HIGH SPEED 2+1 ROADS
KENNETH KJEMTRUP
DANISH 2+1, 90KM/H, NO CYCLISTS
DANISH 2+1, 100KM/H?

- Guard rail or no guard rail between opposing traffic?
GERMANY, 2+1, 110KM/H AND 100KM/H

- EKL 1, 100km/h

- EKL 2, 100km/h
SWEDEN, 2+1, 100/110KM/H
NORWAY, 2+1, 90KM/H
THE NETHERLANDS, 2+1, 90/100KM/H
RISC FOR HEAD ON COLLISIONS?

- Sweden: Guard rail for ADT> 4000 v/d
- Norway: Guard rail for ADT> 8000 v/d
- Germany: Guard rail considered for ADT 12,000-22,000 v/d
- The Netherlands: Guard rail, normally and no ADT limit for 2+1 roads.
- Denmark: ADT> 8000- 16000 v/d
ACCIDENT STATISTICS, SWEDEN
ACCIDENT STATISTICS, DENMARK
SOCIO ECONOMICAL BALANCE

- Based on Swedish accident rates for 2+1 roads with speed 90km/h and 100km/h on roads with level crossings, the socio economical calculation showed that guard rail should be established on 100km/h 2+1 roads with ADT > 5000 v/d
DANISH, 2+1, 90KM/H AND 100KM/H
2+1 ROAD, 100KM/H OR MOTORWAY?

2+1 vej med 90 km/h

2+1 vej med 100 km/h

4-spore motorvej med 110 eller 130 km/h
SOCIO ECONOMICAL BALANCE BETWEEN 2+1, 100KM/H AND MOTORWAYS