



**MINISTERIO DE AGRICULTURA,
ALIMENTACIÓN Y MEDIO AMBIENTE**

DIRECCIÓN GENERAL DEL AGUA

SUBDIRECCIÓN GENERAL DE PLANIFICACION
Y USO SOSTENIBLE DEL AGUA

**Collaborative production and management of water information
How to make polycentric information available to managers,
agencies and the public
SPANISH EXPERIENCE**

**INTERNATIONAL CONFERENCE ON DATA, INFORMATION AND KNOWLEDGE FOR WATER
GOVERNANCE IN NETWORKED SOCIETIES**

9-11 June 2014, University of Seville (Spain)

Javier Ruza Rodríguez





Need for collaboration Europe

- **European Union. EU Commission. DG Environment. Compliance reporting**
 - ◆ Questionnaires
- **European Environmental Agency (EEA). Mission and evolution**
 - ◆ Eurowaternet 1998
 - ◆ Reportnert 2000
- **Joint efforts. EU Commission - EEA - Others**
 - ◆ SEIS (WISE) 2003
 - ◆ SIIF 2012
 - ◆ INSPIRE 2007

Need for collaboration Spain

- ◆ Compliance reporting
- ◆ Waste water discharges information
- ◆ Water rights information
- ◆ Water quality data
 - ◆ The case of biological quality elements data
- ◆ Programmes of measures (DB PoM)
- ◆ NSDI Spatial data infrastructure (CODIIGE)
- ◆ Non born open collaborative production

Conclusions



The need for collaboration Europe

The European Union (EU) today



28 Member states

www.european-council.europa.eu
www.consilium.europa.eu



- Belgium
- Bulgaria
- Czech Republic
- Denmark
- Germany
- Estonia
- Ireland
- Greece
- Spain
- France
- Croatia
- Italy
- Cyprus
- Latvia

- Lithuania
- Luxembourg
- Hungary
- Malta
- Netherlands
- Austria
- Poland
- Portugal
- Romania
- Slovenia
- Slovakia
- Finland
- Sweden
- United Kingdom

NON-CONTINENTAL AND OVERSEAS TERRITORIES OF THE MEMBER STATES

The protocol order is the alphabetical order of the names of the Member States in their national language.

European Commission Compliance reporting evolution



Reports in writing paper

- Exchange of information Decision (77/795/EEC) [19 parameters, 15 stations (ES)]
- 91/692/EEC: Council Directive standardizing and rationalizing reports on the implementation of certain Directives relating to the environment
 - ◆ 92/446/EEC: Commission Decision concerning questionnaires relating to Directives in the water sector
 - ◆ 93/481/EEC: Commission Decision concerning formats for the presentation of national programmes as foreseen by Article 17 of Council Directive 91/271/EEC



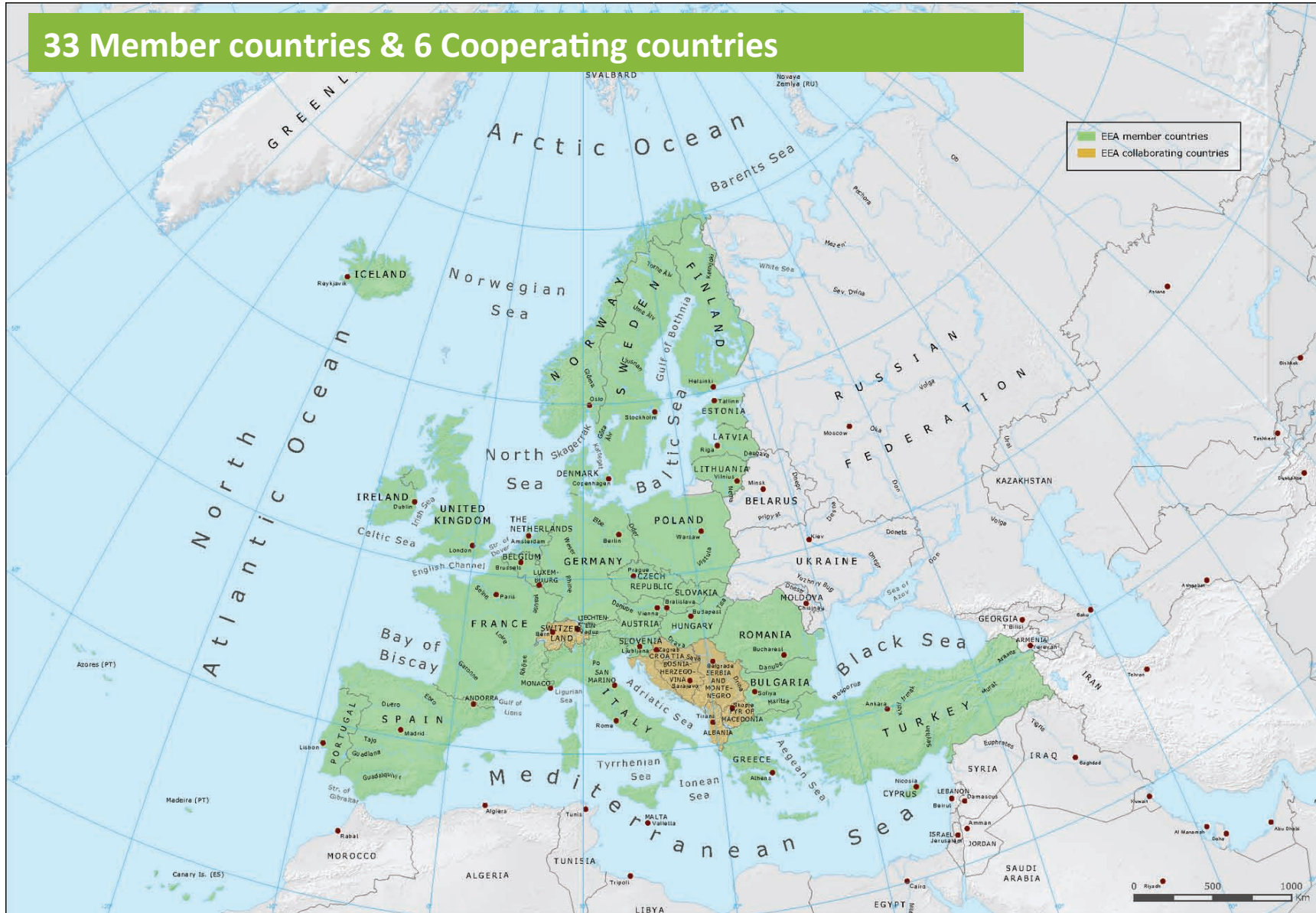
Four-year Spanish report (Sept. 1999)

The European Environment Agency (EEA) Members and collaborators

European Environment Agency



33 Member countries & 6 Cooperating countries



Source EEA

The European Environment Agency (EEA) Mission and evolution

European Environment Agency



- **1990** - Creation of European Environment Agency (EEA) and the European Environment Information and Observation Network (EIONET)
- **1994** - Work started

MISSION:

To help the Community and member countries make informed decisions about improving the environment, integrating environmental considerations into economic policies and moving towards sustainability

- **1998** – Eurowaternet
 - Annual reports
 - First years (Excel sheets – email)
- **2000** – Reportnet launched
 - Several IT tools
 - Operational 2002



Source EEA

Eionet- REPORTNET



EIONET Reporting Obligations Database (ROD)

Legislative instrument details: Nitrates Directive (consolidated)

Classification: 15 10 20 20 Water protection and management

Legal name: Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources as amended by Regulations 1982/2003/EC and 1137/2008/EC

Short name: Nitrates Directive (consolidated)

CELEX reference: 31991L0676 (32003R01982, 32008R1137)

Identification number: 91/676/EEC

Issued by: Council of the European Union

URL to issuer: http://ec.europa.eu/environment/water/water_nitrates.htm

Parent legislative instrument: None

Valid from: 31/12/1991

Abstract: This Directive has the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further such pollution. Waters affected by pollution and waters which could be affected by pollution if action pursuant Article 5 is not taken shall be identified by the Member States in accordance with the criteria set out in Annex I. With the aim of providing for all waters a general level of protection against pollution, Member States shall establish a code or codes of good agricultural practice.

The Directive has been amended by:
- Regulation 1982/2003/EC of the European Parliament and of the Council of 29 September 2003 adapting to Council Decision 1999/468/EC (CELEX N°3199900468) the provisions relating to committees which assist the Commission in the exercise of its implementing powers laid down in instruments subject to the procedure referred to in Article 251 of the EC Treaty;
- Regulation 1137/2008/EC of the European Parliament and of the Council of 22 October 2008 adopting a number of instruments subject to the procedure laid down in Article 251 of the Treaty to Council Decision 1999/468/EC, with regard to the regulatory procedure with scrutiny — Adaptation to the regulatory procedure with scrutiny — Part One.

Reporting framework

Reporting obligations: Annex V Nitrates Report, Article 10, paragraph 1

DC Env review of reporting: Water theme

Geographic scope: European Union

EIONET Central Data Repository

European Union (EU) obligations

Envelopes and subcollections

- Annual report (questionnaire) on air quality (2004/616/EC) 23 Apr 2014
- Annual reporting on ambient air quality limit values plans or programmes (2004/224/EC) 30 Dec 2013
- Bathing Water Directive 2006/7/EC: Report 31 Mar 2014
- Bathing Water Directive Report 05 Apr 2013
- Birds Directive: Report on Implementation Measures 07 Apr 2014
- CO2 emissions from light commercial vehicles 28 Mar 2014
- CO2 emissions from passenger cars 26 Mar 2014
- Derogation Reporting (Birds Directive and Habitats Directive) 16 Apr 2014
- Drinking Water Directive Report (2003/418/EC) 04 Jul 2013
- E-PRTR 30WVTP (Annex I footnote No.4) 27 May 2014
- E-PRTR data reporting (Art. 7) 22 May 2014
- E-PRTR practice and measures (Art.16) 27 May 2014
- EU Directive 2000/53/EC implementation reports 28 Jan 2013
- Emissions Trading Directive (2003/87/EC Art. 21) 27 May 2014
- Environmental Noise Directive 28 Jan 2013
- EU Data (2/10/13/EC) 29 Apr 2014
- Food Safety Hazard and Risk Maps 23 Apr 2014
- Food Safety Emergency Food Risk Assessment 19 May 2014
- Food Safety: List of Management and Competent Authorities 28 Jan 2014
- Greenhouse Gas Monitoring Mechanism Regulation (MMR) 14 Jan 2014
- Greenhouse gas emissions inventory (1990/2004/EC) 02 Jun 2014
- Habitats Directive: Report on Implementation Measures 27 May 2014
- INSPIRE Directive 19 May 2014
- Information on EU Biodiversity Action Plans 20 May 2014
- LCP Directive (2001/80/EC) Article 15.3 28 Jan 2013
- LCP Directive (2001/80/EC) Article 4.4 27 May 2013
- LCP Directive (2001/80/EC) Emission summaries 28 Jan 2013
- LCP Directive (2001/80/EC) Emission summaries 27 May 2013

ROD (Reporting Obligations Database)

CDR (Central data repository)

- Used exclusively by EEA till 2003
- Water framework directive 2000/60/EC (WFD) reporting is the driver to extend the use of reportnet (SEIS)

EIONET Central Data Repository

Feedback: Automatic QA result for file Rivers_HazSubstRivers_Agg.xml: WSE-SOE: Rivers-Hazardous Substances - Agg 2011

Subject: Automatic QA result for the Rivers_HazSubstRivers_Agg.xml WSE-SOE: Rivers-Hazardous Substances - Agg 2011

Posted automatically on: 20 Dec 2011 11:40

Task: Automatic quality assessment

Returned file: Rivers_HazSubstRivers_Agg.xml

The following 7 quality tests were made against this table - WSE-SOE 2011: Rivers - Hazardous Substances - Aggregated Data

- 1. Mandatory values
- 2. Country codes
- 3. Duplicates 1

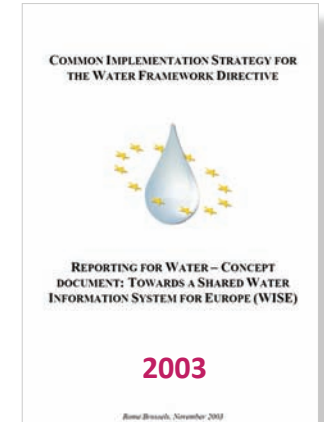
Automatic QA

Shared Environmental Information System SEIS principles

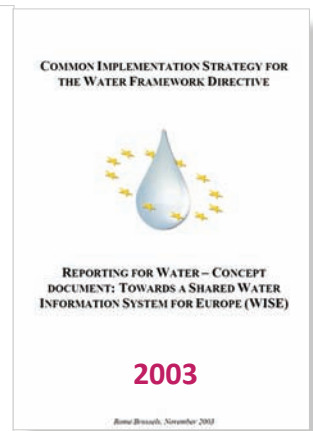
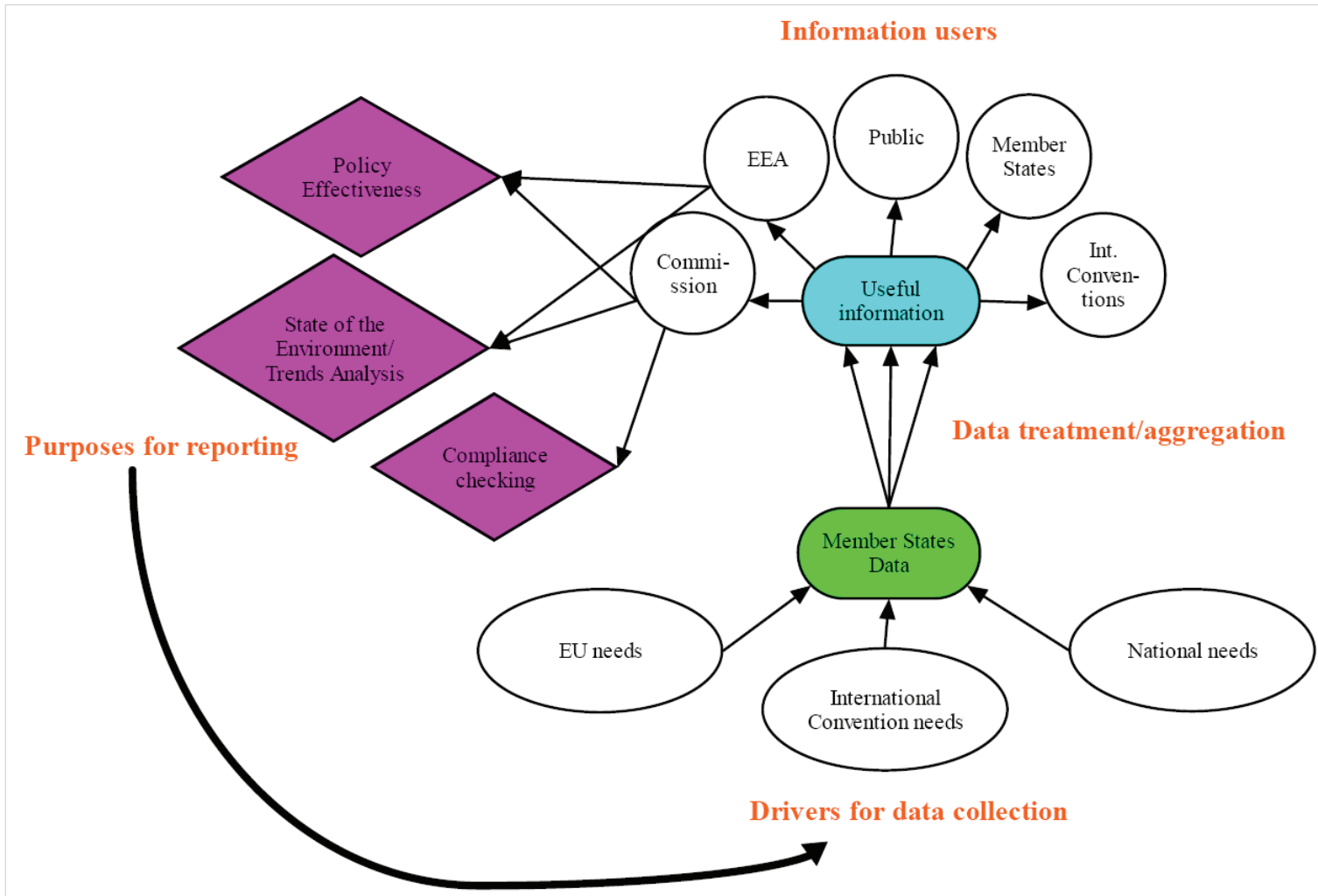


Information should be:

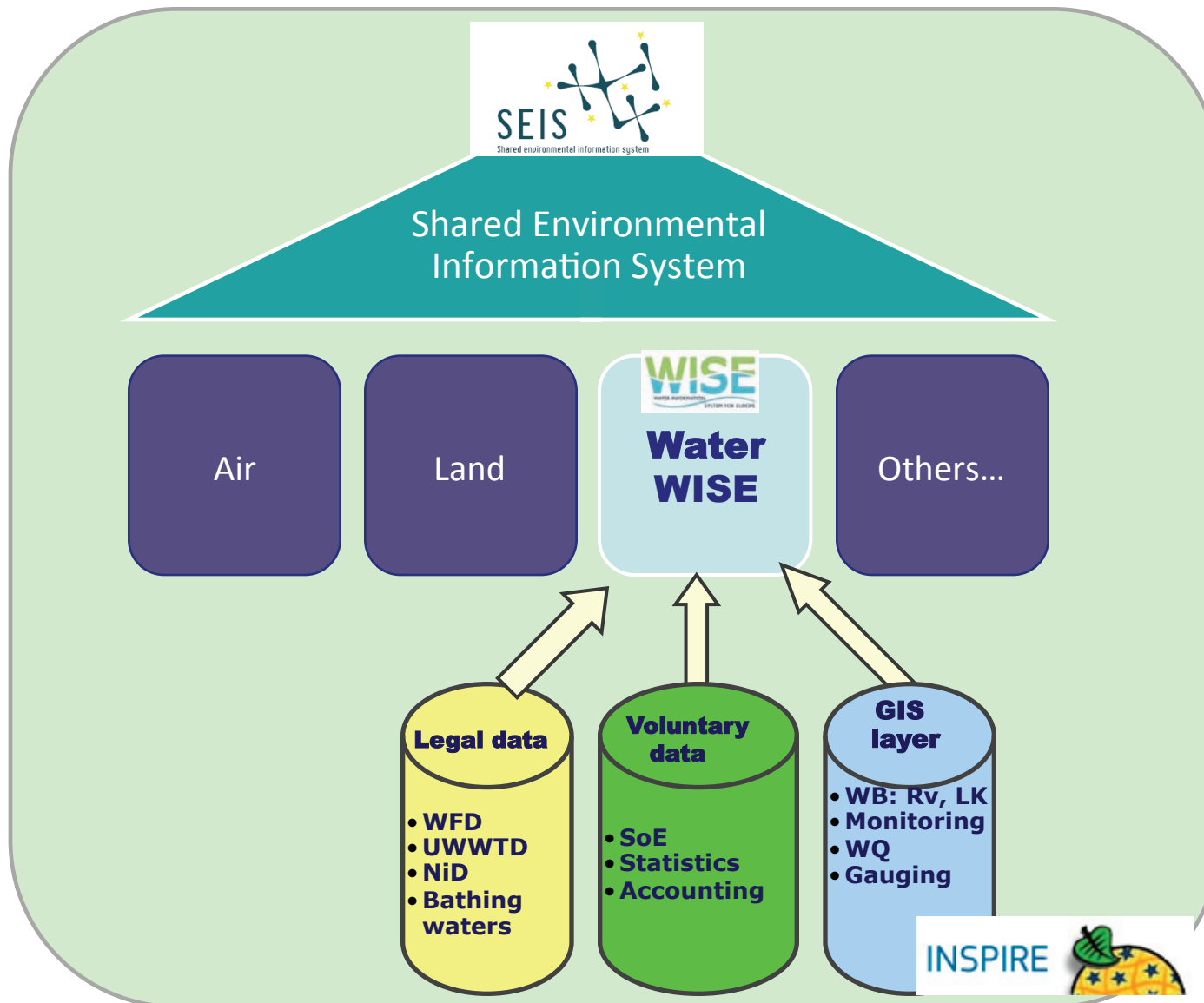
- Managed as **close** as possible to its **source**
- **Collected once**, and shared with others for many purposes
- Readily available to **public authorities** to easily fulfil legal **reporting obligations**
- Readily accessible to **end-users**, primarily public authorities at all levels from local to European, to enable them to **assess** in a timely fashion the **state of the environment** and the **effectiveness** of their policies, and to design new policy
- Accessible to enable end-users, both public authorities and citizens, to make **comparisons at the appropriate geographical scale** (e.g. countries, cities, catchments areas) and to participate meaningfully in the development and implementation of environmental policy
- **Fully available to the general public**, after due consideration of the appropriate level of aggregation and subject to appropriate confidentiality constraints, and at national level in the relevant national languages
- Supported through common, **free open standards** (for sharing and processing)



Source: COM (2008) 46 final communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - Towards a Shared Environmental Information System (SEIS)



Water Information System for Europe (WISE)



Inspire directive (2007/2/CE). Principles



- ◆ Data should be **collected only once** and kept where it can be **maintained** most effectively
- ◆ It should be possible to **combine seamless spatial information** from different sources across Europe and share it with many users and applications
- ◆ It should be possible for information collected at one level/ scale to be **shared with all levels/scales** (detailed & general thorough investigations & strategic purposes)
- ◆ Geographic information needed for good governance at all levels should be readily and **transparently** available.
- ◆ Easy to **find what** geographic information is available, **how** it can be used to meet a particular need, and under **which conditions** it can be acquired and used

25.4.2007 [ES] Diario Oficial de la Unión Europea L 108/1

I

(Actos adoptados en aplicación de los Tratados CE/Euratom cuya publicación es obligatoria)

DIRECTIVAS

DIRECTIVA 2007/2/CE DEL PARLAMENTO EUROPEO Y DEL CONSEJO
de 14 de marzo de 2007
por la que se establece una infraestructura de información espacial en la Comunidad Europea (Inspire)

EL PARLAMENTO EUROPEO Y EL CONSEJO DE LA UNIÓN EUROPEA,

Visto el Tratado constitutivo de la Comunidad Europea y, en particular, su artículo 175, apartado 1,

Vista la propuesta de la Comisión,

Visto el dictamen del Comité Económico y Social Europeo (1),

Previa consulta al Comité de las Regiones,

De conformidad con el procedimiento establecido en el artículo 251 del Tratado, a la vista del texto conjunto aprobado el 17 de enero de 2007 por el Comité de conciliación (2),

Considerando lo siguiente:

(1) La política de la Comunidad en el ámbito del medio ambiente debe tener como objetivo alcanzar un nivel de protección elevado, teniendo presente la diversidad de situaciones existentes en las distintas regiones de la Comunidad. Además, la información, incluida la espacial, es necesaria para la definición y realización de dicha política y de otras políticas comunitarias en las que deben integrarse las exigencias de protección del medio ambiente, de conformidad con el artículo 6 del Tratado. Con el fin de procurar esta integración, es necesario establecer un cierto grado de coordinación entre los usuarios y proveedores de la información, de manera que puedan combinarse información y conocimientos procedentes de diferentes sectores.

(2) El sexto programa de acción comunitario en materia de medio ambiente, adoptado por la Decisión nº 1600/2002/CE del Parlamento Europeo y del Consejo (3), precisa que se tendrá bien presente la necesidad de asegurar que la política de medio ambiente de la Comunidad se ponga en práctica de un modo integrado, teniendo en cuenta las diferencias regionales y locales. Existe una serie de problemas en cuanto a la disponibilidad, calidad, organización, accesibilidad y puesta en común de la información espacial necesaria para lograr los objetivos establecidos en dicho Programa.

(3) Los problemas relativos a la disponibilidad, calidad, organización, accesibilidad y puesta en común de información espacial son comunes a un gran número de políticas y de temáticas, y se hacen sentir en los diferentes niveles de la autoridad pública. La resolución de estos problemas requiere medidas que atiendan al intercambio, puesta en común, acceso y utilización de datos espaciales interoperables y de servicios de datos espaciales, medidas que concierne a los diferentes niveles de la autoridad pública y a los diferentes sectores. Por consiguiente, debe establecerse una infraestructura de información espacial en la Comunidad.

(4) La infraestructura de información espacial en la Comunidad Europea (Inspire) debe servir de ayuda para la adopción de medidas relativas a políticas y actuaciones que puedan incidir directa o indirectamente en el medio ambiente.

(5) Inspire debe basarse en las infraestructuras de información espacial creadas por los Estados miembros, haciéndolas compatibles con unas normas de ejecución comunes y complementadas por medidas a nivel comunitario. Estas medidas deben garantizar que las infraestructuras de información espacial creadas por los Estados miembros sean compatibles y utilizables en un contexto comunitario y transfronterizo.

(1) DO C 221 de 8.9.2005, p. 33.
(2) Dictamen del Parlamento Europeo de 7 de junio de 2005 (DO C 124 E de 25.5.2006, p. 116), Resolución del Consejo de 23 de enero de 2006 (DO C 126 E de 30.5.2006, p. 146) y Decisión del Parlamento Europeo de 13 de junio de 2006 (no publicada aún en el Diario Oficial), Decisión del Consejo de 29 de enero de 2007 y Resolución legislativa del Parlamento Europeo de 13 de febrero de 2007 (no publicada aún en el Diario Oficial).
(3) DO L 242 de 10.9.2002, p. 1.



Inspire directive (2007/2/CE)

Water related themes



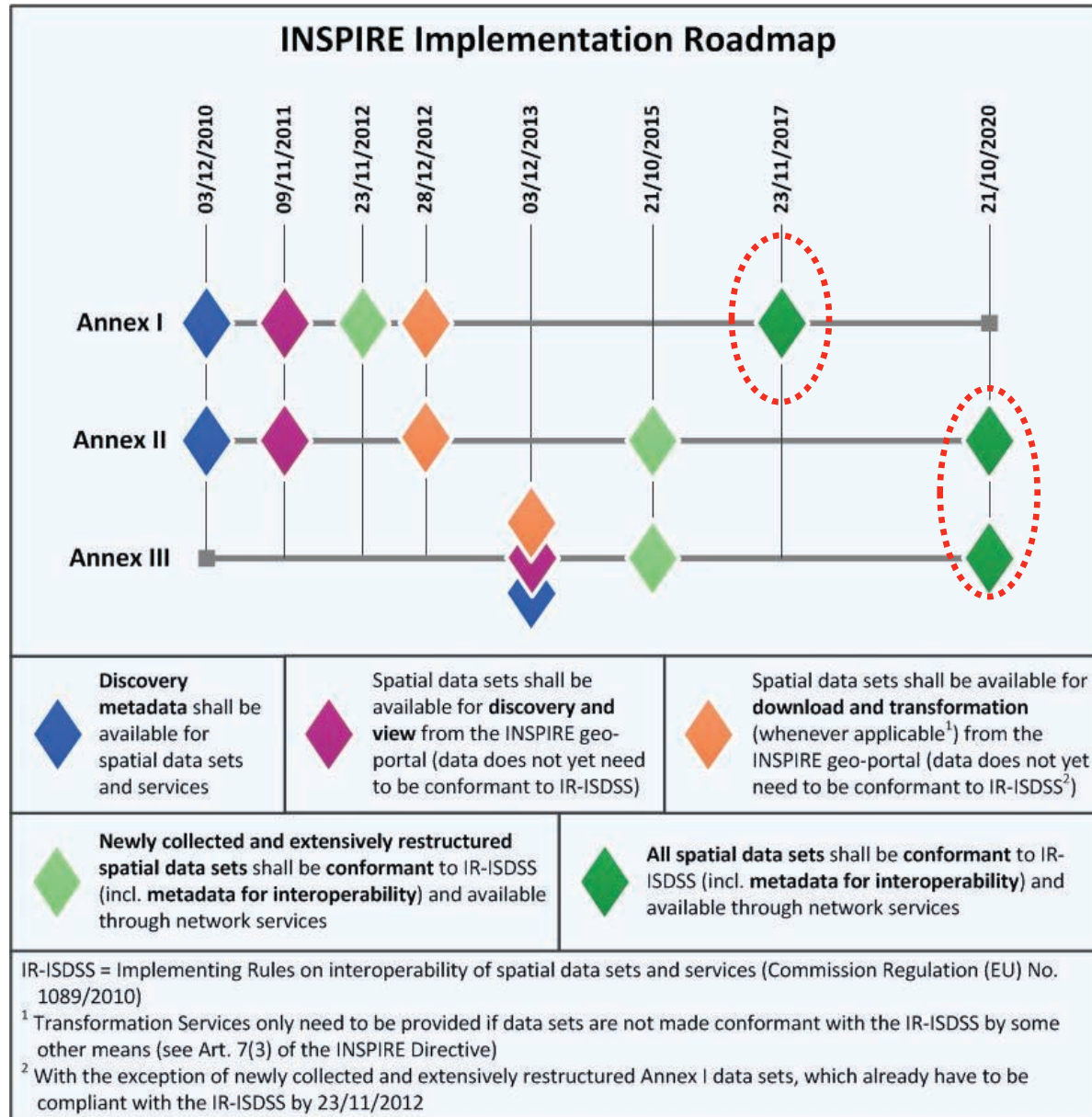
Annex I	
1	Coordinate reference systems
2	Geographical grid systems
3	Geographical names
4	Administrative units
5	Addresses
6	Cadastral parcels
7	Transport networks
<input checked="" type="checkbox"/>	8 Hydrography
9	Protected sites

Annex II	
1	Elevation
2	Land cover
3	Orthoimagery
<input checked="" type="checkbox"/>	4 Geology

- **34 data themes**
- **8 directly related to water**

Annex III	
1	Statistical units
2	Buildings
3	Soil
4	Land use
5	Human health and safety
<input checked="" type="checkbox"/>	6 Utility and governmental services
<input checked="" type="checkbox"/>	7 Environmental monitoring Facilities
8	Production and industrial facilities
9	Agricultural and aquaculture facilities
10	Population distribution and demography
<input checked="" type="checkbox"/>	11 Area management / restriction / regulation zones & reporting units
<input checked="" type="checkbox"/>	12 Natural risk zones
13	Atmospheric conditions
14	Meteorological geographical features
<input checked="" type="checkbox"/>	15 Oceanographic geographical features
<input checked="" type="checkbox"/>	16 Sea regions
17	Bio-geographical regions
18	Habitats and biotopes
19	Species distribution
20	Energy Resources
21	Mineral Resources

Inspire deadlines

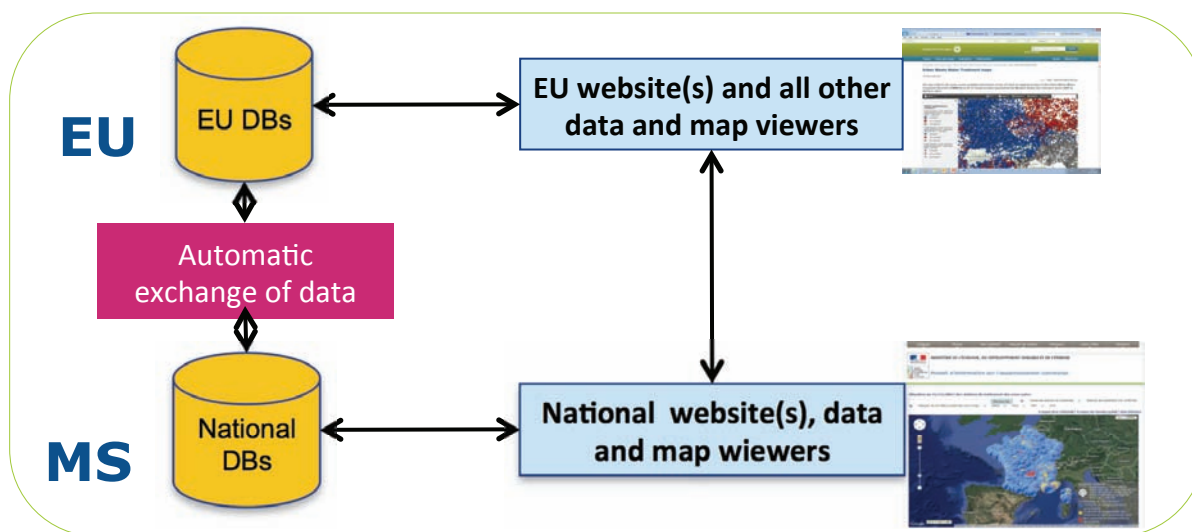


Structured Implementation and Information Framework SIIF Principles



- **Focus on compliance** (implementation/compliance)
- **From reporting to information management**
- **Decentralise** (from centralised to distributed information systems)
- **Ensure transparency** (publically available and accessible, Directive 2003/4)
- **Keep up to date** (free to update national systems when data become available)

- **Look forward** (from assessing non-compliance of the past to future actions on getting into compliance)
- **Reduce burden** (reducing reporting for areas in compliance, focusing on non-compliance)
- **Self-assess** (EU-MS carry out a compliance assessment themselves)
- **Develop step-by-step** (development of a modular approach)



Implementation Communication (COM(2012) 95 of 7/3/12)

Structured Implementation and Information Framework (SIIF)

"Developing a pilot for the Urban Wastewater Treatment Directive"

[Status: 12/06/2012]

1. Introduction

The Implementation Communication of 7 March 2012 describes a set of objectives around two identified key themes that currently hamper compliant implementation being (i) knowledge on implementation and (ii) responsiveness at national, regional and local levels. The Communication introduced a number of new ideas on how to improve both facets of implementation.

The need for collaboration
Spain

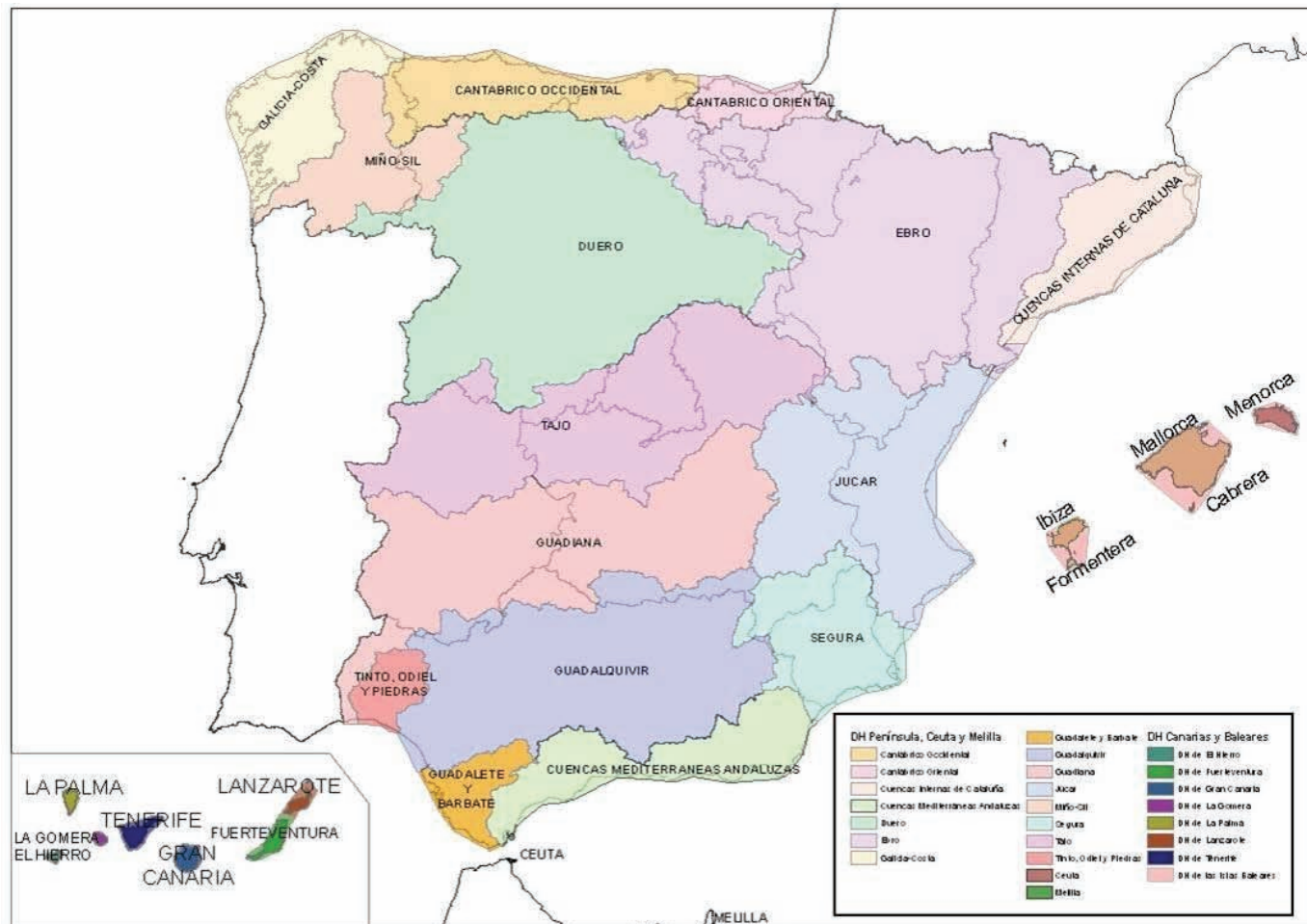
Water Administration in Spain

River Basin Districts (RBD)



25 RBD in Spain

- Complex system with different competent authorities represented within a RBD through cooperation bodies



Regional administration



17 + 2 Regional Governments

- The Regions or Autonomous Communities may assume competences
 - Environmental protection management
 - Agriculture, diffuse pollution
 - Sewage treatment (municipalities)
 - Habitats and species



Comunidades Autónomas

Compliance reporting in Spain

Compliance reporting first attempts



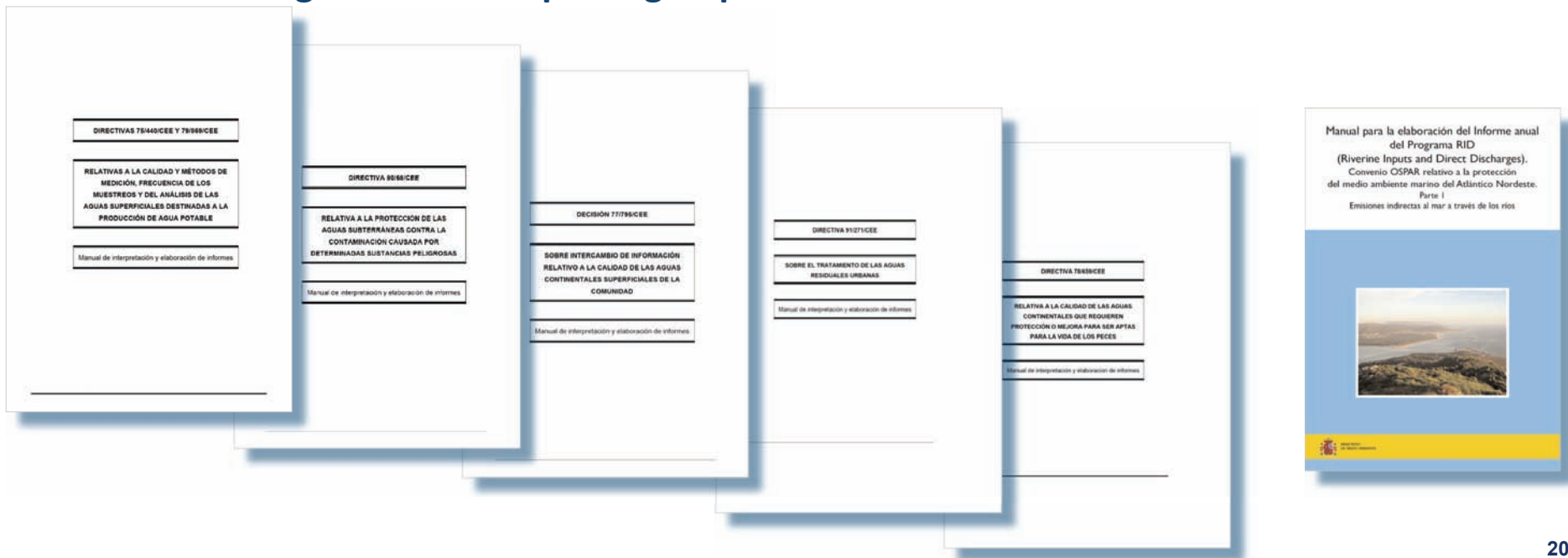
Early 1990s

▫ Situation

- ◆ The Internet and email not widely available (internet search engines inaccurate)
- ◆ RBD ignore EU reporting requirements and legislation (not easily accessible)

▫ Measures

- ◆ Information and dissemination of requirements (working groups)
- ◆ Guidance on reporting on directives on water sector
- ◆ Other guidance on reporting requirements

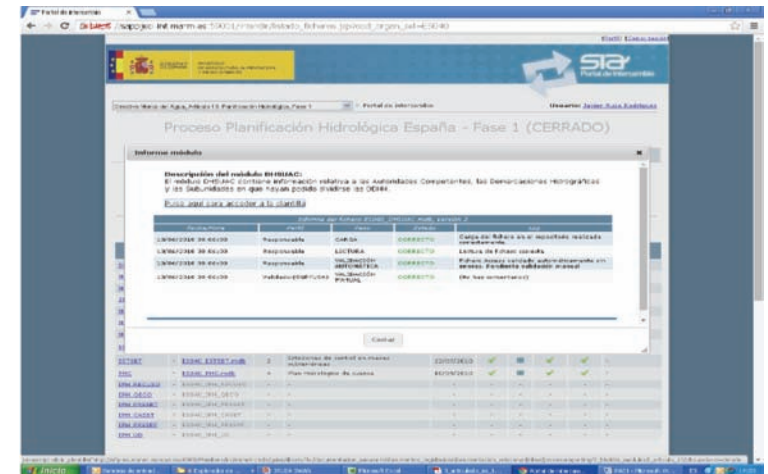
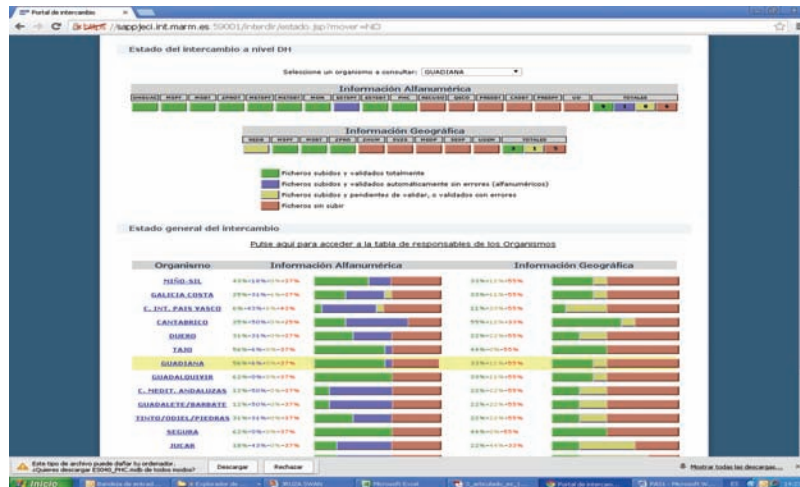
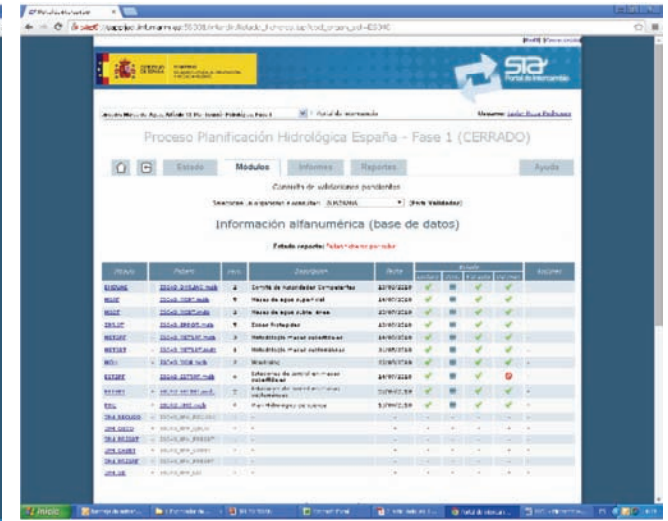
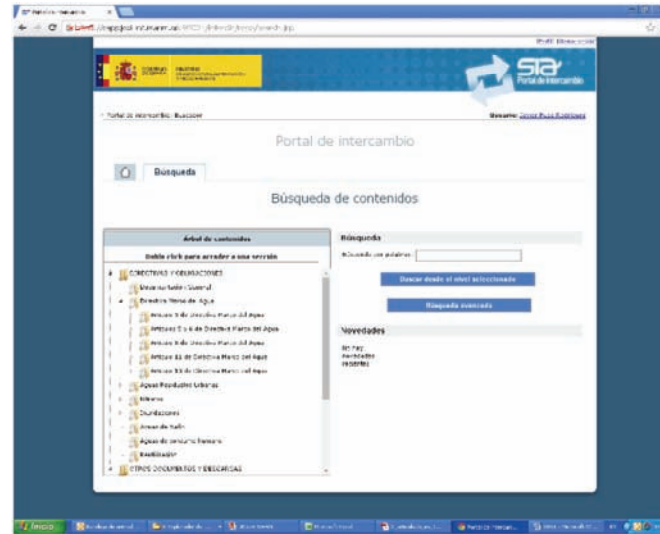


Spain- SIA Exchange of information portal



Similar to Reportnet


- ◆ Obligations database
- ◆ Data repository
- ◆ Responses tracking
- ◆ Automated QA



Waste water discharge information in Spain

The origin of collaboration in WWD



- **1985 Water law**
 - All waste water discharge must have a permit 
- **1986**
 - Almost no permits issued
 - Provisional permit for all discharges (one month to become definitive)
 - Only maximum annual volume was fixed in order to charge a tax (Ministerial Order 23/12/1986)
 - It failed due to lack of effective mechanisms
- **1995**
 - Problem with industrial discharge permits
 - Sectoral regularization plans (Royal decree 484/1995)
 - It also failed
- **1999**
 - The European Commission opened a infringement procedure
 - Fail to correctly issue permits to activities discharging hazardous substances (reduction programs for list II substances)
 - Difficult to collect information from permits as there was no database

Actors involved in WWD permitting



River basin organizations



Regions (Comunidades Autónomas)



Inland water direct discharges

1 C.H. Cantábrico	13 C.H. Júcar
2 C.I. País Vasco	14 C.H. Ebro
3 Galicia Costa	15 C.I. Cataluña
4 C.H. Miño Sil	16 Islas Baleares
5 C.H. Duero	17 El Hierro
6 C.H. Tajo	18 La Palma
7 C.H. Guadiana	19 La Gomera
8 Tinto, Odiel y Piedras	20 Tenerife
9 C.H. Guadalquivir	21 Gran Canaria
10 Guadalete-Barbate	22 Fuerteventura
11 C.Mediterranea And.	23 Lanzarote
12 C.H. Segura	

Coastal discharges

24 País Vasco	32 Islas Baleares
25 Cantabria	33 El Hierro
26 Asturias	34 La Palma
27 Galicia	35 La Gomera
28 Andalucía	36 Tenerife
29 Murcia	37 Gran Canaria
30 Valencia	38 Fuerteventura
31 Cataluña	39 Lanzarote

First steps



Objective

- Create a common database to facilitate [water managers](#) access to WWD information

Needs

To take scientifically based decisions, BD should contain sound information:

- Provide **technical tools** to improve the quality of waste water discharge permits

Actions taken

Capacity building

- Manual for waste water discharge permitting (developed 1999-2007)
 - Standardization
 - Clarify workflow
 - Application forms for waste water discharges
 - Unify permit formats and criteria
 - Enable automated treatment of data
 - Decision support systems (DSS)



Seminars and training courses
(promotion of interpersonal relationships)



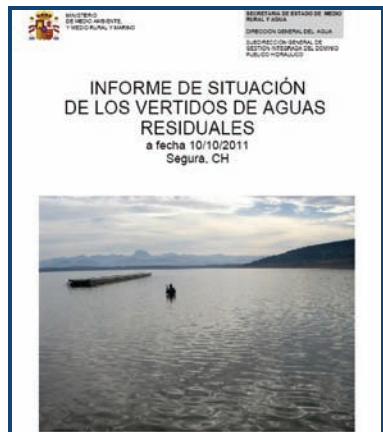
Legislative changes

- Royal Decree 606/2003
 - Emission limits only for characteristic pollutants
 - National inventory of waste water discharges (CNV)

SOLICITUD	ACTIVIDAD GENERADORA		PUNTO VERTIDO		CARACTERIZACIÓN DEL VERTIDO									INST.	PROYE. OBRAS	AFEC. TERC.	SUST. PEL. COLEC.	PLAN SAN.	EST. HIDROG.	CUV
	Form. 1.1	Form. 1.2	Form. 2	Form. 3.1	Form. 3.2	Form. 3.3	Form. 3.4	Form. 3.5	Form. 4	Form. 5	Form. 6	Form. 7.1	Form. 7.2								Form. 8	Form. 9
Urbanos < 250 h.a.	X	X	X		X		X		X	X	X	X	X	X	X	X	X	X	X	
Urbanos > 250 h.a.	X		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	
Ind. Sólido Pel.	X		X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	
Ind. Piroclásticas	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	
Ind. Refrigeración	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	
Ind. Achique minas	X		X	X				X		X	X	X	X	X	X	X	X	X	X	
Reso ind.	X		X	X		X		X		X	X	X	X	X	X	X	X	X	X	

¿Why should we have a National Inventory on Waste Water Discharges?

- To meet information requirements of supranational institutions, streamlining (removing) reporting requests to River basin authorities and Regional authorities
- To facilitate decision-making process at strategic and political level (also local level)
- To serve as basis for the development of guidance documents on emission limits
- To share information between administrations involved in water permitting
- To enable public access to environmental information
 - ✓ Specific: applicants for permits can consult conditions of similar discharges
 - ✓ Specific: how affected is your waterbody
 - ✓ General: summary reports



National inventory on waste water discharges (CNV)



First results – Year 2.005

- **20 years after Water Law: no clear results achieved**
 - Waste water discharge permit (WWDP) conditions inadequate
 - ✓ 50% (9.860) of WWDP still provisional (without emission limit values)
 - ✓ 50% (9.220) of WWDP definitive (with emission limits, but not always adequate for water quality objective compliance)
 - ✓ 9.287 applications in process



- **Need for additional measures and resources**

National inventory on waste water discharges (CNV)



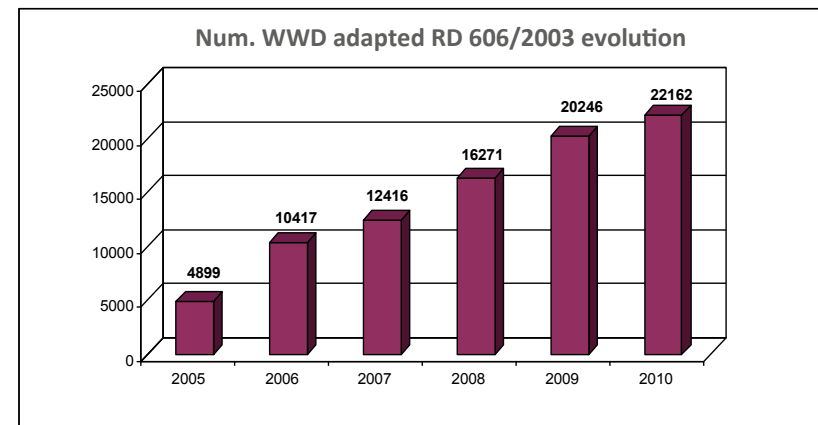
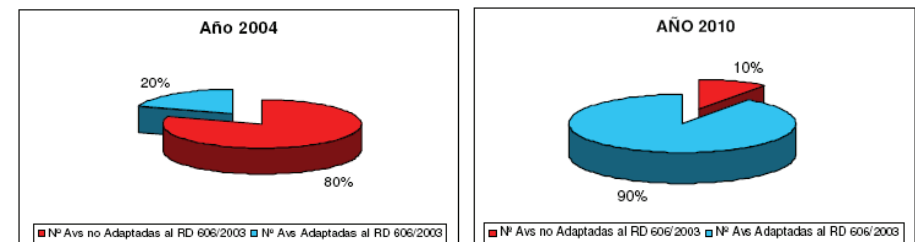
WWD Action Plan (Plan de Choque de vertidos)

- o Budget allocation (23,8 million €)
 - ◆ Human, technical and material resources for RBD
 - ◆ Selection of most important discharges to prioritise WWDP revision (based on basic statistics available – economic study for RD 606/2003)

Results

Three stages with different priorities depending on volume and hazard:

- **Priority I (2005):** 800 WWD permits represent 90% of discharge volume and of pollution. Urban discharges of more than 10.000 p.e, industrial discharges with hazardous substances, cooling water discharges and fish farm discharges.
- **Priority II (2007):** urban discharges between 2.000 and 10.000 p.e. and biodegradable waste water discharges from agri-food industry of more than 4.000 p.e.
- **Priority III (2009):** urban discharges of less than 2.000 p.e.



National inventory on waste water discharges (CNV)

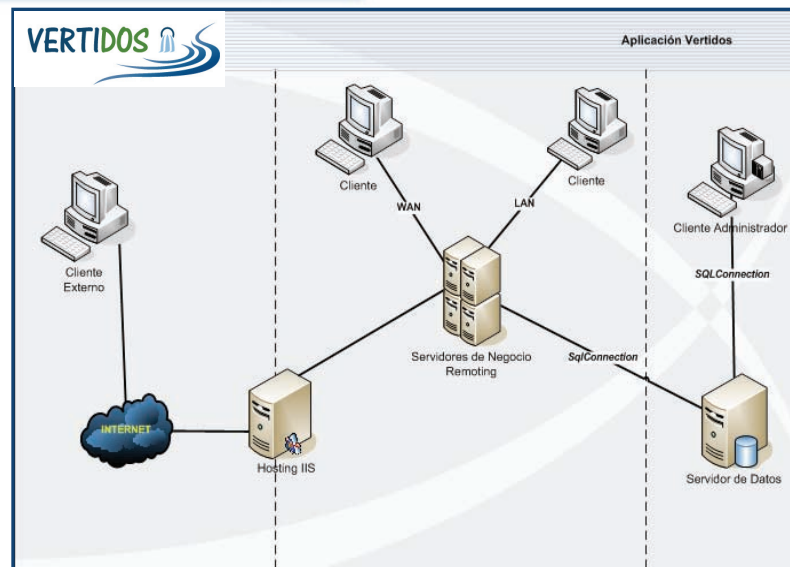


WWD Action Plan (Plan de Choque de vertidos)

Some measures

- o Human resources
 - ◆ Temporal external aid
 - ◆ New specialized public employees
 - ◆ Waste water discharge management 30 master degree graduates + 70 bachelor degree
 - ◆ Water quality 62 master degree

- o New ICT tools
 - ◆ To help issuing permits
 - ◆ To create the CNV-INEA



Esquema del Vertido

Flujos	Agua_Bruta	Edar	Punto_Control	Punto_Vertido
1				
2				
3	1	EDAR Estación de Servicio CEPESA	1	1
4				

Datos del Punto de Control Caracterización General

Volumen anual (m3)	1030	Caudal Máximo (m3/h)	0	Caudal Medio (m3)/día	2,82
Volumen Agua Residual (m3)		Volumen reutilizado (m3)		% Reutilización	

Parámetros	Concentración máxima	Concentración media
Hidrocarburos método IR	<=5mg/l	
Aceites y grasas	<=10mg/l	
pH	<=5,5 - <=9,5 U.d. pH	
DQO	<=125mg O2/l	
DBO5	<=35mg O2/l	

Cancelar Aceptar

Steps in permitting process

Tramitación

- 168/2008 - 263.120/08 - NÚCLEO ZOOLOGICO DE PERROS DE CAZA - Resolución 14/05/2010
- 17/06/2008 - Presentación de solicitud y declaración de vertido
 - Remitente: JESÚS MARTÍN MARTÍN
 - 263120_08_rem.DGV_170608.pdf
 - 263120_08_memoria_170608.pdf
- 17/06/2008 - Apertura expediente de vertido
- 24/07/2008 - Notificación de recepción de la solicitud
 - Destinatario: JESÚS MARTÍN MARTÍN
 - Fecha del Acuse de Recibo: 30/07/2008
 - Observaciones: Y petición de documentación
 - 263120_08_recibo.solicitud_150708.pdf
- 16/08/2008 - Remisión de documentación
 - Remitente: JESÚS MARTÍN MARTÍN
 - 263120_08_rem.doc_160808.pdf
 - 263120_08_rem.doc2_160808.pdf
- 01/09/2008 - Solicitud de informe a la C.A.
 - Destinatario: JUNTA DE CASTILLA Y LEÓN. DEL. TERRITORIAL. SERV. TERRITORIAL DE
 - Fecha del Acuse de Recibo: 05/09/2008
 - 263120_08_pet.inf.Org_280808.pdf
- 01/09/2008 - Solicitud de informe al Ayto.
 - Destinatario: AYUNTAMIENTO DE BURGOSHONDO
 - Fecha del Acuse de Recibo: 04/09/2008

Último uso Fase Último usuario Exportar HTML Texto

Fase del Expediente Resolución

Estado Administrativo del Movimiento Estado Administrativo del Expediente RESUELTO - Con resolución de autorización

Aceptar

Compliance: evaluation of damages

Valoración de Daños a la Calidad de las Aguas

Histórico de Valoraciones Datos de la Valoración de Daños

MF Resolución 28/07/2009 Puntos de Control 1 Fecha Valoración 24/09/2010

Tipo de Vertido: Vertidos de Aguas Residuales

Agua Residuales

Caudal (Q) Estimado

Población Abastecida (hab) Actividad Comercial (L/hab*d)

Caudal (m3/d) 1511

Parámetros	Valor obtenido (Vm)	Valor referencia (Vr)	Coefficient
Fluoruros	12	1,7	7,06
Cadmio	3	0,005	600
Sulfatos (SO4)	45	10	4,5
Magnesio	5	1	5
Uranio	15	2	7,5
Estaño	2	1	2

Criterio Cálculo Kpv Máximo de las medias

Intervalos Kpv Intervalo Intervalo1 1,39

Valor Coeficiente Peligrosidad (Kpv) 1,39

Coefficiente relacionado con la sensibilidad del medio receptor (Ks) Clasificación Medio Receptor Aguas subterráneas Valor (Ks) Infracciones Capítulo III 3

Coefficiente relacionado con la reversibilidad del impacto en el medio (Krv) Tiempo de Reversibilidad 1 - 5 años Valor Coeficiente Reversibilidad (Krv) 1,4

Duración Vertido (días) 7 Valoración de Daños para Vertidos de Aguas Residuales (E) $(0,12 * Q^{*1} * Kpv * Ks * Krv) / 7409,82$

Cancelar Aceptar



E-Government

GOBIERNO DE ESPAÑA MINISTERIO DE MEDIO AMBIENTE Y RIESGO NATURAL

Sede electrónica@

Procedimientos Zona Personal admin account | Salir

Autorización de vertidos a las aguas continentales o a cualquier otro elemento del dominio público hidráulico, de aguas y productos residuales susceptibles de contaminar.

Cumplimentación Solicitar

Los campos marcados con * son obligatorios

ACTIVIDAD GENERADORA ART. 248.2. a) RDPH

Formulario 1.2 - VERTIDOS NO URBANOS

A) Descripción de la actividad industrial

*CNAE (1) Actividades auxiliares a las artes escénicas

**RUBRO CNAE (1) 90.02

Grupo (1) I.P.P.C. (1) No afecta Si afecta

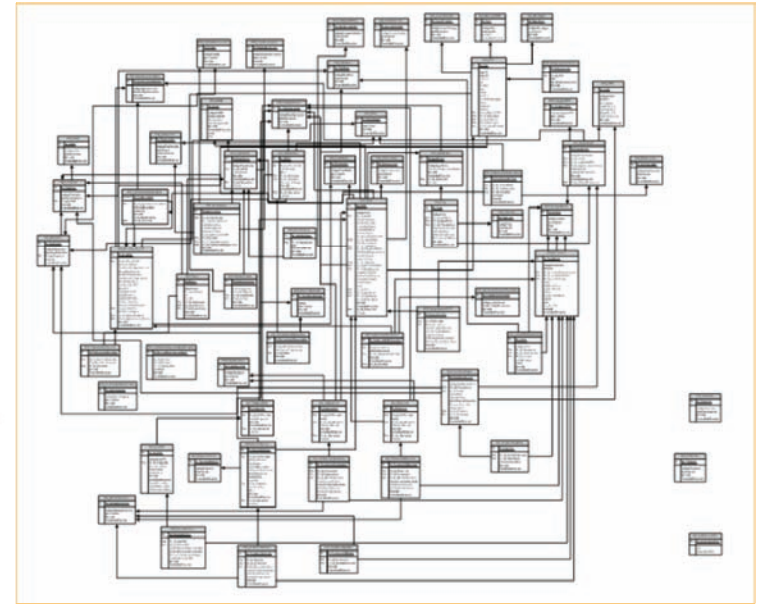
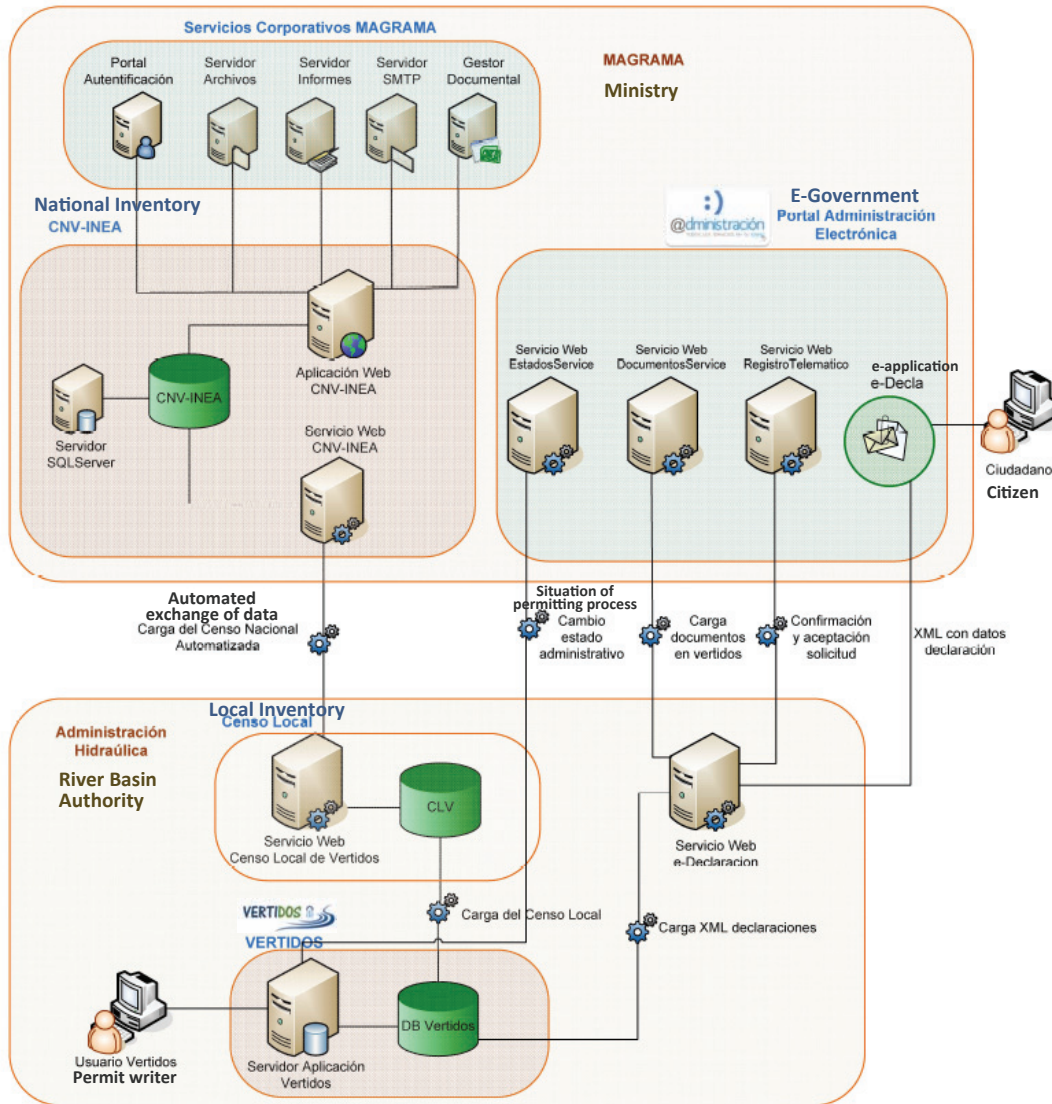
Categoría I.P.P.C. (1) 1.3

Capacidad de producción o rendimiento (1) 13 l/galita

Sede electrónica@

All application process can be done totally online

New ICT tools



Compliance reporting in Spain
Urban waste water discharge information
(Directive 91/271/CEE)



EdarNet

Urban waste water discharges

EdarNet



- A **web based tool** which give access to all national relevant information concerning Urban waste water discharges (directive 91/271/CEE)

Inventory of infrastructures:

- ◆ Sewage system - description and Key figures
- ◆ UWW Treatment Plant - description and Key figures
- ◆ Agglomerations of the UWWTP – Compliance, description and Key figures
- ◆ Discharge point - Description and Key figures
- ◆ Sensitive areas

Management of analytical data

Functionalities

- ◆ Compliance is automatically processed from raw analytical data
- ◆ Generation of maps
- ◆ Automated generation of detailed or synthesis reports (colour codes)
- ◆ Generation of EU report

Users

- ◆ 200 from Confederaciones hidrográficas and Comunidades Autónomas
- ◆ Similar to SIIF but without publication of data



EdarNet Urban waste water discharges

EdarNet



SGGDIPH - EdarNet v.1.7.3 - [EDAR - HELLIN(ES08020370005010E)]

Acceso rápido Ventana Ver

NOMBRE HELLIN

CÓDIGO ES08020370005010E Zona III. Sin diagnóstico validado para el último año. Zona Sensible *. Criterio A con parámetro relevante P

Aglomeración HELLIN (ES08020370005010A)

EDAR COLECTOR PUNTO DE VERTIDO FANGOS REUTILIZACIÓN

Tratamientos Estado Diag. de flujo Imágenes Observaciones Datos generales

Tipo de proceso AIREACIÓN PROLONGADA

TIPO DE TRATAMIENTO

Sin seleccionar Primario Secundario Mas riguroso

TIPO DE PRETRATAMIENTO

Desengrasado Desbaste Desarenado Tanque de recuperación

Otros

TIPO DE TRATAMIENTO PRIMARIO

Físico / Químico Decantación primaria

Otros

TIPO DE TRATAMIENTO SECUNDARIO

Fangos activados Lagunaje Lecho bacteriano

Otros

TIPO DE TRATAMIENTO MAS RIGUROSO

Eliminación N Eliminación P UV Cloración

Ozonización Filtros de arena Microfiltración

Otros

Localización Datos de Contacto Documentación

LOCALIZACIÓN

CCHH Segura DDHH SEGURA

CCAA Castilla-La Mancha Provincia Albacete

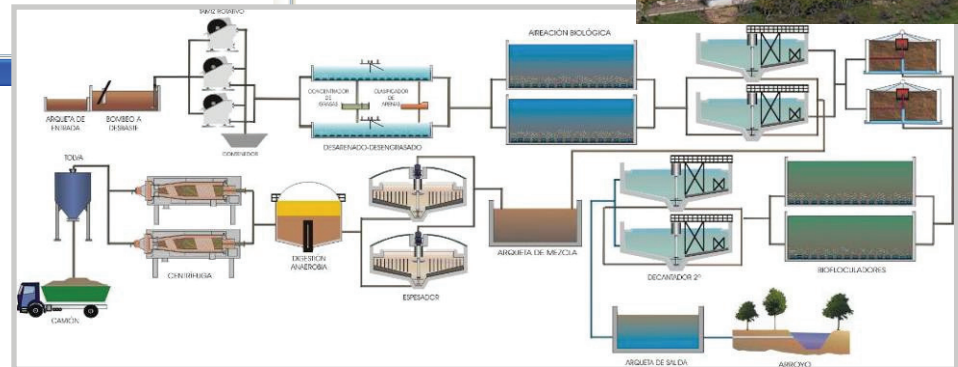
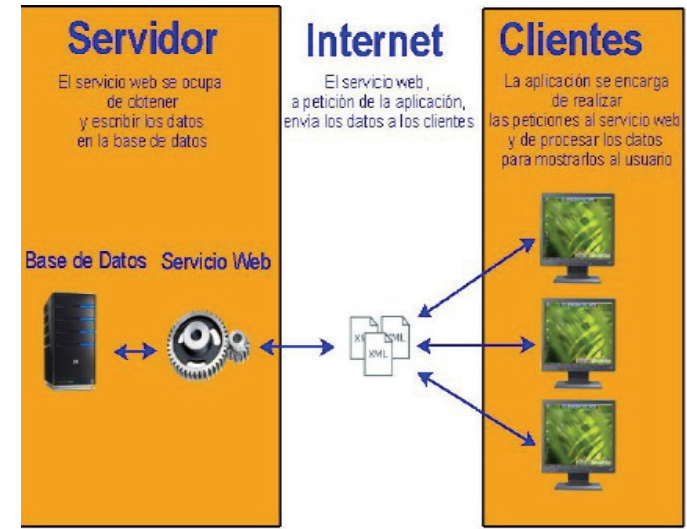
Municipio Hellin

UTM X 611.999,0 Y 4.260.488,0 HUSO 30 Datum ETRS89

Dirección

LISTADO DE VISITAS

Fecha	Usuario
29/04/2014	Angelina Gonzalez-Nicolás Chicote
02/04/2014	Angelina Gonzalez-Nicolás Chicote
31/03/2014	Angelina Gonzalez-Nicolás Chicote
13/03/2014	Angelina Gonzalez-Nicolás Chicote
19/02/2014	Angelina Gonzalez-Nicolás Chicote
06/02/2014	Angelina Gonzalez-Nicolás Chicote
30/01/2014	Angelina Gonzalez-Nicolás Chicote
17/01/2014	Angelina Gonzalez-Nicolás Chicote
26/12/2013	Angelina Gonzalez-Nicolás Chicote
09/12/2013	Angelina Gonzalez-Nicolás Chicote
20/11/2013	Angelina Gonzalez-Nicolás Chicote
11/11/2013	Angelina Gonzalez-Nicolás Chicote
23/10/2013	Angelina Gonzalez-Nicolás Chicote
03/10/2013	Angelina Gonzalez-Nicolás Chicote
20/09/2013	Angelina Gonzalez-Nicolás Chicote
05/09/2013	Angelina Gonzalez-Nicolás Chicote
22/08/2013	Angelina Gonzalez-Nicolás Chicote
08/08/2013	Angelina Gonzalez-Nicolás Chicote
23/07/2013	Angelina Gonzalez-Nicolás Chicote
11/07/2013	Angelina Gonzalez-Nicolás Chicote
27/06/2013	Angelina Gonzalez-Nicolás Chicote
13/06/2013	Angelina Gonzalez-Nicolás Chicote
21/05/2013	Angelina Gonzalez-Nicolás Chicote
07/05/2013	Angelina Gonzalez-Nicolás Chicote
30/04/2013	Angelina Gonzalez-Nicolás Chicote
09/04/2013	Angelina Gonzalez-Nicolás Chicote
25/03/2013	Angelina Gonzalez-Nicolás Chicote
08/03/2013	Angelina Gonzalez-Nicolás Chicote
27/02/2013	Angelina Gonzalez-Nicolás Chicote
11/02/2013	Angelina Gonzalez-Nicolás Chicote
22/01/2013	Angelina Gonzalez-Nicolás Chicote
09/01/2013	Angelina Gonzalez-Nicolás Chicote
30/12/2012	Angelina Gonzalez-Nicolás Chicote
19/12/2012	Angelina Gonzalez-Nicolás Chicote
04/12/2012	Angelina Gonzalez-Nicolás Chicote
23/11/2012	Angelina Gonzalez-Nicolás Chicote
12/11/2012	Angelina Gonzalez-Nicolás Chicote
31/10/2012	Angelina Gonzalez-Nicolás Chicote
10/10/2012	Angelina Gonzalez-Nicolás Chicote
20/09/2012	Angelina Gonzalez-Nicolás Chicote
07/09/2012	Angelina Gonzalez-Nicolás Chicote



Edarnet Analytical results

EdarNet



SGGDPI - EdarNet v.1.6.1 [Formulario ruz]

Código EDAR	Nombre	Comunidad	Zona
ES123661710021E0E	A ESTRADA	Galicia	Sin Zona
ES12366250201E0E	A QUARDA	Galicia	Sin Zona
ES14306110001E0E	ABANILLA	Murcia	Sin Zona
ES1430620001E0E	ABARAH	Murcia	Sin Zona
ES07426110001E0E	ABEJAR	Castilla y León	Sin Zona
ES05136610001E0E	ABENCIOAR	Castilla-La Mancha	Zona III
ES01846610001E0E	ABLA	Andalucía	Zona II
ES15316660001E0E	ABLITAS	Navarra	Sin Zona
ES09806610001E0E	ABRERA	Cataluña	Sin Zona
ES01846620001E0E	ABRUCENA	Andalucía	Sin Zona
ES11101600001E0E	ACEDO - HOYOS	Extremadura	Zona IV
ES11846620001E0E	ACEUCHAL	Extremadura	Zona IV
ES05306610001E0E	ADEJE - ARONA	Islas Canarias	Zona IV
ES01846630001E0E	ADRA	Andalucía	Sin Zona
ES05306170001E0E	ADUNA	País Vasco	Sin Zona
ES05306610001E0E	AEROPUERTO FUERTEVENTURA	Islas Canarias	Sin Zona
ES05306170003E0E	AEROPUERTO REINA SOFIA	Islas Canarias	Sin Zona
ES05306610001E0E	AGAETE	Islas Canarias	Sin Zona
ES10306620001E0E	AGOST	Comunidad Valenciana	Sin Zona
ES09206630001E0E	AGRAMUNT	Cataluña	Sin Zona
ES07426640001E0E	ÁGREDÁ	Castilla y León	Zona I
ES05416610001E0E	AGUADULCE	Andalucía	Zona II
ES09120620001E0E	AGUDO - EL QUINTO DE LOS GUARROS	Castilla-La Mancha	Zona III
ES08186620001E0E	AGUDO - LAS CAÑADILLAS	Castilla-La Mancha	Zona III
ES07306640001E0E	AGUILAR DE CAMPO	Castilla y León	Zona I
ES01146620001E0E	AGUILAR DE LA FRONTERA	Andalucía	Sin Zona
ES12366630001E0E	AGUILAR DEL RIO ALHAMA	La Rioja	Sin Zona
ES14306630001E0E	AGUILAS	Murcia	Sin Zona
ES12326720001E0E	AGULLON (A RUA)	Galicia	Sin Zona
ES12186730001E0E	AGUIÑO (XIBEIRA)	Galicia	Sin Zona
ES16016510001E0E	AGURAIN	País Vasco	Sin Zona

SGGDPI - EdarNet v.1.6.1 [Detalle de muestra ruz]

Detalle de muestra de un EDAR. Incluye campos para: Muestra, Fecha, Hora, Estado, y un historial de acciones.

Acción	Usuario	Fecha	Estado
Crear
Actualizar
Eliminar

GOBIERNO DE ESPAÑA - MINISTERIO DE MEDIO AMBIENTE Y MEDIO RURAL Y MARINO

Informe de resultados analíticos mensual

Informe desde el 01/07/2010 al 31/07/2010

Comunidad autónoma	Provincia	Aglomeración	Nombre EDAR	Densidad poblacional	Zona	Porcentaje muestra zona	Carga contaminante (TMD+)	Fecha muestra	DBP5 (mg/L)	DBP5 (mg/L)	SS (mg/l)	Fósforo (mg/l)	Nitrógeno (mg/l)
Castilla	Castilla	AJO	AJO	CANTÁBRICO	Normal	2.000.000	...	...	...	...	...	...	...
Castilla	Castilla	ARENAL DE GÜENA	ARENAL DE GÜENA	CANTÁBRICO	Normal	10.000.400.000	147.0010	12,0	130	12,5	...	...	...
Castilla	Castilla	BERNUSA	BERNUSA	CANTÁBRICO	Normal	22.000.000	9,0	40	8,0	...	...	...	...
Castilla	Castilla	CARBÓN DE LA SAL	CARBÓN DE PERREDO	CANTÁBRICO	Normal	10.000.400.000	147.0010	12,0	120	12,6	...	...	...
Castilla	Castilla	NOTES	CASTRO COLLORIGO	CANTÁBRICO	Normal	10.000.400.000	147.0010	12,0	130	12,5	...	...	...
Castilla	Castilla	CASTRO URDIALES	CASTRO URDIALES	CANTÁBRICO	Normal	14.500.000	87.0010	...	...	17,2	...	...	...
Castilla	Castilla	GALDANO	GALDANO	CANTÁBRICO	Normal	14.500.000	21.00010	...	...	29,0	...	...	...
Castilla	Castilla	GUARDO	GUARDO	CANTÁBRICO	Normal	10.000.400.000	207.0010	12,0	44	4,3	...	...	...
Castilla	Castilla	LA CAUNDA	LA CAUNDA	CANTÁBRICO	Normal	107.0010	0,0	58	18,7	...	...	...	...
Castilla	Castilla	MERUELO	MERUELO	CANTÁBRICO	Normal	14.500.000	87.0010	3,0	40	9,1	...	...	...
Castilla	Castilla	MERUELO	MERUELO	CANTÁBRICO	Normal	14.500.000	21.00010	4,0	40	9,0	...	...	...
Castilla	Castilla	CUENCA AMEVARO PAZ	CUENCA	CANTÁBRICO	Normal	10.000.400.000	207.0010	3,0	32	3,0	...	...	...
Castilla	Castilla	SAN ROMÁN	SAN ROMÁN	CANTÁBRICO	Normal	14.500.000	87.0010	11,0	81	9,9	...	...	...
Castilla	Castilla	SAN ROMÁN	SAN ROMÁN	CANTÁBRICO	Normal	14.500.000	227.0010	13,0	48	5,0	...	...	...
Castilla	Castilla	SAN VICENTE DE LA BARQUERA	SAN VICENTE DE LA BARQUERA	CANTÁBRICO	Normal	2.000.000	147.0010	12,0	48	4,8	...	...	...
Castilla	Castilla	SANTAMARA DE CAYÓN	SANTAMARA DE CAYÓN	CANTÁBRICO	Normal	2.000.000	...	...	...	...	...	...	...
Castilla	Castilla	SELVA	SELVA	CANTÁBRICO	Normal	2.000.000	147.0010	...	110	10,0	...	...	...
Castilla	Castilla	SUEVA	SUEVA	CANTÁBRICO	Normal	14.500.000	87.0010	12,0	48	3,2	...	...	...
Castilla	Castilla	SUEVA	SUEVA	CANTÁBRICO	Normal	14.500.000	21.00010	2,0	38	8,0	...	...	...
Castilla	Castilla	VALCARRIEDO	VALCARRIEDO	CANTÁBRICO	Normal	14.500.000	147.0010	7,0	35	10,0	...	...	...
Castilla	Castilla	VALTA OSTRERA	VALTA OSTRERA	CANTÁBRICO	Normal	14.500.000	87.0010	7,0	35	6,4	...	...	...
Castilla	Castilla	VALTA OSTRERA	VALTA OSTRERA	CANTÁBRICO	Normal	14.500.000	227.0010	9,0	44	6,5	...	...	...

SGGDPI - EdarNet v.1.7.3 [Informe de Seguimiento Analítico]

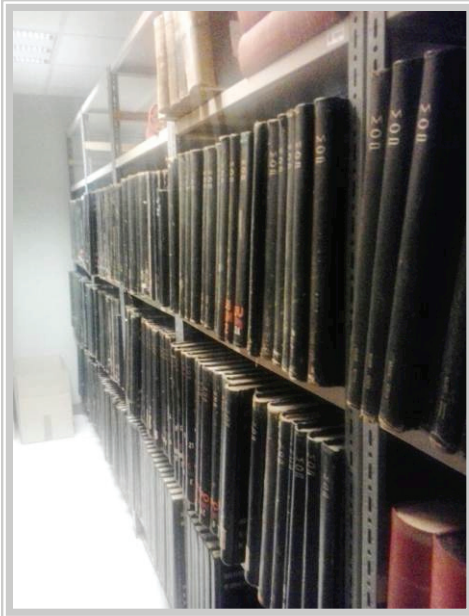
Informe de Seguimiento Analítico para la zona III de Castilla-La Mancha, desde el 01/07/2011 hasta el 31/12/2011.

Comunidad autónoma	Provincia	Nombre EDAR	Zona	Porcentaje muestra zona	Carga contaminante (TMD+)	Parámetro	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22
Castilla-La Mancha	Ciudad Real	ALBUCAZAR	III	...	...	DBP5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Castilla-La Mancha	Ciudad Real	ALBUCAZAR	III	...	...	SS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Castilla-La Mancha	Ciudad Real	ALBUCAZAR	III	...	...	Fósforo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Castilla-La Mancha	Ciudad Real	ALBUCAZAR	III	...	...	Nitrógeno	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

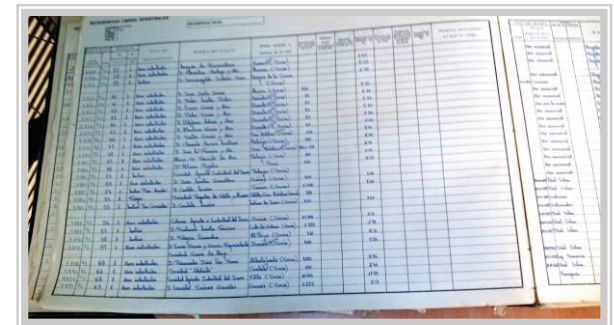
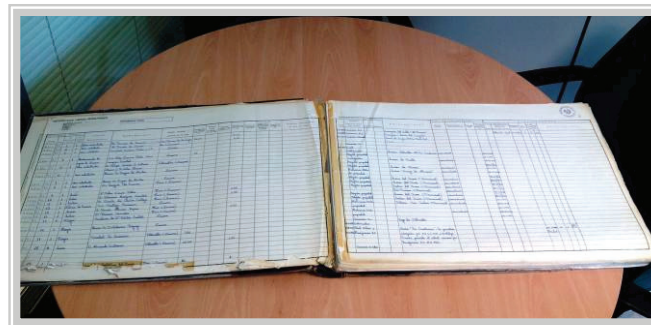
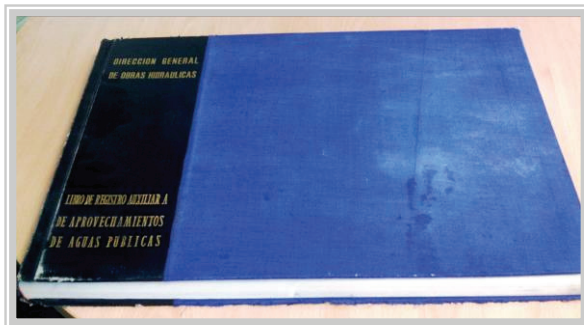
Water rights in Spain



Water Registry



- In previous legal regulation (Water Act of 1879) groundwater was private water
- Since The Water Act came into force in 1985, all water has been considered public
- The Spanish administrative law is especially careful with private property and to not damage the property rights
- The Water Act 1985 created a transition period to adapt the private exploitation of groundwater



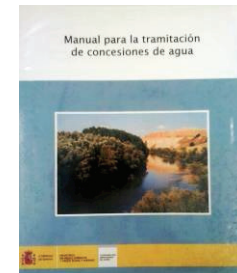
- Historically, records were registered in paper
- Difficult decision-taking process to issue new water rights (some demands for economic compensation by the administration of previous water right holders)
- Big amount of groundwater applications to manage to adapt to the new water law

Water Registry Some steps



2003

- Modernisation plan of hydraulic administration
 - ALBERCA program was launched:**
 - Provide human, technical, technological and financial resources
 - New software developed to help the administrative process (more than 500.000 administrative records)
 - Review of the water rights registered in the The Catalogue of Historical Private Abstractions
 - Need to control external contactors (centralized system)



2014

- 2014 Confederaciones Hidrográficas: 689.106 records within ALBERCA system (or similar systems)
 - WATER REGISTRY: a modern tool to register, modify, identify and locate all water uses... It is already developed, but now it is being tested**



REGISTRO DE AGUAS
WATER REGISTRY

Alberca Permit processing tool



Gerdap

Exp.	Año
88	1948
1	1949
4	1949
5	1949
6	1949
62	1949
63	1949
67	1949
69	1949
1	1950
2	1950
4	1950
5	1950
39	1950
40	1950
55	1950
57	1950
60	1950

55/1950 **Sección A Concesiones aguas superficiales** **Fecha Entrada**
 Ref.: I-934-PA Concesión (Regadíos mayores de 8 l/seg) 13/04/1950

Nº Registro **Área** **Proyecto**
 58 S_A_RESUELTOS_GRABADOS_UTE

RESUELTO **Con Resolución de otorgamiento de concesión**

APROVECHAMIENTO DEL EXPEDIENTE 55/1950

Momento: Resolución Fecha: 08/04/1964

General **Captaciones** **Usos** **Condiciones** **Plazo**

Volumen máximo anual: 0,000 m3 - Consuntivo

Limitación Mensual

Ene	Feb.	Marzo	Abril	Mayo	Junio	Julio	Agosto	Sept.	Octub.	Nov.	Dic.

Superficie Total de Riego: 20,000 hectareas

Relaciones

	Captaciones	
U	1	3
s	1 X	X
o		
s		

Observaciones:

Sistemas de Regulación Fotointerpretación Términos Municipales de Obra

Observaciones del M/F:

Expediente **Aprovechamiento** Captaciones Usos Personas Documentos

11.030 Exps.
 Nexp/Año Ref.Local
 Buscar Exportar

Principal

MINISTERIO DE AGRICULTURA, ALIMENTACIÓN, Y MEDIO AMBIENTE

**Resumen**[Generar PDF](#)[Opciones](#)[Volver](#)**Derecho****DATOS GENERALES:**

Plazo del derecho: 30 años

Fecha inicio: 29/01/1985

Fecha de extinción: 29/01/2015

Volumen máximo anual (m³): 1.150,000

TITULARES:

A58818501 - Comunidad de Regantes El Porvenir

Captaciones**Captación 1:**

Procedencia del agua: Superficial

Río o cauce:

PRADO ANCHO

Masa de agua superficial:

Natural

Volumen máximo anual (m³): 800,000

Caudal máximo instantáneo (l/s): 500,000

Captación 2:

Procedencia del agua: Subterránea

Acuífero:

Páramo del Duratón

Volumen máximo anual (m³): 200,000

Caudal máximo instantáneo (l/s): 200,000

Captación 3:

Procedencia del agua: Subterránea

Acuífero:

Páramo del Duratón

Volumen máximo anual (m³): 150,000

Caudal máximo instantáneo (l/s): 100,000

INFRAESTRUCTURAS:

Nombre: Páramo

Tipo: Canal

[Ver más](#)**Usos****Uso 1:**

Tipo de uso: Usos agropecuarios - Regadíos

Volumen máximo anual (m³): 800,000

Uso 2:

Tipo de uso: Abastecimiento - Usos destinados a otros abastecimiento fuera de los núcleos urbanos - Otros usos domésticos distintos del consumo humano

Volumen máximo anual (m³): 350,000

Inscripciones: **Datos de la inscripción** | Otros apartados | Notas marginales | Historial | Resumen | Avisos
Lm
Gr
 N° Inscripción: DU2014001080 · Inmatriculación
 Organismo: Confederación Hidrográfica del Duero
 Estado: Vigente
 Sección: A
 Fecha de registro del asiento: 21/01/2014


Usted está en Derechos / Inscripciones / Detalle / Datos de la inscripción / Derecho

 Datos de la inscripción: **Derecho** | Captaciones | Usos | Relaciones | Documentación

Generar PDF

Opciones

Volver

Titulares

A58818501 - Comunidad de Regantes El Porvenir

DATOS DEL TITULAR:
Tipo de persona: Comunidad de usuarios

Tipo de documento: CIF

N° de documento: A58818501

Nombre/Razón social: Comunidad de Regantes El Porvenir

Fecha de aprobación de la comunidad: 02/01/1985

Nombre: Juan

Primer apellido: Pérez

Segundo apellido: López

Ver datos de contacto

Título
Nombre: Resolución de Otorgación de Derechos

Tipo: Resolución administrativa

Fecha del derecho: 28/01/1985

Autoridad: Presidente de la Confederación Hidrográfica

Ver documento

Características generales
Plazo del derecho: 30 años

Fecha inicio: 29/01/1985 (A partir del día siguiente de notificación de la resolución)

Fecha de extinción: 29/01/2015

Naturaleza: Consuntivo

Volumen máximo anual (m³): 1.150,000

Ver condiciones específicas

1

Información de los expedientes
N° expediente tramitación: DU-2730/ZA

N° expediente organismo: DU-2730/ZA

Referencias a inscripciones anteriores

20002 - Registro de Aprovechamiento de Aguas

Nombre del registro: Registro de Aprovechamiento de Aguas

Tomo / Folio: 10

Sección: A

N° Inscripción: 20002

Acta de reconocimiento parcial o final
Fecha de aprobación: 03/02/1986

Ver documento

Inscripciones: **Datos de la inscripción** | Otros apartados | Notas marginales | Historial | Resumen | Avisos

Usted está en Derechos / Inscripciones / Detalle / Datos de la inscripción / Captaciones

Lm
Gr
 N° Inscripción: DU2014001080 · Inmatriculación
 Organismo: Confederación Hidrográfica del Duero
 Estado: Vigente
 Sección: A
 Fecha de registro del asiento: 21/01/2014

 Datos de la inscripción: Derecho | **Captaciones** | Usos | Relaciones | Documentación

Generar PDF

Opciones

Volver

C 1 - Captación 1 [Ver más](#)CS 1.A - Captación secundaria [Ver más](#)C 2 - Captación 2 [Ver más](#)C 3 - Captación 3 [Ver más](#)

Datos de la captación

Identificador: 1

Nombre: Captación 1

Tipo: Toma directa

Orden de la captación: 1 de 3

Sistema de explotación: Esla-Valderaduey

Volumen máximo anual (m³): 800,000

Caudal máximo instantáneo (l/s): 500,000

Características de la captación

Tipo de toma: Fija

Infraestructuras de la captación

Nombre: Páramo

Tipo: Canal

[Ver más](#)

Usos asociados a la captación

N° de usos: 1

Usos asociados:

USO 1 [consultar uso](#)

Procedencia del agua

Superficial

Río o cauce:

PRADO ANCHO

Masa de agua superficial:

Natural

Localización de la captación

 visor  cartográfico



REGISTRO DE AGUAS
WATER REGISTRY

Abstractions:

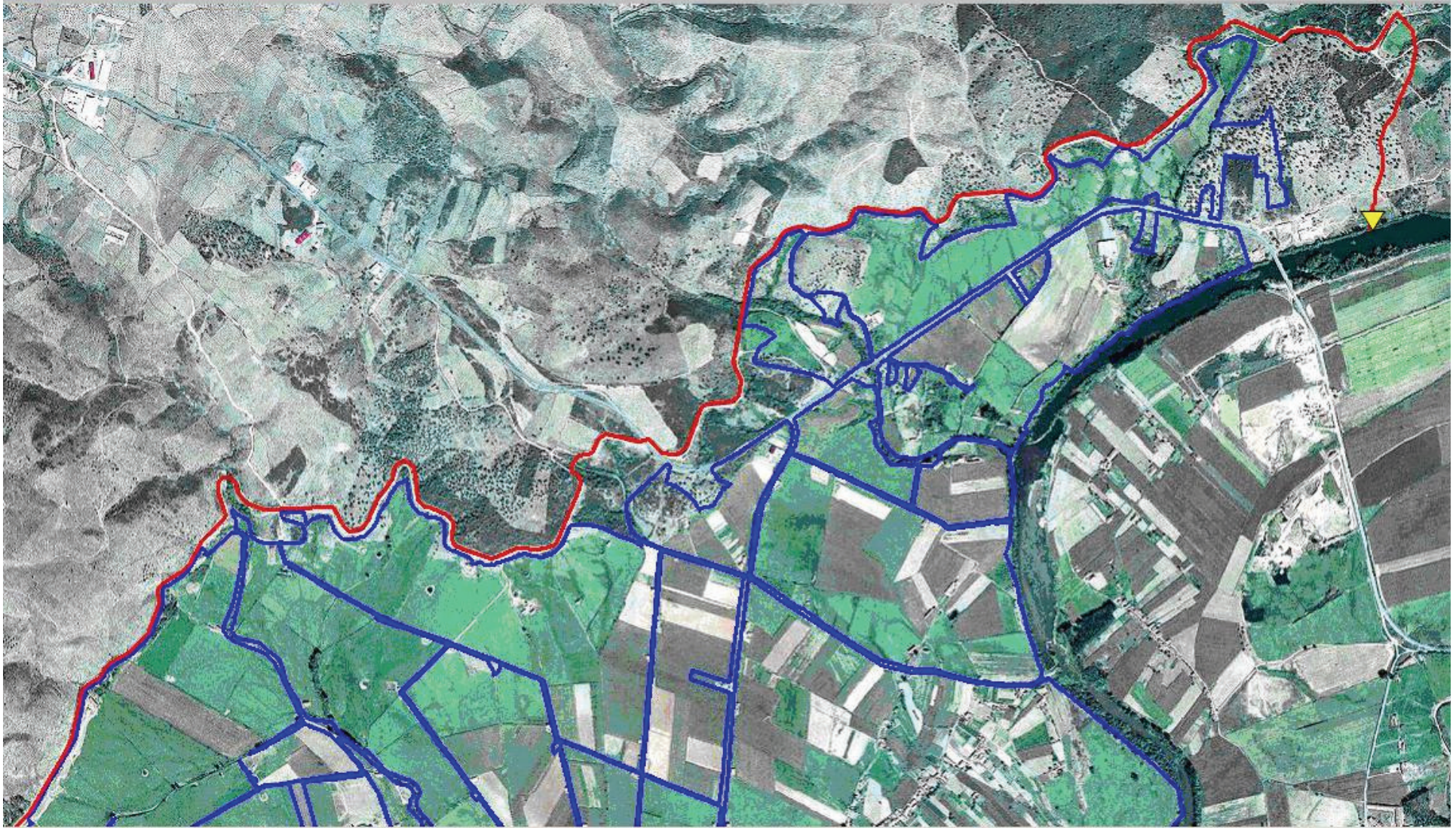
- Primary
- Secondary

Uses:

- Irrigation

Infrastructures:

- Channel
- Underground channel
- Pond



Proyección UTM / Elipsoide ETRS 1989

X: 178.166,96 Y: 1.378.761,32 HUSO: 30

ESCALA: 1:8.000.000

Abstractions:

Primary

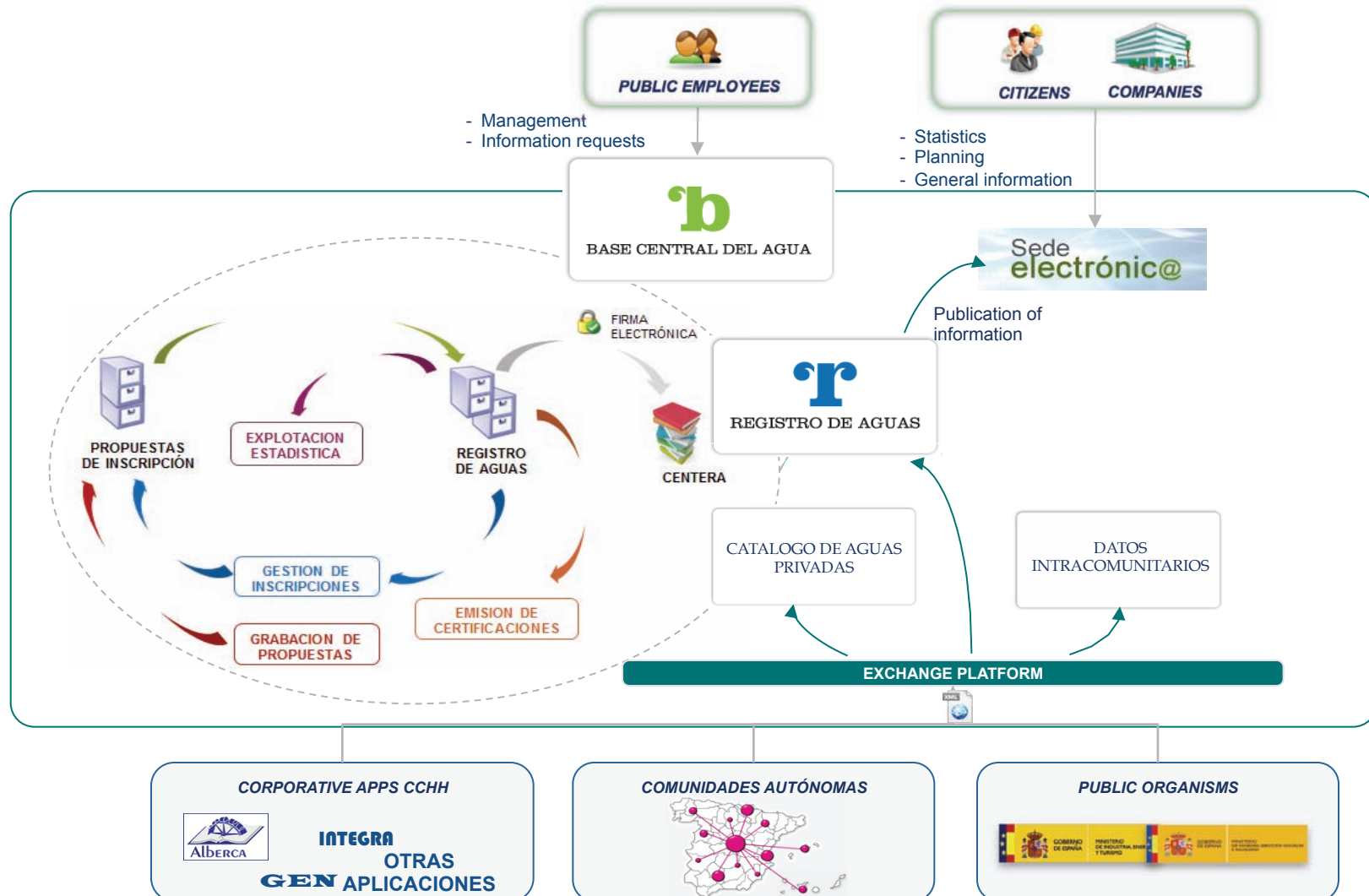
Uses:

Irrigation

Infrastructures:

Channel

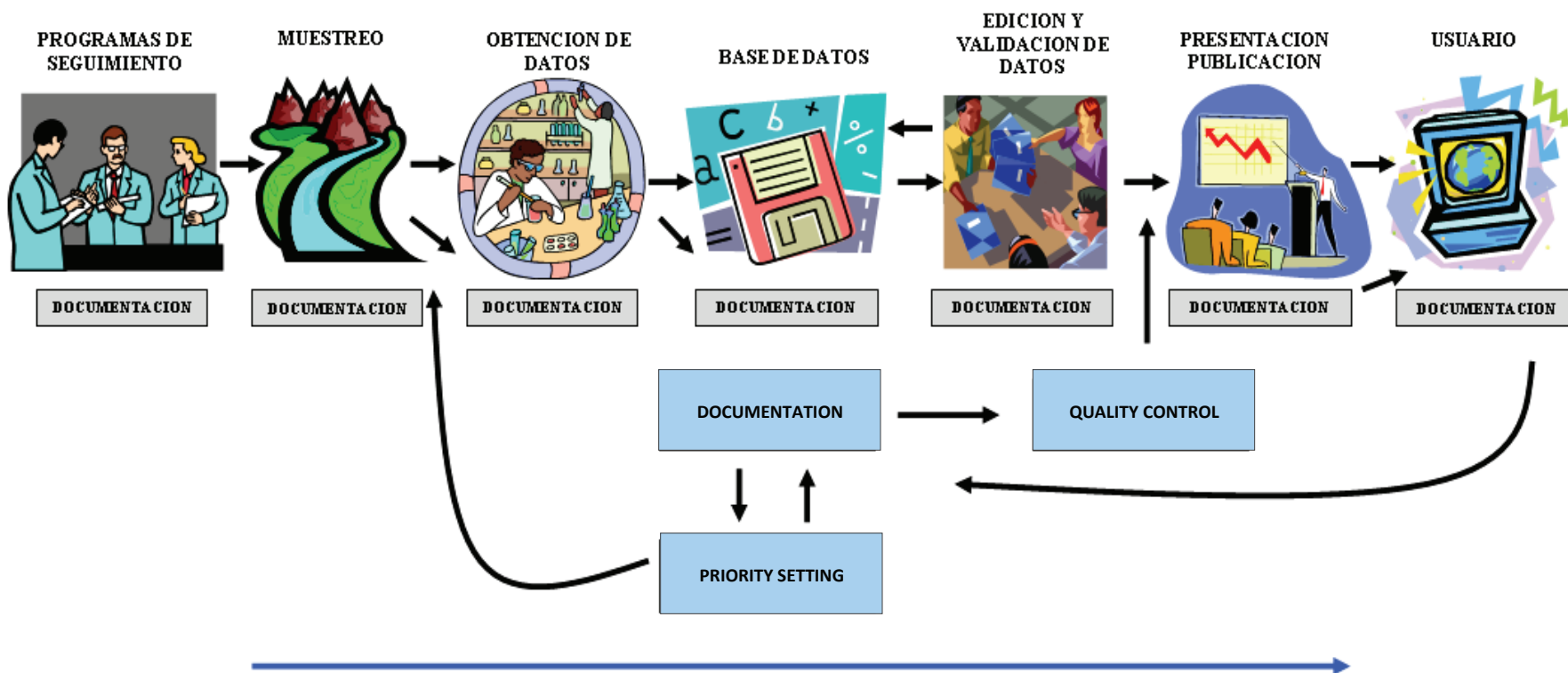
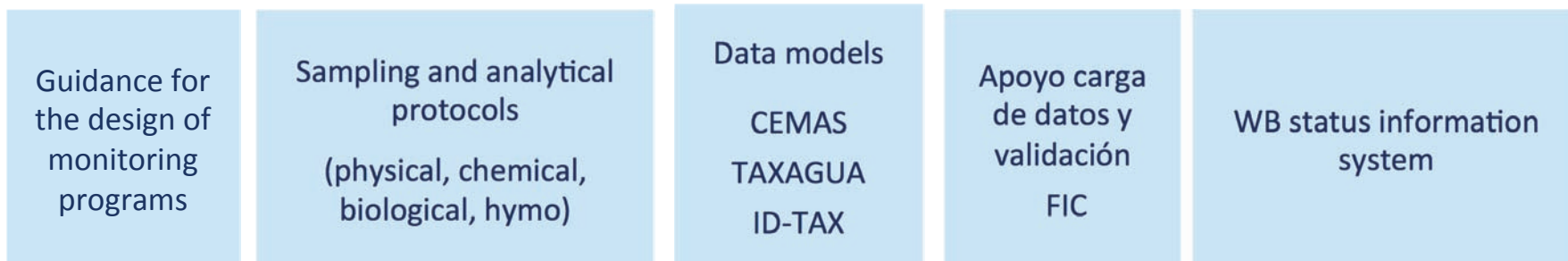
Water Registry



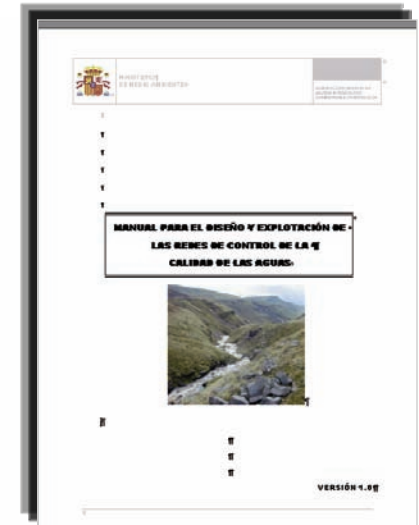
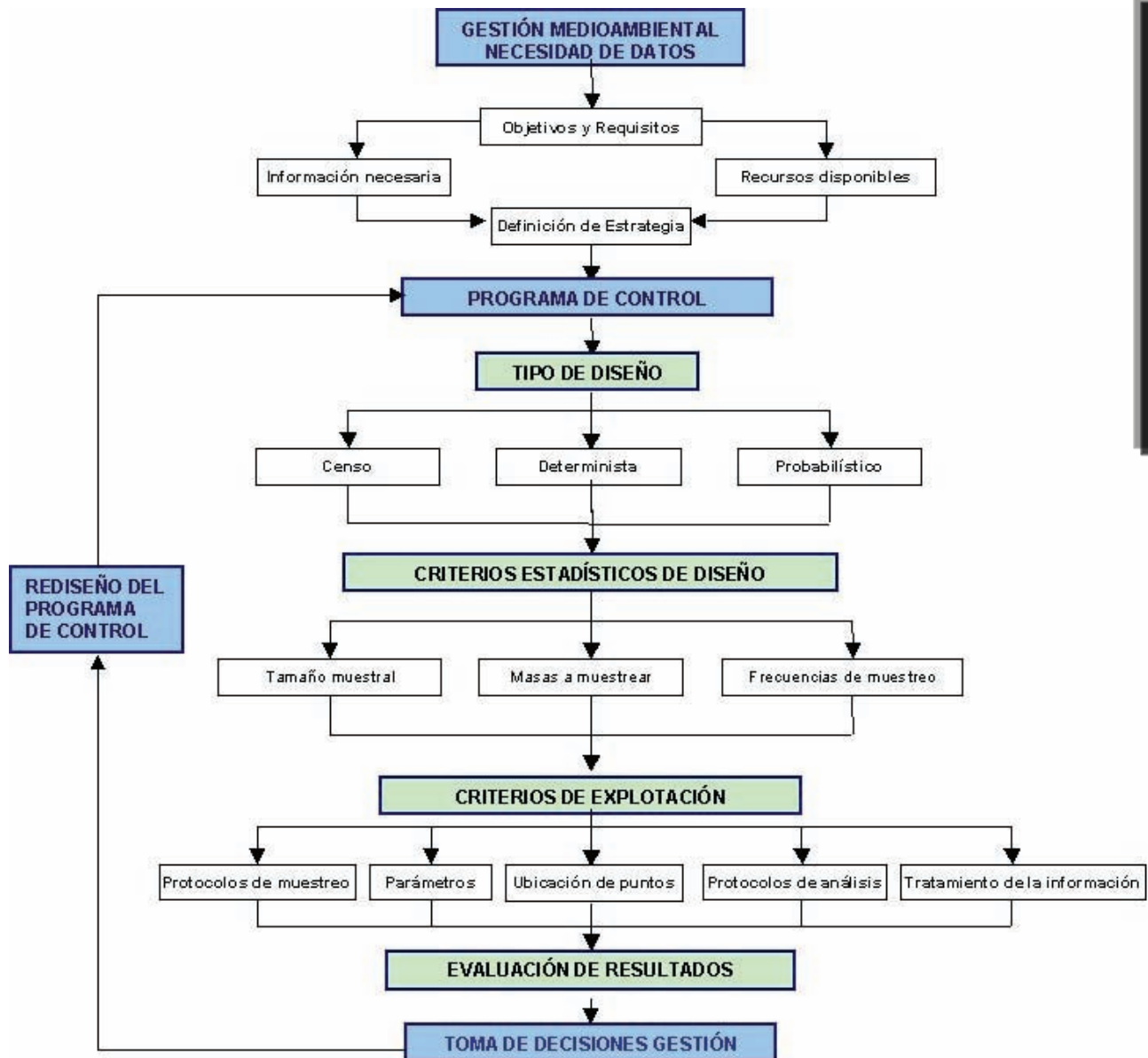
Water quality and water status information in Spain



Monitoring programs Quality assurance



Guidance for the design of water quality monitoring programs



Sampling and analytical protocols



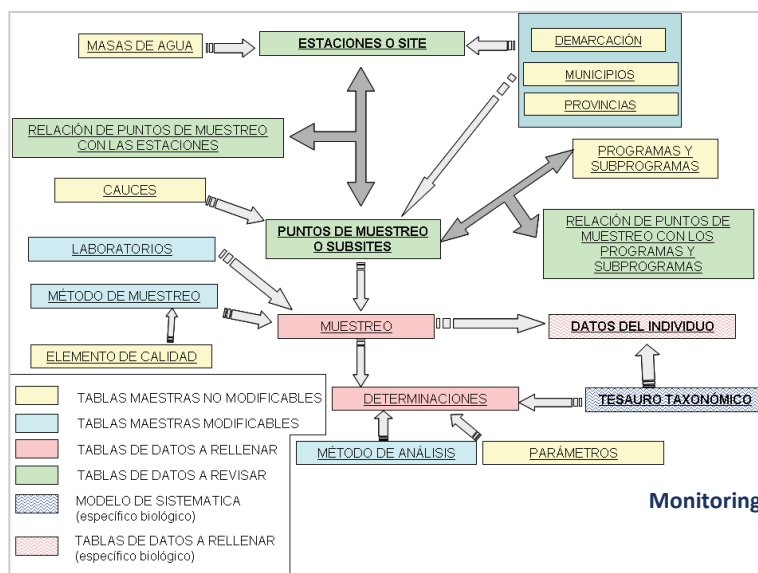
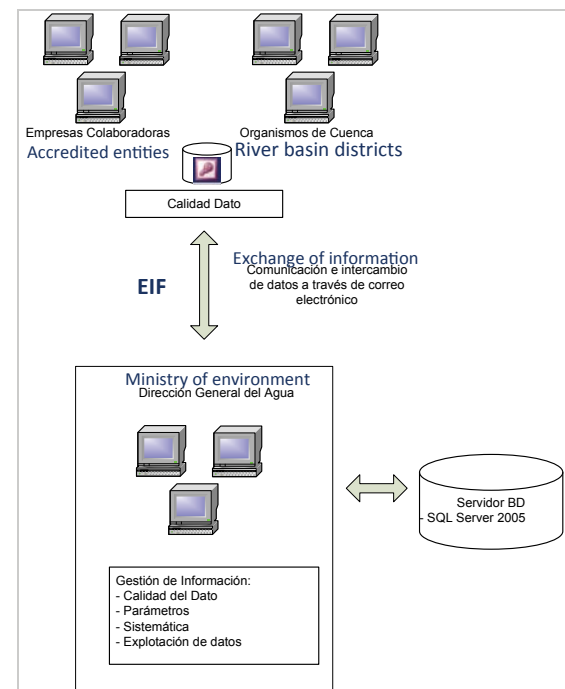
- o **Chemical and microbiological analysis**
 - ◆ Orden MAM/3207/2006 Technical instruction MMA-ECC-1/06
- o **Biological sampling and identification protocols**
 - ◆ Invertebrates in wadeable rivers (ML-Rv-I-2013)
 - ◆ Phytobenthos in rivers (benthic diatoms) (ML-R-D-2013)
 - ◆ Phytoplankton in lakes and reservoirs (M-LE-FP-2013)
 - ◆ Invertebrates in lakes (ML-L-I-2013)
 - ◆ Macrophytes in lakes (M-L-OFM-2013)
- o **Biological sampling protocols**
 - ◆ Invertebrates in rivers IBMWP.2013
 - ◆ Invertebrates in lakes IBCAEL-2013
 - ◆ Phytoplankton in lakes and reservoirs MFIT-2013
 - ◆ Diatoms IPS. -2013
 - ◆ Macrophytes in lakes. OFALAM-2013



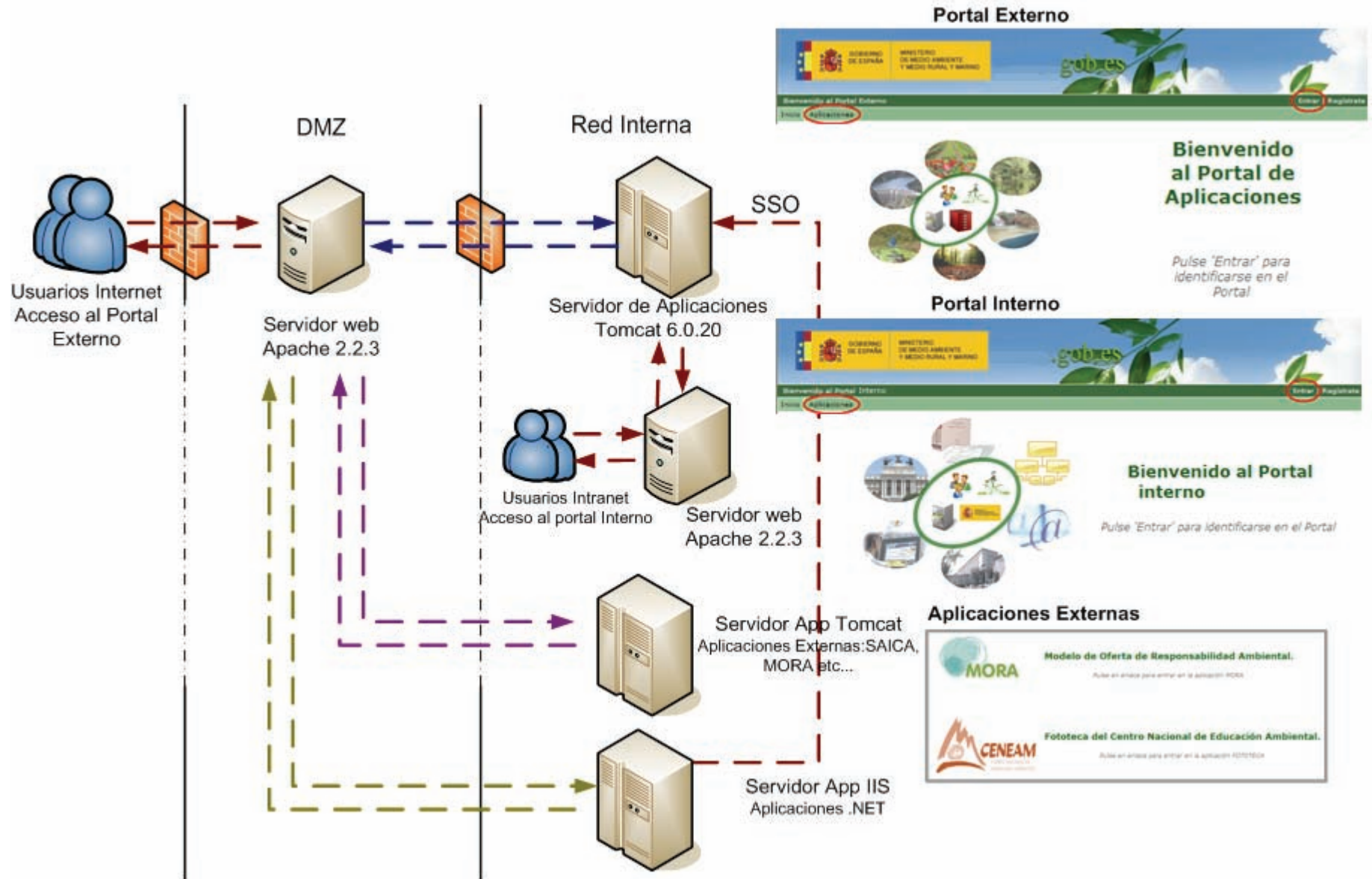
Situation of WB status databases 2014



- 25 RBD involved
- Data model in continuous evolution
- Exchange of information file (EIF Access)
- Work focused on the improvement of data quality
- Annual reporting to the Ministry DB
 - ◆ From floppy disk exchange to the use of exchange of information platforms (CIRCA)
- Moving towards direct access to data at source



Water status monitoring System architecture



Thesaurus of taxa: TAXAGUA



Taxagua v.1.0 Fichero taxones: v.1.0 Fichero propiedades: v.1.0

Patrón de búsqueda Grupo revisión Tesoro Nodos detallados Cargar Árbol 1 / 1

TESAURO TAXONÓMICO PARA LA CLASIFICACIÓN DEL ESTADO ECOLÓGICO DE LAS MASAS DE AGUA CONTINENTALES

GOBIERNO DE ESPAÑA MINISTERIO DE MEDIO AMBIENTE Y MEDIO RURAL Y MARINO soportebiologico@vertidos-calidad.es

SEARCH BOX FOR TAXA

Reino	Filo	Clase	Orden	Familia	Género	Especie	Subespecie	Variedad	Forma
		Hydrozoa HYD001CLAS	Anthoathecata ANT003ORDE	Corynidae COR016FAMI	Coryne COR011GENE	pusilla COR011PUS011			
Bacteria BAC001REIN	Cyanobacteria CYA001FILO	Cyanophyceae CYA001CLAS	Chroococcales CHR003ORDE	Chamaesiphonaceae CHA017FAMI	Chamaecalyx CHA035GENE	swirenkoi CHA035SW001			
			Nostocales NOS001ORDE	Microchaetaceae MIC007FAMI	Coleodesmium COL007GENE	wrangellii COL007WRA002			

INTERACTIVE TAXONOMIC TREE

DIATOMEAS
 FITOPLANCTON
 ICTIOFAUNA
 INVERTEBRADOS LAGOS
 INVERTEBRADOS RÍOS
 MACRÓFITOS
 MUESTREADO
 PREFERENTE
 SECUNDARIO

TAXÓN SELECCIONADO **Chroomonas acuta**

ELEMENTOS DE CALIDAD	PROPIEDAD	VALOR	SUBVALOR	INFRAVALOR	SISTCODSUP	SISTCODINF	MÉTRICA
Grupo revisión tesoro:	BLOOMS						
FITOPLANCTON	FORMA CRECIMIENTO				KOM003CAU035		IGA-Cr
Elemento calidad:	HÁBITAT	Continental					
FITOPLANCTON	HÁBITAT EN COLUMNA DE AGL						
	NUTRICIÓN						
	TOXICIDAD						

ECOLOGICAL PROPERTIES AND VALUES OF METRICS ASSOCIATED

R >> FI >> C Cryptophyceae >> O Pyrenomonadales >> F Chroomonadaceae >> G Chroomonas >> E acuta >>

Common identification keys



Phytobenthos: 367 species



Phytoplankton: 485 species



Fish: 84 species



Macrophytes: 379 species



Benthic invertebrates: 160 families, total taxa 175

CLAVES DE IDENTIFICACIÓN

151b	Estrías uniseriadas	Especie Gomphonema capitatum
152a	Frústulos arqueados, elípticos en visión pleural, mostrando simultáneamente el rafe de ambas valvas	153
152b	Combinación de caracteres diferente.....	160
153a	Sin cópulas.....	154
153b	Con cópulas	157
154a	Ramas del rafe fuertemente curvadas	159
154b	Ramas del rafe ligeramente curvadas o rectas.....	155
155a	Área dorsal ausente.....	Especie Amphora eximia
155b	Área dorsal presente	156
156a	Punctae dorsales visibles.....	Especie Amphora indistincta
156b	Punctae dorsales no visibles.....	Especie Amphora pediculus
157a	Más de 20 estrías en 10 µm	Especie Halamphora montana
157b	Menos de 20 estrías en 10 µm	158
158a	Punctae visibles	Especie Halamphora veneta
158b	Punctae no visibles	Especie Halamphora coffeaeformis
159a	Área dorsal central ausente.....	Especie Amphora ovalis
159b	Área dorsal central presente	Especie Amphora copulata
160a	Margen ventral de la valva ondulado, con una prominencia hialina central. Terminaciones proximales del rafe no curvadas	161
160b	Combinación de caracteres diferente.....	162
161a	Valvas con una anchura media inferior a los 5 µm	Especie Reimeria sinuata
161b	Valvas con una anchura media superior a los 5 µm ..	Especie Reimeria uniseriata
162a	Terminaciones proximales del rafe curvadas dorsalmente. Terminaciones distales del rafe curvadas ventralmente.....	163
162b	Combinación de caracteres diferente.....	176
163a	Frústulos curvados dorsiventralmente, frecuentemente presentan estigmoides ..	164
163b	Frústulos no curvados dorsiventralmente o sólo ligeramente, sin estigmoides	173
164a	Punctae visibles	165
164b	Punctae no visibles	168
165a	Las punctae son areolas	166
165b	Las punctae son lineales.....	167
166a	Ratio largo/anchura superior a 5	Especie Encyonema gracile
166b	Ratio largo/anchura inferior a 5.....	170
167a	Valvas de hasta 15 µm de ancho	Especie Encyonema caespitosum
167b	Valvas de más de 15 µm de ancho	Especie Encyonema prostratum
168a	Más de 17 estrías en 10 µm	Especie Encyonema reichardtii
168b	Menos de 17 estrías en 10 µm	172
169a	Valvas con una densidad media de estrías de 13 en 10 µm	171
169b	Valvas con una densidad media de estrías de 15 en 10 µm	171
170a	Valvas de hasta 22 µm de ancho	Especie Encyonema silesiacum
170b	Valvas de más de 22 µm de ancho ..	Variedad Encyonema silesiacum var. altensis
171a	Más de 32 punctae en 10 µm.....	Especie Encyonema ventricosum
171b	Menos de 32 punctae en 10 µm	Especie Encyonema lange-bertalotti
172a	Valvas con una densidad media de estrías de 16 µm	172
172b	Valvas con una densidad media de estrías inferior a 16 µm	Especie Encyonema minutum

Catálogo de identificación de los organismos utilizados como elementos de calidad biológicas en las redes de control en aplicación de la Directiva Marco del Agua

ID-TAX web-based application



Browser tabs: ID-TAX - Lampetra fluviatilis, ID-TAX - Clave Peces

GOBIERNO DE ESPAÑA
MINISTERIO DE AGRICULTURA, ALIMENTACIÓN Y MEDIO AMBIENTE

ID-TAX Clave Glosario Buscador Clave para imprimir Listado taxonómico

Peces

Árbol de Claves

- Nodos Disponibles
 - A: Peces sin mandíbula....
 - B: Peces con mandíbula....

A

Peces sin mandíbula. Con siete pares de aberturas branquiales. Carece de aletas pares. Boca redonda tipo [ventosa](#) y en forma de embudo

Propiedad/Autor: CHEbro

Añadir Favorito

CONTINUAR

B

Peces con mandíbula. Con un par de aberturas branquiales protegidas por [opérculos](#). Presenta aletas pares. Boca sin este conjunto de características

Propiedad/Autor: CHGuadiana

CONTINUAR

<http://www.magrama.gob.es/es/agua/temas/estado-y-calidad-de-las-aguas/aguas-superficiales/programas-seguimiento/id-tax.aspx>

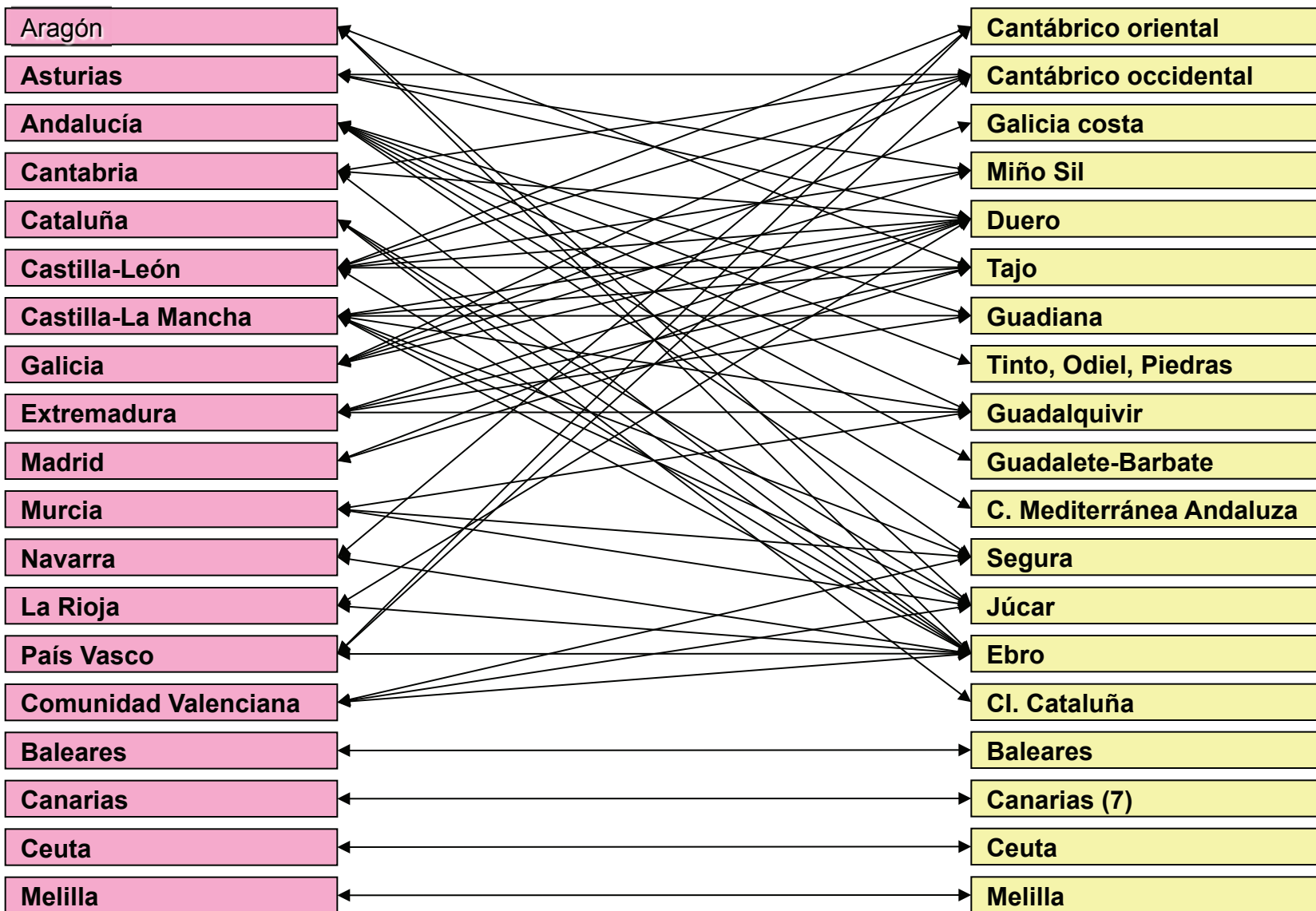
Programs of measures
WFD river basin management plans
in Spain



Interrelation Regions-River Basin District (measures)



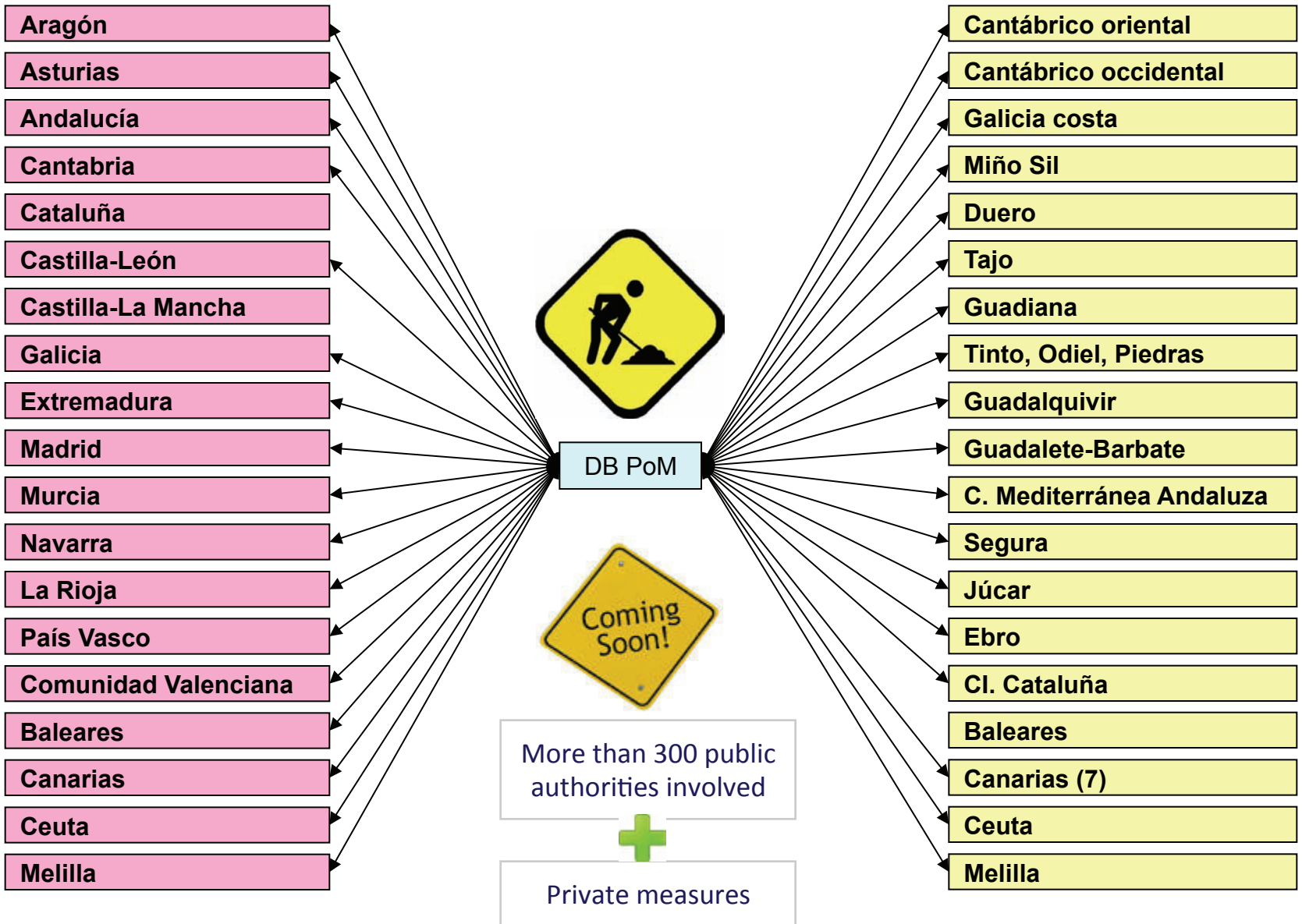
Several General Directorates by Region (x5 or more)



Future situation with Programmes of measures Database (DB PoM)



Several General Directorates by Region (x5 or more)



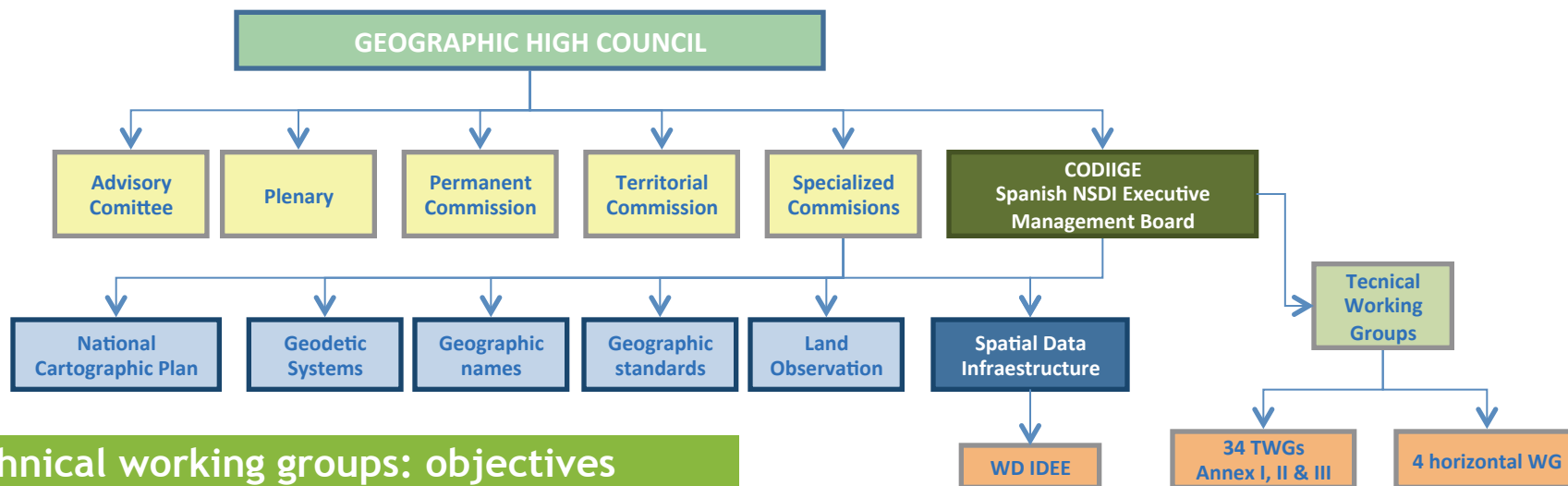
Spatial datasets
Inspire directive in Spain



Spanish Infrastructure for Spatial Information Managing Board (CODIIGE)



- Created in 2011 to coordinate the implementation of Inspire directive in Spain
 - 38 TWG created (4 horizontal + 34 thematic)



Technical working groups: objectives

- Analysis of existing regulations in Spain
- Search for consistency between these regulations and the corresponding INSPIRE implementing rules
- Preparation of draft standards, guidelines, methodologies, classifications, nomenclatures, codes (standardization)
- Analysis of the data sets, metadata, and services necessary to inform the EC (INSPIRE)
- Raise awareness of creating data sets, metadata, and services
- Monitor the implementation of these data sets and services
- Promote the development of tools for analysis and publication of information

Guidelines – Data Specification



Thematic Guidelines

- I.1 INSPIRE_Specification_CRS_v3.1
- I.2 INSPIRE_Specification_GGS_v3.0.1
- I.3 INSPIRE_DataSpecification_GN_v3.0.1
- I.4 INSPIRE_DataSpecification_AU_v3.0.1
- I.5 INSPIRE_DataSpecification_AD_v3.0.1
- I.6 INSPIRE_DataSpecification_CP_v3.0.1
- I.7 INSPIRE_DataSpecification_TN_v3.1
- I.8 INSPIRE_DataSpecification_HY_v3.0.1
- I.9 INSPIRE_DataSpecification_PS_v3.1
- II.1 INSPIRE_DataSpecification_EL_v3.0rc3
- II.2 INSPIRE_DataSpecification_LC_v3.0rc3
- II.4 INSPIRE_DataSpecification_GE_v3.0rc3
- III.1 INSPIRE_DataSpecification_SU_v3.0rc3
- III.2 INSPIRE_DataSpecification_BU_v3.0rc3
- III.3 INSPIRE_DataSpecification_OI_v3.0rc3
- III.3 INSPIRE_DataSpecification_SO_v3.0rc3
- III.4 INSPIRE_DataSpecification_LU_v3.0rc3
- III.5 INSPIRE_DataSpecification_HH_v3.0rc3
- III.6 INSPIRE_DataSpecification_US_v3.0rc3
- III.7 INSPIRE_DataSpecification_EF_v3.0rc3
- III.8 INSPIRE_DataSpecification_PF_v3.0rc3
- III.9 INSPIRE_DataSpecification_AF_v3.0rc3
- III.10 INSPIRE_DataSpecification_PD_v3.0rc3
- III.11 INSPIRE_DataSpecification_AM_v3.0rc3
- III.12 INSPIRE_DataSpecification_NZ_v3.0rc3
- III.13 y 14 INSPIRE_DataSpecification_AC-MF_v3.0rc3
- III.15 INSPIRE_DataSpecification_OF_v3.0rc3
- III.16 INSPIRE_DataSpecification_SR_v3.0rc3
- III.17 INSPIRE_DataSpecification_BR_v3.0rc3
- III.18 INSPIRE_DataSpecification_HB_v3.0rc3
- III.19 INSPIRE_DataSpecification_SD_v3.0rc3
- III.20 INSPIRE_DataSpecification_ER_v3.0rc3
- III.21 INSPIRE_DataSpecification_MR_v3.0rc3

General Guidelines

- D2.3 Definition_of_Annex_Themes_and_scope_v3.0
- D2.5_Generic conceptual modelv3.4rc3
- D2.6Methodology data specifications_v3.0
- D2.7_Encoding data v3.3rc3
- D2.8.II-III xx INSPIRE_DataSpecification
- D2.9_Observations&Measurements_v2.0rc3
- D2.10.1_GenericNetworkModel_v1.0rc3
- D2.10.2_CoverageTypes_v1.0rc3
- D2.10.3_Activity_Complexes_v1.0rc3

Tipo: Adobe Acrobat
 Título: Microsoft Wor
 Fecha de modificació
 Tamaño: 977 KB



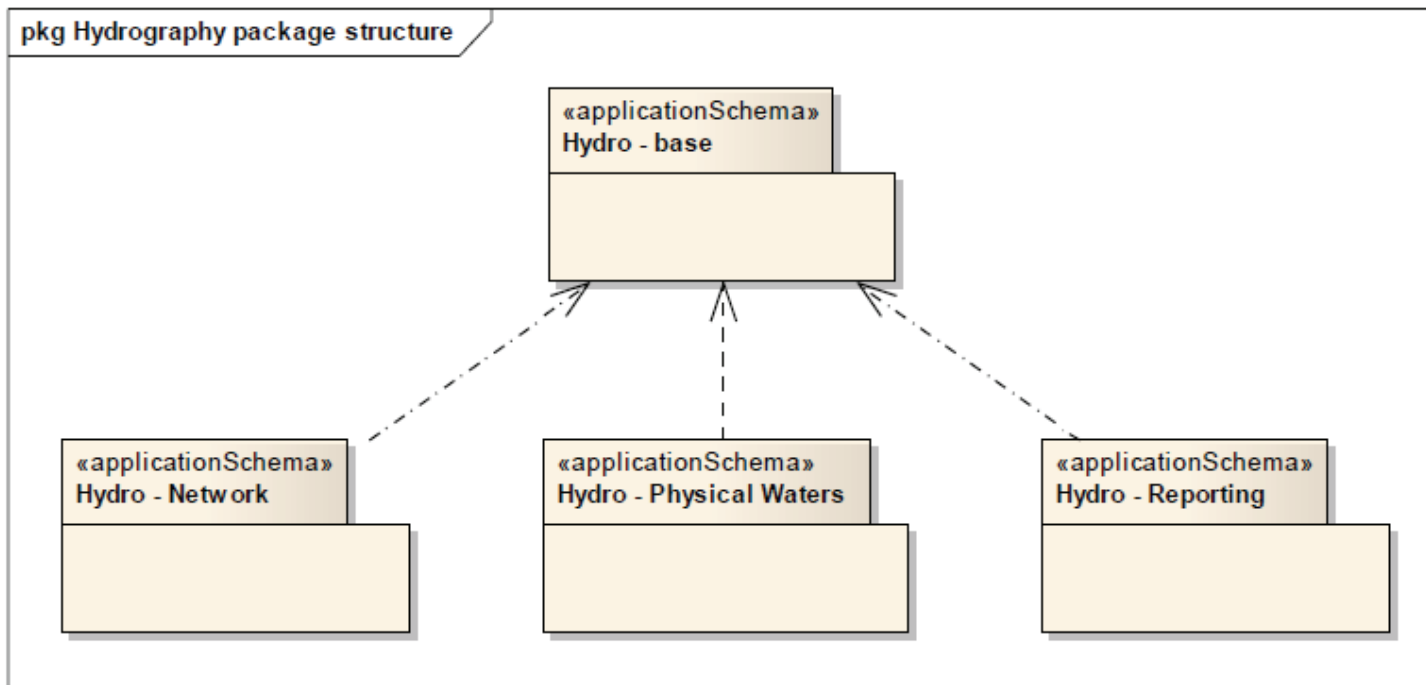
INSPIRE
 Infrastructure for Spatial Information in Europe

D2.8.1.8 INSPIRE Data Specification on Hydrography – Guidelines

Title	D2.8.1.8 INSPIRE Data Specification on Hydrography – Guidelines
Creator	INSPIRE Thematic Working Group Hydrography
Date	2010-04-28
Subject	INSPIRE Data Specification for the spatial data theme Hydrography
Publisher	INSPIRE Thematic Working Group Hydrography
Type	Text
Description	This document describes the INSPIRE Data Specification for the spatial data theme Hydrography
Contributor	Members of the INSPIRE Thematic Working Group Hydrography
Format	Portable Document Format (PDF)
Source	
Rights	Public
Identifier	INSPIRE_DataSpecification_HY_v3.0.1.pdf
Language	En
Relation	Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)
Coverage	Project duration



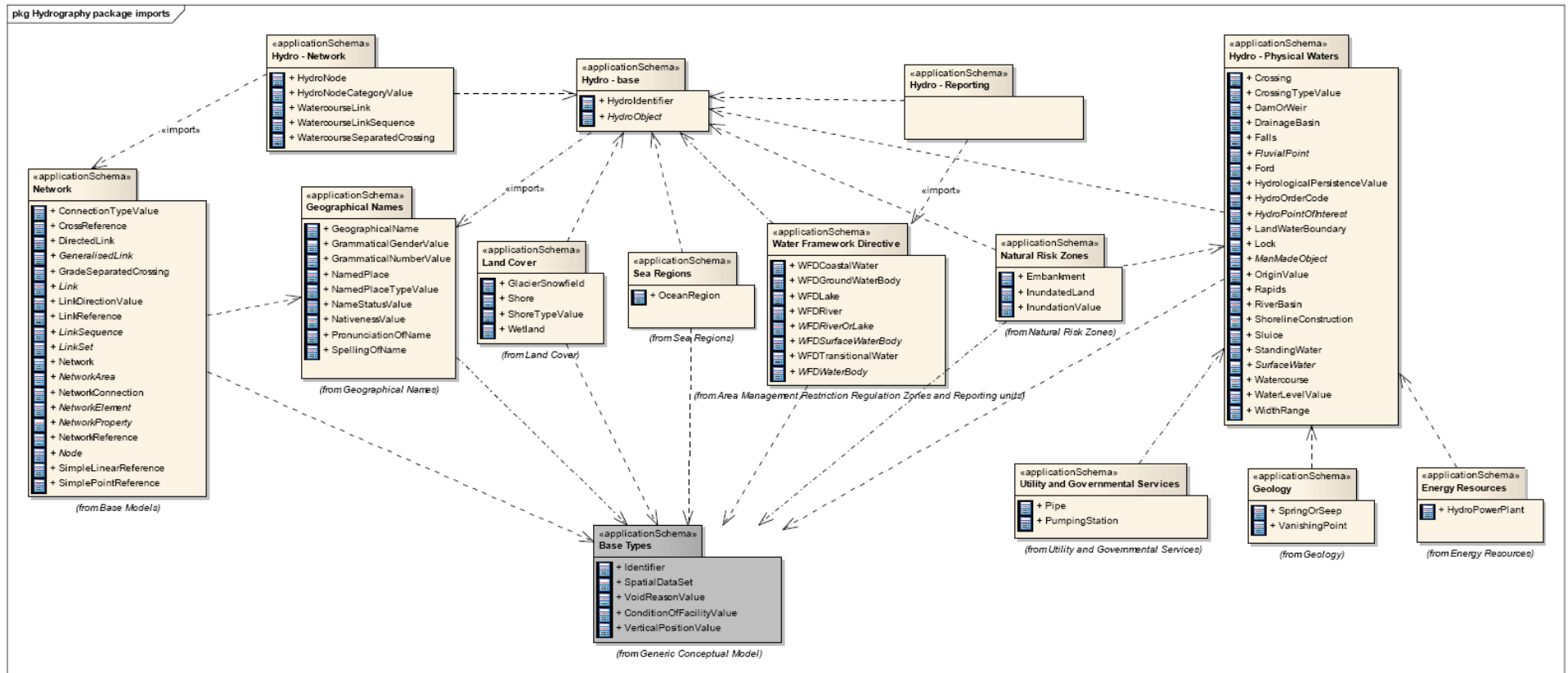
- Structure of the hydrography application schemas



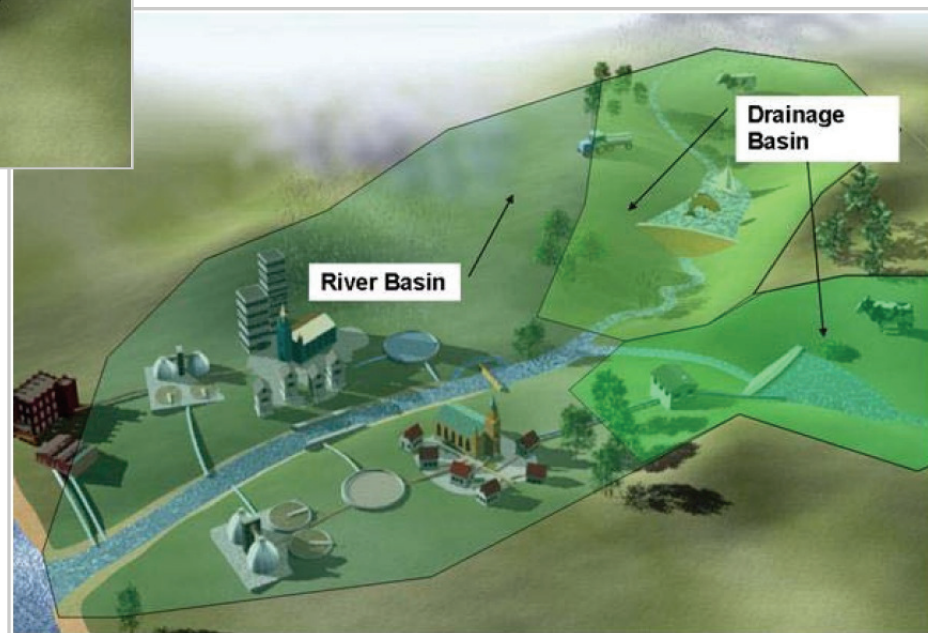
Data Specification Guidelines I.8 Hydrography



Relationships in the Hydrography application schemas



Data Specification Guidelines I.8 Hydrography. Physical waters

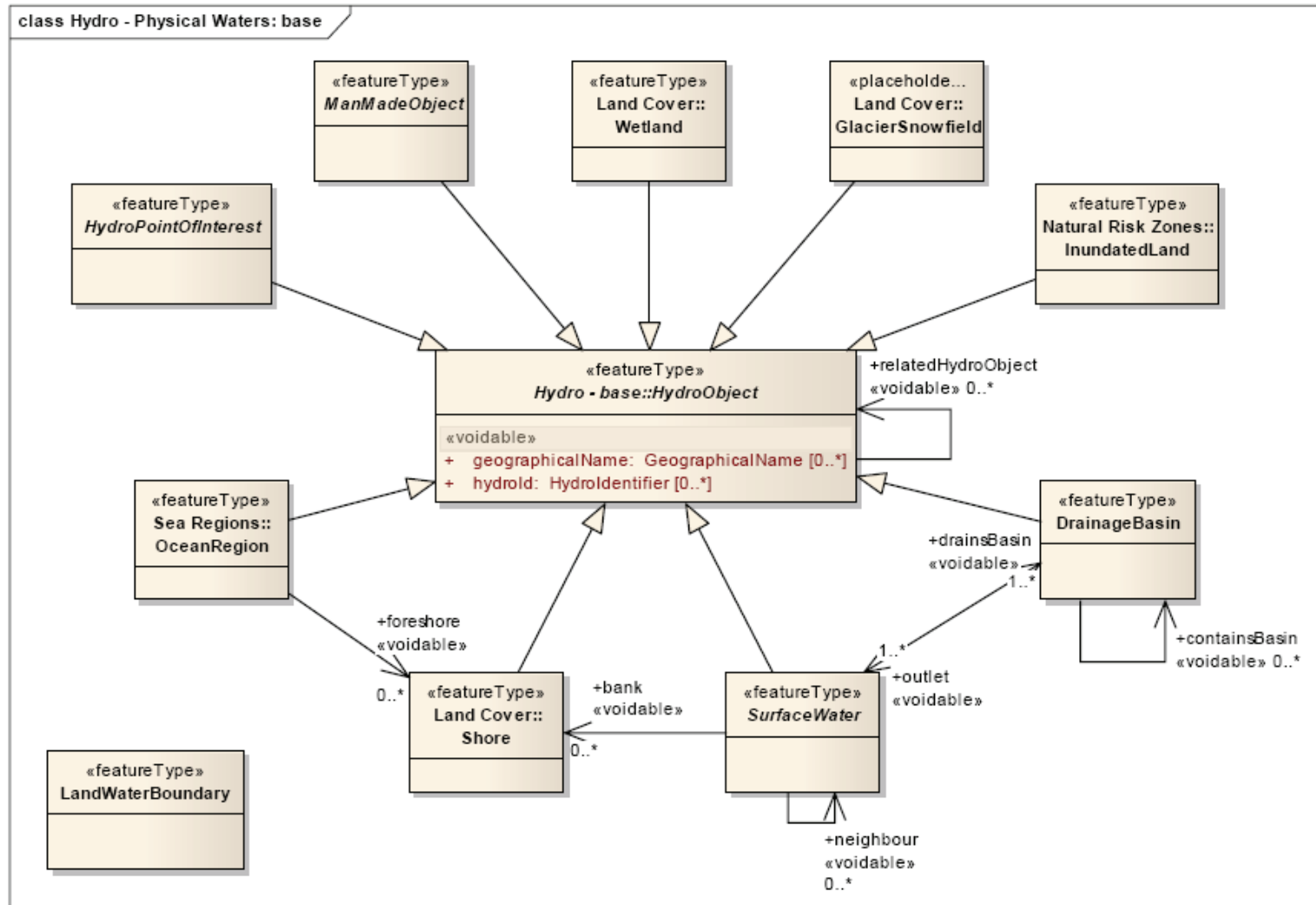


Data Specification

Guidelines I.8 Hydrography. Physical waters



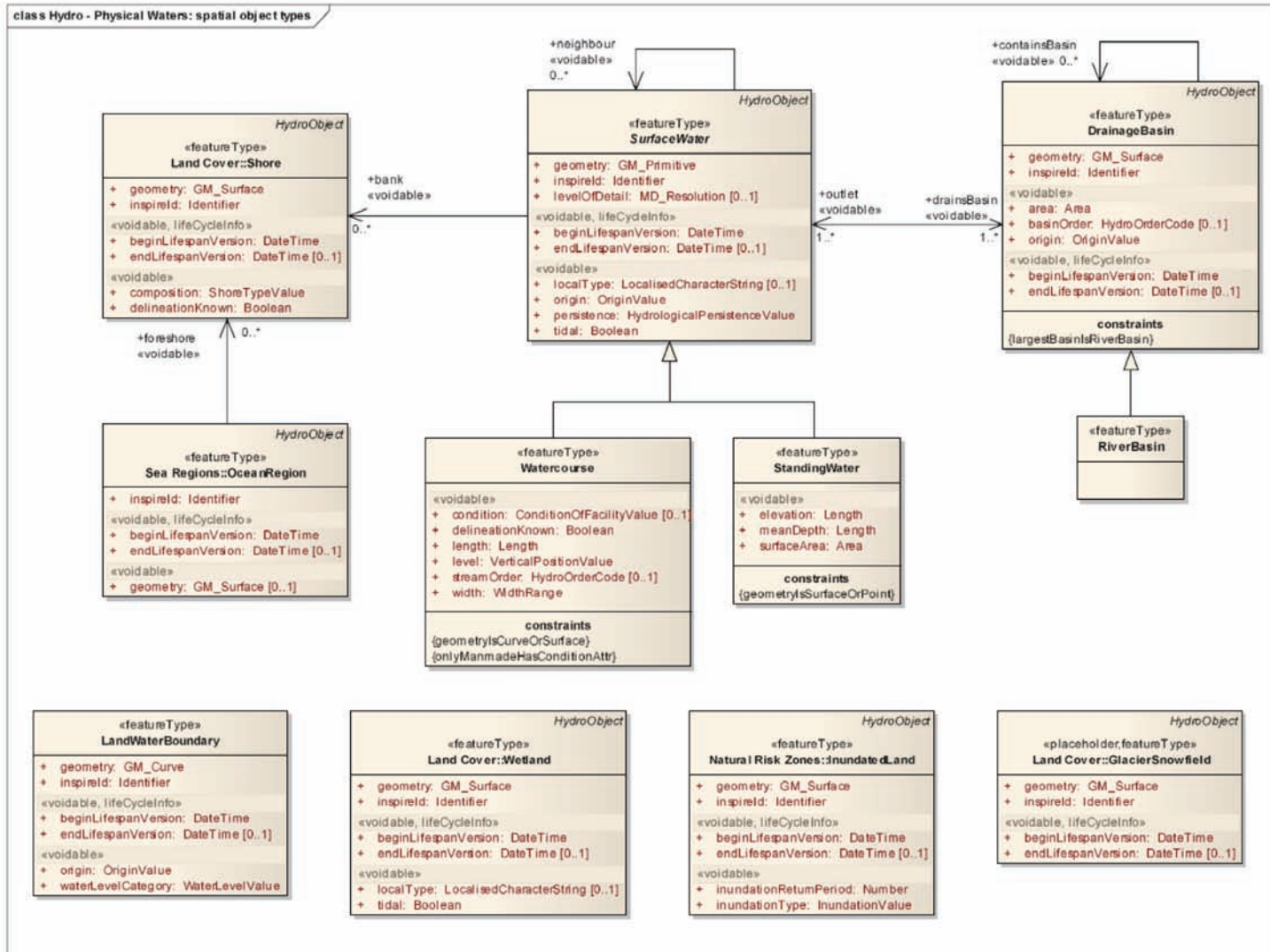
- UML class diagram: Overview of the 'Hydro – Physical Waters' application schema



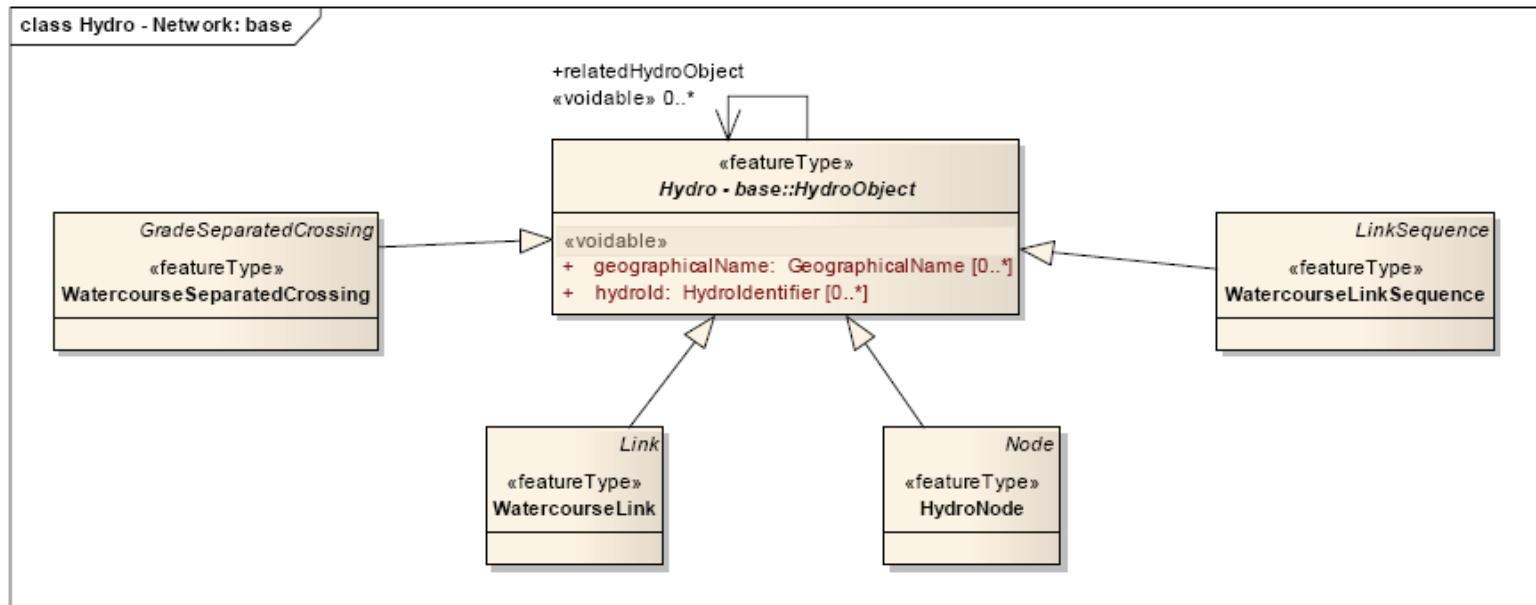
Data Specification Guidelines I.8 Hydrography. Physical waters



UML class diagram: 'Physical Waters' spatial object types (including related classes from other themes)



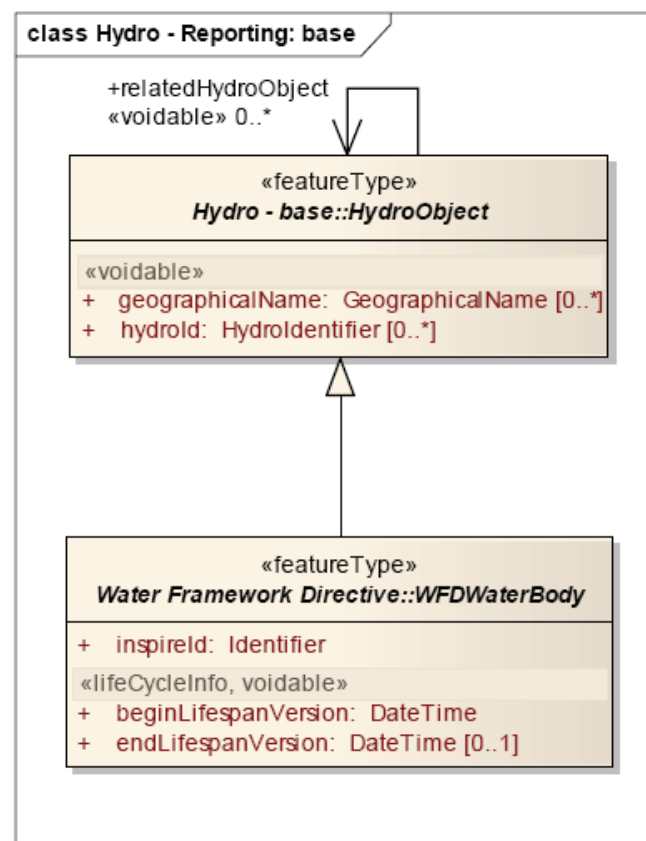
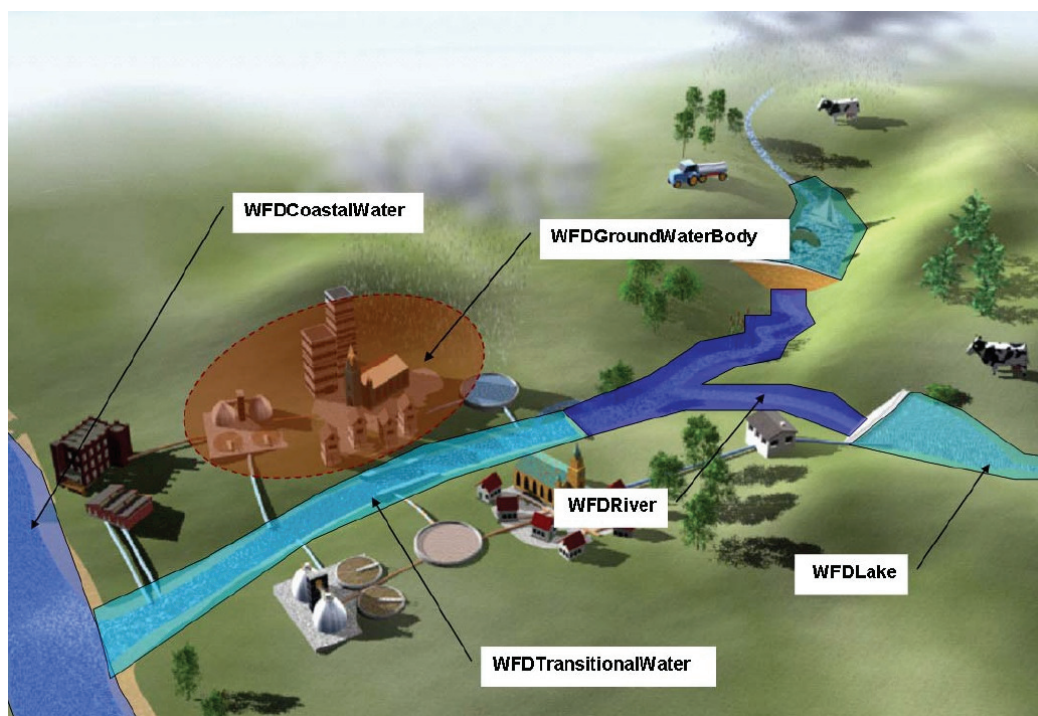
Data Specification Guidelines I.8 Hydrography. Hydro-network



Data Specification Guidelines I.8 Hydrography. Reporting



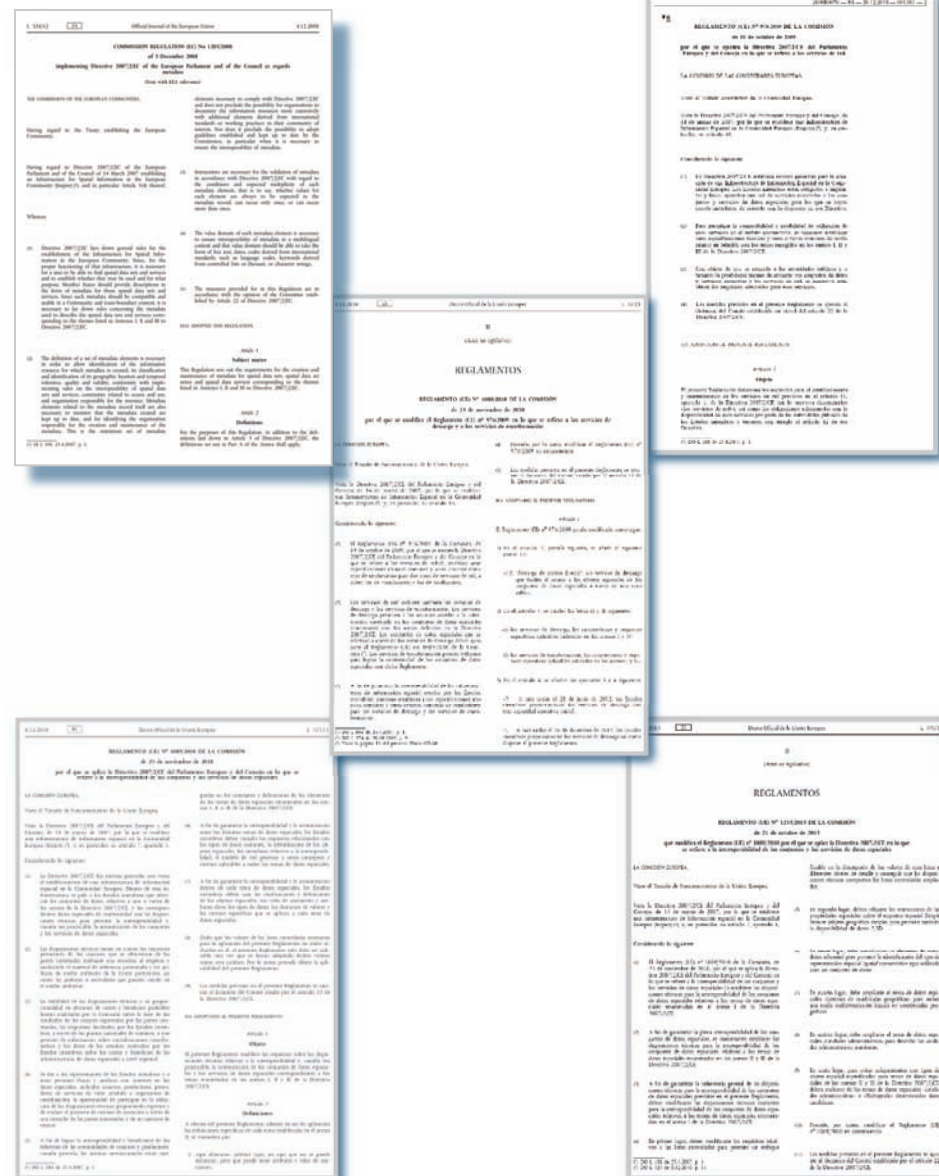
Moved to Annex III.11 through Regulation 1253/2013



Inspire regulations

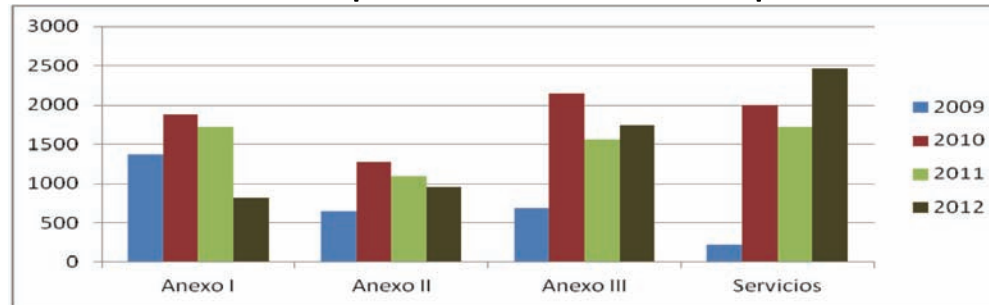


- Regulation (EC) No 1205/2008 as regards **metadata**
- Regulation (EC) No 976/2009 as regards the **Network Services**
- Regulation (EC) No 1088/2010 as regards **download services and transformation services**
- Regulation (EC) No 1089/2010 as regards **interoperability of spatial data sets and services (Annex I Themes)**
 - Regulation (UE) No 1253/2013 (Annex II & III Themes)





- General evolution of data reported to the European Commission (Spain)



- Annex I.8 Hydrography
 - First years: even no data
 - Year 2010
 - 403 spatial datasets reported
 - 48 considered valid
 - Year 2013
 - 98 spatial datasets reported
 - 62 considered valid & correct

More data doesn't necessarily mean more information

If data is not well catalogued
more data = more confusion = less information

Open collaborative production
Non born initiatives



Open collaborative production Non born initiatives



Difficulties of public authorities to cover the hole territory or hole information

- **Phytoplankton:** assessment of frequency of algal blooms (WFD requirement)
- **ID-TAX:** not all levels of taxonomic identification had a good photographs
- Collaborative completion of **inventory of pressures** (e.g. abandoned little dams)



Why haven't they succeed yet?

- Difficulties for quality control
 - ✓ Algal blooms: possible confusion in the name of the lake/reservoir, misspellings in names, foam (pollution or algal bloom?)..
 - ✓ ID-TAX photos: possible mistakes of taxonomic classification, mistakes encoding photos...
 - ✓ Small differences in coordinates produce two objects...
- A reviewing system has to be put in place
 - Does it worth the information gained?
 - Need for automated reviewing or volunteer reviewing community or... (any idea?)
- More data can be less information



Some possible conclusions



First requirement to share information:

- ◆ Information should exist and have minimum quality requirements
 - Requirements have to be public, well known and stable
 - Share data vs share information

Standardization is crucial

- ◆ The highest binding level the better (law, technical specifications, agreements, guidance documents...)
- ◆ Standardization is of no use if there is no willingness to follow the standards
 - Legal enforcement mechanisms are important
 - Mechanisms to increase **loyalty** are of paramount importance
 - Interpersonal relationships (working groups, seminars...)
 - Education: all levels of society implied



The role of ICT

- ◆ ICT is the main driver that allows information sharing (but just a tool)
- ◆ Collaborative production and management of water information should take advantage of existing ICT developments
- ◆ Focus should be put on institutional arrangements

Loyalty – Institutional loyalty



- With co-workers
- With workers of other levels in the scale of information
- With information needs of others (management, citizens)
- With non binding compliance documents or formats
 - With agreements
 - With guidance documents
 - With information formats
- With law compliance
- Loyalty of citizens with administration (environment protection is a responsibility of all)

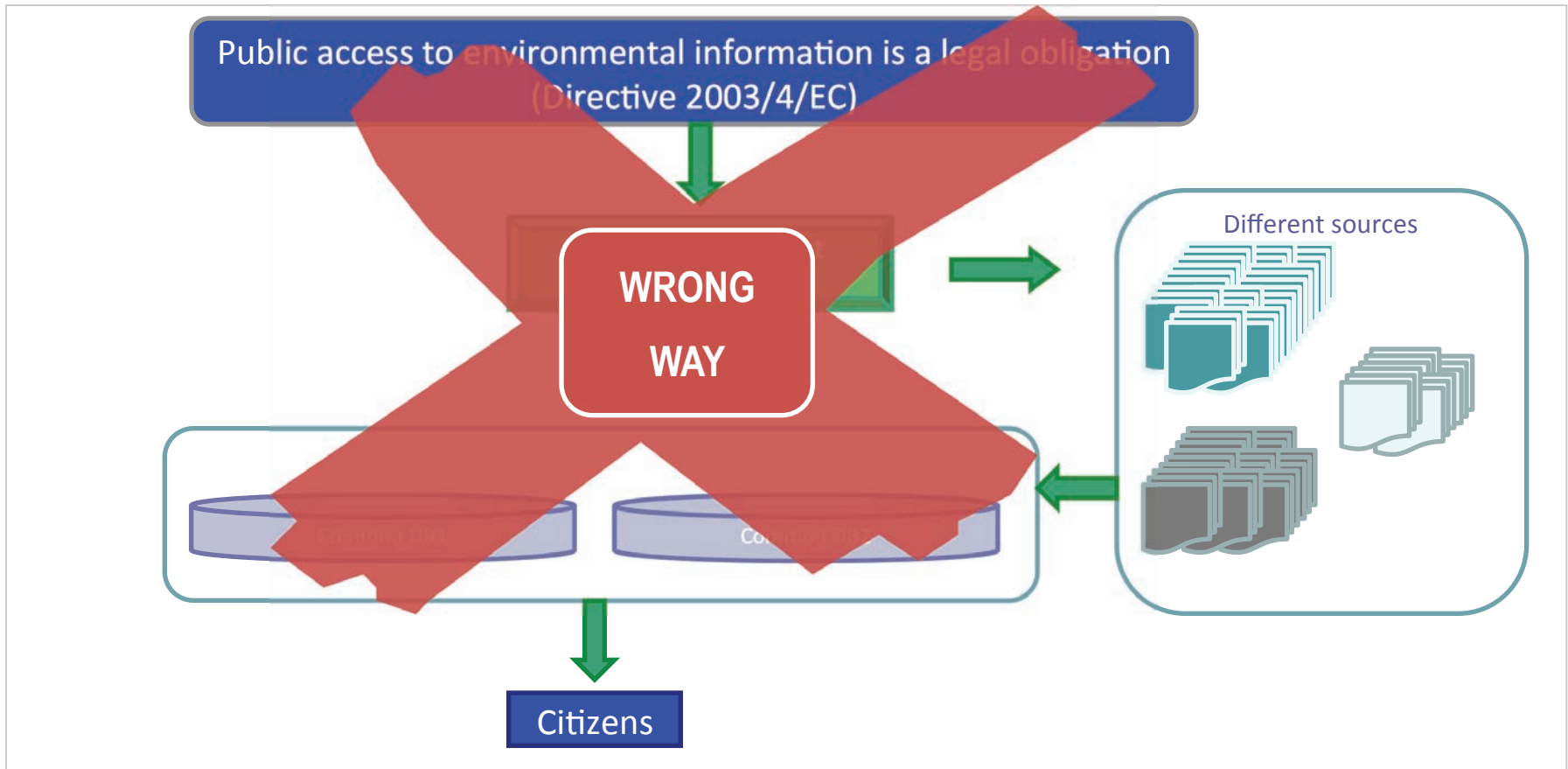
Spanish Constitution

Article 45

1. Everyone has the right to enjoy an environment suitable for the development of the person **as well as the duty to preserve it.**

2. The public authorities shall concern themselves with the rational use of all natural resources for the purpose of protecting and improving the quality of life and protecting and restoring the environment, **supporting themselves on an indispensable collective solidarity.**

Public participation and access to data



It is not just an obligation



To make polycentric information available to managers, agencies and the public

- o **Data information systems have to offer the data producer an advantage for using it**
- o **Data information systems have to take account of data needs of all actors involved**
- o **Data collection shouldn't be oriented only to:**
 - ✓ Reporting purposes (compliance reporting should be just one of the outputs the systems)
 - ✓ Comply with public access to environmental data
- o **Data should be collected for management, planning or policy definition purposes**
 - ◆ Data as a means to an end
 - ◆ All levels of decision have to be involved (Policy makers, managers, stakeholders, water users, NGOs, citizens...). Consensus on strategy
- o **Reporting has to be a consequence of the work carried out**
 - ◆ Reporting shouldn't be a time consuming effort
 - ◆ Reporting should be “transparent” for the producer of the information
- o **Public access to data has to be seen as a way to improve water management** (public access to information as a means to an end)
 - ◆ There is a need that public authorities and citizens believe this way of thinking
- o **Public authorities and citizens should have the commitment to work together**
 - ◆ Need for loyalty in this relationship



Thank you!

Javier Ruza Rodríguez
Head of Unit for Management and Cooperation
Deputy Directorate-General for Water Planning
and Sustainable Use of Water
Directorate-General for Water
Ministry of Agriculture, Food and Environment
(Spain)
jruza@magrama.es