



GAZ Workshop in Trondheim, Norway

Green Activity Zones

Trond Foss

November 21, 2011

Background





The GAZ principle



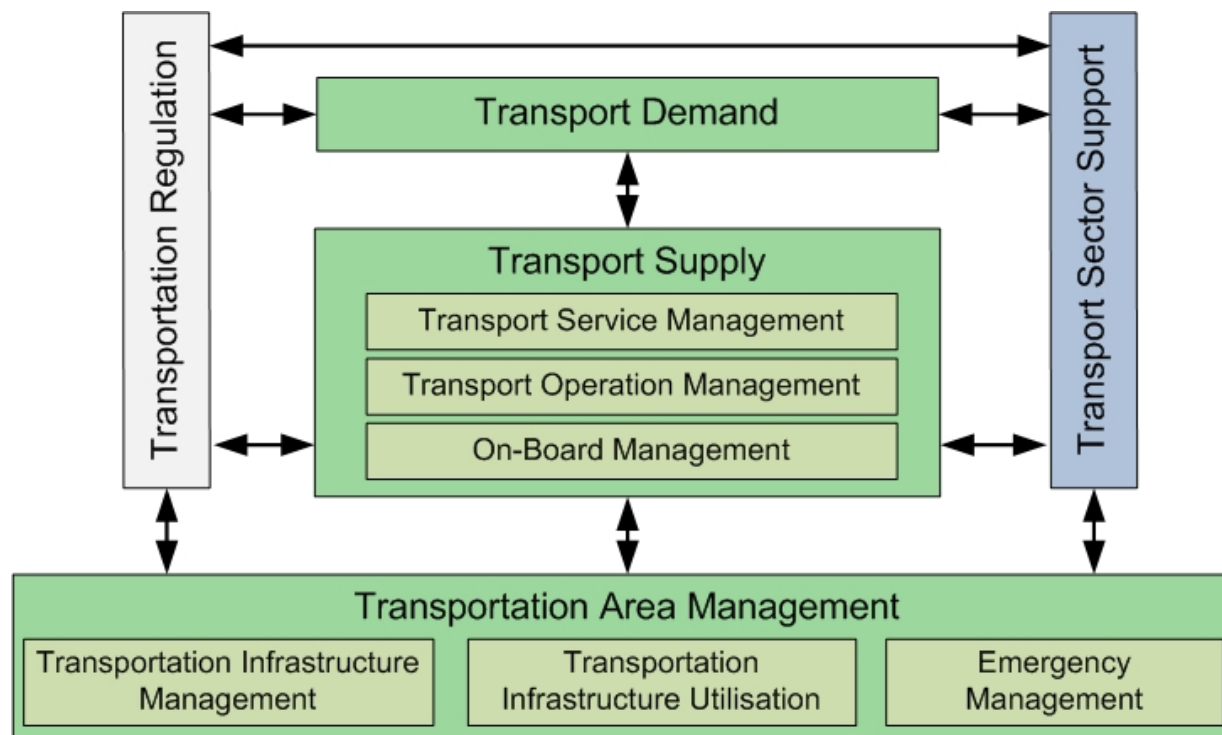


The GAZ project main objectives

- Contribute to a more fair distribution of costs to commercial traffic
- Contribute to a more optimal usage of commercial vehicles inside green zones
- Raising awareness of environmental friendly solutions
- Describe the incentives this type of system may offer to the planning and execution of transport services
- Provide increased knowledge about technological solutions and computation methods
- Improve the generation of statistics on freight transport in urban areas



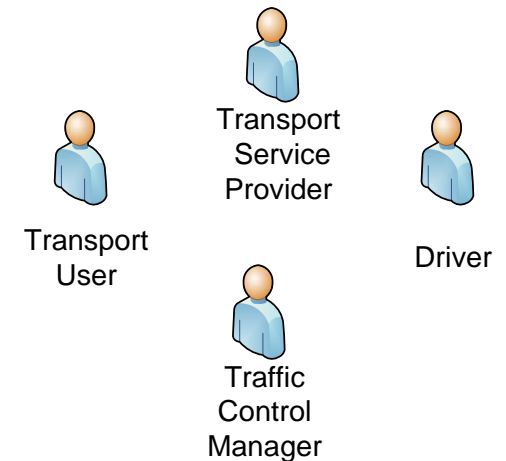
ARKTRANS reference model





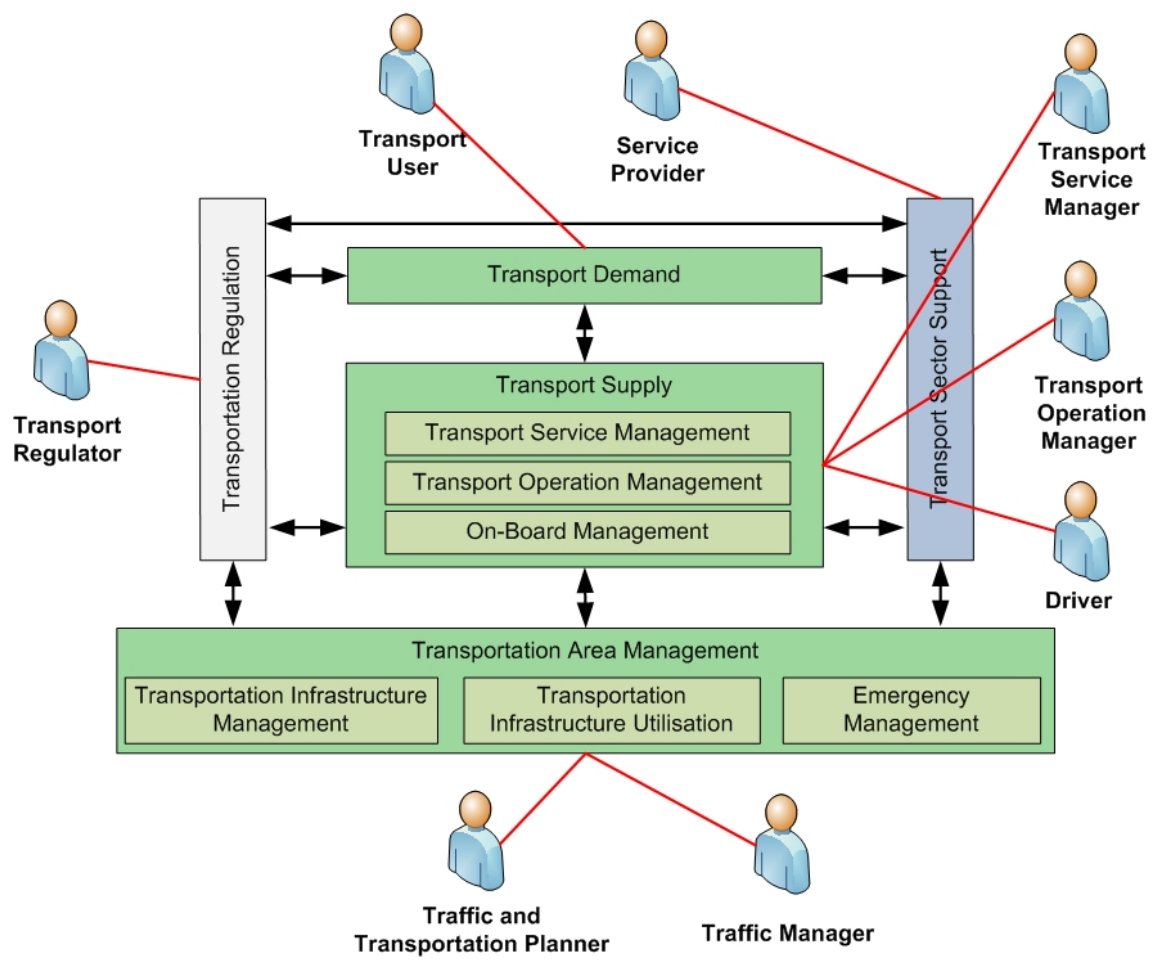
Why a GAZ role model?

- It is an abstract model of any set of stakeholders related to the GAZ charging system
- It describes and allocates the responsibilities to the different roles
- The responsibilities are used for defining the functionality of the GAZ system - which role wants what **from** the system and which role has to provide what **to** the system?
- The definition and allocation of functions lead to the definition of the information flows between the roles
- Roles can be allocated to any configuration of real world actors
- Roles can be used for defining the business cases and commercial rules between the roles independent of which actors that take which of the role responsibilities



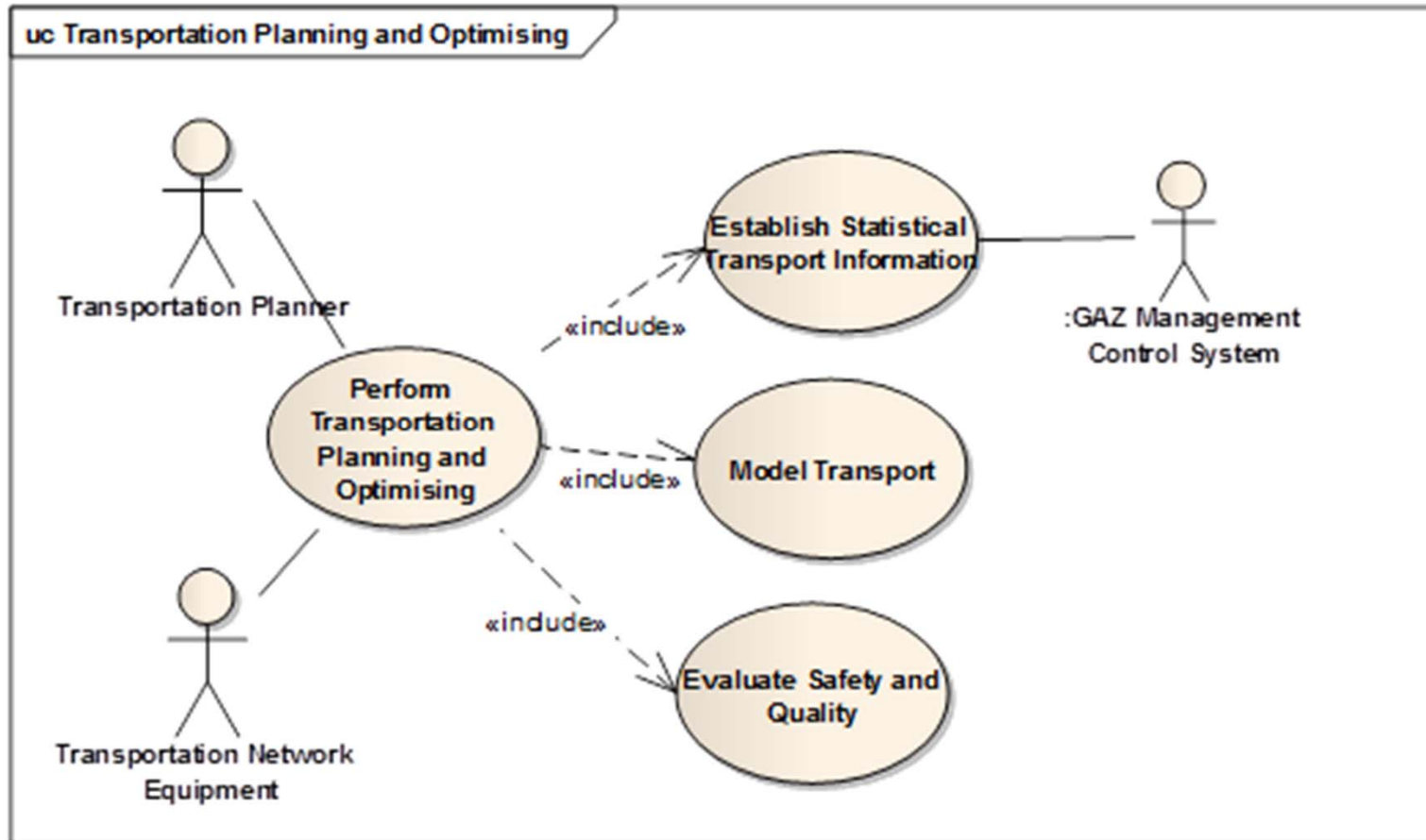


The GAZ Role model



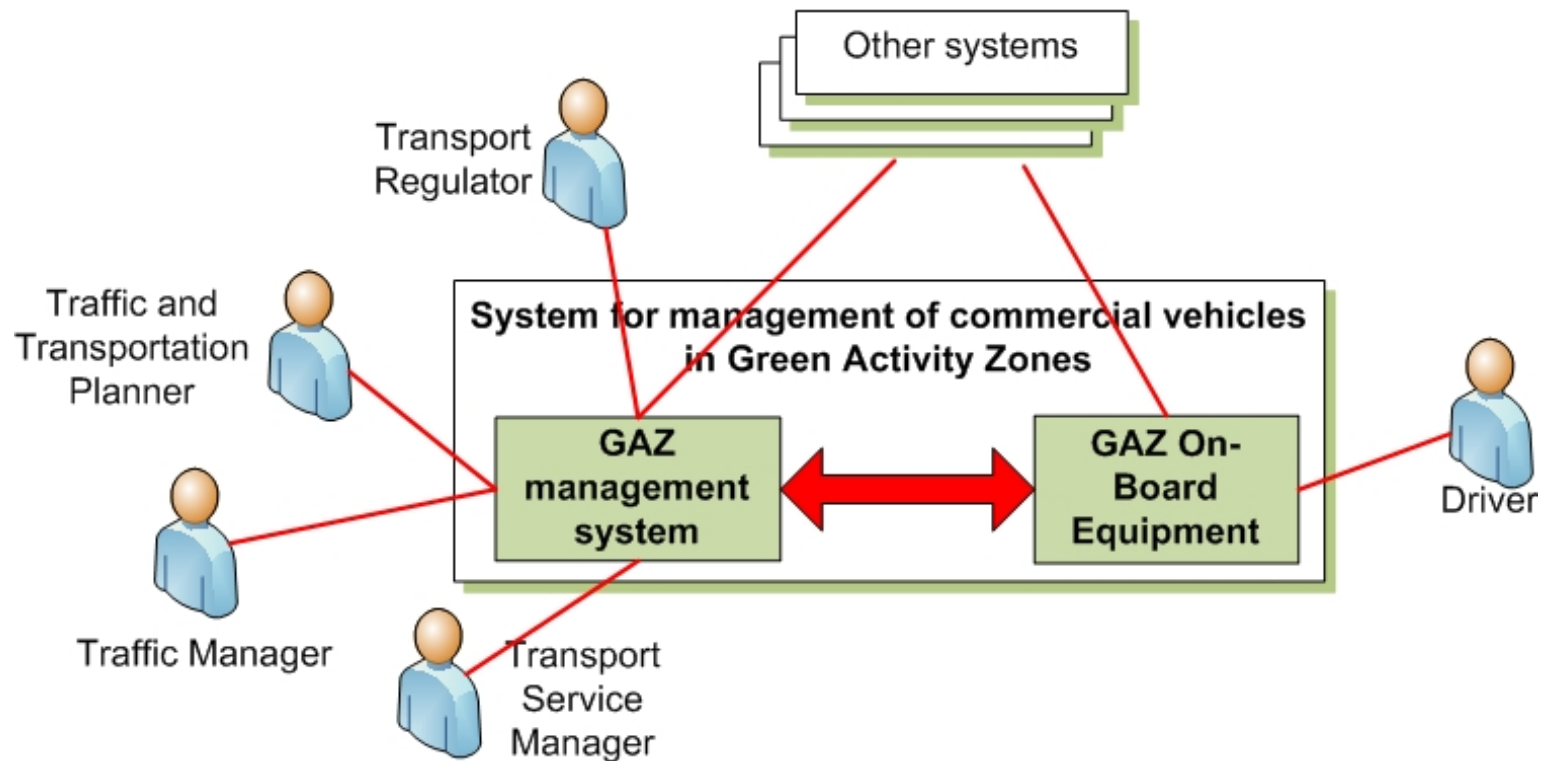


Functional architecture



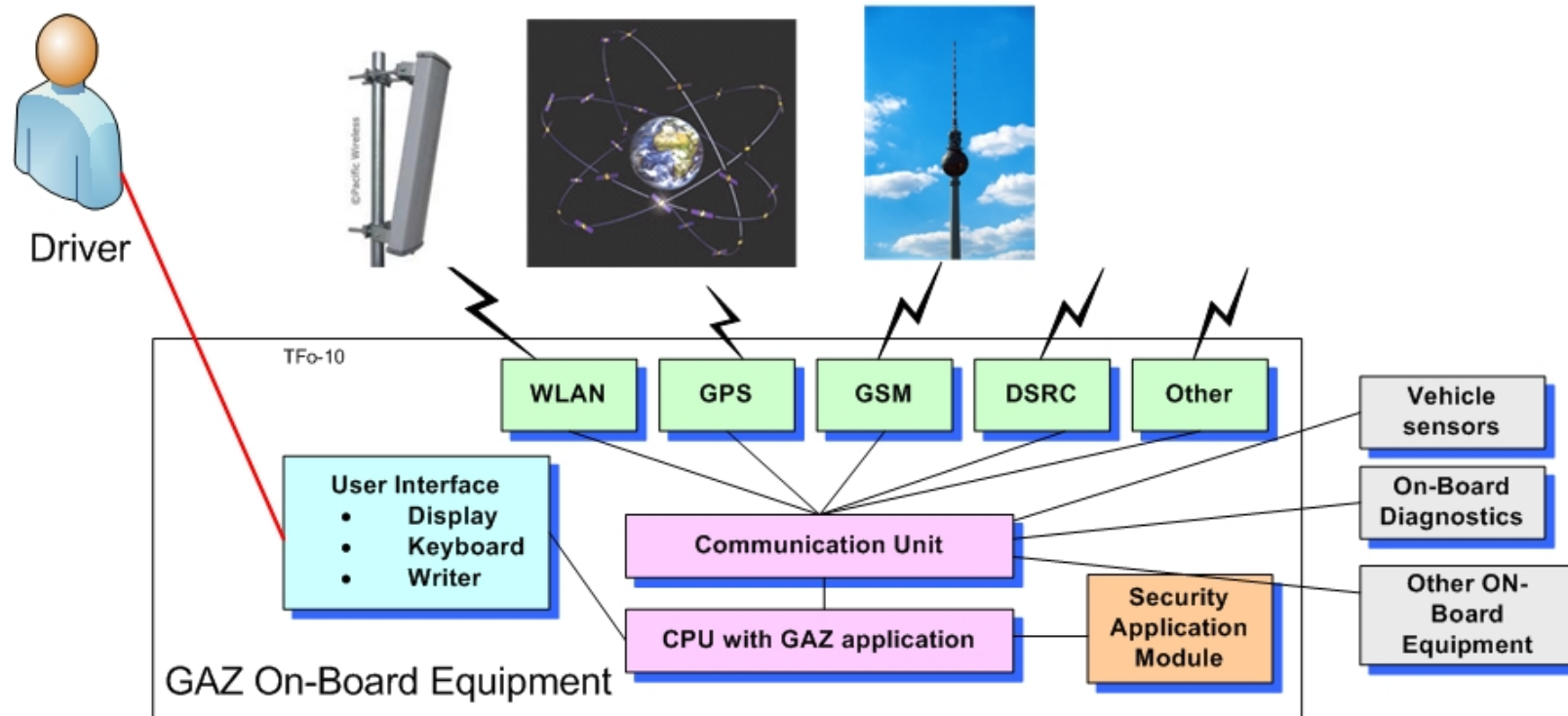


Physical architecture



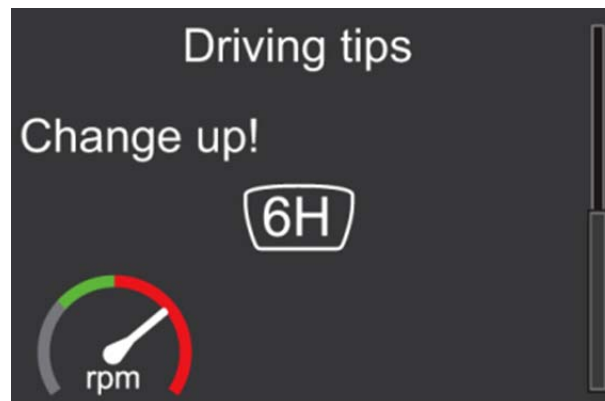
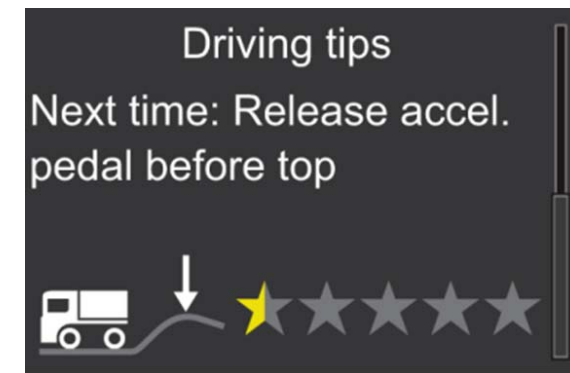
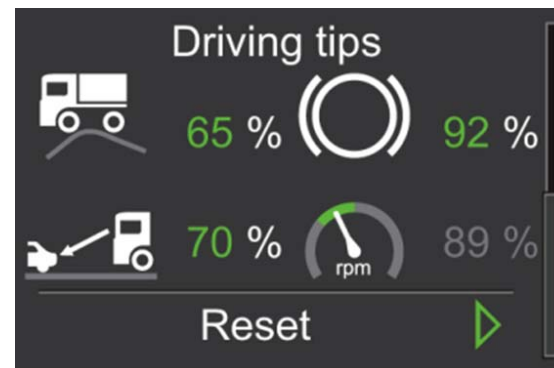
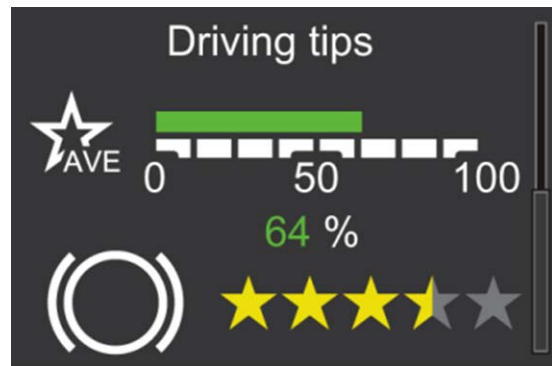


The GAZ On-Board Equipment





Driver assistance systems already in use



Source: Scania



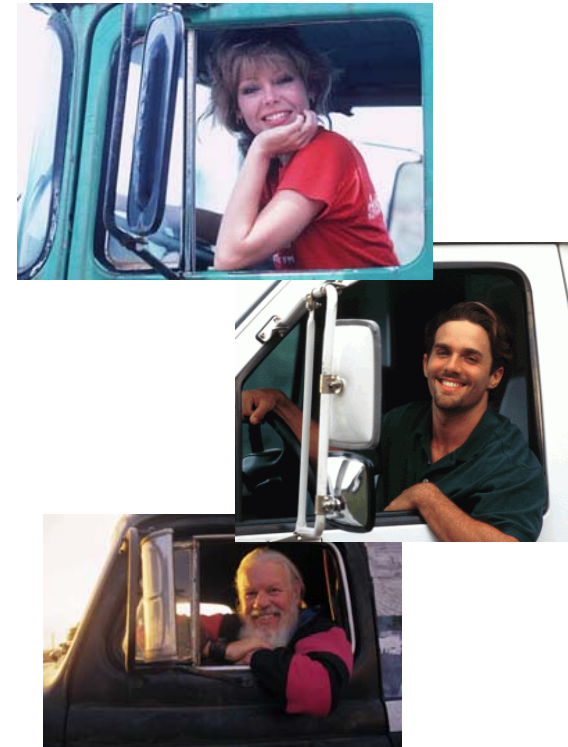
Results so far

- A literature review on green activity zones in Europe
- Studies and interviews with involved actors and project partners
- A draft system architecture (roles and responsibilities, use cases and high level physical architecture).
- Interviews with two truck producers have also given some very interesting results concerning user interface and existing applications for environmental friendly driving
- A draft User requirement specification based on literature review, interviews and use cases



Driver acceptance

- The driver acceptance of the GAZ concept is one of the most important issues concerning possible changes in the driver behavior
- If the users are not motivated and/or willing to use the GAZ application the implementation of the GAZ concept may end up in a complete failure and reduce the respect for measures to improve the air quality
- Some major factors concerning User acceptance:
 - The charging system should really contribute to an improvement of the air quality in urban areas whenever needed
 - The charging principles should be fair in relation to all users (more important than effectiveness)
 - The system should be user friendly





Transportation regulation

- The implementation of the GAZ concept should be based on national specifications and sanctioned by laws and regulations.
- The operation of the system should be the responsibility of the local city administrations.
- Any violence of the charging system should be object to enforcement and possibly issuing of penalties.
- The charging system should charge fee from both national and foreign vehicles which again calls for a specific handling of foreign vehicles.
- The charging system should protect the interest of the users and be in line with the national laws and regulations for privacy.



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Thank you for your attention!