

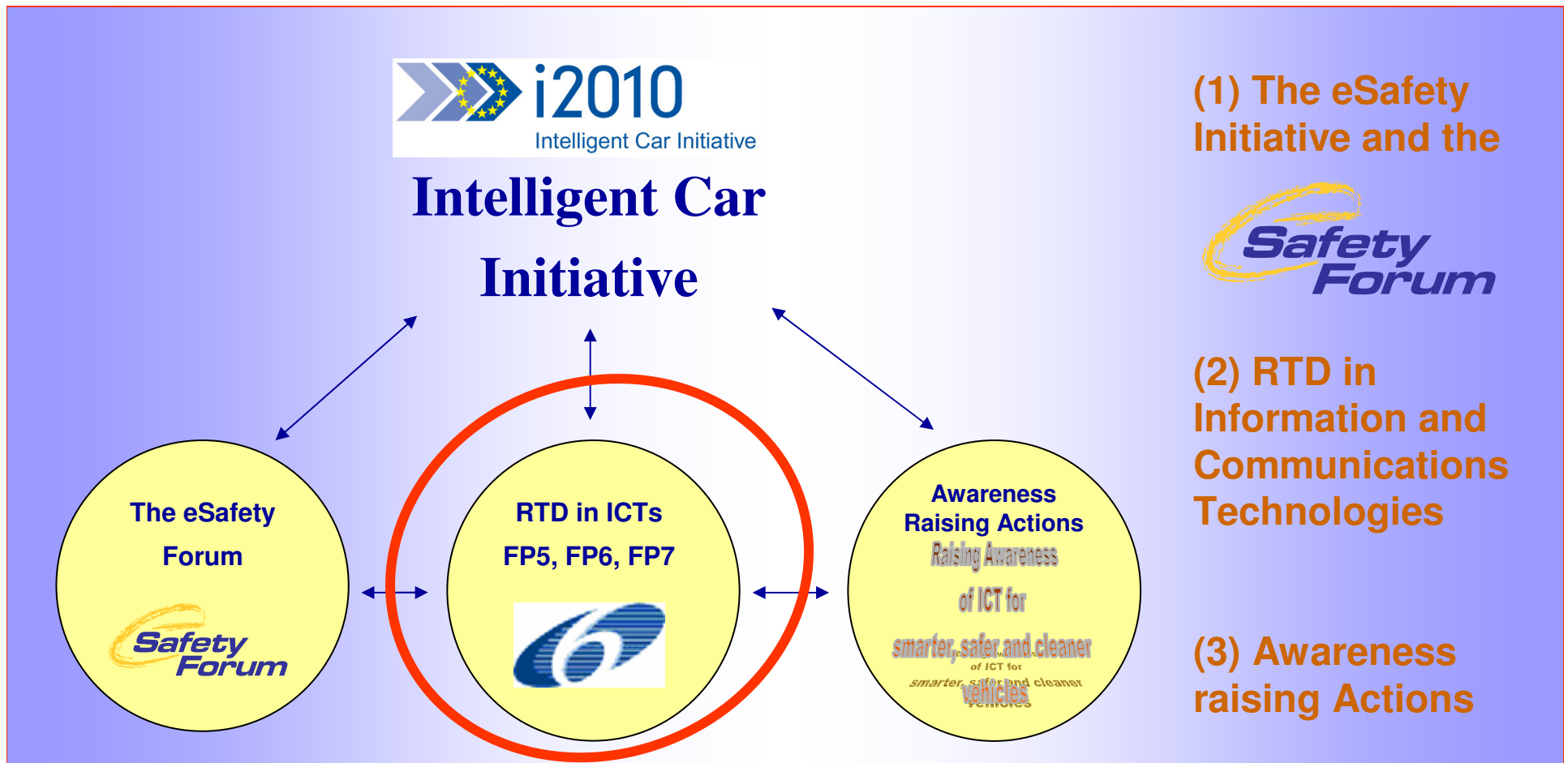
Report by the eSafety Forum Working Group RTD

ITS London, 11 October 2006

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Chairman eSafety Forum WG RTD
Director of EUCAR

The Intelligent Car Initiative: Structure

The i2010 Intelligent Car Initiative will build on the work of the eSafety initiative and follow a three – pillar approach:



The document:

**“Stakeholders’ contribution to the
Development of FP7 Workprogramme on
ICT for Mobility “**

Recent Activities of the WG RTD

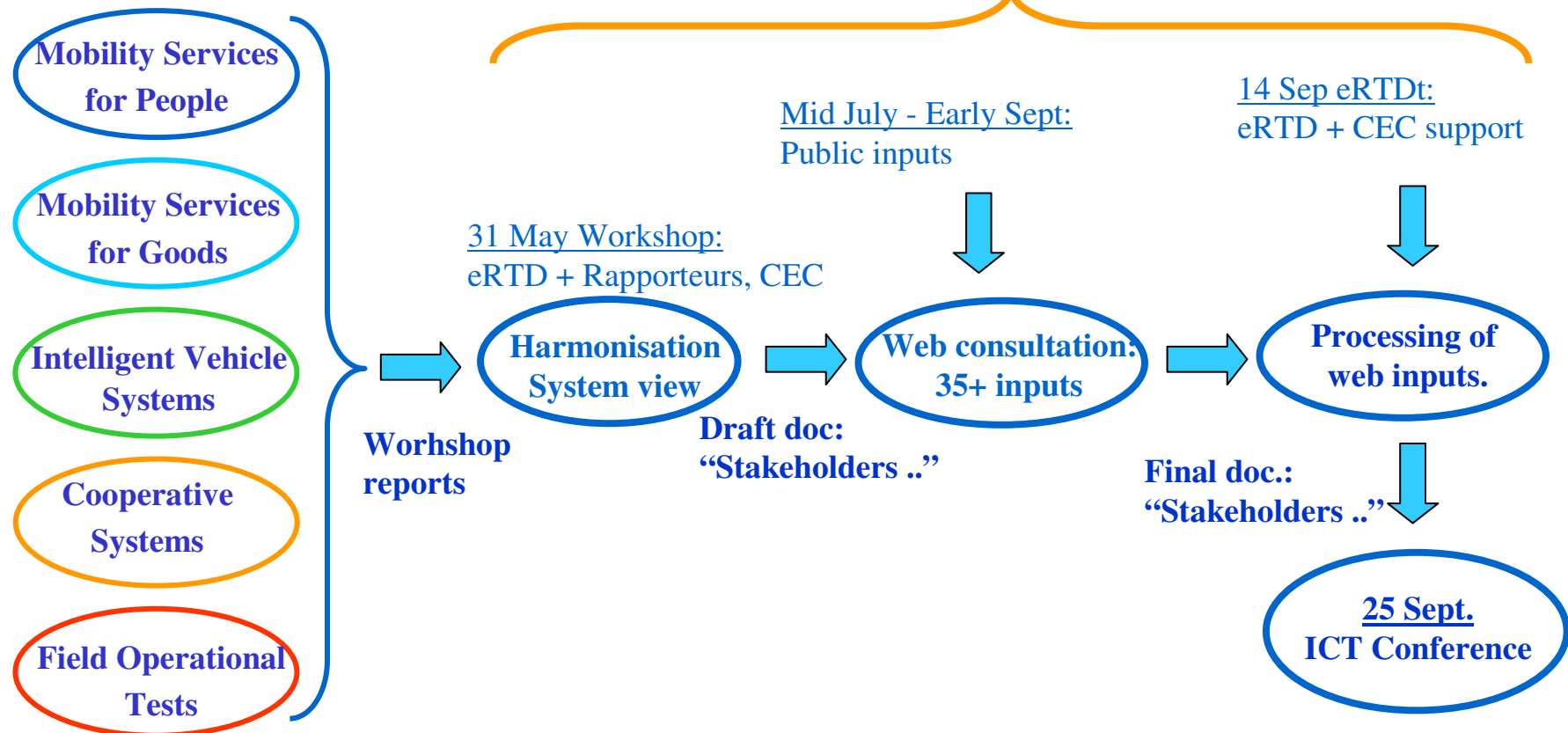
(Spring - Autumn 2006)

- Harmonisation and building an over-all “picture” of the outcomes of the DG INFSO consultation Workshops on:
 - Mobility Services for People
 - Mobility Services for Goods
 - Intelligent Vehicle systems
 - Cooperative Systems
 - Field Operational Tests.
- Provide a basis for a Strategic Research Agenda for eSafety incorporating the outcome of the Open Consultation.

Process of Input and Consultation

Expert Workshops: April-May.
50+ participants

eSafety WG RTD
(20+ active members)



R&D Recommendations by the eSafety WG RTD

5 + 1 Areas/Domains:

1. Mobility Services for People
2. Mobility Services for Goods
3. Intelligent Vehicle systems
4. Cooperative Systems
5. Field Operational Tests

6. Horizontal issues

1. Mobility Services for People

□ Scope and Challenges:

- “Always-on” services offering reliable, personalised information.
- Adequate info-mobility services, including pre-trip, on-trip and post-trip.
- Accurate and real-time inter-modality information
- Harmonised, interoperable, pan-European mobility services, context aware, with reliable transport contents and wide availability to users and their interfaces to single and multi-modes of transports.
- Seamless integration of Nomadic Devices into vehicle’s HMI
- European interoperable fare and fee management system (s).

1. Mobility Services for People

R&D Recommendations: Early phase FP7

- a. System architecture for multi-service overlay networks.
- b. Geo referencing data systems and data mining technologies.
- c. User interface, HMI, Access of External Applications, Nomadic Devices and standardized format for mobility information.
- d. Always-on context awareness flexible, reliable and accessible systems

2. Mobility Services for Goods

- Scope:
 - Seamless, efficient logistics chains across boundaries, modes and services

- Challenges:
 - Planning and optimising, monitoring and managing, the transport chains within and across modes and transfer points
 - Exploiting the potential of radio frequency identification (RFID) for transport logistics with intelligent and value-added applications and services
 - Enhancing transport security using ICT in local and cross border goods flows
 - ICT solutions for network operators to cooperate with 'intelligent trucks' to guide lorries smoothly and safely within urban areas
 - Achieving the potential of urban logistics and e-fulfilment
 - Offering true best-service/lowest-cost multi-modal solutions.

2. Mobility Services for Goods

R&D Recommendations: Early phase FP7

- ❑ Seamless efficient mobility service system using ICT
- ❑ Exploiting RFID and ICT platforms as critical component and architecture
- ❑ Urban logistics supported by network management.
- ❑ High level of liable security and of adequate tracking and tracing.

3. Intelligent Vehicle Systems

□ Scope and Challenges:

- the next generation of improved, new and cost-effective technologies, on common platforms integrating several applications,
- improved understanding of driver behaviour, HMI issues
- ability to support autonomous and cooperative driving.
- Reduce the cost of these advanced information and safety systems so they can reach a wider and larger market penetration, including also medium and lower priced cars, in order to achieve substantial impact on safety and traffic efficiency.

3. Intelligent Vehicle Systems

R&D Recommendations: Early phase FP7

- a. Vehicle environment perception systems.
- b. HMI for the Intelligent Vehicle and its Cockpit
- c. Vehicle architecture for data flow. Dependable vehicle infrastructure.
- c. Faster and smarter actuator performance.
- d. Strategies for warning (to driver) and automation
- e. Integrated Safety Applications

4. Cooperative Systems

- Scope:

- Cooperative systems for road traffic making use of communication between vehicles and between vehicles and the road infrastructure.

- Challenges:

- Retain flexibility and personal mobility and achieve significantly better efficiency and safety whilst still delivering improvements in environment and sustainability for everyone in the society.

Cooperative vehicles and road infrastructure for road safety
SAFESPOT Integrated Project Proposal



Safety Margin

Cooperative free flow

Cooperative overtaking / lane change

Crossing Traffic Flow (Intersection, Merging,)

Dangerous Black Spot (Curves, Road works)

Dangerous Vehicles

4. Cooperative Systems

R&D Recommendations: Early phase FP7

- a. Road map: From today to deployment for tomorrow
- b. Simulation and testing for evaluation of concepts and systems.
- c. System integration, configuration management, service monitoring.
- d. Intelligent infrastructure
- e. Large-scale pilot V2V and V2I applications demonstrations.
- f. Communication V2V and V2I.
 - g. *Enhanced digital maps*
 - h. *Positioning systems with sufficient accuracy.*

5. Field Operational Tests

Scope and Challenges:

- Investigate:
 - the behaviour of the user in the real traffic environment when being equipped with new ICT systems for safety and efficiency as compared to the user's behaviour without the ICT systems.
 - the short and long term effect of the use of such systems to provide the necessary assurance for the technical and commercial feasibility.

5. Field Operational Tests

R&D Recommendations:

Early phase FP7

- a. Methods and Procedures for planning, running and evaluating FOTs.
- b. FOTs on technically mature ICT systems, including technical, user and commercial deployment aspects.



6. Horizontal Issues

- Scope and Challenges:
 - Issues common to several applications or generic pre-requisite for successful deployment of functions and services.

6. Horizontal Issues

R&D Recommendations: Early phase FP7

- a. Legal issues vs. ITS and ADAS systems
- b. Models, methods and procedures to assess the safety, traffic impacts and the interaction of ITS functions on the driver.
- c. Enhanced digital maps
- d. Positioning systems with sufficient accuracy.
- e. Security functions and services embedded into the ICT – ITS system.
- f. Intelligent infrastructure; Network management, interoperability of systems, ...
- g. Road maps and business models for commercial deployment of ICT transport systems.
- h. ICT for efficient and cleaner mobility (optimum routes, flow optimisation, ...)

Terms of Reference: Up-dated and “draft” agreed 14 Sept

- See attachment

Membership Characteristics

The members of the eRTD should reflect a broad spectrum characteristic of the stakeholders and concerned parties regarding eSafety and ICT.

The membership should also strive to represent the European dimension and hence be well distributed among the EU member and associated states.

Only active membership is allowed (active contribution to meetings, giving real and constructive inputs to the development of the groups working items).

A member is allowed to have one assigned and named deputy member.

Members 14 September 2006

Members of reconstructed eSafety WG RTD 2006-09-14

	Family name	First name	Sector	Country	Affiliation
1	ANDERSSON	Espen	Road Adm	N	Norwegian Road Administration
2	BURZIO	G	OEM	I	Centro Ricerche Fiat
3	CAMOLINO	Rui Dias	Road Opera	P	Brisa
4	CIORDIA	Oscar	R&D	E	Fitsa
5	DANIEL	Uwe	Supplier	D	Bosch
6	ENGSTRÖM	Johan	CV Manuf	S	AB Volvo
7	FEINDT	Uwe	Supplier	D	Bosch
8	HOADLEY	Suzanne	City traffic org.	BXL	POLIS
9	JANSEN	Ben	R&D inst	NL	TNO
10	KULMALA	Risto	R&D inst	FIN	VTT
11	MEDEVIELLE	Jean-Pierre	R&D insy	F	INRETS
12	PALMQUIST	Ulf	OEM	BXL	EUCAR
13	RODRIGUEZ	José	R&D	E	Fitsa
14	SCHULZE	Matthias	OEM	D	DaimlerChrysler
15	SOUTHWELL	Michael	Supplier	UK	TRW
16	VAN AREM	Bart	R&D inst	NL	TNO
17	VAN ESSEN	Rob	Digital Maps	B	TeleAtlas
18	WILD	Dieter	Traffic Engineers	D	PTV
19	Fencel	Ivan	Research inst	CZ	
20	Minarini	Fabrizio	CEC	EU	InfSo