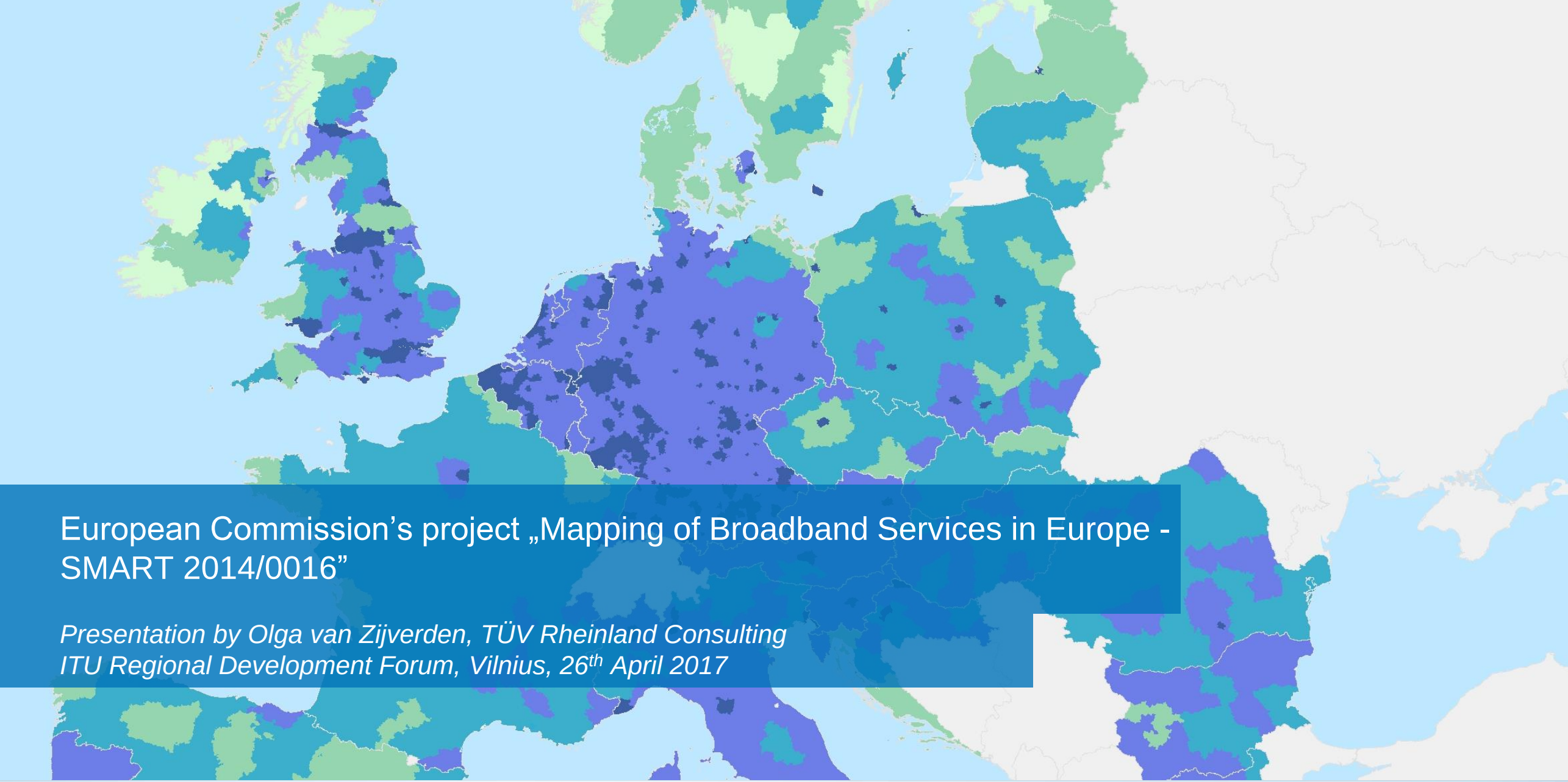

European Commission's project „Mapping of Broadband Services in Europe - SMART 2014/0016"

Presentation by Olga van Zijverden, TÜV Rheinland Consulting
ITU Regional Development Forum, Vilnius, 26th April 2017

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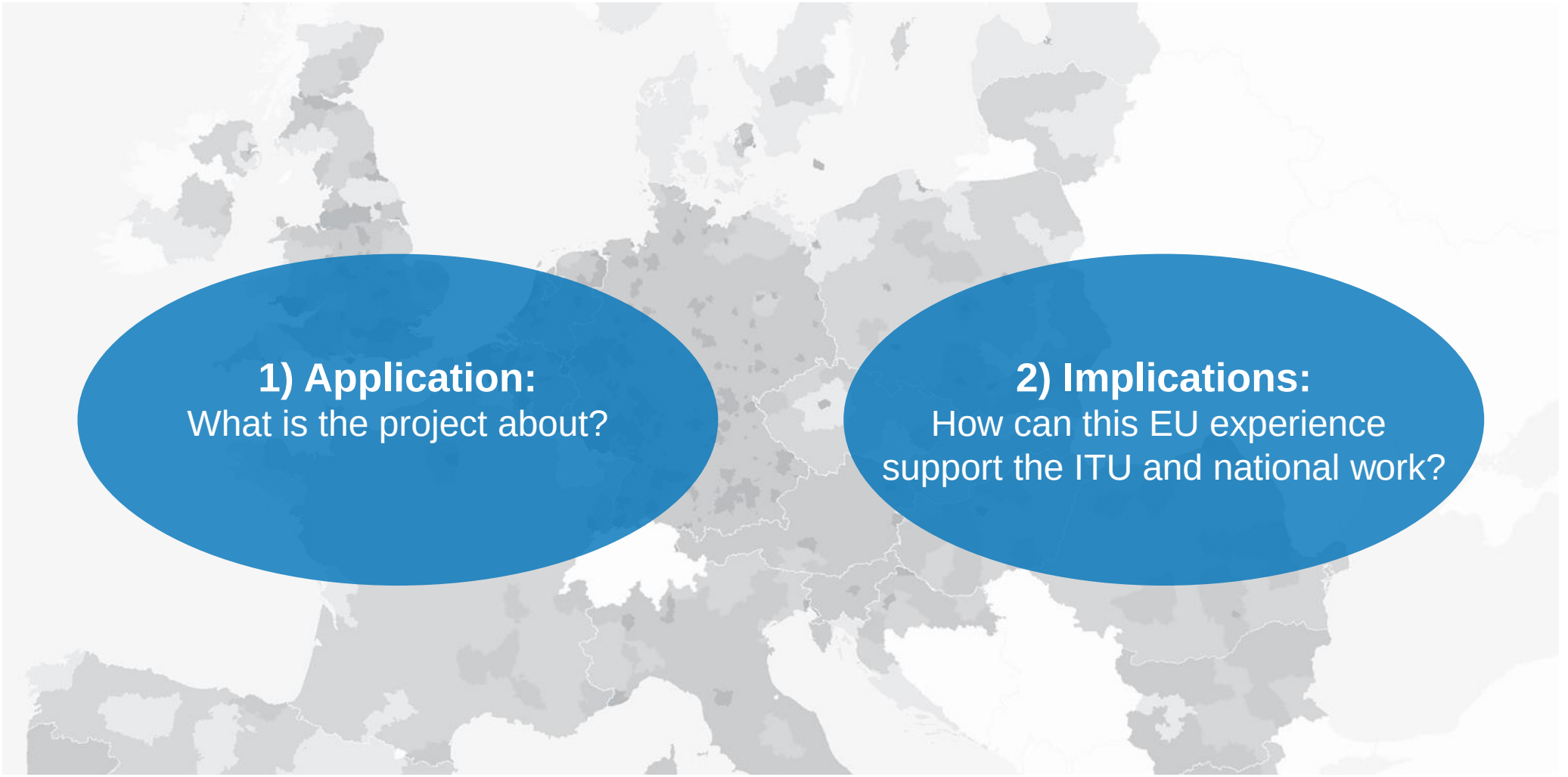
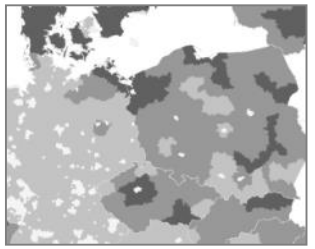
The following presentation is focussing on two aspects



1) Application

Key facts on the European Commission‘s project

Development of 1st European-wide mapping platform and database (EU and EEA)



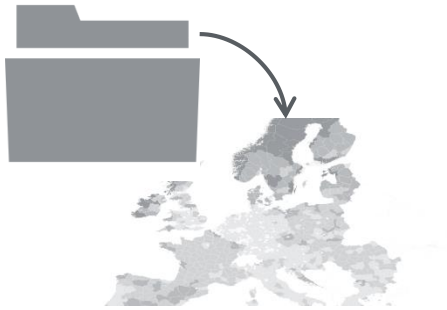
Quality of Service (QoS) on fixed and mobile broadband coverage data

Project started in January 2016, development to be concluded by 2018

Data feeds from existing public and private mapping initiatives

150 data providers and experts involved so far,
2 Consultation Workshops

European-wide data collection as of October 2016



Who takes part already?

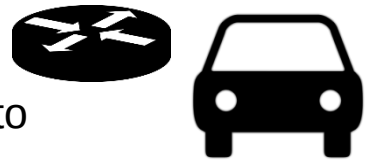
Data supplied

Supply confirmed

Supply postponed for later 2017

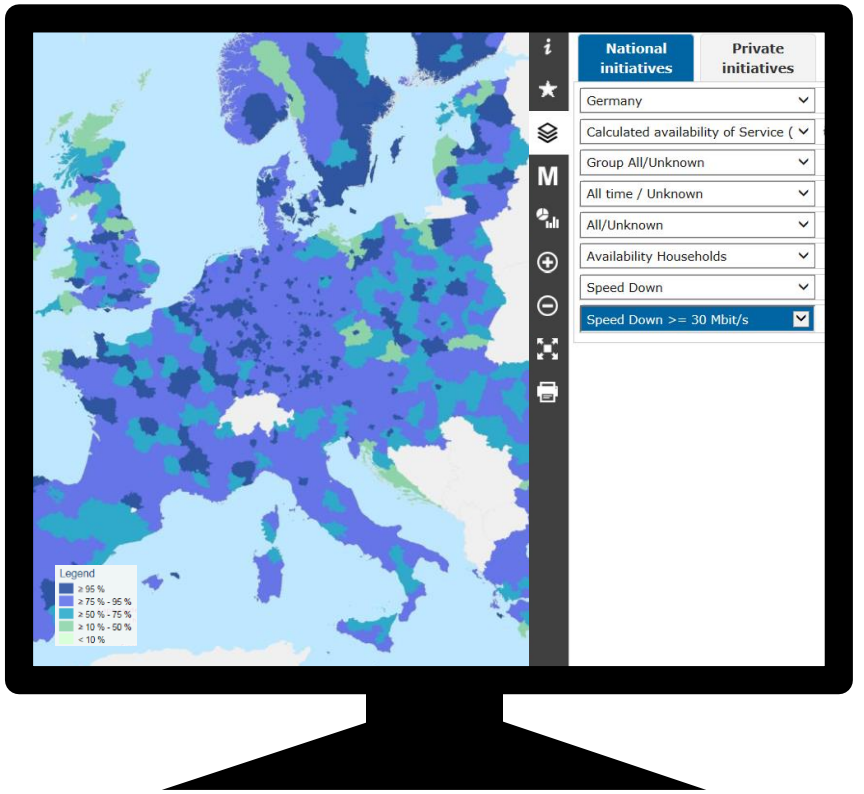
Quality of Service is a broad term - What kind of data is collected?

Data set categories defined for the project:

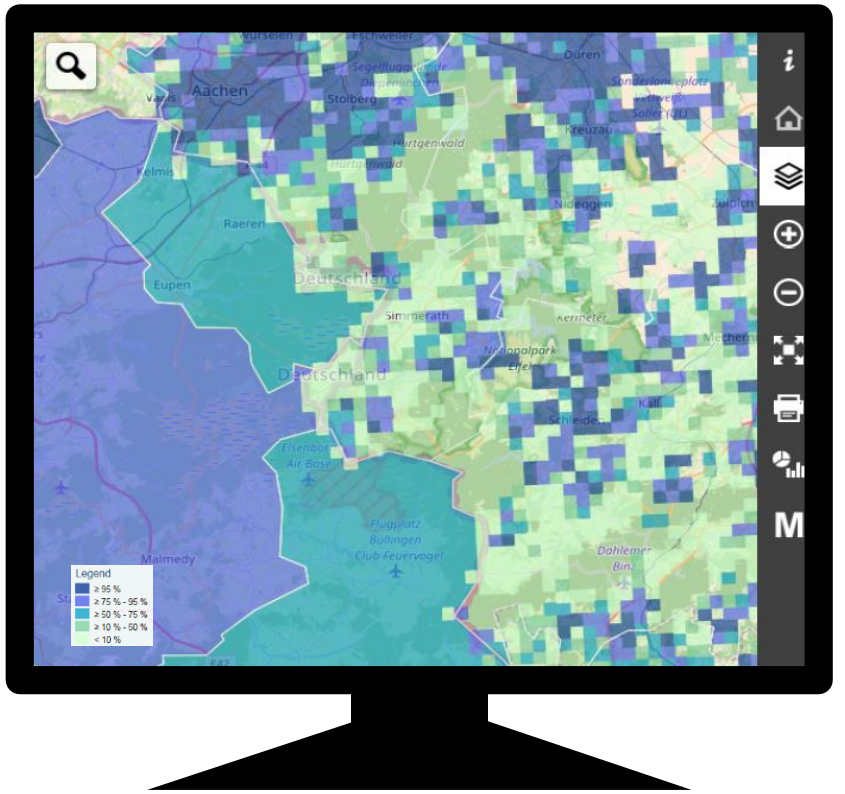
QoS-1: Calculated availability of service	**What:** Theoretical network performance of existing infrastructure (coverage, no pure infrastructure data) **How**: Assessment / calculation / marketed speeds by providers / radio field planning / geodata-based simulation models / prediction tools 
QoS-2: Measured provision of service	**What:** Provision of service measured at the Customer Premises Equipment (CPE), e.g. routers, mobile devices **How:** Measurement through panel probes, drive tests or speed tests with filter to exclude end user‘s environment 
QoS-3: Measured experience of service	**What:** Actual user’s experience when using Internet Access Service (IAS) **How:** Measurement via online speed tests including end user’s environment 

How does the portal “www.broadband-mapping.eu“ look like?

Selection menu



View on 1km grid and NUTS 3



Data can be viewed for the following attributes:

Availability infrastructure, download speed, upload speed, latency, jitter, packet loss, data usage

2) Implications

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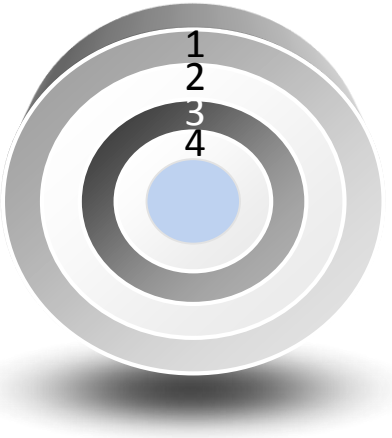
Objectives of EU Mapping and ITU Strategic Plan for 2020-2023 match

ITU

D.2 Modern and secure ICT Infrastructure

D.3 Enabling policy and regulatory environment

D.1 International coordination of ICT development



D.4 Inclusive Digital Society

European Broadband Mapping

Objectives of EU Mapping and ITU Strategic Plan for 2020-2023 match

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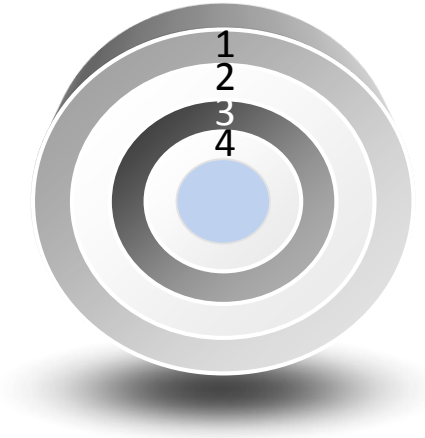

D.4 Inclusive Digital Society

Multi-disciplinary cooperation

Facilitate **joint investment**

European Broadband Mapping

Objectives of EU Mapping and ITU Strategic Plan for 2020-2023 match

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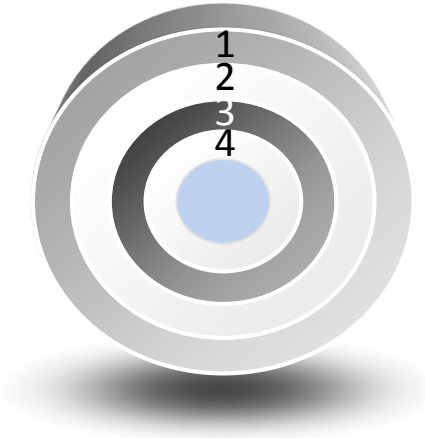

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State aid planning

Evidence base for **impact assessment**

Monitoring of EU broadband **coverage objectives**

European Broadband Mapping

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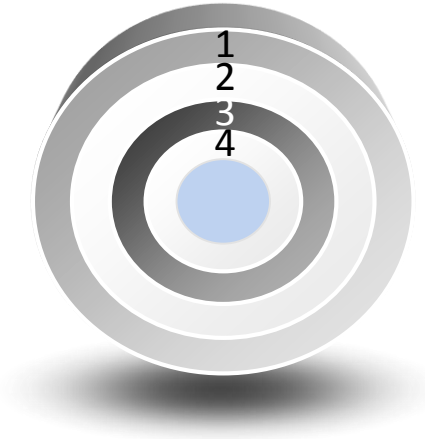


D.4 Inclusive Digital Society

Multi-disciplinary cooperation

Benchmark connectivity to **stimulate competition and demand**

Facilitate **joint investment**

State aid planning

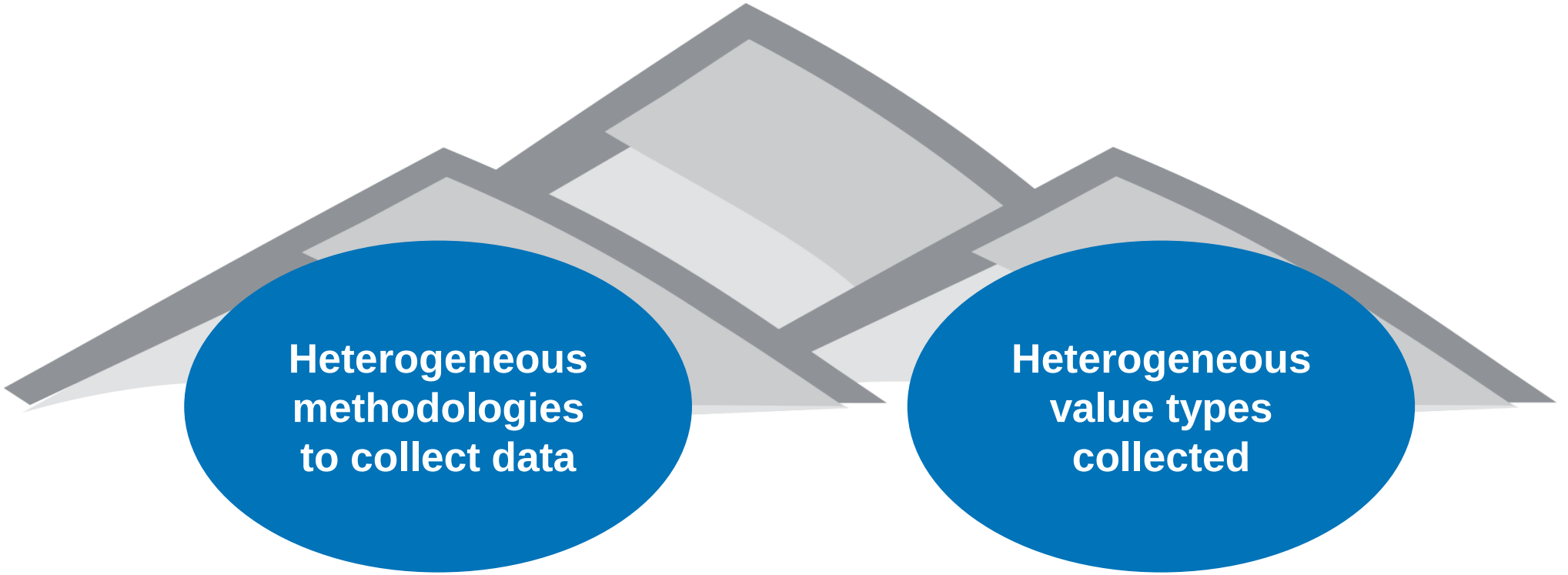
Evidence base for **impact assessment**

Monitoring of EU broadband **coverage objectives**

European Broadband Mapping

Lessons learned

Broadband mapping across several countries entails the following key challenges:



Different initiatives use heterogeneous methodologies to collect data

Methodologies differ regarding the following aspects:

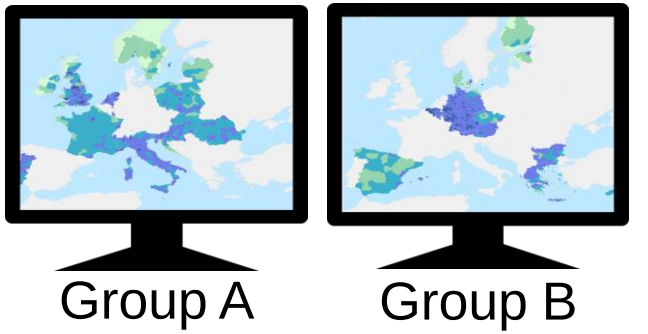
Accuracy of basis for QoS determination

Coverage ratio of market and sample size

Data filtering / cleansing

Intention of initiative

In order to avoid „wrong comparison“ we need to group initiatives according to methodologies for visualisation



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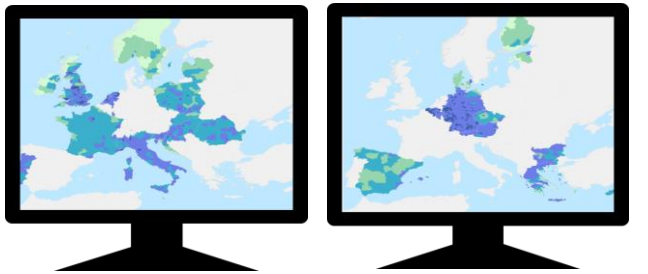

Group A Group B

- For QoS-1 there are methodological similarities across initiatives, but still no European-wide comparability
- For measurement data sets (QoS-2 and-3) it is difficult to identify similarities

Different initiatives collect heterogeneous value types

	Diversity of collected values	Quota of same value supply	Most common value
Fixed data	Speed classes, Minimum, Maximum, Latency, Median, Technology availability, Speed down, Speed up, Jitter	4 out of 14 data sets	Speed down - Speed class ≥30 Mbit/s
Mobile		2 out of 4 data sets	Availability infrastructure – 3G, 4G

- Limited comparability of data
- Inconsistent values for same country in various publications

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- Limited comparability of data
- Inconsistent values for same country in various publications

- Need to define “commonly used attributes“ to allow general comparison
- Not only for mapping project, but for international policy making

The challenges are tackled

Short term:
Visualizing heterogeneous data sets on mapping application by

- reflecting their differences in a coherent way
- understanding of different approaches

Long-term:
Facilitate harmonization by

- discussion and data supply to the project to foster common understanding
- contributing data sets to build a European-wide evidence-base of Quality of Service.

Outlook - The project is building on your input

Milestones

6th June 2017:
3rd Stakeholder Consultation Workshop

22nd Nov. 2017:
4th Stakeholder Consultation Workshop
Publication of Mapping

Ongoing activities

- **Collaboration with ITU, BEREC, RSPG and IETF**
- **Development of European Mapping Portal**
- **Data collection**

Thank you
for your attention

Don’t hesitate to contact us for more information

Olga van Zijverden - Project Coordinator at TÜV Rheinland

Project website: https://www.broadbandmapping.eu/

Email: broadband-mapping@de.tuv.com