

# 4th IAHR-WMO-IAHS Training Course on Stream gauging

Lyon, 4th September 2018

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## Organization of hydrometry in France

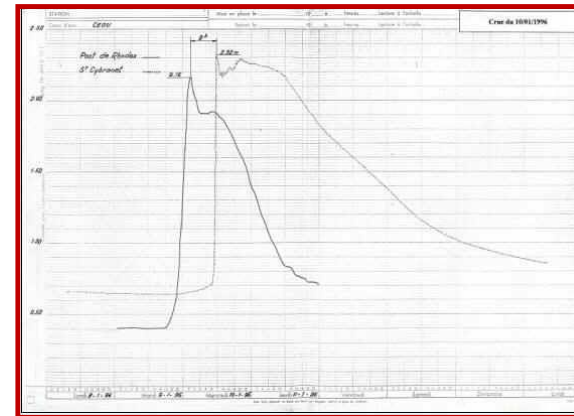
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Vigicrues



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# A complex history

- The present hydrometry network has been created by merging :
  - The agriculture network set up for low water observation and resource monitoring under the responsibility of regional water management services et regional agriculture services (water level and discharge, often rating curves available and data base).
  - The hydrometry network set up by the Ministry of public works (flood warning under the responsibility of local public works services). Mainly water level data, very little rating curves.



# A complex history

- Severe floodings in France (*Nîmes 1988, Vaison la Romaine 1992, Aude 1999, Gard 2002, Rhône 2003...*).
- 2002 to 2006 : reorganization of 52 independent flood warning services and creation of 22 flood forecast centres (FFC). Creation of the national flood forecast service in Toulouse (Schapi).
- 2006 : hydrometry is reorganized and put under the responsibility of Schapi (low and high waters, network driving force, operations for a centralised data base)
- 2007 and 2008 : the hydrometry units (HU) move all in the « regional services for environment, spatial planning and housing » (DREAL)
- 2009 - 2014 : evolutions towards 19 FFC and 20 HU in metropolitan France, 5 hydrology warning units and 5 HU in overseas territories



# Zoom on hydrometry reorganization

(13th April 2006)

- **Optimized data management, better coordination among various actors (water management agencies, local public works services, flood forecast centres...)**

One network, one type of job (mutualisation, exchange of practices, scale economies) for two previously separated activities : flood hydrometry and « general hydrometry ».

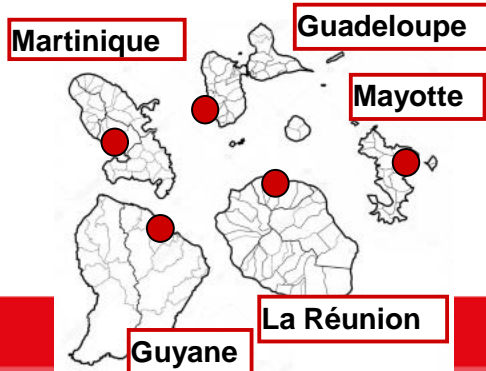
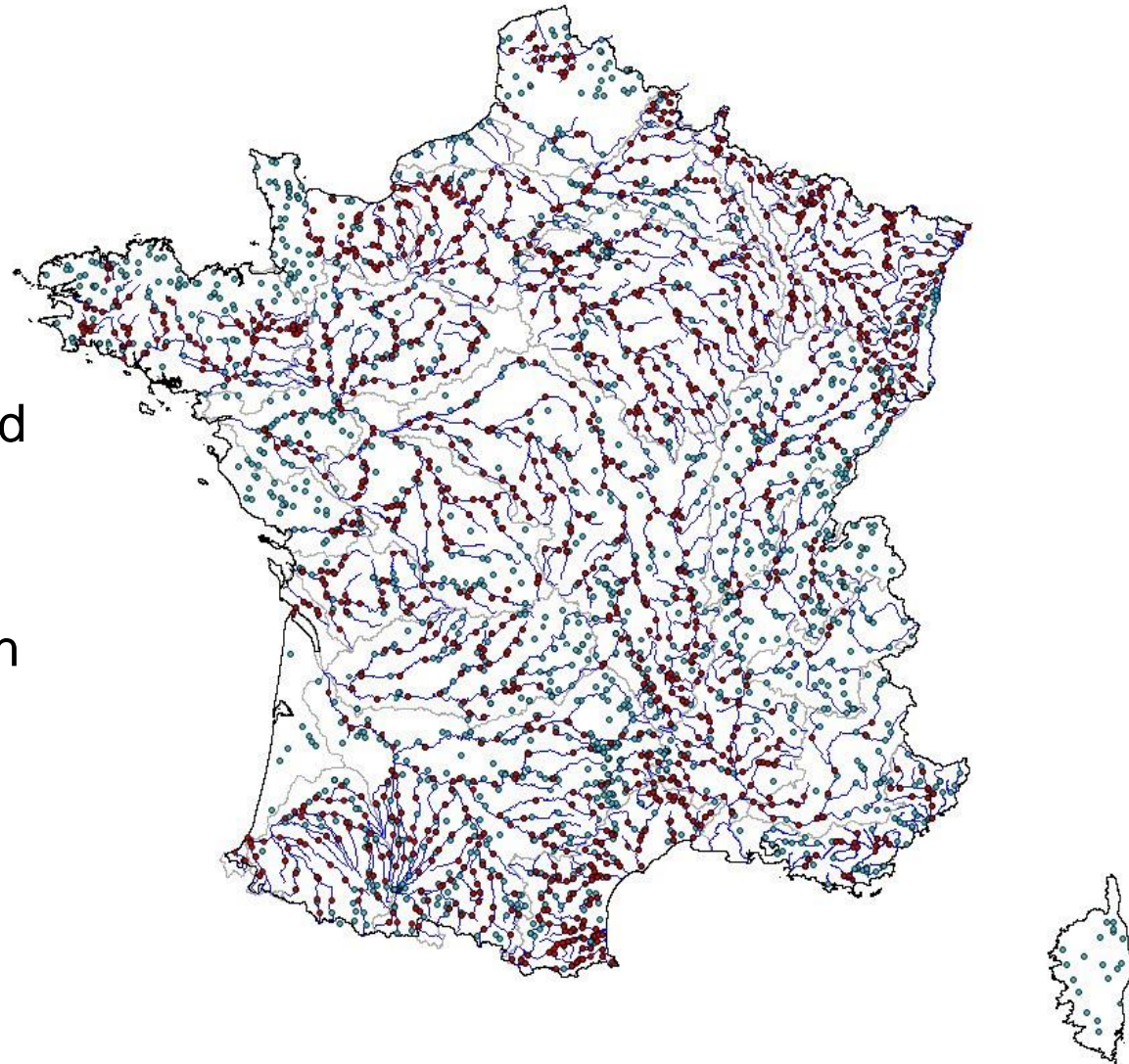


  
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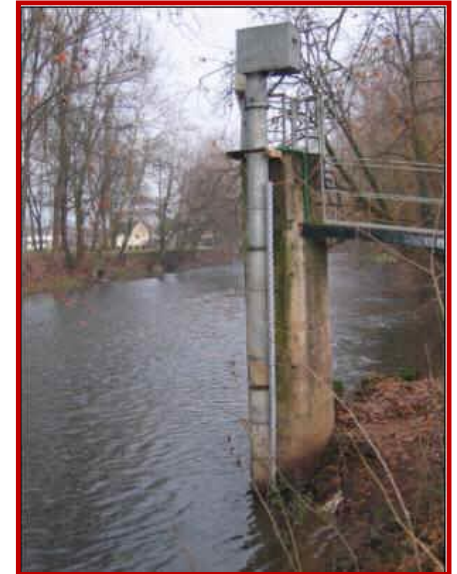
# The national network in France today

- > 4000 measuring points stored in data base (« Banque HYDRO »)
- ~ 3000 presently in use, among them 1800 measuring points collected in real time (●)
- Most of the stations are used both for low and high water (> 80%)
- >100 stations in overseas



# The hydrometry network today

- 25 hydrometry units under the regional environment, spatial planning and housing services (natural hazard departments).
- ~270 personals for measurement, control, archive, data analysis of hydrometric data.
- The network is funded only from natural hazard budget (i.e. flooding only), low water management being funded by another budget.
- >4 M€/year, but decreasing.
- 1 station = 0,1 to 0,15 agent

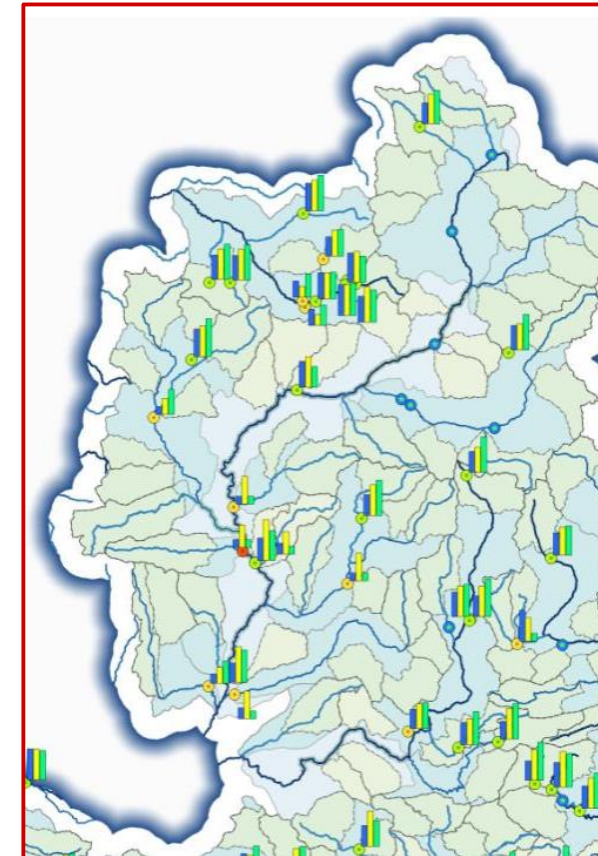


→ **Currently, contacts with the water and biodiversity agency to share a common strategy**

# Since September 2015

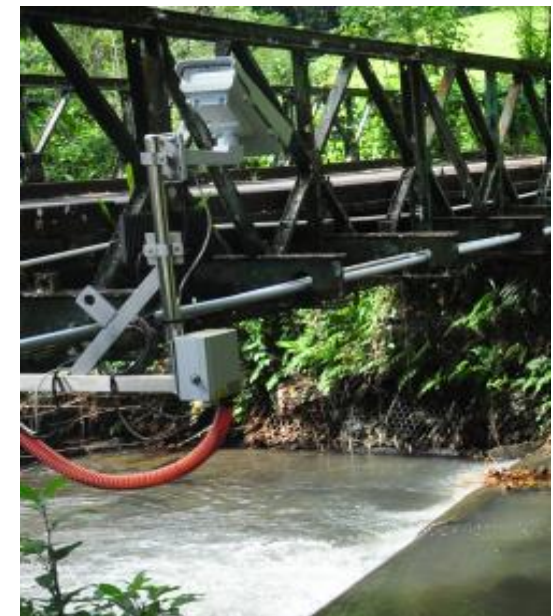
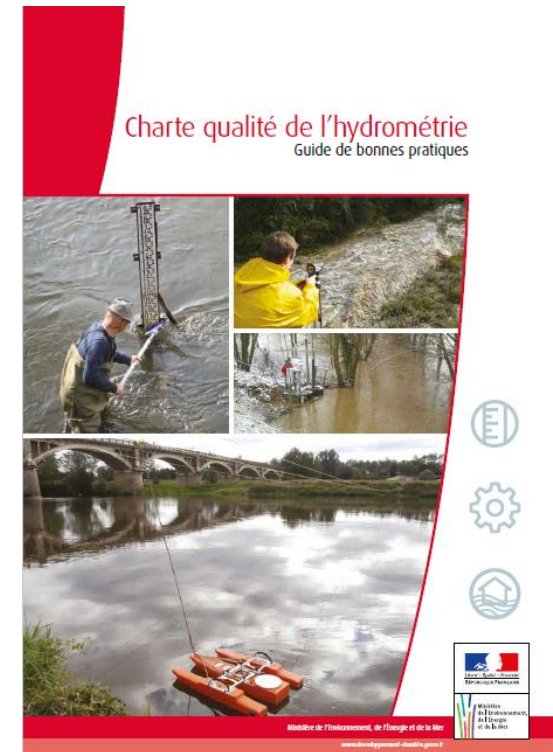
Need for a national strategy → several decisions :

- Set up a technical committee with representatives of agencies, HU, local services and give a mandate.
- Realize an audit of the network and its desirable evolutions. Propose a target architecture in 5 years (constant cost and reduced cost).
  - Present status of the audit : writing of the diagnoses.
- Define a multiannual action plan



# Strategic working axes

- Create more homogeneity :
  - Common tools within Vigicrues and possibly beyond (softwares)
  - A charter of good practice for hydrometry, a reference for the bodies making hydrological measurements.
- Optimize the network :
  - Develop the supervision of low-water
  - Make compatible river continuity and low water measurements (needs fundings)
  - Work with other producers (river basin agencies...) and integrate their data in our national data base.
  - Valuation of hydrometric data
    - New « Banque Hydro » (next generation of the data base with extended statistics package) and new portal to access the data





# Questions ?



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