

Focusing on Mobile Measurement

End-to-End Solutions & Managed Services



We at Focus Infocom know the ins and outs of mobile measurement from 25 years of experience in this field. Our expertise is based on numerous projects with clients worldwide, including the major players in the international market. For more than a decade, we have been driving and shaping standardization through innovative concepts by extending and creating new KPIs to meet the ever-changing technologies in our industry.

You have specific requirements, we have individual solutions for every use case

Does your business rely on mobile communication?

We deliver the measurement results you need as a basis for informed business decisions and as a solid foundation for interacting with network providers. In addition to individual campaigns, the data basis can be enhanced with constant monitoring and SLA verification.

You are a regulator and your mandate is to provide high-performance networks?

We support you with the necessary tools for efficient, meaningful measurements and with our expertise from ETSI and ITU standardization work.

Are you a mobile network operator seeking to improve your performance?

In addition to providing tools and services, we work with you to integrate your requirements into our R&D road map, and adapt our products to make them fit seamlessly into your existing structures. You can also count on us for ongoing monitoring, roll out monitoring, and benchmarking.

As a measurement service provider you need reliable, customizable products?

We do everything to help you be maximum efficient: with proven, customizable products that adapt to existing workflows, product rental to cover short term project needs, data processing and more.

Here are some of the things we can do for you

Consulting

Our team of measurement professionals supports you with consulting services before, during and after a project, translating problems into measurement concepts, getting evaluation right, and beyond.

Managed services

With our managed services proposal, you only have to define your requirements. We take care of all the rest from planning to reporting, and delivering the results.

Measurement campaigns

Together with our measurement partners, we carry out the most challenging measurement campaigns as in-train, in-car, or walk tests backed by our longstanding experience.

Customizations

Enjoy the flexibility of a measurement systems manufacturer with the facilities to develop products according to your specifications, in addition to our standard product line.

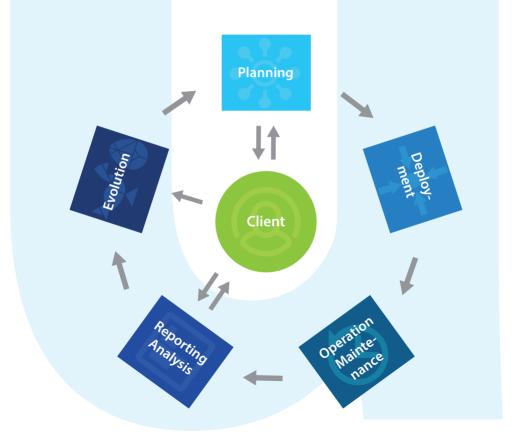
Integrations

Measurement data from our systems is ready to be fed into existing post processing tools, and our measurement systems can be adapted to seamlessly fit into existing structures.

Reporting and evaluation

The best data is without any practical value without the right evaluation and reporting techniques. We provide tools for data evaluation and visualization, from data input to the final management report.

We provide everything from planning to reporting, and deliver the results.



Driving innovation since more than 25 years

5. Generation

Combined systems for capacity and QoS measurements, e.g. testing Network Slicing

4. Generation

Direct app control with SAM

2. Generation

Smartphone-based Standard service tests (FTP/HTTP UL/DL) Webbrowsing reference/live content

3. Generation

Smartphone-based Some proprietary services

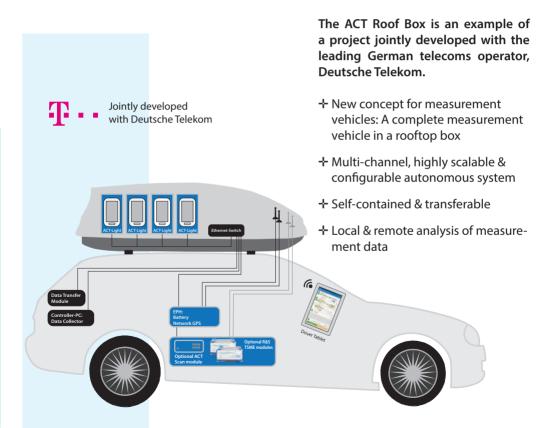
1. Generation

PC/Modem-based FTP Up-/Download Webbrowsing w/ reference content

SAM

- + Provides real customer perspective
- + Complete end-to-end concept
- + Freely define parameters from use case to OoS KPI
- + Allows use of basically any app for measurement
- Integrates with all FI smartphone-based measurement systems

Joint development: Collaborating for success



Testing the fitness for in-train WiFi

A project for Deutsche Bahn

The client objective: Implement in-train WiFi via multi-modem routers that combine the performance of multiple mobile networks and technologies in trains.

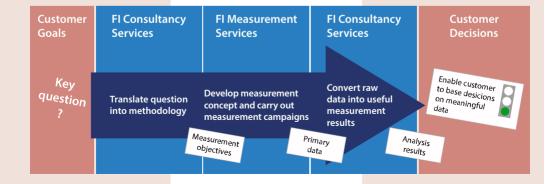


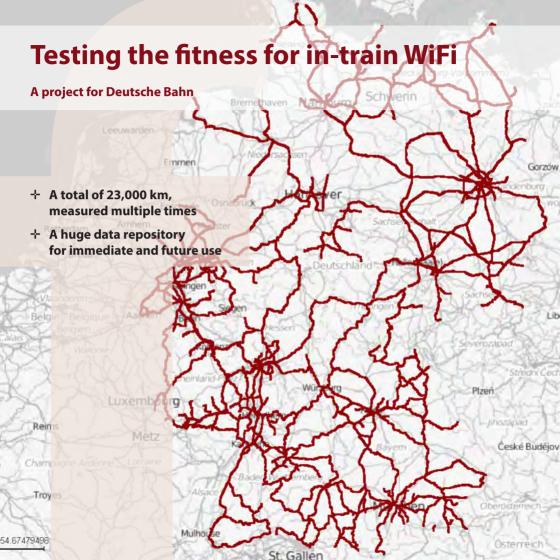
The method: Developing a methodology that takes into account the specific conditions of in-train measurements.



The question: Where along the railway network is mobile coverage sufficient to provide a good QoE for end customers?

The result: Create a network performance map with high data point resolution and data aggregation (multiple measurements).





Testing the fitness for in-train WiFi

A project for Deutsche Bahn

The results provide answers for current questions but can be updated regularly with future measurement data.

Immediate answers

- → Evaluation based on different geographical units: lines, regions or single sections between two railway stations
- → Geovisualizations based on geographical units that indicate the fitness for in-train WiFi based on a traffic-light evaluation scheme
- Continuity analysis: Provide meaningful use case related information beyond simple raster-cell analysis.

Evolution and outlook

- → Data mining
- → Weak point analysis & hints for optimization
- → Network benchmarking and "what-if" analysis for operator mix in multi-modem systems
- + Guidance for SLAs with operators
- Sustainabilty concept: framework that allows adding additional data seamlessly
- → Definition of holistic metrics for service continuity (in the line of ITU-T Recommendation G.1034 contributed by Focus Infocom)

Our measurement systems

The whole range from smartphone-only to multi-channel measurement

Interactive systems

High-end mobile benchmarking solutions for walk, in-car, and in-train measurements.

Ultramobile & handheld systems

For lightweight, unobtrusive benchmark measurement requirements.

Autonomous systems

The ideal solution for long-term unattended measurements

Post-processing systems

Evaluate and visualize measurement data

Custom-built solutions

No matter if you need a system in a rooftop box, in a taxi roof display, or in the smallest corner of a train compartment: we provide a solution.







Get in touch!

Focus Infocom
Gesellschaft für Informatik und
Telekommunikation mbH

Heinrichstraße 2 D-64283 Darmstadt Germany Phone: +49 6151 971100

Email: sales@focus-infocom.de

Internet: https://focus-infocom.de

All data in this booklet anonymized for confidentiality reasons.

Focus Infocom is a Member of ETSI and Associate Member in ITU-T SG12



