



## Evaluating Economic Policy Instruments for Sustainable Water Management in Europe

**Which economic model for a water efficient Europe?**

*Cost-recovery assessments in river basins: Evidence from the EPI-Water project*

Pedro Andrés Garzon, ACTeon

CEPS, Brussels,  
March 27<sup>th</sup> 2012



The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) / grant agreement n° 265213 – project EPI-WATER “Evaluating Economic Policy Instrument for Sustainable Water Management in Europe”.

# Content

---

1. What EPI-Water is about?
2. Economic Policy Instruments and cost-recovery mechanisms
3. Combining and the *Policy Mix*
4. Concluding



## 1.2 What is EPI-Water?

- EPI-Water: *Evaluating Economic Policy Instruments (EPI) for Sustainable Water Management in Europe*
- Research project funded under the **7<sup>th</sup> Framework Programme** (ENV.2010.2.1.2- 1, evaluation of effectiveness of economic instruments in integrated water policy)
- Total budget: € 4,462,688.00 - **EU contribution: € 3,472,438.00**
- Start date: **Jan 1<sup>st</sup>, 2011** - End date: **Dec 31<sup>st</sup>, 2013**

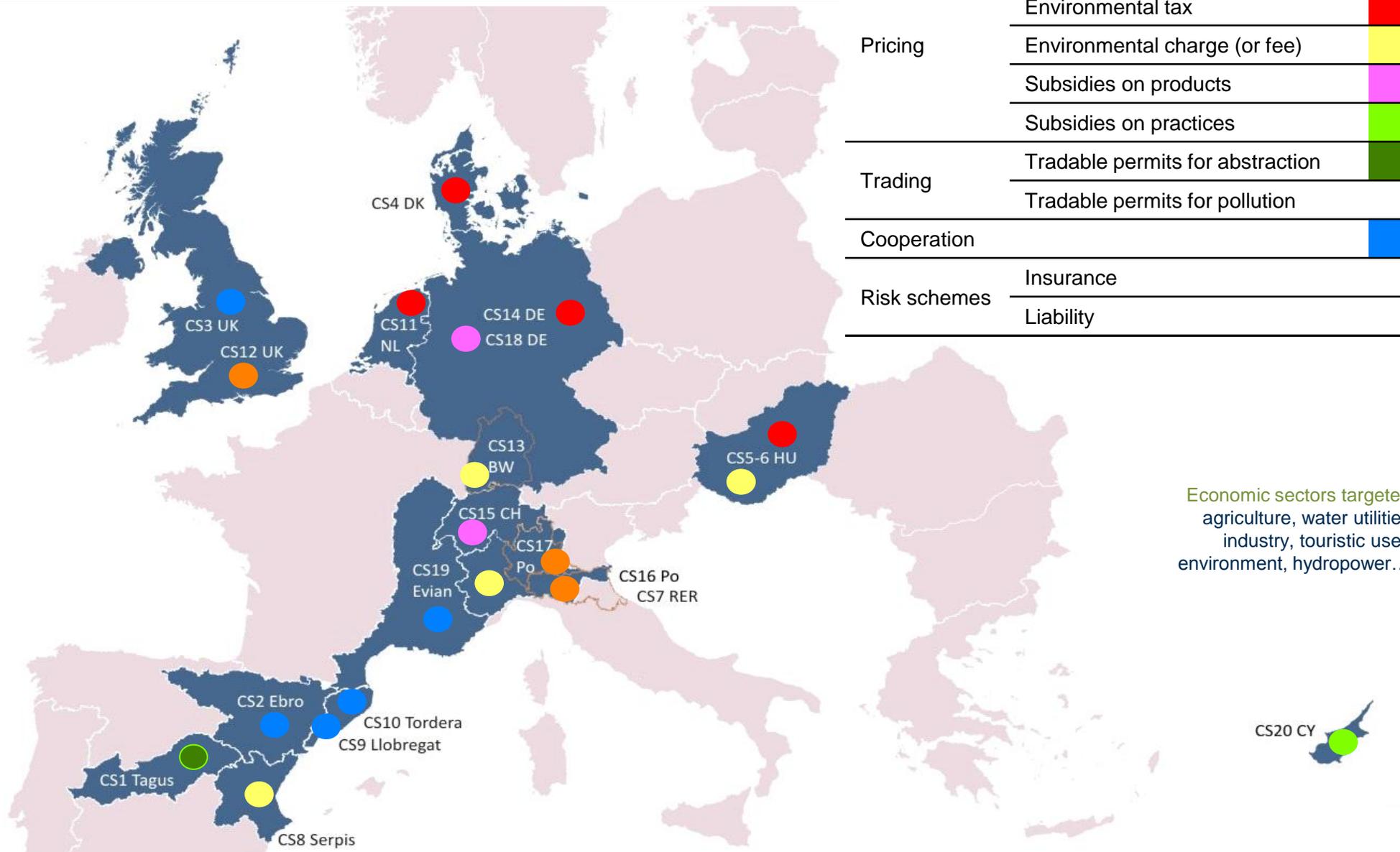


## 1.3 Aims and objectives

- To assess the **effectiveness and efficiency** of EPIs in achieving water policy goals;
- To identify the **preconditions** under which economic policy instruments deliver a sustainable use of water resources and achieve efficient and equitable water supply;
- **To compare the performance** of single economic instruments or their combinations with the performance of alternative, regulatory interventions, persuasive instruments or voluntary commitments.



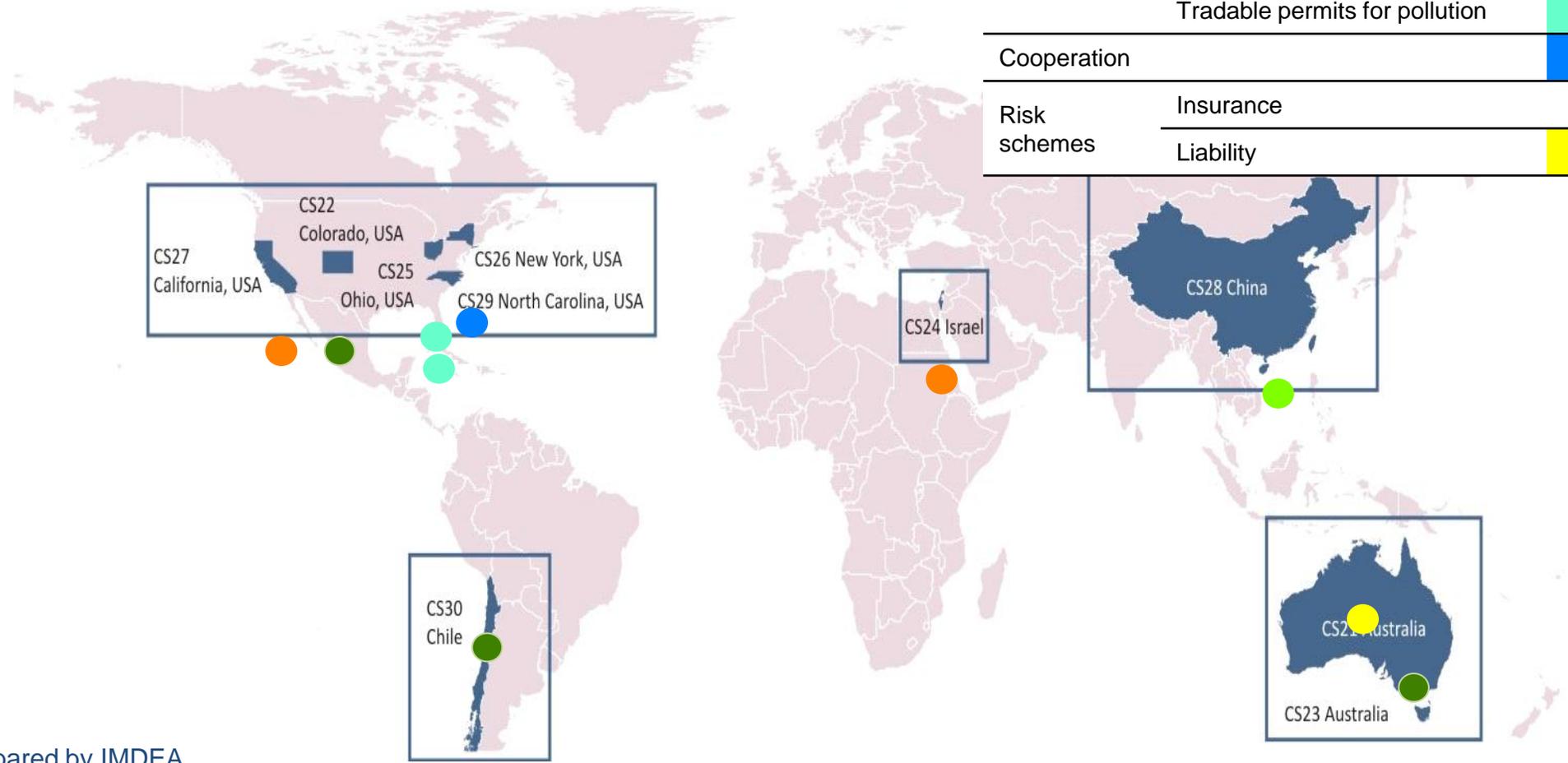
# 1.4 EU Ex-post case studies



This synthesis is the result of the **cross-comparison** of all case studies to extract a first set of common features from and formulate hypothesis about the conditions under which EPIs contribute to sustainable water management.

# 1.5 Non-EU Ex- post case studies

Type of instrument	
Pricing	Water tariff
	Environmental tax
	Environmental charge (or fee)
	Subsidies on products
	Subsidies on practices
Trading	Tradable permits for abstraction
	Tradable permits for pollution
Cooperation	
Risk schemes	Insurance
	Liability



## 1.6 Before engaging with the results / caveat

- The **reflections** to be presented are the results of an effort synthesising the different case studies to extract lessons learned
- However, given the emphasis on the breath of EPIs by the project (exploring different types in different settings) it is not possible to generalise or directly use these preliminary conclusions to orientate policy makers to chose one specific instrument over another one
- However, they offer important questions to bear in mind when engaging with the design, implementation or amendment of EPIs and related mechanisms



## 2.1 Starting point: EPIs and cost recovery mechanisms

- **Economic Policy Instruments (EPIs)** for water policy are those incentives designed and implemented with the purpose of adapting individual decisions to collectively agreed goals.
  - As such these are **economic instruments** as they aim to engage economic agents in behaviour change.
  - They can be distinguished from cost-recovery mechanisms that are **financial instruments** in the sense that they aim at raising revenue, and not necessarily at behaviour change.
- **Recalling Edward's diagram on what is to influence price: Incentive pricing, cost recovery and polluter pays' principle**



## 2.2 2nd point: EPIs and cost recovery mechanisms

**Also, many cost recovery mechanisms** could be related to end of pipe management approach. Although this is not a general rule, because they do not engage with the dynamics of behaviour change, they tend to be related to treatment, supply, compensation, remediation.



## 2.3 What is the real purpose of cost-recovery mechanisms?

- **Cost recovery mechanisms and any EPIs** currently in place reflect the vision of the water policy of the past and cannot be assessed through the lenses of more recent approaches.
- However, the ends of the instruments reviewed were not always very clear. An extreme example are the water load and water resource fee in Hungary (CS 5 & 6): their “survival” owes more to be convenient revenue raising (not earmarked) instruments that to serve social commitment to improve water governance and the environment.



## 2.3 The dynamics 1/2

- **An effective price instrument aims at changing behaviour and should be an ineffective means of raising revenues**

**←POTENTIALLY OPPOSITE DYNAMICS→**

- **A revenue raising tax aims at maximising revenue and the effect of the tax should therefore be minimal on behaviour to ensure HIGH and STABLE flow of revenues**



## 2.4 The dynamics 2/2

### Examples:

Irrigation prices and household water in Southern Europe, but also the England and Wales (flat household water price) are still in the logic of stable revenues.

This seems to be acceptable as long there not water scarcity .

→When this is more pressing, there seem to be an evolution of these instruments towards increased capacity to change behaviour at least but covering environmental and resource cost.

### Examples:

- Water tariffs for irrigation in Emilia Romagna (CS 2) (Italy)
- Move to metering of England and Wales (CS 12)



### 3 Combining and *Policy Mix*

A) The question of budget OR earmarked revenues.

When earmarked, cost recovery mechanisms may be implementation mechanism for an EPI.

#### Examples:

-Baden-Wurttemberg (CS13)

- Water tariff finances a subsidy to improve farming practices

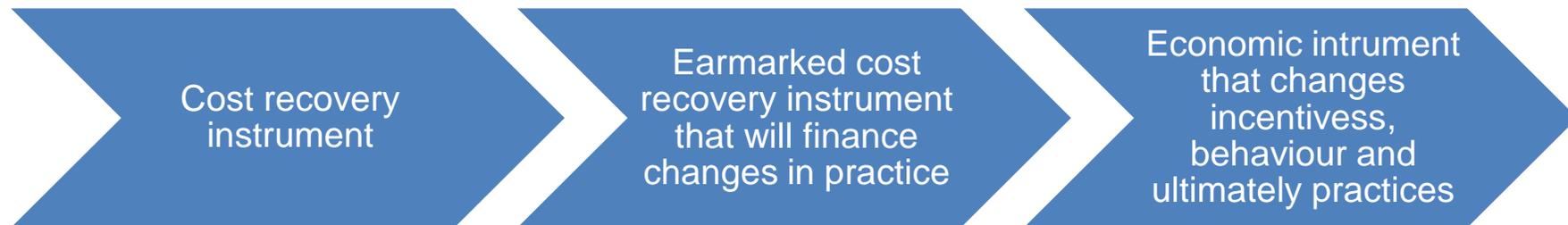
B) The relationship with the regulatory measures

Are the EPIs ways to smooth the way towards regulation?



Although different, depending on the objective of the policy, a cost recovery mechanism can be transformed into a behaviour changing mechanism .

For example, a fee can be raised to become high enough to change behaviour of the users.



# .Conclusions 1

- Key points:
- Economic instruments are not the same as financial instruments. However, financial instruments can evolve into economic instruments.
- Tariffs and charges have been successful as financial cost recovery mechanisms (but no strong evidence in terms of positive environmental outcomes)
- Changing situation towards crisis has been seen as a trigger towards more complete instruments beyond simple revenue raising instruments
- The results of the current mechanisms in place depend on what was the policy objective: raising revenue or environmental gains
- Experience gained from financing sector development (hydropower/irrigation) could be used to improve the implementation of EPIs aiming
- at managing water sustainably.



### Looking beyond:

- There are questions about their ability to cope with changes (in addition to CC): how is the current crisis is to affect their effectiveness?
- Improve our understanding of the Policy Mix and the opportunities to make the different instruments to be more successful.



**Thank you.**

**Contact: Pedro Andrés Garzon Delvaux (ACTeon), [a.garzon@acteon-environment.eu](mailto:a.garzon@acteon-environment.eu)**

The research leading to these results has received funding from the *European Community's* Seventh Framework Programme (FP7/2007-2013) / *grant agreement* n° 265213 – Project EPI-WATER “Evaluating Economic Policy Instrument for Sustainable Water Management in Europe”.