WROCŁAW UNIVERSITY OF ENVIRONMENTAL AND LIFE SCIENCES

E-GVAP Expert Meeting
KNMI DeBilt
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Wroclaw University of Environmental and Life Sciences
WUEL AC Activities for E-GVAP

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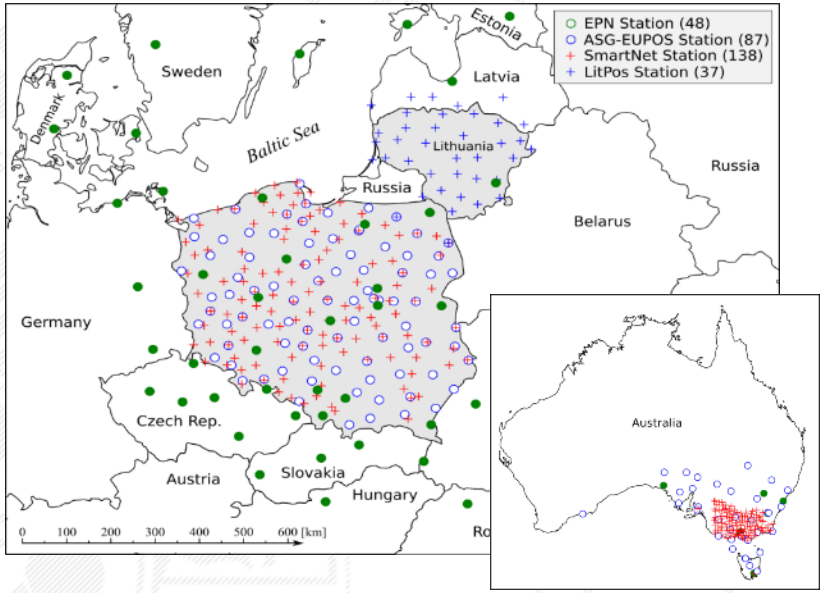
WUELS – E-GVAP cooperation

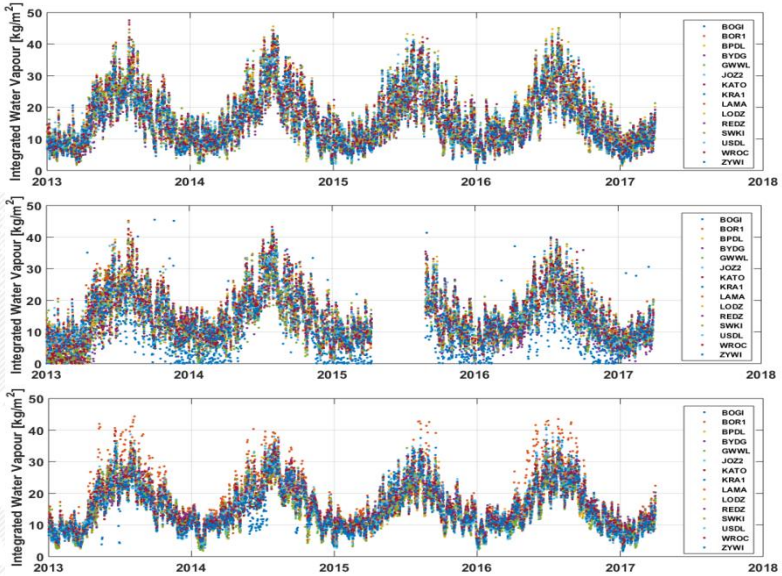


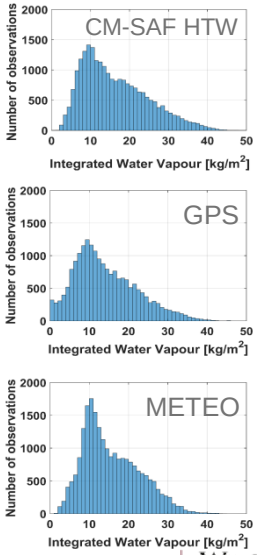
NRT ZTD for Poland, Lithuania and Australia

WUELS AC troposphere estimation status:

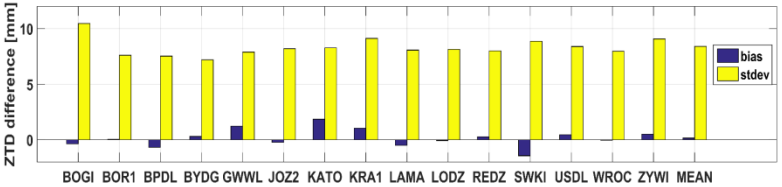
- **WUEL network (E-GVAP) : since 2012, 225 stations (EPN+ASG-EUPOS+SmartNet),**
- **WLIT network (EGVAP): since 2016 ,50 stations (EPN+LitPOS),**
- **VICNET network (Australia): cooperation in processing 146 stations**
- **Ultra-fast processing (each 15 minutes) for EPN and SmartNet stations in Poland (15 stations),**
- **new computer cluster (194+48 cores) for ZTD/IWV estimation was bought, and troposphere services will be migrated there.**
- **cooperation with Taiwan on typhoon studies (NRT + slants).**

IWV validation on EPN stations in Poland





ZTD validation on EPN stations in Poland



ZTD difference	Bias [mm]	Stdev [mm]
$dZTD = ZTD_{WUEL} - ZTD_{EPN}$	0.15	8.40

IWV validation on EPN stations in Poland

IWV differences	Bias [kg/m²]	Stdev [kg/m²]
dIWV(GNSS – METEO)	-1.07	3.68
dIWV(GNSS – CM-SAF HTW)	-1.54	2.81
dIWV(GNSS – METEO) without KRA1 station and data before 7/1/2013	-0.92	3.63
dIWV(GNSS – CM-SAF HTW) without KRA1 station and data before 7/1/2013	-1.02	2.08