

# Summary of the facts, ideas and topics related to the EPN processing agenda

*(a supplemental matter for stimulating discussions)*

## Improved feedback to EPN ACs

- o there is probably some disproportion between the data and the product services provided by EPN.
- o data agenda is well established and organized and the EPN data very well serves to the public via data centers and EPN CB monitoring. It is true also for the real-time data flow.
- o the product monitoring is available for the coordinate time-series for geodynamic studies and for the possible station performance feedback. New monitoring web-page at EPN-CB visualizes the time-series of AC-dependent bias for individual station ZTD product with respect to the combined one – it is an excellent example for potential feedback to the individual ACs and there are even other possibilities for visualizing of the AC-dependent results.
- o the timeliness and the quality of the solution sometimes suffer. Is there a problem with ACs motivation?
- o improved product monitoring and feedback could probably raise a competitive motivation in general (a superior simply looking at the web asking: „Why our solution is inferior to the others“ ;-)
- o probably the most important should be a simplification and speeding-up of fixing the errors, blunders and other problems by individual ACs.
- o would be such support appreciated and exploited by the ACs?

## Re-processing

- o EUREF unquestionably needs the re-processing effort for EPN
- o ROB and MUT ACs already presented the results
- o do we need more contributing ACs?
- o the results should be combined at least to cross-check the individual contributions, than at least three ACs would be desirable
- o is there a suggestion to validate GLONASS impact within the re-processing?
- o should a special project to be setup for the re-processing to coordinate and to organize the effort and possible future contribution to the IERS
- o would this motivate some other participants ?

## EUREF ZTD combined product

- o does not satisfy climatology exploitation, but at least the combination is – important as a feedback to the individual AC processing performance – suitable for the external validation of new models (troposphere, PCVs, ...)
- o is there a suggestion to validate EUREF ZTDs in a common way as part of the monitoring?
- o should have been searched a responsible setting such a validation or CB / troposphere combination center has capability to do it?

## How early products (rapid, near real-time and real-time) are relevant to the EUREF

- o early warning for any station/data processing problems
- o hazard monitoring for the specific areas (Turkey, Italy,...)
- o products (ZTD, ...) for the numerical weather prediction, nowcasting ?
- o any other ? (ionosphere,...)
- o could a single early product satisfy all the purposes ?
- o could EPN take advantage of future IGS Real-Time Pilot Project products ?
- o there is no in general „open“ regional/global precise satellite clock products available for near real-time processing, which could probably serve for most of the potential purposes. Is there a scope to offer such a product ?

## EUREF and EUMETNET (E-GVAP)

- o data exchange agreement between EUREF and EUMETNET signed in June 2008
- o product exchange (ZTD/? x numerical weather model/prediction) could be probably desirable, but no vision
- o if there are interest in any near real-time processing within EUREF (see previous item), an official cooperation of EUREF with EUMETNET could be then beneficial to both sides. Exchange of products is than only the second motivation. Is there any way how to more closely co-operate?
- o at present, there is an overlap for near real-time solutions to EUREF/E-GVAP
- o currently, seven EUREF ACs are contributing to the EUMETNET E-GVAP: ASI, BKG, IGN, GOP, LPT, NGK and ROB. Geodetic groups are also behind the processing at the meteorological institutes
- o for the EUREF/E-GVAP ACs, it might be simpler to hold and maintain the ZTD contribution as a 'geodetic' service to EUREF
- o access to the dense GNSS data is mostly available only via national permanent network operators (EUREF is the European-wide respected organization with the closest connections).
- o Europe is still not homogeniously covered by the near real-time ZTDs, although there is potential complete data and even probably there are ready ACs within the geodetic community. These might be interested and motivated.
- o *(note: the E-GVAP is well organized service within 4-year EUMETNET project and it will be probably further extended)*

## GNSS - GLONASS

- o generalization of the EUREF processing service, training for Galileo
- o verification of the EPN GLONASS data/stations and its usage within the ETRS reference frame (the situation that many EPN stations provides GLONASS data, but the use is sparse)
- o only a small additional development and processing loads
- o feedback and probably motivation for the station operators to provide modern (and hopefully complete) data
- o would setting up any schedule for the GLONASS contribution be helpful?

## AC processing strategy (skipped)