

Statens vegvesen

#### Capacity of two-lane rural roads

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# Capacity

- ..is a neglected field which we are about to set to work again
- Our guidelines are from 1990 and need to be updated
- Traffic is growing and we need to update our knowledge



## Maximum capacity

- 2-lane roads: 2800 veh/h in bouth directions
- Several lane roads: 2000 veh/h per lane



### The norwegian guidelines

| VEGSTR | EKNING | ER |   |
|--------|--------|----|---|
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| -      | -      |    |   |
|        |        |    |   |
|        | /      |    |   |
|        |        |    |   |
|        |        |    |   |



#### Road section

#### Intersection



# **Capasity on road sections**

- Based on a method developed about 1990 based on HCM from 1985
- Needs desperately to be updated





# Capacity in junctions

- From 1985
- Based on manual methods
- Needs desperately to be updated





# Further development

- Upgrade our methods based on the newest versions of HCM
- Capasity in junctions should probably be based on the SIDRA-model. But we need a good data base for nordic conditions.
- Simulating model for routs and traffic flow we have used CONTRAM. This model will not exist in the future.
- There are some alternativs available, but we dont have any experience with them.
- There exists no model for assessing service level on two lane roads



### Level of service



Servicenivå A





#### Servicenivå B Servicenivå C









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# Service of level with 3 seconds time gap

| Gj.snittlig<br>tids-luke i<br>sekunder | Avviklet<br>trafikk i<br>kjt/t | Avstand i<br>meter ved<br>60 km/t | Avstand i<br>meter ved<br>90 km/t |
|--|--------------------------------|-----------------------------------|-----------------------------------|
| 6.0                                    | 600                            | 100                               | 150                               |
| 5.0                                    | 720                            | 83                                | 125                               |
| 4.0                                    | 900                            | 67                                | 100                               |
| 3.5                                    | 1030                           | 58                                | 88                                |
| 3.0                                    | 1200                           | 50                                | 75                                |
| 2.5                                    | 1440                           | 42                                | 63                                |
| 2.0                                    | 1800                           | 33                                | 50                                |
| 1.5                                    | 2400                           | 25                                | 38                                |

