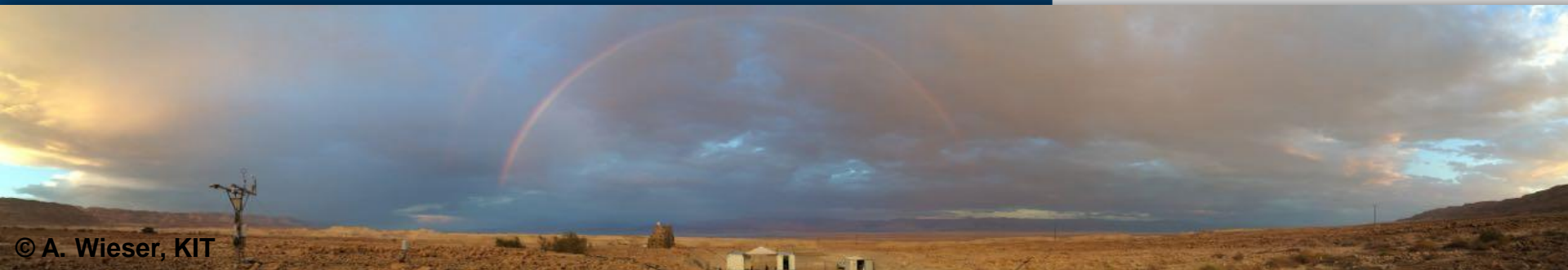
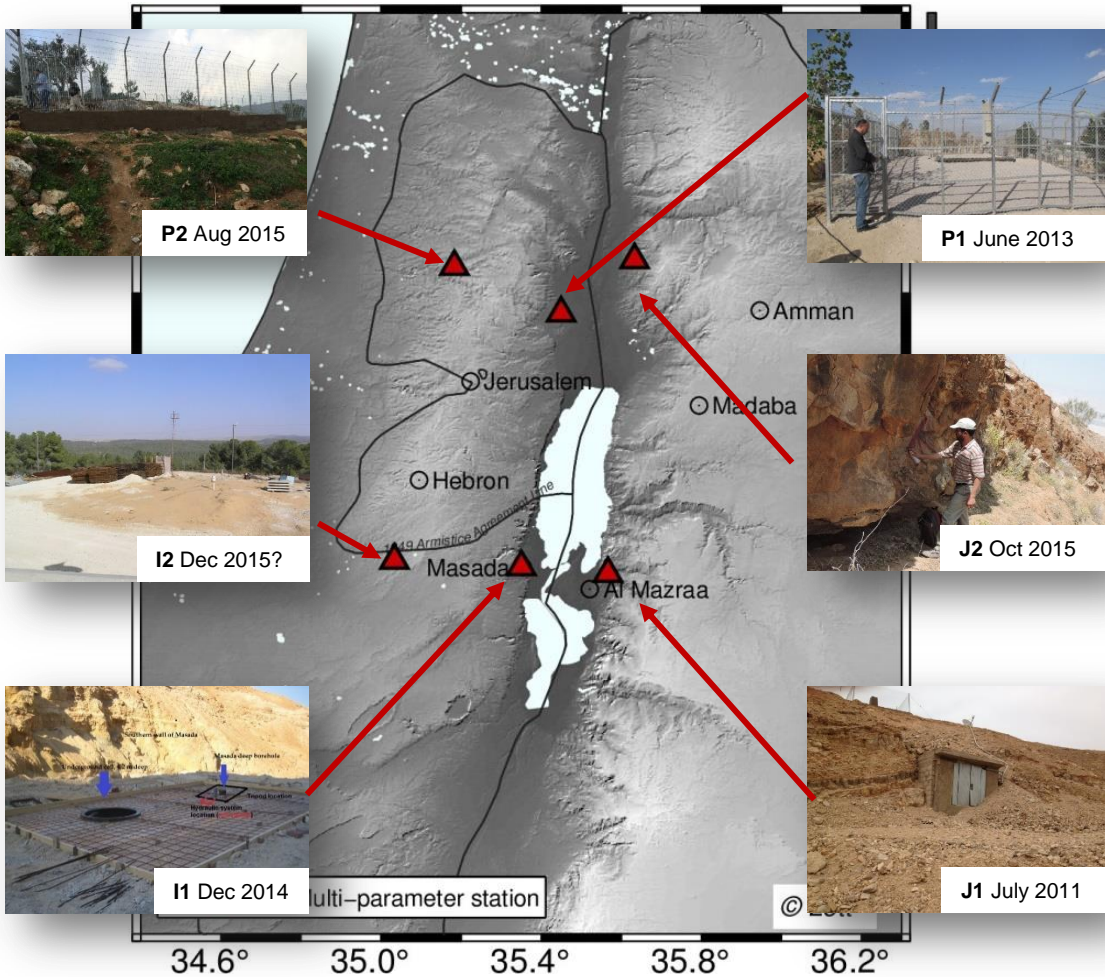


Monitoring

Geo- / Hydro- / Atmospheres



Geosphere – 6 Multi-Parameter stations

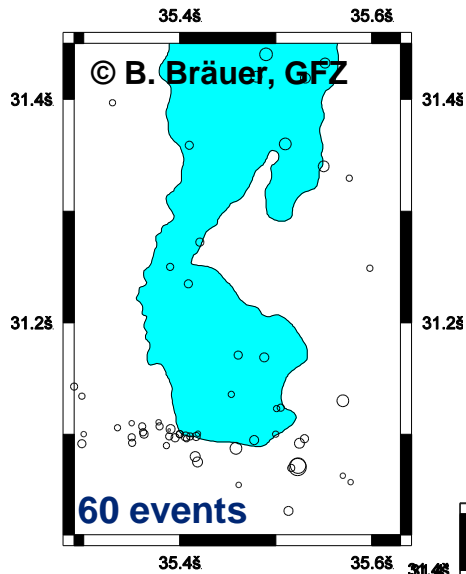


- Seismometer
- GPS
- Weather station
- VSAT online transmission

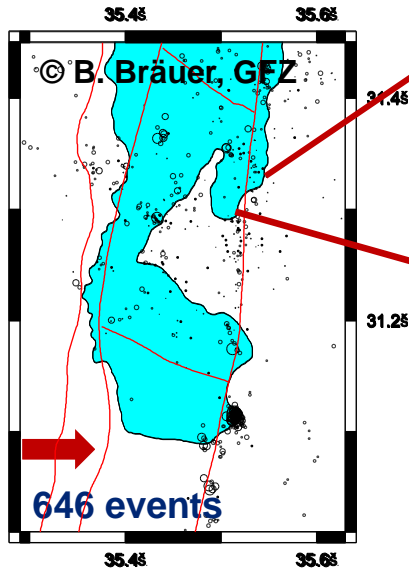
Infrastructure provided
by local partners

Geosphere - Why MP stations?

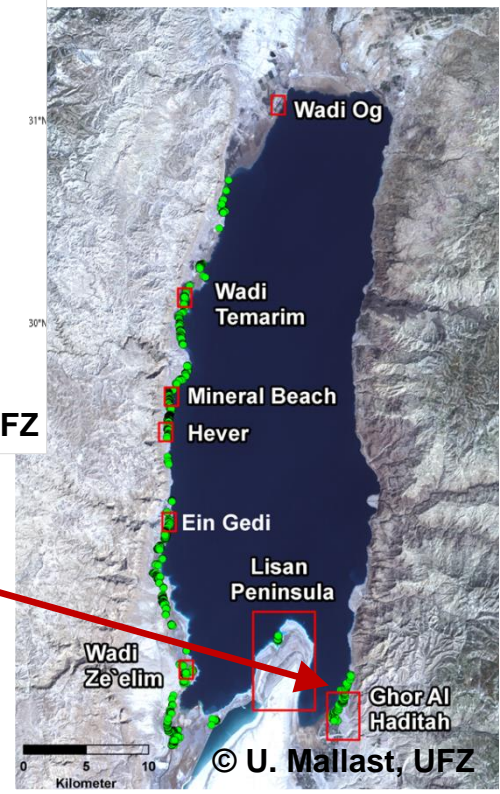
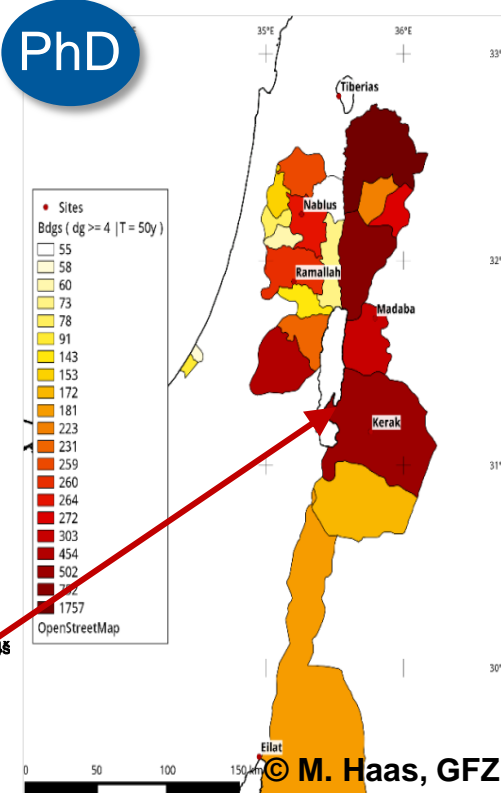
IRIS Catalog
 10/2006 – 03/2008



DESIRE Experiment
 10/2006 – 03/2008



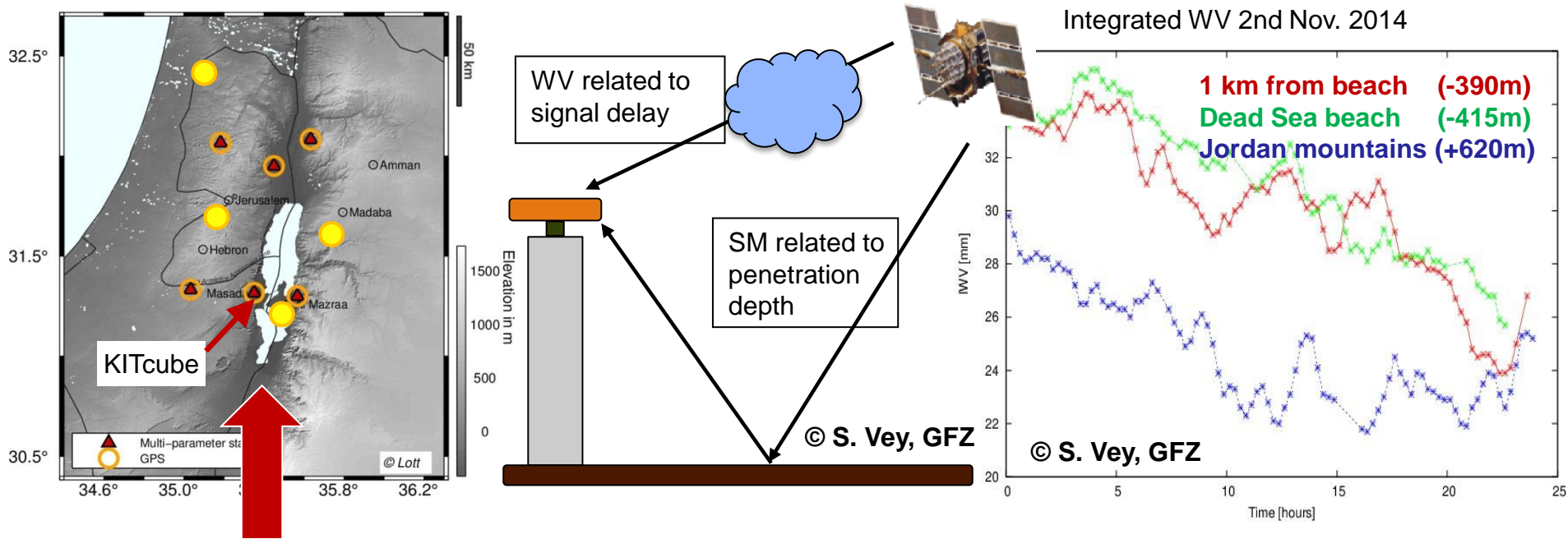
Dense temporary network
 10 times more events



New interdisciplinary ideas

Geosphere GPS – installed for tectonic movement (≈ 0.5 cm/y)

Atmosphere **New!** Noise in GPS data - is also a signal!
i.e. water vapour (WV) & soil moisture (SM)



New investment

4 additional GPS stations at national seismological networks

Atmosphere – KITcube



© A. Wieser, KIT



© P. Gasch, KIT

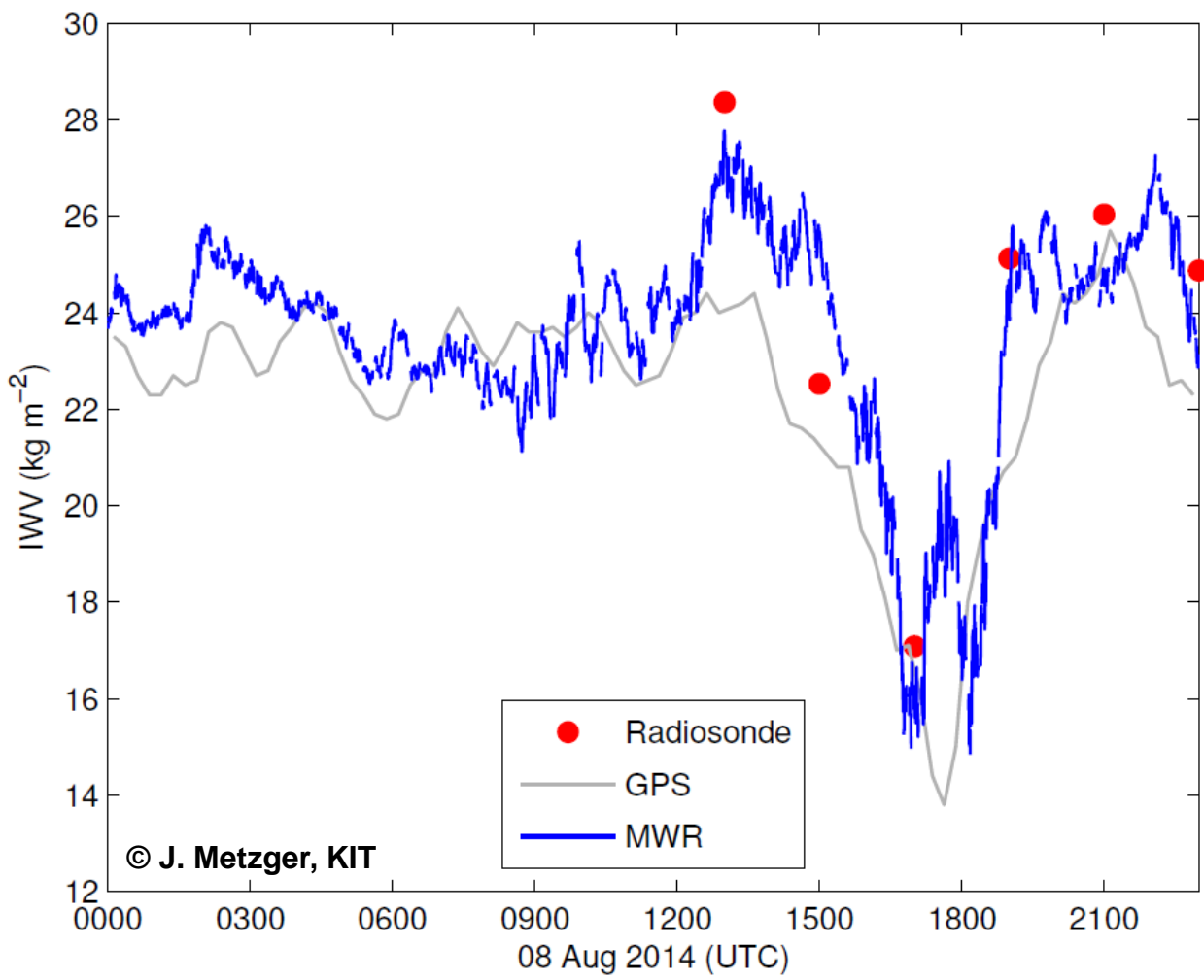


© J. Metzger, KIT

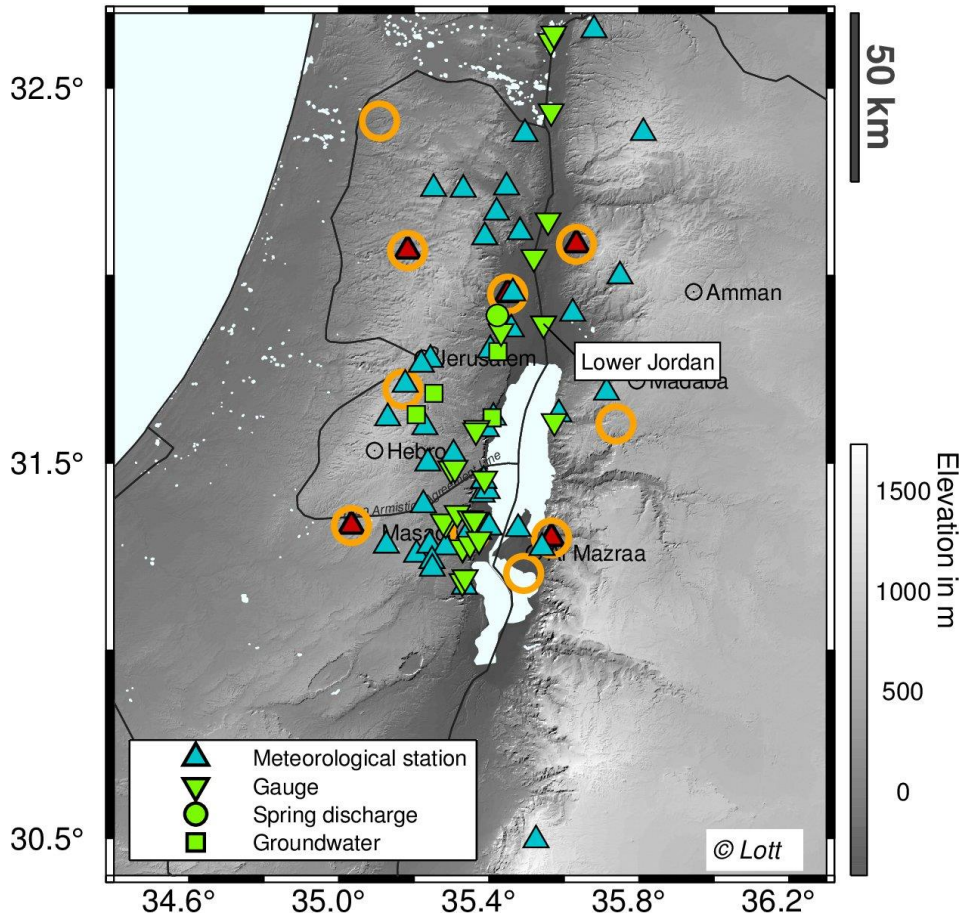


© P. Gasch, KIT

Atmosphere – KITcube



Hydrosphere - Network



meteorology



groundwater

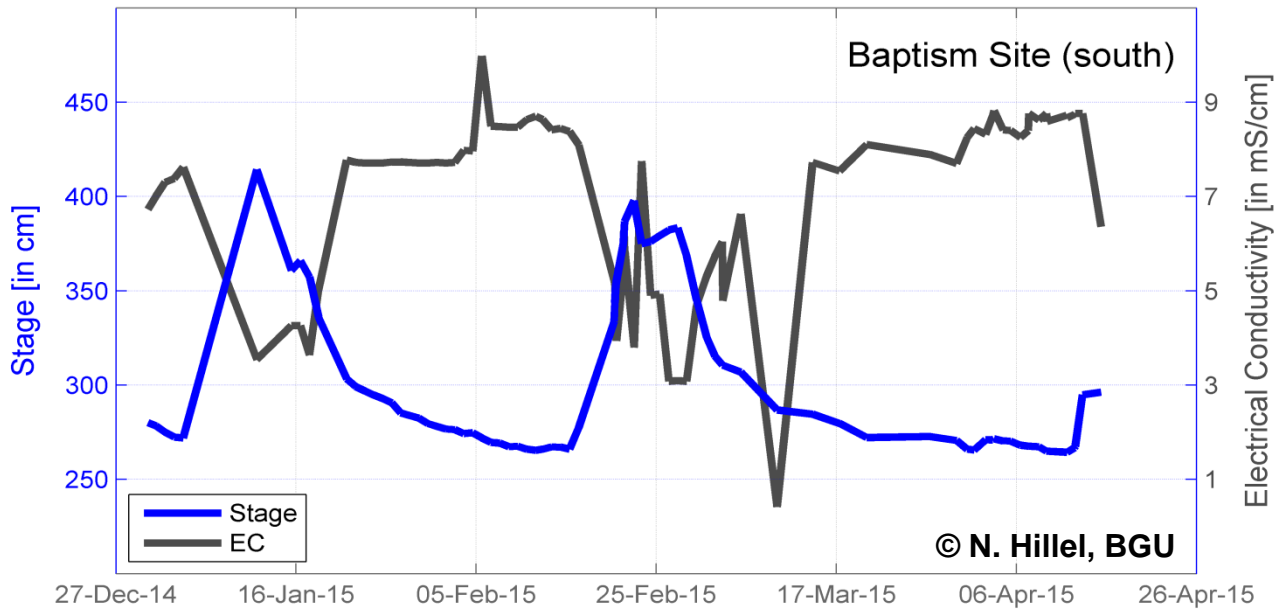


runoff



geochemistry

Hydrosphere - Lower Jordan River



Pub: Hillel et al., J. of Hydrology, 2015

Achievements & Future

DESERVE Master webpage – www.deserve-vi.net

GEO

ATMO

HYDRO



Real-time and open
Integrated in national networks
Long-term storage via national centres + GFZ hub
Training of local scientists and technician

DESERVE was seed money

I – Israel network

J – Jordan network + 5 US-funded stations

P – Palest. network + 3 US-funded stations

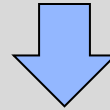
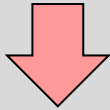
Achievements & Future

DESERVE Master webpage – www.deserve-vi.net

GEO

ATMO

HYDRO



Real-time and open

Integrated in n
Long-term stor
Training of loca

DESERVE wa
I – Israel netw
J – Jordan net
P – Palest. net

Real-time and open

KITcube campaign data on request

Special network on schools for educational purposes (co-funded)

Co-funding by Helmholtz infrastructure funds

Achievements & Future

DESERVE Master webpage – www.deserve-vi.net

GEO



Real-time and open

Integrated in n

Long-term stor

Training of loca

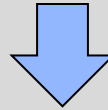
DESERVE wa

I – Israel netwo

J – Jordan net

P – Palest. net

ATMO



Real-time and open

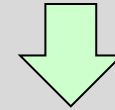
KITcube campa

Special networ

purposes (co-f

Co-funding by

HYDRO



Data and Information Management System DAISY

Most sensor data real-time and open

Data format of Israel Hydrological Service

Meta-data fit INSPIRE-guideline of EC

DESERVE-funded

Considerable co-funding by local authorities