



Norwegian
Meteorological
Institute

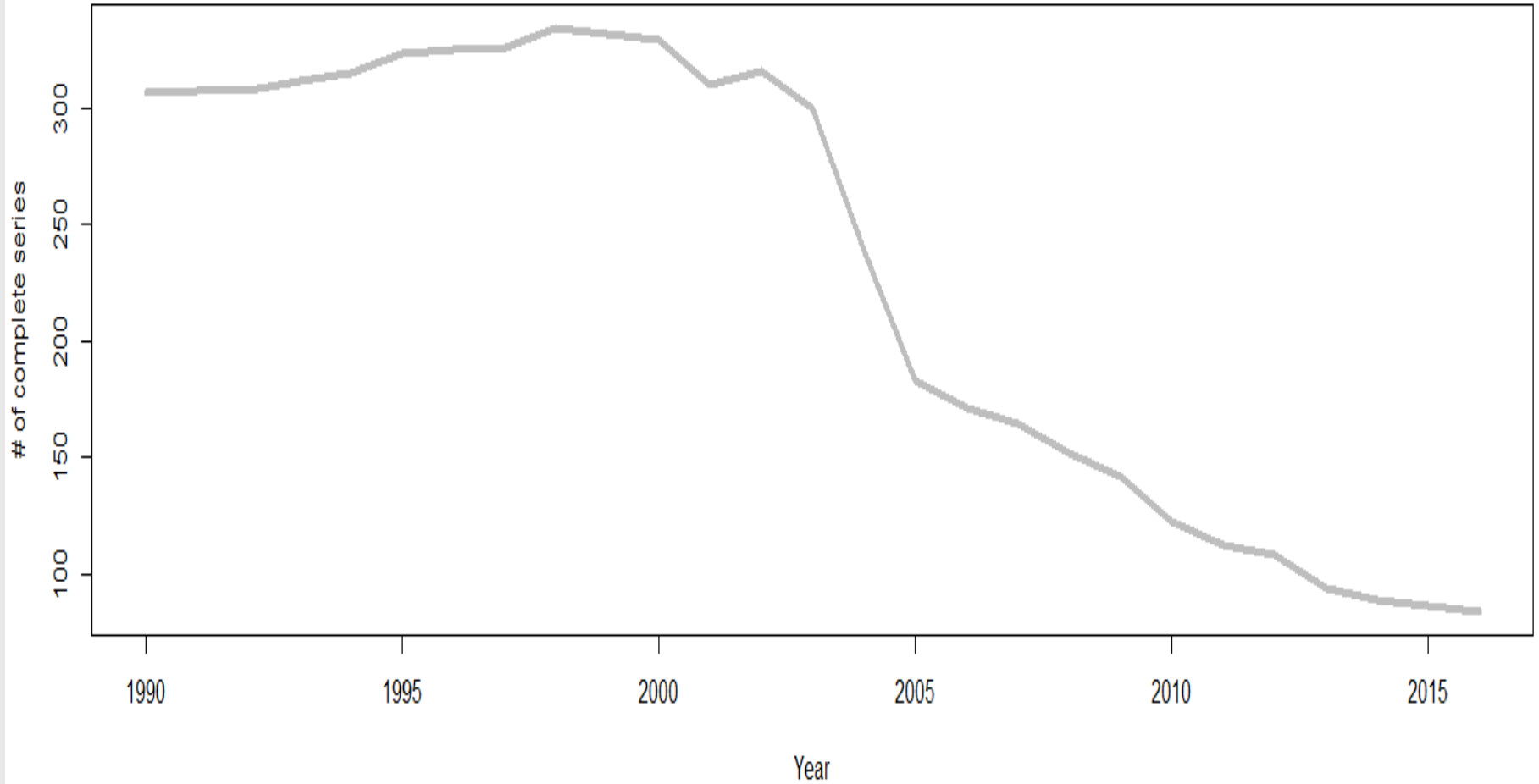
Homogenization of Norway's monthly temperature & precipitation series

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10th SEMINAR FOR HOMOGENIZATION AND QUALITY CONTROL.12 -14
OCTOBER 2020

Objective

Complete 30-year series (Precipitation)



Data

- 1961 - 2018
- Many of the series are very short
- **ClimNorm** - an international network activity under the Nordic Framework for Climate Services (NFCS)
 - Exchange of experiences, methods and data basis to calculate the new 1991-2020 standard normal
- **Reconstruction of datasets and merging** of series - incorporating series from neighbouring countries
 - ClimNorm covers Denmark, Sweden, Finland, Estonia, Latvia and Norway

Temperature dataset

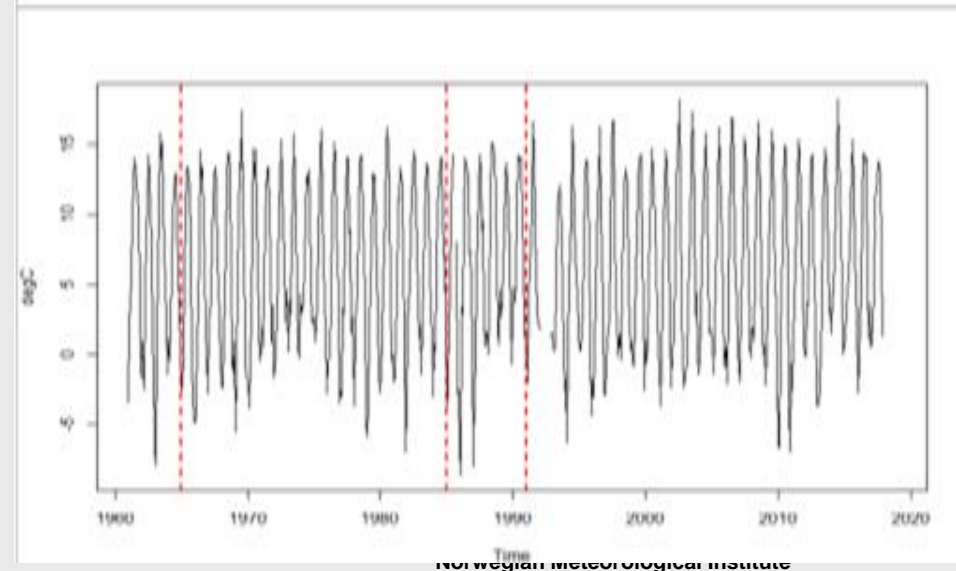
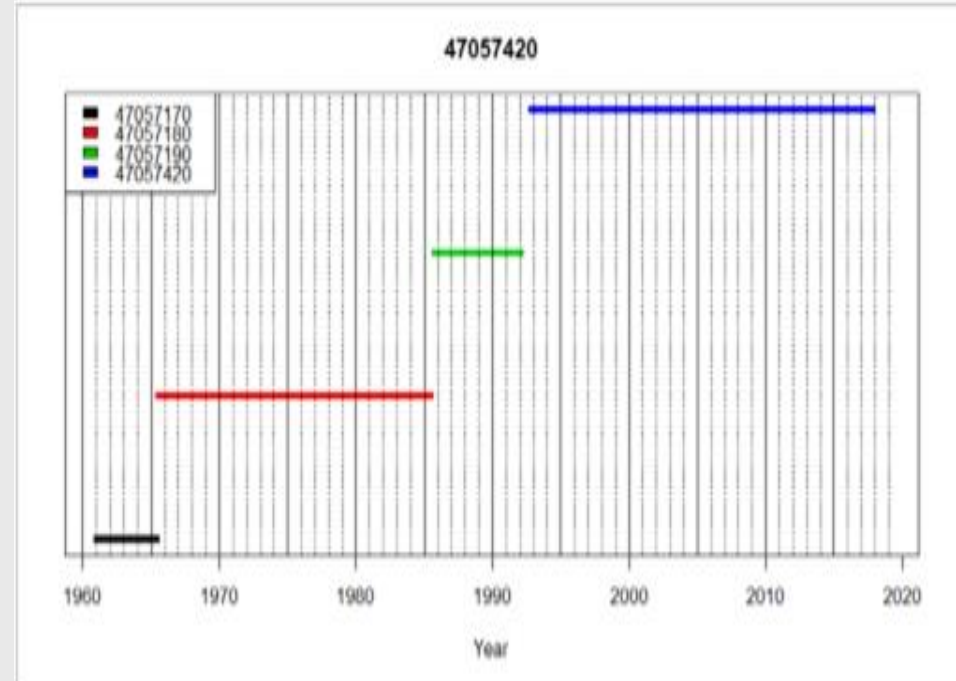
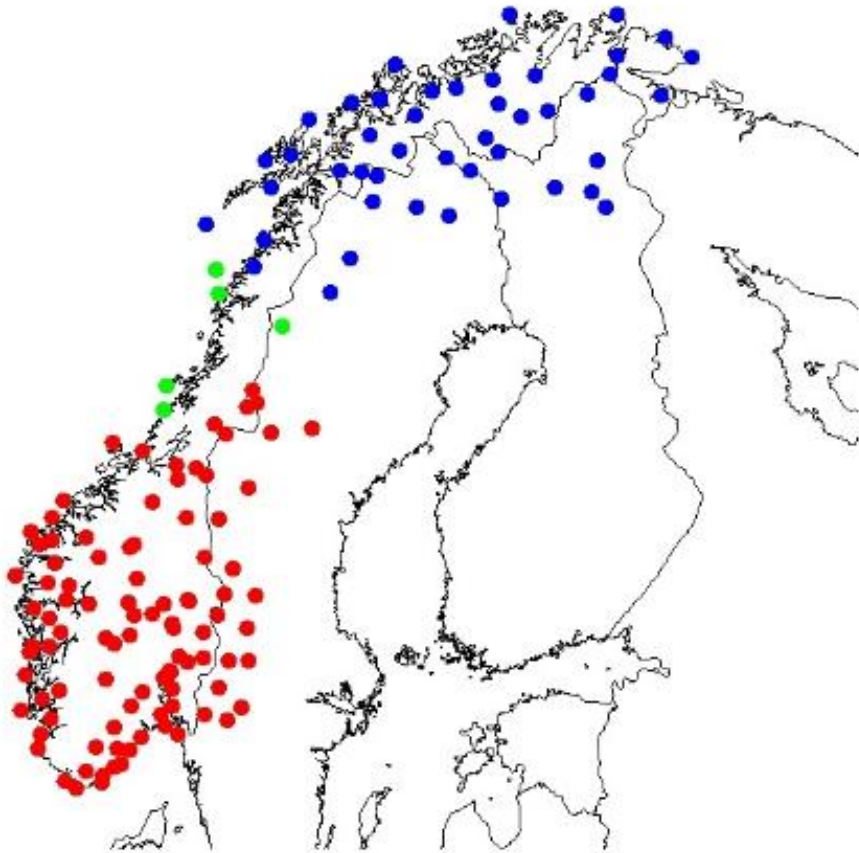


Table 4: Number of series used for homogenization process in each network.

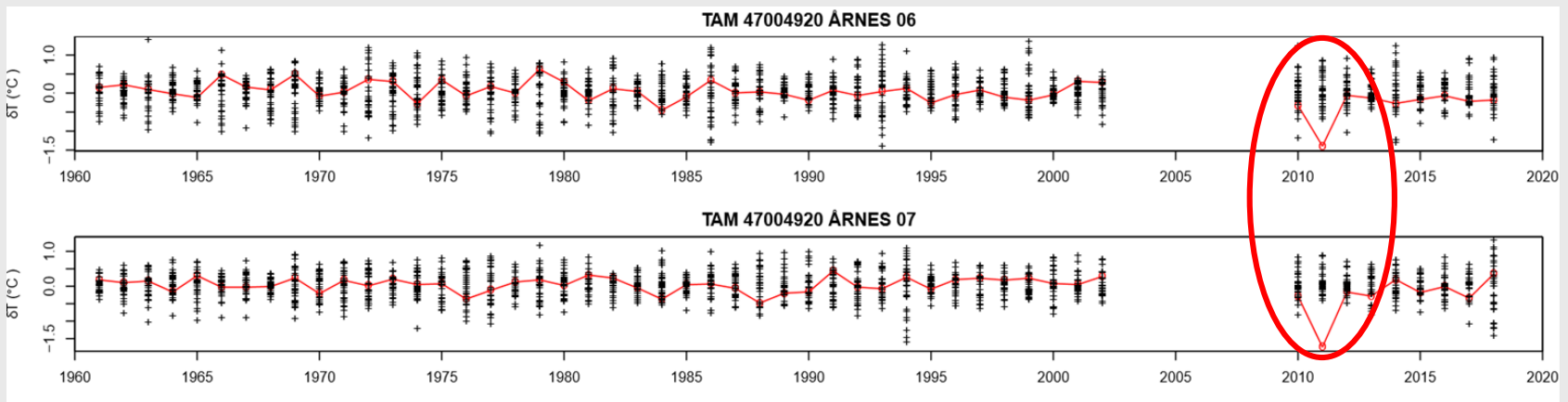
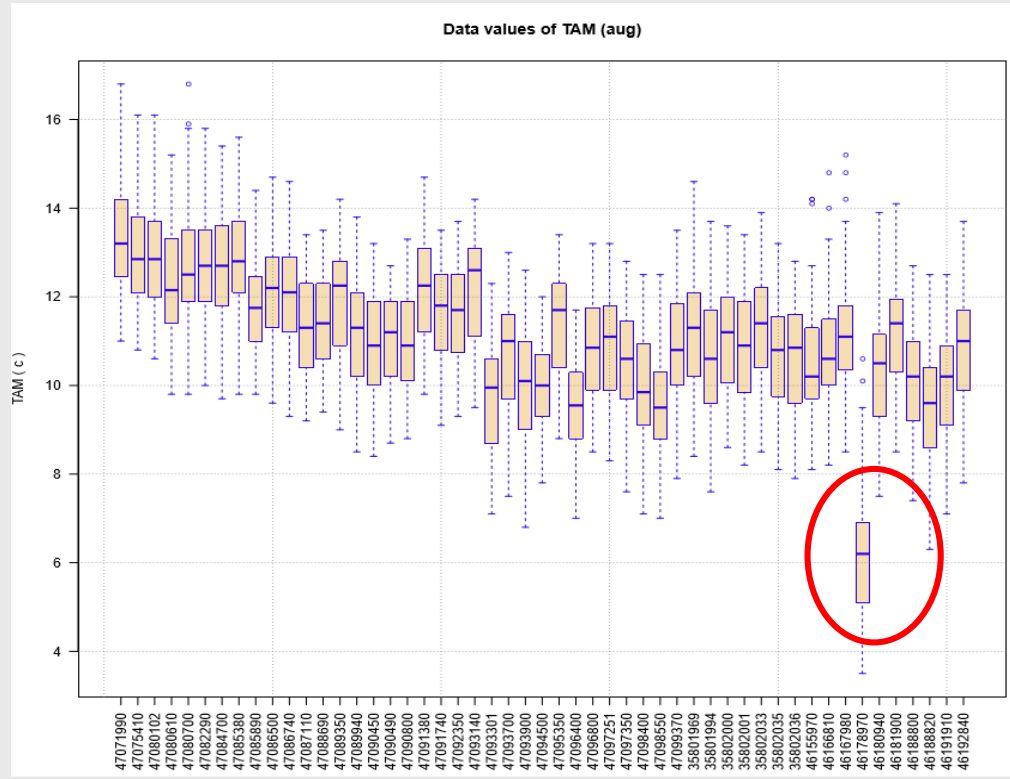
	Candidate stations	Additional reference stations				Total
		South Norway	North Norway	Sweden	Finland	
Network 1	76	0	2	21	0	99
Network 2	32	2	0	10	7	51

Homogenisation of temperature

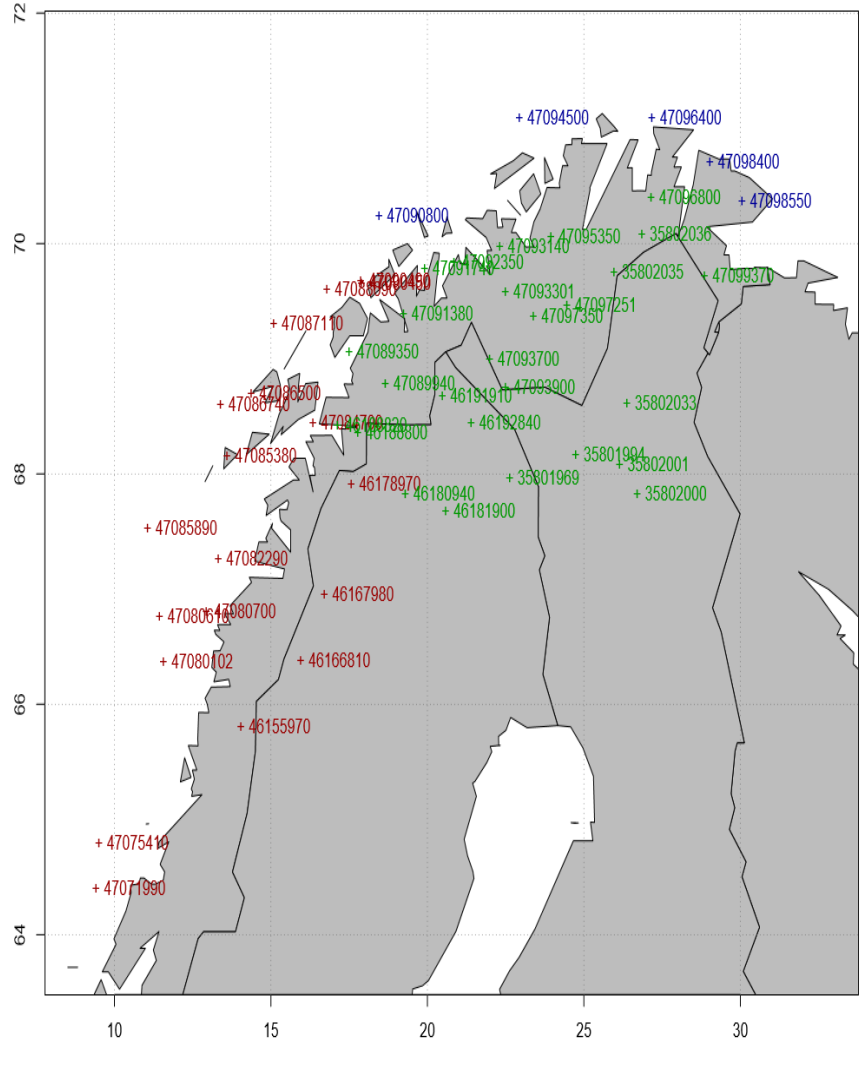
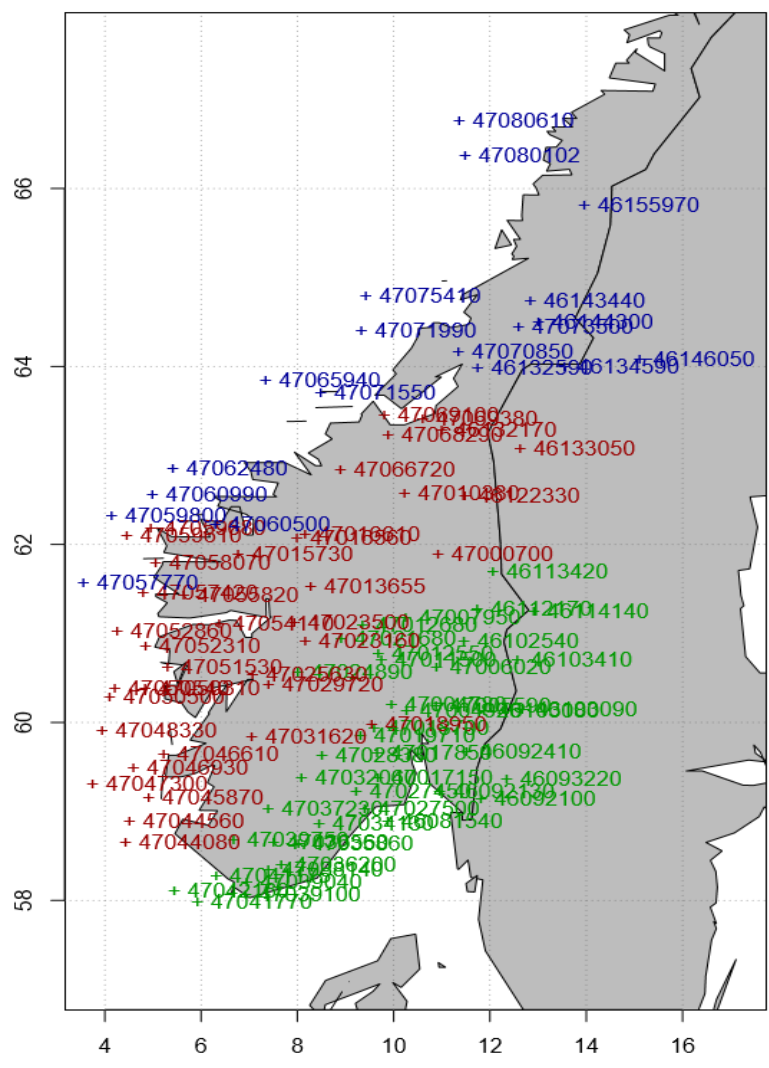


HOMER

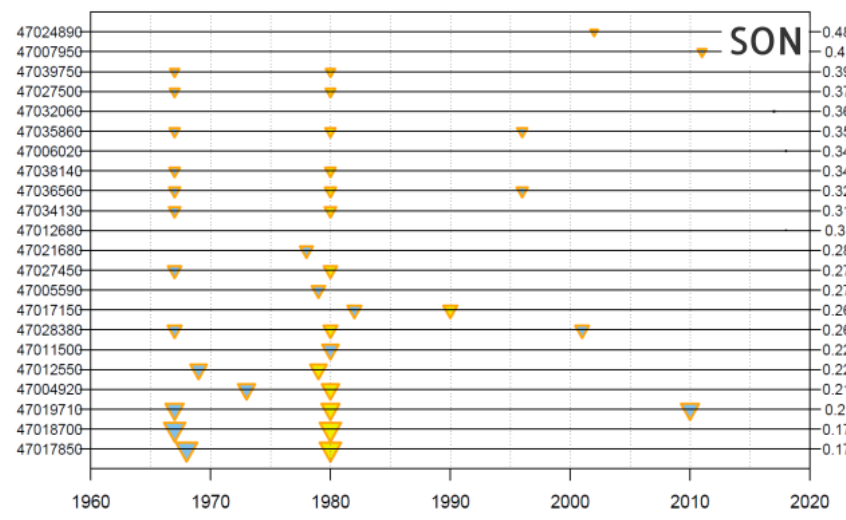
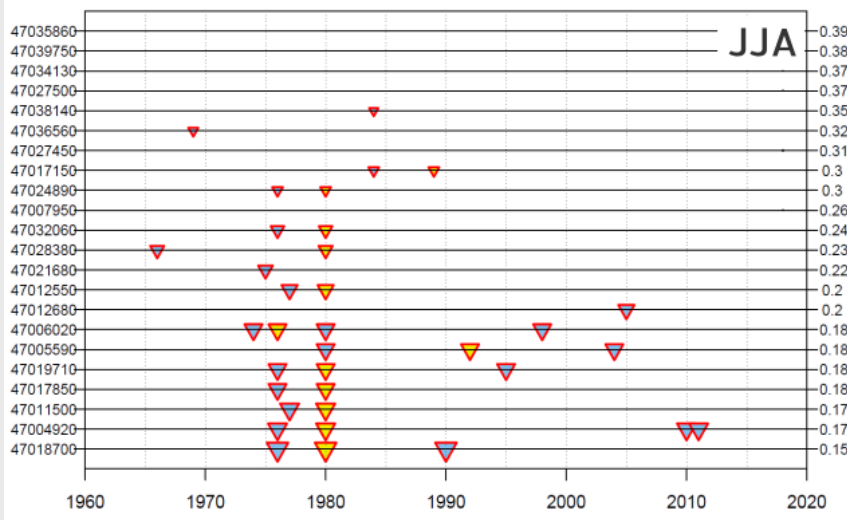
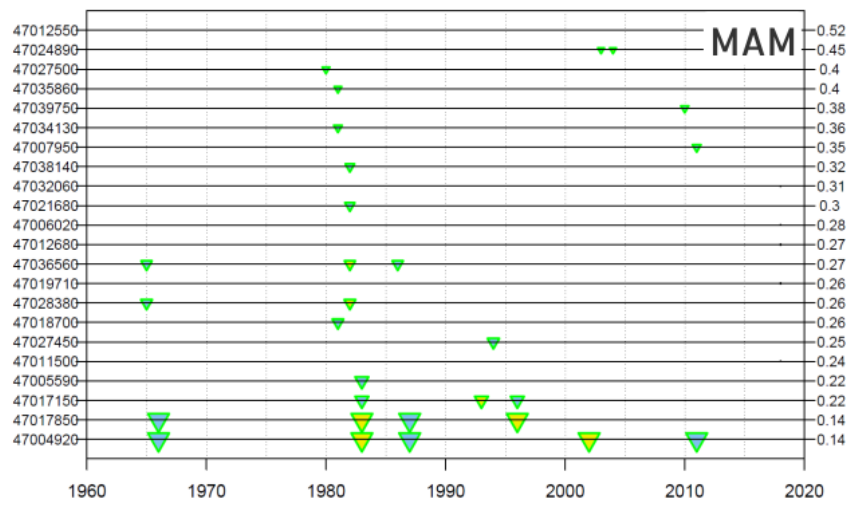
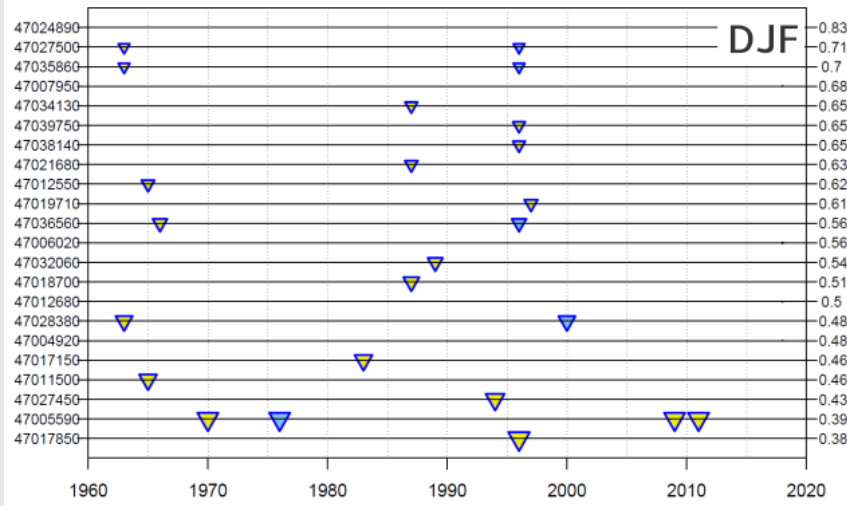
Quality control



Quality control -cont'



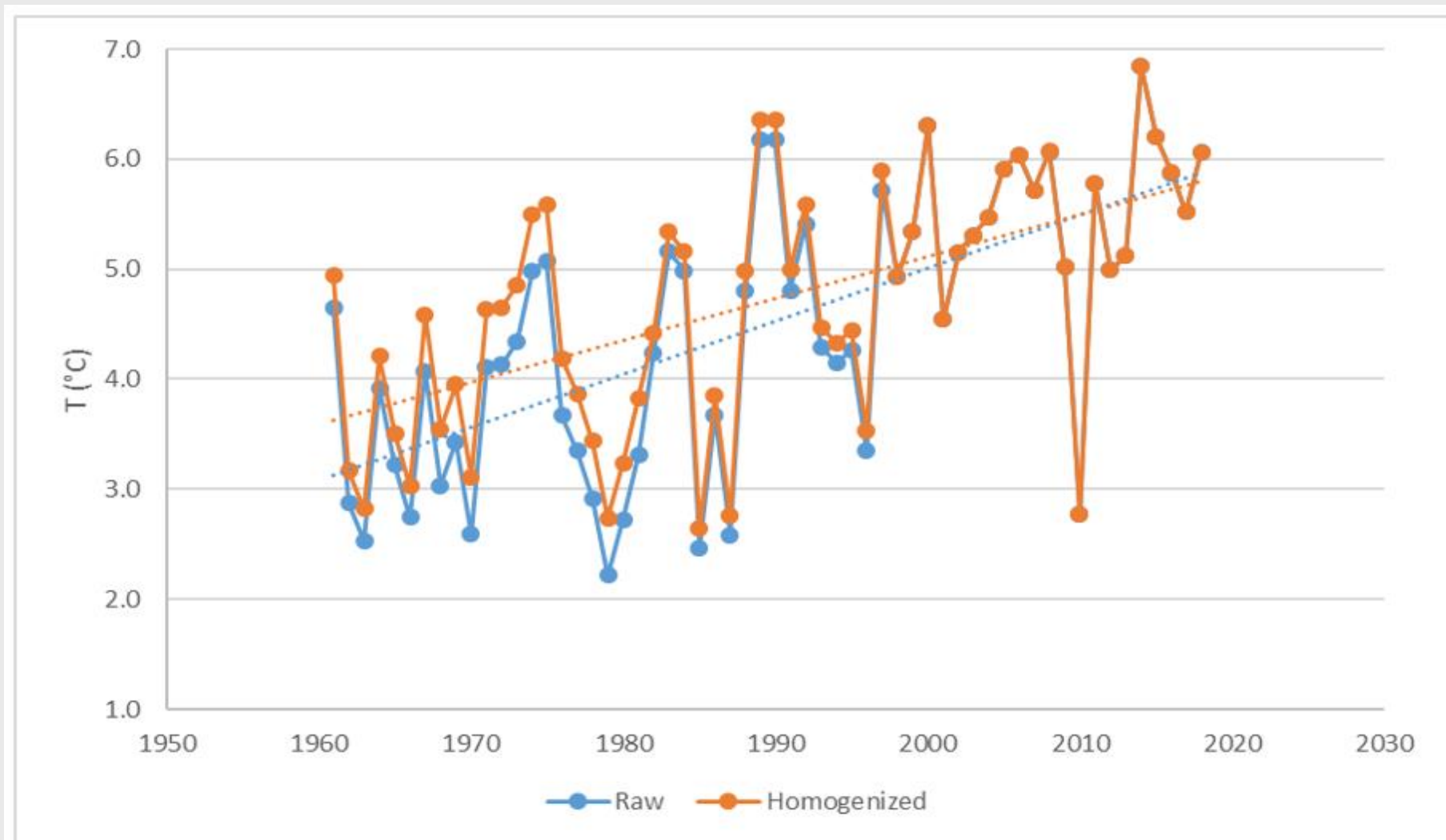
Homogenization - Oslo airport Gardermoen



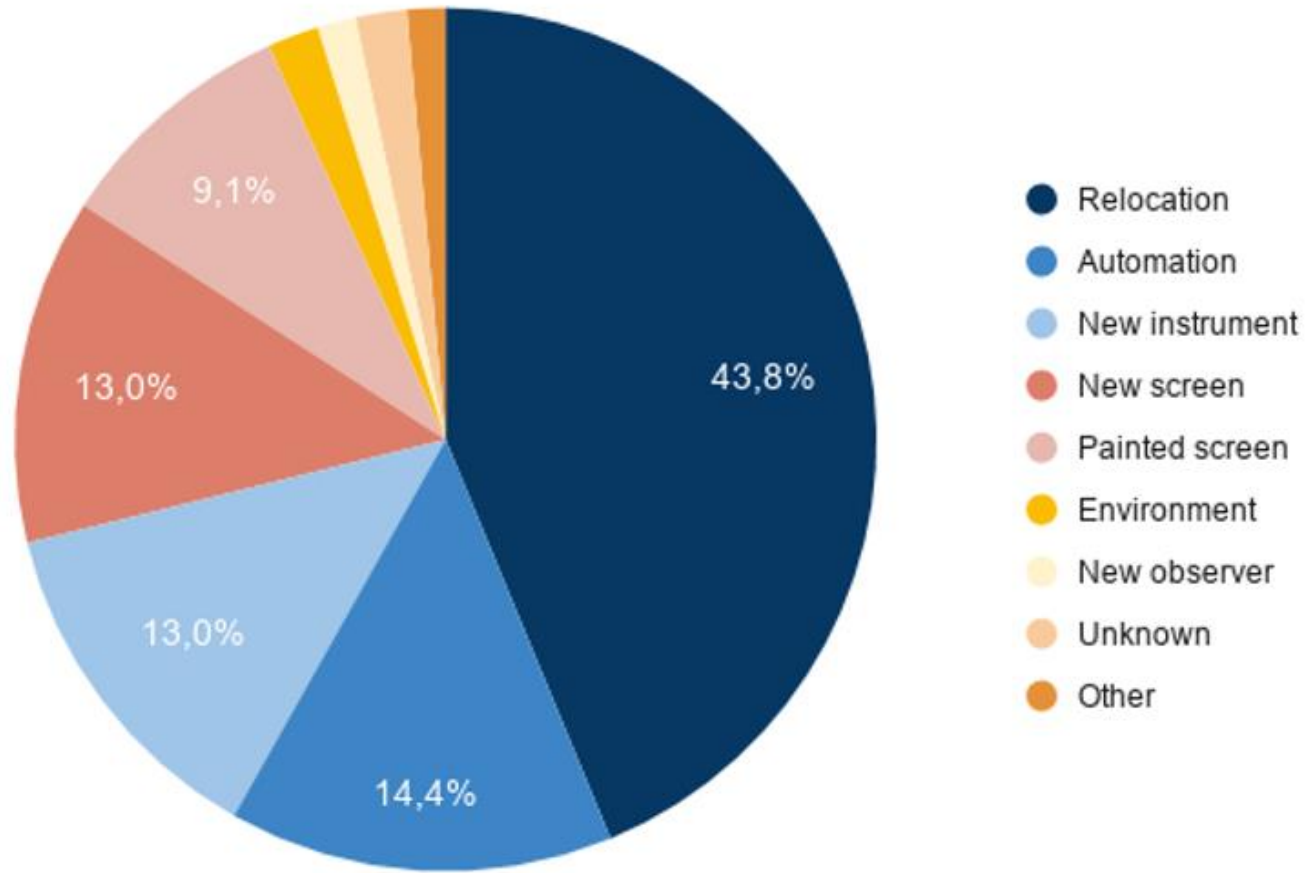
Homogenisation results (Oslo airport)



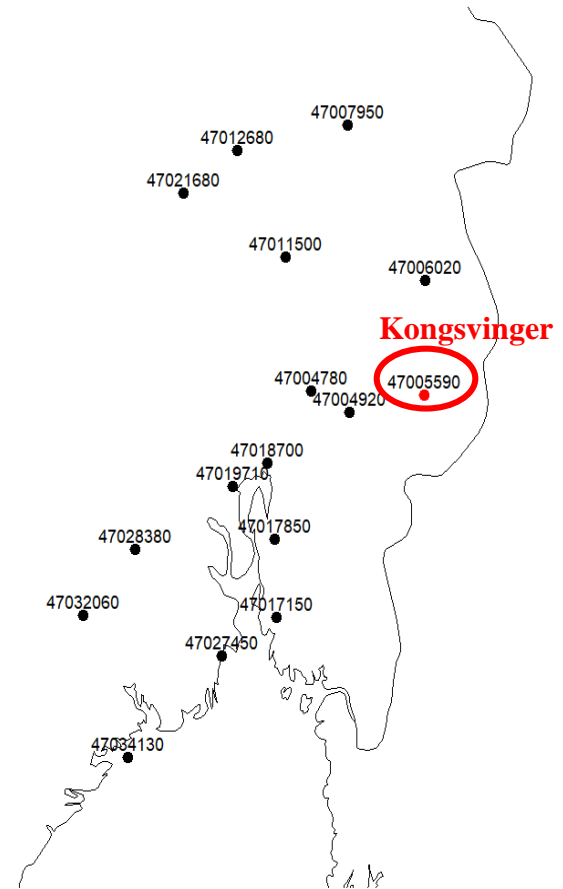
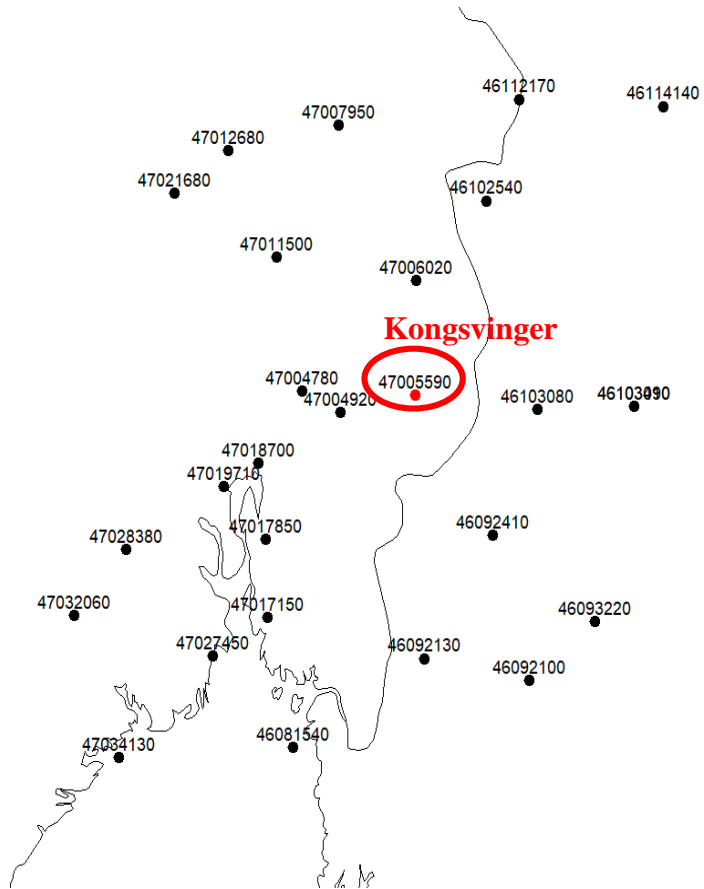
Homogenisation results (Oslo airport)



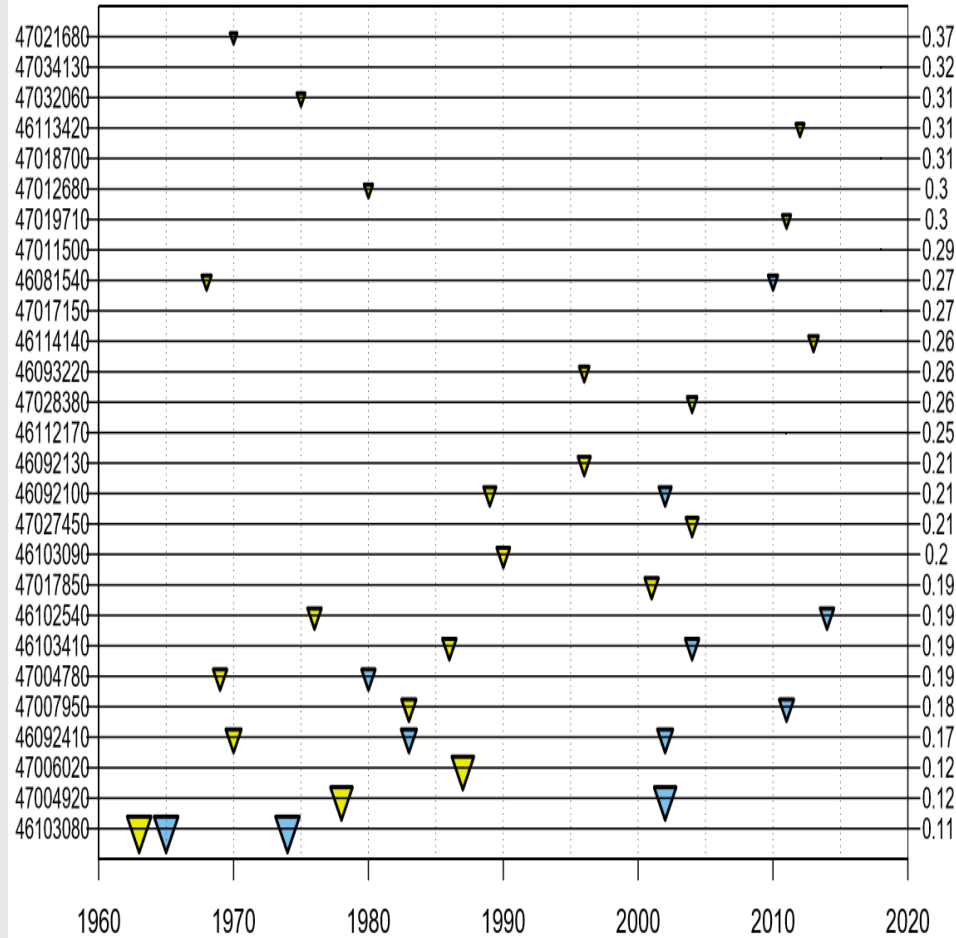
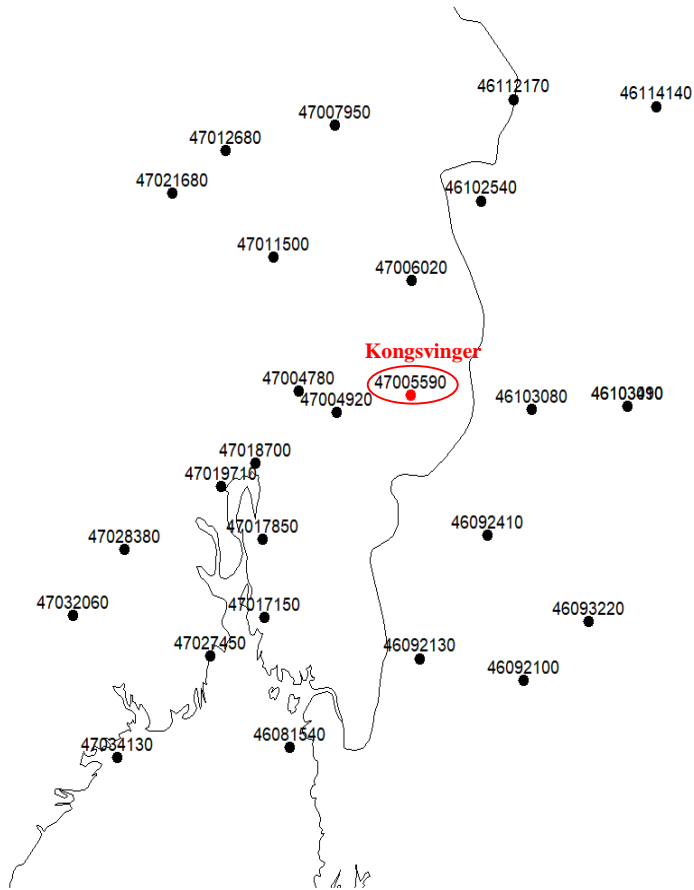
Reasons for break



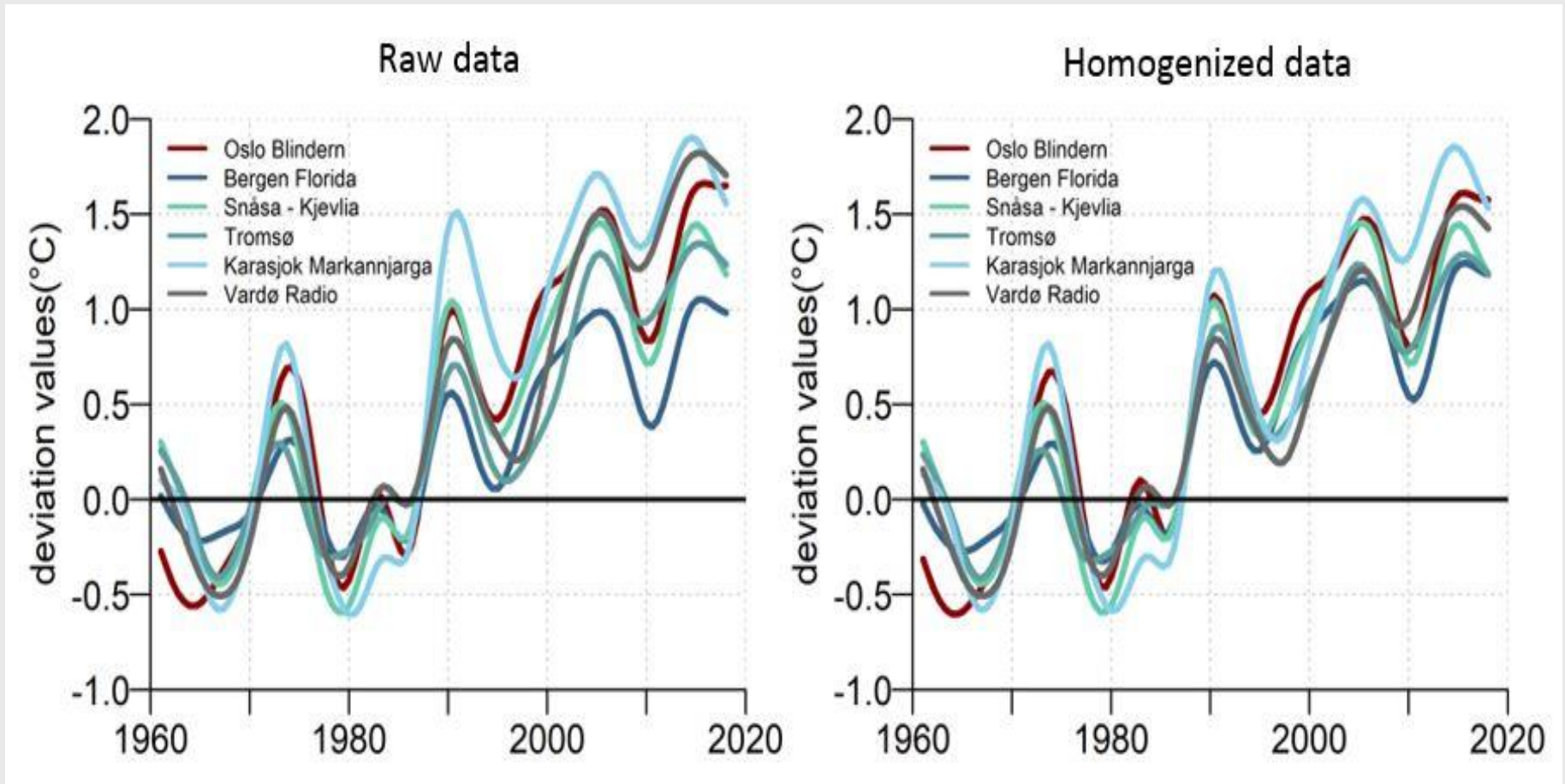
Impact of including swedish and finnish stations



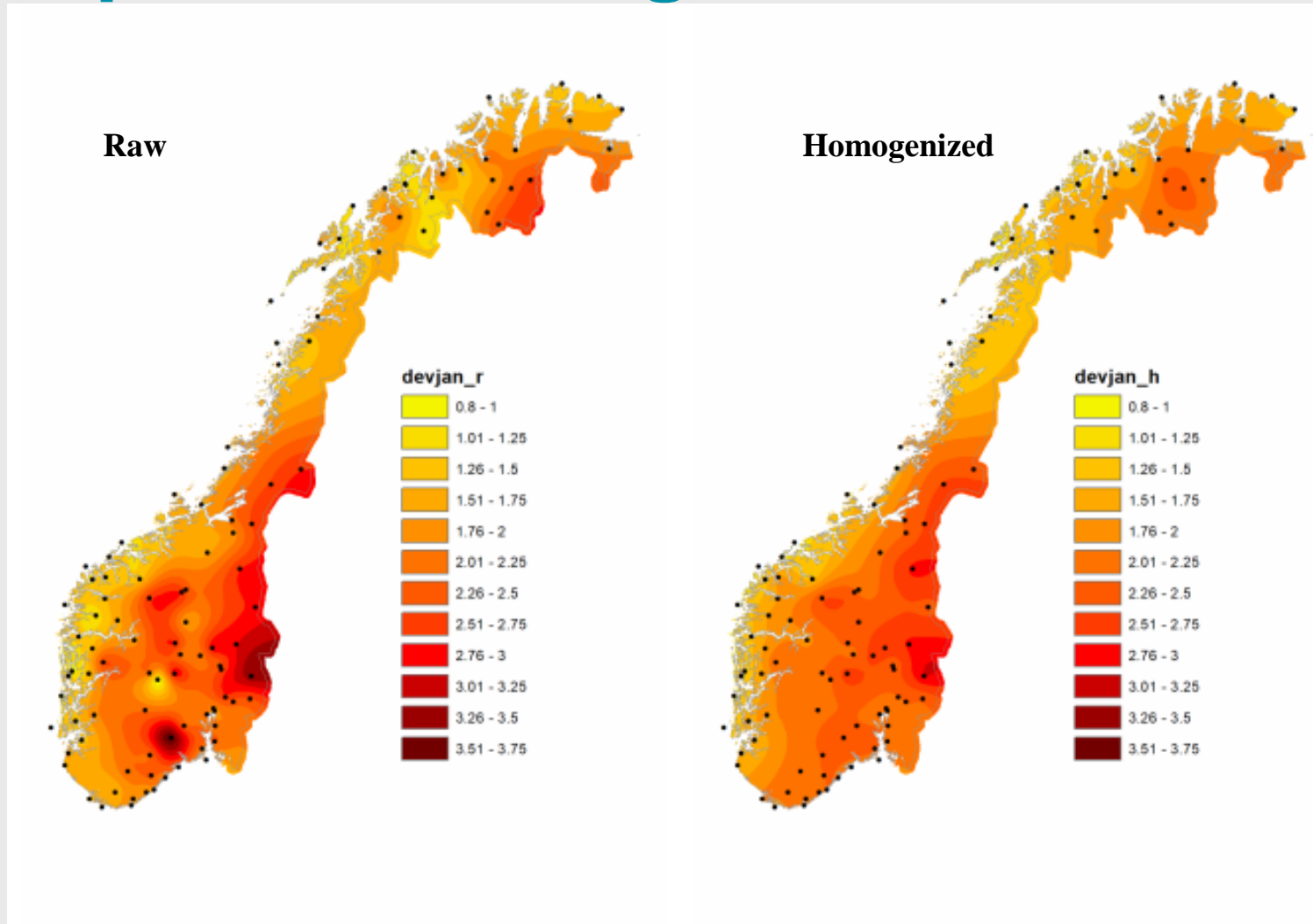
Impact swedish and finnish stations



Impact of homogenization on the temperature series



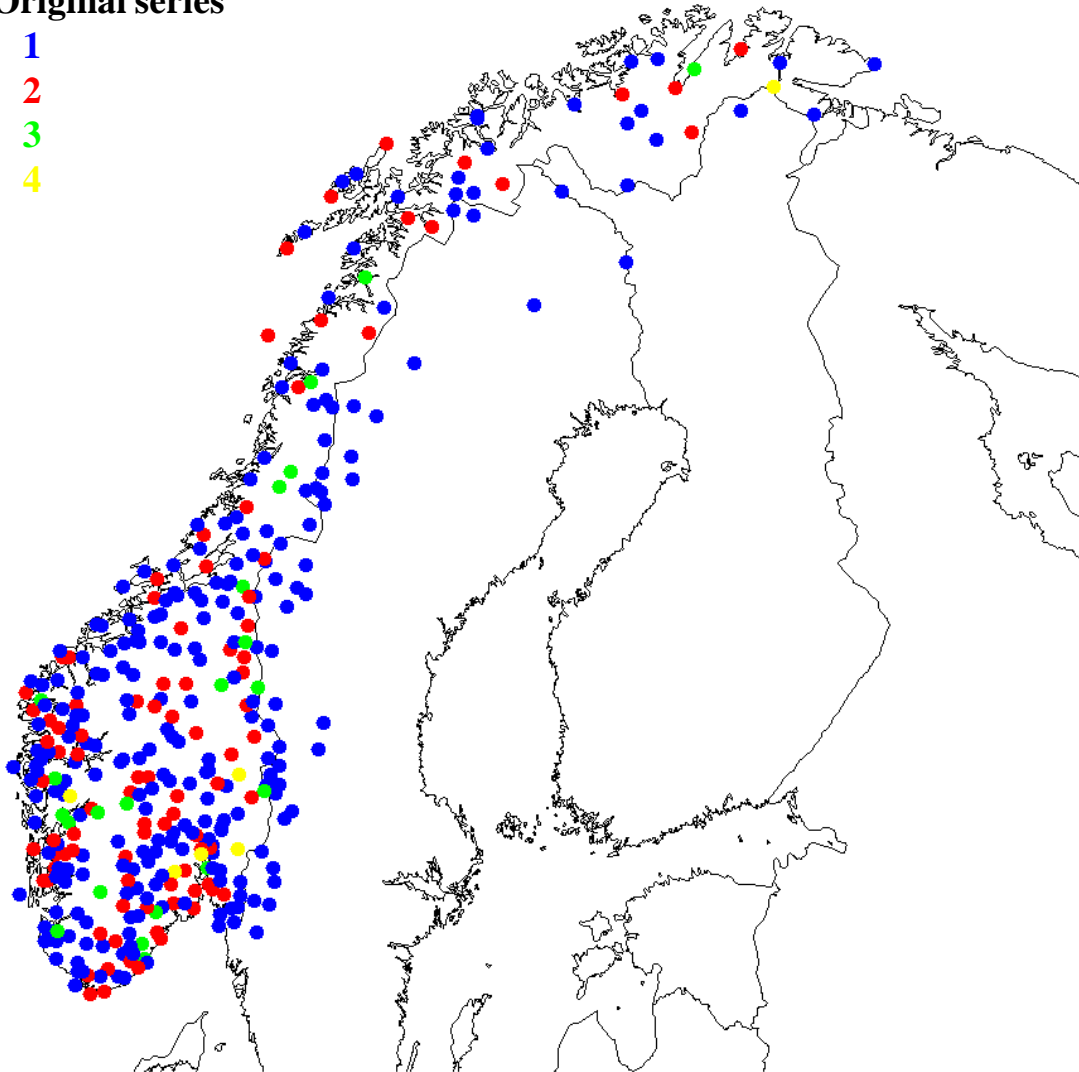
Impact of homogenization- cont'd



Homogenisation of precipitation

No. Original series

- 1
- 2
- 3
- 4



- CLIMATOL
- ClimNorm dataset
- 370 series (44 SE, 1 FI)

Future plan

- **Extend the homogenization back in time**

Thank you!!!