



Uheldsmodeller på DTU Transport - nu og fremover

Hels, Tove

Publication date:
2011

Document Version
Også kaldet Forlagets PDF

[Link back to DTU Orbit](#)

Citation (APA):
Hels, T. (2011). Uheldsmodeller på DTU Transport - nu og fremover [Lyd og/eller billed produktion (digital)]., 01/01/2011

DTU Library

Technical Information Center of Denmark

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

***Workshop om uheldsmodeller
Trafitec
29. november 2011***



Uheldsmodeller på DTU Transport – nu og fremover

Tove Hels, ths@transport.dtu.dk

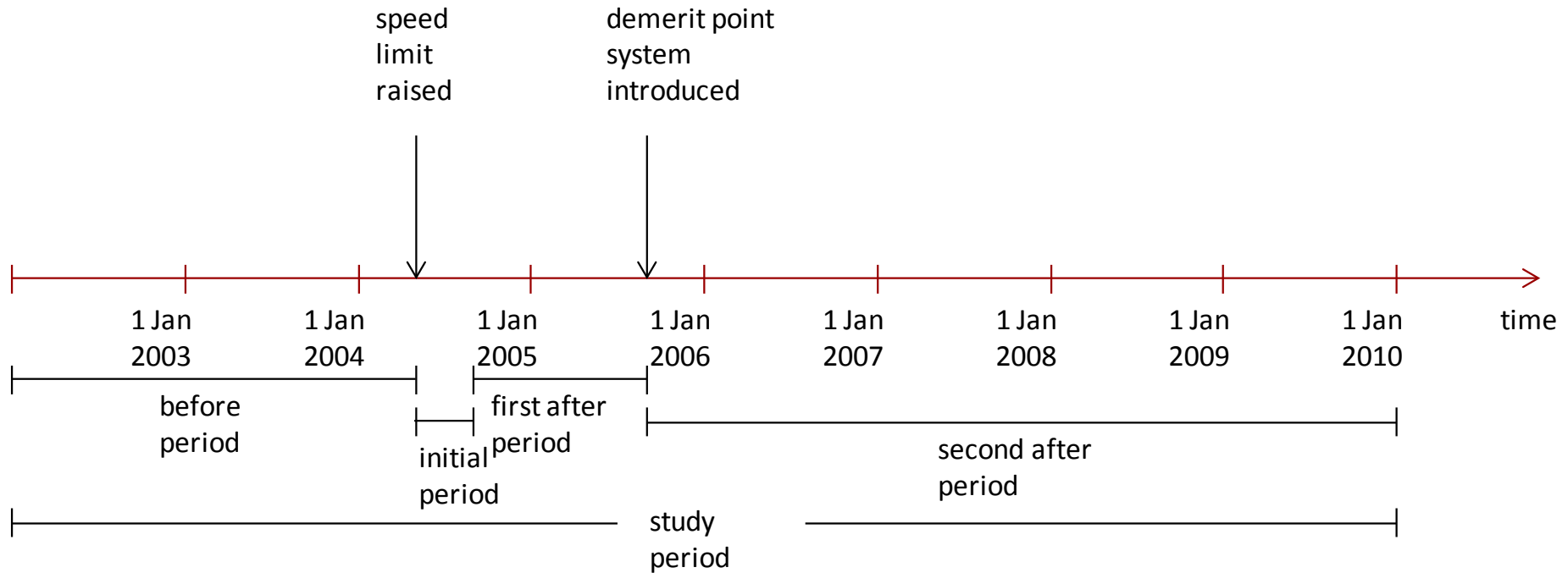
Emner

- 'Deskriptiv' modellering
- Modellering af hastighed og uheld
- Disaggregeret modellering, trafikanten i centrum
- Vejtypemodellering, vejtypen i centrum
- Tidsseriemodellering, det aggregerede antal uheld pr. tidsenhed er i centrum



'Deskriptiv' modellering

130 km/t på motorvejene



'Deskriptiv' modellering

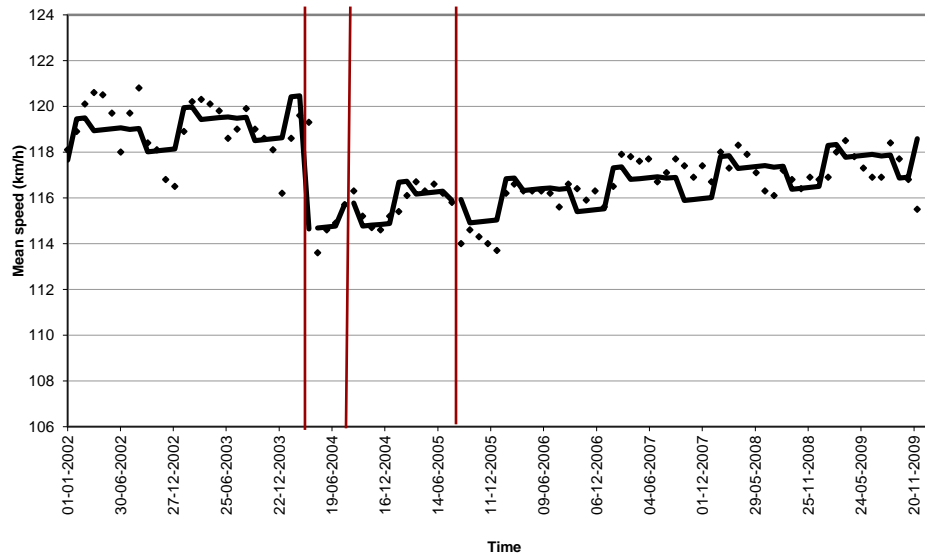
Model	Variable	Value	Estimate	Significance	
Y: mean speed (km/h)	intercept		111.84	P<0.0001	
X:	road type	110-road:	5.72	P<0.0001	
		130-road:	6.70		
		Cph-road:	ref.		
	month		0.04	P<0.0001	
	season	winter:		ref.	P<0.0001
		spring:		1.76	
		summer:		1.16	
		autumn:		1.05	
	period + (road type * period)	110 road	before:	ref.	P<0.0001 (period)
			initial:	-5.27	
			after 1:	-4.23	
			after 2:	-4.56	
		130 road	before:	ref.	P<0.0001 (road type* period)
			initial:	-1.19	
			after 1:	-0.45	
after 2:			-0.35		
Cph road		before:	ref.		
		initial:	-4.37		
		after 1:	-3.54		
		after 2:	-4.52		

F-value= 545.56, R-square= 0.97, N=275.

Deskriptiv modellering

Hastighedsudvikling på

110 motorveje

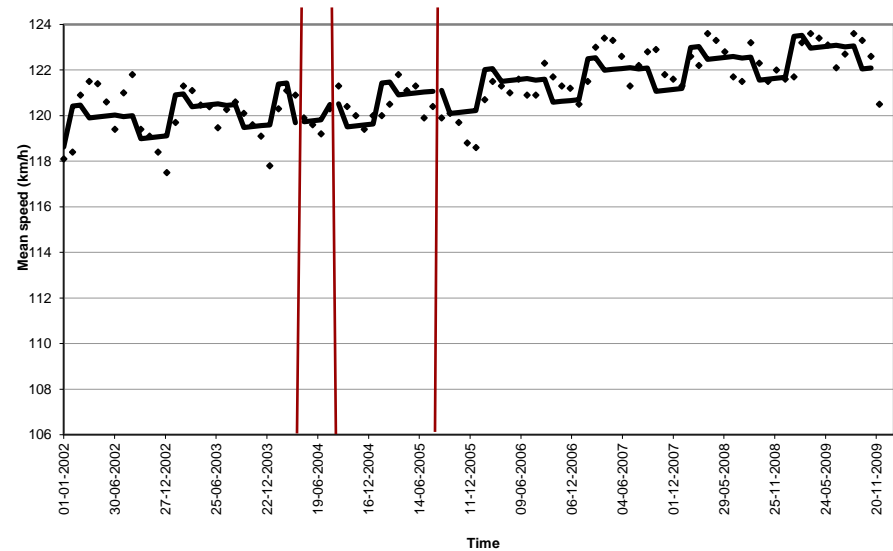


før

initial efter1

efter2

130 motorveje

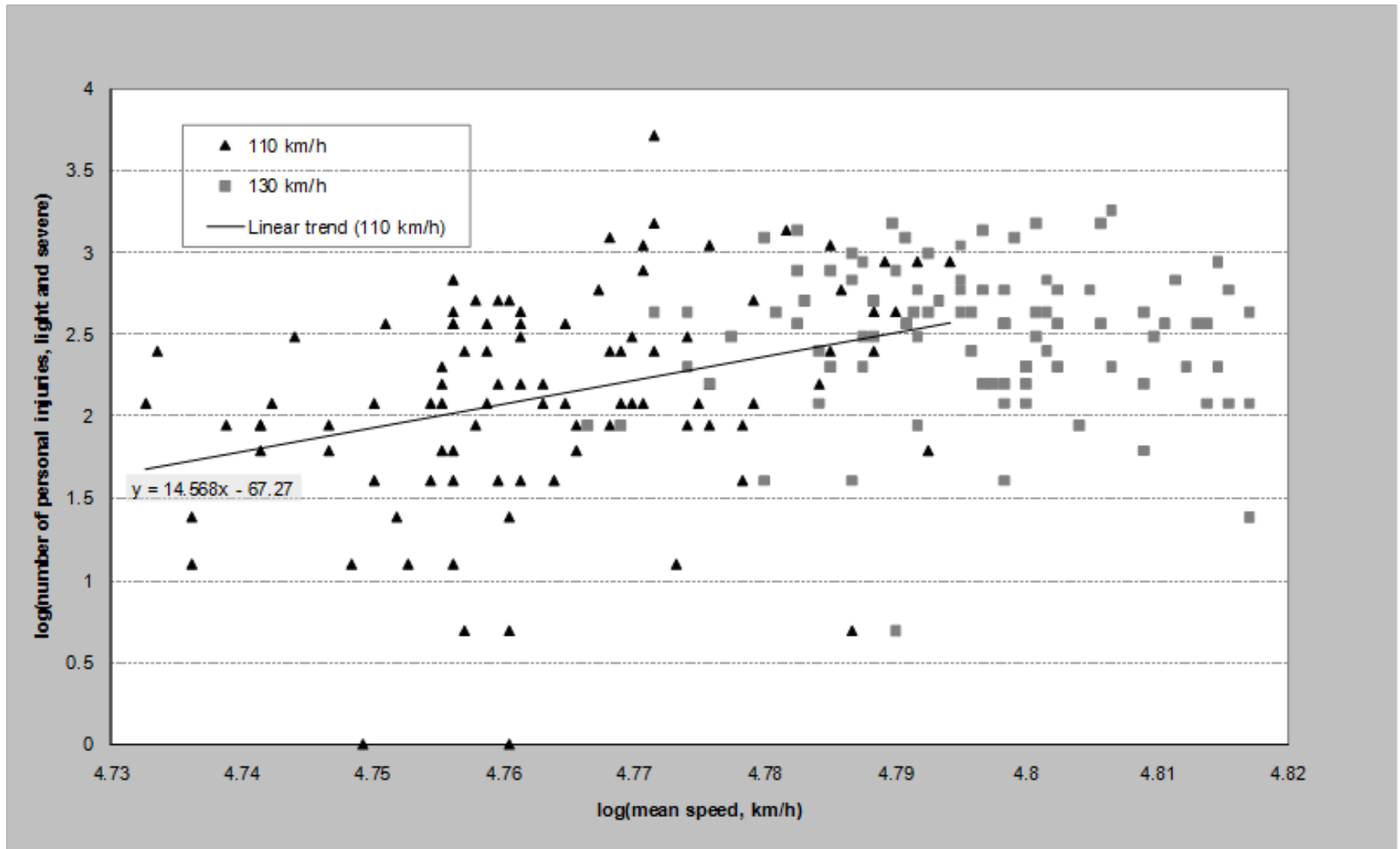


før

initial efter1

efter2

Hastighed-uheld modellering



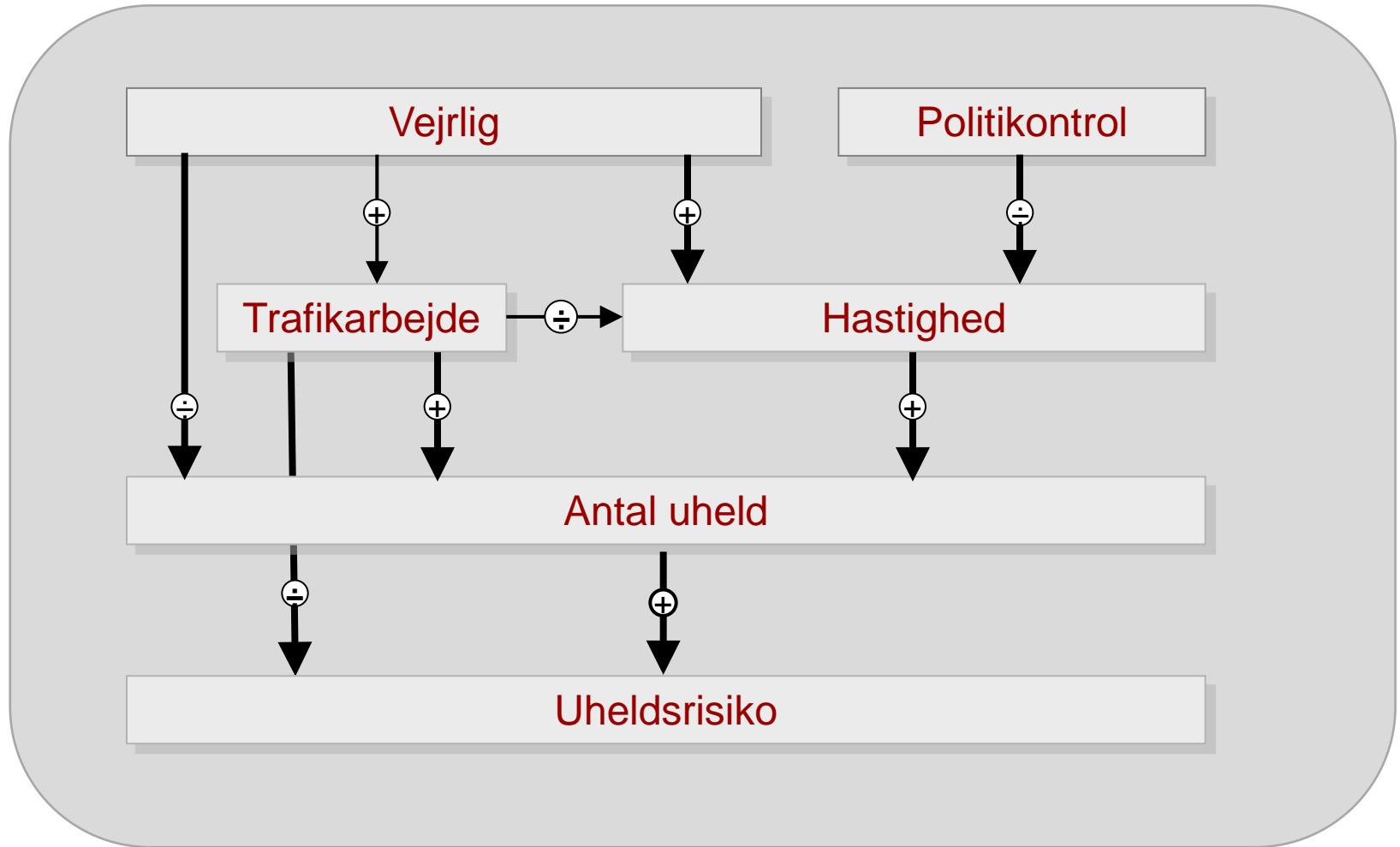
Hastighed-uheld modellering

Potensmodellen

$$\frac{uheld_{\text{efter}}}{uheld_{\text{før}}} = \left(\frac{hastighed_{\text{efter}}}{hastighed_{\text{før}}} \right)^x$$

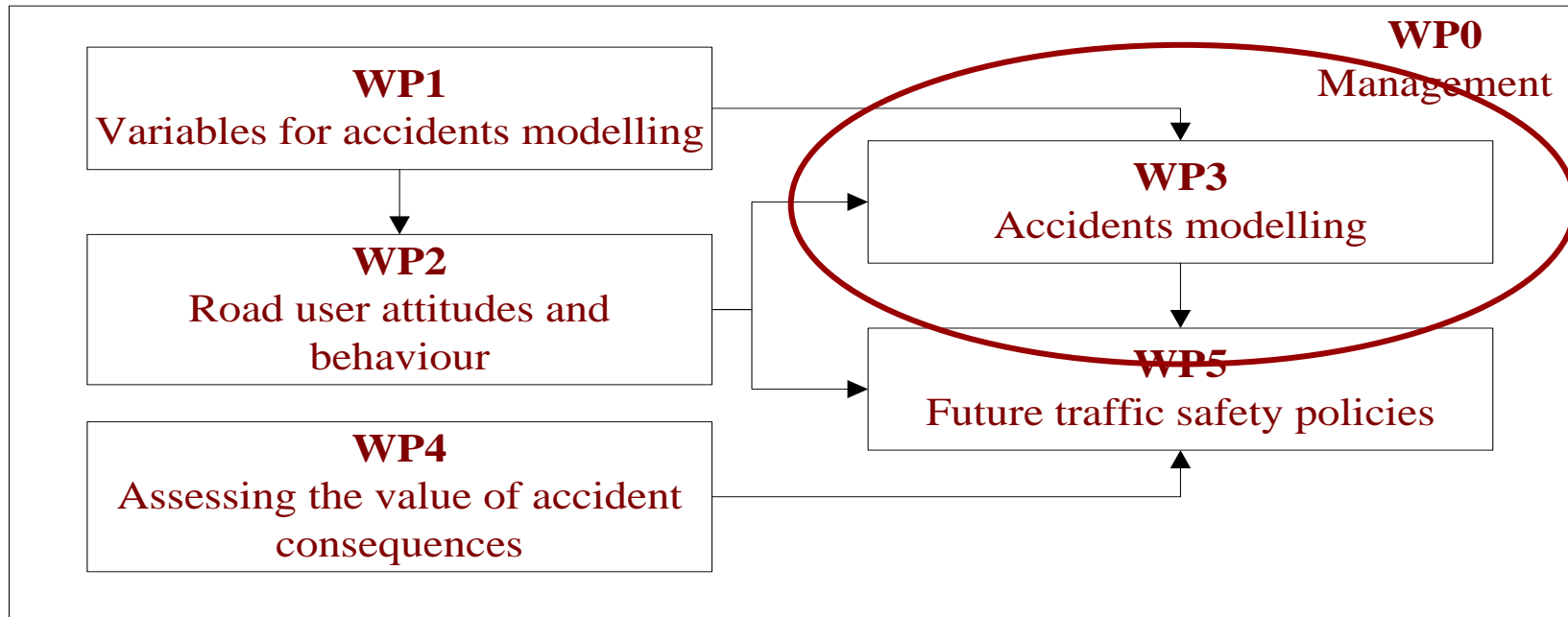
		Exponent in the power model		
Road type	Variables	Exponent from Elvik (2009)	Exponent without a control group	Exponent with a control group
130 motorways	PIA-1	1.6	-31.2	-71.5
	PIA-2		28.0	-79.3
	Injuries-1	2.2	-15.7	-61.2
	Injuries-2		32.9	-83.3
110 motorways	PIA-1	1.6	10.5	6.2
	PIA-2		10.2	2.4
	Injuries-1	2.2	18.1	6.7
	Injuries-2		-1.5	5.9

Hastighed-uheld modellering



Uhheldsmodellering

IMPROSA



Uheldsmodellering

IMPROSA

- Disaggregeret modellering, trafikanten i centrum
- Vejtypemodellering, vejtypen i centrum
- Aggregeret modellering (tidsserier), det aggregerede antal uheld pr. tidsenhed er i centrum



Uheldsmodellering unikke data

- **Uheldsdata**

- politiregistrerede uheld
- skadestuedata - Odense
- Landpatientregistret

- **Transportvaneundersøgelsen - eksponeringsdata**

- **Socioøkonomiske og demografiske data på individniveau (Danmarks Statistik)**

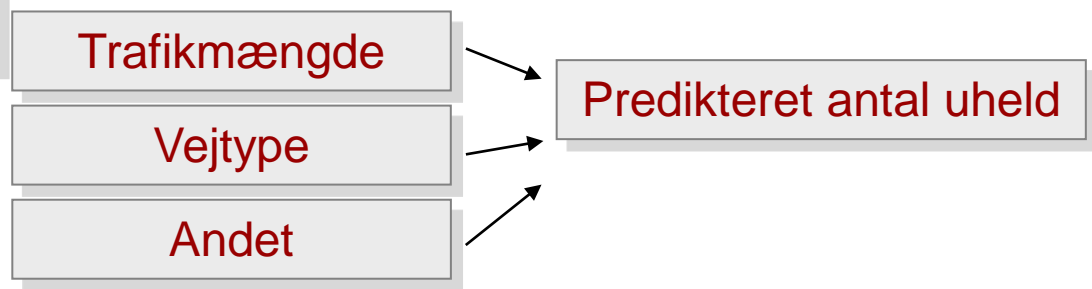


Uheldsmodellering

Disaggregeret modellering

- Eksponerings- og risikotendenser som funktion af individuelle variable:
- trafikantadfærd (acceptans af risiko, hastighedsvalg, biltypevalg, etc.)
 - trafikantens alder, erfaring, uddannelse, etc.

Vejtypemodellering



Aggregeret modellering

- Eksponerings- og risikotendenser som funktion af samfundstendenser:
- brændstofpriser, BNP, billetpriser til kollektiv trafik,...
 - længde og kvalitet af vejnettet
 - større ændringer i lovgivning og politikontrol



Tak for opmærksomheden...

*Tove Hels,
ths@transport.dtu.dk
DTU Transport*