



eltic-Plus⁺

Smart Connected World



Latest News of Celtic-Plus

Celtic-Plus Event

Monaco, 23-24 April 2014

Jacques Magen, Celtic-Plus Chairman



About Celtic-Plus

Celtic-Plus is a European EUREKA R&D programme dedicated to networking technologies and services

- *bottom-up, flexible, industry-driven, close to the market*

Celtic-Plus has 10 years of experience in European projects covering R&D and Innovation

- *Impact and innovation are crucial to Celtic-Plus (and to EUREKA)*

- **Celtic-Plus Core Group Members:**

Alcatel-Lucent

Atos

BT

Orange

Orange

ERICSSON

EURESCOM

gemalto

indra

ITALTEL

NSN

RAD

technicolor

Telefonica

SIEMENS

THALES

TURKCELL
TEKNOLOJİ

TURK
TELE
KOM

Results and Impacts

New or improved products	565
Number of directly generated patents	390
Prototypes/ field trials	619
Number of standards contributions	550
Number of publications/ conferences	1700
Number of PhD/ Master thesis	583
Estimated RoI: around 50 x	>25 B€

*) figures extrapolated for 74 closed projects on the basis of 33 evaluated project outcomes

Project Highlights



Broadband Optical networks	Broadband mobile networks
<p>High-speed optical networks for Future Internet 10 times faster This 65 M€ project has laid the ground for 100 Gb/s optical networks.</p>	<p>Global standards for 4G Technology on LTE-advanced bringing Europe back into the driver's seat for high-speed mobile systems</p>
<p>World class developments on the optical layer and network integration:</p> <ul style="list-style-type: none"> ➤ 21 new products ➤ 15 improvements of existing products 	<p>59 contributions to 4G mobile communication standardisation, paving the way to roll-out LTE-Advanced.</p>

Both projects were Celtic Gold Award and Innovation Award winners
 100GET was also nominated for the EUREKA Innovation Award 2013



More Project Highlights



Broadband 4G access networks	Elastic Optical Networks	High Performance Telemedicine platform	Next Gen. Networks for Broadcast (DVB)
<p>New ITU standard G.fast for realizing a 1Gb/s hybrid fibre-copper solution for up to 200 m normal copper lines; as Successor of x-DSL.</p>	<p>EO-Net project brings “elasticity” to optical transport networks. Elasticity becomes an enabler to achieve Scalability, Cost and Energy efficiency.</p>	<p>First Multi-domain Celtic project with 3 hospitals. Unified Service Platform with 5 prototypes in 5 countries. Doctor from CHU Nancy considers easy to use.</p>	<p>DVB-T2: Validation of HD standard and 2 new standards for mobile handheld TV reception. DVB technologies have been adopted especially in Asia and in Africa.</p>
<p>G-fast is becoming widely accepted at operators and in press: 07/2013 Austria Telekom: Field trial 10/2013 BT: Field trial 02/2014 DT: Field trial 02/2014 Telia Sonera: Helsinki Pilot</p>	<ul style="list-style-type: none"> • 18% cost reduction (network upgrade) • Elasticity in new commercial chipset • 30% energy savings (day/night traffic adaptation) • 5 “elastic” products under development • 8 Prototypes and Field trials 	<ul style="list-style-type: none"> • Home care system deployment VODAFONE: 500 sold in Madrid (target 4000 units in 2014) • Videoconference system for the Spanish Red Cross • Network deployment in hospitals in France will be decided this week • 7 new and 5 improved products 	<ul style="list-style-type: none"> • 5 from 8 validation testing’s of DVB-T2 • Contribution of 10 % to new mobile standards: DVB-T2-Lite and DVB-NGH • 13 new and 8 improved products • dimensioning tools for DVB deployments



Spectrum and energy efficiency in 4G communication systems and beyond

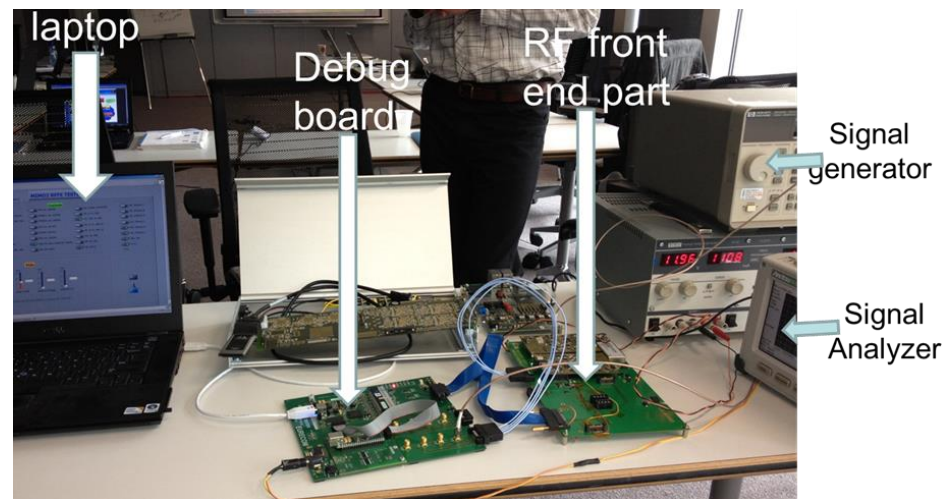
The focus is on Cognitive Radio techniques for mobile communications.

Automatic reconfiguration of devices improves:

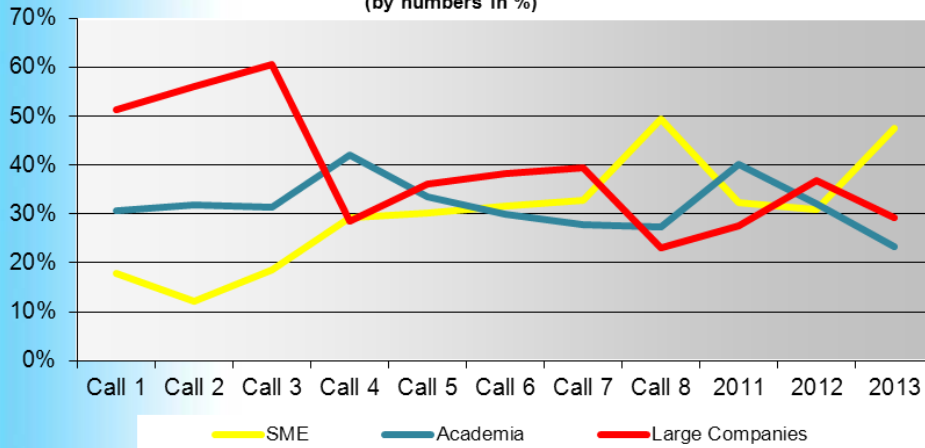
- **robustness of connections**
- **increases the coverage**

- Automatic reconfiguration is applied to: LTE, femto-cells but also to emergency communication systems.
- The debug card has already been sold.
- **Field trial is currently realized in the Network of Monaco Telecom.**
- Thanks to this the project has access to local regulations.
- The increase in efficiency and robustness of these wireless systems will be a selling argument.

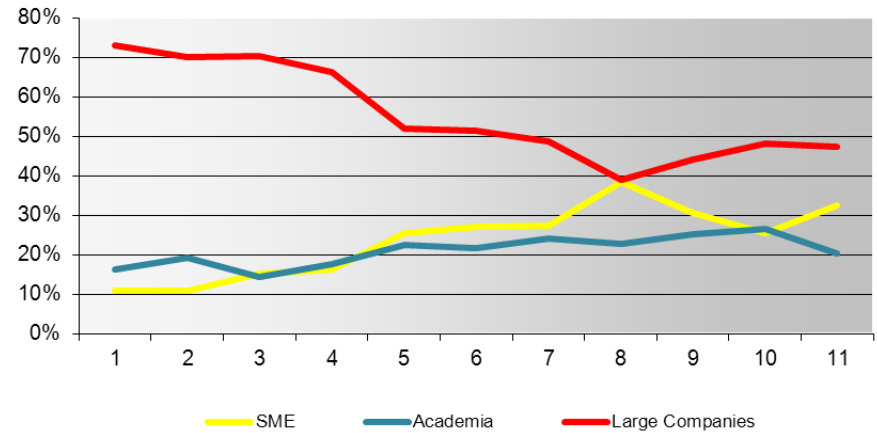
3 from the 4 electronic cards shown at the Mid Term Review have been developed in the project.



Types of companies
(by numbers in %)



Types of companies
(by budget shares in %)

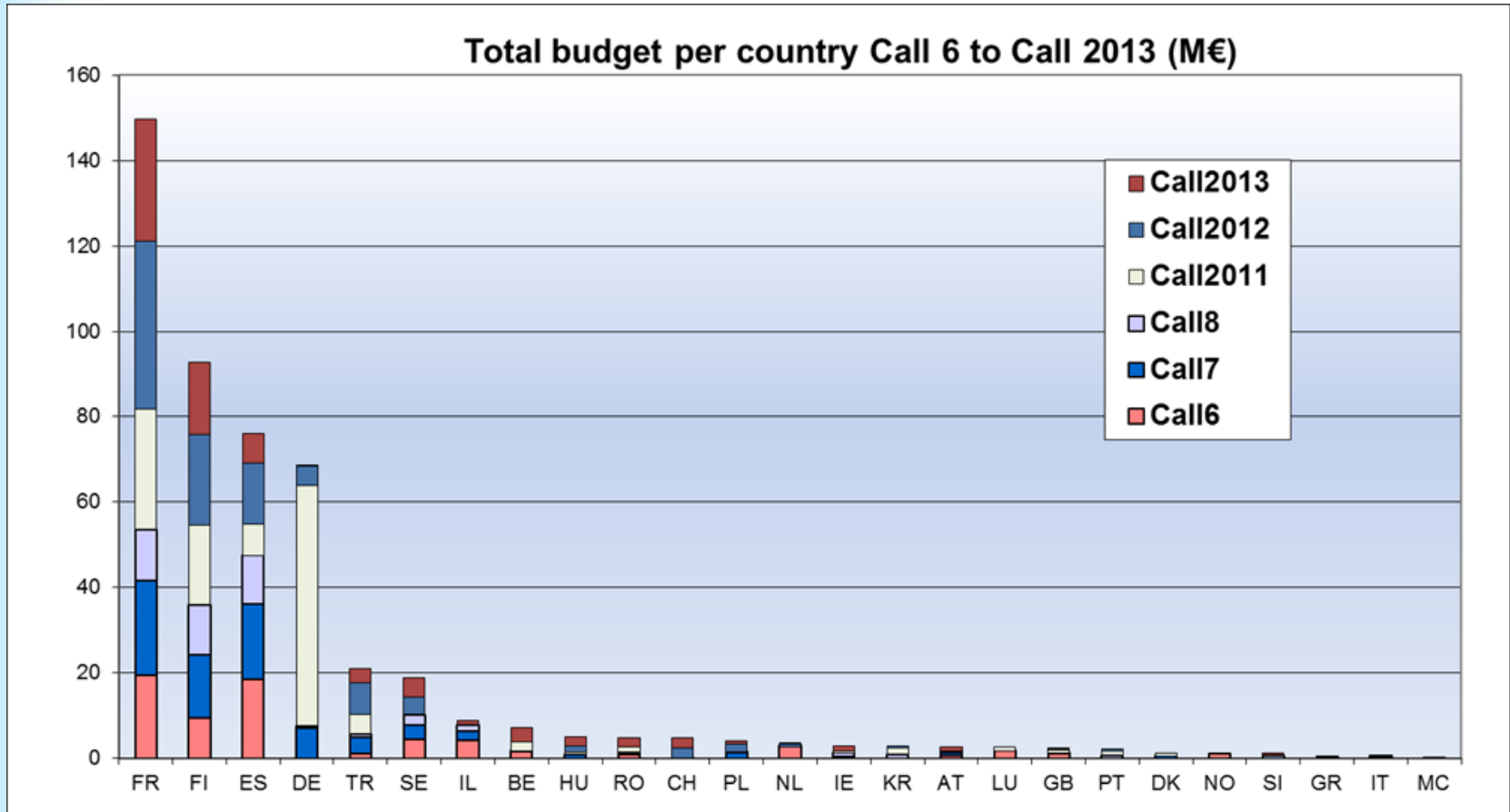


In 2013:

- High participation of SME (# of companies)
- Increasing budget share of industry



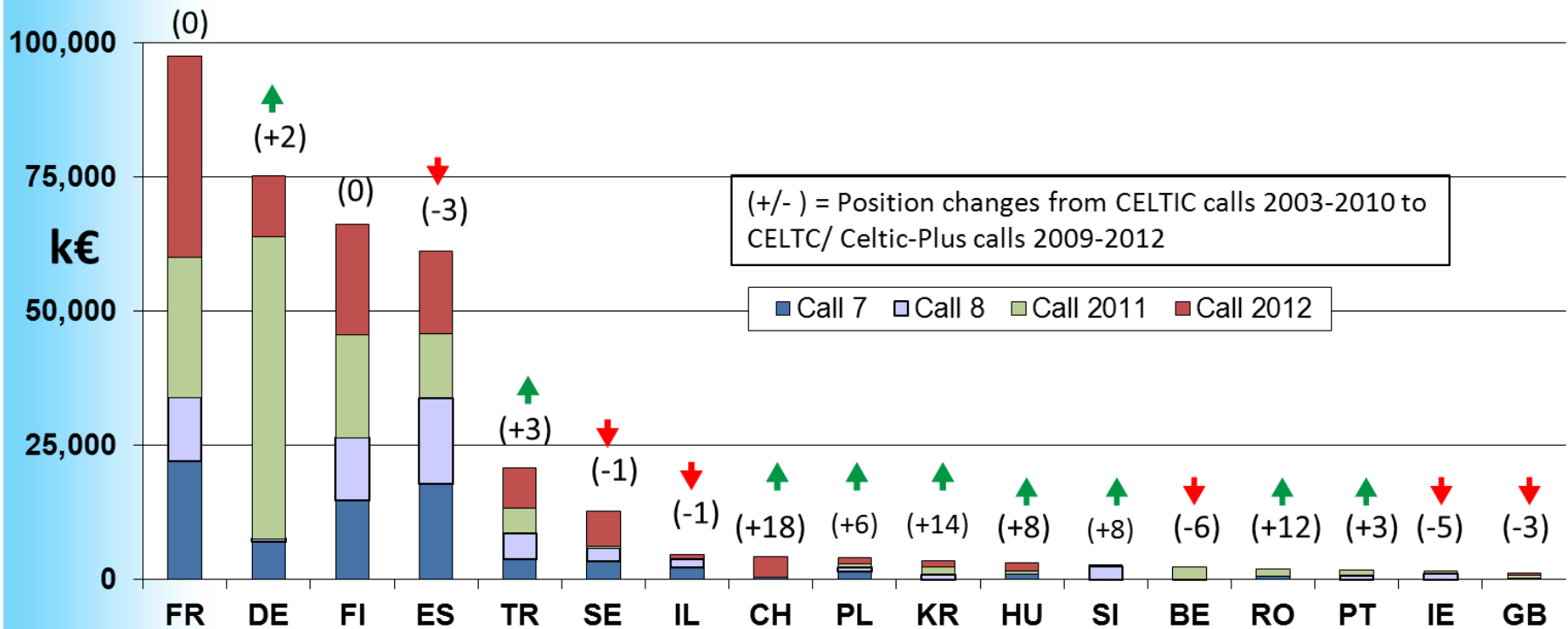
Country Participation



Budget per country

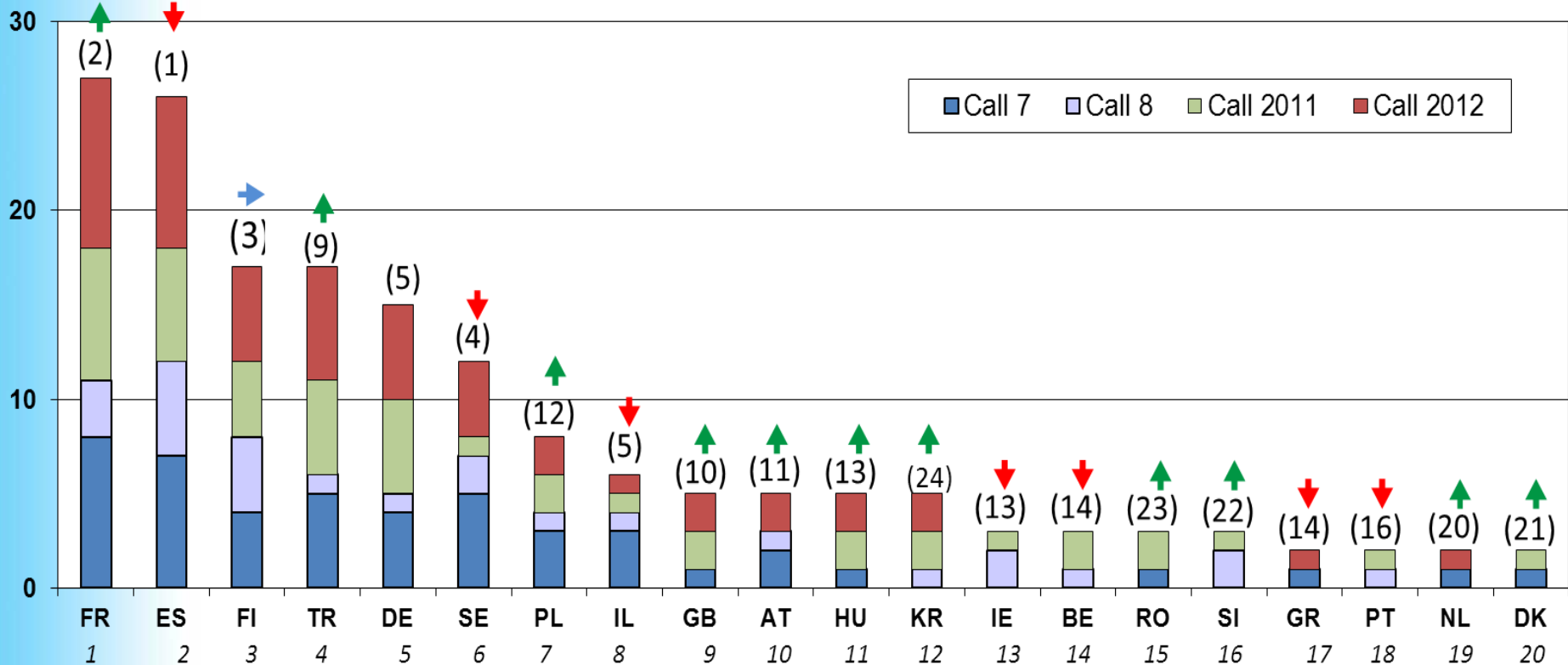
835 M€ is the total budget of all Celtic/ CelticPlus Calls

Budget per country



Participation per country

Number of projects per country



To come 2014



- 24 June: SASER Conference on:
„Secure European Communications“
 - High-level participations from politics, industry, research, and press
 - SASER exhibition and demos
- 25 June: **Celtic-Plus Proposers' Day**
 - Targetting Autumn call (15 October)
- Location: Kalkscheune Berlin
- Proposers Day in November or December; date tbc.



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www.celticplus.eu

