For the measurement of small temporal gravity changes with absolute gravimeters, careful determination of metrological characteristics of gravity measuring instruments is essential. The most comprehensive method to ensure this requirement is the intercomparison of instruments in regular time intervals. This was done at BIPM until 2009 in four-yearly International Comparisons of Absolute Gravimeters (ICAG).

The decision of BIPM to close its future support for the international comparison caused an initiative of the IAG Working Group on Absolute Gravimetry, the IAG Study Group on Comparisons of Absolute Gravimeters and the Working Group on Gravimetry of CIPM Consultative Committee on Mass and Related Quantities. Together they propose to select a distributed network of comparison stations and to work out plans and rules for the continuation of comparisons. These should take into account the agreed technical protocol as specified in the CIPM Mutual Recognition Arrangement documents.

A technical improvement in the comparison is expected by the inclusion of a parallel observing Superconducting Gravimeter (SG) at the comparison station. The precise continuous monitoring of gravity variations using SG allows to: 1) improve the evaluation procedure for determination of instrumental offsets of absolute gravimeters, 2) extend the usable time period for the comparison observations and thus to reduce requirements for a large number of observation pillars at the comparison station. In addition such a distributed network of sites with continuously recorded gravity variations and with repeated absolute gravity measurements would be an ideal realisation of a Global Absolute Gravity Reference System.