

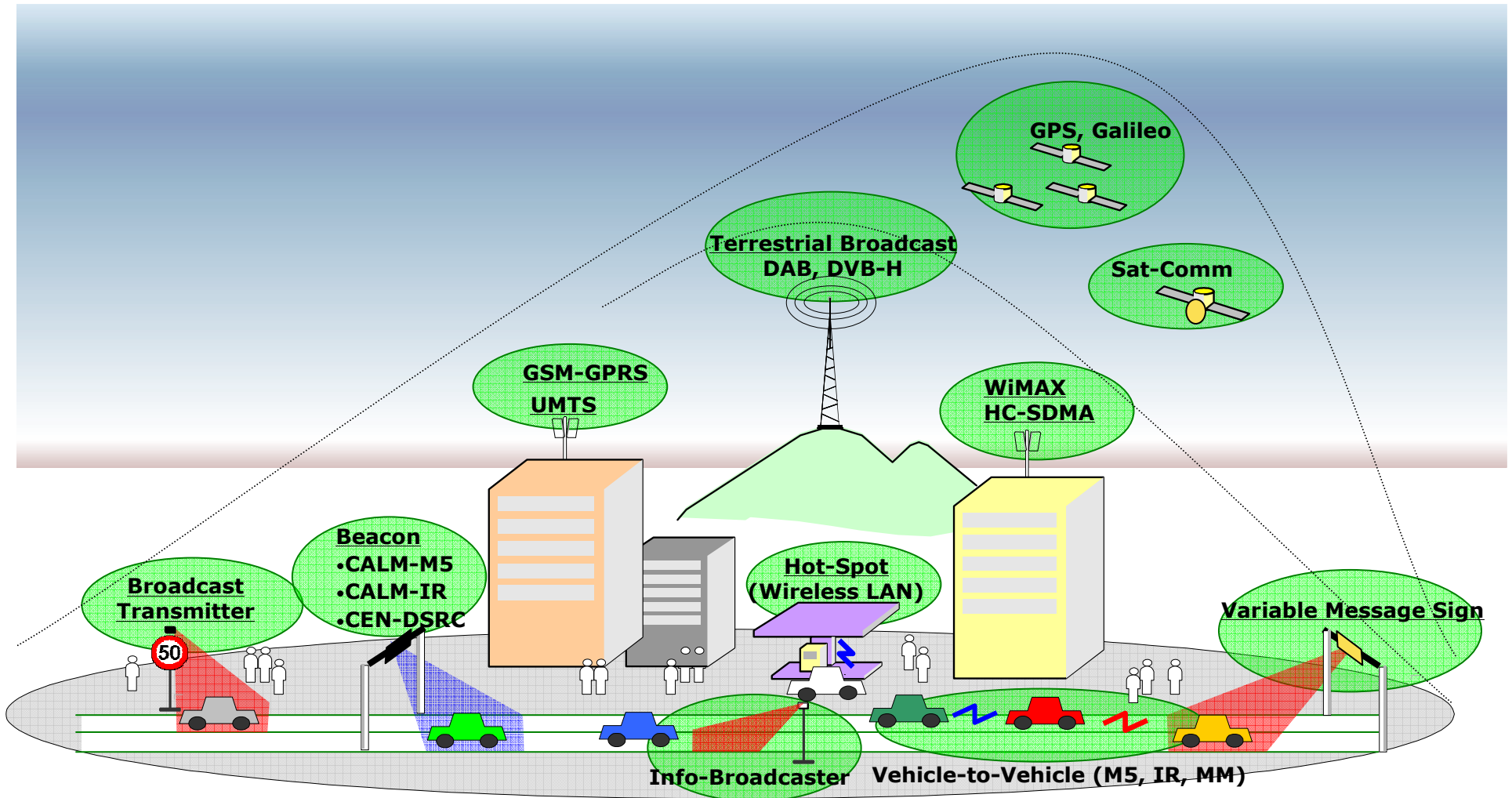
# Active Infrared Communication in the context of ISO CALM

Thursday 5 June, 14:00-15:30

Dr. Hannes Stratil  
Efkon AG

ITS Europe Congress, Geneva

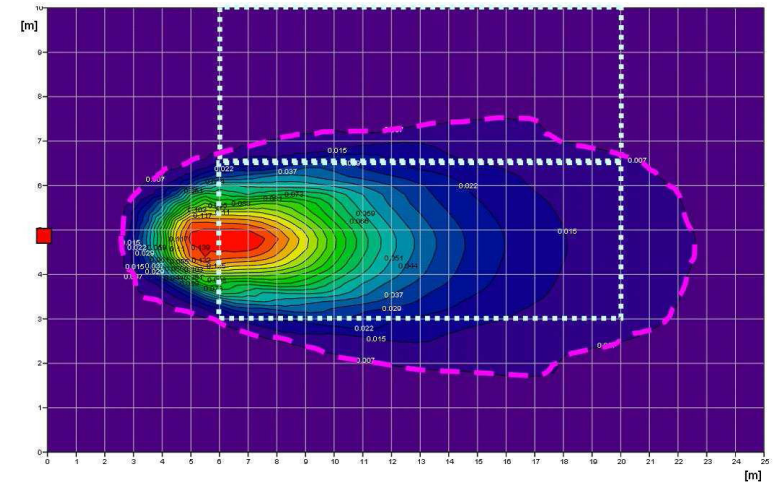
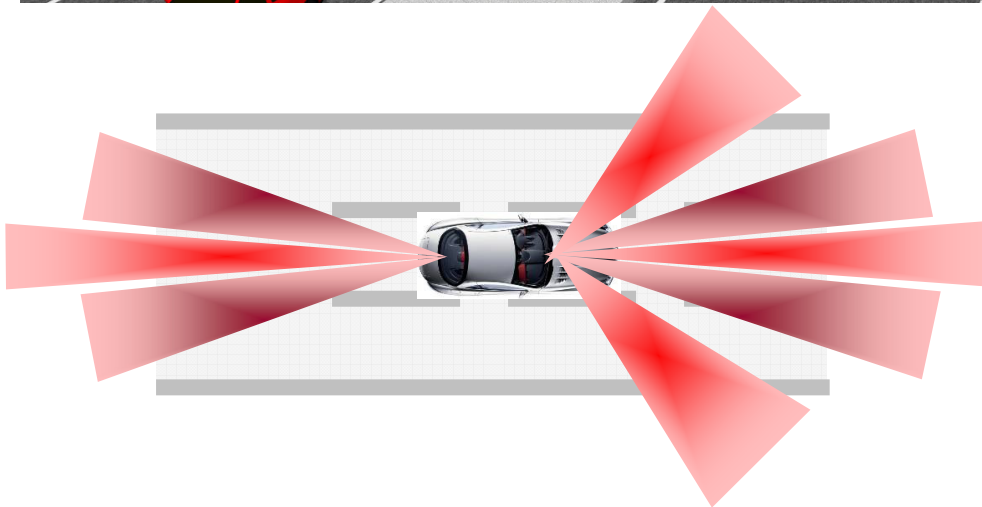
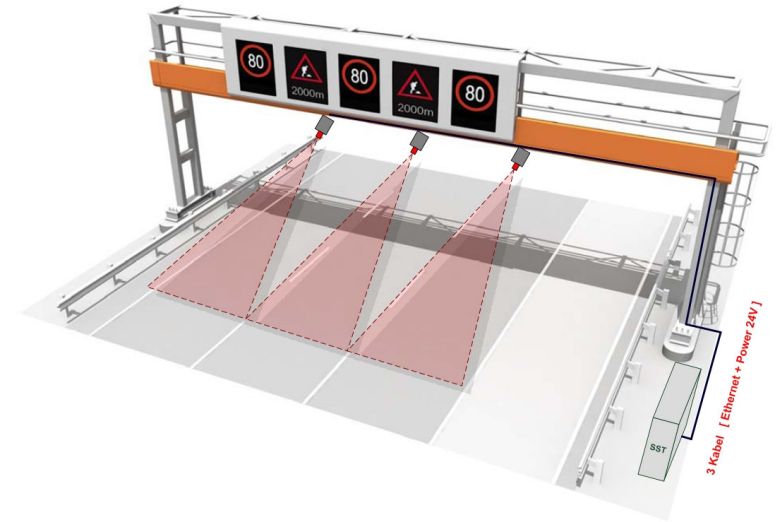
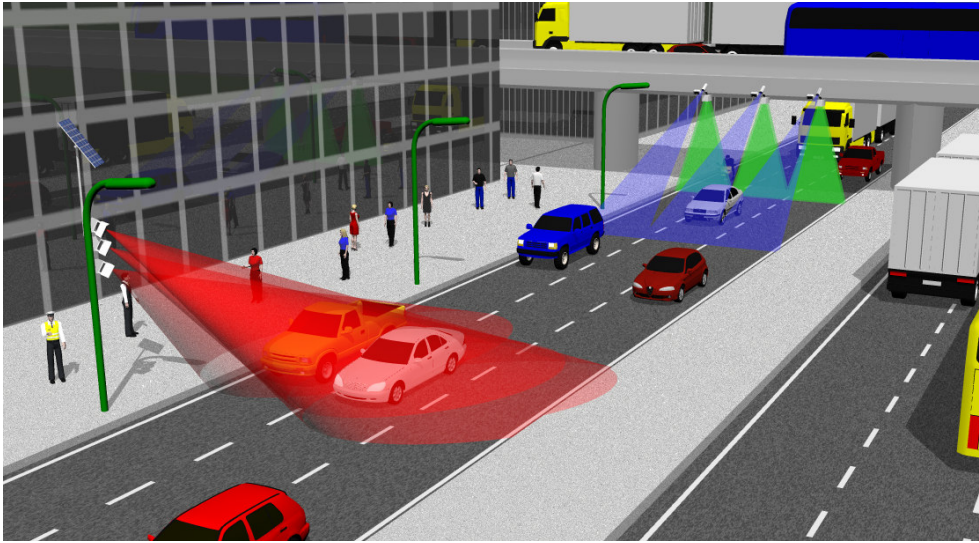
# Communications in ITS



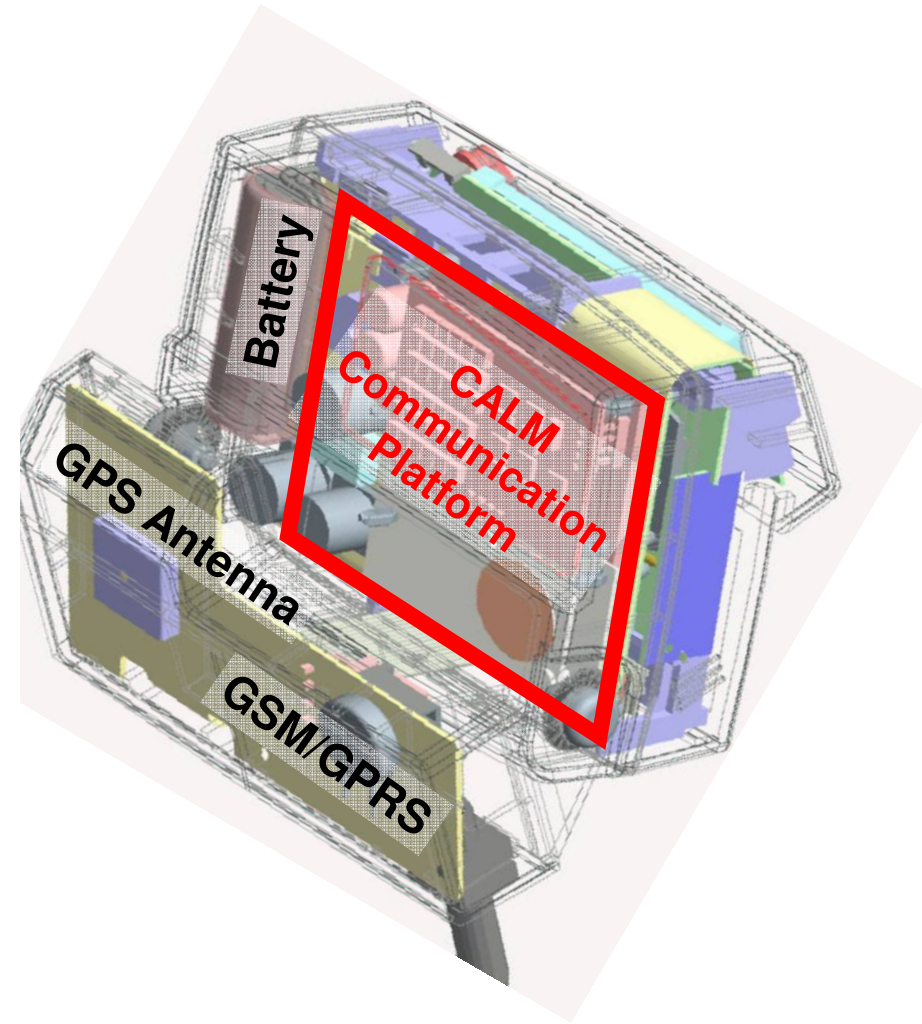
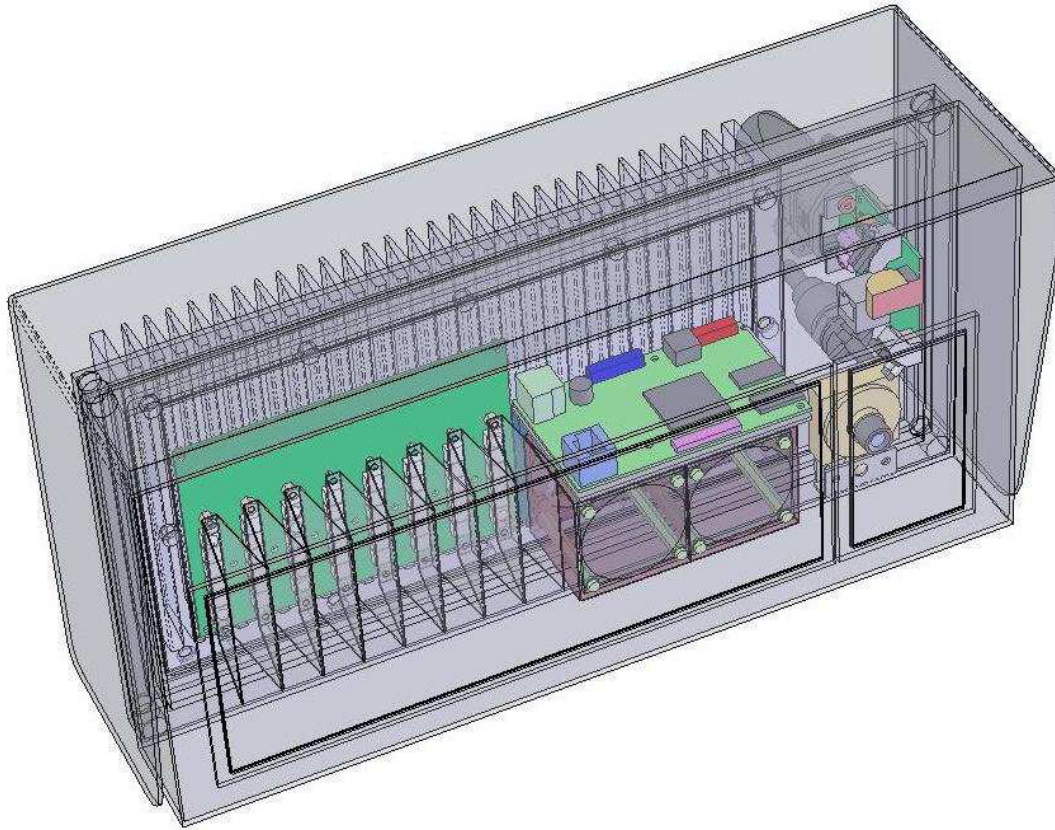
# Communication Technologies in European ITS Projects

- ▶ **DAB** (Digital Audio Broadcast): **COOPERS**
- ▶ **DVB-H** (Digital Video Broadcast – Handheld): **COOPERS**
- ▶ **GSM/GPRS** (2.5G Cellular Networks): **CVIS**, **COOPERS**
- ▶ **WIMAX** (Metropolitan Area Networks): **COOPERS**
- ▶ **CALM-M5** (Active Microwave at 5.9GHz): **CVIS**, **Safespot**
- ▶ **CALM-IR** (Active Infrared): **CVIS**, **COOPERS**

# CALM Infrared Communication



# Infrared Communication Components



# Performance parameters

- ▶ Data rate of **2Mbit/s**
- ▶ Vehicle speeds up to **200km/h**
- ▶ V2I communication of **50 meters**
- ▶ **Interference free** multilane free flow communication
- ▶ Lane specific communication zones with **sharp boundaries**
- ▶ Few milliseconds **latencies** and **communication setup** delays
- ▶ **Distance measurement** with meter accuracy
- ▶ **License free** wireless spectrum



First COOPERS Demonstration:

## Talking Traffic Sign

Today at 4pm

EFKON Booth B16

Thanks for your attention...

*Dr. Hannes Stratil*

*mailto: [h.stratil@efkon.com](mailto:h.stratil@efkon.com)*

EFKON AG, Austria