

Sophisticated research equipment, broad international cooperation and top-level expertise are required in many problems in science, industry and commerce. The development and dissemination of techniques and technologies that allow virtualized, remote and shared access to industrial or scientific instruments are essential for the progress of society. The possibility of using scientific or industrial equipment independently of their physical location helps towards equality of opportunity for and unification of communities, and subsequently provides new momentum for industry, science, and business.

The current edition of the Workshop focuses on post processing of experimental data in Grand Challenges e-Infrastructure systems. Handling of instrument output data is one of the major tasks (just after remote control of equipment) of remote instrumentation systems. Due to complexity of this process, which can operate on huge amounts of data and consists of many stages, there is a need for sophisticated approaches. These cover many aspects of data processing and storage at different functional layers, from physical to application. Moreover, INGRID 2011 encompasses other Remote Instrumentation (RI) aspects related to: middleware architecture, high-speed networking, wireless Grid for acquisition devices and sensor networks, QoS provisioning for real-time control, measurement instrumentation and methodology. We do not forget about future trends concerning RI systems' development and actions related to standardization of remote instrumentation mechanisms.