

Some thoughts on ITRS and UN-GGIM

General remarks

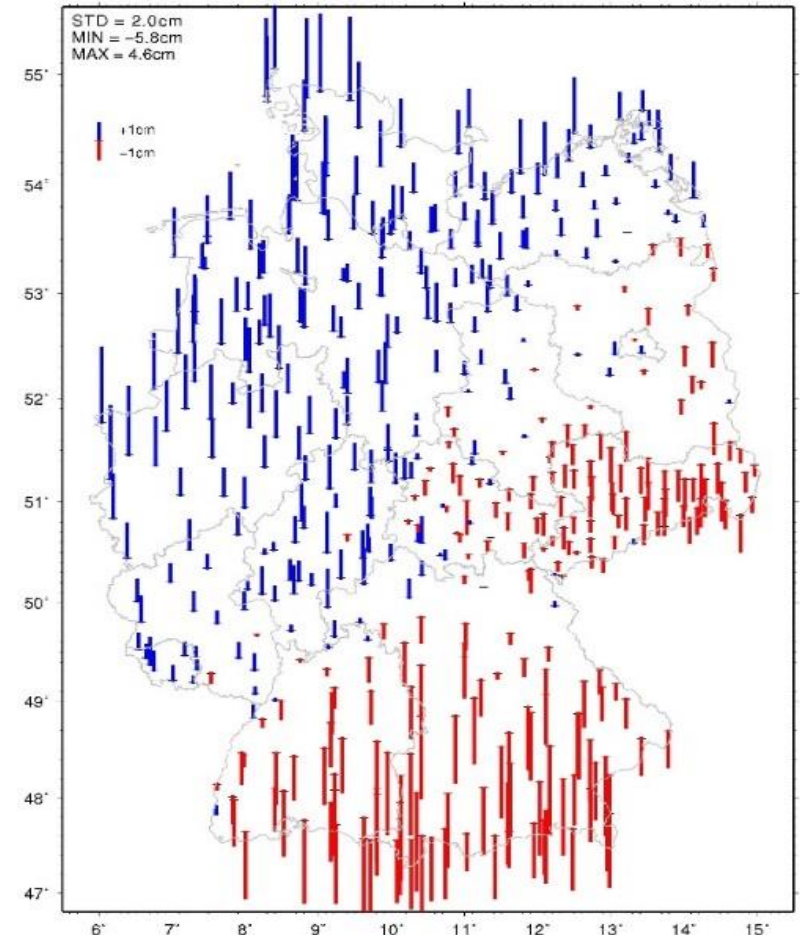
- Before we discuss and give recommendations:
- A proper mechanism must be in place for communication and consultation with other countries (SCoG are the happy few, should be more inclusive; see also criticism in NY, 8th session UN-GGIM)
- If such a mechanism is missing, the authority / standing / acceptance of the the SCoG is jeopardized

Scope of the recommendations

- Recommendations 1 and 2 address the ITRF and give strong recommendations
- Recommendation 3 addresses the IHRS but has little substance
- If we give recommendations, then Germany favors to look at a more comprehensive picture (see also example on next slide)

Systematic differences geometric and gravimetric reference frames

- In Germany, systematic differences between GNSS/levelling (=geometric) and gravimetric geoid
- Empiric correction surface needs to be applied to the geoid
- Same differences visible between GNSS / levelling and underlying global gravity field models (EGM2008, EIGEN-6C4, ...)
- Differences are caused by inconsistencies between ITRF and GGM
- This is a problem when working with the national height system



Alternative recommendation

- Recognizing that the current realizations of the celestial, geometric, gravimetric and height reference frames as well as the realization of EOPs are in part not consistent, the SCoG recommends the IAG to strengthen and support activities to overcome these inconsistencies

Remarks to Recommendation 1

- From a more scientific point of view, yes
- In practice
 - EUREF Questionnaire 2017
 - Majority of European NMAs not in favor to align to ITRF2014 (~ 66%)
- Therefore, also in view of the need to improve communication / consultation, Germany not in favor of recommendation 1

Recommendation 2

- Draft level → too early to recommend something?
- What is the purpose? What is the advantage/disadvantage?
- Limitation to ITRF is not desirable. What about physical heights?
- In its present form, Germany is not in favor of this recommendation

Recommendation 3

- What does that mean? Doesn't sound like a statement with a large impact

Governance attributes

- One of the governance attributes we identified in the process of developing the Implementation Plan was
Have a transparent decision-making mechanism, ensuring making of 'right ' (most effective) decisions
- Current IERS structure: 3 Combination Centers, one of which is the Product Centre
 - (potential) conflict of interest
 - Seems not to be in accordance with the attributes we defined

Additional recommendation

- The SCoG emphasizes the importance of an objective and independent validation of all geodetic products provided by the IAG services and the IERS product centers. The SCoG values and supports the efforts of the IAG, GGOS and the IERS to implement and further develop governance mechanisms to assure proper validation and quality control