# **Quality of service in Belgium**

Provision of information on coverage and quality

**ANCOM Conference** 

Belgian Institute of Postal Services and Telecommunications



### **Gerardus Mercator**





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### **Consumer empowerment**



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## **Objectives of the maps**



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# Challenges



Accuracy : verification with measurements on the roads



Precision : size of the pixels, multi-level thresholds



Completeness : user experience, crowdsourcing



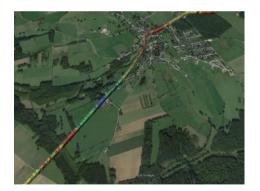
Accessibility : easy to grasp, on an easyto-use web interface

# Accuracy

- BIPT validates the maps predicted by operators annually : 285.000 measurement points throughout the territory (1.345 km).
- BIPT applies a correction factor : downward or upward correction of the predicted signal before publication.

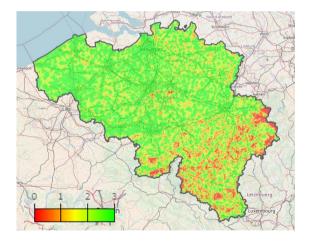


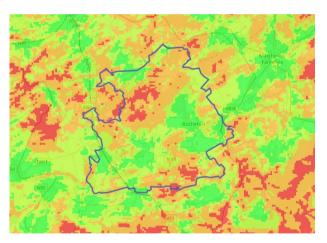




# Precision

- Coverage per technology and operator, for pixels of 200 m x 200 m.
- Multi-level thresholds corresponding to outdoor, indoor and deep indoor coverage.





https://www.bipt-data.be/en



## Completeness

- Yearly study on quality of experience of an average user on the move.
- 16 KPI on quality of experience : voice, streaming, etc.

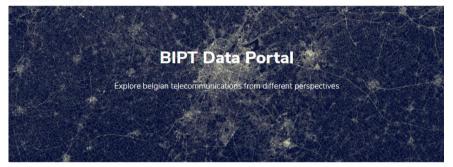






# Accessibility

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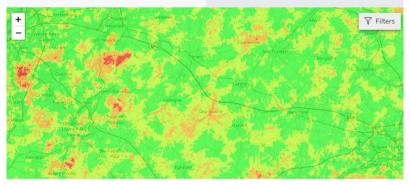
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### Mobile Atlas Cell signal coverage maps provided by operators. Each operator provides BIPT with their estimated cell signal coverage over the belgian land.

Detailed

By zone





### MOBILE ATLAS

Cell signal coverage maps provided by operators. Each operator provides BIPT with their estimated cell signal coverage over the beloian land.

### DRIVE TESTING

Cell coverage measured by BIPT leet of specially equipped cars driving on belgian roads.

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CROWDSOURCING

cell coverage and mobile data

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### https://www.bipt-data.be/en

# Draft guidelines on geographical surveys

Body of European Regulators for Electronic Communications





Draft guidelines in accordance with Article 22 of the Code



Harmonisation on calculated availability of service (QoS 1)



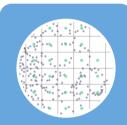
Parameters to collect for fixed and mobile networks



Collection of data on planned network deployments



Publication of information and confidentiality



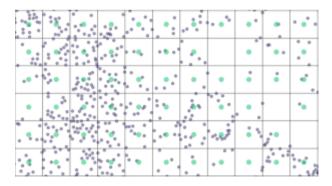
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Data resolution and data aggregation method



# **Future developments**

- Adaptation of the maps in accordance with the Berec Guidelines.
- New developments of the mapping tool in the near future.
- Enriched maps thanks to the creation of a data collection eco-system.
- Launch of new initiatives to better inform consumers.



# Conclusions

- Currently, visitors are mostly people who are between 25 and 35 years old and who are fan of technology. We intend to expand our audience with advertising campaigns.
- Operators are mostly influenced by the marketing impact due to good or bad press in the news articles. Indeed, while BIPT is relatively neutral, journalists name and shame the operators.
- The public authorities use the data to launch initiatives in order to encourage the operators to invest in the less connected areas identified on the maps.







# **Gigabit Society Targets for 2025**

- All schools, transport hubs and main providers of public services as well as digitally intensive enterprises should have access to internet connections with download/upload speeds of 1 Gigabit of data per second ;
- all European households, rural or urban, should have access to networks offering a download speed of at least 100 Mbps, which can be upgraded to 1 Gigabit ;
- all urban areas as well as major roads and railways should have uninterrupted 5G wireless broadband coverage, starting with fully-fledged commercial service in at least one major city in each EU Member State already by 2020.