

# Water Reuse in France - From marginal to vital?

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# Water reuse

## GLOBAL MARKET EVOLUTION AT A GLANCE

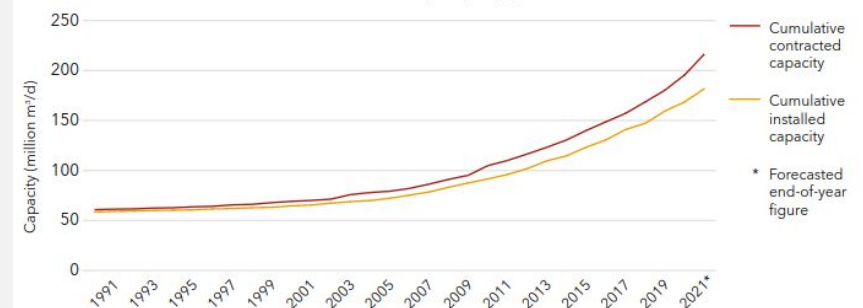
### I GWI/IDA desal and reuse REPORT 2021

- Increasing growth of installed capacity
  - + 8.6% installed capacity in 2020
  - > +10% planned for 2021
- Very heterogeneous repartitions in zones and applications
  - Asia is leading the charge with very high demand for industrial water in last 10 years
  - Europe is much further down the rank in terms of total installed capacity
    - 6.1 Mm<sup>3</sup>/d in last 10 years
    - mostly for agricultural irrigation

➤ Needs (volumes & applications) vary greatly from 1 place to another

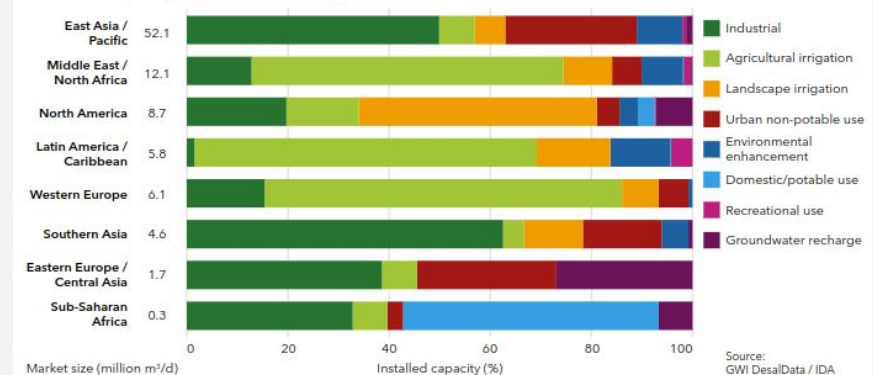
➤ Solutions need to be adapted accordingly

Cumulative contracted and installed reuse capacity by year, 1991-2021



Source: GWI DesalData / IDA

Installed capacity by water reuse application, 2011-2021



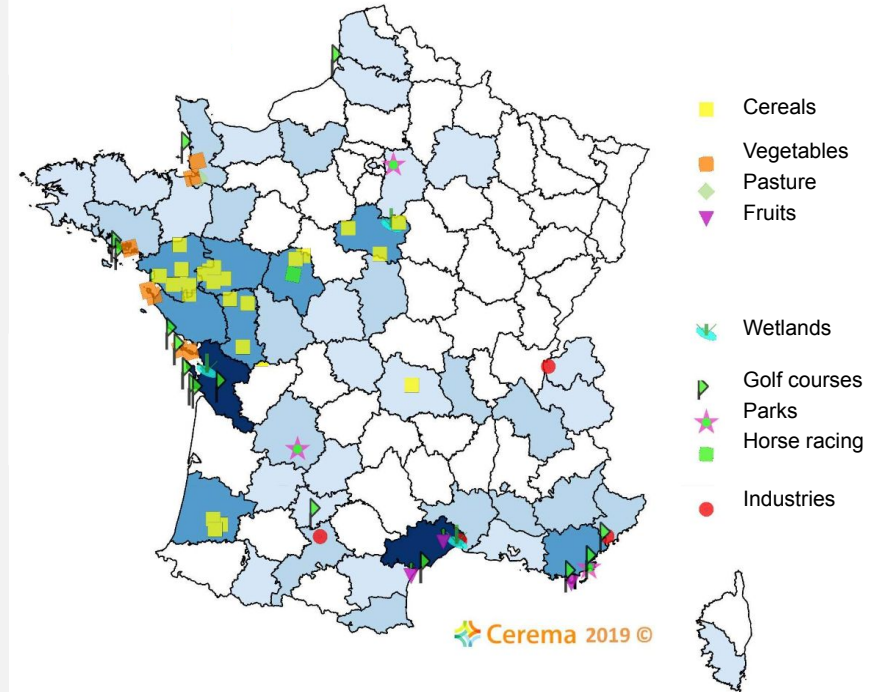
Source: GWI DesalData / IDA

# Water reuse in France

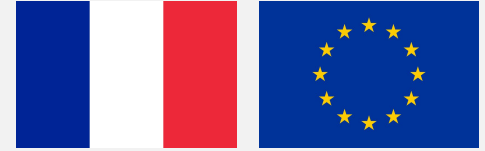
## CURRENT SITUATION

### CEREMA STUDY - 2017

- Overview of water reuse in France
  - 63 water reuse projects in operations
  - Very heterogeneous geographical repartition
  - 60% for culture irrigations
  - 32% for urban uses - mainly golf course irrigation. But 78% since 2010
  - Part of industrial reuse underestimated as private WWTPs not part of the study scope
- < 1% of treated wastewater reused
  - 8 - 11 Mm<sup>3</sup>/year reused annually



# Regulatory context IN TRANSITION



## IS THIS REGULATION GOING TO BRING A POSITIVE IMPACT ON WATER REUSE PROJECTS IN FRANCE?

### LIMITATIONS

- Need for comprehensive risk management
- How is this going to be applied?
- Impact on existing reuse schemes
- Impact on treatment costs
- Limited to agricultural irrigation

### OPPORTUNITIES

- No need for additional barriers at point of use
- More consistent across all EU countries
- General agreement that the scope is too narrow
- **Opens the door to wider considerations**

# Perspectives

## WORKING GROUPS

### RE-USE OF NON-CONVENTIONAL WATERS

- Working group under government piloting (Health and Environment)
- Coordinated by the ASTEE (Technical & Scientific Association for Water and the Environment)
- Objective of the government: **X3 the use of non-conventional waters by 2025**
- Non-conventional waters:
  - Treated wastewaters (municipal and industrial)
  - Rain water
  - Grey water



# Perspectives

## HOW ARE THE OPPORTUNITIES EVOLVING?

### MUNICIPALITIES:

Growing interest to develop small to medium projects (10 - 150 m<sup>3</sup>/h):

- Demonstration / engagement
- Needs not always properly identified (lack of opportunity study)
- Long administrative delays (12 to 24 months to obtain an authorization)



### AGRICULTURE:

Lack of financial incentives:

- cost of withdrawing from natural environment underestimated
- CapEx can be subsidized significantly (50 to 100%)
- Lack of financial incentives for covering additional OpEx costs



### INDUSTRIES:

Facing the highest pressure :

- Moving towards water reuse has become a necessity for many industries
- Significant barriers still exist in F&B industry
- Yet this is the most promising vector for water reuse in France in next few years



# Water Reuse in France

## KEY MESSAGES

- ❖ Like many other parts of the world, France is facing increasing pressure on its natural water resources
- ❖ Regulation on water reuse for irrigation exists since 2010, but water reuse has developed slowly due to administrative burden, costs and to a lesser extent acceptance
- ❖ The EU regulation on water reuse for agricultural irrigation is too narrow in scope, but it opens the door for further thinking
- ❖ Efforts are being made to develop the use of “non-conventional” waters
- ❖ Technology is not the limiting issue
- ❖ Funding is available for investment costs
- ❖ Focus on:
  - agricultural uses - need demonstration, slow, but a true challenge
  - industrial uses - no one size fits all, particular effort on F&B applications
  - urban uses - demonstrate new applications, develop decentralized solutions
  - IPR - demonstration, support the development of regulation in France & acceptance

*This might be just the right time to unlock the true potential of water reuse in France*

Thank you for your  
attention

Questions?

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