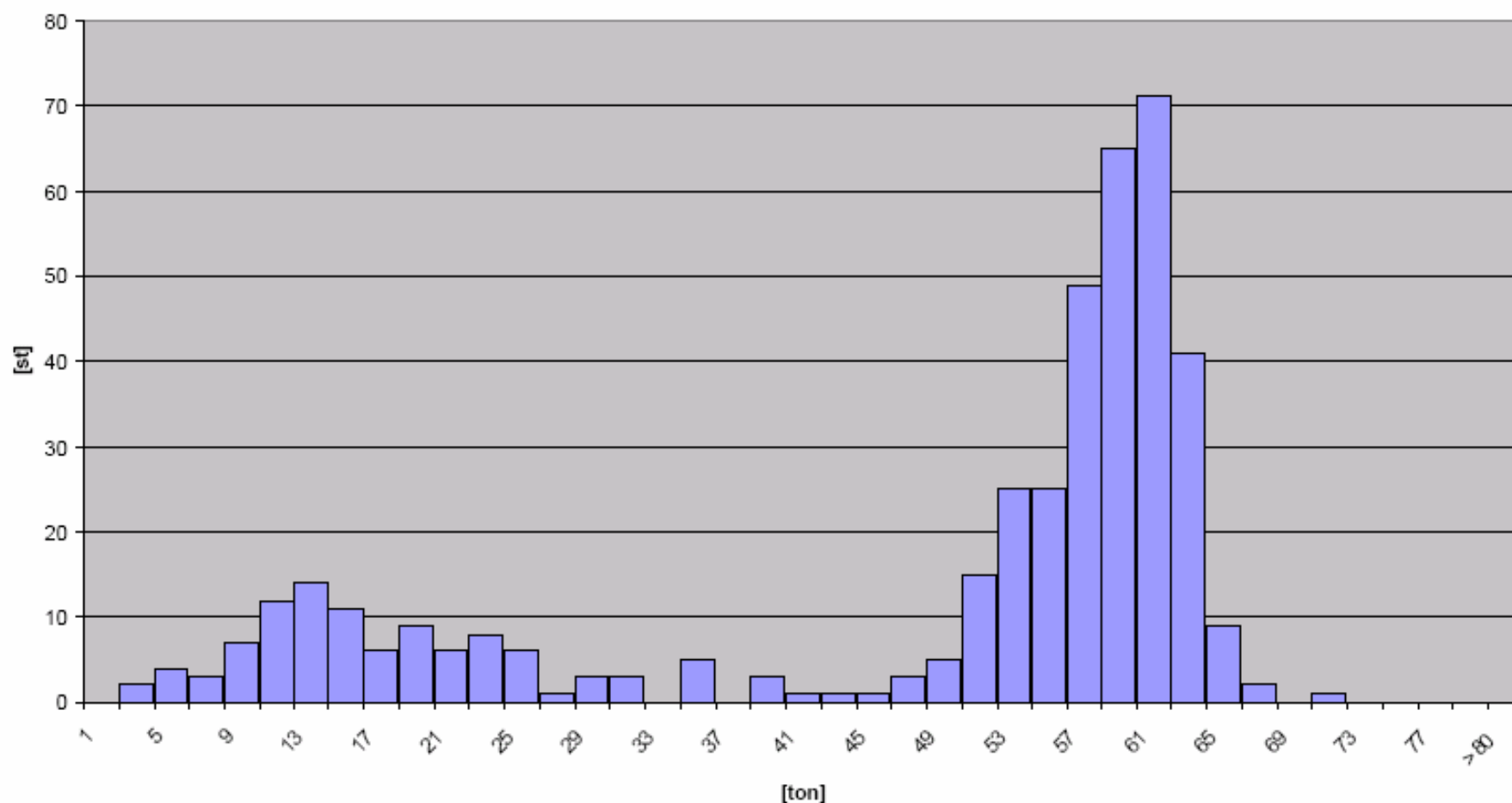
A ferry harbour – time distribution

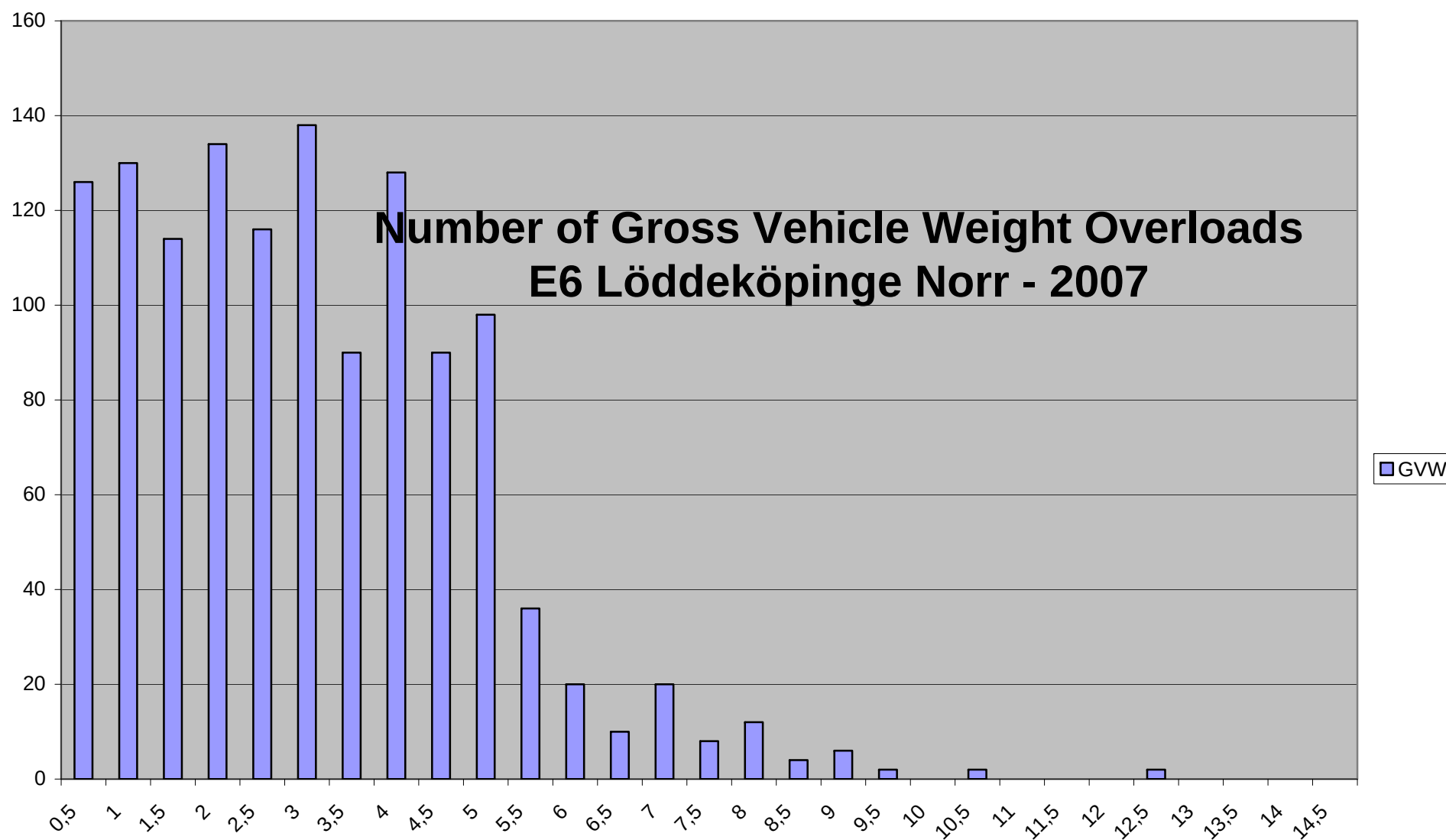


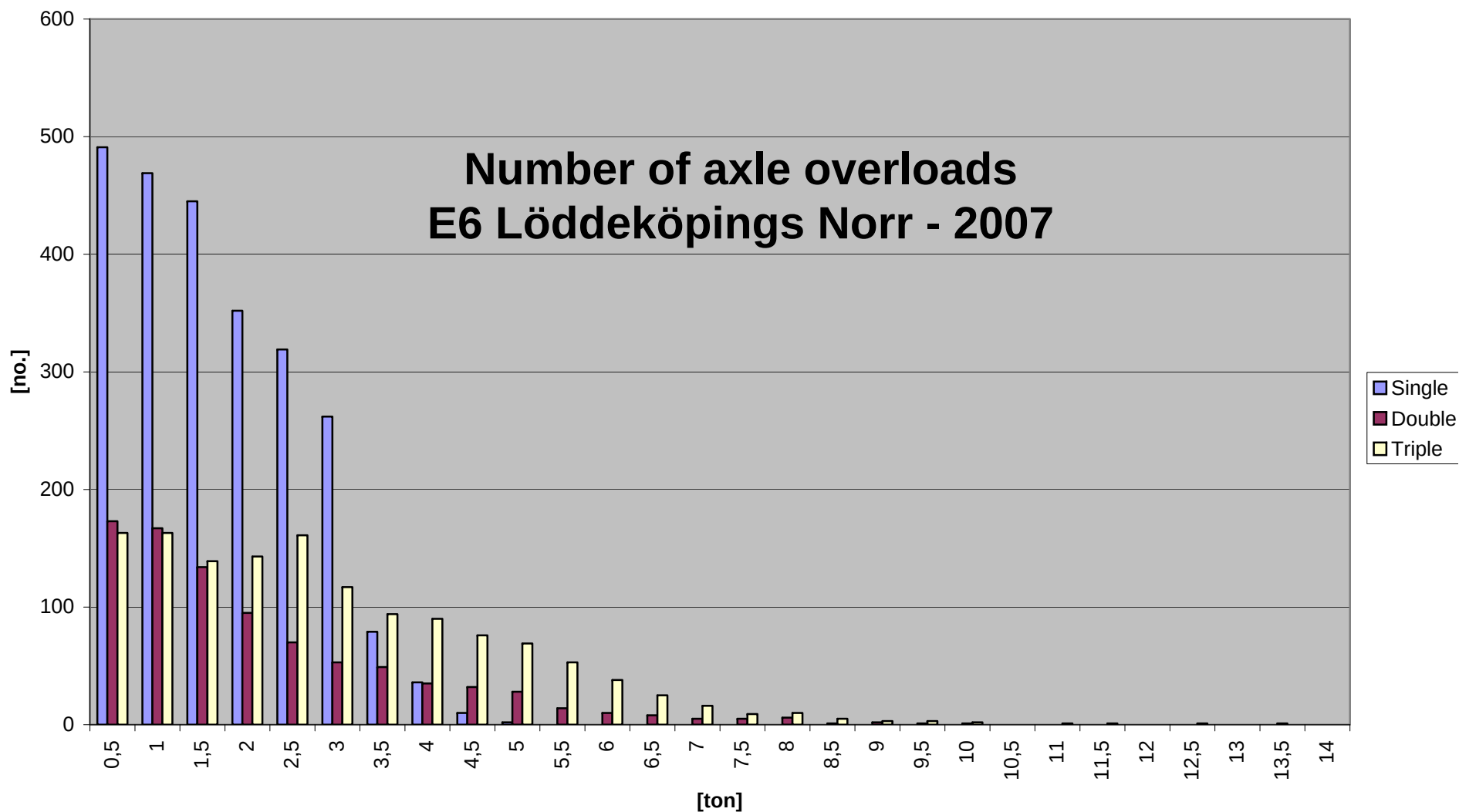
Road to a sawing mill



Road to a sawing mill – Load distribution







Tests with cameras 2007



Conclusions

- There is a problem with overloading
- The main problem is due to axle overloading
- The data can be used for new approaches in pavement design
- The systems works good for shorter measuring intervals
- The accuracy is good in the systems