Celtic-Plus
Smart Connected World

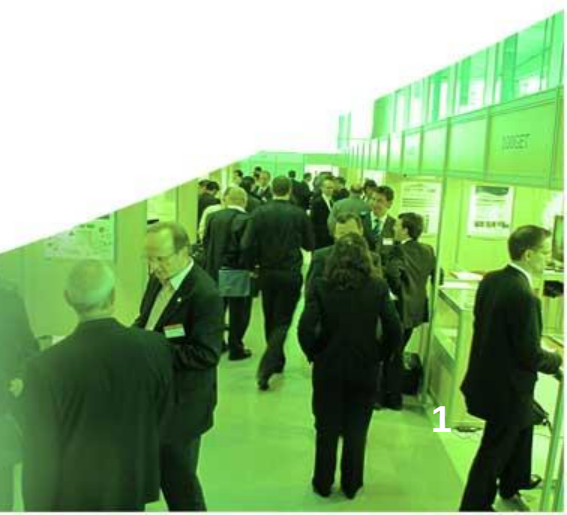
EUREKA

CoMoSeF

Success Story

Pekka Eloranta, CoMoSeF Co-ordinator

Celtic-Plus Proposers Day
28 October 2015 in Antwerp



Why?

Source: KSML.fi

Source: Mediheli.fi

History

Carlink

- Principles of service provision
- Testing technology (GPRS worked perfectly, WLAN was not mature yet IEEE 802.11g was not suitable for V2I and V2I purposes
- The services were working with limited set of sensors

7/2006 – 3/2009

WiSafeCar

- Proof of concept
- Further developed services (focus on road weather and dynamic carpooling)
- Comprehensive set of sensors used
- Both GPRS/3G and mobile WLAN (IEEE 802.11p worked properly
- Field tests showed good results
- Content Centric Networking solution was developed (perhaps the first in the world)

7/2009 – 3/2012

CoMoSeF

- Closer to market
- Focus in paving the way towards wider scale deployment of intelligen transport systems (ITS)
- LTE network to be used in addition to GPRS/3G and WLAN
- Vehicle Bus and sensors to be used as a source of data
- Wider scale piloting activities throughout Europe and in Korea
- Utlisation of the co-operative mobility standards
- Parallel activities with DRIVE C2, FOTsis, etc.
- In line with the objectives of EC's ITS Directive and ITS Action Plan

7/2012 – 6/2015

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Consortium

- Mobisoft Oy
- Finnish Meteorological Institute
- Infotripla Oy
- Taipale Telematics
- VTT
- Centria

- CRP Henri Tudor
- HITEC Luxembourg S.A.
- Entreprise des Postes et Telecommunications Luxembourg

- Technical University of Cluj-Napoca
- AROBS Transilvania Software

- UBRIDGE

- IKUSI – Angel Iglesias S.A.
- CBT Comunicación & Multimedia
- INNOVALIA

- ISBAK A.S.
- KocSistems
- Otokar

- UTC Lab. Heudiasyc
- Viveris Technologies
- Thales Communication & security

Objectives & Achievements 1/2

- Provision of road weather information, warnings and forecasts with the means of standard communication.
- Provision of forecasting information of road surface, warnings of working zones & poor road conditions.
- Road surface friction monitoring and forecasting.
- Pedestrian detection.
- Driver behavior detection.
- Detection of traffic jams.
- Innovative back-end applications and intelligent infrastructure to support driver decisions.
- Interactive road side units presenting individually selected data to passing vehicles.

Objectives & Achievements 2/2

- Methodology for vehicles to collect & deliver data to road side units.
- Services to provide information based on the user's location and type of terminal.
- Efficient networking and data dissemination techniques adapted to multi-technology.
- Verification of C-ITS, 3G, LTE and 4G technologies.
- Data collection, fusion, analysis and exploitation with example services.
- Simulation of the reactive vehicular networking entity of the project.
- Evaluation of the commercial viability of the results.
- Deployment of the results.

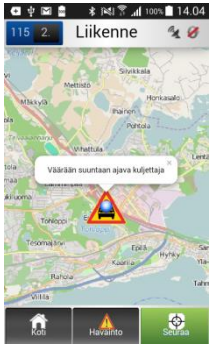
Figures

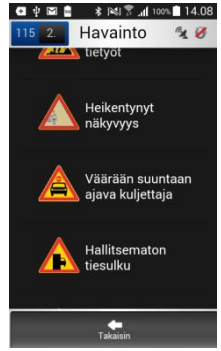
- 9 M€, 94 Person years
- 7 countries, 21 partners, 11 pilots
- 23 new products, 23 product improvements
- 1 new company planned
- 15 new epmployees
- 1 patent
- 11 scientific publications
- 59 conferense papers, presentations and posters
- 3 Ph.D Thesis, 2 Masters Thesis, 2 Bachelor's Thesis

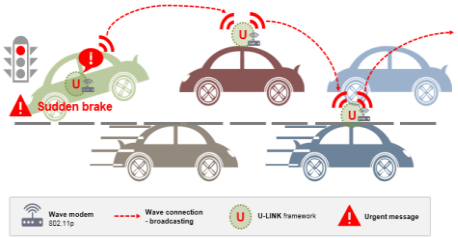
Pilots Around the World

CoMoSeF Pilot Results

- CoMoSeF has brought the C-ITS solutions and services to market and created the needed business models.
- The results of the project have been concrete and the solutions & services have huge commercial potential.

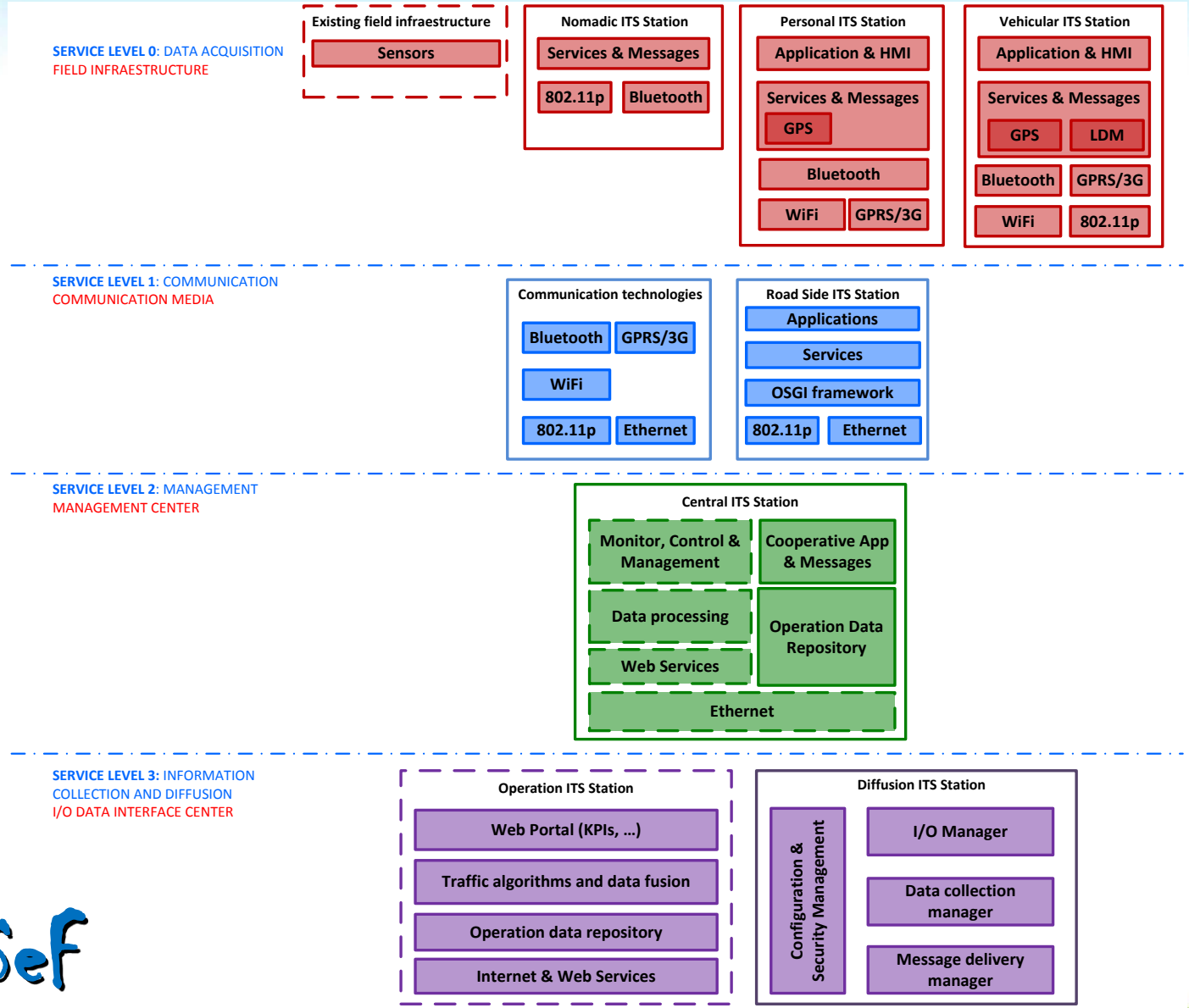






CoMoSeF

CoMoSeF - Functional Architecture



Impacts

- CoMoSeF helps to increase traffic safety by providing traffic information, weather forecasts, warnings, etc. and thus helping to reach the objectives set by the European Commission.
- V2V & V2I communication with real-time weather, incident, accident, disturbance, accident data and deployment of related applications will decrease remarkably risks and problems on the European roads.
- Sensors and other sources of data create a huge potential to increase safety, efficiency, comfort and flexibility of traffic.
- The data will also decrease congestion, pollution, etc.
- So, the expected impacts of CoMoSeF are remarkable. The results serve the society as a whole and can be used by car industry, car users, authorities, road maintenance, weather services, information refiners & providers, ad-hoc networks, etc.

Next Steps

- Co-operation and technology transfer between partners has started and will continue.
- New commercial services, products and features have been developed and deployed in CoMoSeF and the work will continue.
- Real time traffic, condition, incident, weather, etc. data collection has already become a big issue, both authorities and companies are interested in buying “CoMoSeF data”– commercial negotiations have started and agreements have already been signed.
- “CoMoSeF market” is rapidly growing and the partners will react.

Thank You

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