

Workshop: "A Digital Agenda for the Organisation and Dissemination of Data/Information: The SIIF"

Workshop Part 1: INSPIRE services and the SIIF:

The UWWTD-SIIF platform services

SIIF Workshop, Lisbon – 2015

Benoît Fribourg-Blanc

Office International de l'Eau



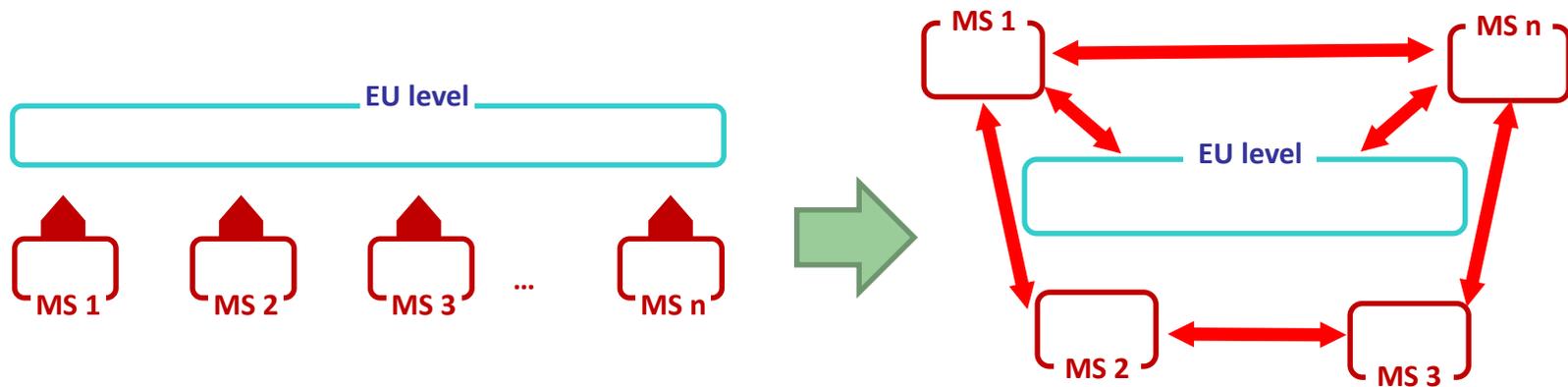
UWWTD SIIF work: The framework

- A framework contract to support DGENV on Water Industry Directives: 2012-2016
- 2013: A specific contract "Towards a modern information system for the Urban Waste Water Treatment Directive (91/271/EEC)" - **Phase 1**
- 2014: A specific contract "Expanding the Urban Wastewater Structured Information and Implementation Framework (SIIF)" - **Phase 2**
- **2015:** A specific contract "Expanding the Urban Wastewater Structured Information and Implementation Framework (SIIF)" - **Phase 3**
 - ◆ Improvement of the UWWTD SIIF IT toolbox
 - ◆ Extension of the UWWTD SIIF IT toolbox to 4 new Member States
 - ◆ Support to all the 7 MS for the reporting under the 9th reporting exercise

UWWTD SIIF: requirements

- UWWTD reported data are of interest for many different users (thematic domain experts, general public, EU services...)
- UWWTD reporting is linked to INSPIRE theme *Utility and governmental services and area management* + public information Directive

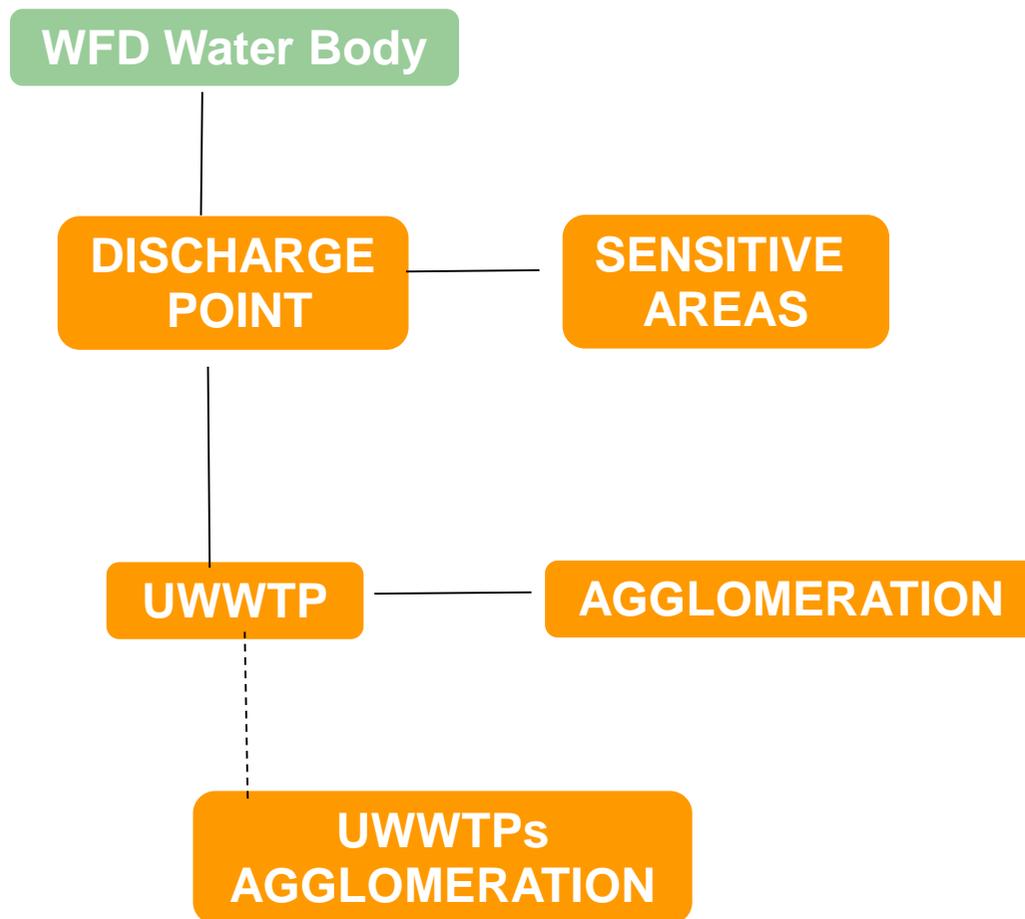
→ a shift from **bottom up** reporting to **information exchange**



- Single infrastructure requires two elements:
 - ◆ same language (semantic),
 - ◆ Same/compatible tools (technical interoperability)

Development of UWWTD SIIF: simplified data model

- Same language: a data collection template with definitions and a model



National UWWTD SIIF platform: What and for Who?

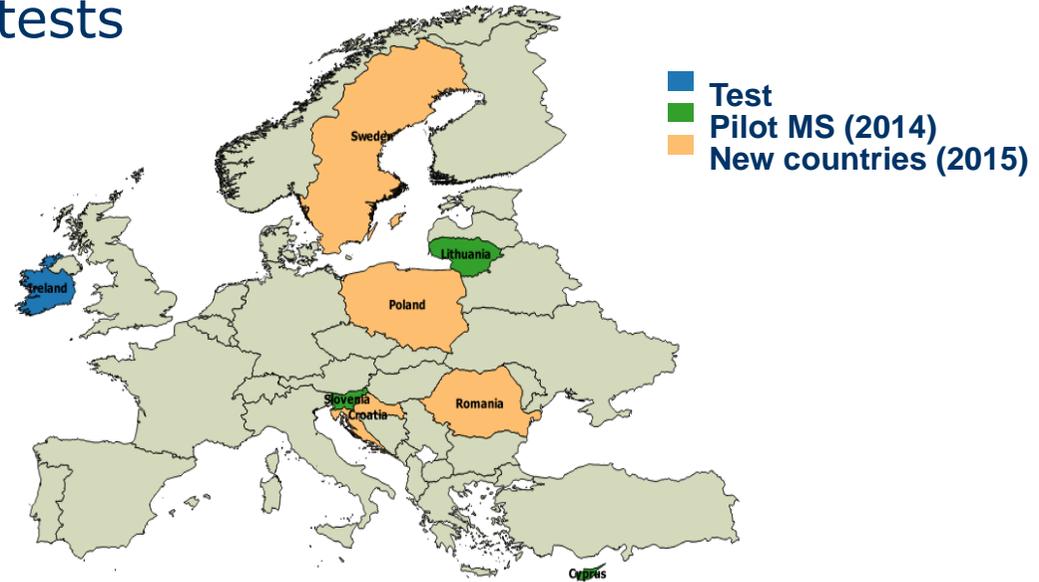
The national UWWTD SIIF tool: a web portal

- ◆ Providing **overall information** about Urban Waste Water
 - ◆ About Regulations (European and National),
 - ◆ And the national UWWTD stakeholders
 - ◆ Both in national language and in English
- ◆ Displaying **public information about Urban Waste Water in the Member State,**
 - ◆ From the national datasets, used for the UWWTD reporting operation
 - ◆ & Providing a national “picture” as well as the description of each element
- ◆ In a **friendly way,**
 - ◆ Using dynamic maps, table and charts
- ◆ For the use of **general public** as well as for **the national and European water stakeholders**
 - ◆ offering the possibility to download datasets in various format
- ◆ While bringing elements towards **INSPIRE compliance**



The UWWTD-SIIF: the platforms implemented

- ◆ Coverage: 7 countries +2 tests

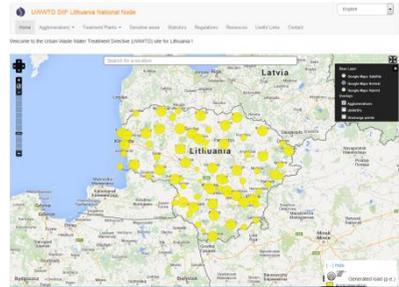


Slovenia



<http://uwwtd.oieau.fr/slovenia/>

Lithuania



<http://uwwtd.oieau.fr/lithuania/>

Cyprus



<http://uwwtd.oieau.fr/cyprus/>

Ireland/generic

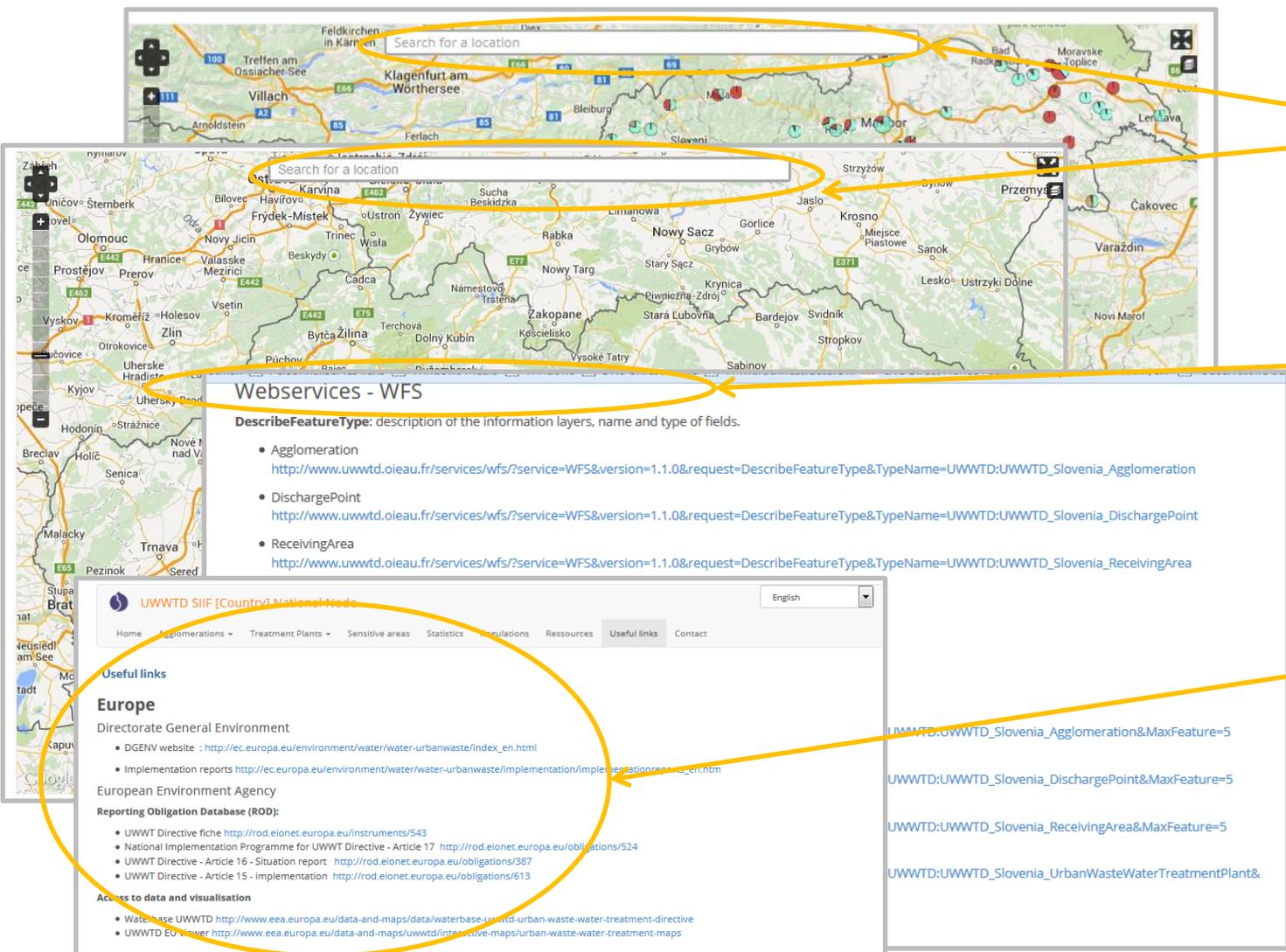


<http://uwwtd.oieau.fr/>

The UWWTD-SIIF discovery services

- o *"(a) discovery services making it possible to search for spatial data sets and services on the basis of the content of the corresponding metadata and to display the content of the metadata;"*
- o The UWWTD-SIIF toolbox is for national authorities. Metadata are managed in a national metadata catalogue.
- o The Toolbox provides search functions on the various spatial datasets and WFS for raw data
- o The toolbox provides access to the documentation
- o To be developed:
 - ◆ Metadata fiches for the 4 geographical objects
 - ◆ Metadata fiches for the services provided by the toolbox
 - ◆ Inclusion in the national catalogue

The UWWTD-SIIF discovery services

Webservices - WFS
DescribeFeatureType: description of the information layers, name and type of fields.

- Agglomeration
http://www.uwwtd.oieau.fr/services/wfs?service=WFS&version=1.1.0&request=DescribeFeatureType&TypeName=UWWTD:UWWTD_Slovenia_Agglomeration
- DischargePoint
http://www.uwwtd.oieau.fr/services/wfs?service=WFS&version=1.1.0&request=DescribeFeatureType&TypeName=UWWTD:UWWTD_Slovenia_DischargePoint
- ReceivingArea
http://www.uwwtd.oieau.fr/services/wfs?service=WFS&version=1.1.0&request=DescribeFeatureType&TypeName=UWWTD:UWWTD_Slovenia_ReceivingArea

UWWTD SIIF (Country) National Nodes

Home Agglomerations Treatment Plants Sensitive areas Statistics Regulations Ressources Useful links Contact

Useful links

Europe
Directorate General Environment

- DGENV website : http://ec.europa.eu/environment/water/water-urbanwaste/index_en.html
- Implementation reports http://ec.europa.eu/environment/water/water-urbanwaste/implementation/implementation_en.htm

European Environment Agency
Reporting Obligation Database (ROD):

- UWWT Directive fiche <http://rod.eionet.europa.eu/instruments/543>
- National Implementation Programme for UWWT Directive - Article 17 <http://rod.eionet.europa.eu/obligations/524>
- UWWT Directive - Article 16 - Situation report <http://rod.eionet.europa.eu/obligations/387>
- UWWT Directive - Article 15 - Implementation <http://rod.eionet.europa.eu/obligations/613>

Access to data and visualisation

- Waterbase UWWTD <http://www.eea.europa.eu/data-and-maps/data/waterbase-urban-waste-water-treatment-directive>
- UWWTD EU viewer <http://www.eea.europa.eu/data-and-maps/uwwtd/interactive-maps/urban-waste-water-treatment-maps>

Slovenia

- to be completed

Other National UWWTD SIIF

Search a specific agglomeration on all maps

Access to webservice

Access to the data dictionary and data collection template

The UWWTD-SIIF view service

- o *(b) view services making it possible, as a minimum, to display, navigate, zoom in/out, pan, or overlay viewable spatial data sets and to display legend information and any relevant content of metadata;*
- o The UWWTD SIIF is very developed on the view service aspect with:
- o A dynamic cartography service which will give access national information "fiches" for each geographical object
 - ◆ Agglomerations of the UWWTP
 - ◆ UWW Treatment Plant
 - ◆ Discharge point
 - ◆ Sensitive area
- o Functions to browse, select and display the content

The UWWTD-SIIF view service: map service

Welcome page with a map viewer

UWWTD SIIF Slovenia National Node

Home Agglomerations Treatment Plants Sensitive areas Statistics Regulations Resources Useful links Contact

UWWTD Agglomerations - Compliance map

Year of data: 2012 Generated load (p.e.): Is equal to Compliance: - Any - Article 3 compliance: - Any - Article 4 compliance: - Any - Article 5 compliance: - Any - Apply Reset

Search for a location

Generated load (p.e.)

- Compliant
- Not relevant
- Not Compliant

Possibility to zoom in/out

Search for a location

NOVO MESTO_6115

Generated Load (p.e.): 21549

Compliance: Not compliant

Article 3 compliance: Compliant

Article 4 compliance: Not relevant

Article 5 compliance: Not compliant

Generated load (p.e.)

- Compliant
- Not relevant
- Not Compliant

Possibility to display the content of the database

Agglomeration: SI NOVO MESTO_6115 - Identifier: SI06115 - Status: Active - Reporting year: 2012

Region (NUTS) Code: SI000 - Region (NUTS) Name: SI000

Compliance timeline

2009: NC 2012: Not compliant

Description 2012

Generated load (p.e.): 21 549

Individual and Appropriate Systems (IAS): 7.00 %

Discharge without treatment: 0.00 %

Characteristics	Waste Water Network Connexions	Site information
<p>Latitude: 45.80</p> <p>Longitude: 15.17</p> <p>Deadline article 3: 12/31/2008</p> <p>Deadline article 4: 12/31/2008</p> <p>Leak registration: Not provided</p> <p>Maintenance plan: Not provided</p> <p>Is best technical knowledge to limit pollution applied?: Not provided</p>	<p>Linked receiving areas: VF Krka Savaška - Drava</p> <p>Linked treatment plants: UWWTP_NOVO MESTO (LOČNA)</p> <p>Linked discharge points: DP_UWWTP_NOVO MESTO (LOČNA)</p>	<p>Year of data: 2012</p> <p>Source of data: SI06115_1427716943.xml</p> <p>Forward looking aspect</p> <p>Identified reason(s) for non compliance: neustrezna opremljenost z javno kanalizacijsko mrežo</p> <p>Measure(s) foreseen to reach compliance with Article 3 (collecting systems and IAS): Izgradnja in rekonstrukcija kanalizacijskega omrežja</p> <p>Start date or expected start date for work: November, 2012</p> <p>Expected date of completion of the collecting system or IAS works: April, 2014</p> <p>Forecast investment cost (as in the national plan): 1 637 195</p>

SIIF focused on compliance Automatically generated from the dataset.

forward looking aspect Article 17

The UWWTD-SIIF view service: display and select content and view

Select data with different criteria

UWWTD Agglomerations - Compliance map

Year of data: 2012 | Generated load (p.e.): Is equal to | Compliance: - Any - | Article 3 compliance: - Any - | Article 4 compliance: - Any - | Article 5 compliance: - Any - |

Sort data by load, name, region, compliance...

Name	Identifier Code	Generated Load (p.e.)	Region (NUTS)	Compliance	Article 3 compliance	Article 4 compliance	Article 5 compliance
SI_LJUBLJANA_16481	SI16481	202 203	SI00E	Not relevant	Not relevant	Not relevant	Not relevant
SI_MARIBOR_29	SI00029	133 977	SI002	Not relevant	Not relevant	Not relevant	Not relevant
SI_CELJE_20543	SI20543	55 097	SI004	Compliant	Not relevant	Compliant	Not relevant
SI_KRANJ_20594	SI20594	45 284	SI009	Not relevant	Not relevant	Not relevant	Not relevant
SI_VELENJE_20709	SI20709	33 602	SI004	Compliant	Compliant	Compliant	Not relevant
SI_KOPER_20018	SI20018	29 333	SI00C	Compliant	Compliant	Compliant	Not relevant
SI_DOMŽALE_4115	SI04115	27 076	SI00E	Not relevant	Not relevant	Not relevant	Not relevant
SI_KROMPIRK_1515	SI01515	24 041	SI00B	Not	Not compliant	Not compliant	Not compliant
SI_PTUJ_15065	SI15065	23 718	SI00D	Not	Not compliant	Not compliant	Not compliant

Display the content of the database as regards a specific treatment plant

Agglomeration: SI_NOVO_MESTO_6115 - Identifier: SI06115 - Status: Active - Reporting year: 2012
Region (NUTS) Code: SI00D - Region (NUTS) Name: SI00D

Compliance timeline: 2009 (NC) 2012 (Not compliant)

Description 2012

Generated load (p.e.): 21 549
Collective system: 93.00 %
Individual and Appropriate Systems (IAS): 7.00 %
Discharge without treatment: 0.00 %

Compliance: **Not compliant**
Article 3 compliance: **Compliant**
Article 4 compliance: **Not compliant**
Article 5 compliance: **Not compliant**

Characteristics	Waste Water Network Connexions	Site information
Latitude: 45.80 Longitude: 15.17 Deadline article 3: 12/31/2008 Deadline article 4: 12/31/2008 Deadline article 5: 12/31/2008 Leaks registration: Not provided Maintenance plan: Not provided Is best technical knowledge to limit pollution applied?: Not provided	Linked receiving areas: VT Roka Savača - Gradec Linked treatment plants: UWWTP_NOVO MESTO (LOČNA) Linked discharge points: DP_UWWTP_NOVO MESTO (LOČNA)	Year of data: 2012 Source of data: <input type="checkbox"/> siodata2012_1427716945.xml Forward looking aspect Identified reason(s) for non compliance: neustrezna opremljenost s javno kanalizacijsko inštalacijo IAS Measure(s) foreseen to reach compliance with Article 3 (collecting systems and IAS): Izgradnja in rekonstrukcija kanalizacijskega omrežja Start date or expected start date for work: November, 2012 Expected date of completion of the collecting system or IAS works: April, 2014 Forecast investment cost (as in the national plan): 1 637 195

The UWWTD-SIIF view service: individual fiches



UWWTP : UWWTP_ČRNUČE - Identifier : SI_KCN_00086 - Status : Active - Reporting year : 2012
 Region (NUTS) Code : SI00E - Region (NUTS) Name : SI00E

Explicit title



Compliance timeline

2012

Not compliant

Compliance timeline

Synthetic description

Load entering UWWTP (p.e.): 9 777 Physical Capacity (p.e.): 8 000 Waste water treated (m3/y): 709 000.00 Treatment performance: BOD5: Pass Treatment performance: COD: Pass Treatment performance: TSS: Pass Treatment performance: Total nitrogen: NR Treatment performance: Total phosphorus: NR Treatment performance: Others: NR	Incoming loads BOD (t per year): 214.00 Discharged loads BOD (t per year): 5.00 Rate for BOD: 97.66% Incoming loads COD (t per year): 400.00 Discharged loads COD (t per year): 21.00 Rate for COD: 94.75% Incoming loads Ntot (t per year): 29.00 Discharged loads Ntot (t per year): 4.00 Rate for Nitrogen: 86.21% Incoming loads Ptot (t per year): 5.00 Discharged loads Ptot (t per year): 3.00 Rate for Phosphore: 40%	Compliance: Not compliant Treatment type in place: No information Treatment required: More stringent treatment - Other Treatment met: Yes Performance met: No
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More detailed description

Link to the associated fiches

Waste Water Network: Connexions

Latitude: 46.052
 Longitude: 14.52

Treatment in place :

Primary treatment:

Secondary treatment:

More stringent treatment :

N removal:

P removal:

UV:

Chlorination:

Ozonation:

Sand filtration:

Micro filtration:

Other treatment:

Waste Water Network: Connexions

Linked receiving areas:
[Catchment of VT Sava Medvode - Podgrad](#)

Linked agglomerations:
[SI_ČRNUČE_16483](#)

Linked discharge points:
[DP_UWWTP_ČRNUČE](#)

Site information

Year of data: 2012
 Source of data: [sidata2012_1431941061.xml](#)

Access to original dataset

The UWWTD-SIIF view service: statistics



Select data with different criteria

Statistics
Select the type of content, type of data (if needed) and geographical extent to generate the statistics.

Type
Agglomerations

Data type
Compliance

Year
Show all

Geographical extent
Basins

Launch

Export the result

Copy CSV Excel PDF Print

Sort data by treatment type, by compliance...

Show 10 entries Search:

Showing 1 to 2 of 2 entries

BASIN	C	NC	NR
Danube	2	6	132
North Adriatic	2	2	19
TOTAL	4	8	151
RATE	2.45 %	4.91 %	92.64 %

The UWWTD SIIF Download Services

- (c) download services, enabling copies of spatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly;

Get the datasets **Resources: webservices**

On this page you will find the useful links to get the datasets used on this platform in various formats (xls, csv, kml, shp, WFS...) in order to use these data on other softwares for your own purpose.

Webservices - WFS

DescribeFeatureType: description of the information layers, name and type of fields.

- Agglomeration
http://www.uwwtd.oieau.fr/services/wfs/?service=WFS&version=1.1.0&request=DescribeFeatureType&TypeName=UWWTD:UWWTD_Slovenia_Agglomeration
- DischargePoint
http://www.uwwtd.oieau.fr/services/wfs/?service=WFS&version=1.1.0&request=DescribeFeatureType&TypeName=UWWTD:UWWTD_Slovenia_DischargePoint

Statistics module



SI_TURNIŠČE_9648	SI09648	2 019	SI001
SI_ŽELODNIK_4093	SI04093	2 007	SI00E
SI_RENČE_1518	SI01518	2 002	SI00B
SI_BOVEC *_2873	SI02873	1 981	SI00B
SI_PLAVE *_2133	SI02133	1 975	SI00B
SI_KRANJSKA GORA *_2993	SI02993	1 960	SI009
SI_LAŠKO *_8636	SI08636	1 959	SI004
SI_MORSKO *_2146	SI02146	1 904	SI00B



Individual objects tables

The UWWTD SIIF Transformation Services: to be developed

- *(d) transformation services, enabling spatial data sets to be transformed with a view to achieving interoperability;*
- The current Toolbox does not include transformation services such as change of projection.

The SIIF Invoke Services

- *(e) services allowing spatial data services to be invoked*
- While not providing detailed invoke services, the UWWTD SIIF provides explanations how to make reference to this website.
- It details how hyperlinks are built and their standard format

How to make references to this website ?

All the items description page (agglomeration, treatment plant, discharge point and sensitive areas) can be accessed directly, and then referenced on other websites.

This can be done by using the following URL pattern: [http://uwwtd.oieau.fr/slovenia/\[year\]/\[name of the element\]/\[ID of the element\]](http://uwwtd.oieau.fr/slovenia/[year]/[name of the element]/[ID of the element]);

For instance:

- <http://uwwtd.oieau.fr/cyprus/2011/agglomeration/cy51-agglo>
- http://uwwtd.oieau.fr/cyprus/2011/treatment-plant/cy61_uwwtp
- <http://uwwtd.oieau.fr/cyprus/2011/discharge-point/cy61-dispoint>

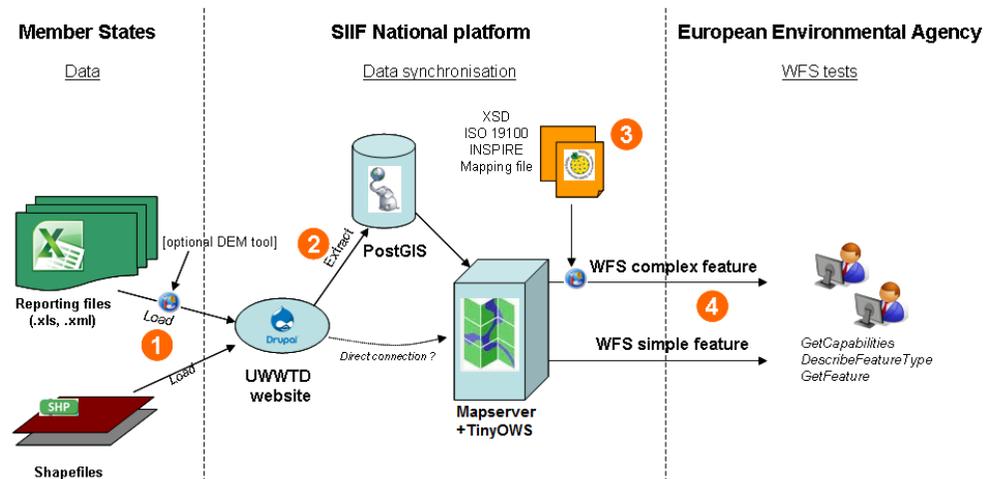
The other Inspire services to be developed and perspectives

Other Inspire services:

- ◆ Transformation service: change of projection
- ◆ Discovery service: use of metadata catalogue to describe and search data
- ◆ Invoke services

Perspectives:

- ◆ OIEau is thinking about using MapServer and proposing development of its extension TinyOWS:
 - ◆ Objective: Using high performance of the tool to diffuse WFS in version 2 and GML3.2 Complex Feature (to be developed)



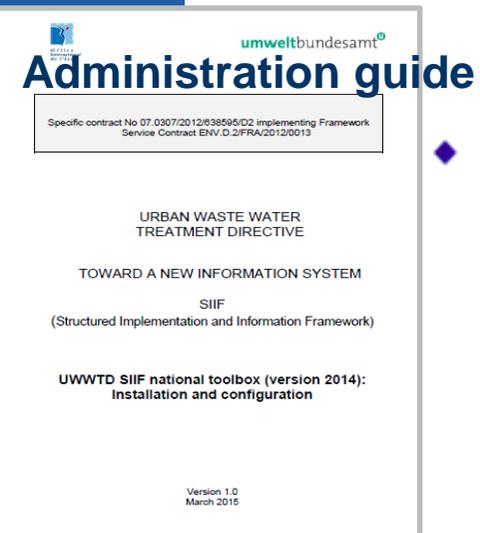
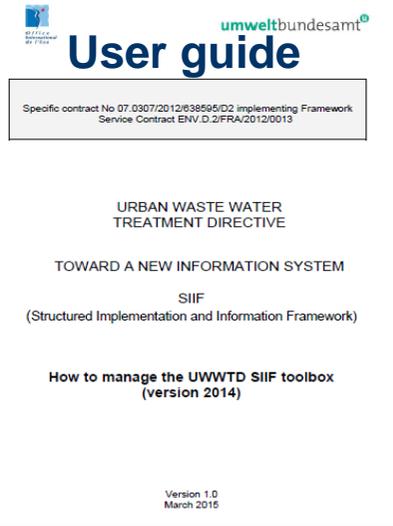
Improvements to the toolbox: 2015 perspectives

- A set of new functionalities identified:
 - ◆ Online generated reports and printing facilities,
 - ◆ Improved QA/QC routines (tests + draft compliance)
 - ◆ New possibilities with dynamic maps (other national data),
 - ◆ SIIF platforms for sub-national level (visualisation)
 - ◆ New process for UWWTD official reporting



The UWWTD-SIIF toolbox: an open source tool

- ◆ Download the files
- ◆ Open the installation guide and follow the main steps:
 - ◆ Check the minimum requirements and allocate a space on your server and install three main modules:
 - the database : Postgres 8.4 or 9.x with Postgis extension (version > 1.5) ,
 - the website : Drupal 7,
 - the map server : Geoserver.
 - ◆ General installation: website, database, settings, access rights
 - ◆ Country specific configuration: layout, language, national content
 - ◆ Import data: standard reporting file and art. 17 file
- ◆ Open the administration guide and use it for management of the content:
 - ◆ Define user connections
 - ◆ Check and manage all identified errors before publication
 - ◆ Reprocess the conformity and publish



Thank you

Contacts:

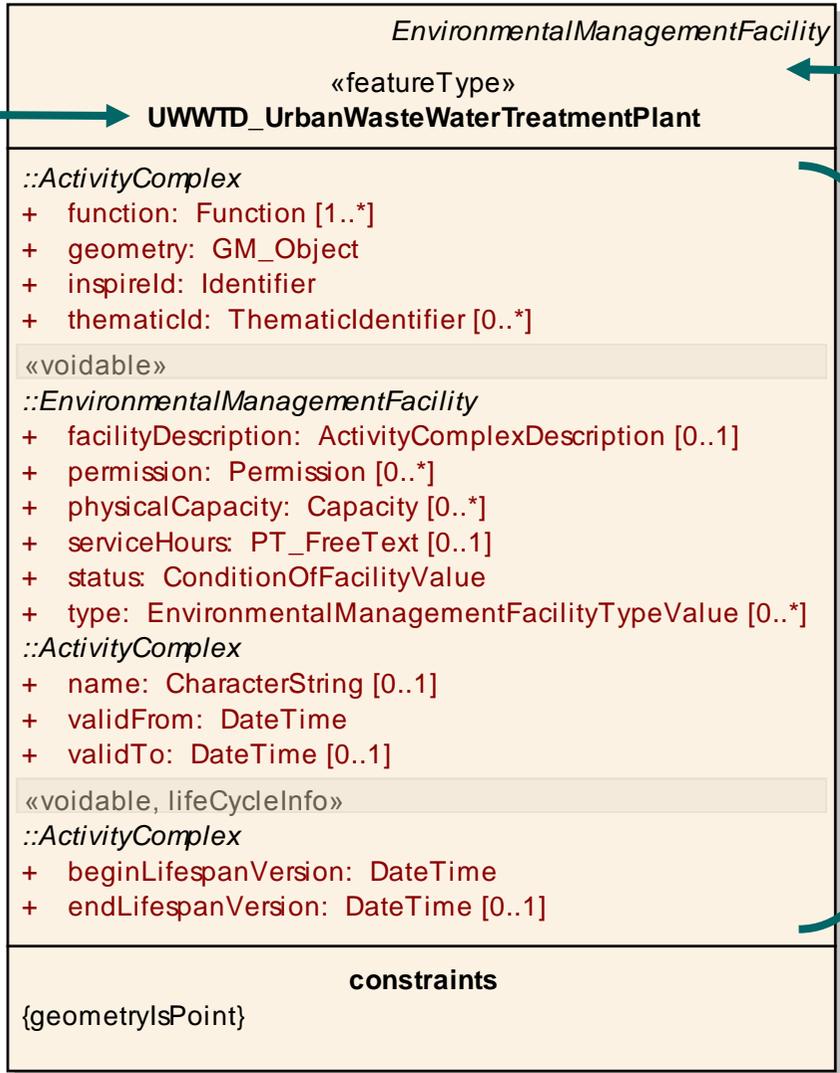
- ◆ **Benoît Fribourg-Blanc:** b.fribourg-blanc@oieau.fr
- ◆ **Laurence Guédet:** l.guedet@oieau.fr
- ◆ **Béatrice Ulvoas:** b.ulvoas@oieau.fr



INSPIRE UWWTD Model – Class UrbanWasteWaterTreatmentPlant

SIIF Class

class UWWTD_DataModel



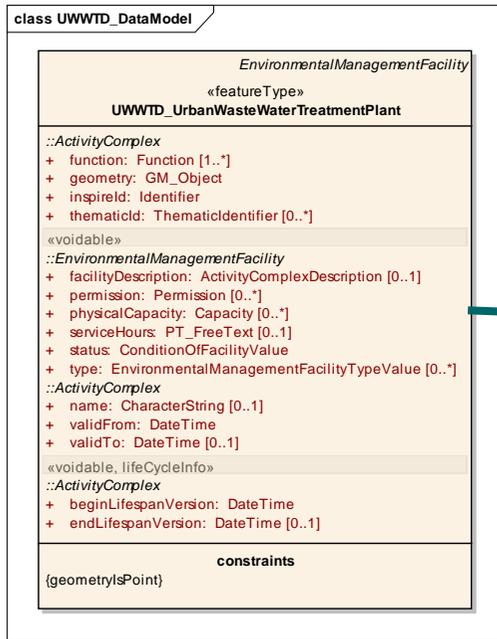
Inherited INSPIRE concept

Inherited INSPIRE attributes

Constraints on attributes



Mapping between the SIIF reporting and the INSPIRE Structure WebService -



INSPIRE Attribute	INSPIRE Attribute-2 nd level	Transformation	Remarks / INSPIRE definition
inspireId*	localId namespace	=uwwCode If dataset name comes from France, namespace = 'FR_UWWTD_UrbanWasteWaterTreatmentPlant' If dataset name comes from Germany, namespace = 'DE_UWWTD_UrbanWasteWaterTreatmentPlant' ...	Id of the UWWTD. The rule needs to be defined. <i>namespace uniquely identifying the data source of the spatial object, starting with the two letter ISO 3166 code of the member state the data provider is associated with, or an underscore ("_") if the data provider is not associated with (only) one member state. EXAMPLE FR for France, DE for Germany, NL for the Netherlands, etc.</i>
	versionId	voidReasonValue=unpopulated	The choice has to be done to fill it or not.
	name	=uwwName	<i>«Voidable» Name of UWWTP/ collecting system without «statement»</i>
	geometry	=S1_Geometry (POINT(uwwLatitude, uwwLongitude))	Latitude, longitude is contained in a geometry in a spatial database
	status	If uwwState = 'temporarily inactive', then currentStatus = 'temporarily inactive'. If uwwState = 'active', then currentStatus = 'functional'. If uwwState = 'inactive', then currentStatus = 'disused'	The INSPIRE list code has to be extended for the status 'temporarily inactive'. <i>«Voidable» The status of the Environmental Management Facility with regards to its completion and use, such as operational or decommissioned.</i>
	validTo	=uwwDateClosing	Date of closing of the UWWTP <i>«Voidable» The time when the activity complex no longer exists in the real world.</i>
	validFrom	voidReasonValue= unpopulated	<i>«Voidable» The time when the phenomenon started to exist in the real world.</i>

Linear transformation

When the attribute is not filled in the former system or can not be easily found

