Update of EPN Guidelines

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NEED FOR

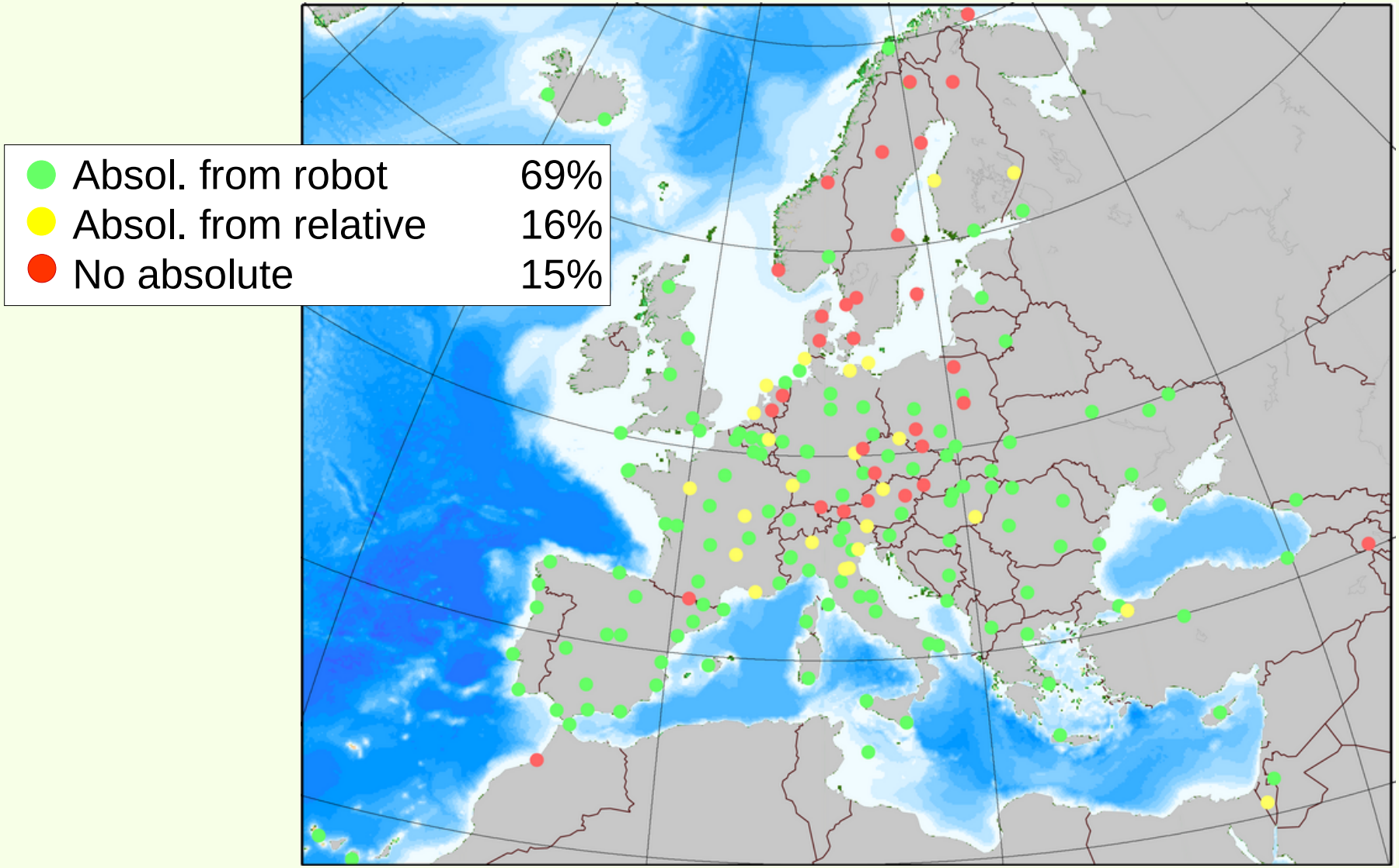
1. Guidelines for real-time data streams, details in paper, send comments to C.Bruyninx

2. Promote multi-GNSS equipment, but do not touch antenna unless really necessary, see 2.1.7

3. Recommendations for new antenna/radomes or antenna/radome replacements, see 2.1.20, 2.1.26

    - Need for long–term vision

CALIBRATIONS OF EPN ANTENNAE



IGS APPROACH

IGS equipment: antenna/radome calibrations in IGS ATX file

- Absolute calibrations
  - ✓ converted from old relative values (elev dependency, not below 10°)
  - ✓ GEO++ (elev+azimuthal dependency)

- GEO++ has given the IGS permission to make available at IGS CB, absolute calibration values for antenna/radomes belonging to IGS

- Absolute calibrations for antenna/radome included in the EPN, but not in IGS, cannot be published by IGS, not EPN (GEO++)

EPN OPTIONS

- Use in EPN, only antenna/radomes accepted by IGS
  - If antenna/radome combination not in IGS APC file, then use calib for antenna only if in IGS APC file
  - If antenna not in IGS APC file, do not use at all

  ADV: Complete consistency with IGS approach

  DISADV:
    - Some antenna/radome combinations cannot be used in EPN because they are not (yet) used in IGS, even if absolutely calibrated by GEO+
    - red/yellow dots will not disappear from map!

- Use different approach from IGS

  Use IGS ATX complemented with missing EPN antenna/radomes
  ADV: EPN can integrate new equipment, even if not (yet) in IGS
  DISADV: Need to maintain EPN-specific APC file, no guarantee IGS will use same APC as EPN, complicated for users

PROPOSED APROACH

Today:

requirement for new stations and antenna/radome replacements :
antenna+radome must have true indiv. absolute antenna calibrations or true absol. Calibr. available from IGS
exceptions allowed for

- radomes where the effect on the APC is negligible or antenna radome combinations that cannot be calibrated and for which an on-site realtive antenna calibration shows this is indeed the case
- , then antenna (without radome) needs true absolute calibrations at IGS
- stations that provide a clear added-value to EPN
- Antenna/radome combinations that cannot be calibrated
- Proof using on-site calibrations that

+ EUREF mail to explain long-term vision

MM/2007: End of period with exceptions?