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Abstract ID: 202

Data management at DMI

The presentation will concentrate on two aspects of data management at DMI.

- Data flow. Observational data are received at a central DMI server. From there data are distributed by several channels to the DMI users. Pressing aims for the DMI data management are to simplify the DMI data flow, to ensure usage of the DMI automated QC throughout, and to lower the number of decoding-systems. These aims are in reality difficult to reach and only more or less pressing for some of the users. But the upcoming WMI migration to BUFR might speed matters up?
- How to categorize SYNOP stations? In addition to the weather data from synoptical weather stations owned and operated by DMI, DMI also receives weather data from real time transmitting weather stations owned and operated by third parties. Two cases are shown: SYNOP from the automated weather station at Hans Island in the Nares Strait between Greenland and Canada, that was installed for research purposes. And SYNOP from the automated weather stations at the wind mill park Horns Rev, west of Jutland, Denmark

Data management at DMI

MSc Ellen Vaarby Laursen, Data and Climate Division

- 1) Simplification of Dataflow!
- 2) Differentiation of SYNOP stations?



Incoming observations

DMI Dataflow

GTS, global synop, temp etc.

Alarmnet, DMI
DK synop

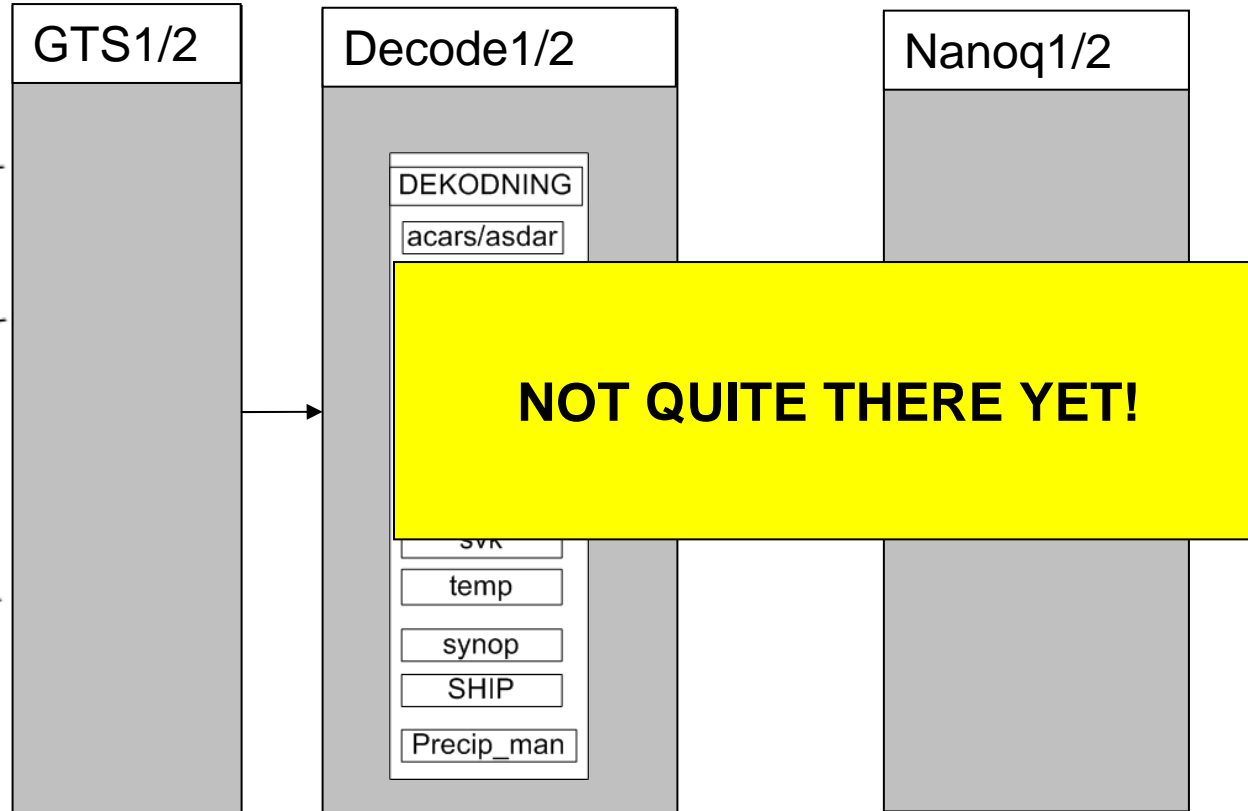
Email, GR
Argos synop

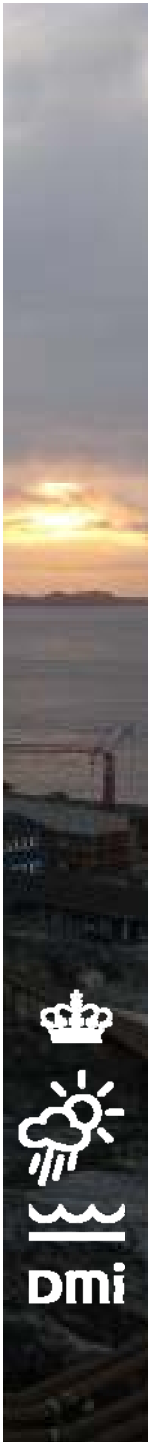
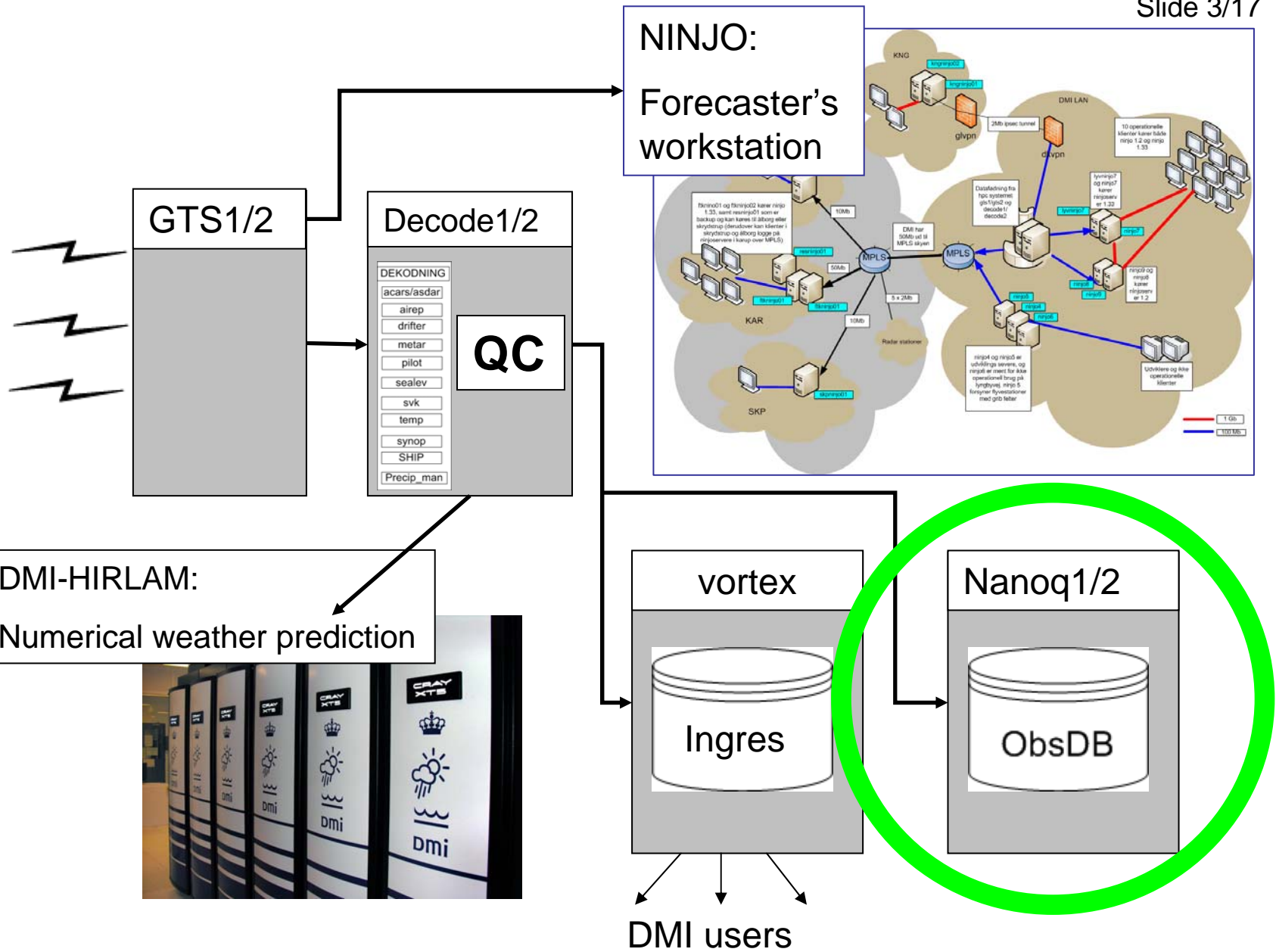
GPRS (data service, Mobile phone network), sealevel, Rimco Raingauges

EKCH, airport data DK, FR, GR

FTP, sealevel, manual rain gauges

And more...





WMO BUFR MIGRATION MATRIX

Category of traditional Alphanumeric Codes (TAC)	Nov. 2005	Nov. 2006	Nov. 2007	Nov. 2008	Nov. 2009	Nov. 2010	Nov. 2011	Nov. 2012	Nov. 2013	Nov. 2014	Nov. 2015	Nov. 2016
Cat.1: Common SYNOP, TEMP, PILOT, CLIMAT												
Cat.2: Satellite observations SARAD, SAREP, SATEM, SATOB												
Cat.3: Aviation METAR, SPECI, TAF AMDAR												
Cat.4: Maritime BUOY, TRACKOB, BATHY, TESAC, WAVEOB, SHIP, CLIMAT SHIP, PILOT SHIP, TEMP SHIP, CLIMAT TEMP SHIP												
Argos data												
Cat.5: Miscellaneous RADOB, IAC, IAC FLEET, GRID, RADOF												
Cat.6: Obsolete ICEAN, GRAF, NACL1 etc., SFAZI, SFLOC, SFAZU, ROCOB, ROCOB SHIP, CODAR, WINTEM, ARFOR, RADREP, MAFOR, HYDRA, HYFOR NOT APPLICABLE												

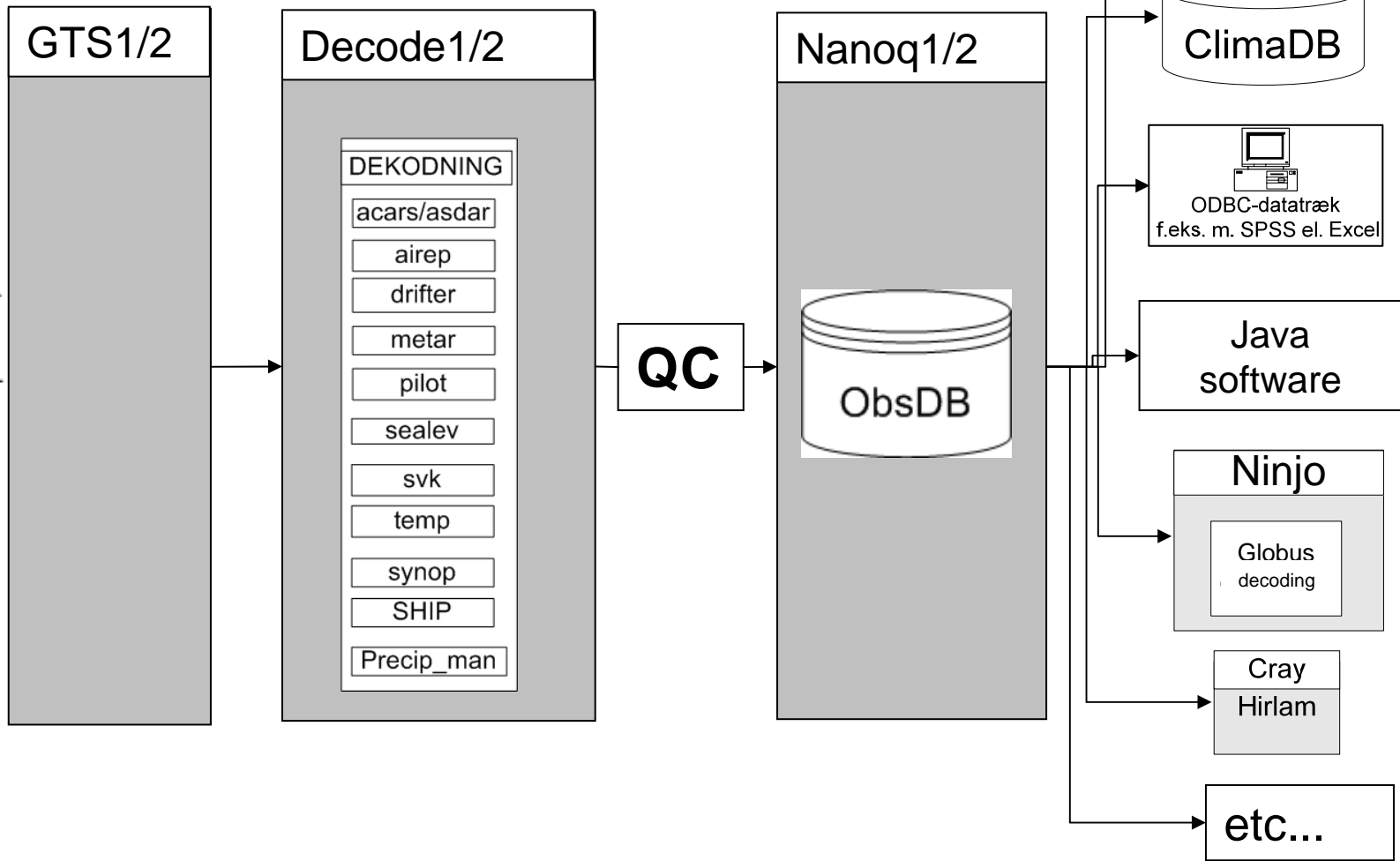
Migration complete **November 2010:**
SYNOP, TEMP, PILOT, CLIMAT



In

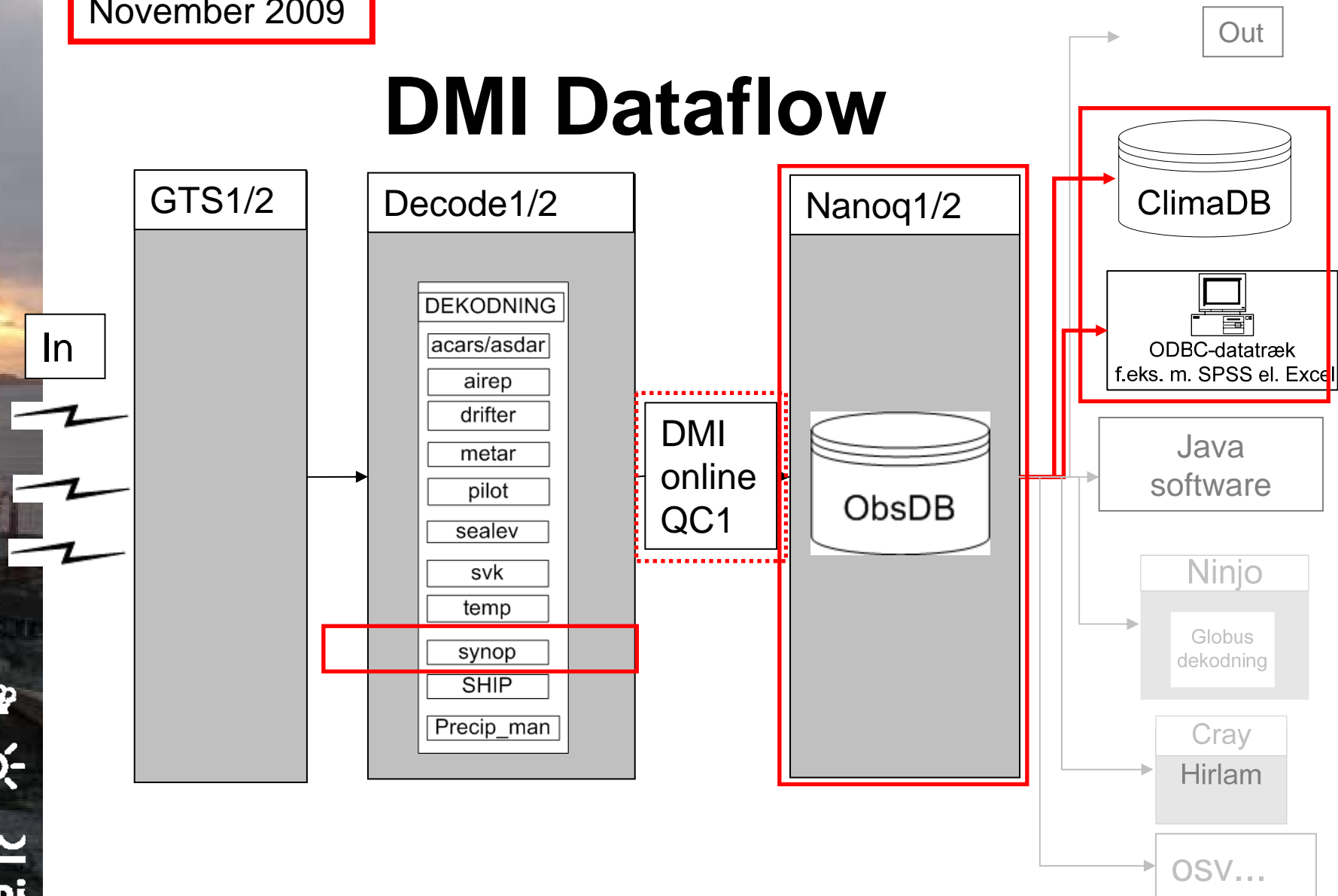
Out

DMI Dataflow



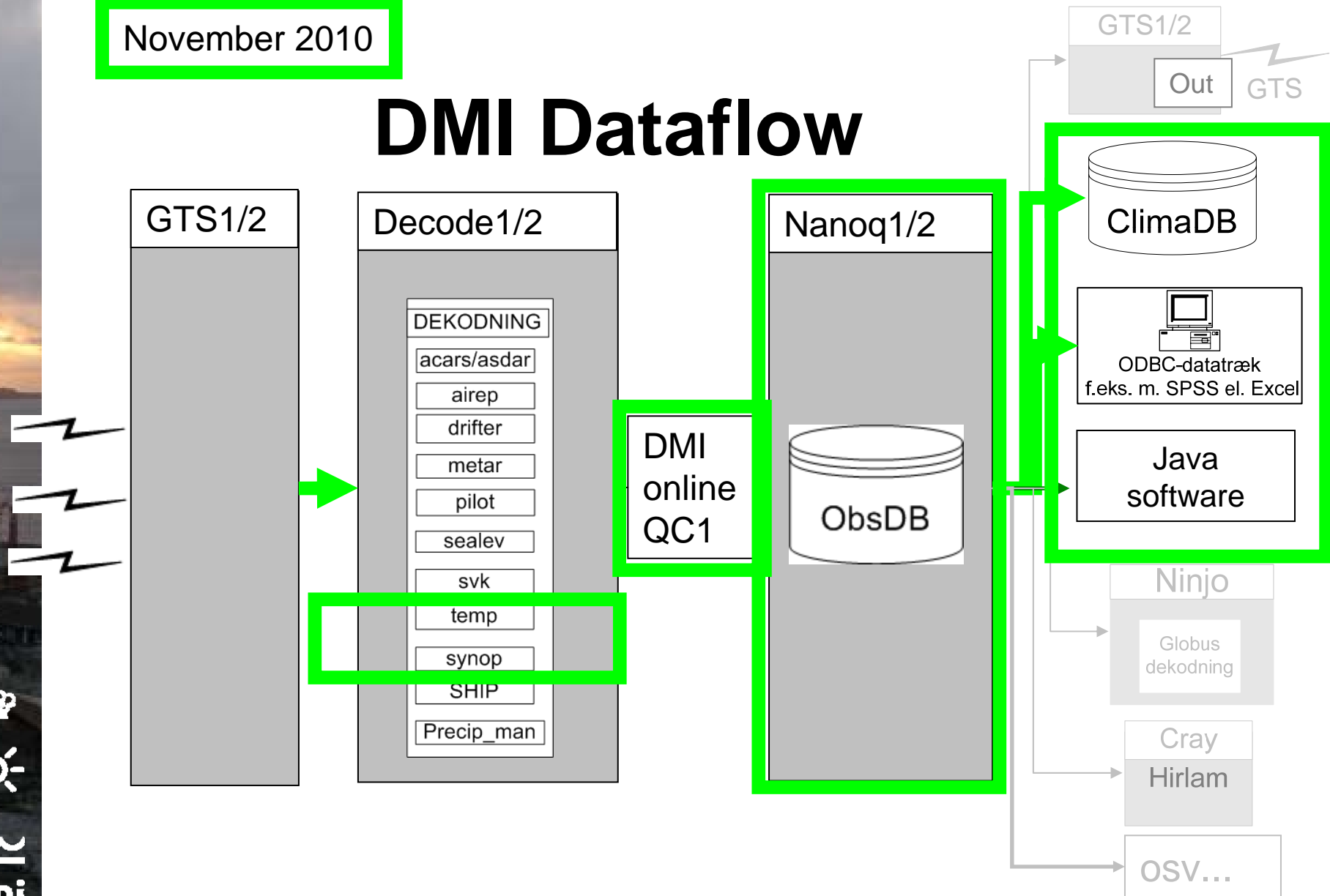
November 2009

DMI Dataflow

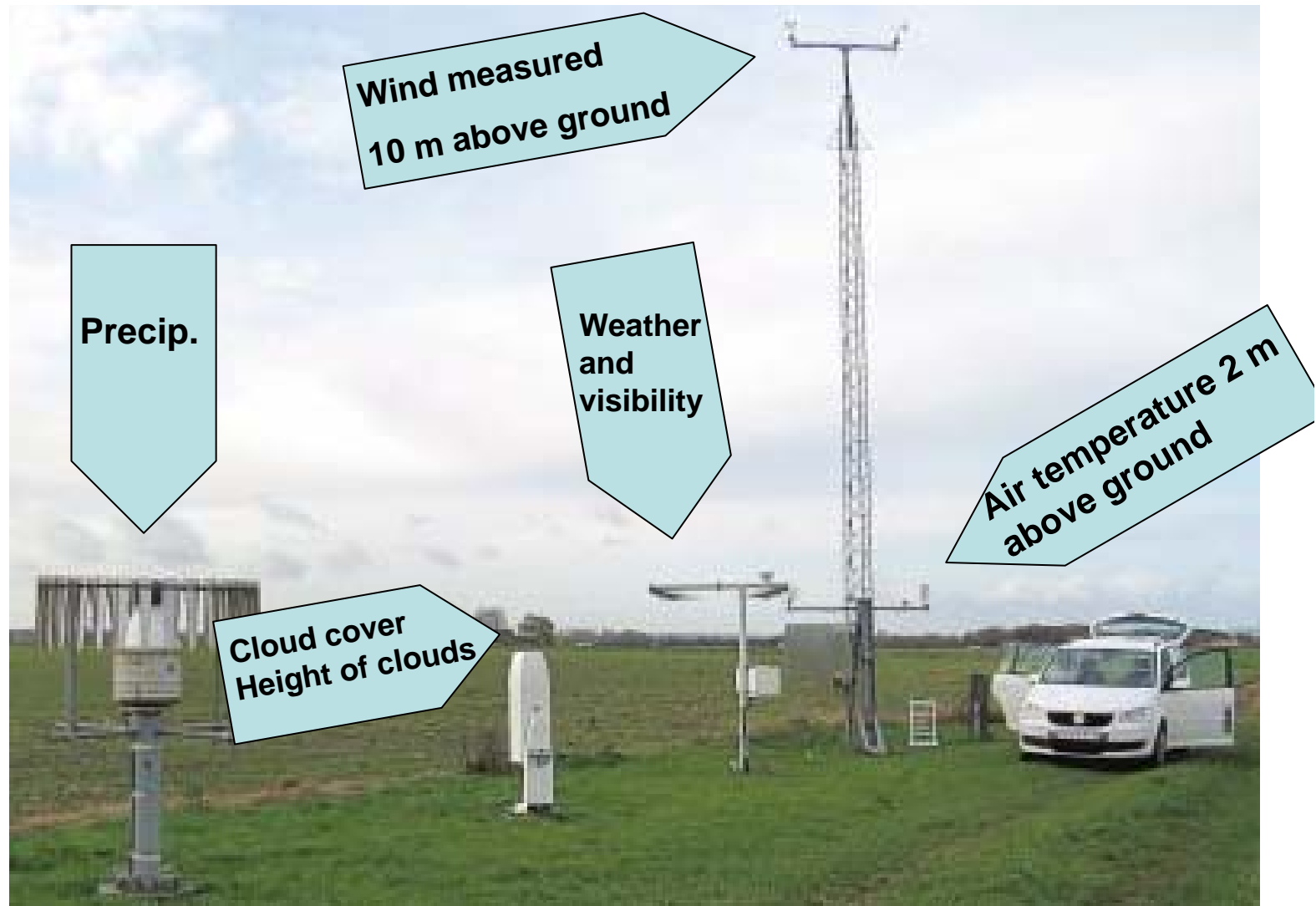


November 2010

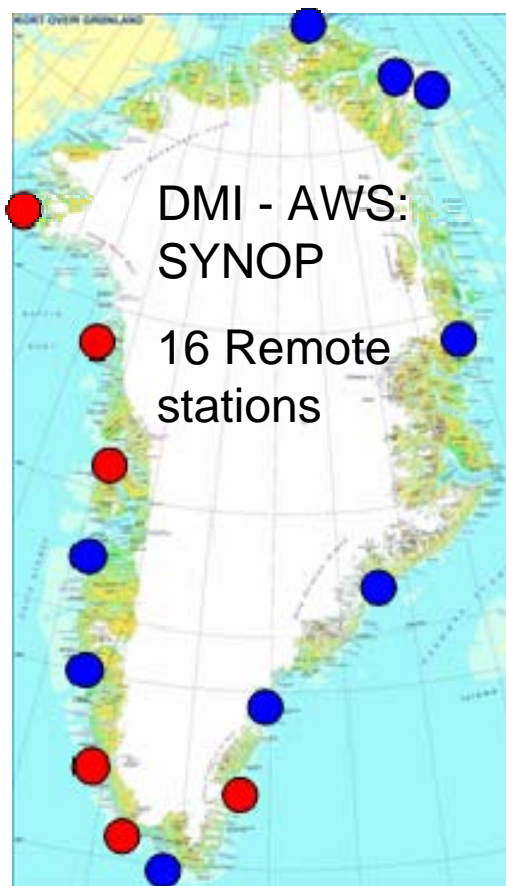
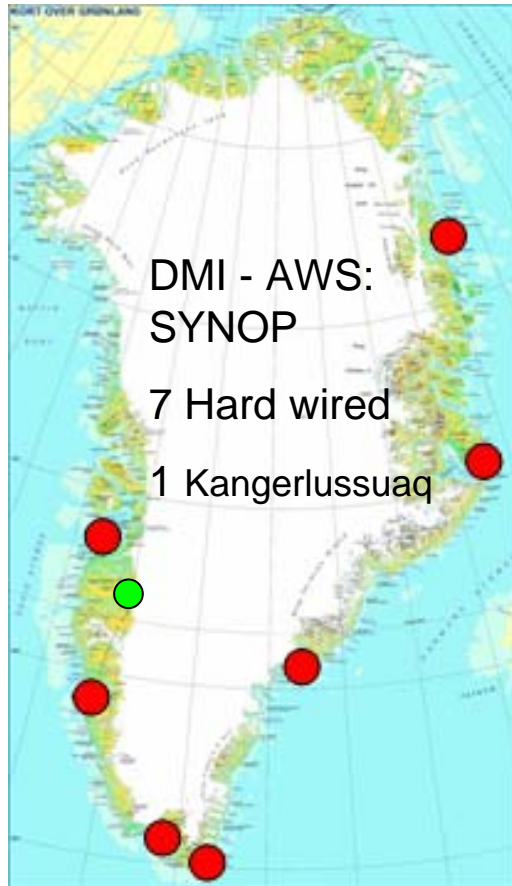
DMI Dataflow



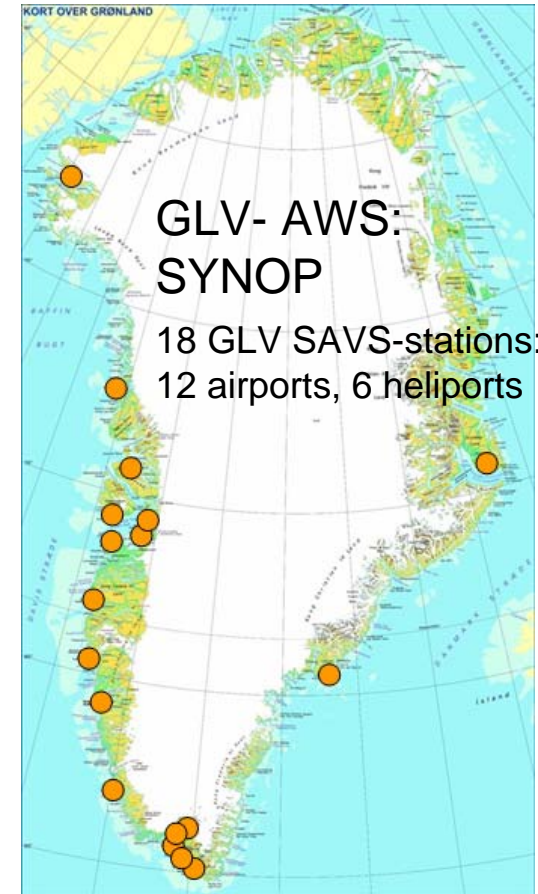
SYNOP: Weather report from fixed land station



DMI Greenlandic SYNOP stations



GLV SYNOP stations



Hans Island Automatic Weather Station

Prof. Em. Preben Gudmandsen: Private Funding etc.

Partners: Canada, SAMS (UK), DTU (DK).

Operational real time data since May 2008

Data transmission: Iridium Satellite

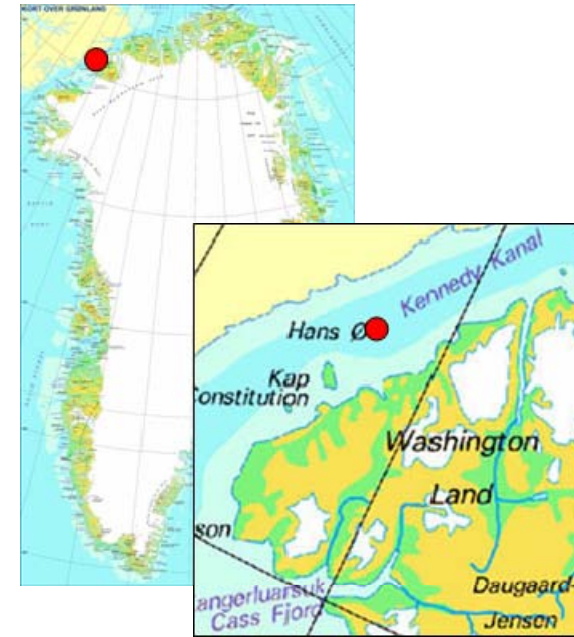
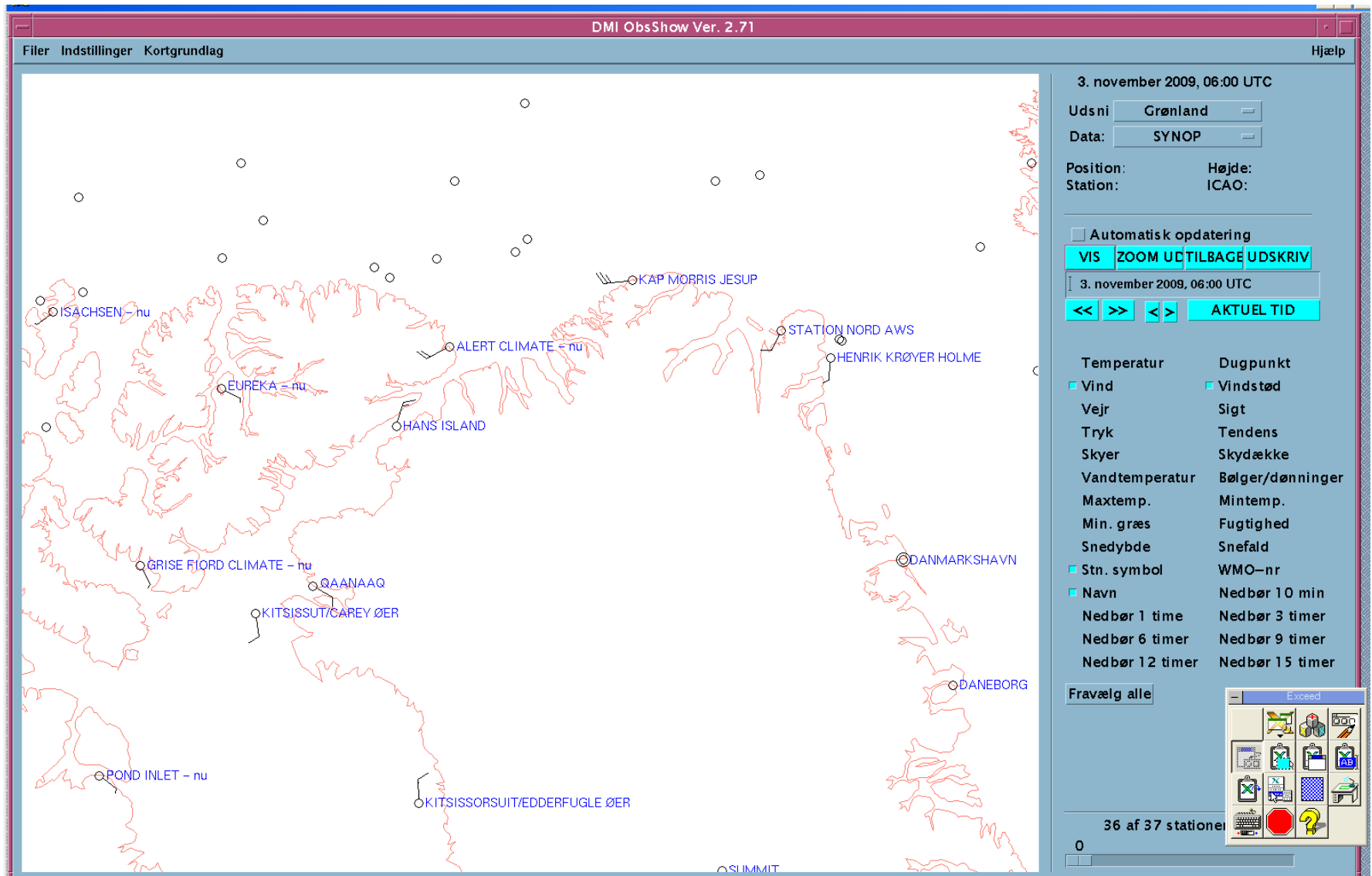


Photo: Susanne Hanson



Photo: Susanne Hanson



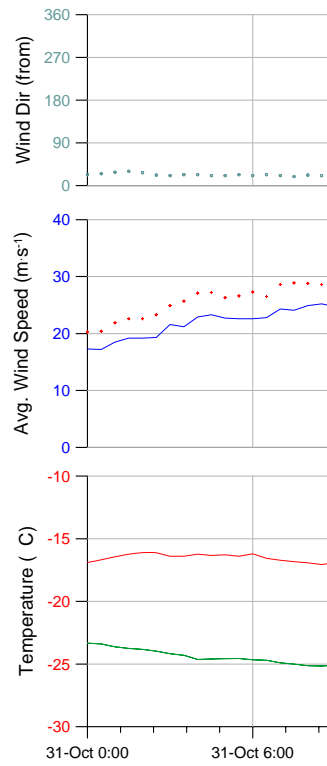


Hans Island

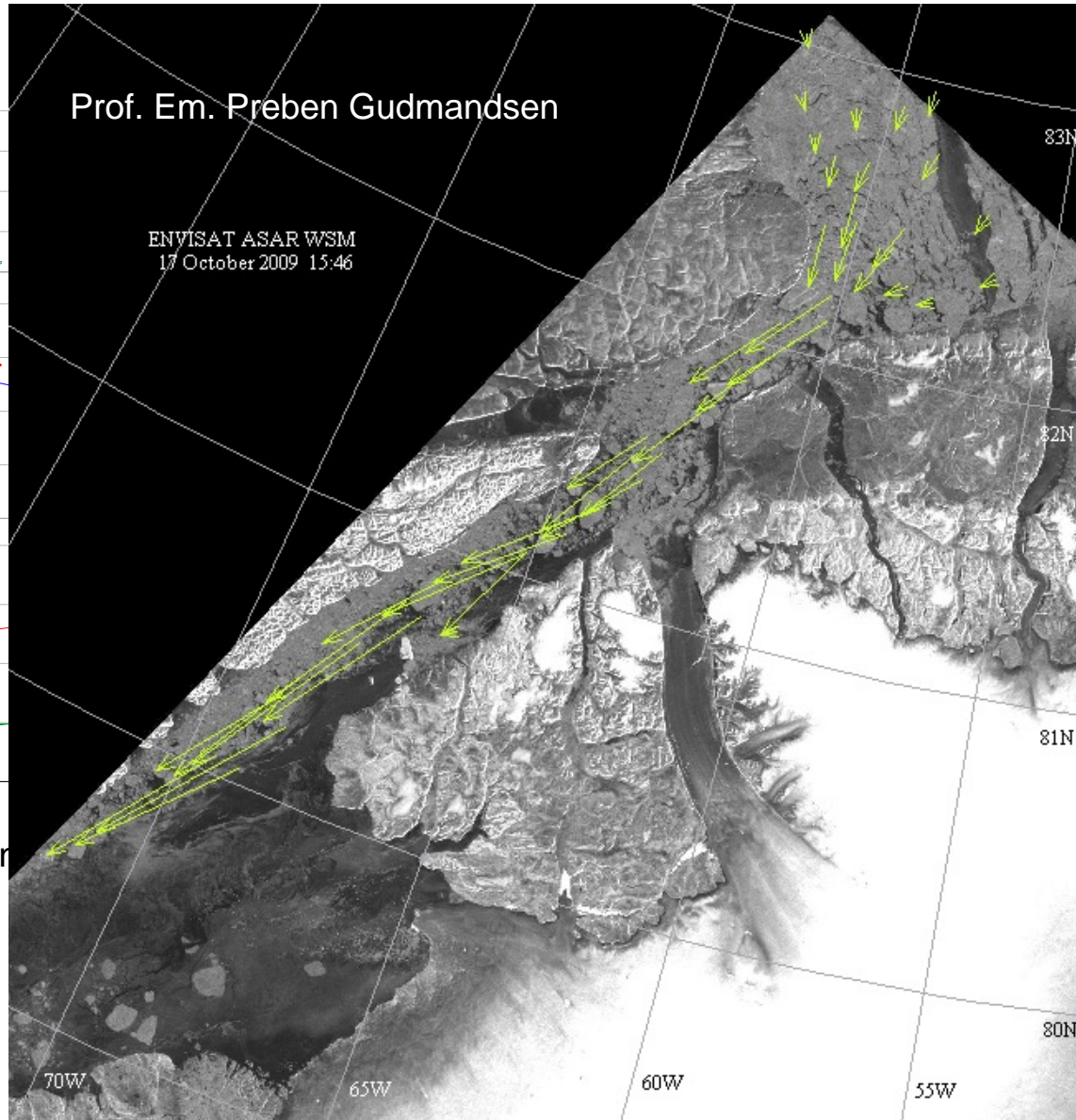
(02-Nov-2009)

Prof. Em. Preben Gudmandsen

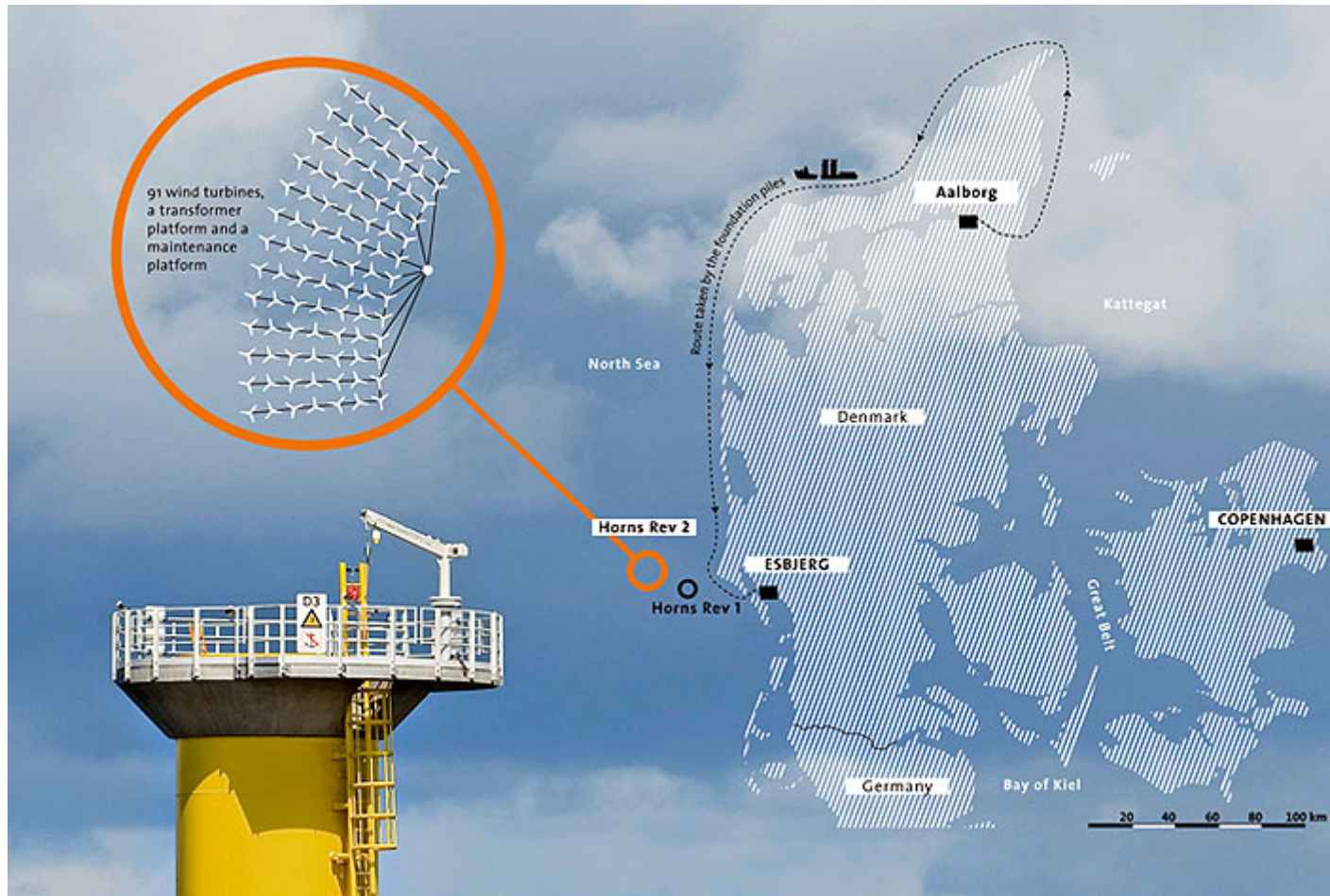
ENVISAT ASAR WSM
17 October 2009 15:46



Dr. Humfrey Mellin



SYNOP from 'Horns Rev 2'



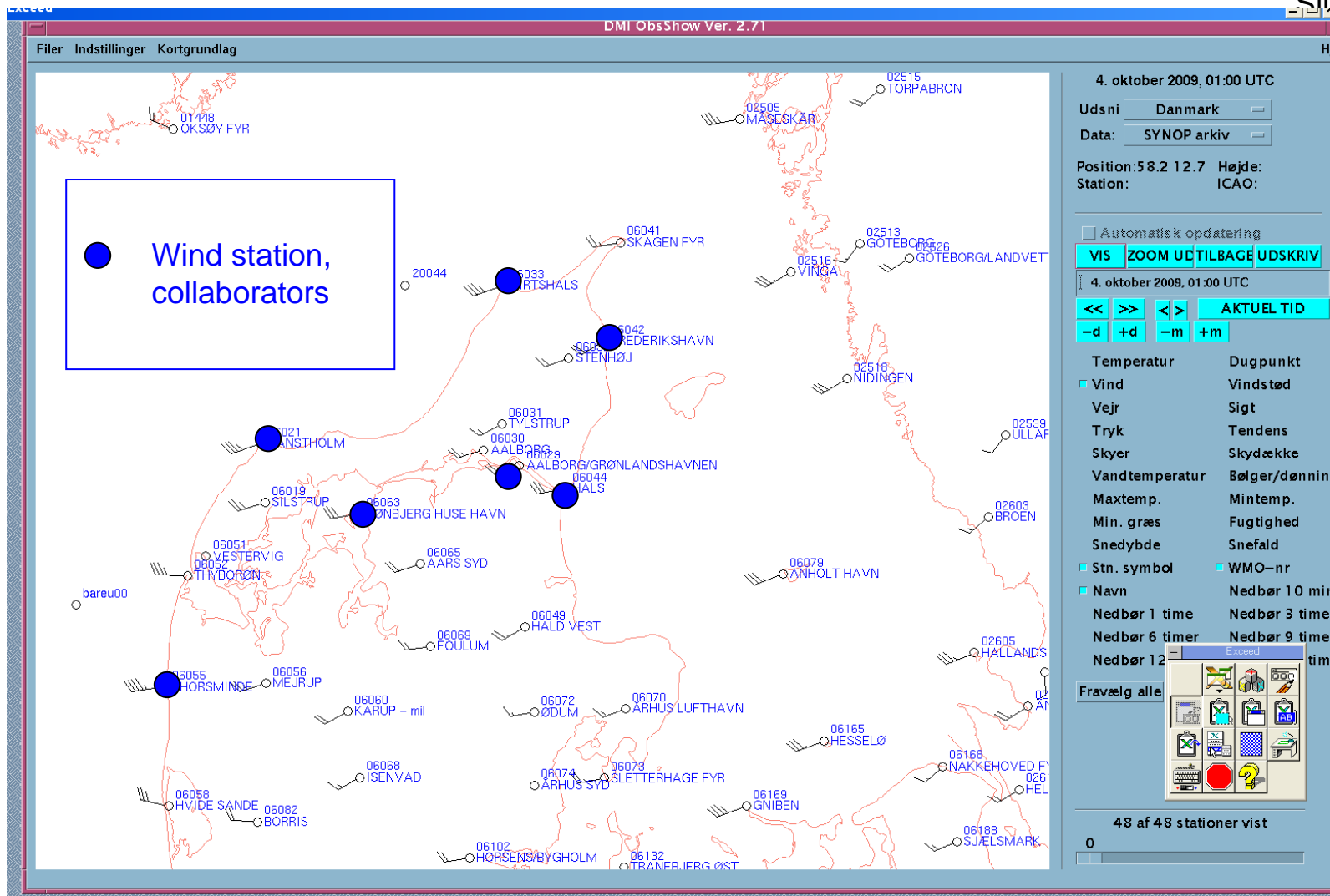
Horns Rev Offshore Wind Farm

<http://ing.dk>



Weather station,
Height of
barometer 27,5m
above MSL







Thank you!

