This analysis will serve multiple purposes:

1. Develop methods to conduct the correlated analysis of this dataset. We must study whether to first calibrate individual datasets to then put them together or to analyze them together from the start. We can also use different datasets as means of validation to increase the confidence in the results.

2. Improve the methods of the original measurement tools, so that we can better correlate data points coming from different tools for a single user and across users. It is often hard to identify a single user or a single service in the datasets (for technical and privacy reasons), from other channels is not guaranteed.

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so we must develop means of correlating across users/services without jeopardizing privacy.

3. Design and develop methods to infer properties per access ISP or service. We aim to understand the performance of different access ISP and services (Are users getting what they pay for? Which is the best ISP/service at any given region?) as well as their traffic differentiation rules (Do ISPs treat traffic from a video streaming service better or worse than their own video streaming service?).

4. Leverage the variety of measurements coming from the different tools to detect network degradations and understand their root causes, and identify the most important factors that determine the quality of experience as perceived by end users.

Main activities
The candidate will carry out the above analysis and will be asked to propose the required statistical methods for an efficient combination of the existing datasets and inference of network performance related issues. We are particularly interested in those performance issues impacting quality of experience for Internet access as a whole or for particular Internet applications as VoIP or Video Streaming.

Skills
Technical skills and level required: Internet measurement, statistical data analysis, machine learning
Languages: English
Relational skills: Capacity of work within a group

Benefits package
- Subsidised catering service
- Partially-reimbursed public transport
- Social security
- Paid leave
- Flexible working hours
- Sports facilities

Remuneration
Gross Salary: 2650 brutto per month