

1<sup>st</sup> July 2013

#### COMPARISON BETWEEN ISRAEL AND SPAIN WATER POLICIES

FUNDACIÓN BOTÍN Madrid - 1<sup>st</sup> July 2013

#### WATER PLANNING ISSUES IN SPAIN C. Marcuello

Subdirectorate General for Water Planning and Water Use DG Water - Magrama



- 1.- Basic Information as Background
- 2.- Current Water Planning Process
- 3.- Challenges for the Next Plannig Cycle



#### 1.- Basic Information as Background



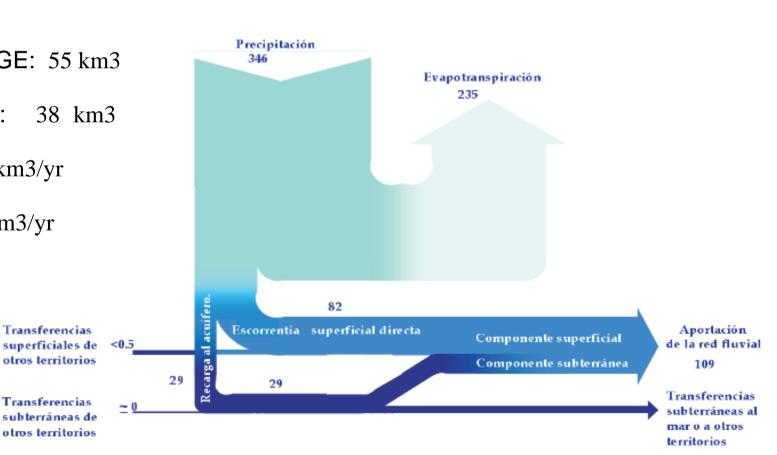
## 1.- Basic Information as Background

#### **BASIC MAGNITUDES:**

TOTAL PRECIPITATION:346 km3/yrTOTAL RENEWABLE FRESHWATER RESOURCES:109 km3/yrOF WHICHSURFACE WATER:82 km3/yrGROUNDWATER:29 km3/yr

TOTAL DAM STORAGE: 55 km3 OF WHICH CONSUMPTIVE USE: 38 km3

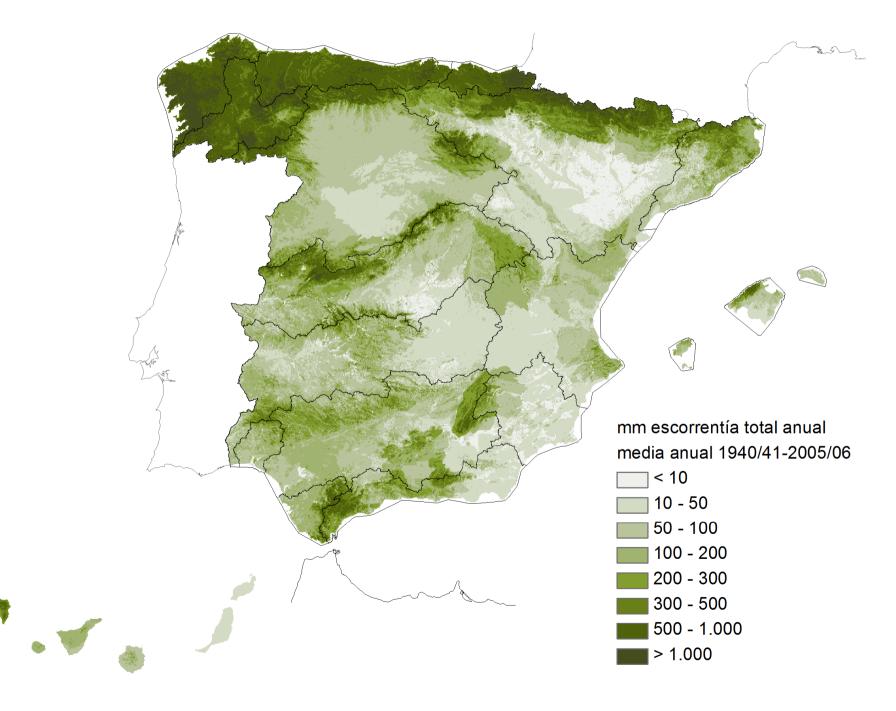
TOTAL WWT: 3,5 km3/yr OF WHICH REUSED(REG): 0,5 km3/yr





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#### 1.- Basic Information as Background July 2013 Mean Runnoff (mm/yr)





## 1<sup>st</sup> July 2013 **1.- Basic Information as Background** Runnoff simulation at control points.



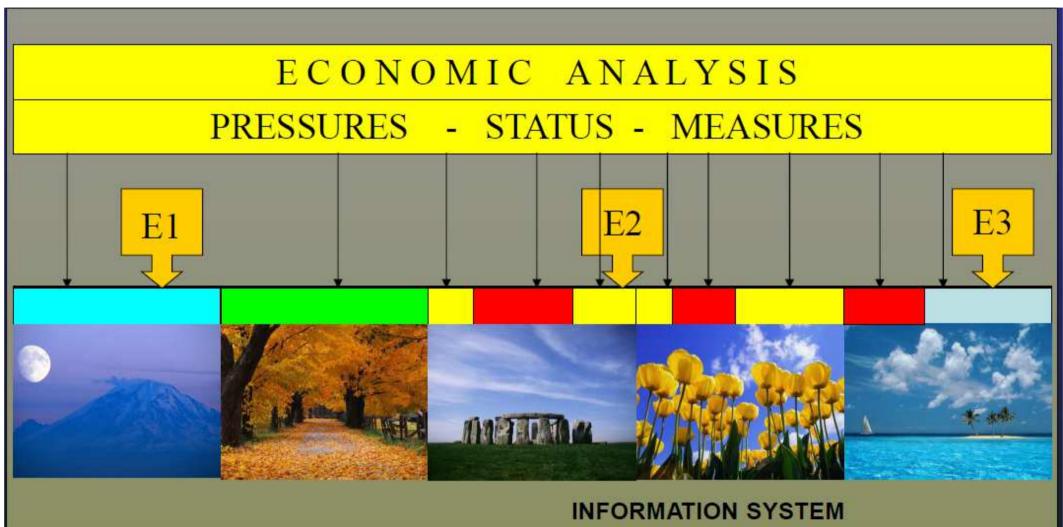


#### 2.- Current Water Planning Process



#### MINISTERIO 2.- Current Water Planning Process<sup>1st</sup> July 2013 VINEDIC AMBIENTE 2.- Current Water Planning Process<sup>1st</sup> July 2013

Legal framework: RDL 1/2001; RD 907/2007; ARM 2656/2008 + RD DPH OTHER BASIC LAW: LBRL [+ LS]



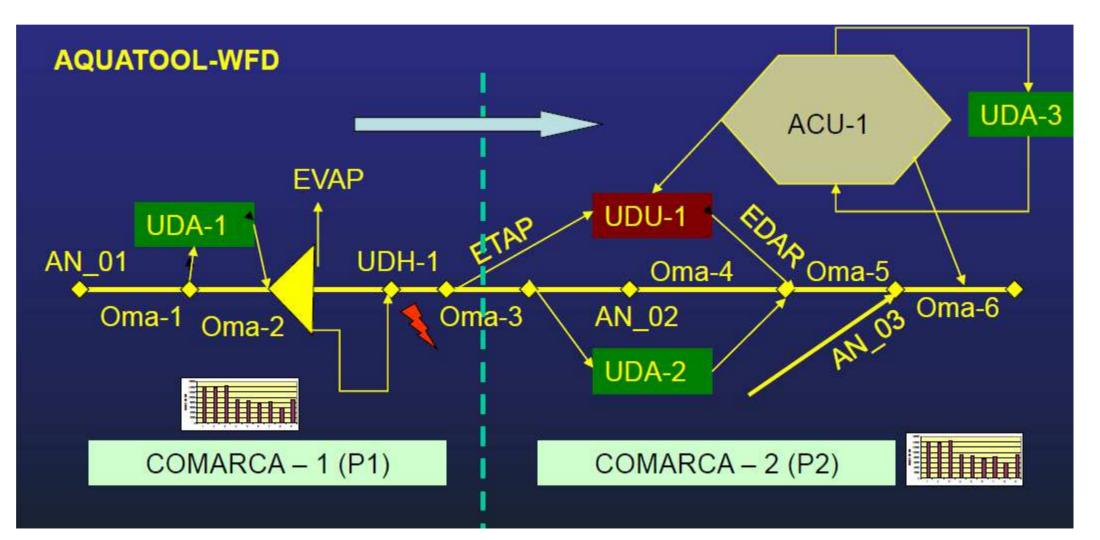
#### SUPPORTING DECISION SYSTEM



## 2.- Current Water Planning Process<sup>1st</sup> July 2013

E-flows are previous restrictions

Water uses based on allocations – Priorities on uses granted – Criteria of fulfillment Compliance with existing EC Directives on Water Quality Measures include economic incentives for water efficiency





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2.- Current Water Planning Process<sup>1st July 2013</sup>



público hidráulico y de las aguas, la satisfacción de las demandas de agua, el equilibrio y armonización del desarrollo regional y sectorial, incrementando las disponibilidades del recurso, protegiendo su calidad, economizando su empleo y racionalizando sus usos en armonía con el medio ambiente y los demás recursos naturales. En este sentido, el citado

http://www.boe.es/



#### DEAGRICULTURA ALIMENTACION 2.- Current Water Planning Process<sup>1st</sup> July 2013

NOMBRE	CÓDIGO	COORD FIN DE MASA (ETRS89)		OCTUBRE-DICIEMBRE	ENERO-MARZO	ABRIL-JUNIO	JULIO-SEPTIEMBRE
		XUTM(29)	YUTM(29)	Qmin. (m³/s)	Qmin. (m <sup>3</sup> /s)	Qmin.(m³/s)	Qm in. (m <sup>3</sup> /s)
Rio Miño I	ES372MAR000010	631.060	4.791.372	0,337	0,802	0,715	0,179
Rio Pequeño I	ES372MAR000020	625.801	4.786.608	0,130	0,263	0,307	0,075
Rio Miño III	ES372MAR000051	618.077	4.780,541	1,163	2,443	2,453	0,654
Rio Miño II	ES372MAR000052	623.767	4.782.163	0,763	1,786	1,742	0,470
Rio Azumara	ES375MAR000030	626.555	4.785.639	0,268	0,599	0,566	0,150
Rio Anllo	ES377MAR000040	619.935	4.783.155	0,310	0,538	0,551	0,153
Rio Lea	ES378MAR000060	618.077	4.780.541	0,261	0,550	0,620	0,168
Rio Miño IV	ES378MAR000220	612.058	4.772.224	4,535	9,043	7,835	2,127
Rio Miño V	ES378MAR000221	617.029	4.762.020	5,425	12,181	9,330	2,536
Rio Miño VI	ES378MAR000222	620.625	4,757,607	5,615	12,521	9,640	2,620
Rio Miño VII	ES378MAR000223	620.768	4.749.740	6,140	14,099	10,592	2,862
Rio Tamoga I	ES381MAR000070	616.070	4.792.083	0,243	0,440	0,522	0,143
Rio Tamoga II	ES381MAR000080	614.052	4,780,208	0,414	0,842	0,921	0,249
Rio Trimaz	ES383MAR000090	601.252	4.797.661	0,338	0,650	0.474	0,139



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cve: BOE A-2013-4209





Núm, 95

#### **BOLETÍN OFICIAL DEL ESTADO**



Sábado 20 de abril de 2013

Sec. III. Pág. 30646

CAPÍTULO V

#### Asignación y reserva de recursos

Artículo 28. Asignación y reserva de los recursos disponibles

1. Asignaciones.

De acuerdo con el orden de preferencia establecido en el artículo 27, los recursos disponibles en los sistemas de explotación se asignan atendiendo a unidades de demanda, siendo UDA, unidad de demanda agraria, UDU, unidad de demanda urbana y UDI, unidad de demanda industrial.

Unidad de demanda	Asignación (hm³/año)	Procedencia		
UDU Chantada	1,78	Tramo alto del rio Asma.		
UDU Lugo	11.97	Río Miño.		
UDU Vilalba	2,6	E. Pedrasalvas.		
UDU Sarria	2.82	Rio Sarria.		
Resto UDUs	9,7	Varios.		
Total UDUs	28,87			
UDA Fabeiro	2,01	Tramo alto del rio Neira.		
UDA Presa Láncara	1,36	Tramo alto del río Neira.		
UDA Riolongo	3,55	Tramo alto del rio Sarria.		
UDA Torra Cha do		Tramo alto dol Miño, rio Roquoño, rio Loa y rio Támoga,		

Sistema de explotación Miño Alto



1<sup>st</sup> July 2013

#### 3.- Challenges for the Next Plannig Cycle



## 3.- Challenges for the next...

1<sup>st</sup> July 2013



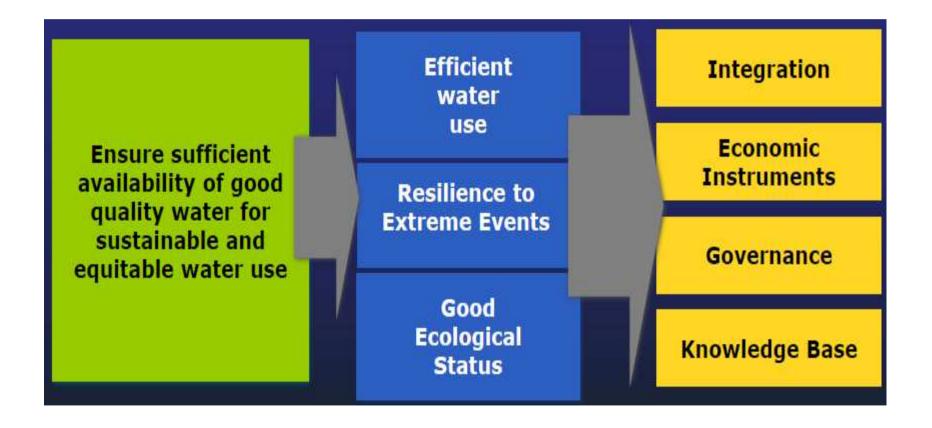
Proceso de planificación hidrológica



## 3.- Challenges for the next...

1<sup>st</sup> July 2013

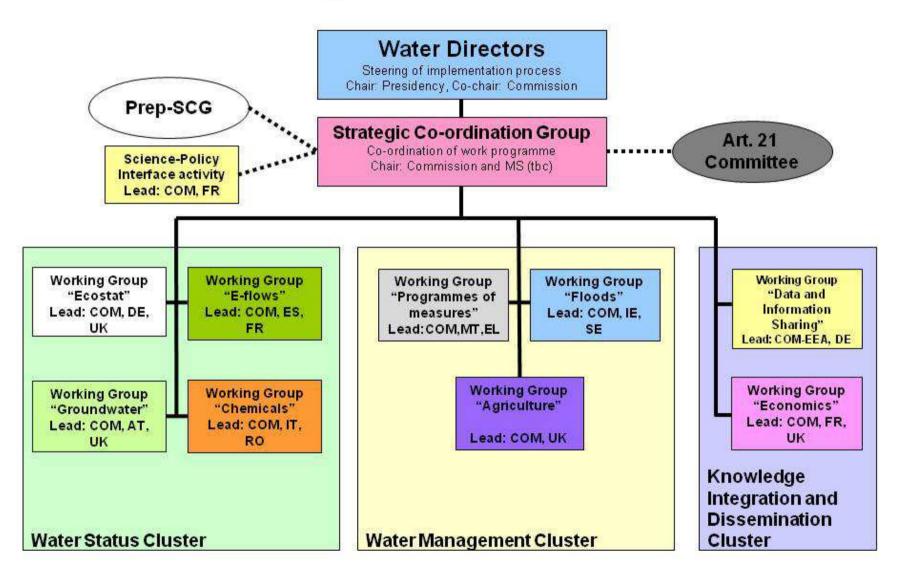
Blueprint COM(2012) 673 [Assessment RBMPs COM(2012) 670]





3.- Challenges for the next...

#### CIS Organisation 2013-2015





- Implementation of PoMs requires funding:
  - Monitoring of Water Status (health and environment)
  - Coping with source pollution (major share)
  - Coping with diffuse pollution (agriculture)
  - Balancing water allocation for economic uses and ecosystem protection (dealing with green growth)
  - Efficient use of resouces (economic and physical)
    - Which is the "best" combination of Measures?: Assessment on effectiveness of measures
    - Cost-recovery: according to Law, but not enough
    - Water accounting: Real physico-economic balances
    - The role of water reuse and water desalination



# Innovation:

- Promotion of innovative practices in the next planning cycle (at both management and PoM levels)
- Widespread use of EO systems and innovative monitoring of water status at lower costs
- Methods for assessment of costs and prices of uses
- How to understand the concept of PES at larger-than-local scales
- Adaptation to the new "green concepts" without losers
- Better use of RD outputs
- (...)



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#### THANK YOU VERY MUCH!