What uses of piezometric network's data in hard-rock aquifers ? Example of Brittany's network 10 years after its implementation.

Bruno Mougin, Flora Lucassou, Florian Koch

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Mougin B.(1)*, Lucassou F.(1), Koch F.(1)

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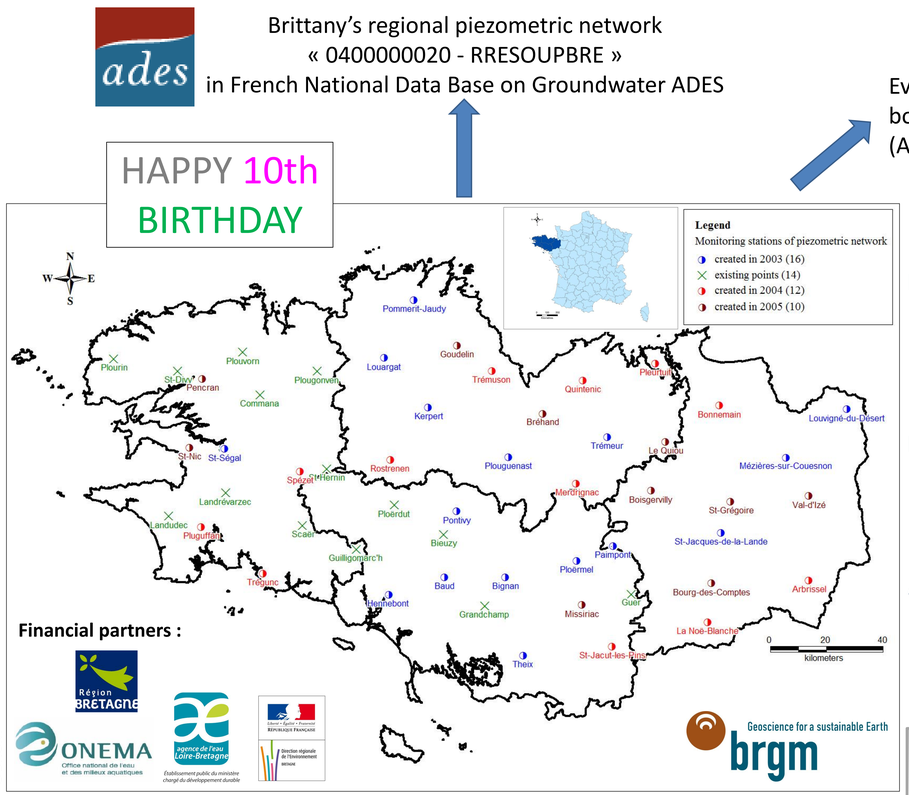
For a long time ago considered as a region devoid of big aquifers, the Brittany region (in France) has a piezometric network since 10 years contrary to other regions equipped since the 1970s. Among the 52 monitoring stations, 48 are settled in hard-rock aquifers (4 others follow alluviums or tertiary aquifers). 10 years after its implementation, piezometric network's basic data of Brittany are useful for various valorisations and plenty of different uses.

Brittany's piezometric network is constituted by 52 boreholes (average depth 35 m) equipped with automatic acquisition of groundwater level (1 measure/hour) and with data's remote transmission. Their location has been carefully cogitated : it allows to cover main geological and hydrogeological formations existing in Brittany and takes into account weather conditions which are very contrasted from west to east and between coasts and the inland. After check and validation, data are stored (1 measure/day) and put at the public's disposal twice a month on the French National groundwater Data Base called ADES (Mougin et al., 2012).

Brittany's regional piezometric network
« 0400000020 - RRESOUPBRE »
in French National Data Base on Groundwater ADES

HAPPY 10th BIRTHDAY



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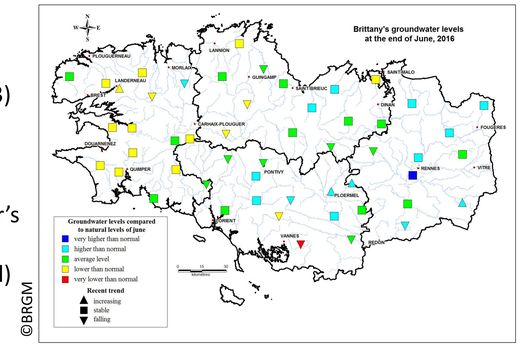
Evaluation of groundwater bodies quantitative status (Agence de l'eau Loire-Bretagne, 2013)

Bulletins of groundwater's level situations (regional, basin, national)



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Elaboration of piezometric indicators dedicated to the departmental management of drinking water (Lucassou et al., 2015a)

Contribution of groundwater to rivers flows

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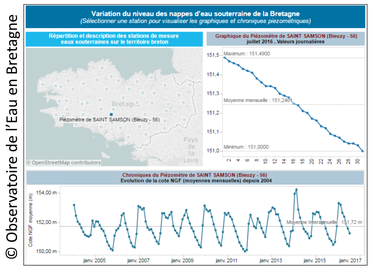
Diagnosis of floods by water table rise (Lucassou et al., 2015b)

Interactive dashboard (Observatoire de l'Eau en Bretagne, 2012)



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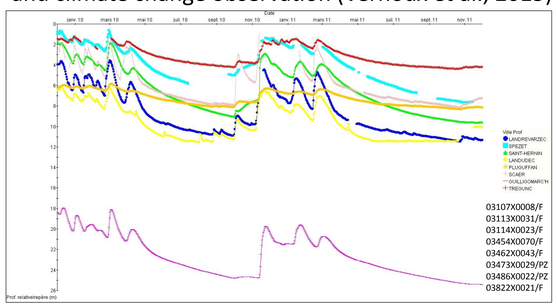
Knowledge of hard-rock aquifers : dynamics and slowness, cycles of data variation, memory effect, overflowing, time of water table's drop, sea-level, ground signals, and climate change observation (Vernoux et al., 2015)



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Levels of 8 monitoring stations located in South of Finistère department (years 2010-2011)

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Installation of piezometric equipment on a station of the network (Paimpont in July, 2015)

(1) b.mougin@brgm.fr, BRGM Direction régionale Bretagne, Rennes, France

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