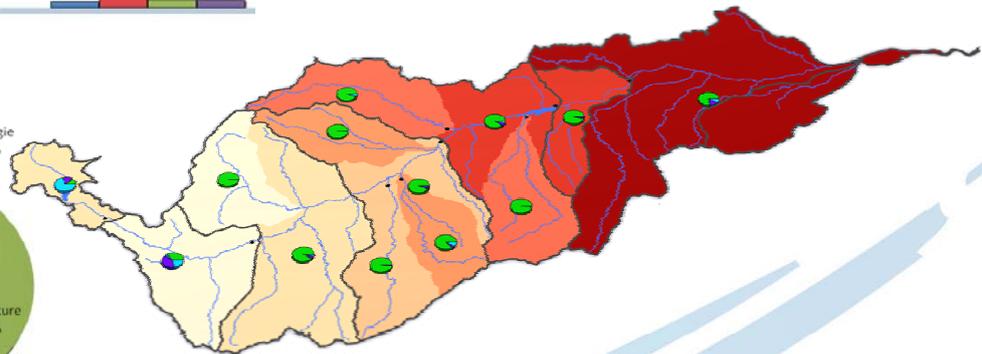
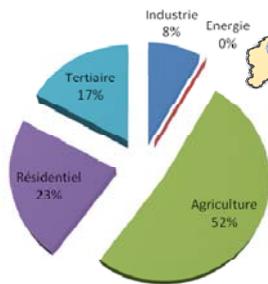
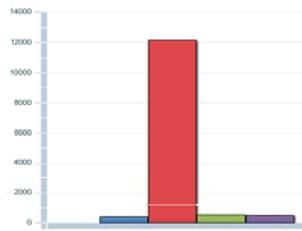


# Technical overview of STRATEAU

Tool for decision making support  
Water supply/demand balance



Florent Guibert  
Artois-Picardie Water Agency (France)

20<sup>th</sup> of September 2012 – MENBO Workshop – Valencia

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ISO 14001  
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## Artois-Picardie Water Agency

- One of the 6 French Water Agencies
- **Mission:** protection of water ressources (quality and quantity)
- **Action:** "Polluter pays principle implementation" & funding projects to protect or improve water ressources & ecosystem



→ participation in financing development of STRATEAU

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# What is STRATEAU?

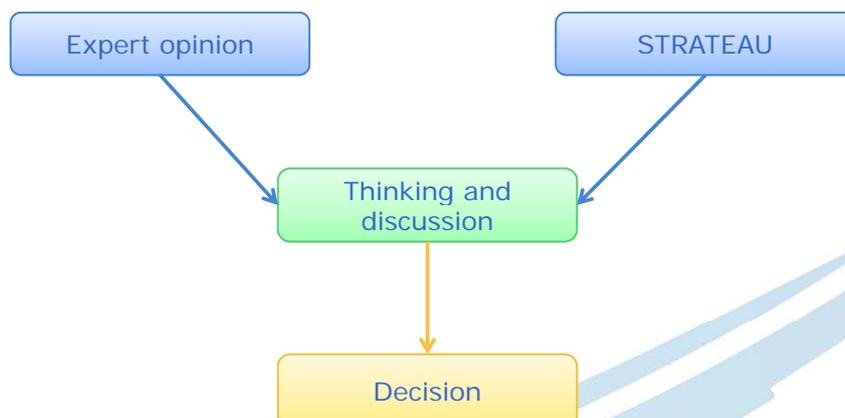
- Modeling tool of available resources and water needs
  - reconstitution of the **balance between water resources available and water needs** from environmental, technological and socio-economic data describing the water ecosystem and human activities
- STRATEAU, a project:
  - **ordered** by the Water Embassy
  - **support** by the Union for the Mediterranean and the French, Italian, Lebanon and Moroccan States
  - **financed** by the French Water Agencies, the Environment Ministry, the ONEMA (French National Agency for Water and Aquatic Environment) and private operators : Suez and Veolia
  - **developped** by Energies Demain



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## Strateau's Purposes

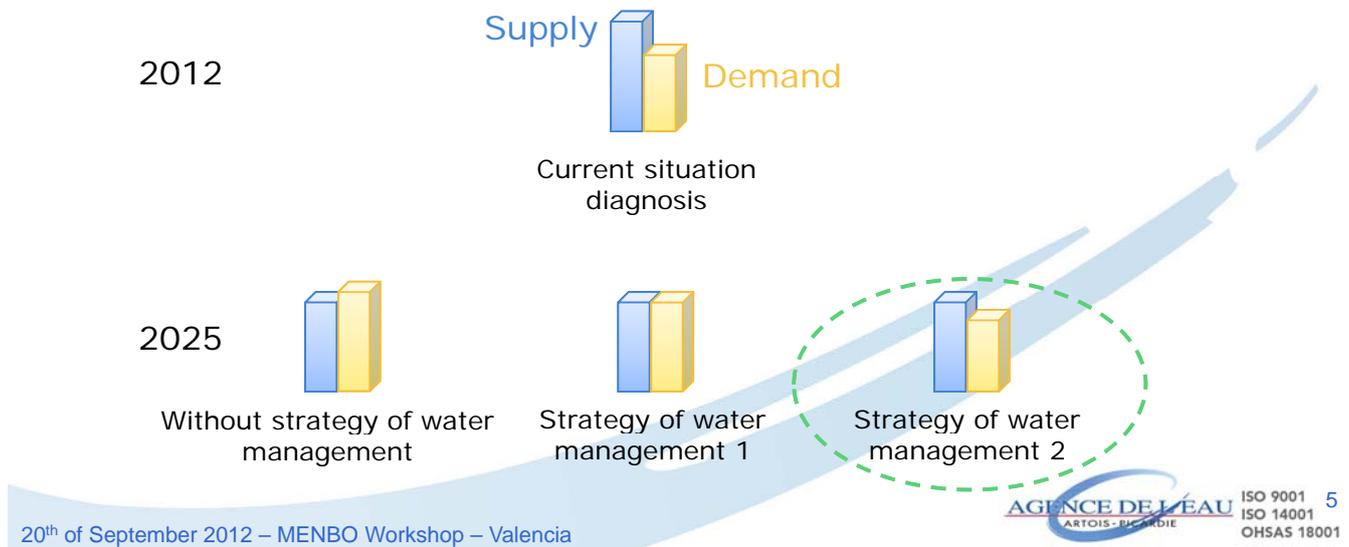
- STRATEAU is a **tool for decision**: it can support the implementation of water policies



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# Purposes

- Prospective and strategic tool for:
  - making a **diagnosis** regarding supply/demand balances (water shortage?)
  - producing **scenarios** on the evolution of needs and available resources
  - anticipating **impacts of water policies** on supply/demand balances



# Purposes

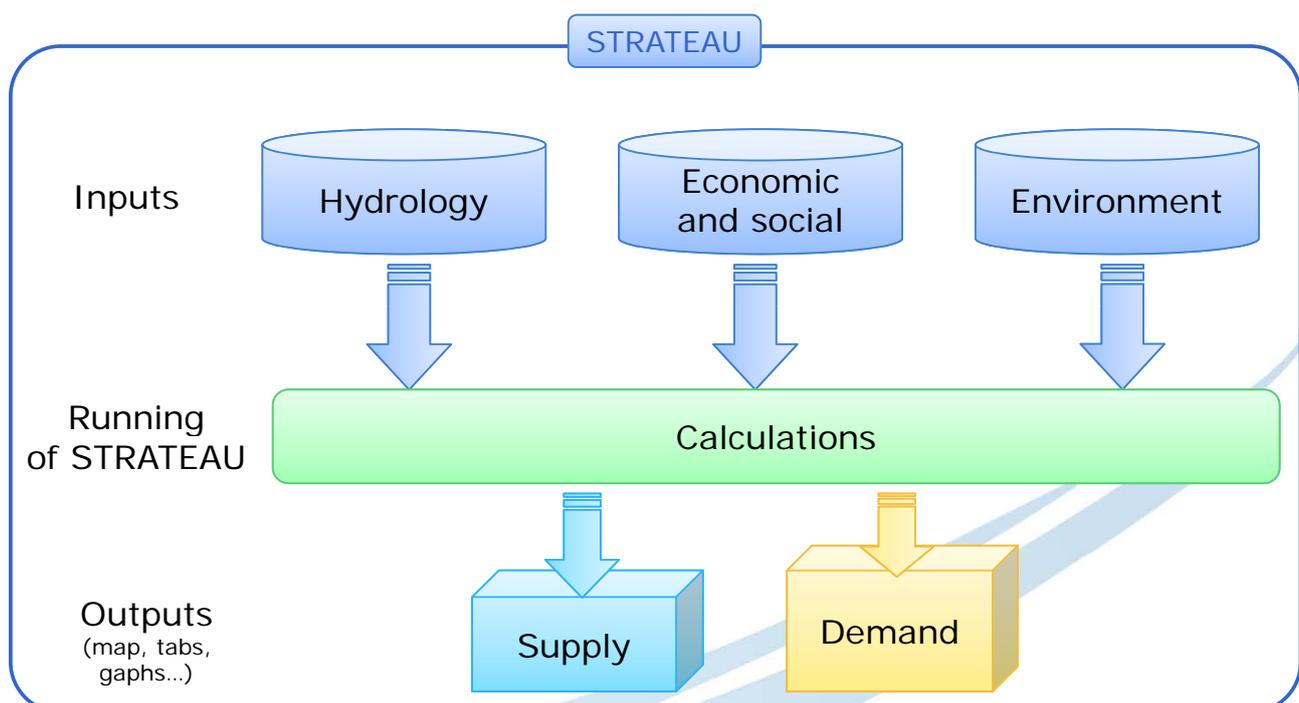
- **Examples of questions** that STRATEAU can adress:
  - Are there any risks of water deficits in the territory?
  - What will be needs for water in 15 years considering demographic growth and climate change?
  - What will be the impacts on the local water demand of a management water strategy?
- ➔ STRATEAU constitutes a **robust basis for dialogue and reflection** about the policy of water management (production of scientific and objective arguments)

# Who can use STRATEAU?

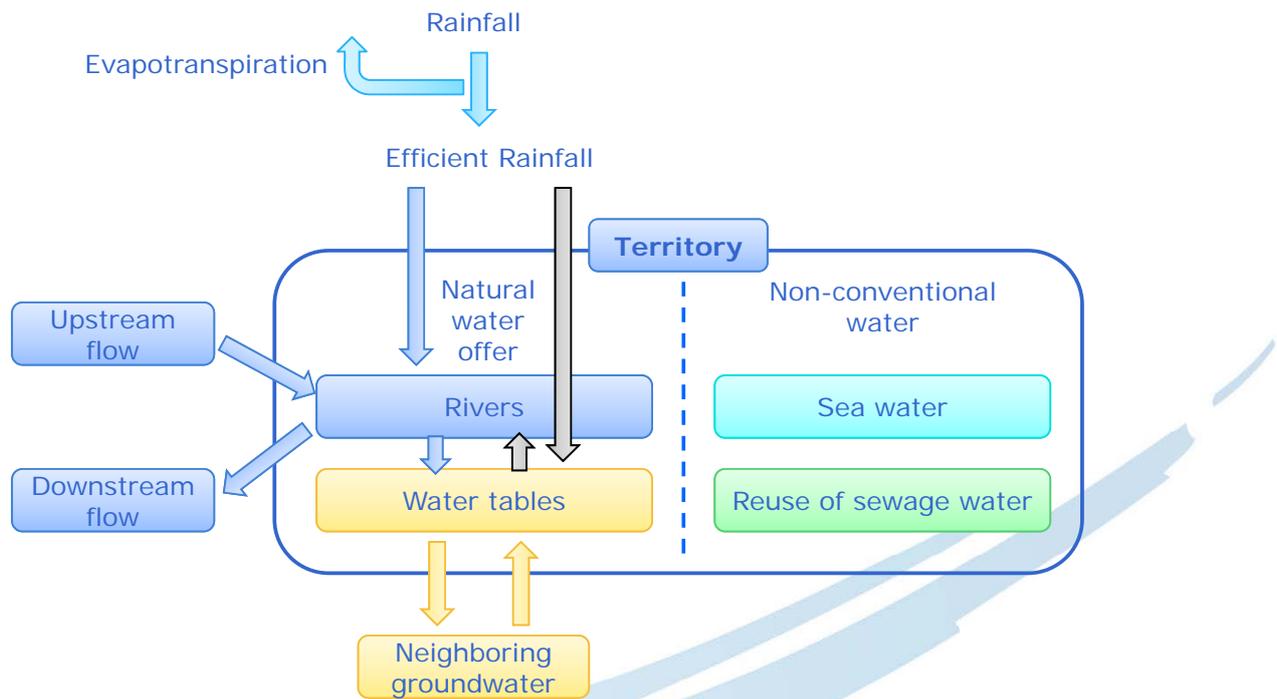
- STRATEAU is designed to all stakeholders involved in water management (Mayor of a small town or Minister, student or senior expert...)
- Skills required to use STRATEAU:
  - ✓ knowledge of water management
  - ✓ be able to use a computer
- STRATEAU is freely available for Mediterranean countries



## Methodology

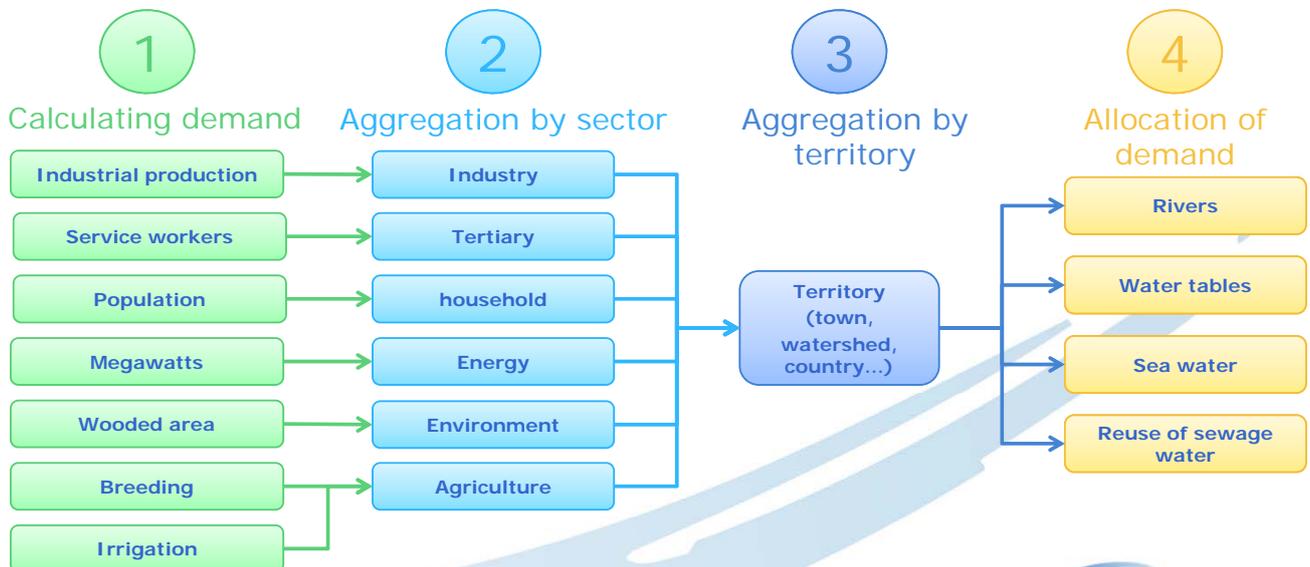


# Offer modeling



# Demand modeling

- Methodology « **bottom-up** »: demand calculation to lowest level (population, production, crop ...) and aggregation

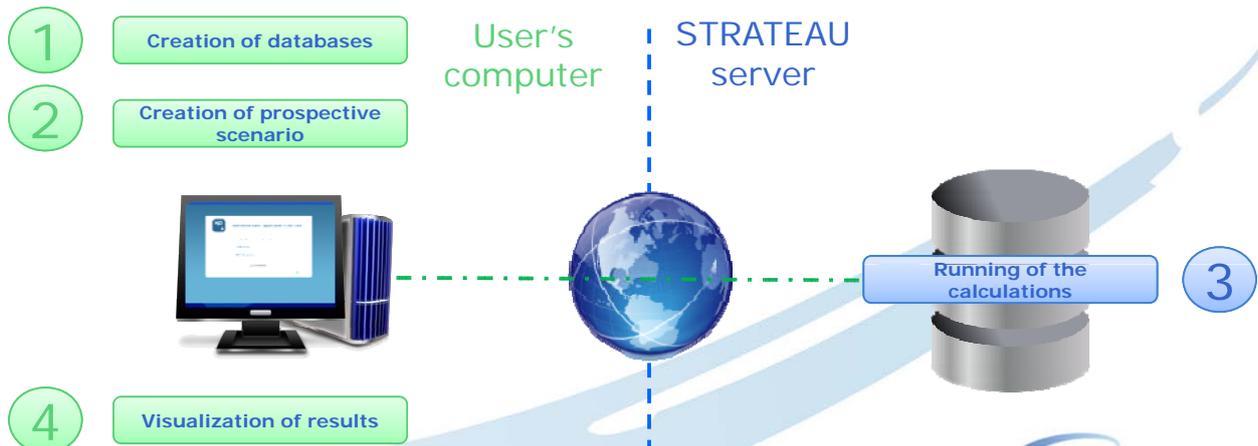


# How to use STRATEAU?

- STRATEAU be used through a **web interface** accessible with:

- a computer with a web browser

- an internet connexion



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## Strengths

- **Socio-economic** and **territorial** approach
- Simple to implement and **user-friendly**
- Oriented towards **demand** management
- **Flexible** and **scalable** tool that improves over the use
- **Free** (no license required)

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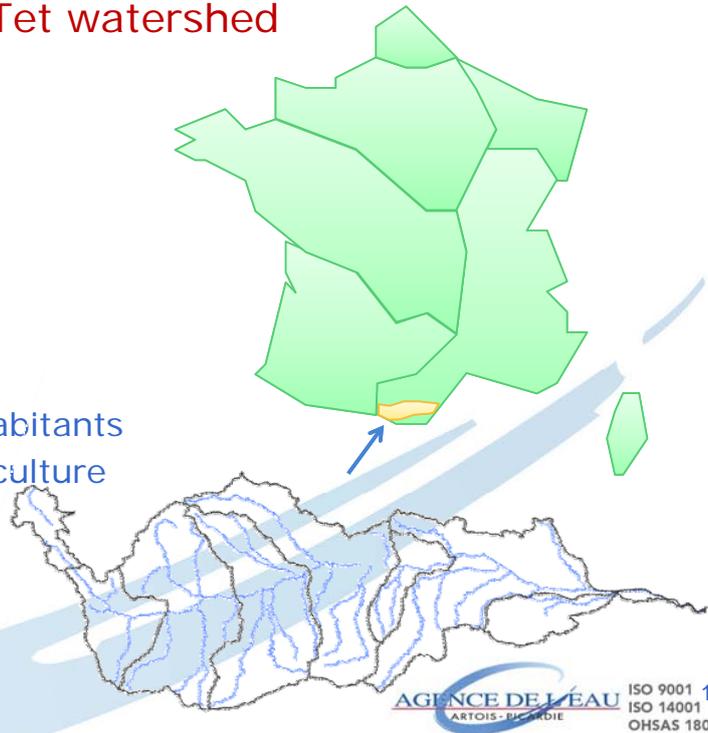
# Demonstration

- Demonstration on the **Tet watershed**

- many data
- ideal size
- validated results

- Tet watershed:

- coastal river
- surface area: 1 400 km<sup>2</sup>
- population: 220 000 inhabitants
- area of tourism and agriculture



# Demonstration

- **Question:** does a modification of irrigation technics allowed to absorb new demographic and touristic pressures ?



- **Hypothesis:**

- increase of the tourism during summer (+20%)
- climate change :
  - rain : +30 mm/month during winter, -10 mm/month other season
  - temperature: +2°C
- +50% drip irrigation for orchards

