



Research in ICT for Mobility and Transport: Co-operative Systems

Ilse Kulp,
BMW Research and Technology
COMeSafety

Knut Evensen
Q-Free ASA
Chief Architect CVIS

[The European Cooperative Systems Communications Architecture

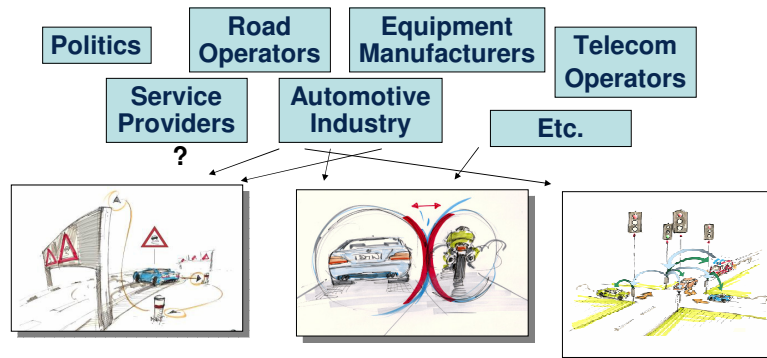
- European ITS Communication Architecture
- Release 2.0 delivered

- Report on current status and remaining challenges

- With input from COOPERS, CVIS, SAFESPOT
- In cooperation with C2C-CC, ETSI, IETF

[The Challenge - Technology and what?

- Overall objective: Traffic Safety & Traffic Efficiency. What else?
- Aspiration of stakeholders?



→ Open Use Case Collection

 SafetyForum

[How have we approached the Mission?

- Top Down (what is required?):
 - Applications and Use Cases
 - Stakeholder Aspirations, User Needs and Requirements
 - Consolidation of Overall ITS Communication Architecture Framework for Cooperative Systems

 SafetyForum

[How have we approached the Mission?

- Bottom Up (what is available?):
 - Message Formats
 - Communication Protocols
 - Spectrum Allocation
 - Security and Privacy



5



[How have we approached the Mission?

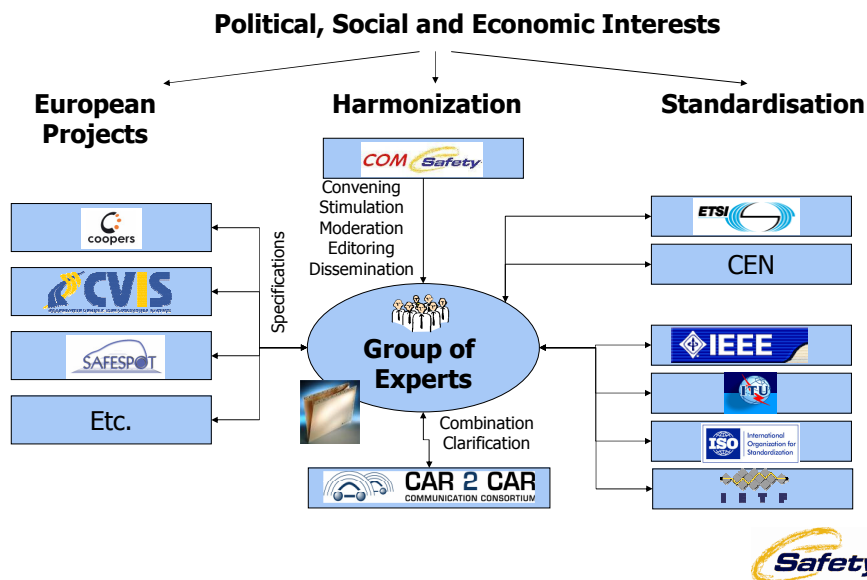
- PoC / Test and Experience:
 - Interoperable Demonstrators



6



[A Common Architecture: A Cooperative Effort



10th eSafety Forum Plenary Meeting - Brussels - November 6, 2008

[Architecture Document: Structure and Creation

- Three major parts
 - Architecture
 - Technology
 - Implementation
- Chief chapter editors nominated to create responsibility and speed up process

SafetyForum

10th eSafety Forum Plenary Meeting - Brussels - November 6, 2008

[Architecture Document: Contents

□ Part I: Architecture

Chapter	Chief Editor
ITS Communication Architecture - Description	Thierry Ernst, INRIA (IETF) Knut Evensen, Q-Free (CVIS)
Scenarios, Applications, Use Cases	Abdel Kader Mokaddem, Renault (Safespot, COMeSafety)
Stakeholder Aspirations, User Needs, Requirements	Ilse Kulp, BMW (COMeSafety) Richard Bossom, Siemens (FRAME)
Overall Framework: Actors, Terminators and Entities	Zeljko Jeftic, Ertico (CVIS)
Architectural Views	Alexander Frötscher, AustriaTech (COOPERS)



[Architecture Document: Contents

□ Part II: Technology

Chapter	Chief Editors
Access Technologies	Elizabeth Uhlemann, Volvo Technology (CVIS)
Networking and Transport	Andreas Schalk, Efkon (COOPERS)
Facilities	Roberto Brignolo, Fiat (Safespot)
Security	Antonio Kung, Trialog (SeVeCOM) Benjamin Weyl, BMW (COMeSafety)
System Management	Knut Evensen, Q-Free (CVIS)



[Architecture Document: Contents

- Part III: Implementation

Chapter	Chief Editor
Organisational Topics	Zeljko Jeftic, Ertico (CVIS)
Implemented Software Frameworks and Components	Timo Kosch, BMW (COMeSafety)
Common Demonstration	Paul Kompfner, Ertico (CVIS)

- Other Parts

Chapter	Chief Editor
Introduction	Ilse Kulp, BMW (COMeSafety)
Policies	Juhani Jaaskelainen, European Commission



[Access to the Document



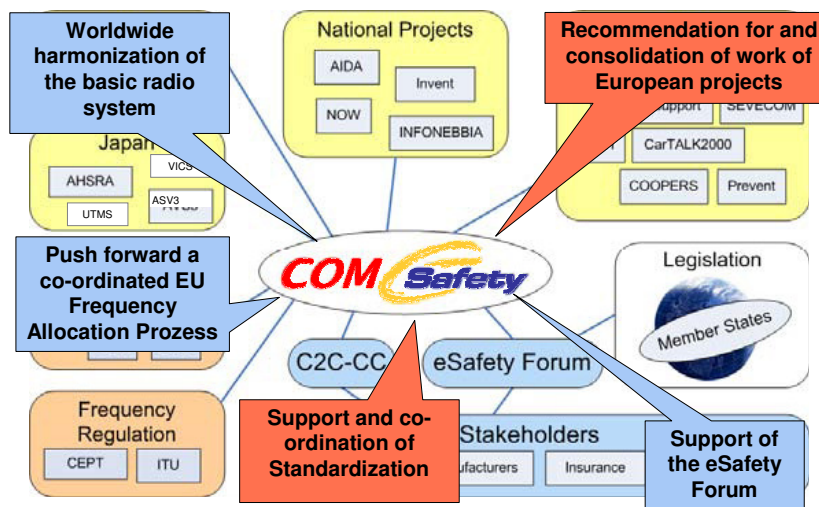
The document and more information:
www.comesafety.org



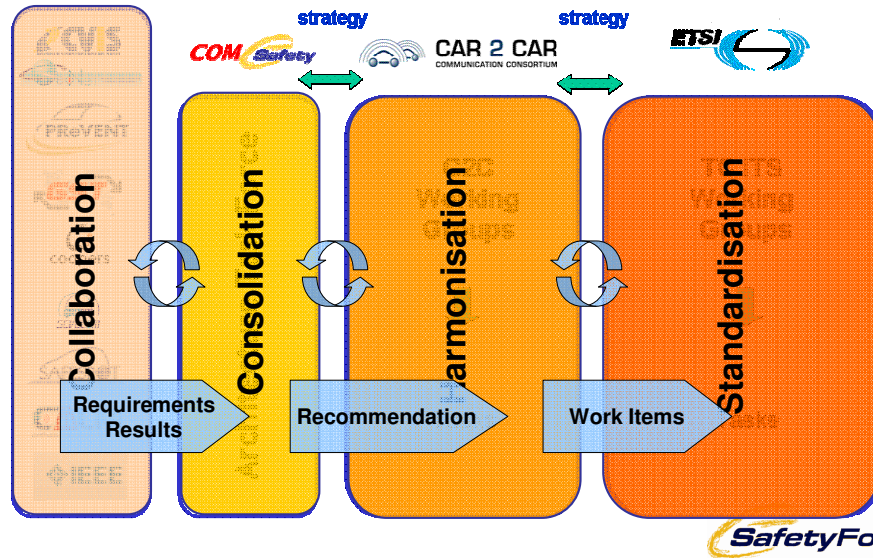
[Backup



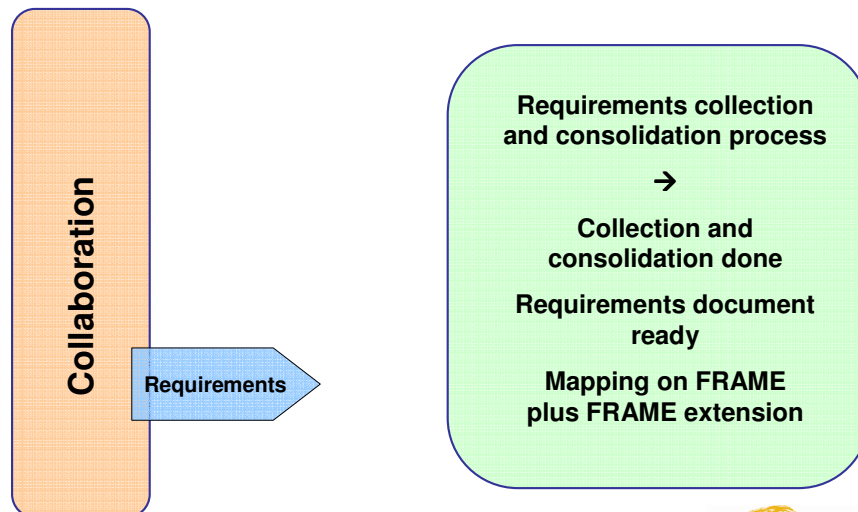
[The COMeSafety Mission



Collaboration, Consolidation, Harmonization and Standardisation



Requirements Consolidation



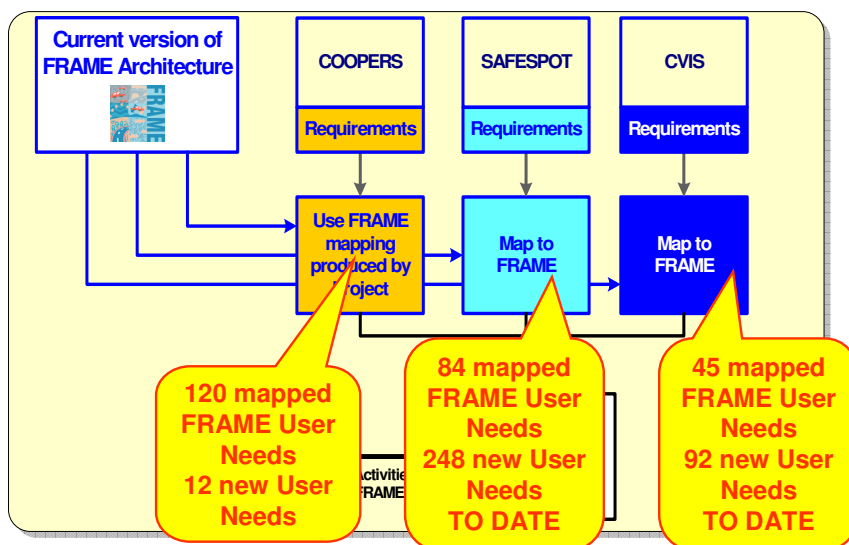
Document on Combined Requirements (May 2008)

Collaboration

Requirements



Scope of Requirements Consolidation



[The Requirements Database



CVIS CF&F - Requirements - mapped to FRAME User Needs

System Requirement ID: CV-RO-SP3-3-0102

System Requirement Definition: CVIS on board system is able to long-range communicate with TMC/NSP.

Mapped FRAME User Need (1)	Mapped FRAME User Need (2)
Mapped FRAME User Need (3)	Mapped FRAME User Need (4)
Mapped FRAME User Need (5)	Mapped FRAME User Need (6)
Mapped FRAME User Need (7)	Mapped FRAME User Need (8)

Comment on Mapping: This is a communications capability requirement.

New FRAME User Need ID: B 8 0.1

New FRAME User Need Description: The system shall have a mobile communications capability that permits long-range communications between itself and a Traffic Management Centre/Navigation Service Provider (TMC/NSP).

Record: 2 of 62

