

DIG-AC A digital traceability chain for ac voltage and current

<https://digac.gum.gov.pl/dig/the-project/wp5/2591,Work-Package-5-Strategy-for-capacity-development-and-basis-for-coordinated-appro.html>
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Work Package 5: Strategy for capacity development and basis for coordinated approach

The aim of this work package is to develop an individual strategy for each participant for the long-term operation of the capacity developed, including regulatory support, research collaborations, quality schemes and accreditation. They should also develop a strategy for offering calibration services from the established facilities to their own country and neighbouring countries. The individual strategies should be discussed within the consortium and with other EURAMET NMIs/DIs, to ensure that a coordinated and optimised approach to the development of traceability in this field is developed for Europe as a whole.

One of the long-term research objectives defined in the EURAMET “Science and technology Roadmap for Metrology” is to make quantum standards the basis for AC metrology. The necessary research to achieve this started 20 years ago and the work will continue for several years. The project will contribute to this overall objective by making cutting-edge knowledge accessible to all the European NMIs working on AC quantum standards and by establishing a basis for future cooperation.

With the knowledge acquired in WPs 1–4, less experienced NMIs will develop their individual strategic plans for a digital traceability chain from quantum standards in the next five years. These strategies will consider the development of either individual or collaborative quantum standards (or an agreement to the future use of other NMI standards), scaling procedures and transfer standards. For JRP ACQ-PRO partners the strategies will be an extension to existing plans for AC quantum voltage. In all cases the individual strategies will be further discussed with the other participant institutes to ensure a coordinated development of the European research and measurement infrastructure from the early beginning. The plans will also include a strategy for offering calibration services in the established facilities to their own country and neighbouring countries.

The group that has been created during the JRP ACQ-PRO will continue to work on the basis for a future European collaboration in AC metrology. The framework will be broadened by digital traceability chains and reference standards. The group will

include project partners, some potential collaborators and other experts (including non-European).