

Improve and Formalise Data Sharing Procedures between NHSs and Data Centres

the
Global Runoff Data Centre (GRDC) experience

WMO RA VI Hydrology Forum
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Warsaw, Poland

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GRDC

... the world-wide repository for river discharge data
and associated metadata

...in support of Global Change Research and
Integrated Water Resources Management.

Operates under the auspices of the
[World Meteorological Organisation \(WMO\)](#)



on the advice of an
[International Steering Committee](#)

with the financial support of the
[Federal Republic of Germany](#)



within the
[Federal Institute of Hydrology](#)



Mandate

The GRDC is mandated amongst others by:

WMO Resolution 21 (Cg-XII, 1995)

...support to Global Runoff Data Centre

WMO Resolution 25 (Cg-XIII, 1999)

...free and unrestricted exchange of hydrological data and products

WMO Congress XVI (2011)

- decides to keep Resolution 21 in force
- urges Member States to comply with Resolution 25

1st WMO RA VI Hydrology Forum

Task for GRDC to Improve and Formalise Data Sharing Procedures between NHSs and Data Centres



Contact & Consolidation

- Identification of NHS contact person(s)
 - RA VI Hydrology Forum
 - WMO Secretariat
 - GRDC Contact database
- Consolidation of station list for GRDC supported projects (done for 35 out of 51 RA VI countries)
 - GRDC main database
 - European Water Archive of UNESCO EURO-FRIEND-Water
 - Global Terrestrial Network for River Discharge (GTN-R)
 - WMO CHy Climate Sensitive Stations (Reference Stations)
 - ArcticHYCOS and Arctic Runoff Database (ARDB)
 - GEOSS Data Core (currently only GTN-R stations)
 - AdaptAlp
 - etc.

Data Request & Follow-Up

Submit consolidated stations lists to NHSs for discussion on selection of suitable stations (sent to 17 RA VI countries)

- Extensive correspondence needed with all providers to clarify selection criteria, metadata, final station list, data transfer mechanisms etc.
- Regular follow-ups needed to maintain momentum of the discussion

Data Provisioning

Data are provided by various means to the GRDC

- Direct access to database
- FTP download from suppliers server
- FTP upload to GRDC server
- Download from website
- Email attachments

- Currently no Web Services

Experiences gained

- Extensive correspondence is always required
- Apparently access to quality assured “historical” data more difficult than “real-time” data
- GRDC data requests triggers NHSs internal activities eg.
 - Identification of reference stations
 - Reconsidering “Freshwater Flux” stations
 - Addressing station metadata issues
- Automated updating currently done by only one provider
- Reminders are useful and trigger updating process

But why do we do this?

GRDC Data Users

The GRDC supports the climate-related programmes and projects of the United Nations and their special organisations such as the:

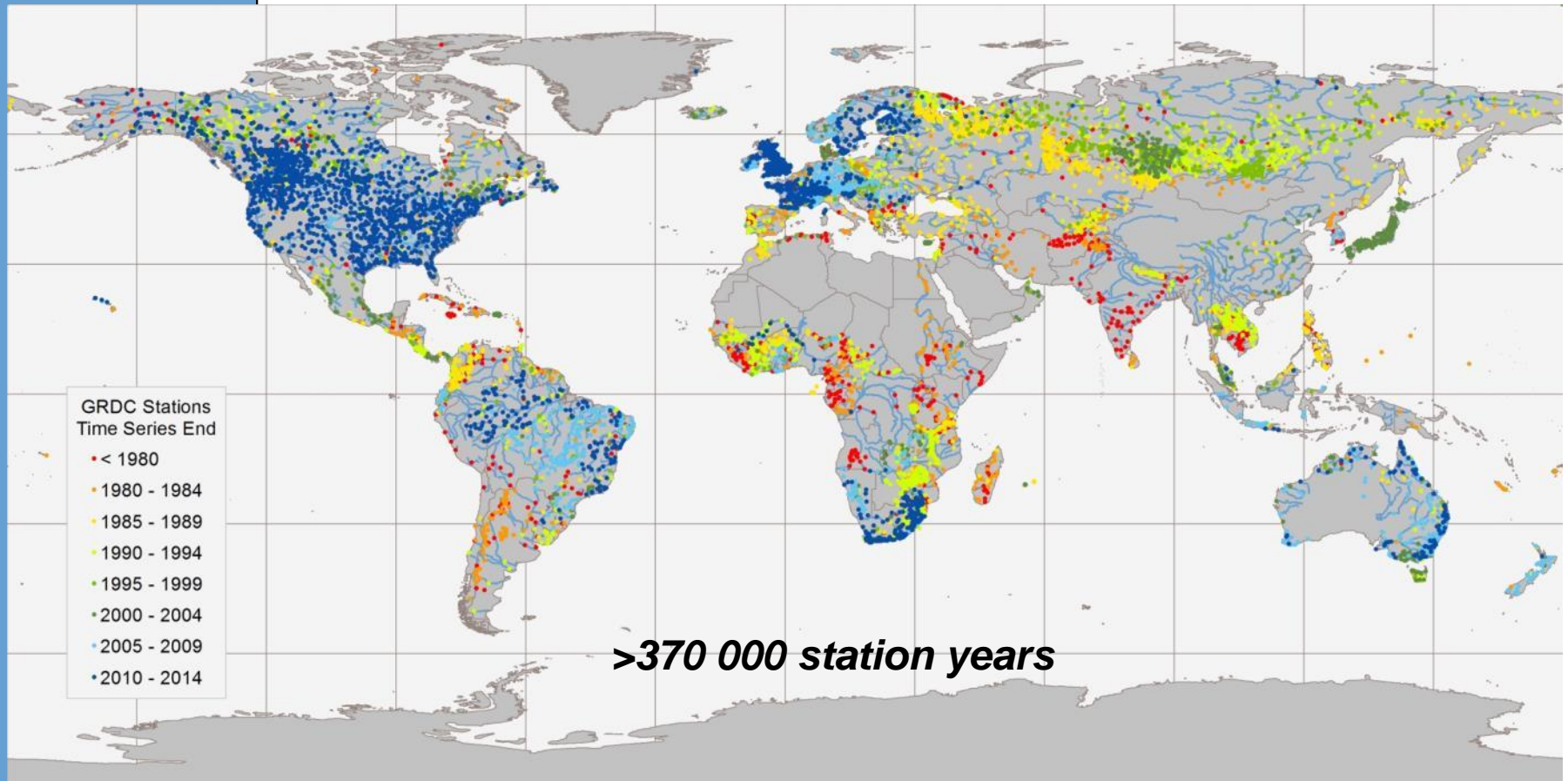
- Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC (GCOS-IP)
- Global Terrestrial Network for Hydrology (GTN-H)
- GCOS (Global Climate Observing System)
- GEO (Group on Earth Observations)
- GEWEX (Global Energy and Water Exchanges Project)
- EU funded projects
- GRDC – GEMS/Water products on chemical loads
- GRDC Freshwater Fluxes to the World Oceans products...

And the international scientific community on:

- global change
- Climate and hydrological modelling
- research and assessment

GRDC Main Database

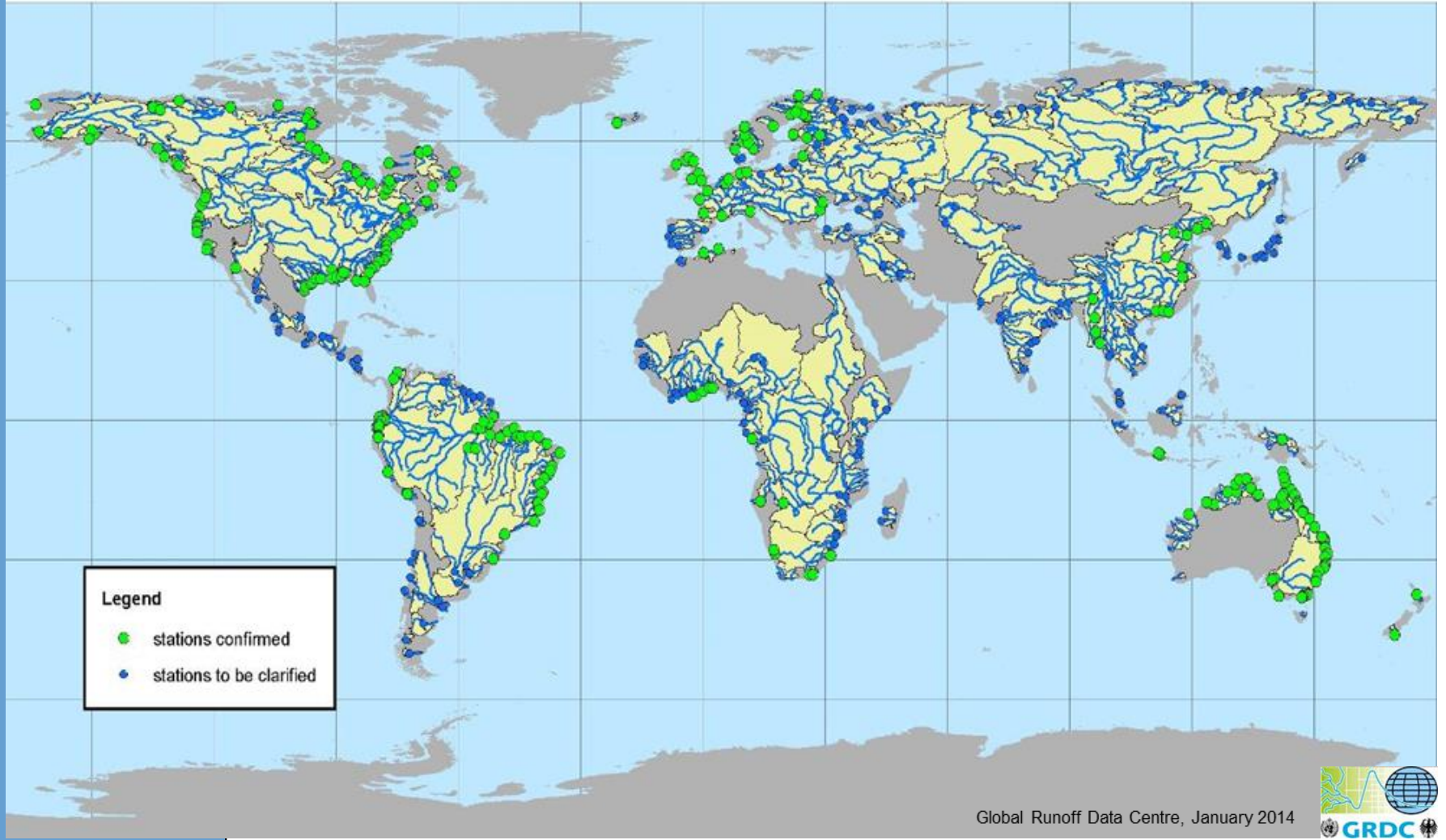
regular updates of relevant historical discharge data required



9009 GRDC stations with monthly data, incl. data derived from daily data (Status: 24 June 2014)
Koblenz: Global Runoff Data Centre, 2014.

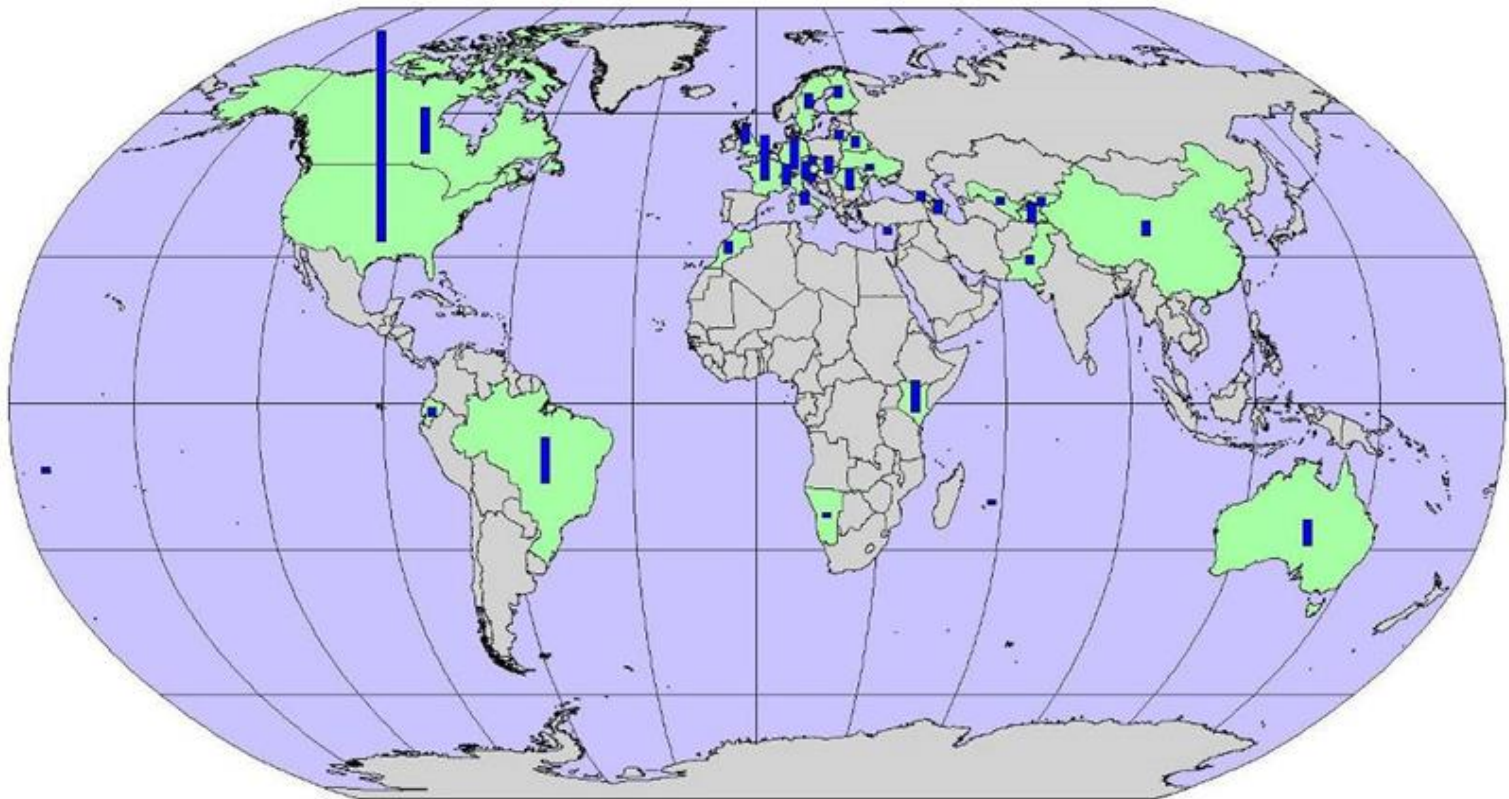


GRDC Station Selection for the Global Terrestrial Network for River Discharge (GTN-R) and Integration into the GEOSS Common Infrastructure GCI



Climate Sensitive Stations (Pristine Basins and/or Reference Stations)

Countries that have reported climate sensitive stations to WMO and or GRDC

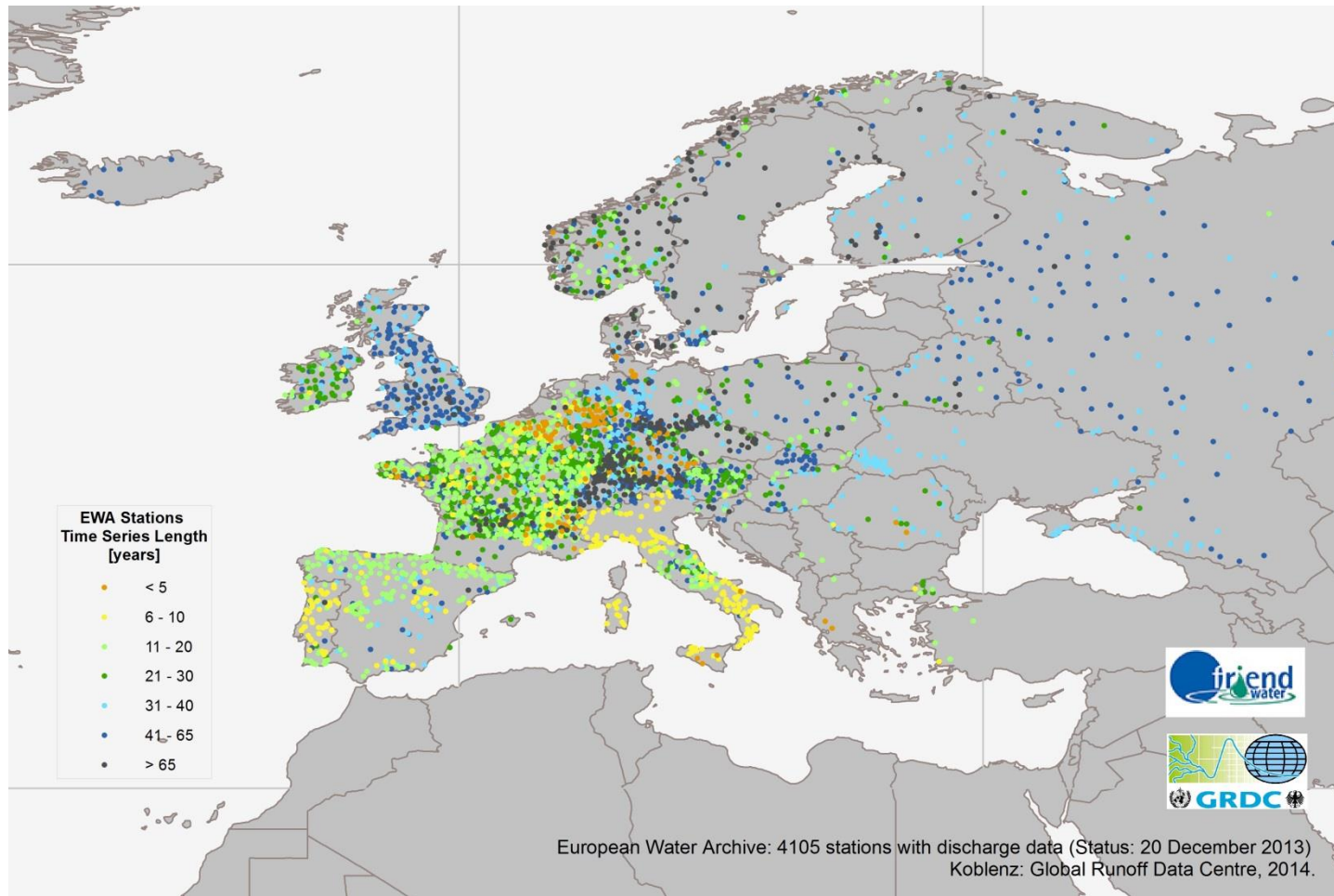




European Water Archive (EWA)

regular updates required

GRDC is mandated by UNESCO IHP to maintain the EWA as a central feature of the UNESCO EURO-FRIEND-Water programme



GRDC future outlook

- Continue negotiates with contacted countries
- Include further RA VI countries in process
- Fine-tune updating procedures and frequencies
- Extend updating procedure to other WMO regions (already busy with this process)
- Provision of all data under WMO Resolution 25 conditions
- Working towards standardisation to improve data exchange



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...more than 25 Years GRDC

Thank you for your attention!

Please visit GRDC at
<http://grdc.bafg.de>

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