Mapping Broadband in Europe

Regional Workshop for Europe
New issues in QoS measuring and monitoring

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Aims of EC mapping activities
Support planning of Broadband

Aid planning of Broadband investments:

- Mapping of existing infrastructure, future investment and demand: key elements of **state aid** assessment;

- Allows public authorities to identify the **investment gap**;

- Allows to **monitor progress** towards EU/MS/regional NGN targets

- Mapping is a key element of **Broadband Plans**

Aims of EC mapping activities

Support to EU Cost Reduction Directive (2014/61/EU**)**

Reduction of investment costs:

- Facilitate higher re-use of existing passive infrastructures: telecom, energy, water, sewers

- Avoids duplication of civil engineering works,

- Prevents damages while performing civil engineering works

- Facilitates co-investment among sectors

Telecom Single Market Regulation proposal

Article 4 – paragraph 3

- *Providers of internet access services shall ensure that a contract which includes an **internet access service** shall specify :…*

- *… the **minimum, normally available, maximum and advertised download and upload speed of internet access services***

Article 4 – paragraph 3b

- *3b. Any significant discrepancy, continuous or regularly recurring, between the actual performance regarding speed or other quality of service parameters …ensured….through "**a monitoring mechanism certified by the national regulatory authority**".*

Mapping broadband infrastructures and services
Phase 1 Study (2013-2014)

Infrastructure: Geo-referenced and structured data of physical infrastructure, e.g.: ducts/fibre/nodes, antenna towers/masts, - and other relevant infrastructures energy, transport or water supply.

Quality of service (supply): Map information on the supply side of broadband service provision including the available bandwidths and the quality of service, technologies, operators/service providers.

Demand and Quality of Experience (Demand): Data on actual latency/speeds experienced by users; Data usage (per household); Expectations regarding quality of service and experience and willingness to pay by different user groups.

Investment mapping: Information related to prospective public and private investment of high speed broadband during the next three years (in line with EC Broadband State Aid Guidelines)

EU integrated monitoring platform
Phase II

- Will aggregate and benchmark mapping measurements of the services:

- Four main steps:

  1. The **design, development and maintenance** of the integrated platform.

  2. **Two sets of data**: quality of service and quality of experience

  3. An **interface** enabling the pulling/entry, data conversion.

  4. A **certification and benchmarking function** for crowdsourcing apps that comply with a set of qualification criteria

Quality of service (QoS)

- Data based on **marketed speeds/quality criteria** (on a basis of a number of pre-defined parameters/metrics)

- Gathered within existing **national mapping initiatives**

- **Data entities**: MS Ministries/Agencies, Network Operators and National Regulatory Authorities;

Quality of experience (QoE)

- Data on **actual users experiences**
- Pulled from crowdsourcing applications
- **Qualification Process** for the data: set of pre-defined parameters/metrics.
- **Data sources**:
  - Berec Members:NRAs
  - Platforms: MLAB, Akamai, Ookla, Netradar, Opensignal, Specure, RIPE, PERSOFAR, data collected by consumer organisations, etc.

Including also NUTS2 and NUTS3 Socio-economic/demographic/geographic data

For instance.:

- Average income,
- Age structure,
- Education attainment,
- ICT training employment status
- Population density,
- Type of area - urban, intermediate, rural typology

Geographical coverage of data collection

Type of mapping	Month 6	Month 12	Month 24
Quality of Service	3MS	21MS	28 MS
Quality of Experience	28MS	28MS	28MS

Roadmap of the platform

Title	Type	Due month
Inception meeting	Meeting	Jan 1016
First Interim meeting	Video-conf.	March 2016
Alpha version of the Platform	Deliverables	June 2016
First Consultation workshop	Workshop	June 2016
Updated alpha version of the Platform	Deliverable	Sept. 2016
Beta version of the Platform	Deliverables	Dec 2016
Second Consultation workshop	Workshop	Dec.2016
Updated beta version of the Platform	Deliverable	March 2017
Updated beta version of the Platform	Deliverables	June 2017
Updated beta version of the Platform	Deliverable	Sept. 2017
Final version of the Platform	**Deliverable**	**Dec 2017**
Final Workshop	Workshop	Dec 2017
Maintenance of the platform	Deliverable	Jan-Dec 2018

Thank you