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ICM-6
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- GFZ has agreed to serve as processing center for GNSS data within GRUAN.
GFZ has formally acknowledged this role in a letter to GCOS on 19 July 2013.
- The ECC World Calibration Center for Ozone Sondes in Jülich (Herman Smit) has agreed to cooperate with the Lead Center on the development of a GRUAN ECC ozone product.
This cooperation will remain informal.

First site certified (Already last year):

- Ny Alesund



Second site certified: Lindenberg (DWD)



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Sites currently in the certification process:

- Lauder (application received, Working Group response sent)
- Boulder (application received, Working Group response sent)
- Beltsville (application pending)
- Cabauw (application pending)
- Payerne (application pending)
- Sodankyla (application pending)

Certification procedures are being coordinated by the Lead Center

GCOS Reference Upper-Air Network



Detailed GRUAN data reports sent to sites

Feedback was collected and included in the reports

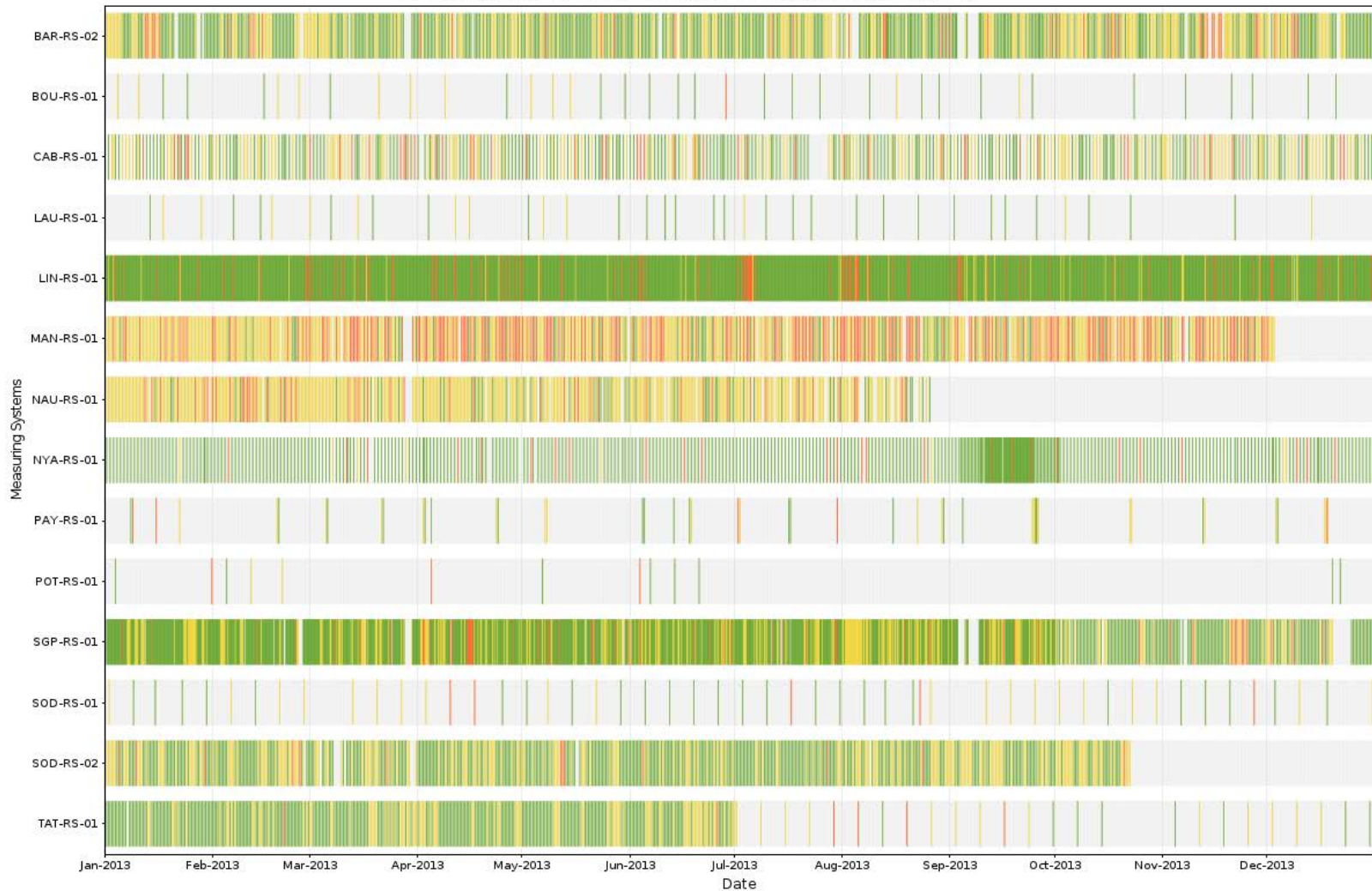
Reports are first step to close the loop between observations and data processing

Inform sites about their level of performance

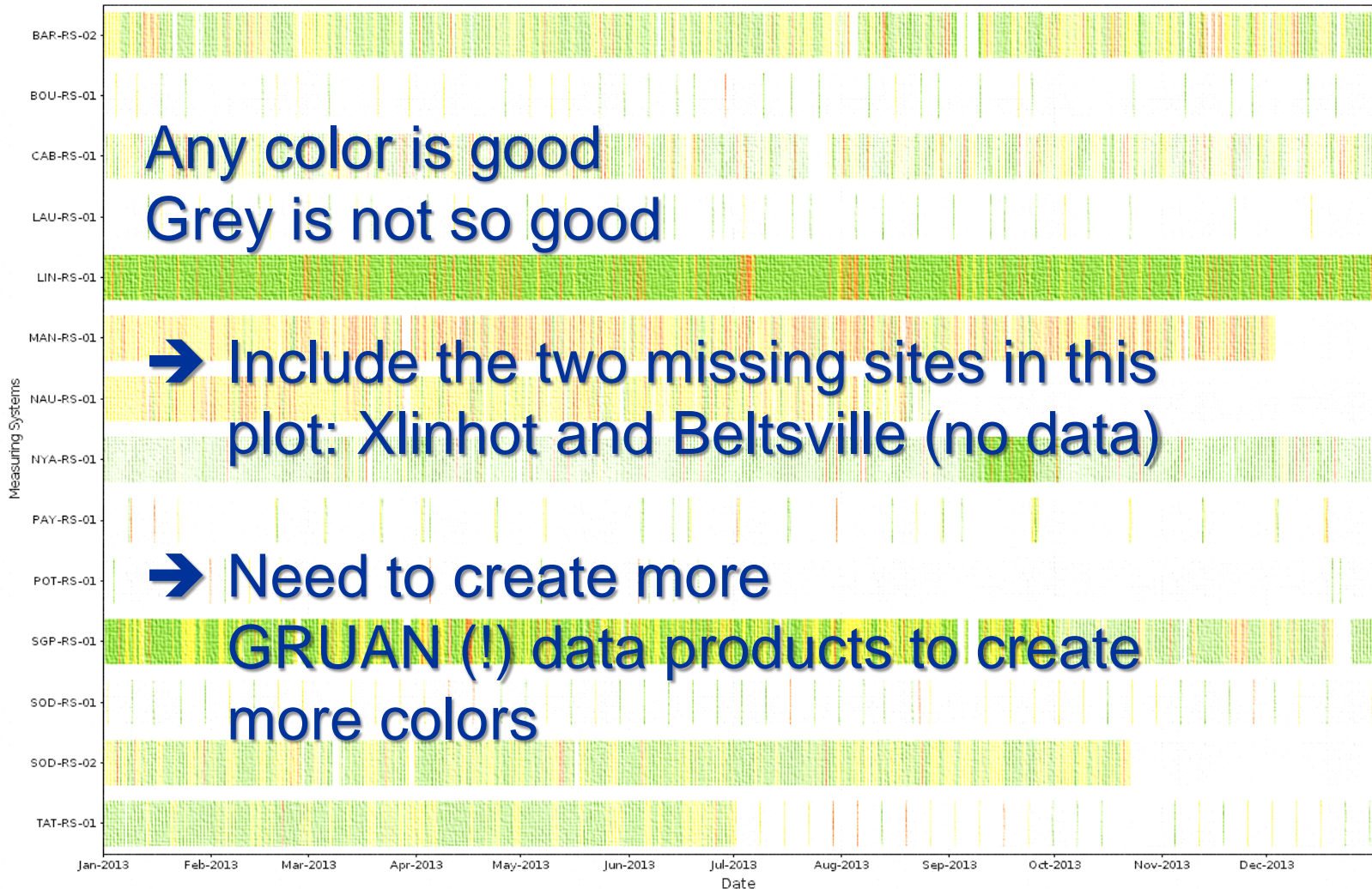
Identify potential issues and correct them

(→ Michael Sommer Wednesday morning)

Performance of GRUAN Data Product RS92-GDP v2



Performance of GRUAN Data Product RS92-GDP v2



Currently we still need more people to work with GRUAN specific data and tell us about their lessons!

Use the uncertainties we provide!

There is some feedback from the research community, but we need more.

- 😊 No change
- 😞 Development of GRUAN is limited by available resources

The Lead Center submitted a paper describing the processing of the current version of the GRUAN data product.

Dirksen et al.: Reference Quality Upper-Air Measurements: GRUAN data processing for the Vaisala RS92 radiosonde, submitted to AMT 2014

(→ Ruud Dirksen this afternoon)

Frostpoint (Vömel)

Meteolabor Radiosonde (Philipona)

Modem Radiosonde (Haeffelin)

GNSS (Rannat)

Lidar (Leblanc)

- RSLaunchClient (RSC)
Running without problems
New version distributed to sites includes first stage quality checks

- 21-22 May 2013, NOAA GMD climate monitoring conference Boulder (Presentation by Bodeker)
- 27-29 May 2013, Workshop on Research Applications of High-Resolution Radiosonde Data Stony Brook University, New York (Presentations by Seidel, Wang, Vömel)
- 5-6 June 2013: TEMPERATUR 2013 (Presentation by Vömel)
- 30 September - 2 October 2013: GEWEX Water Vapor Assessment (G-VAP) Fort Collins, Colorado (Presentations by Wang, Reale, Schröder)
- 30 September - 4 October 2013: NDACC Steering Committee Meeting, Frascati, GRUAN represented by Vömel
- 5-6 December 2013, SPARC WAVAS II Workshop on Satellite Data Quality Assessment, in Pasadena, CA, (Presentations by Hurst, Vömel)
- 22-23 January 2014: German National GCOS Meeting (Vömel)
- 26-28 February 2014: COST Action Global Navigation Satellite Systems tropospheric products for monitoring severe weather events and climate (GNSS4SWEC) (Presentations by Rannat, Kivi, Vömel)
- ...