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Agency
For energy
And the
environment

Policy implementation through governmental promotion

Experiences in the Netherlands

Frans Nieman

Senior Program Manager
Novem / Sustainable Transport

October 24, 2002

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Content

- Governmental goals and objectives on LPG / CNG
- Policy implementation
- Instruments and strategies
- Conclusions
- Lessons learnt

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Governmental goals and objectives

- Reduction of emissions :
 - CO₂ - greenhouse effect
 - Noise hindrance
 - NO_x - especially in urban areas
- According Kyoto protocol



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Urban Areas



- Focus on air pollution, air quality
- Public health aspects
- Stimulate usage of fuels with less NO_x - emissions

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Original targets for LPG/CNG

(in % of vehicles)

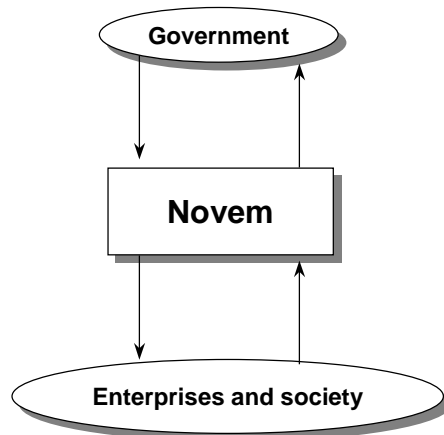
	<u>1997</u>	<u>2010</u>
Busses	1%	60% – 75%
Trucks	-	30% - 60%
Vans	2%	2% - 10%
Waste vehicles	-	40% - 60 %
Taxi's	30%	40%

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Implementation through an agency



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Strategy

- Quieter, Cleaner and more Efficient Transport in Urban Areas (1995)
 - technology innovations in components, vehicles and fuels
 - technology innovations in logistics, planning and routes
 - technology innovations in transportation systems

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Elements of the program

- Feasibility studies
- Research
- Development
- Experiments
- Demonstrations



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Public-private partnership

- Co-operation between:
 - National government
 - Local authorities
 - Automotive industry
 - Transport companies



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Experiences with LPG / CNG

- Approx. 30 projects in past 5 years
- Most of them dealing with research and development and experiments
- Focus on public buses and trucks
- Retrofit on diesel, dedicated engines

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Infrastructure refuelling facilities



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Achievements (I)

- LPG and CNG
 - Retrofit systems for cars; 6 % of carpark on LPG
 - Dedicated engines available for busses, vans and taxis
 - Retrofit engines for trucks and waste collection vehicles
 - Various demonstration projects

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Achievements (II)

- Good performance on reduction of NO_x, particles and noise.
- Excellent driveability
- Comfort for the driver

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Conclusions

- More operational costs involved
- Initial investment is higher
- Important reason: no mass volumes produced
- Initial targets not completely achieved

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Lessons learned

- Realistic targets to be set
- Government support necessary for longer term (not only financial)
- Unfamiliarity with alternative fuels
- Involve all stakeholders in an early stage

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Finally

- LPG/CNG have enormous positive impact on local air quality and public health but require investments
- Co-operation and commitment between all parties involved is necessary
- Be optimistic, stay realistic

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**Thank you for your
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