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## Enhancing knowledge on long term hydro-social trajectories

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► **To cite this version:**

Fabienne Errero Brancato, Juliette Cerceau, Christelle Gramaglia, Guillaume Junqua, Patrick Lachassagne. Enhancing knowledge on long term hydro-social trajectories. IS RIVERS 2022 - Integrative Sciences: Recherches et Actions, Jul 2022, Lyon, France. , 2022. hal-03703014

**HAL Id: hal-03703014**

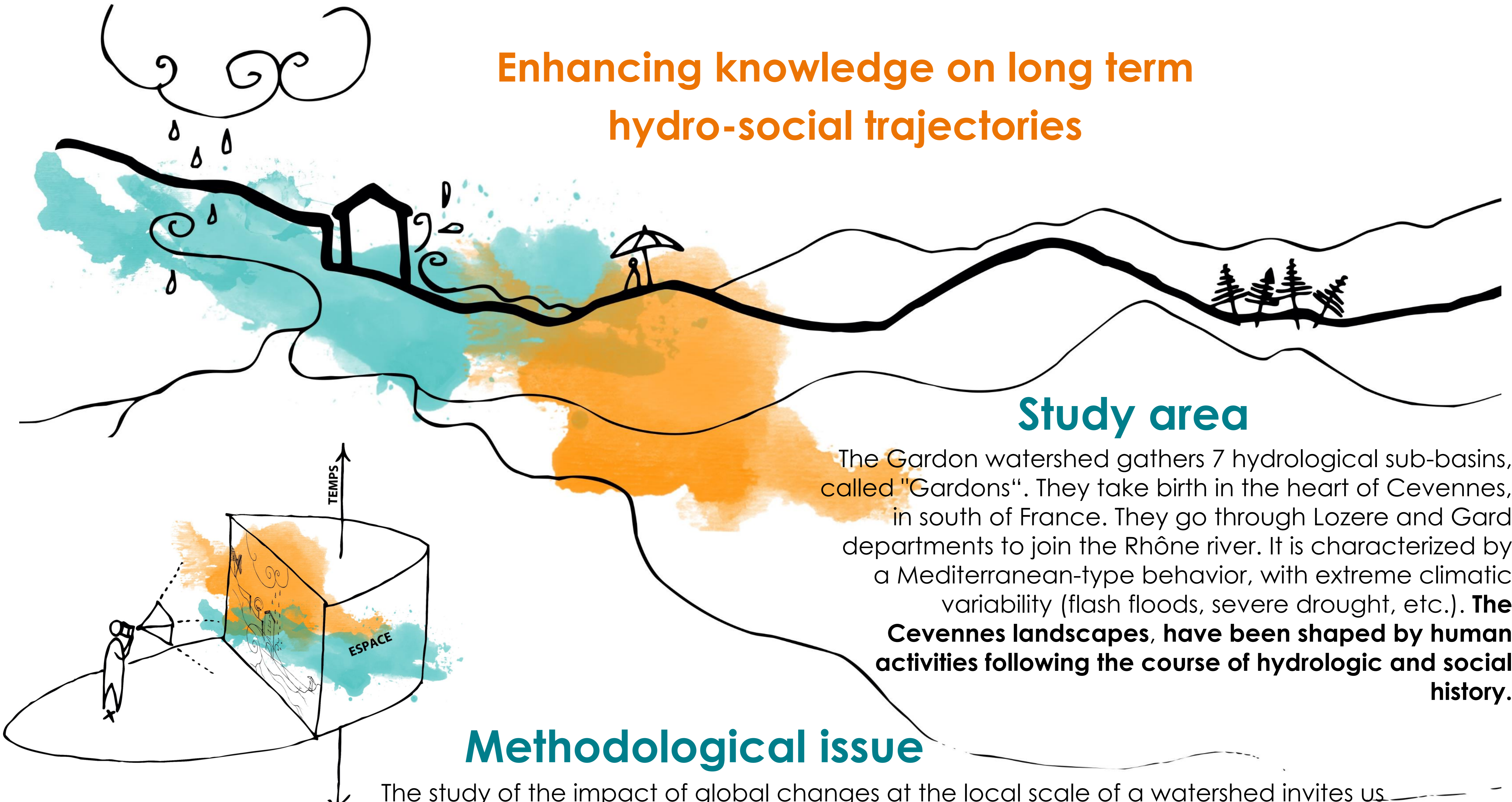
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Submitted on 26 Sep 2024

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# Enhancing knowledge on long term hydro-social trajectories



## Study area

The Gardon watershed gathers 7 hydrological sub-basins, called "Gardons". They take birth in the heart of Cevennes, in south of France. They go through Lozere and Gard departments to join the Rhône river. It is characterized by a Mediterranean-type behavior, with extreme climatic variability (flash floods, severe drought, etc.). **The Cevennes landscapes, have been shaped by human activities following the course of hydrologic and social history.**

## Methodological issue

The study of the impact of global changes at the local scale of a watershed invites us to analyze the spatial and temporal diversity of hydro-social trajectories, at various scales (spatial nesting) and through impermanent frames of reference (temporal nesting). It imposes the question of the **baseline** from which to observe these evolutionary dynamics. **How to choose spatial and temporal baselines for the study of long term hydro-social dynamics?**

## Identification of baselines, a sampling approach

The identification of spatial and temporal baselines is similar to a **sampling approach** : it consists in the localization of data collection places likely to highlight hydro-social interactions and their evolution. The methodological approach is based on 3 stages:

- An **exploratory approach** through a series of surveys conducted with local experts (geologists, hydrologists, historians, geographers, anthropologists, architects);
- A **factual approach** through hydrological and hydrogeological characterization;
- An **in situ approach** based on sensitive impregnation, landscape observation and spontaneous encounters with inhabitants.



## Sample selection

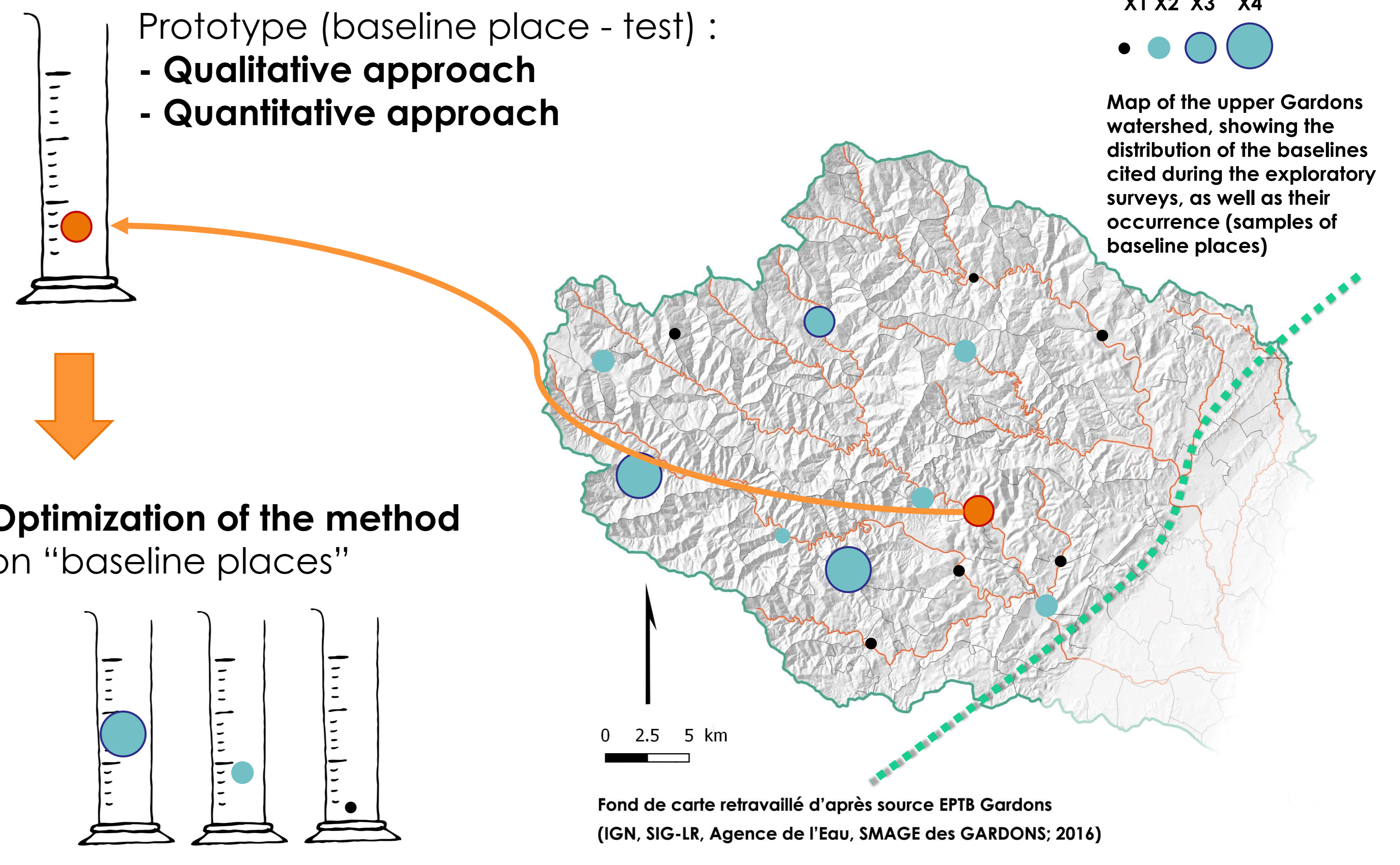
Samples of "baseline places" are identified from which to study hydrosocial trajectories.

In order to optimize the analysis method, it must be tested on a **prototype**, before being duplicated on each baseline place.

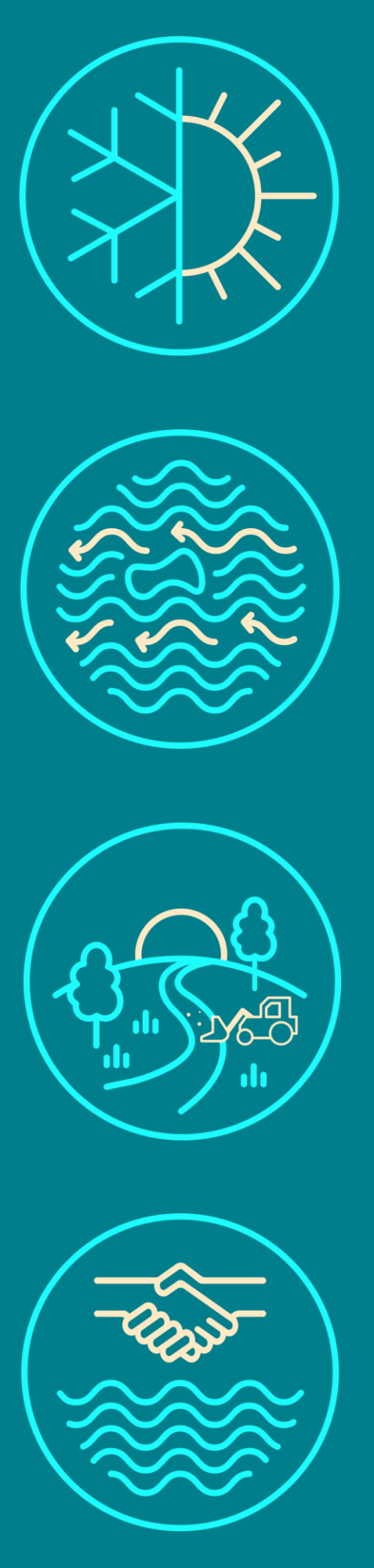
The whole process leads to a **review of the relevance of the choice of baseline places**. It also allows for the development of a transdisciplinary approach that can be replicated in other territorial contexts.

Prototype (baseline place - test) :  
- **Qualitative approach**  
- **Quantitative approach**

Optimization of the method on "baseline places"



Fond de carte retravaillé d'après source EPTB Gardons (IGN, SIG-LR, Agence de l'Eau, SMAGE des GARDONS; 2016)



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