The Norwegian Traffic Data System

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Presentation Outline

The Norwegian Traffic Data System
– Traffic Data
– Data Collection Structure
– Data Types and Format
– Map Solutions and Data Presentation
– Sensors and Equipment

– Test Sites
The Traffic Data System

• The main purpose of the nationwide road traffic data system is to provide traffic data with satisfactory quality for all national and county road network and prepare figures for traffic growth locally, regionally and for the country as a whole.

• All traffic links should have:
  – AADT (updated every year)
  – Proportion of heavy vehicles

• Traffic Index that shows the traffic growth
What is Traffic Data?
Request for Traffic Data

- AADT – Annual Average Daily Traffic
- Traffic Index
- Speed Index
- Different indexes for different areas and purposes
- Bicycle index for certain areas
- Agreement on growth in traffic in large cities
- Noise and air pollution analysis

Different requests → Different locations for traffic data collection
Data collection

Vehicles:
• Today we have approximately 10 000 registration points
• About 1700 are continuous registrations
• We plan to have about 3000 in the coming years

Bicycles:
• About 170 registration points today
• Expected increase to about 300 this year
Different registrations

● Continuous registrations
  – Vehicles
  – Bicycles

● Short term registrations
  – Vehicles
  – Bicycles
  – Pedestrians

● Manual registrations
  – Vehicles
  – Bicycles
  – Pedestrians
  – +++
Vehicles

- Point data
  - Traffic Volume
  - Speed
  - Classification

- Index
  - Road Traffic Index
  - Speed Index

- Section data
  - Annual Average Daily Traffic (AADT)
    - All vehicles
    - Cars (< 5.6 m)
    - Heavy vehicles ( > 5.6 m)
Classification

- General classification
  - Motorcycle, Moped
  - Passenger car, Light van
  - Truck or Bus
  - Passenger car with trailer or Light truck with trailer
  - Unclassified

- Length classification
  - Vehicle < 5,6 meter
  - 5,6 m ≤ veh < 7,6 m
  - 7,6 m ≤ veh < 12,5 m
  - 12,5 m ≤ veh < 16,0 m
  - 16,0 m ≤ veh

- Equipment specific classification

- NorSIKT classification
<table>
<thead>
<tr>
<th>Level</th>
<th>1</th>
<th>1 opt</th>
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<tbody>
<tr>
<td><strong>MV</strong></td>
<td>+ WC</td>
<td>+ WC</td>
<td>MC &amp; MP</td>
<td>+ WC</td>
<td>MC &amp; MP</td>
<td>+ WC</td>
<td>Moped “MP”</td>
<td>+ WC</td>
<td>Motorcycle “MC”</td>
<td>+ WC</td>
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<tr>
<td>Light motor vehicle</td>
<td>+ WOC</td>
<td>+ WOC</td>
<td>PC &amp; LGV</td>
<td>+ WOC</td>
<td>PC &amp; LGV</td>
<td>+ WOC</td>
<td>PC</td>
<td>+ WOC</td>
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<tr>
<td><strong>MV</strong> with coupled vehicle “MV + WOC”</td>
<td>+ WC</td>
<td>+ WC</td>
<td>+ WOC</td>
<td>+ WOC</td>
<td>+ WOC</td>
<td>+ WOC</td>
<td>Small LGV</td>
<td>+ WOC</td>
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<tr>
<td>LB (GVWR ≤ 3 ton)</td>
<td>+ WC</td>
<td>+ WOC</td>
<td>LB (GVWR ≤ 3 ton)</td>
<td>+ WC</td>
<td>LB (GVWR ≤ 3 ton)</td>
<td>+ WC</td>
<td>Big LGV</td>
<td>+ WOC</td>
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<tr>
<td><strong>MV</strong> with coupled vehicle “MV + WOC”</td>
<td>+ WC</td>
<td>+ WC</td>
<td>HGV, RT &amp; EMS (GVWR &gt; 3.5 ton)</td>
<td>+ WC</td>
<td>HGV, RT &amp; EMS (GVWR &gt; 3.5 ton)</td>
<td>+ WC</td>
<td>HGV</td>
<td>+ WOC</td>
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<tr>
<td>Heavy motor vehicle <strong>MV + WOC</strong></td>
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<td>+ WOC</td>
<td>RT</td>
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<td>HGV, RT &amp; EMS (GVWR &gt; 3.5 ton)</td>
<td>+ WC</td>
<td>+ WC</td>
<td>+ WOC</td>
<td>+ WOC</td>
<td>+ WOC</td>
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<td>EMS (VL ≥ 24 m)</td>
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</table>

* Motor vehicle “MV” with total weight ≤ 3 500 kg, GVWR ≤ 3 500 kg (except light bus “LB” GVWR ≤ 5 000 kg and all OMV)
* Motor vehicle “MV” with total weight ≥ 3 500 kg, GVWR ≥ 3 500 kg (except heavy bus “HB” GVWR ≥ 5 000 kg and all OMV)

VL = Vehicle length, WC = With a coupled vehicle, WOC = Without a coupled vehicle
Bicycles

- Point data
  - Volume
  - Speed

- Index
  - Bicycle Traffic Index for certain areas
App – Manual registration

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<td>Sykkel uten hjelm</td>
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<tr>
<td>2+ (personbil)</td>
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Map solution – Datainn

https://www.vegvesen.no/datainn/adm
Map solution – Historical / Static values

https://www.vegvesen.no/vegkart/vegkart/
Traffic Index - www.vegvesen.no

Landstotal 2017

Alle kjøretøy

Landsdelar 2017

Lette og tunga kjøretøy
Sensors – Mainly inductive loops

- Volume
- Speed
- Length
- Classification
- Gap
- Headway
- Occupancy
Piezo cables – Vehicles

- Volume
- Speed
- Number of axles
- Axle base / Axle spacing
- Axle load
- Gap
- Headway
Sensors – Mainly inductive loops for bicycles

- Volume
- Speed
- Length
- Gap
- Headway
- Occupancy
Piezo cables – Bicycles

- Volume
- Speed
- Number of axles
- Axle base / Axle spacing
- Axle load
- Gap
- Headway

Road side
Video detection – Bicycles

- Volume
- Speed
Test sites – Vehicles, bicycles and pedestrians
Thank you for Your attention!

Questions?

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