



eltic-Plus⁺

Smart Connected World



Celtic-Plus Research Possibilities (Purple Book)

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Main Research Areas

Smart Connected World

Get Connected

While Connected

Network and
Platforms

Services &
Network
Management

Business
Support
Systems

Multimedia

End-User
Services

The network foundation



No satisfactory solution currently exists to commonly address all challenges of the Internet

Get Connected

While Connected

Future services

“Smart Cities”

Digital Citizen

Digital Identity

Digital School

Digital Home

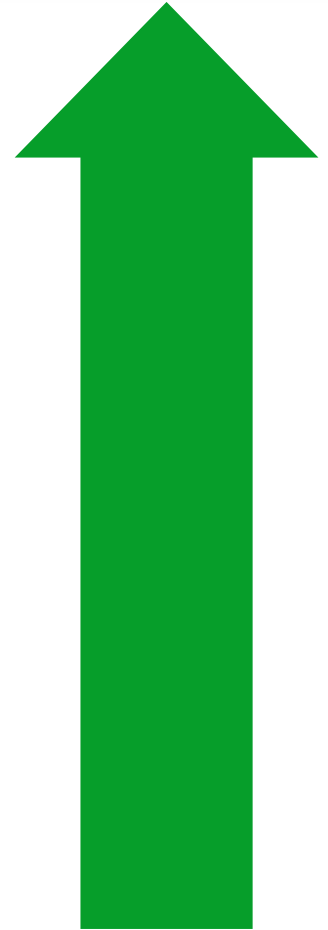
Digital Car

Digital Transport

Digital Enterprise

Future Interfaces

- **Energy Savings **in** telecoms:**
 - Networks fixed/ mobile (less Watt/ bit)
 - Services (less computing/ transport needs)
- **Energy Savings **through** telecoms:**
 - Energy management (via telecoms) for:
 - Households, companies, energy providers
 - **Smart Grids** (intelligent energy networks)



Celtic OperaNet2 project (running):

France Finland Belgium & UK, Budget 8 M€



- The OPERA-Net 2 project aims to reduce the overall environmental impact of mobile radio networks.
- The project adopts an end-to-end approach for both 3G and 4G wireless networks, identifying all relevant network elements and their interdependencies.
- improvements especially for energy and material efficiency in the radio base transceiver station (BTS).

ICT in health sector

- Telemedicine: **Celtic HD-Viper project (finished):**
 - Open HD videoconferencing platform; better medical coverage
 - Now commercial 480 M€ project in Sweden.



- Telemedicine Service oriented platform:

Celtic Hipermed project (finished):



- Consortium with expertise from ICT and medical sides; hospital involved; plans to establish a Network of Hospitals in France.

- Future Internet Paradigm in the Health domain:

Celtic PISCES project (running):



- Use-case for the FI-Ware platform (FI-PPP architecture)



Celtic-Plus Use-case Factory and FI-PPP

- Purple book: “Celtic-Plus is dedicated to pursue the most appropriate relationship with [...] the Future Internet PPP [...]”
- FI-PPP is bringing together vast technology base
 - External parties may use technology base → clear terms and conditions for using technology outside/beyond PPP needed
 - External parties may contribute to technology base
- Celtic-Plus Use-case projects may use FI-PPP technology



5G-Infrastructure PPP

- Celtic-Plus will be an Associated Member of the 5G Infrastructure Association
 - provide our views on requirements on future communication networks
 - be involved in shaping such systems

Why participate in Celtic-Plus projects?

Industry-
driven

Bottom-
up



Flexible

Light
overhead

Open to international cooperation