

QuoData Quality & Statistics

Keffenbrinkweg 33, D-12249 Berlin

Prellerstraße 14, D-01309 Dresden

Germany

Founded 1995

34 employees (including 12 scientists and 8 software developers)

Scope of work: data science, analytical quality assurance, precision diagnostics, standardization and certification



Company

Year of creation: 1995

Business managers: Dipl.-Psych. Kirsten Simon (MBA) | PD Dr. habil. Steffen Uhlig

Branches: Dresden | Munich | Berlin

Company size: 34 employees (including 12 scientists and 8 software developers)

Areas of activity: Services and development of new methods with a focus

on analytical quality assurance

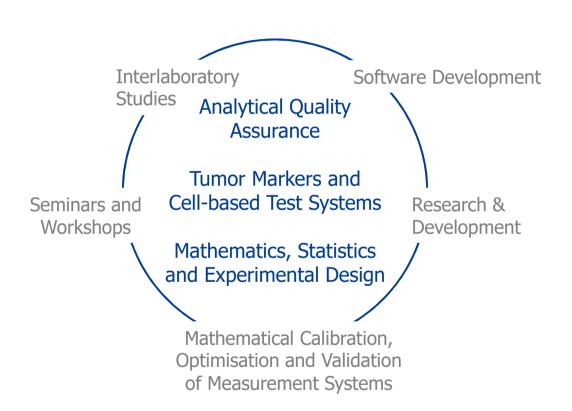


About us

QuoData is a middle-sized company with a high stake in research.

Our core activities involve the application of unique and very powerful procedures and algorithms for the calibration, optimization and validation of measurement methods. Often, this implies the development of innovative software solutions and mathematical-statistical methods.

In our various activities, methods from the fields of mathematics, statistics and experimental design all play an important role alongside sound scientific know-how.





Cooperation Partners

In the course of many years of successful cooperation, we have built relationships based on mutual trust with many important institutions. Apart from private-sector partners and various universities, these include research institutions such as the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK) and state institutions such as the Federal Office of Consumer Protection and Food Safety (BVL).

These relationships have developed through cooperation on research projects and long-standing contracts.

In the context of these cooperations

- we bring newly developed measurement methods and sensors to the point where they are validated or, as the case may be, we accompany them through the process of standardization and certification
- we carry out interlaboratory studies in order to validate new methods or for laboratory proficiency testing, e.g. in the context of nationwide monitoring programs for consumer protection
- we publish papers written in collaboration with our partners in recognized scientific journals



Standardization and Certification

Standardization and certification play a crucial role in the process of introducing newly developed methods to the market. We are very active in the area of standardization, not only with respect to the standardization of measurement systems, but also with respect to the elaboration of new standardization procedures.

Indeed, an innovative approach is often necessary to meet the challenges that new measurement principles and requirements represent. Our employees are active in more that 20 national and international committees (e.g. DIN, ISO, OECD, BMU, BVL, LAWA) and are up-to-date as regards the requirements which newly developed measurement systems must meet.



An Important Basis: Mathematics, Statistics and Experimental Design

Calibration and Quantification

For every measurement procedure, questions such as the following arise:

How does one obtain a measurement value from the actual signal or its evolution? How does one minimize errors in measurement by selecting the correct calibration function?

How can one minimize from the outset the danger of erroneous measurement values by means of appropriate plausibility tests?

In which cases is it recommended to apply correction procedures to the measurement signal?

Which measurement design guarantees the optimal ratio between time and effort and measurement reliability?

We pride ourselves on the wide spectrum of different, sometimes unique, calibration models and powerful computational algorithms we are able to resort to.



An Important Basis: Mathematics, Statistics and Experimental Design

Rational Decision Limits and Measurement Uncertainty

How does one decide, on the basis of the measurement signal, whether or not the sample has definitely tested positive?

We have developed powerful algorithms which enable the computation of rational and efficient decision criteria while guaranteeing minimal error probabilities.

Efficient algorithms for the computation of measurement uncertainty are fundamental in this context. Such algorithms are also used when the uncertainty must be specified in accordance with GUM.



An Important Basis: Mathematics, Statistics and Experimental Design

Method Optimization, Error Identification and Validation

The identification of sources of error in newly developed methods is often a laborious and time-consuming task.

Our unique, powerful and in-house developed tools can successfully perform

- •the optimization and adjustment of already existing measurement methods,
- •the identification of causes for the non-reproducibility of measurements,
- •the characterization of the performance of the measurement procedure (validation)

much faster than is usually the case. As a result, the costs of development can be considerably reduced.



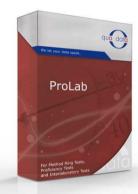
Software

Our software is available either in the form of self-contained programs or as online applications. Our software products range from analytical quality assurance to statistical trend- and risk-analysis.

For the planning, performance and the evaluation of interlaboratory studies: PROLab | PROLab Plus | PROLab Smart

For comprehensive in-house validation and evaluation of the equivalence of analytical methods: InterVAL | InterVAL Plus | EquiVAL

For the analysis of measurement uncertainty: GUMsim



For analysis and optimisation: OptiVAL

For the calibration of biochemical procedures: BioVAL

For environmental monitoring: RTrend | WaterStat



Interlaboratory Studies

In the context of a interlaboratory studies, different laboratories carry out measurements on same samples. Accordingly, interlaboratory studies are implemented in connection with the standardization of measurement procedures, the evaluation of laboratories, as well as the elaboration of reference materials.

We carry out interlaboratory studies in the following areas

- hazardous goods and materials,
- forensics,
- marine environment,
- food and utensils
- feedingstuffs,
- drinking water, surface water, waste water
- etc...

Depending on your needs, we can take charge of the performance of any part of an interlaboratory study, from the dispatch of samples to its statistical evaluation and the generation of reports and corresponding certificates.



Evaluation of Tumor Markers in Oncology

The Joint Research and Service Center for Tumor Markers is a cooperation between the University Hospital Bonn and the QuoData with the aim to promote research in tumor markers.

Given the potential of tumor markers for diagnostics, patient stratification and therapy monitoring in cancer patients, the identification and validation of new tumor markers is an important and promising task for contemporary clinical research.

Combining QuoData's unique expertise in statistical analysis and the University Hospital Bonn's extensive experience in oncological laboratory diagnostics along with its comprehensive biobank, we can take your tumor marker research to the next level.

We offer

- A reliable and detailed methodical evaluation of new tumor marker assays
- Thorough evaluation of all steps of the preanalytical process
- Comprehensive clinical evaluation of the power of new oncological tumor markers among others for diagnosis, staging, prognostic patient stratification



We Let Your Data Speak Seminars and Workshops

We regularly offer Seminars on topics from the fields of statistics and quality assurance. The speakers offer the participants first-hand knowledge about the latest methods and procedures.

The QuoData-workshops are designed for those interested in learning about our software. Once the basics are covered, the focus is on solving real-life day-to-day problems.

