



The **HTAS** Innovation Programme

Erik van de Burgwal

SenterNovem EG-Liaison

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High Tech Automotive Systems



HTAS Brief history

Selection of areas with opportunities



Focus and ambition

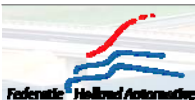


Vision and strategic agenda



Innovationprogramme

Innovation in
dialogue



High Tech Automotive Systems



HTAS

Innovation programmes

- Food and Nutrition Delta
- **High Tech Automotive Systems (HTAS)**
- High Tech Systems and Materials
- Chemistry
- Life Science and Health
- Maritime
- Point One (nano-electronics and embedded systems)
- Watertechnology



HTAS

Key figures

- Start in 2007, with a duration of 4 years
- Total input 158 M€ from all stakeholders
- 42 M€ from Ministry of Economic Affairs

- R&D programme
- Enabling programme (Education, Knowledge transfer and Business Support)



HTAS Objectives

- 20% reduction of fuel consumption + CO2 for HD-vehicles
- 25% reduction of travelling time
- Increased traffic safety
- More jobs (+ 10.000 FTE)
- Growth of turnover from 12 Billion € to 20 Billion € in 20105



HTAS National cluster overview

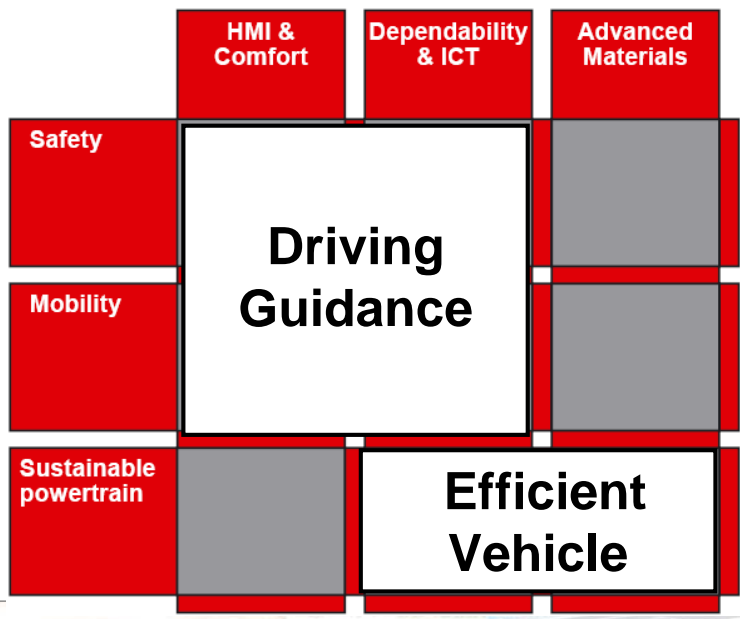


HTAS

Focus of Holland Automotive

ENABLERS →

↑
DRIVERS



High Tech Automotive Systems



2007

HTAS Programme

Industry

SME's

Invest
5 yr Plan Efforts
158 M€

Programme	Focus area	Theme	Goal
R&D	Driving Guidance	Connected Car	25% reduction in travel time
		Vehicle Dynamics Control	
		Integrated HMI	
Vehicle Efficiency		Eff Powertrain	20% increase in fuel efficiency
		Light Contructions	
Enabling	Transfer & Education	Education	A - business platform & 100% increase A - students
		Knowledge Transfer	
		Business Support	

ROI
4 billion € TO
10.000 FTE's
Key technology

KI's

Government

High Tech Automotive Systems





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The R&D programmes



High Tech Automotive Systems

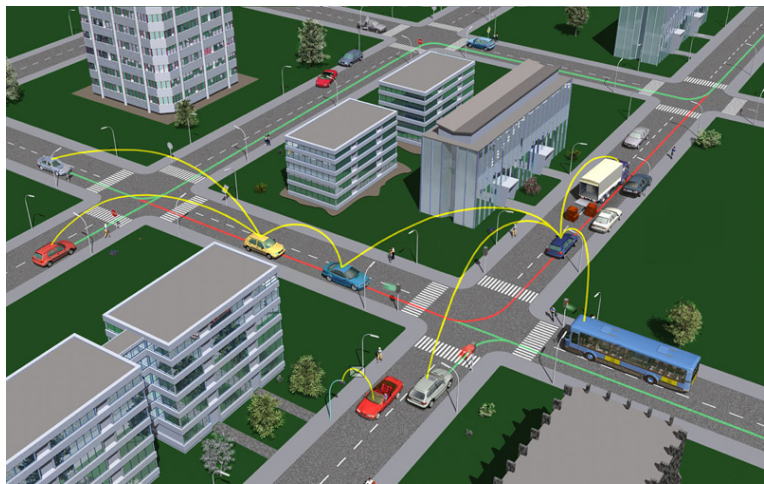
empowered by the Ministry of Economic Affairs



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Connected Car

Closed in-car environment will be opened up with 2-way communication



High Tech Automotive Systems

empowered by the Ministry of Economic Affairs

HTAS

Vehicle Dynamics Control

- preventing accidents -



Vehicle Stability



Vehicle Handling



Active Steering



Steer-by-Wire



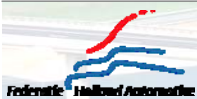
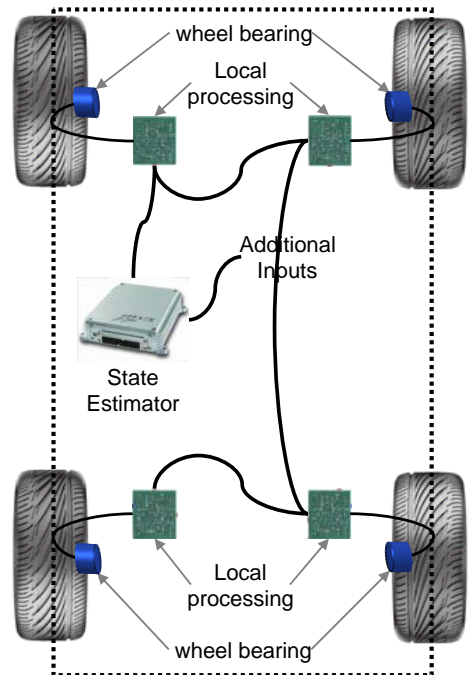
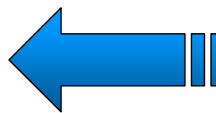
Brake-by-Wire



Active Roll Control



Vehicle Parameters

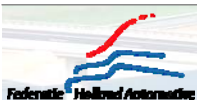
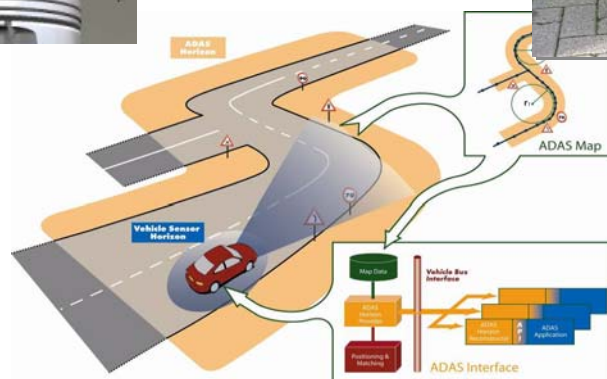


High Tech Automotive Systems



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Efficient Powertrain



High Tech Automotive Systems



HTAS Innovation projects

- HTAS International Innovation projects
 - International cooperation (~25% foreign partners)
 - Product- or process-innovation
 - Max. 1 M€ contribution
 - Eureka label
- HTAS Breakthrough projects
 - Min. 1 Research institute and 1 SME
 - Multidisciplinary, breakthrough technologies
 - Max. 2 M€ contribution



HTAS Innovation projects

More information
www.htas.nl
www.senternovem.nl/automotive

Or contact mr. Anton Wolthuis
Manager HTAS Innovation Programme
wolthuis@htas.nl

