

Metrology department

SIQ's metrology department is involved in several activities:

- Calibration; more than 90% of calibrations are accredited
 - DC and AC voltage and current
 - active and reactive power and energy, phase, power quality parameters
 - DC resistance, impedance, capacitance, inductance, dissipation factor
 - Time and frequency
 - RF and microwave quantities (RF voltage, impedances, power, S-parameters, attenuation, oscilloscopes, signal generators, distortion, modulation)
 - EMC equipment
 - acoustic and vibration measurements
 - other quantities (pressure, temperature, diameter of cylinder, force, acceleration, exhaust emissions, etc.)
- Inspection (exhaust gas emissions, blood pressure, pressure in tyres)
- Certification of measuring instruments (active electrical energy meters) according to MID 2014/32/EU; type approval (module B+D) and design examination (module H1)



- European research project under iMERA+, EMPER and EMPIR programs:
 - Next generation of power and energy measuring techniques (Power & Energy), started in 2007
 - Metrology for Smart Electrical Grids (SmartGrid), started in 2009
 - Energy harvesting, started in 2009
 - Electromagnetic characterisation of materials for industrial applications up to microwave frequencies (EMINDA), started in 2010
 - A quantum standard for sampled electrical measurements (Q-WAVE), started in 2012
 - Improved EMC test methods in industrial environments (EMC), started in 2012
 - Measurement tools for Smart Grid stability and quality (SmartGrid II), started in 2013
 - Towards the propagation of AC Quantum Voltage Standards (ACQ – PRO), started in 2014
 - Traceability routes for electrical power quality measurements (Trace-PQM), started in 2015
 - Development of RF and microwave metrology capability (RFMicrowave), started in 2015
- Cooperation with the industry
 - measuring system for AC current
 - novel methods for relative permittivity measurements
 - development of coaxial current shunts
 - development of reference loads
 - development of adaptors for EMC measurements
 - development of state estimation algorithms
 - providing reference 10 MHz signal
- Training Courses
- Holder of the national standard for electrical quantities and time and frequency (100 CMCs included in the BIPM database).

Why SIQ?

- SIQ is a professional organization with over more than 50 years of proven performance and experience.
- Independence.
- Skilled personnel.
- State-of-the-art measuring equipment.
- Holders of several accreditations.

Additional information SIQ Ljubljana
 T: +386 1 4778 300
 E: info.metrology@siq.si

