

Deployment enablers and barriers

Matti Roine & Armi Vilkmán
HeERO International conference
15th November 2012
Zagreb



Opportunities for eCall

- Good cooperation with the stakeholders in all pilot sites
- Real efforts to make the whole chain work



1st eCall Interoperability testing event, 21th May 2012



Content

- Approach of WP6 "Barriers and enablers"
- Tasks and timing
- Framework for the analysis
- Further actions

Cooperation

- WP6 Leader/coordinator: Matti Roine/Armi Vilkmán – VTT
- WP6 Manager: Aki Lumiaho – Ramboll
- WP6 participants:
 - ERT, ITSN, ADAC, OCN, NC, NXP, CONT, ITSRO, MINGR
 - PCM, CRF, TI, NPRD, STA, RWS, KLPD, EENA
- WP6 resources: 72,1 mmonths

FI eCall Leader: Anu Laurell – MinTC Finland

Objectives

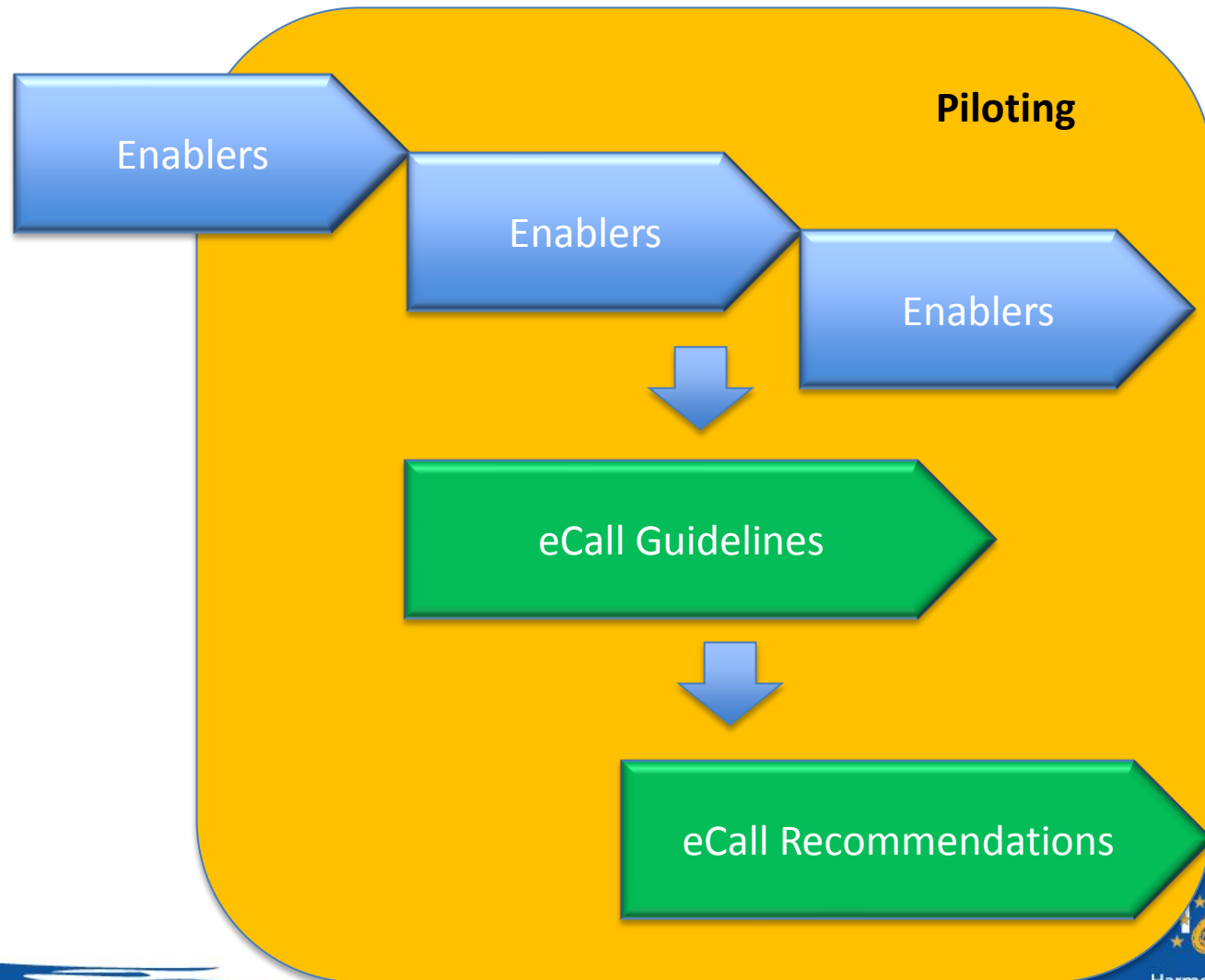
Enablers and barriers - Opportunities

- Investigates in details enablers, barriers and solutions towards fast implementation of pan-European eCall
- In detail:
 - To identify deployment barriers at specific local but also common to all MS, including legal ones, and propose measures to overcome them
 - To identify deployment enablers relevant to industrial partners, relevant to authorities and relevant to end-users
 - To identify possible use of eCall system for public/private value added services
 - To identify needs for certification and define recommendations for certification procedure
 - To define the eCall Deployment Guidelines
 - To produce recommendations for eCall implementation and operation in European Member and Associated States

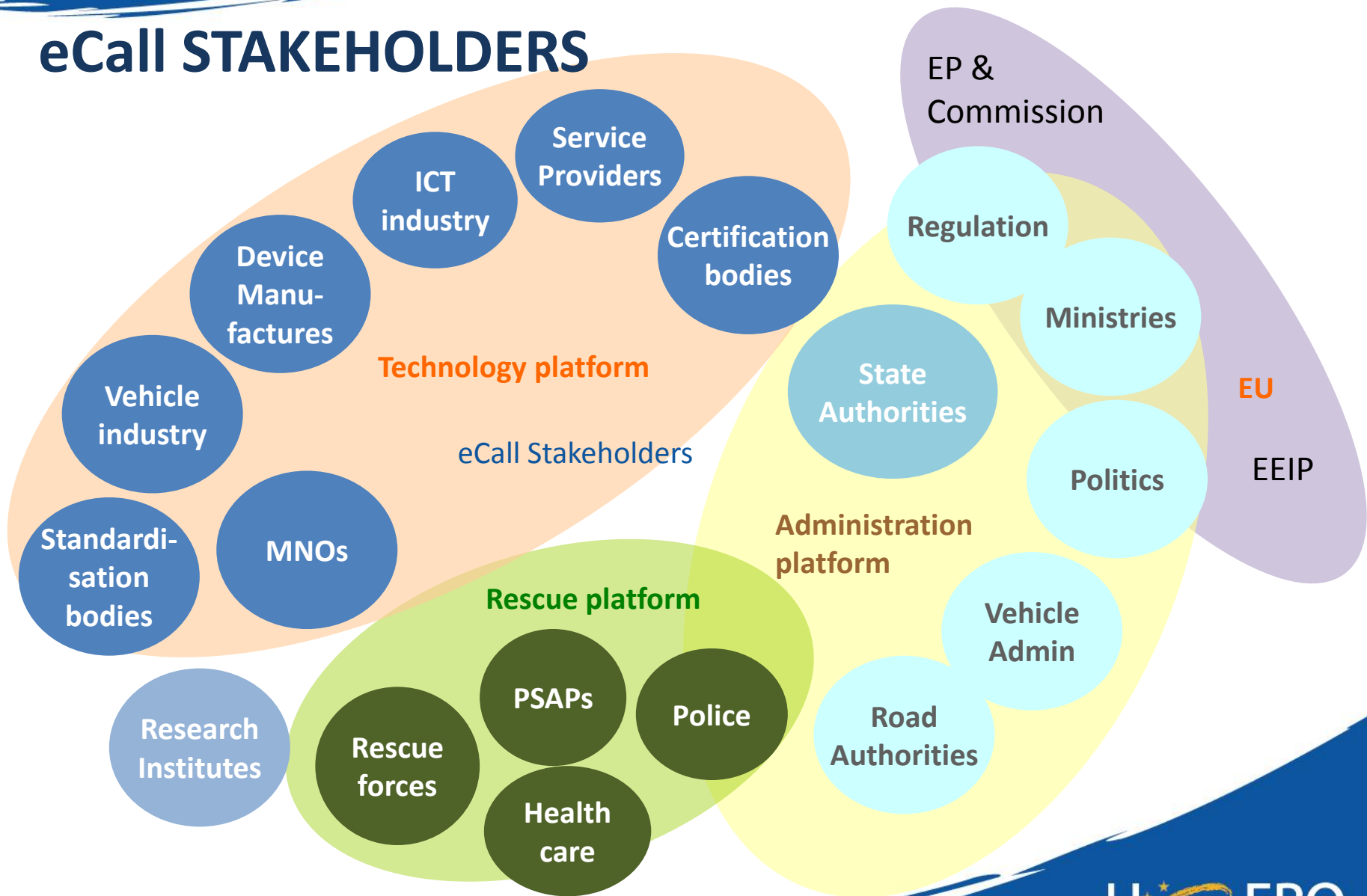
Tasks

- Identification of deployment barriers, enablers and solutions
 - 1., 2. and Final version
- Steps for certification
- eCall deployment guidelines
- Recommendations for eCall implementation

Enablers and barriers - Opportunities



eCall STAKEHOLDERS

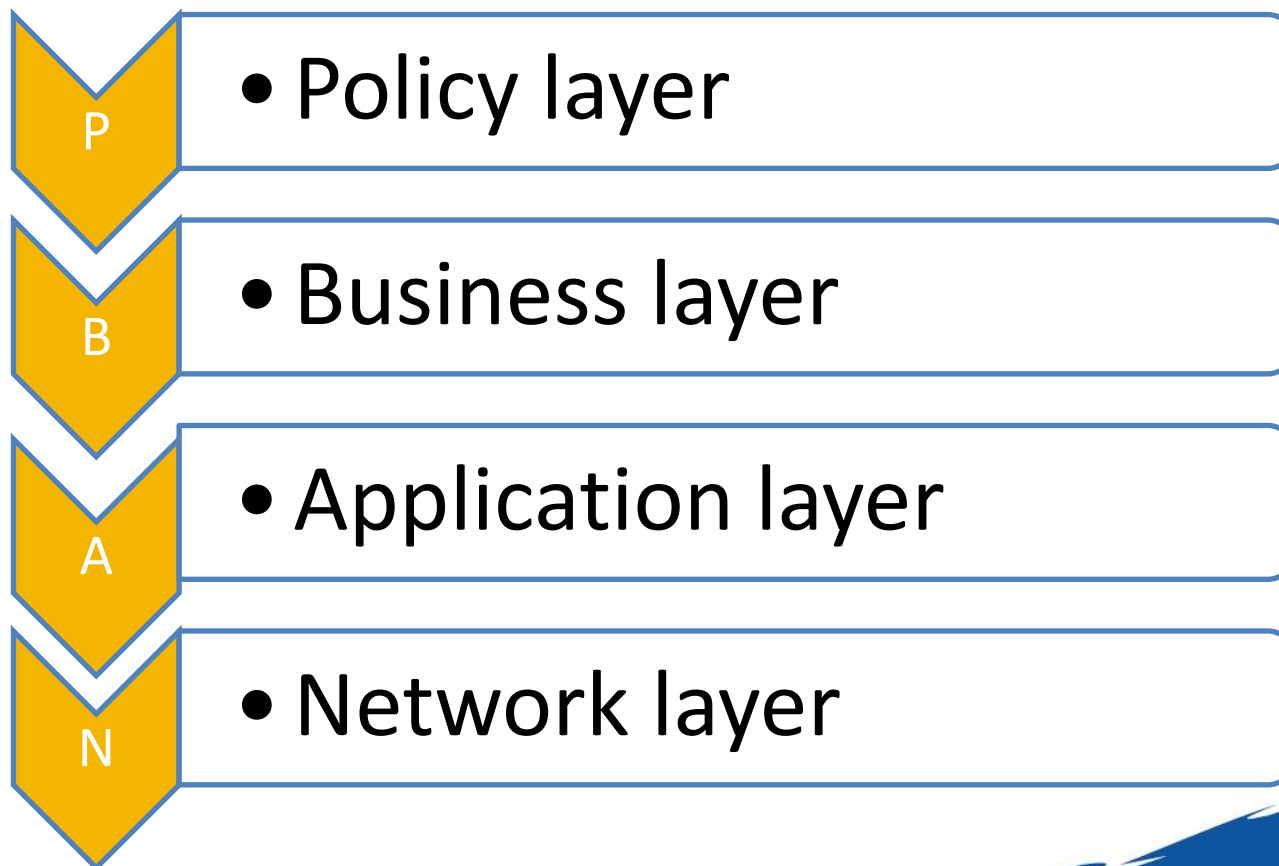


Overview of the situation

- “Barriers, enablers and opportunities” insights gathered from partners before the piloting phase started in 2011, reported
- Second phase integrating situation after the first piloting phases: solutions and experiences, started
- “Steps for eCall Certification” in process, to be finalised soon
- “Guidelines for eCall deployment” starting
- “Recommendations”, starting later on in 2013

General Framework for eCall analysis

1. Phase



General Framework

- **Policy layer** (eCall policies and implementation, national policies and implementation, general regulation e.g. privacy and safety)
- **Business layer** (all administrative, financial and organisation issues, identification of the stakeholders/actors, regulation affecting the markets and roles, issues related to user - needs and feedback, service and business architecture, markets)
- **Application layer** (technical architecture of the service, interfaces between systems, technical service quality, user interfaces and devices etc.)
- **Network layer** (all communication between systems and stakeholders, interoperability, shared communication protocols and physical components of the system, the mobile communication infrastructure)

Policy situation

- Clear commitment from EP (e.g. the EP resolution in July 2012) and Commission
- 29 countries signed eCall MoU (+107 companies)*
- Are all stakeholders & authorities within MS in the same line? (Road-PSAP-Rescue-Health etc.)
- Emergency rescue services and PSAP structures vary a lot in the countries > tailored specifications and implementations needed
- Certification process to be set up

*Situation 10/2012

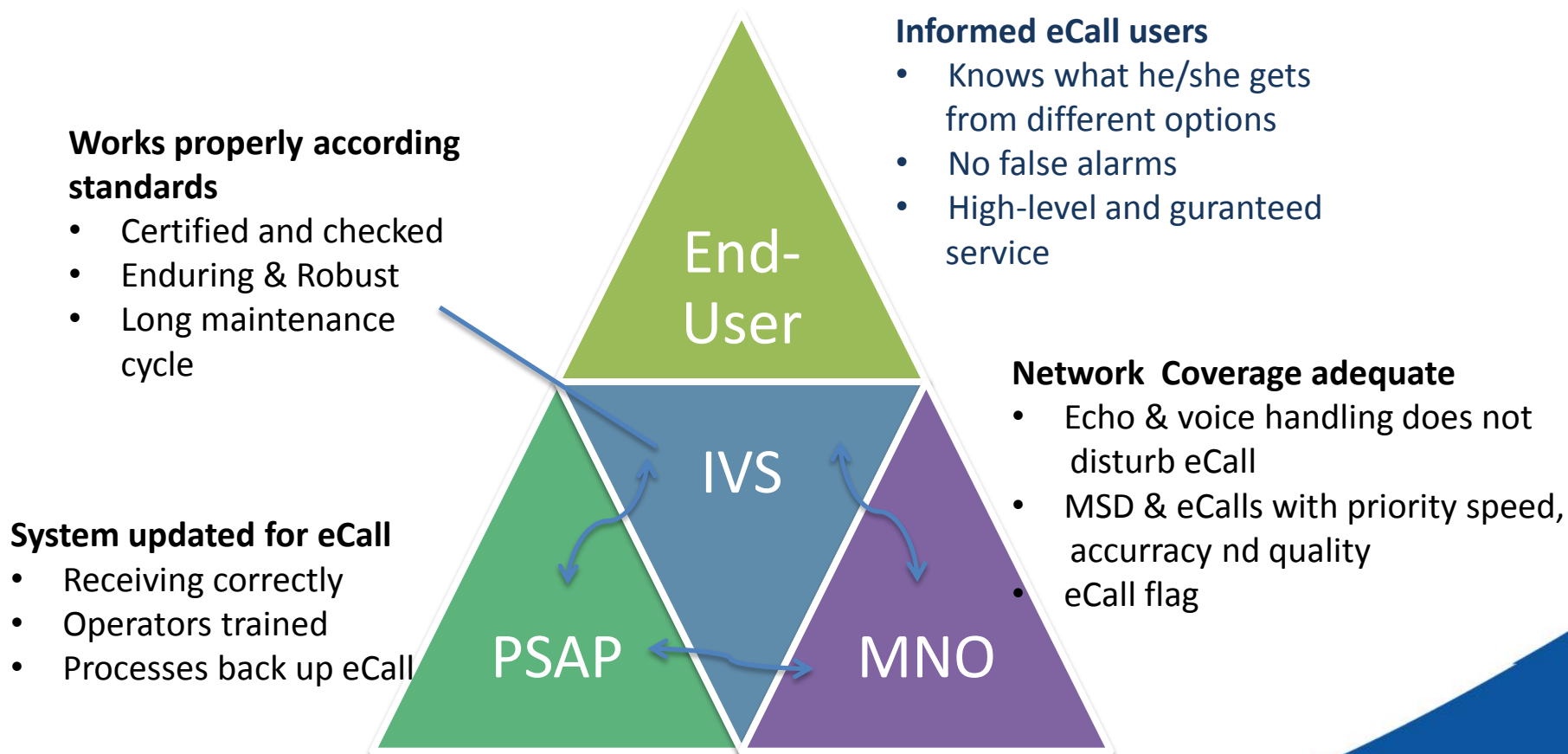
Business situation

- Financing the upgrading of systems (PSAPs, MNOs etc.) need state regulation
- IVS market develops faster when the demand is formed up in piloting
- Retrofit one of the new working area
- Smartphone discussion opened
- TPS & value added services need a common policy - eCall and other services on the same platform?
- Costs/ Benefits for the value chain: are costs rightly distributed?

Applications/Networks situation

- Piloting brings up the weak and strong links in the chain (see next slide)
- Standards are still insufficient and may also include faults: tasks to the HeERO TF
- Tailoring required in piloting phase because of the variety of PSAP system environments
- MNO and eCall flag implementation required, regulation progressing
- MNO's have also clear expectations for the well functioning service

eCall building blocks



D6.3: Table of contents 1/3 - Preliminary

- 1 TERMS AND ABBREVIATIONS**
- 2 EXECUTIVE SUMMARY**
- 3 INTRODUCTION**
- 4 CERTIFICATION**
 - 4.1 CERTIFICATION PROCESS**
 - 4.2 ECALL OPERATING PRINCIPLE**
 - 4.3 IN-VEHICLE SYSTEM (IVS) SPECIFIC DESCRIPTIONS**
 - 4.4 MOBILE NETWORK OPERATOR (MNO) SPECIFIC DESCRIPTIONS**
 - 4.5 PUBLIC SERVICE ANSWERING POINT (PSAP) SPECIFIC DESCRIPTIONS**
 - 4.6 DATA TRANSFER**
 - 4.7 LIST OF CURRENT STANDARDS AND DIRECTIVES**

D6.3: Table of contents 2/3 - Preliminary

5 NEEDS FOR ECALL CERTIFICATION

5.1 IN-VEHICLE SYSTEM (IVS)

5.1.1 IN-USE TESTING

5.1.2 IVS INSTALLING

5.1.3 RETRO-FIT 112 ECALL IN-VEHICLE DEVICES

5.1.4 POWERING IVS

5.1.5 TRIGGERING IVS

5.1.6 REMAIN REGISTERED

5.1.7 GENERAL IVS

5.2 MOBILE NETWORK OPERATOR (MNO)

5.2.1 MNOS' STATE OF READINESS

5.2.2 RECOGNISE ECALL IDENTIFIERS (FLAGS)

5.3 PUBLIC SERVICE ANSWERING POINT (PSAP)

5.3.1 PSAPS' STATE OF READINESS

5.3.2 HANDLING SPEECHLESS ECALLS

5.3.3 MINIMISING FALSE ECALL

5.3.4 VIN FROM EUCARIS

5.3.5 LOCATION

5.4 MEMBER STATE SPECIFIC ISSUES

5.5 GENERAL

5.5.1 TIMETABLE

5.5.2 TYPE OF CERTIFICATION

5.5.3 TRANSITION FROM 3G TO LTE

D6.3: Table of contents 3/3 - Preliminary

6 FRAMEWORK FOR CERTIFICATION

6.1 BEST PRACTICES

6.1.1 IN-VEHICLE SYSTEM (IVS)

6.1.2 MOBILE NETWORK OPERATOR (MNO)

6.1.3 PUBLIC SERVICE ANSWERING POINT (PSAP)

6.2 END TO END CONFORMANCE

6.2.1 IN-VEHICLE SYSTEM (IVS)

6.2.2 MOBILE NETWORK OPERATOR (MNO)

6.2.3 PUBLIC SERVICE ANSWERING POINT (PSAP)

6.3 MEMBER STATE FRAMEWORKS

6.4 CONCLUSION

7 REFERENCES

D6.3: Needs for eCall Certification – two suggested solutions - Preliminary

Own type-approval
certification

IVS

EU-wide type-approval → same component in every member state excluding localisation.



MNO

No specific needs for external certification.
Nation-wide instructions which complies with the standards.

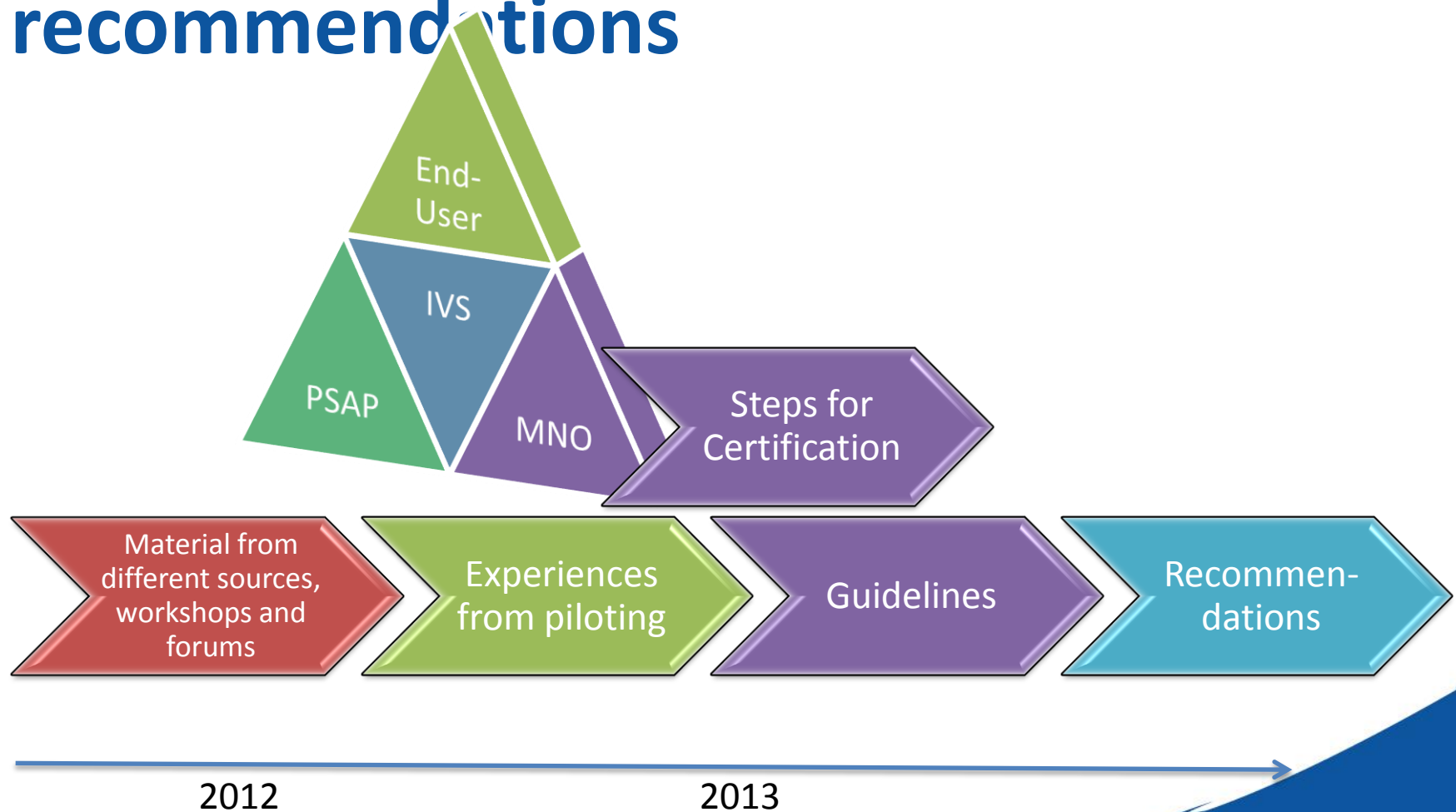


PSAP

Nation-wide certification which complies with the standards → operational model needs to be absolutely reliable.

Common
certification
possibility

Preparing the guidelines and recommendations



“Guidelines for eCall deployment”

- **Why** – to help eCall implementation and deployment
- **For whom** – identification of all main actors and their special needs
- **How** – timeline related to eCall deployment and e.g.
 - Organisation, roles and management
 - Issues related to standards
 - Specifications
 - Certification procedure
 - Financial issues
 - Technology innovations
 - Connections: bCalls /TPS eCall, TMC

EEIP Pan-Eu eCall implementation Guidelines

(Last revision 3th February 2012)

1. INTRODUCTION

1.1 Intended audience (= EEIP members)

1.2 Objectives

2. PAN-EUROPEAN ECALL SERVICE

2.1 Introduction

2.2 Architecture

2.3 Benefits

3. MEMBER STATES

3.1 National Platform

3.2 PSAP Organisation

3.3 Relevant standards applicable

4. IN VEHICLE SYSTEM

4.1 Parts of the in-vehicle system

4.1.1 Electronic Control Unit (ECU)

4.1.2 Positioning system

4.1.3 Communication system

4.1.4 Human-Machine Interaction (HMI)

4.2 Possible instantiations of the in-vehicle system

4.3 Possible use of eCall in-vehicle system for added value services

4.4 Relevant standards applicable

5. PUBLIC SAFETY ANSWERING POINTS (PSAPS)

5.1 PSAP architecture

5.2 PSAPs upgrade

5.3 Relevant standards applicable

6. MOBILE NETWORK OPERATORS (MNO)

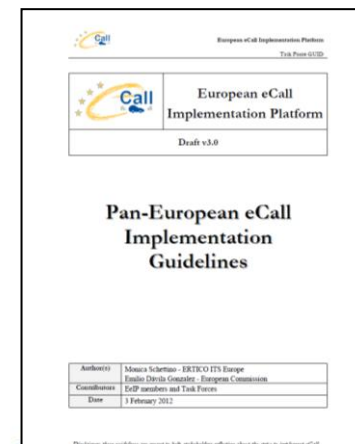
6.1 Relevant standards applicable

7. ROAD OPERATORS

8. POSSIBLE OTHER VALUE SERVICES

8.1 Possible strategies

9. THIRD PARTY SERVICES AND PUBLIC ECALL



Directions to Guidelines?

- **Why?**
 - Better safety for road users in Europe
 - Faster and more effective take-up and deployment in MS
 - Choosing strategy, overcoming problems and avoiding errors, min financial burden
- **Whom?**
 - Decision or/and operational levels
 - MS not piloting yet
 - IVS, MNO, PSAP organisers and operators
 - Other stakeholders
- **How**
 - Existing eCall and other material
 - HeERO pilot experiences and solutions to identified problems
 - In cooperation with main stakeholders
- **When**
 - By May 2012

Recommendations

- Integrating all piloting experiences of piloting towards implementation
- Transferring major experiences to solutions and recommendations
- Recommendations seen as reaching the best-practise
- Avoiding loss of resources and reaching high-level pan-European interoperable eCall service implementation

**Thank you for attention
Questions ?**