

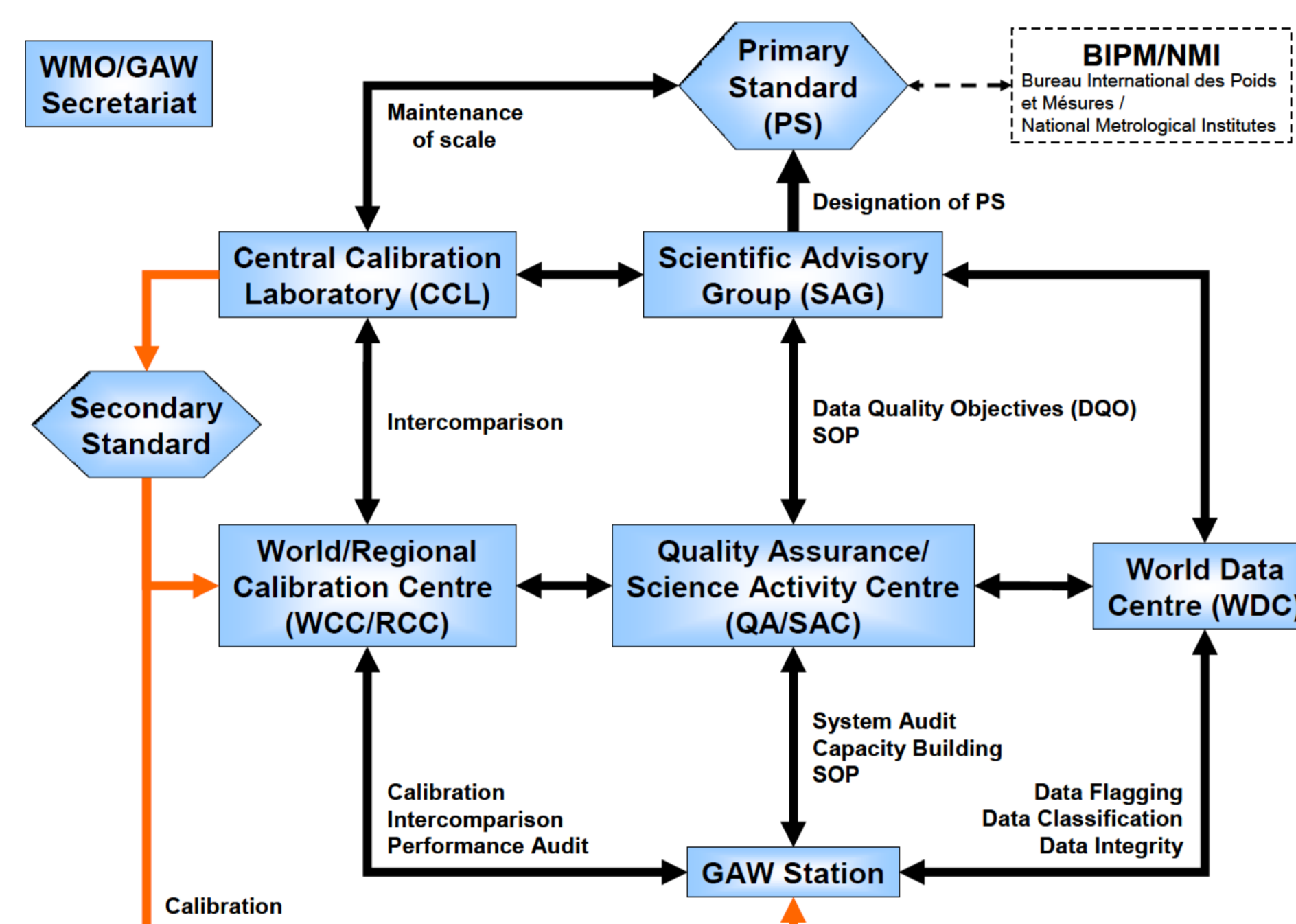
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### Introduction

Quality Assurance / Science Activity Centres play a central role in the GAW quality assurance system.



Elements of the GAW Quality Assurance System (GAW Implementation Plan: 2016-2023, 2017)

QA/SAC Switzerland (QA/SAC-CH) was established in 2000. It is closely linked to the World Calibration Centre also hosted by Empa. QA/SAC-CH's main tasks are

- research activities promoting technical progress and scientific data analysis,
- capacity building, training, twinning, and support,
- contribution to GAW outreach,
- cooperation and networking with other programmes / projects in line with the GAW strategy.

### Research Activities

Main topics are

- evaluation of new measurement techniques and the assessment of their applicability for long-term monitoring purposes,
- identification of suitable QA/QC strategies,
- dissemination of know-how to the GAW community through publications and presentations,
- supporting GAW investigators in data exploitation and publication.

### Cooperation with other programmes

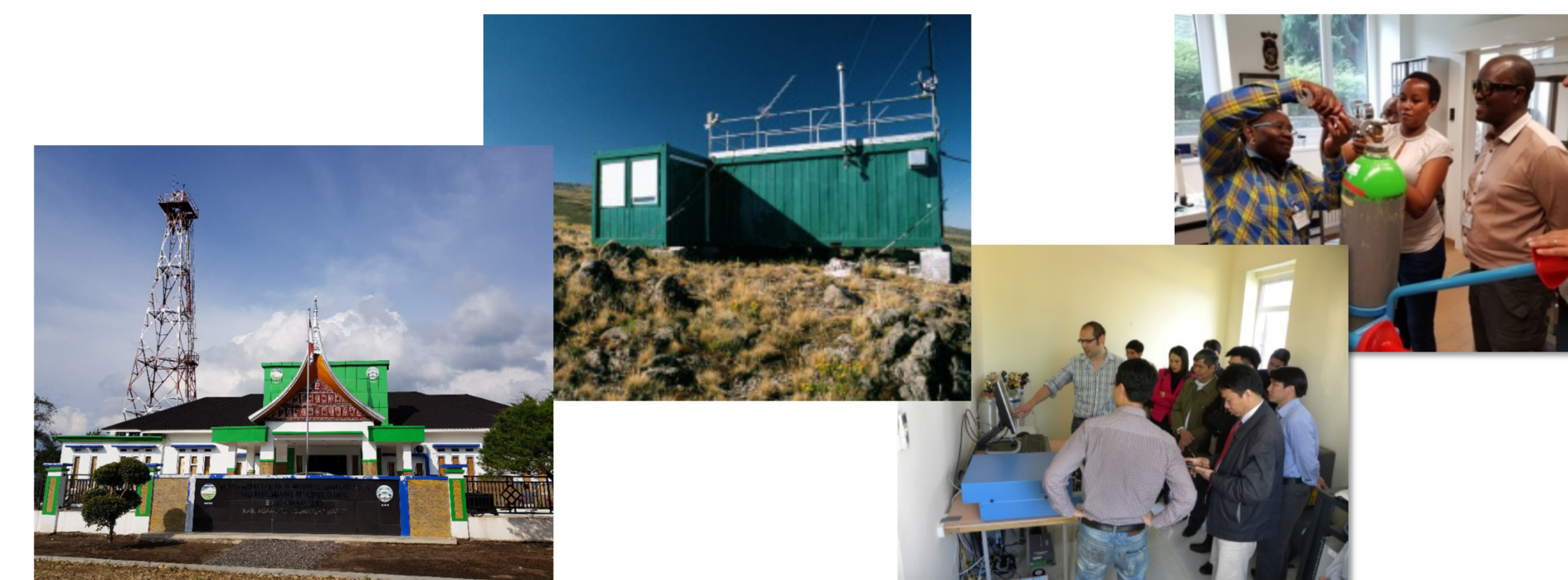
Specific programmes and projects do pioneer work with respect to new approaches, uncertainty estimation, or homogenization, improvement and consolidation of networks. A tight cooperation with those efforts ensures consistency with the GAW programme.



Selected programmes interacting with GAW

### Capacity Building

Twinning and support of GAW stations are core activities of QA/SAC Switzerland since the early beginning, initially devoted to only a few stations.



QA/SAC-CH's twinning stations and training

With time, the activity became increasingly diverse due to the developments of the GAW network and the renown of QA/SAC-CH's work.

Requests for support usually concern

- input for instrument selection,
- instrument operation,
- repair and procurement of spare parts,
- calibration strategies,
- data analysis,
- quality control and data submission.

Training and support is provided during station visits, stays of GAW staff at Empa, during international meetings, or by email, phone, and, increasingly, through videocalls or webinars.

Acknowledgements: QA/SAC Switzerland is financially supported by MeteoSwiss and Empa.

QA/SAC-CH is also regularly involved in teaching at the GAW Training and Education Centre (GAWTEC). GAWTEC provides technical guidance through twice yearly training courses.

QA/SAC-CH staff is also engaged in various GAW panels like the Scientific Advisory Board for Reactive Gases, the Expert Team on Atmospheric Composition Measurement Quality, and the Capacity Development Task Team.

### Outreach

QA/SAC-CH regularly authors and contributes to GAW reports such as measurement guidelines as well as other related publications when its expertise is beneficial to the outreach material.



Recent publications with QA/SAC-CH contribution