The European COST Action EUBrewNet

Towards consistency in quality control, quality assurance and coordinated operations of the Brewer Instrument

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Core group COST Action ES1207

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The 10th meeting of the Ozone Research Managers of the Parties to the Vienna Convention, Geneva 28th - 30th March 2017.

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Acknowledgements

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esa

World Meteorological Organisation

NOAA National Oceanic and Atmospheric Administration U.S. Department of Commerce

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KIPP & ZONEN SINCE 1830

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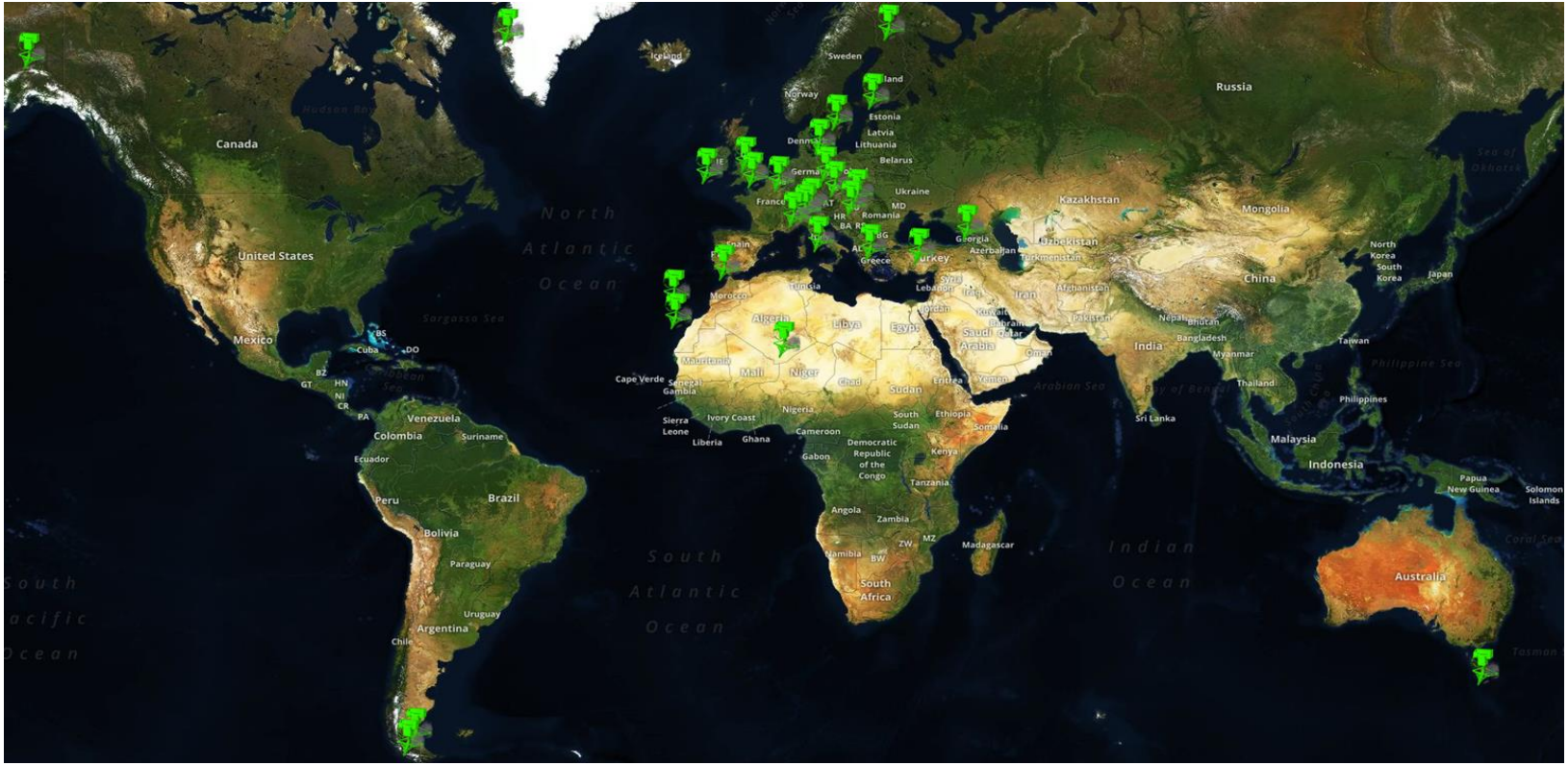

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What we said we would do.

- Automated data transfers to central database beginning Sept 2014.
- Calibration data stored in central data base.
- Site and instrument characterisation.
- Central data processing in addition to station processing.
- Central re-processing.
- Central QA/QC systems.
- Near real time data.
- Link to WOUDC.

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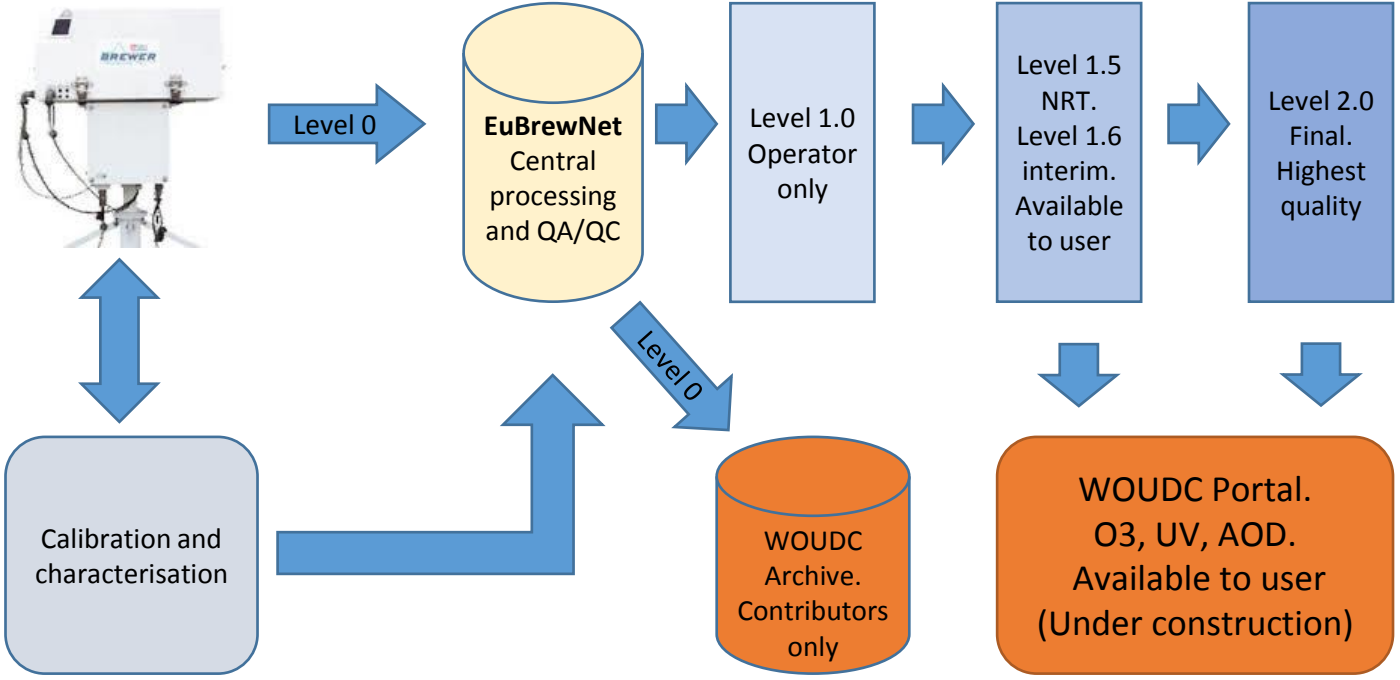
What we have done.

(and it's all automated)



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Data levels.

- Level 0
  - Raw data from the Brewer. Operator only.
- Level 1.0
  - Basic values from calibration data. Operator only.
- Level 1.5
  - NRT data changeable over first week. Calibration and characteristic corrections applied. Available to user
- Level 1.6
  - Interim data. Calibration and characteristic corrections applied. Available to user
- Level 2.0
  - Final for archiving. Interpolated over calibration cycle. Available to user.

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Data Versions.

- Version 1 - Brewer standard coefficients.
- Version 2 of the EUBREWNET algorithm will account :
  - Use of Bremen cross section
  - Unify Air mass calculation with Dobson
  - Update Rayleigh coefficients to Bodhaine (1999)

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Capacity building.

- Operator training Courses.
  - Tenerife, March 2014
  - Huelva , June 2015
  - Edinburgh, Sept 2016
  - Sydney, Sept 2017

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How EuBrewNet supports monitoring in A5 countries.

- The operator courses cover care and maintenance, scheduling, principles of operation and data management.
- The importance of regular calibration is emphasised.
- Calibration data can be stored in EuBrewNet database.
- Software can be installed to enable automatic transfer of raw data to the EuBrewNet database for QA/QC and processing into NRT products.
- Once set up all the operator needs to do is carry out daily checks and maintenance – ***cost reductions – higher submission rates***.
- ***This only works if the developed world maintains its expert pool and knowledge base which exist in its national programs.***

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Future

- Finalise UV and AOD products.
- EuBrewNet governance overseen by WMO SAG-Ozone.
- Network growth.
- Capacity building.
  - Automating data submissions promotes increased data submissions.
  - Central processing and QA can reduce station running costs – less closures.
  - Training courses promote good practice and community - cooperation.
- ***We need! – Funds to finish off and maintain the central processing, QA and database***

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Thank you!

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