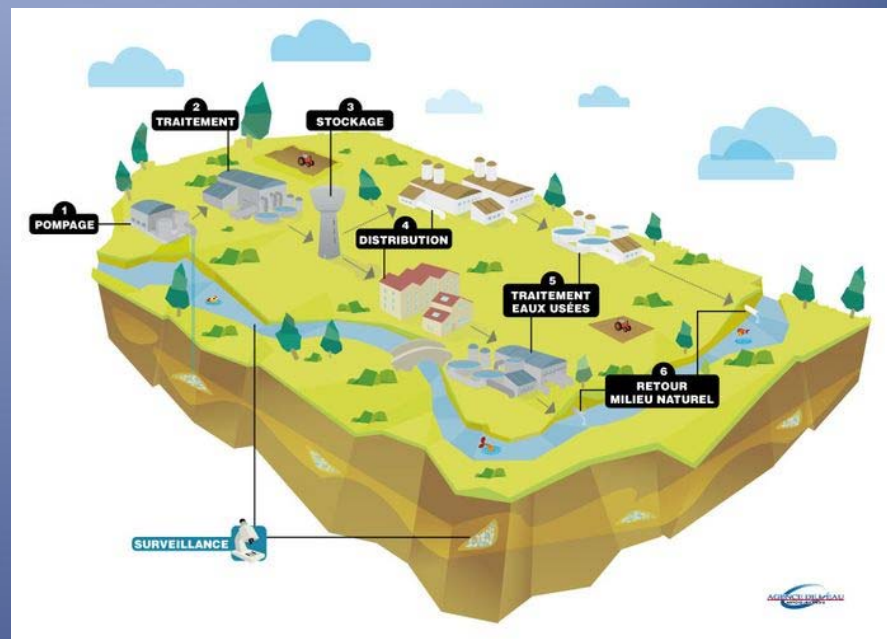
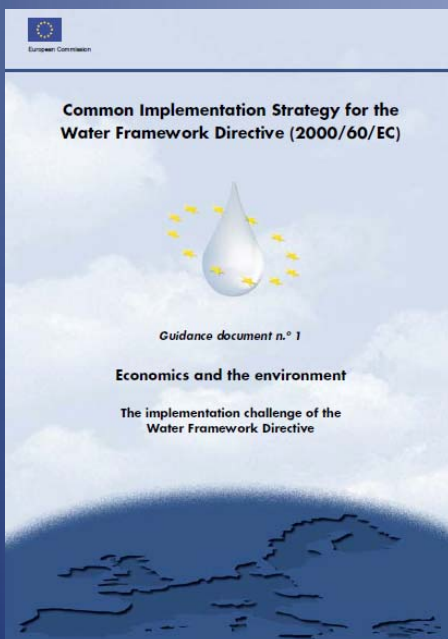




# Economic analysis and WFD : from theory to an efficient toolbox.....



Арно Курткюис /Arnaud Courtecuisse



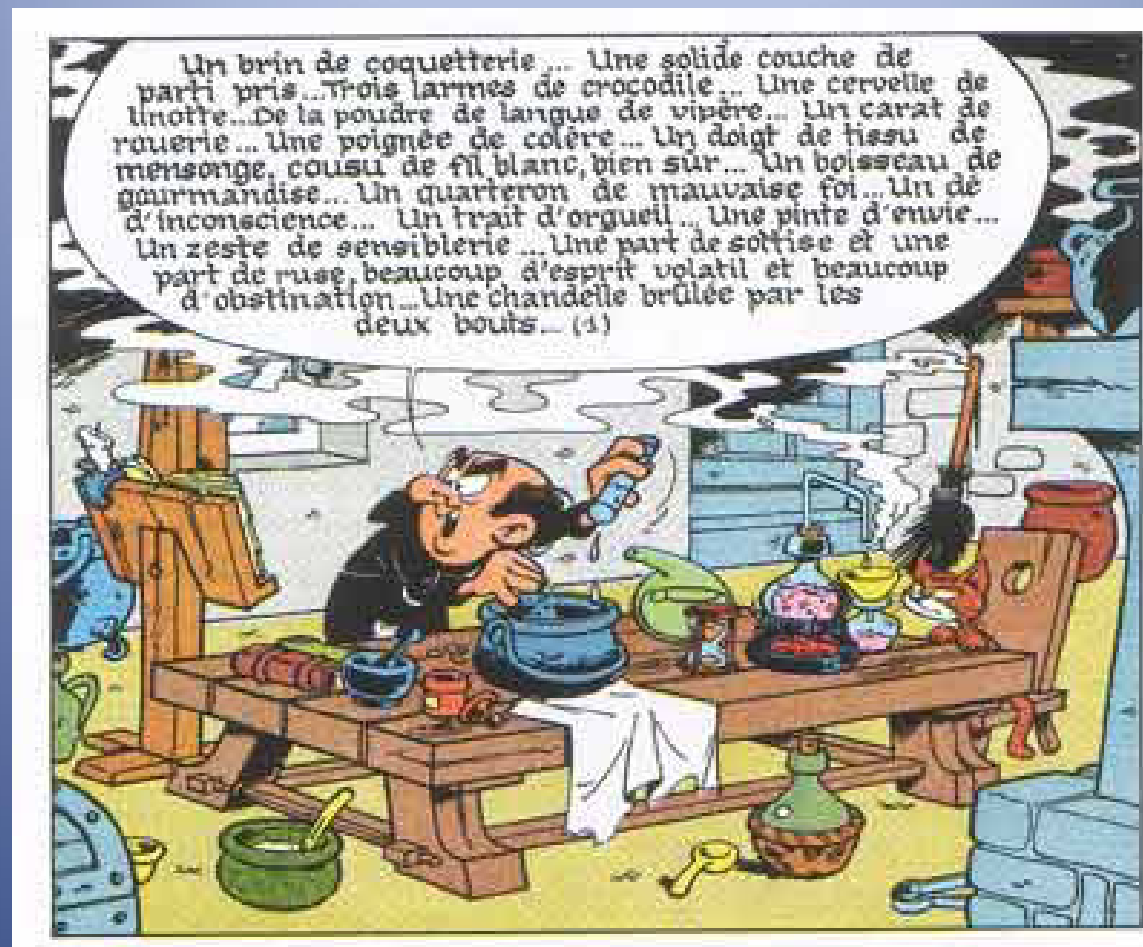
## Economic analysis in the WFD

Simple and direct questions :

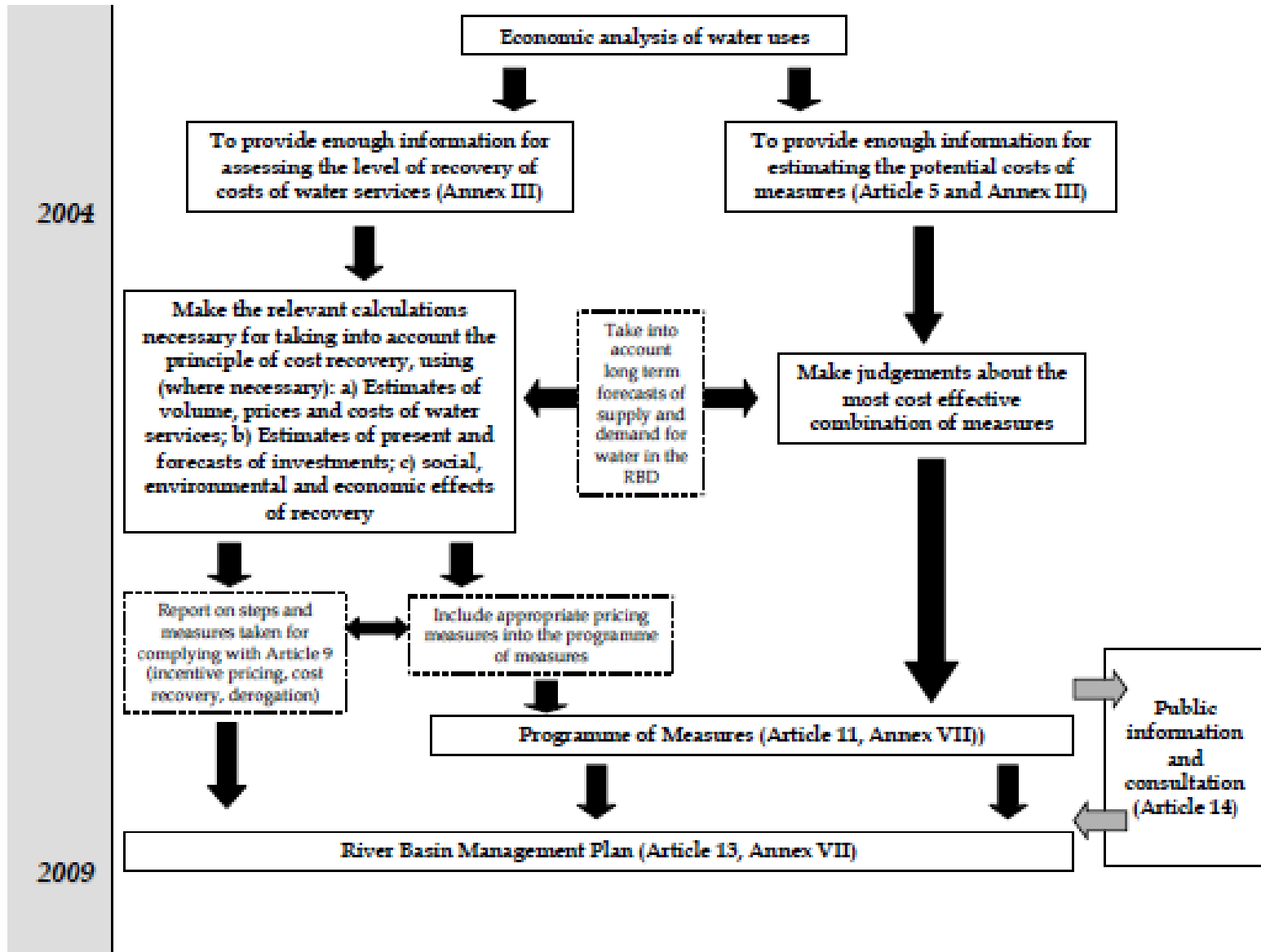
- How the water is used by the economic sectors in a River Basin District ?
- How to select the most efficient measures ?
- Do economic sectors pay the real costs of water ?
- Is it economically reasonable to achieve the Good Ecological Status in 2015 for some water bodies ?

.....and sometimes complicated and out of scope answers...

**WFD gives an important role to economic analysis not for itself but for providing useful information in the Decision Making Process**



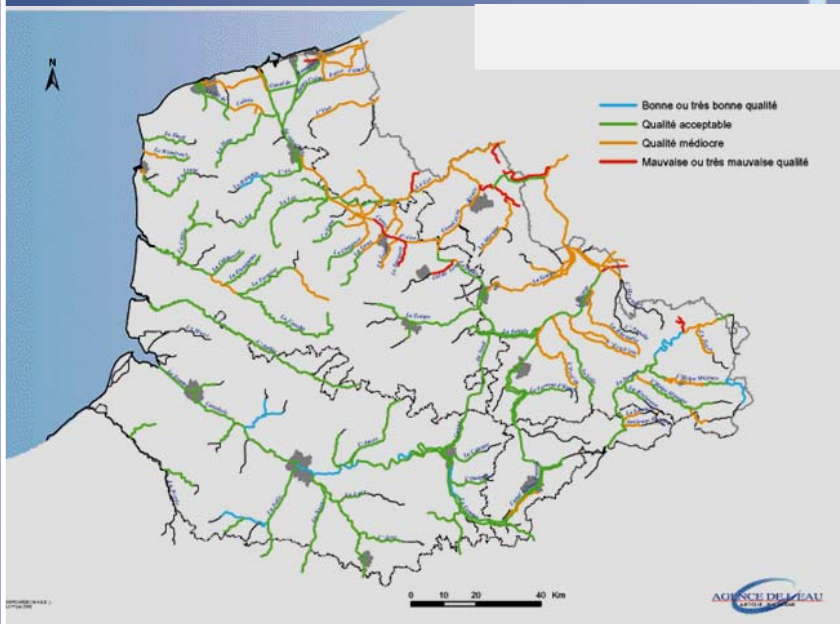
How to have a better contribution of Economic Analysis in the WFD process .....and provide « tasty » economic analysis for stakeholders and EU Commission ?




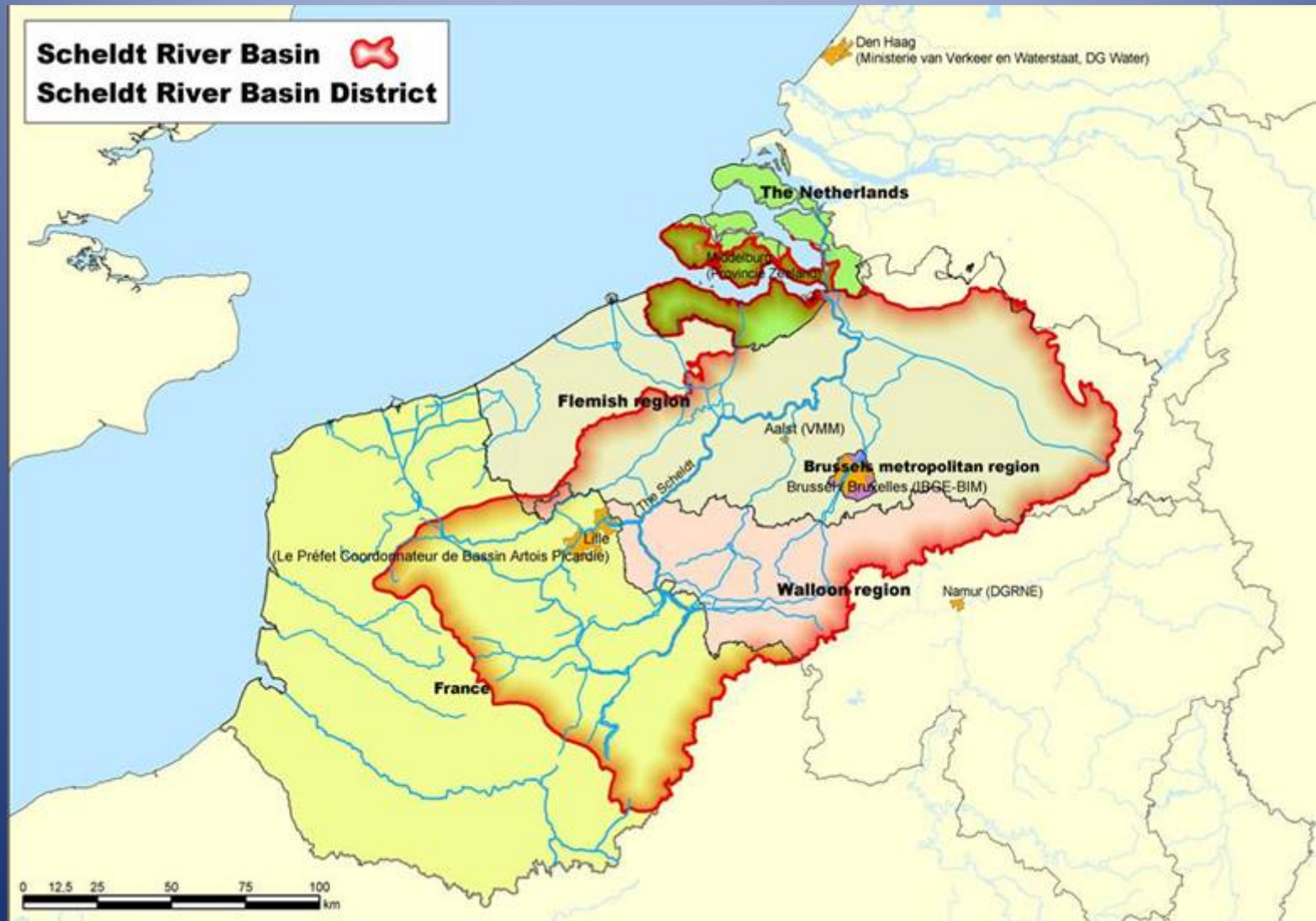


## Artois-Picardie River Basin

- 20 000 km<sup>2</sup>  
(1/30<sup>th</sup> of the national territory)
- the smallest of River Basin in France
- 4,7 millions inhabitants  
(235 inhab/km<sup>2</sup>, twice the national mean value)
- Average price of water:  
4,26 €/m<sup>3</sup> in 2012 (one of the most important in France)
- 97 % of drinking water comes from underground



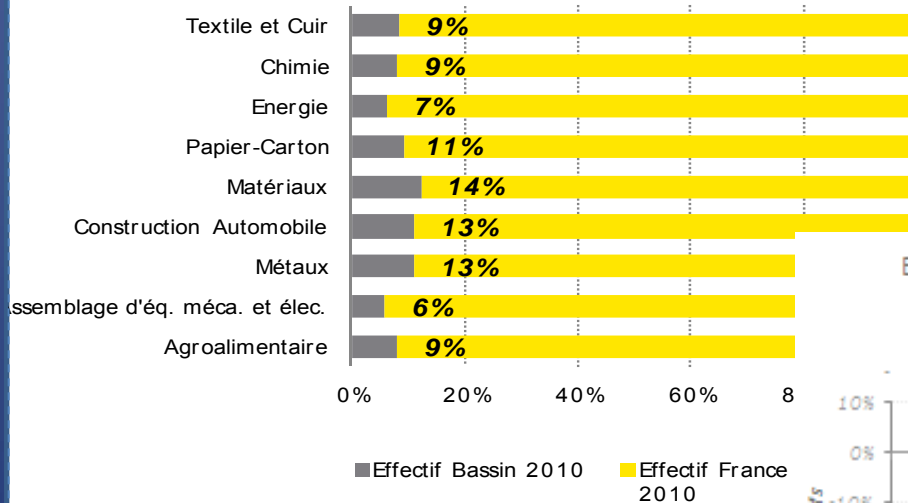
**Scheldt River Basin**   
**Scheldt River Basin District**



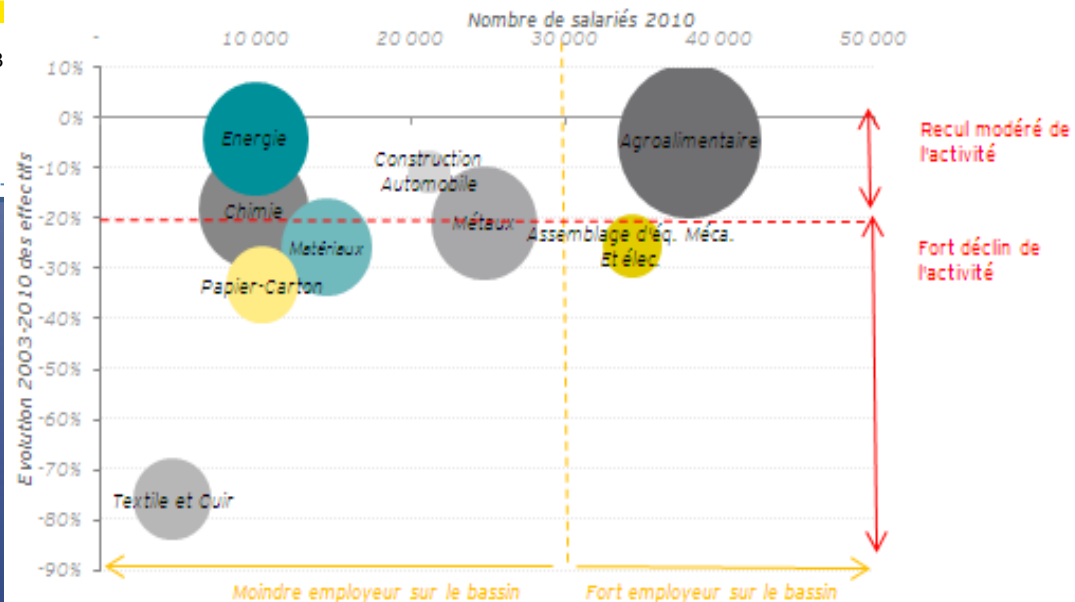
# Economic Characterisation – article 5

Les principales filières industrielles du bassin Artois-Picardie emploient 1,8 millions de salariés, soit 9% des emplois industriels français

### Part des effectifs nationaux sur le bassin Artois-Picardie

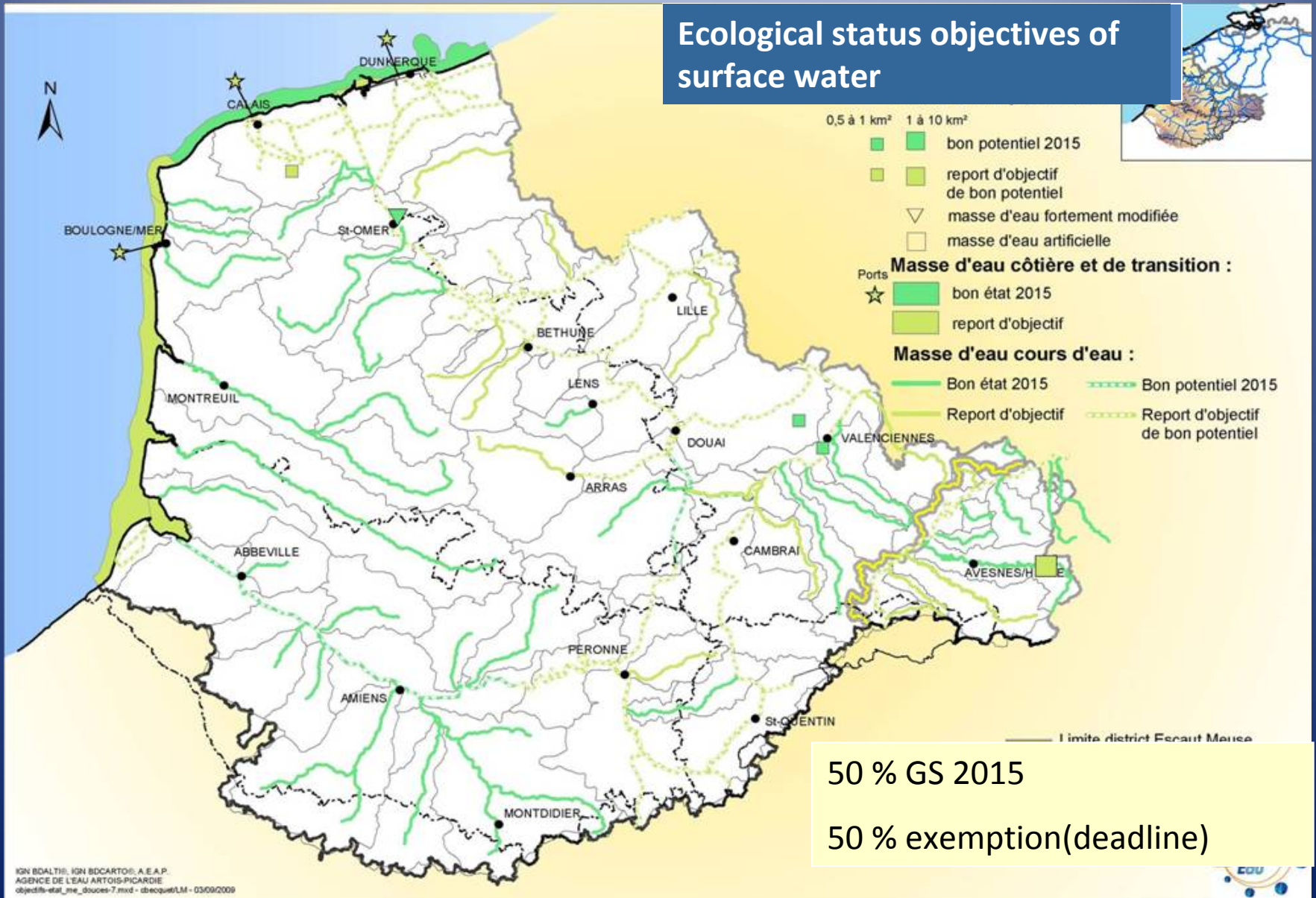


### Evolution 2003-2010 des effectifs industriels, selon leur participation à l'emploi et la valeur ajoutée sur le bassin





# Ecological status objectives of surface water



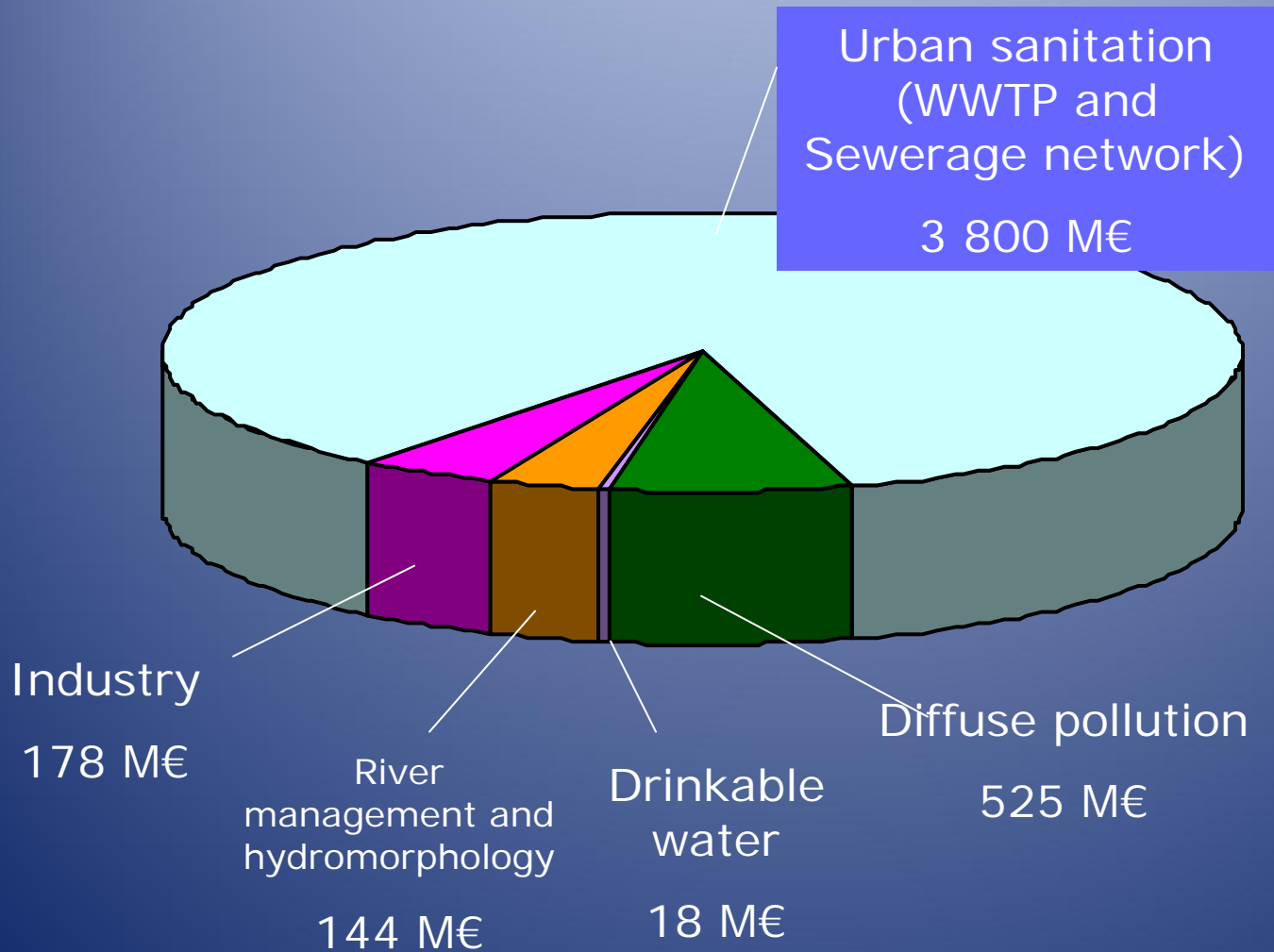
## Programme of measures (cost in million euros) for Artois-Picardie River Basin

	<b>Total</b>
Basic measures	700
Supplementary measures	4 000

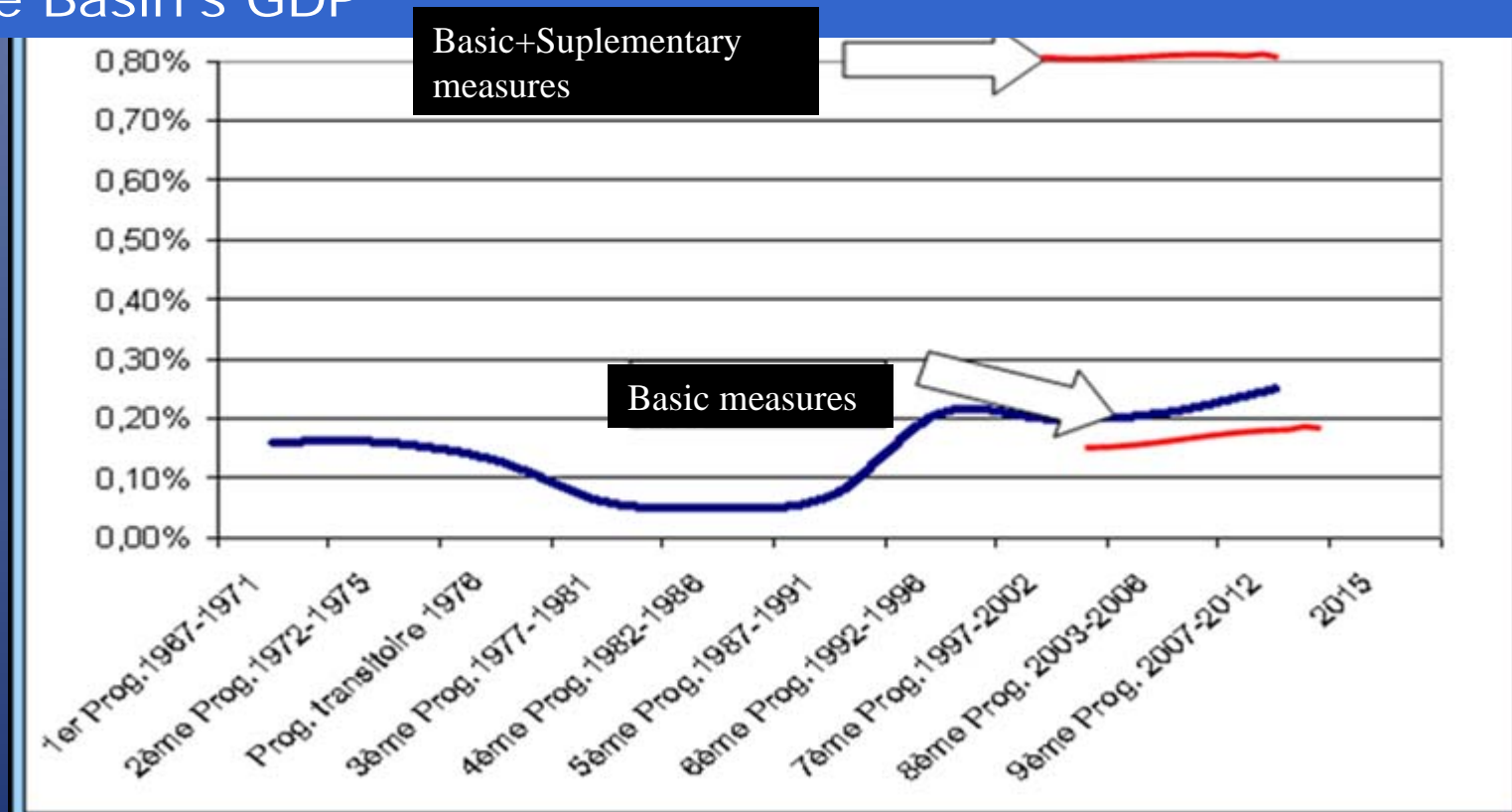


**4,7 billions of € to achieve the Good Ecological Status**

## 2. Implementation of the EU Water Framework Directive – illustration of the Artois-Picardie River Basin & Scheldt International District



# Evolution (1967-2012) of the economic weight of the works financed by the Water Agency Artois-Picardie compared to the Basin's GDP

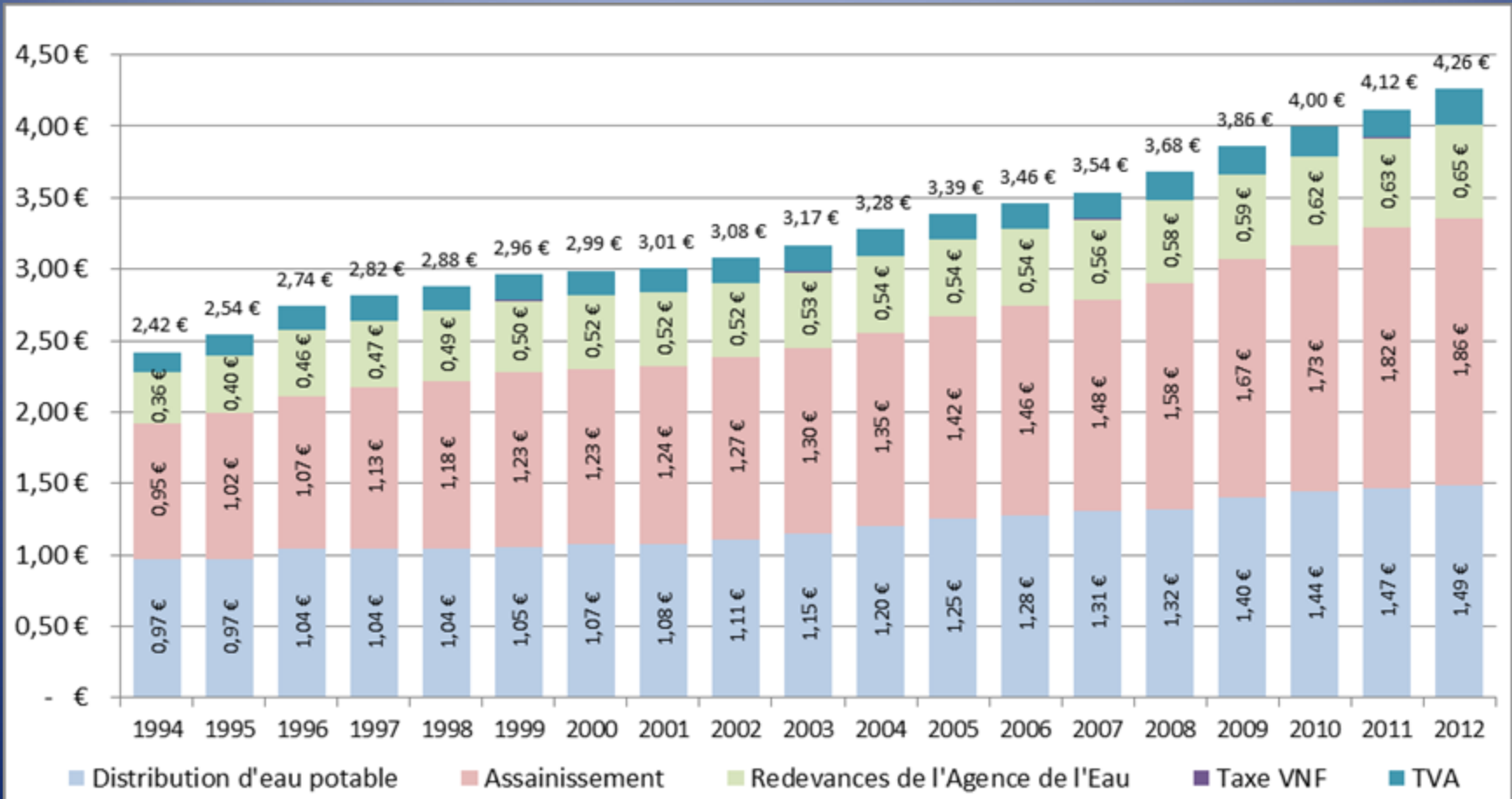


## Cost impact on economic sectors

Indicators	Data	Objectives
Cost of PoM	<ul style="list-style-type: none"> <li>• inv + op cost of measures per type (extracted from national catalogue) and at Water body level</li> </ul>	Assess PoM cost per type of measures and at each scale level (from Water body to basin)
Cost of measures regarding water price paid by households	<ul style="list-style-type: none"> <li>• current water and sanitation price at municipality level</li> <li>• household's mean available income at municipality level</li> <li>• assessment of volume consumed per capita</li> <li>• assumptions on financial scheme of measures</li> </ul>	Assess the level of Water price at municipality level in 2015 regarding the measures (water and sewerage) that will be implemented
Cost of measures regarding Industry and agriculture	<ul style="list-style-type: none"> <li>• Added Value for Industry in 2006</li> <li>• past « Water protection » investment from industry</li> <li>• Added value for Agriculture</li> </ul>	Assess the weight of Industrial (Agriculture) measures regarding Industrial (agricultural) Added value

# Evolution of the price paid by households of Artois-Picardie River basin for water and sanitation services – 1994 to 2011

Source: Artois-Picardie Agence water observatory



# Assessing the impact of Programme of Measures on Water Price

Water price survey (scale : municipality)

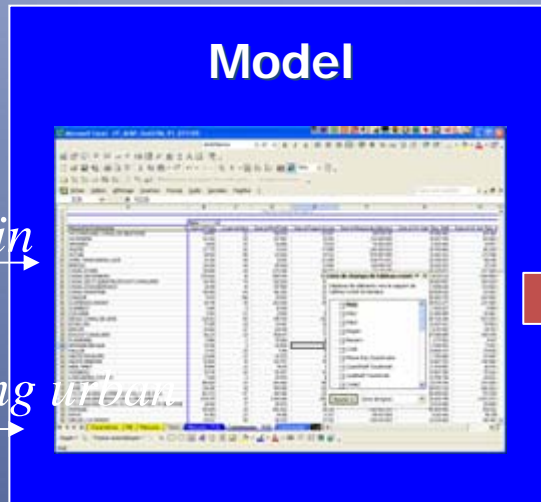


Water price in 2007

Measures targeting urban sanitation



Programme of measures

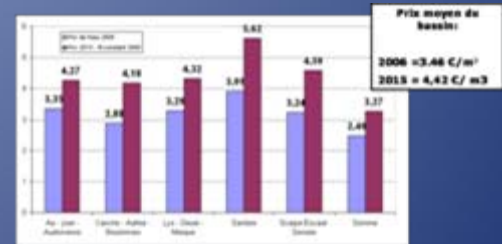


Households mean income (scale: municipality)



National statistics office

Price in 2015 forecasting



- 2015 Water price
- Water bill/available income

# Разработване на средство за симулация на въздействието на цените на мерките върху цената на водната услуга

таблица 3А:

Разчет на разходите за Програмата от мерки за добър екологичен статус (само В и К)

Годишни оперативни разходи като % от инвестиционните разходи= 5%

	лв.	евро
Инвестиционни разходи	6 255 887 920 лв	3 127 943 960 €
Оперативни разходи	312 794 396 лв	156 397 198 €

таблица 3В:

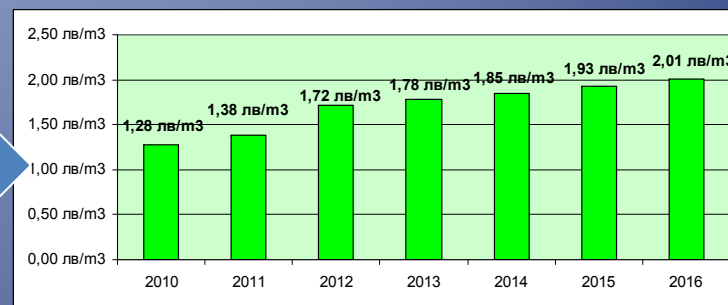
Източници за финансиране на инвестициите

	дъл	лв.	евро
фондове на ЕС	80,0%	5 004 710 336,0 лв	2 502 355 168 €
ПУДООС	0,5%	31 279 439,6 лв	15 639 720 €
Републикански бюджет (МОСВ)	0,0%	0,0 лв	0 €
Общините	19,5%	1 219 898 144,4 лв	609 949 072 €

Част от общинското финансиране, което трябва да бъде покрито от цената на водата: 100,0%

	Собствени средства	Заем от международни организации	Банкови кредити
Източници на финансиране за общините	0,0%	100,0%	0,0%
Среден срок на кредита		20 години	20 години
Лихва по кредита		1,0%	7,0%

	лв.	евро
Годишна сума за погасяване на кредитите	66 931 722,58 лв	33 465 861 €





# Conclusions/recommendations for next WFD cycle

- Article 5
- Cost-effectiveness analysis
- Cost-recovery analysis and pricing policy
- Environmental and resource cost
- Cost Benefit Analysis

Share economic analysis with stakeholders and develop strong communication strategy



Благодаря за  
вниманието...