Methodology of the European Commission's project "Mapping of Broadband Service in Europe" ITU-EC Regional Conference, Warsaw 11<sup>th</sup> April





### What is the project about?

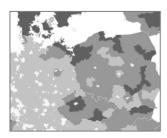
# Development of interactive online mapping platform and database



Quality of Service (QoS) and Quality of Experience (QoE) connectivity will be aggregated and visualized (fixed and mobile).



In the best case **76 national and 13 transnational initiatives** deliver data



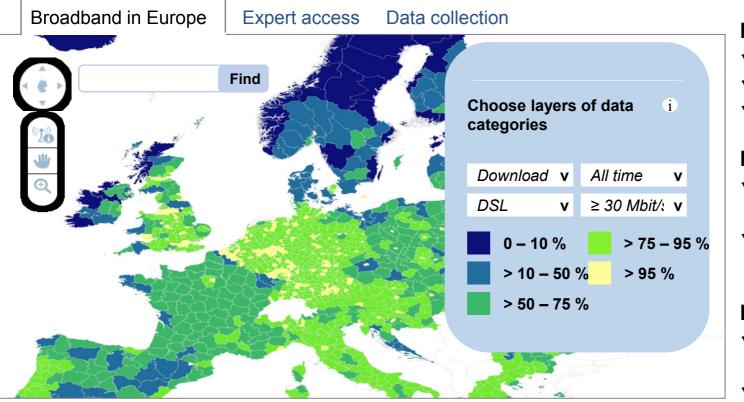
130 stakeholders are involved so far





## What is the final result?

#### **User-friendly interactive online Mapping Application**



#### **Public access**

- ✓ Standard tools for map navigation
- ✓ Pop-ups for meta-information on datasets
- ✓ Link to socio-demographic data from Eurostat

#### Expert access (restricted access)

- Display different layers & higher granularity to benchmark data categories
- ✓ Output of maps & reports, dynamic diagrams & tables with link to national GIS systems

#### **Data collection**

- Secure and user friendly upload via webfrontends
- Download of templates
- ✓ Briefing material, technical guidelines



### What is our approach?

National regulation and open access rules are taken into account

Standardized data collection via templates with flexibility to collect all data sets Use of existing data from already running initiatives

Data collection: user-friendly and low effort

Practice-oriented definitions to categorize all data sets based on national initiatives Data providers are NRAs, ministries & private crowdsourcing initiatives But no carriers

Continuous liaison with all stakeholders to include feedback at all stages

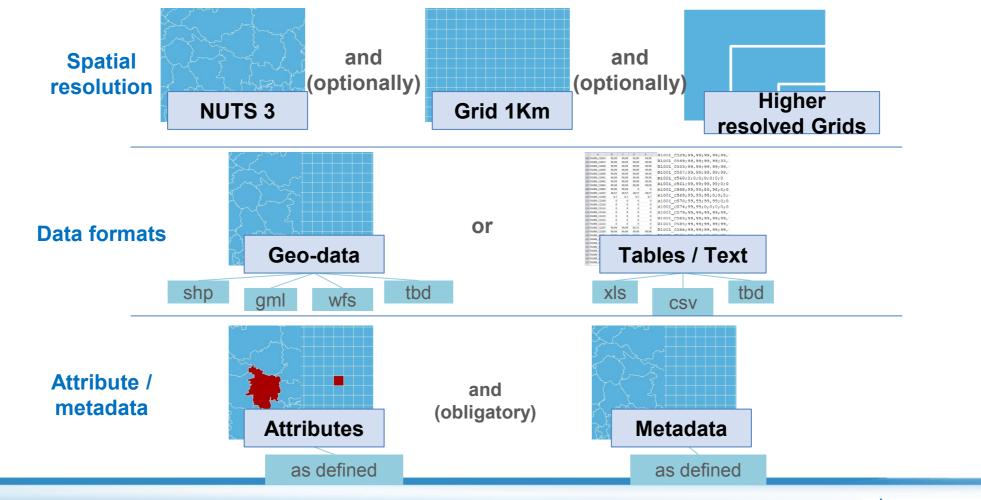


Definitions	Definitions have evolved from originally "QoS" and "QoE" to three practice-oriented categories	Internet		End User
QoS-1: Theoretical	<ul> <li>What: Predicted network performance of existing infrastructure</li> <li>How: Assessment / calculation by providers.</li> <li>Example: Project by IHS Consultants (all EU national initiatives),</li> <li>collecting coverage data</li> </ul>		QoS-1	
QoS-2: Practice optimal	What: Line qualification How: Measurement through panel probes or speed tests with filter to <u>exclude</u> end user's environment Example: SamKnows, German NRA initiative	Qos	5-2	
QoS-3: Practice experienced	<ul> <li>What: Actual user's experience when using Internet Access Service (IAS)</li> <li>How: Measurement via online speed tests <u>including</u> end user environment</li> <li>Examples: Ookla, Akamai, Opensignal</li> </ul>		QoS-3	



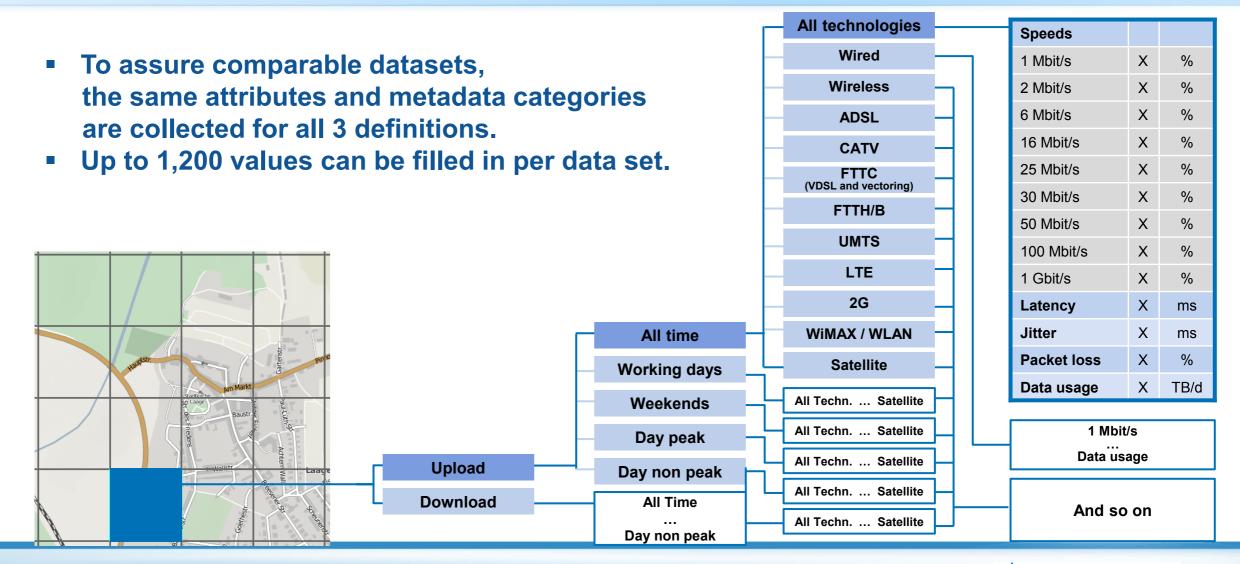
### How will data be collected?

#### Flexible templates will be used to keep burden for data providers low





#### What data will be collected?





### What is the time line?

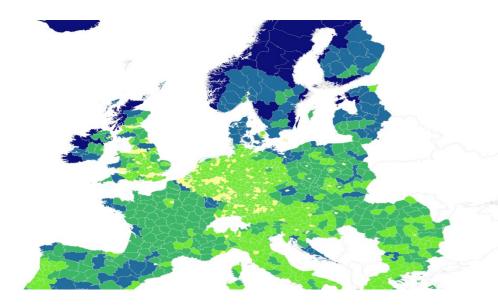
#### **3-year project :**

- In 2016 development of data base and design platform, consultation with data providers
- By end of 2017: final and complete version of the platform is online
- As of 2018: automated data collection process and data publication
- Process of BEREC's net neutrality working group is reflected in the project





### Thank you for your attention!



#### Don't hesitate to contact us for more information:

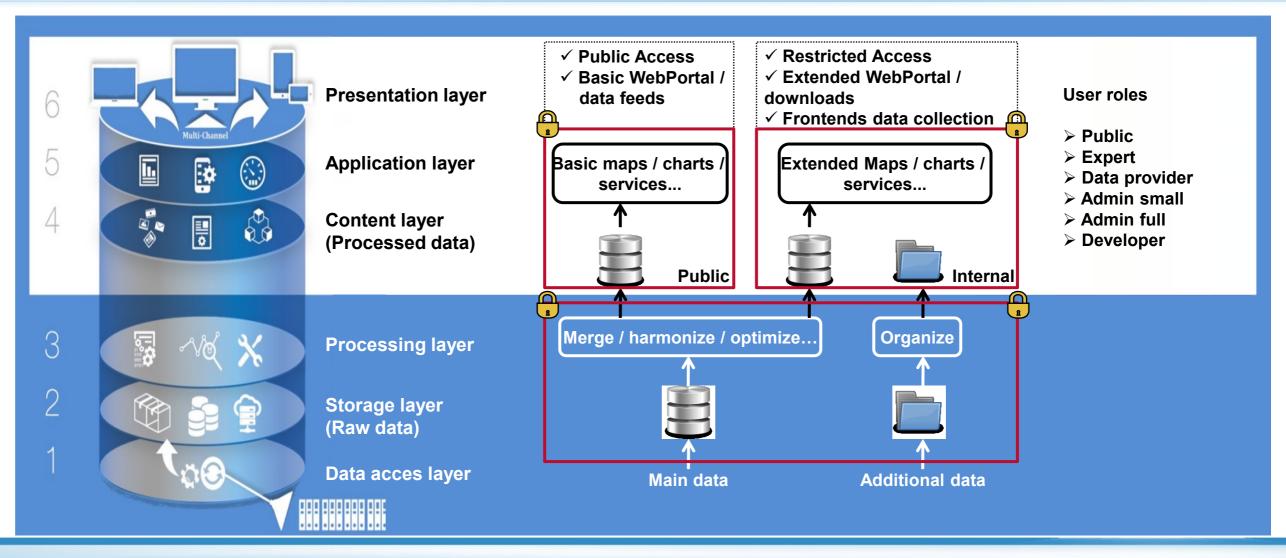
- Ms Christiane Lehmann / TÜV Rheinland
- Project website: <u>https://www.broadbandmapping.eu/</u>
- Email: broadband-mapping@de.tuv.com







### Structure of application and data security infrastructure





### Data safety – MoU respects national regulation

#### Memorandum of Understanding is individually adaptable...

- regarding spatial resolution of published data
- regarding the publication of internet service provider names
- regarding public or restricted access to data sets

	Data on QoS / QoE		Names of internet service providers		
	Public	Restricted	Public	Restricted	
NUTS 3					
1km INSPIRE grid					
500m INSPIRE grid					
250m INSPIRE grid					
50m INSPIRE grid					
Other level [to be explicitly named]					

XXXXX agrees to the publication of aggregated data at the following level of resolution (please select



The agreement is signed in the context of the European Commission's project Mapping study (phase II): mapping of broadband services in Europe - SMART 2014/0016.

#### 1. Context

The European Commission is seeking to develop an IT tool to map broadband services in Europe. It will take the form of an integrated monitoring platform that will aggregate and benchmark assessed or measured broadband services around two dimensions: a) quality of service (QoS): data on marketed speeds gathered from existing national mapping initiatives of states' administrations or other relevant data sources, and b) quality of experience (QoE): data based on actual users' experiences including from crowdsourcing applications. This project will allow mapping broadband coverage and quality at EU, national and regional levels using GIS-based state-of-the-art applications. Additional information on the project is available in the terms of reference as well as at a project website http://www.broadbandmapping.eu/

TÜV Rheinland has been commissioned to develop and manage the integrated mapping application and collect datasets during the project timeframe 1 January 2016 until 31 December 2018.

Considering the projects and initiatives already carried out by XXXXX regarding the collection and mapping of broadband quality of service and/or quality of experience data sets, the European Commission's project aims to create synergies between projects at European level and also to avoid duplication of work.

Given the project framework, on the basis of mutual trust and in the spirit of cooperation, the European Commission and its contractor TÜV Rheinland Consulting and XXXXX decide to collaborate and hereby agree on the following:



Deliverables	Jan 2016	Feb 2016	March 2016	April 2016	May 2016	Jun 2016
Meetings	1st SC* and Inception Meeting	BEREC working group (10 Feb)	SC* & TRP** Meeting (1 March)	ITU conference (11 / 12 Apr) SC* Meeting (15 Apr)	SC* and TRP** Meeting	2nd Interim Meeting (week 25)
Reports			Inception Report			1st Progress Report
Update on design of platform	Methodology review (studies)	First Technical Concept	Development of platform design / IT architecture		Develop tools for standardised data collection	Alpha version of platform
Monthly data feeds		Evolution of practice-oriented definitions	Exchange with test data providers	Analysis test data sets (6 MS + 2 private providers)		Start Europe-wide data collection campaign
Stakeholder consultation	Identification of data providers, project introduction and review of existing initiatives			Update of project status	1st Stakeholder Consultation (7/8 June)	
Migration into EC IT environment			Coordination initiated			

\* SC – Steering Committee

\*\*TRP - Technical Review Panel

