# Celtic-Plus
# Research Possibilities
# (Purple Book)

*Valérie Blavette, Orange, Celtic-Plus Vice-Chair*

# 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



security,
privacy  trust

availability

accountability

scalability

manageability
and
diagnosability

mobility

heterogeneity

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

Get Connected

# Future services

**"Smart Cities"**

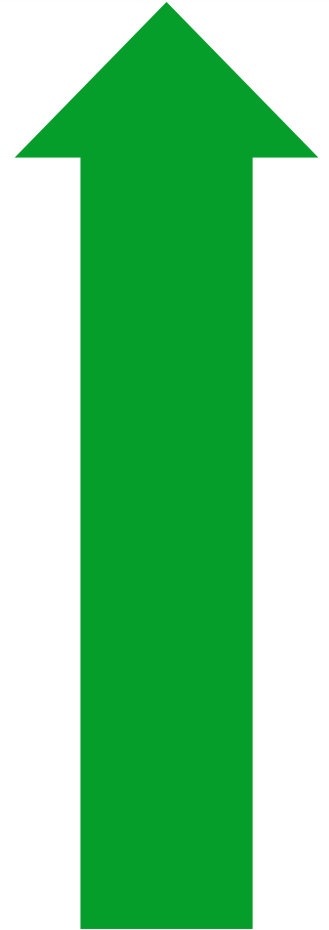Digital Citizen | Digital Identity | Digital School

Digital Home | Digital Car | Digital Transport

Digital Enterprise | Future Interfaces

# What's New: Going Green

- **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)

# Power Efficiency in Mobile Radio

## 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).

# E-Health Projects

- Telemedicine: Celtic HD-Viper project (finished):

  o Open HD videoconferencing platform; better medical coverage
  o Now commercial 480 M€ project in Sweden.

- Telemedicine Service oriented platform:

  Celtic Hipermed project (finished):

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

- Future Internet Paradigm in the Health domain:

  Celtic PISCES project (running):

  o 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

# Celtic-Plus and 5G-PPP

**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**

These are Σ! attributes!

EUREKA

**Open to international cooperation**