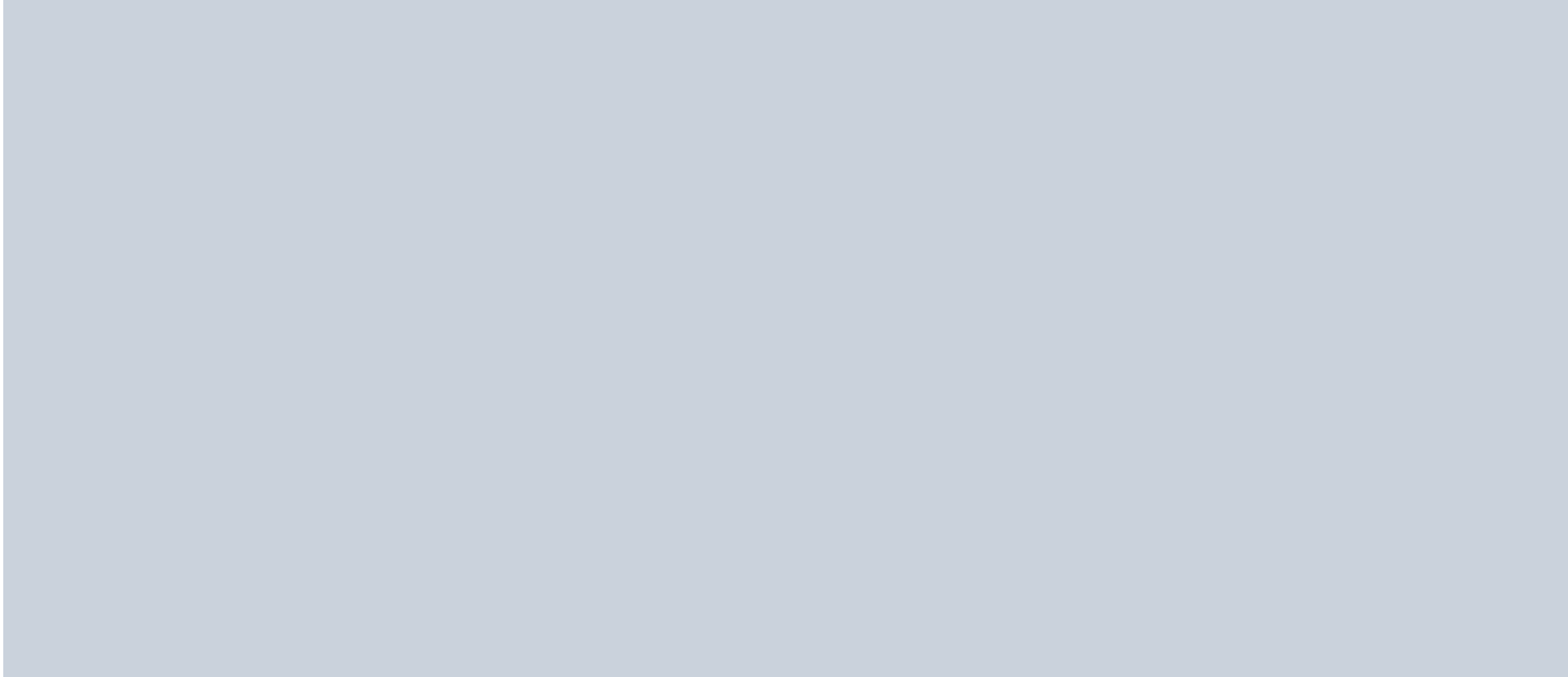# Advanced Secure Communication

Elmar Schoch | SEVECOM Meeting | 17.10.2007

Challenges for Future Research in Vehicular Communication

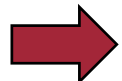## Motivation: Emerging Communication Paradigms

New communication paradigms are emerging for vehicular networks
- Distributed, time stable information dissemination
- In-network information aggregation
- Communication with various road-side equipment
  - „New" technology: Sensors, RFID, …
  - „Old" technology – on the road, at the garage, at home
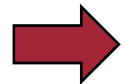
Trend towards „Ambient intelligent vehicle"

New security challenges

➡️ New technologies lead to new security challenges

Distributed, time stable information dissemination
- Robustness against denial of service

In-network information aggregation
- Secure aggregation where every network participant can be generator and consumer of information
- Global data consistency

Communication with various road-side equipment
- Security configuration and policy management