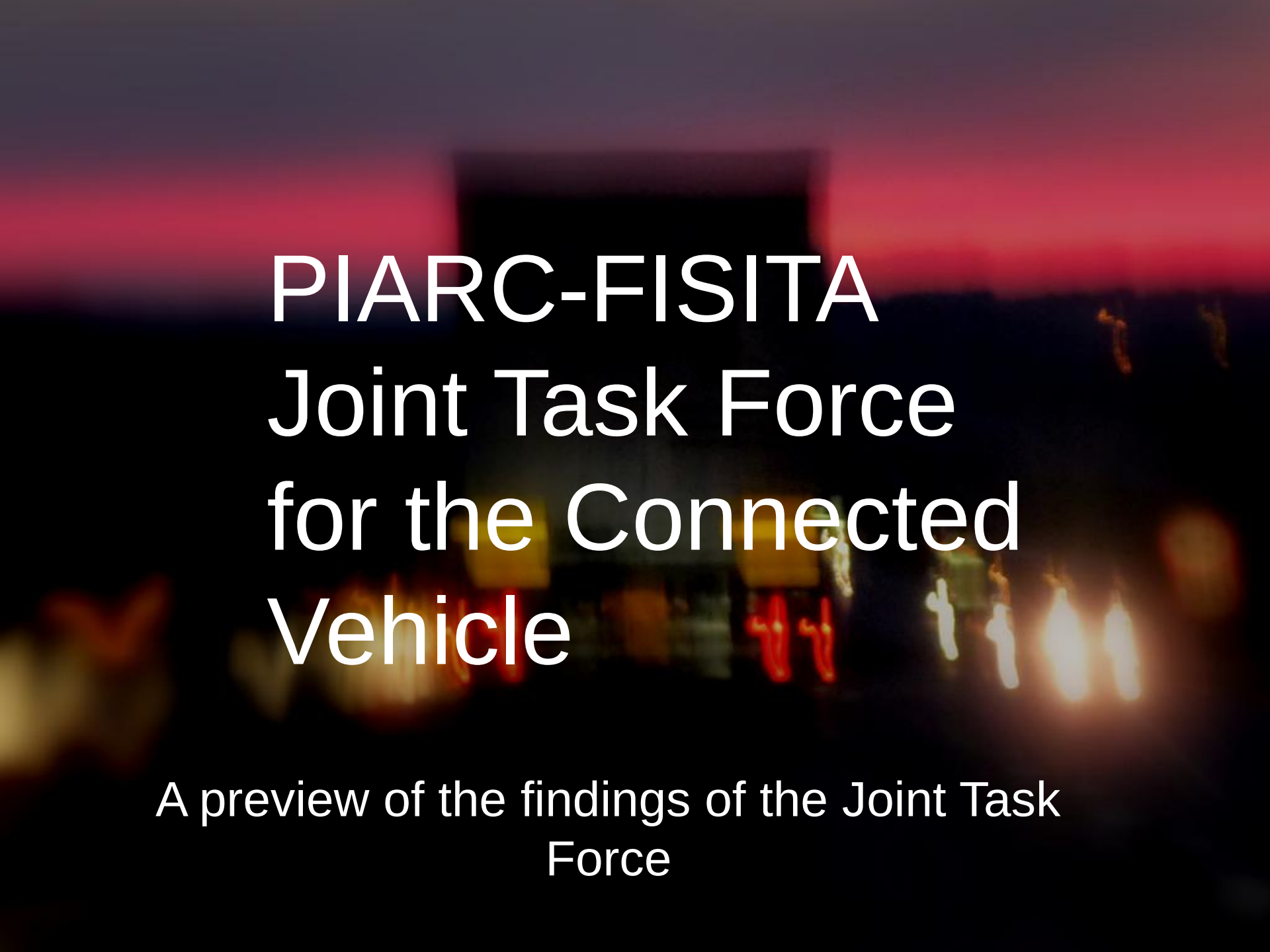


PIARC-FISITA Joint Task Force for the Connected Vehicle

A preview of the findings of the Joint Task Force

The PIARC – FISITA Joint Task Force

- PIARC historically provides a source of independent advice for Road Operators and Governments world-wide
- FISITA an association of the organisations representing automotive engineers

The JTF

- **Draws on expertise within PIARC and FISITA**
- **Does not undertake own research**
- **Brings together Automotive Engineers and Road Operators**

Joint Task Force Mission

- Inform PIARC First Delegates about the opportunities and challenges ahead concerning connected vehicles and cooperative systems.
- Ensure that PIARC's and FISITA's membership better understand and are responsive to road operators' and automotive industry concerns.

Methodology

- Workshops with road operators
- Attended meetings and conferences
- Workshops with the Automotive sector
- Telephone interviews

Our findings

- **Not our views but those of the people we consulted**
- **There is not a consensus vision of the future**

Today's vehicle

Now:

- Enhanced Navigation
- Speed assist
- Steering
- Braking
- Stability
- Suspension
- Cruise control

The Connected Vehicle – coming by stealth?

Coming soon:

- Driver condition monitoring
- Vehicle Identification
- Security
- Vehicle condition
- Traffic signal warning
- Vehicle location and movement
- Distress and Emergency

and

- …Applications

The Potential

- OEM and Dealer opportunities
- Information from Vehicles and feedback
- Better operation of traffic systems
- Safety systems - the route to zero?
- Enforcement and legality
- New ways of managing

Different regions have different issues

The risks

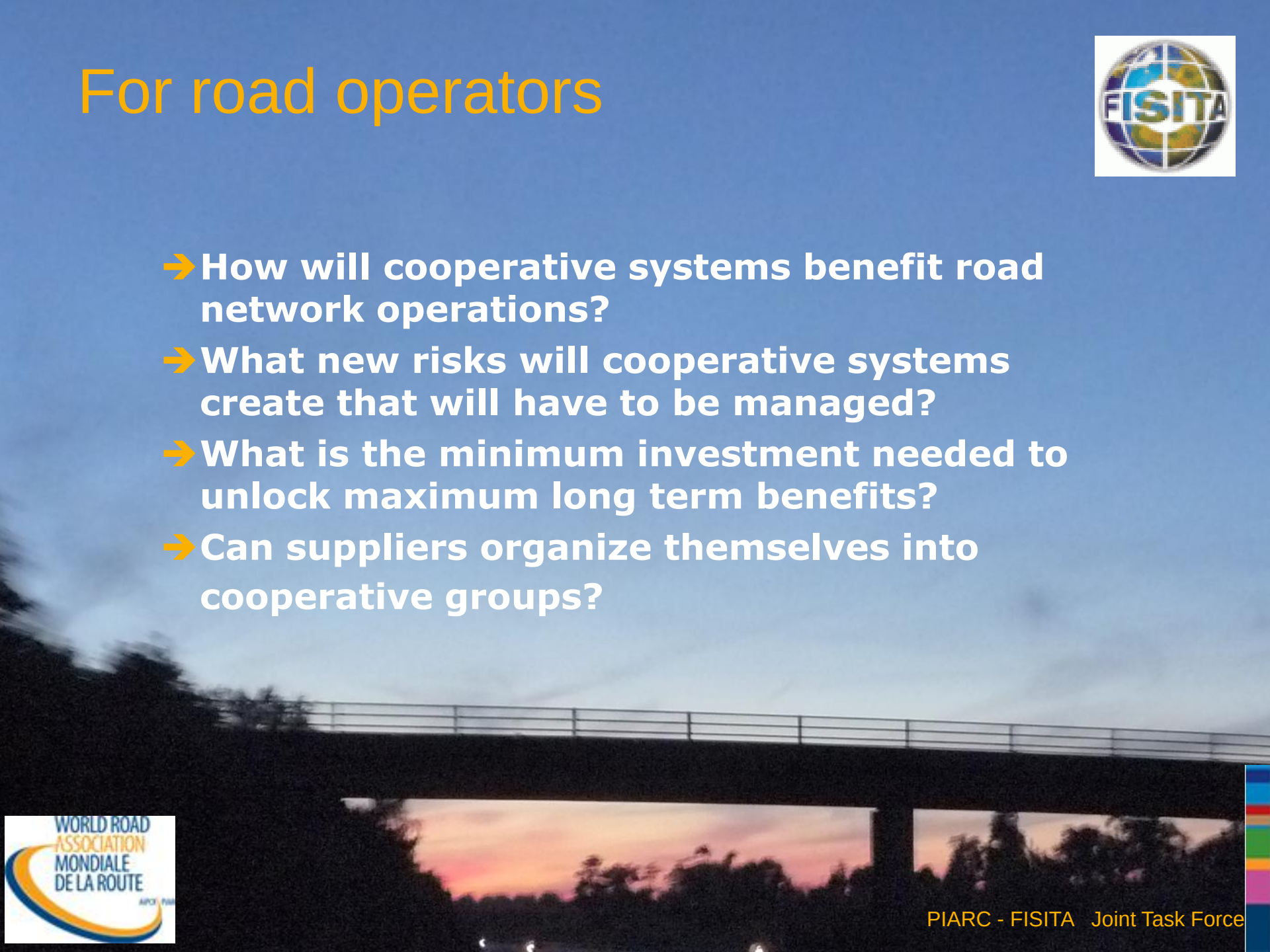
- Technology
  - ➔pace of change
  - ➔production cycle times
  - ➔choice of technology
- Interference
  - ➔accidental
  - ➔malicious
- Legal
  - ➔If it goes wrong…
  - ➔Conformance testing and maintenance

V2All communications...

WORLD ROAD ASSOCIATION
MONDIALE DE LA ROUTE

For road operators

- How will cooperative systems benefit road network operations?
- What new risks will cooperative systems create that will have to be managed?
- What is the minimum investment needed to unlock maximum long term benefits?
- Can suppliers organize themselves into cooperative groups?



For the Automotive Industry

- **What needs to be done by roads authorities to accelerate deployment?**
- **On what terms would you provide data to the road operators?**
- **How do your plans impact on road operations?**
- **How can we ensure benefits for all – not only those with equipped vehicles?**

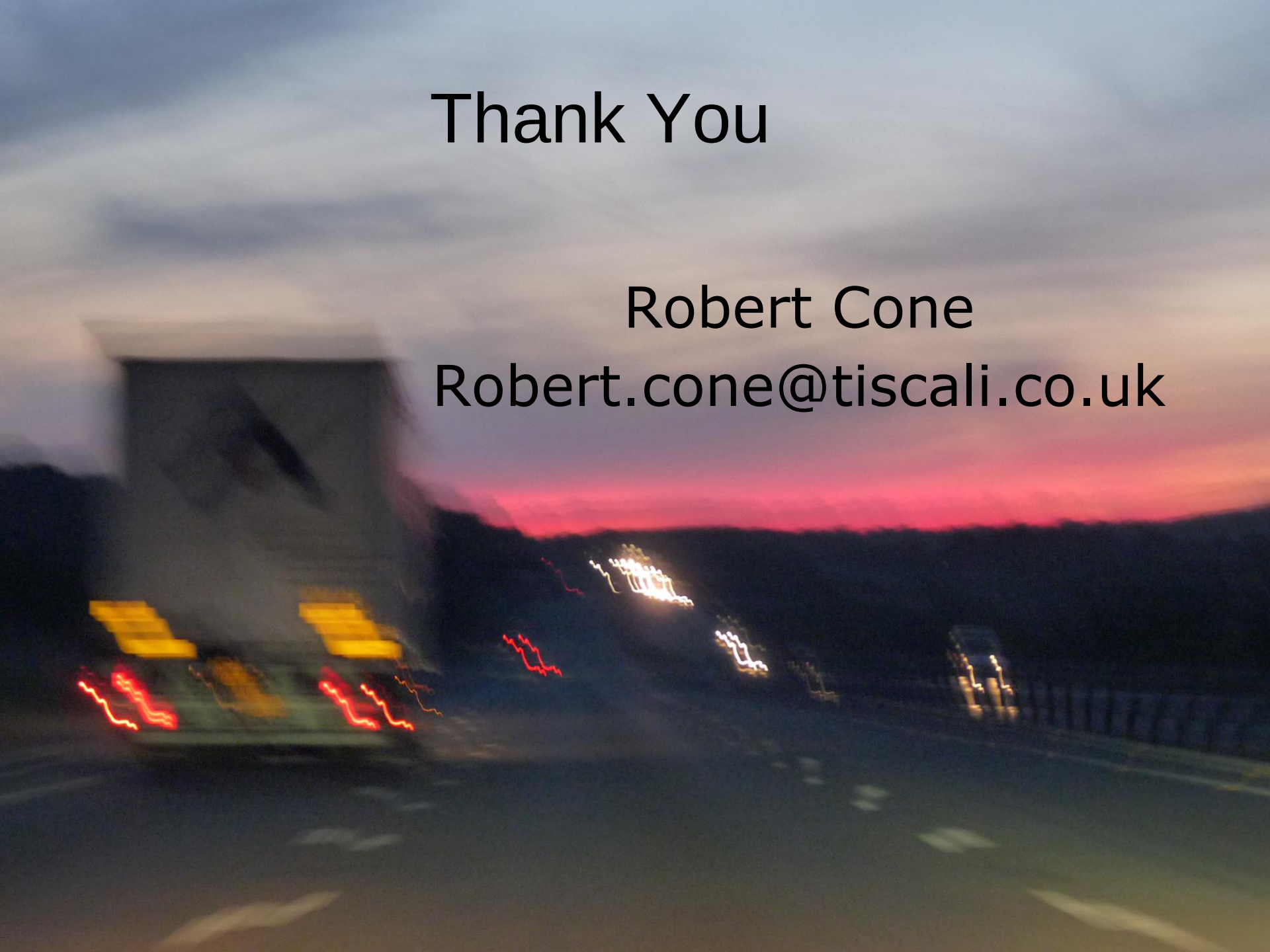
Developing countries

Different countries have different issues?
How will vehicle communications impact?

- Motor manufacturing global approach
- Vehicles move between countries and regions
- Second hand vehicle market is international
- Systems need to be robust
- Training and driver experience problematic

Summary

- **All can see the advantages**
- **V2I and V2V using 3G or 4G services exists in an early form and will develop organically**
- **V2I and V2V using short range wireless still requires further research and standards. The deployment case is difficult**
- **Security is a major issue**
- **Need for partnerships and working together**
- **Relevance for developing countries**



Thank You

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