# GPS Processing at UKMO

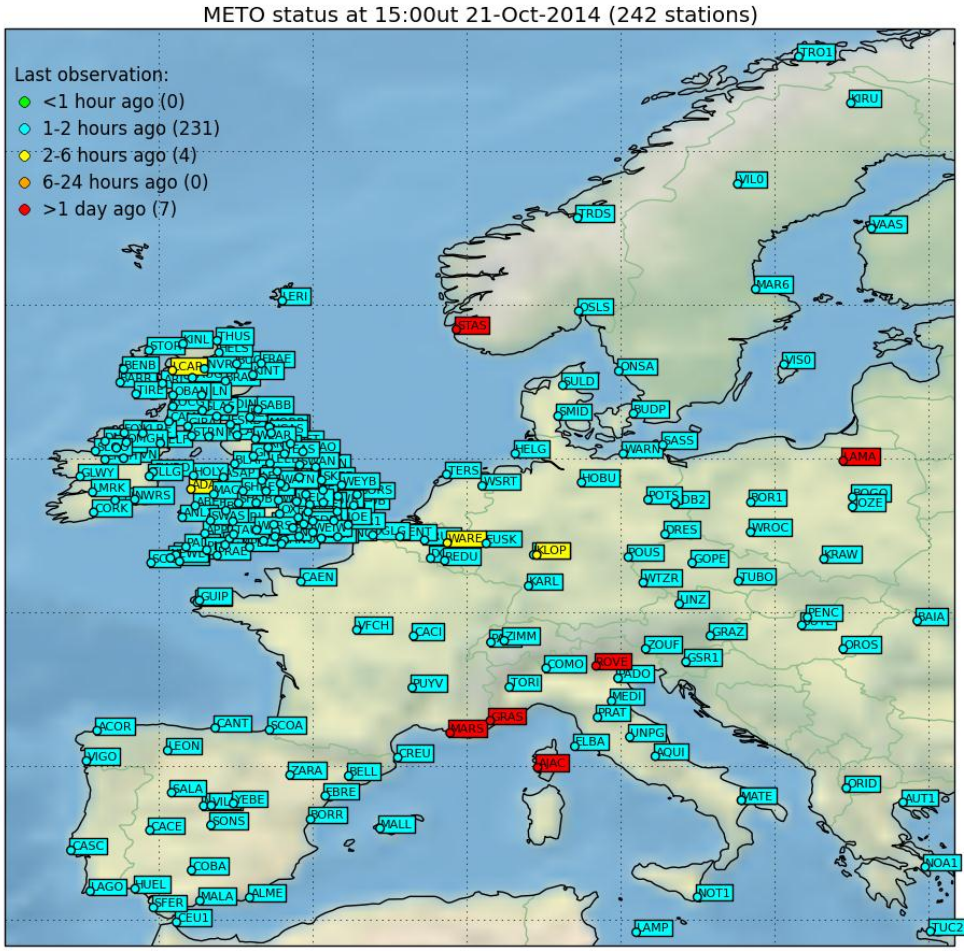
**E-GVAP Expert Team Meeting, Met Office, Exeter, October 2014**

# Met Office GPS Processing Systems

- METO Hourly European ZTD/IWV (operational)
- METG Hourly Global ZTD/IWV (operational)
- METR 15min UK ZTD/IWV (R&D System)
- METI Hourly Global TEC (R&D System)
- METT 15min UK TEC (R&D System)
- All based on:
  - BSW50 in DD mode
  - IGS Ultra Rapid products
  - 4 hours worth of NEQ files added (+ current hour)

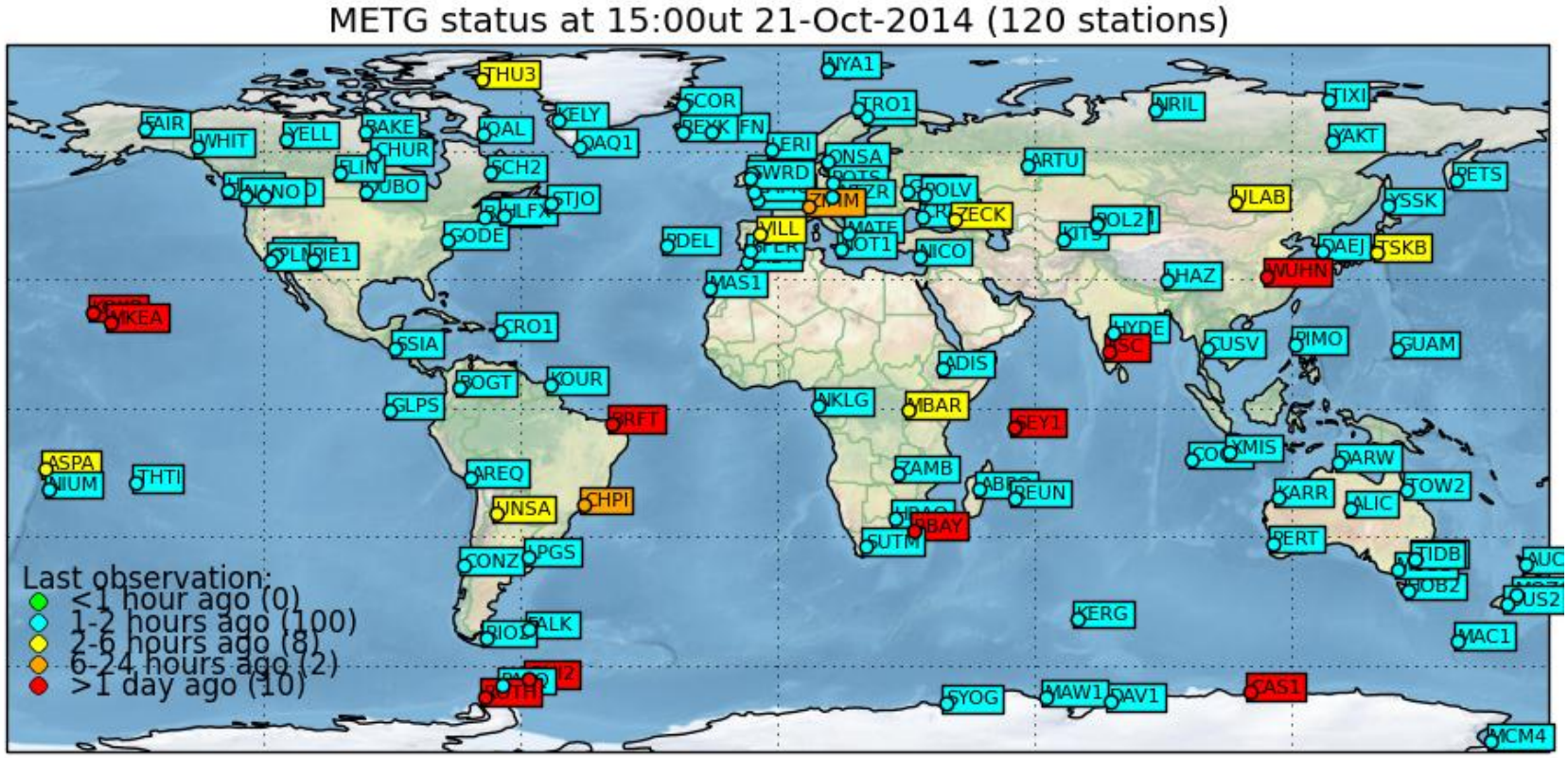
# METO

- ~220 UK and EU sites
- Processing starts at HH+20 and takes ~20mins
- ZTD converted to IWV from nearest hourly surface observations
- ZTD/IWV estimates at 00, 15, 30, 45 and 59mins



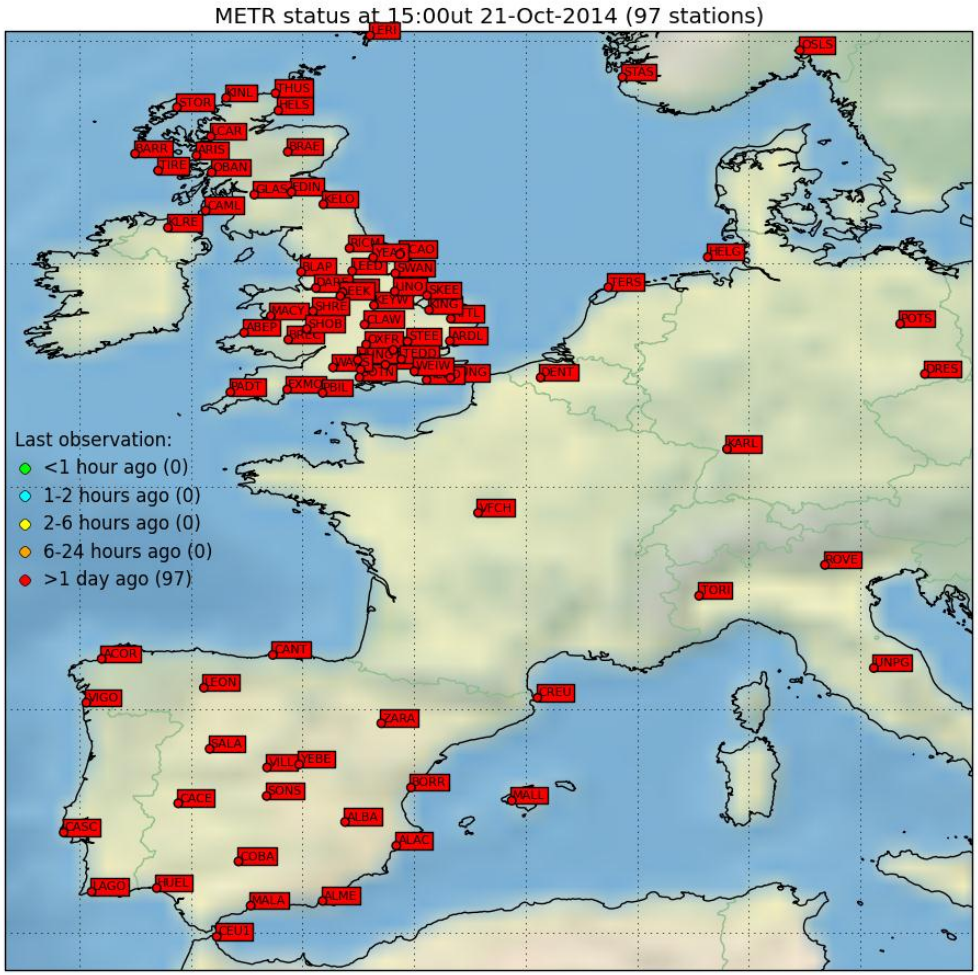
# METG

- Operationally supported, hourly RINEX from ~120 (mainly IGS) sites
- Processing starts at HH+45 and takes ~7mins
- ZTD/IWV estimates at 00, 15, 30, 45 and 59



# METR

- ~100 stations (mainly UK)
- 1s data stream collected on ntrip client outside Met Office firewall
- 15min RINEX created
- Processing starts at HH:10, 25, 40 + 55 and takes 2-3mins )can be optimised if neccessary)
- ZTD/IWV estimates at start and end of processing window (e.g. 00:00:00 and 00:14:59)
- Complete UK coverage and more ntrip sites in 2014
- Recently added OSNI and Osi data streams

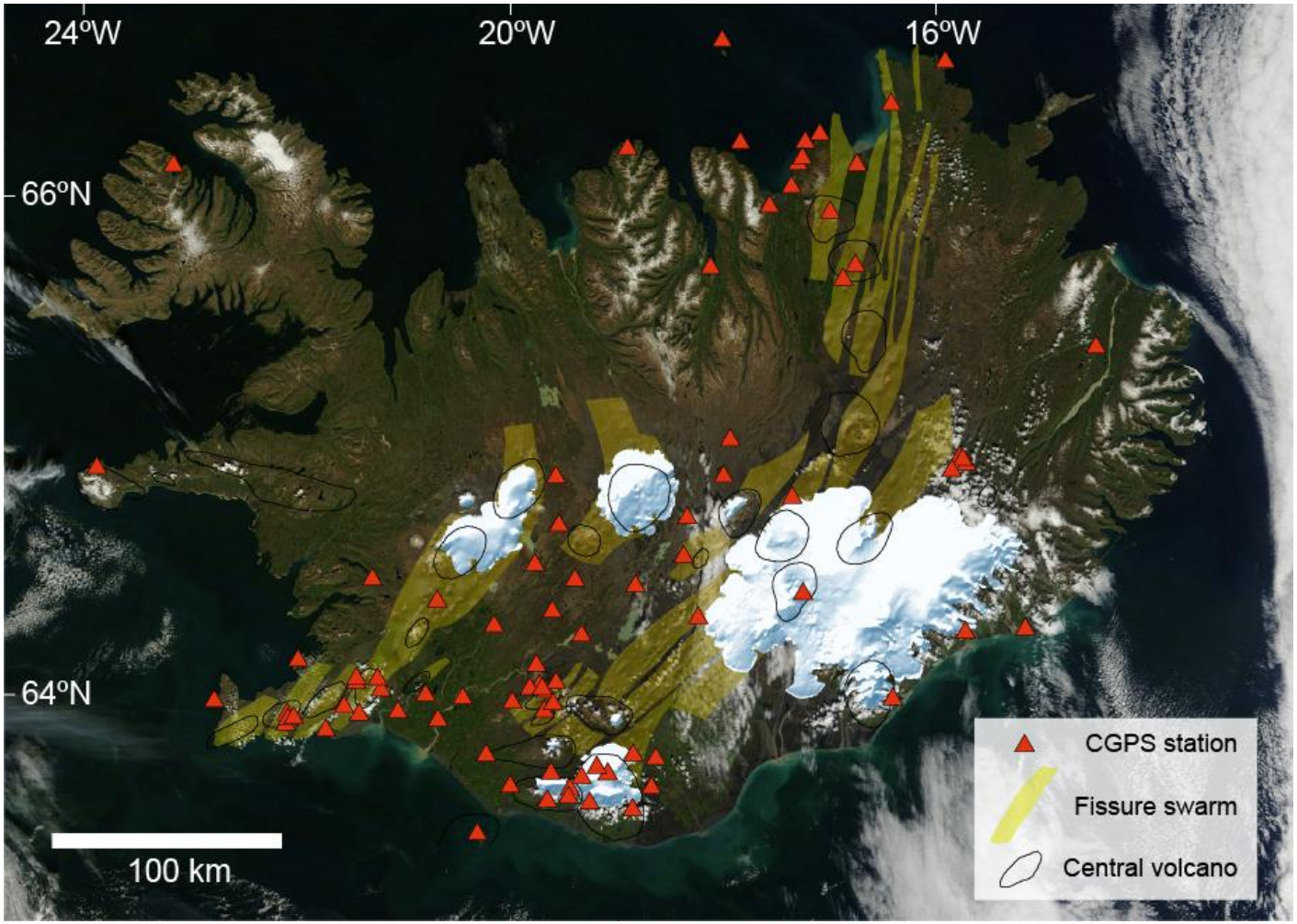


# Main plans for 2014

- Moving to COSTv2.2
- Moving to gwvbufrv2.0
- Move to BSW52 incl. multi-GNSS (March 2015)
- Add more sites (particularly to METG)
- Add Icelandic RT data streams to METR
- Move METI and METR to operations
- Re-write MoUs between MetO and Osi, OSNI and OSGB
- Assess GPS-IWV vs. Vaisala RS41 (+RS92)
- Start work on GNSS-reflectometry for soil moisture and snow depth

# Irish/N. Irish GNSS Network

# Icelandic GNSS Network



# Questions