hsnlab-overview.ppt

# Our Experience in the FP7-H2020 overlap period: The IP COMBO project

Enhancing the Bilateral S&T Partnership with Ukraine*Advanced Innovative Approach
ICT In-House training 6th -7th October 2014 in Budapest, Hungary
BILAT*UKRAINA, Project N 311839

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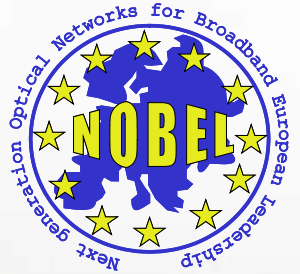
**HSN*Lab*: High-Speed Networks Laboratory**

**TMIT: Department of Telecommunications and Media Informatics**

**BME: Budapest University of Technology and Economics**

# European Projects on Optical Networks we have been involved in


- **FP6: 2004 - 2007**
  - IST IP NOBEL I and NOBEL II
    - **"Next generation Optical network for Broadband European Leadership"**
    - **www.ist-nobel.org**
  - IST NoE ePhoton/ONe and ePhoton/ONe +
    - **"Optical Networks: Towards Bandwidth Manageability and Cost Efficiency"**
    - **www.e-photon-one.org**
  - CELTIC PROMISE
    - **"Provisioning and monitoring of optical services"**
    - **www.celtic-initiative.org/Projects/PROMISE**
  - COST 291 TDON
    - **"Towards Digital Optical Networks"**
    - **www.ait.edu.gr/cost291**
  - COST 293 GRAAL
    - **"Graphs and Algorithms in Communication Networks"**
    - **www.cost293.org**






**PROMISE**


**291 – TDON**


**293 - GRAAL**

# European Projects on Optical Networks we have been involved in

## FP7: 2008 – 2013

- IST NoE BONE
  - **“Building the future Optical Network in Europe”**
  - **NICT future “collaborative partner”of BONE ?**
  - **www.ict-bone.eu (Call 1)**
- CELTIC TIGER II
  - **“Together IP, GMPLS and Ethernet Reconsidered”**
  - **www.celtic-initiative.org/Projects/TIGER-II**
- HALLO
  - **Not funded ☹ (Call 2)**
  - **In collaboration with NICT, Japan**
  - **“High Data Rate Photonic Subsystems for All Optical and Optoelectronic Communication”**

# FP7 IP COMBO

COnvergence of fixed and Mobile BrOadband access/aggregation networks

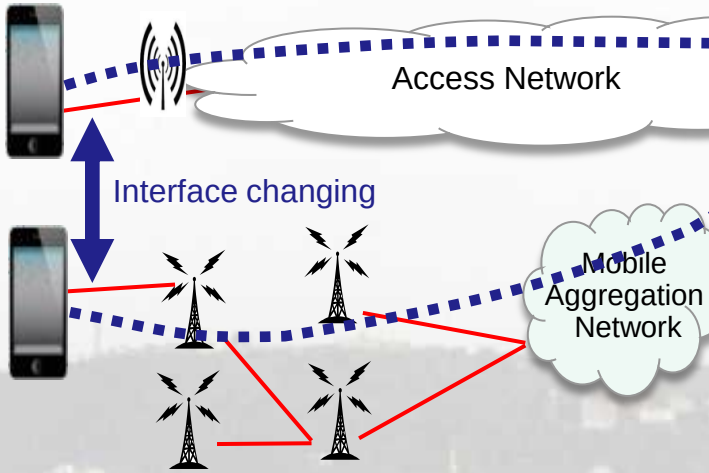
- **17 partners**
  - 6 operators
  - 4 vendors
  - 2 SME
  - 5 academia
- **7.5 M EUR**
- Funding scheme: Collaborative project

# **Availability-Power-QoS** Trade-off for **FMC**

WiFi?

micro
pico
femto cell ?
ato

makro
2G
3G ?
4G




**3D**

**Access selection**

(Interface changing/steering)
(Handover, load balancing)
(Traffic steering, dynamic shifting)

- **Horizontal ?** (Homogeneous, geographical)
- **Vertical ?** (Heterogeneous, multi-RAT)
- **Transversal?** (Inter-Operator)?

**Selective switch-off & Consolidation**

**Optimisation**

**Simulations**

**Message:**

- **Availability: can be improved**
- **Energy: reduced!!!**
- **QoS: OK**

COMBO

# H2020 OffloaD

***Offloading Densely Populated Mobile Access Networks (OffloaD)***

- **5G mobile macro-cell to small-cell offload**
- **EU - Japan joint project**
- **Two proposals – two review processes**
- **Review results soon available**

# Shifted focus!

- **More demonstration!**
- **More prototype!**
- **More product!**
- **More industry!**
- **More innovation!**

- **Less research!**
  - No “L’art pour l’art”

# Needed for all proposals!

- **Good topic and very well written proposal**
  - Address all requirements!
  - Focus onto demonstration!
  - Time! Time! Time!
- **Good consortium**
  - Charismatic Leader - good speaker
  - Balanced:
    - Geographically
    - Operator, Vendor, SME, Academia
    - Gender issue
- **Contacts, Relations, Friendships, Collaborations**