



Specific contract n°07.0201/2014/SFRA/698614/ENV.C.2 implementing Framework Service Contract ENV.D.2/FRA/2012/0013: "Expanding the Urban Wastewater Structured Information and Implementation Framework (SIIF) via: Improvement of the SIIF IT toolbox and Extension of the Urban Waste Water Directive (UWWTD) SIIF approach to four new Member States."

UWWTD SIIF national toolbox How to manage the UWWTD SIIF toolbox



Date: 2 February 2016

Authors: Benoît Fribourg-Blanc, Nicolas Dhuygelaere, Louis Crespin (OIEau),

The contents of this document are subject to copyright and all rights are reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted, in any form or by any means electronic, mechanical, photocopying, recording or otherwise, without the prior written consent of the copyright owner.

This document has been produced by Umweltbundesamt GmbH and OIEau. This document has been produced by OIEau.





Table of Content

1	INTR	ODUCTION	1
2	KEY A	ASPECTS OF ADMINISTRATION	1
2.1		SER CONNECTION	
2.2		ANAGING DATA	
	2.2.1	Importing or Adding UWWTD article 15 data and/or GIS files of receivin	
			-
	a giver 2.2.2	ı year	
	2.2.2	Modification or suppression of a single element for a given year	
	2.2.3 2.2.4		
	2.2.4 2.2.5	Modification of data for a given year	
	2.2.3 2.2.6	Deletion of data for a given year	
		Importing or Adding UWWTD article 17 data for a given year	
	2.2.7	Add external links	
	2.2.8	Calculate the national Register	
	2.2.9	Perform a flush of all the cached data	
2.3		DD A NEW LANGUAGE	
2.4		ANSLATING A WORD OR PHRASE	
2.5		EPROCESSING THE CONFORMITY	
2.6		TTING UP THE WEBSERVICES	
	2.6.1	Creating a workspace: « UWWTD »:	
	2.6.2	Creating a" UWWTD_country" store:	
	2.6.3	Create and publish layers:	
	2.6.4	Access to the services	
	2.6.5	Access from a GIS software, like QGis:	
		REATE WEBSERVICES METADATA	
	2.7.1	Create metadata on geonetwork catalogue	
	2.7.2	Declare metadata on UWWTD SIIF plateform	
2.8		ANAGING MAPS ON THE UWWTD SIIF PLATFORM	
	2.8.1	Manage map settings	
2	2.8.2	Add new layers	
2 (T_{C}	O CO FURTHER	32







1 Introduction

This document is intended to help the administrators of the web portal perform the primary tasks needed for a well-functioning website:

- User login
- Importing a new dataset
- Managing errors
- Modifying whole datasets
- Modifying single data elements
- Deleting whole datasets
- Deleting single data elements
- Translating the website
- Creating and setting up webservices
- Creating and publishing layers
- Giving access to the web services and accessing with a GIS Software

This document presumes you have already installed your server and all the necessary requirements detailed in the document 'UWWTD-SIIF-installation-centos.doc'.

To summarise the requirements:

- a Centos/Red Hat server with at least 2 Go of RAM,
- some development tools,
- an Apache 2 webserver with PHP 5.3,
- the GeoPHP libraries,
- uploadprogess and dbase pecl modules,
- the installation kit with database dump and website sources
- the database: Postgres 8.4 or 9.x with Postgis extension (version > 1.5),
- the website: Drupal 7,
- the map server : Geoserver.

On the website, configuration and administration guides are available at the address: www.[your site url]/admin/help

2 Key aspects of administration

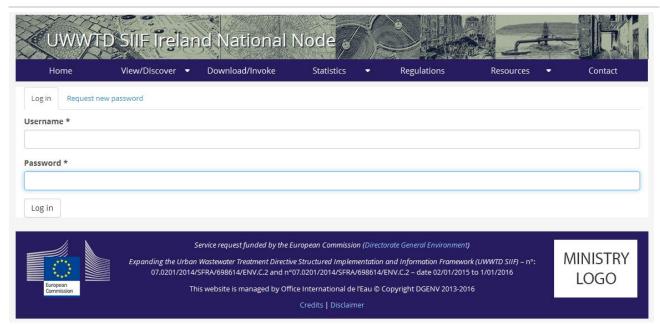
2.1 User connection

Prior to any administration task on the web portal, user registration has to be operated.

Go to the address www.[your site url]/user and type your ID and password.







If you have not yet changed your default password your login and password will be:

- login: admin
- password: admin

We strongly recommend that you change this password as soon as possible as explained in the previous document 'UWWTD-SIIF-installation-centos.doc' provided with the installation kit.

Once connected a new menu appear just below the main menu. This menu is the editorial menu allowing you quick access to all the main administration tasks.



2.2 Managing data

2.2.1 Importing or Adding UWWTD article 15 data and/or GIS files of receiving areas for a given year

Objective: adding a UWWTD dataset for a new year.





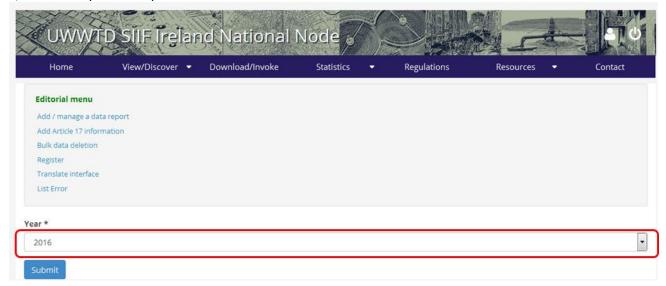
To add data for a new year you must either have:

- A European validate .XML file containing all the information necessary.
- A compressed .ZIP file containing all the individual .CSV files for all the necessary tables of data.
- A compressed .ZIP file containing all the geometry data in the form of a .SHP file and the other necessary files

1/ Connect as an administrator of the system and select add/manage a data report



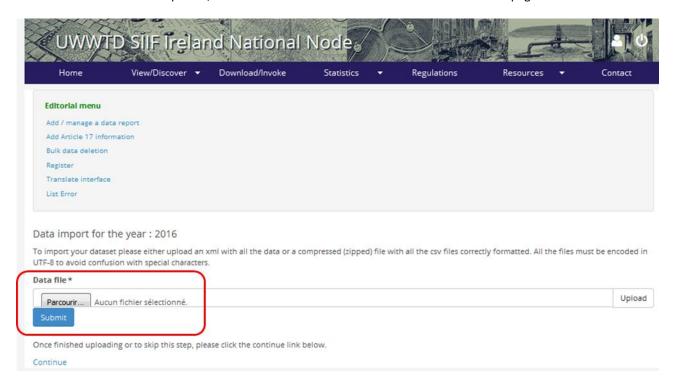
2/ Choose the year which your data concerns



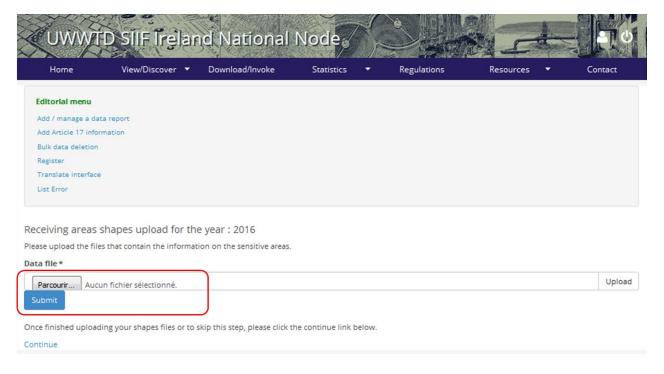




3/ Select the European validated XML file or a compressed .ZIP file containing all the .CSV files used to construct a valid XML file and click on "upload", and once finished click on "continue" at bottom of the page.



4/ Select the compressed .ZIP file containing all the .SHP files needed for your country's geographical zones and click on "upload", and once finished click on "continue" at bottom of the page.



5/ Click the submit button to launch the import.





2.2.2 Managing errors

Once you have finished importing a dataset it may be possible that some errors have occurred due to missing or poorly formatted data.

To address these errors a table has been created to be able to correctly view them.

1/ Click the editorial menu link 'List error'

2/ Sort and select the errors for deletion

Once on the error management page you can view any error that may have occurred and see which data element they concern.



Data verification for the year: 2016

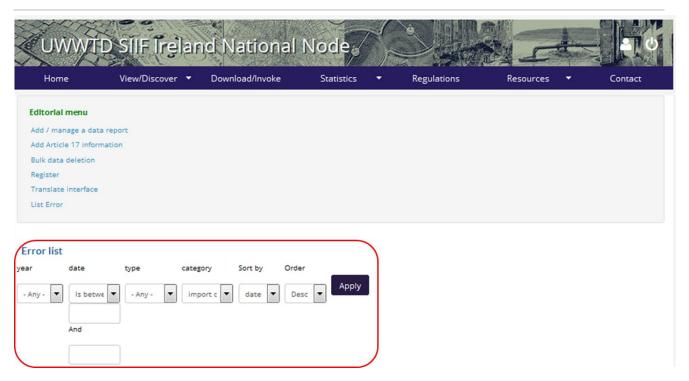
Be sure that your data is correctly uploaded then to proceed press the send button below.

Submit

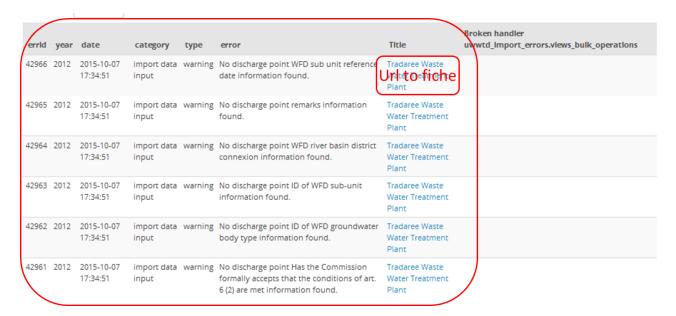
You can sort them or select the type of errors you want to look at. After having solved the issues or if you simply want to ignore them, please delete them by selecting them from the table shown below and clicking delete.







Once criteria entered click on the "Apply" button and you obtain a table listing the issues and a link to the individual fiche where the exact issue is detailed:







2.2.3 Modification or suppression of a single element for a given year

CAUTION! Be aware you are responsible for the coherence of the national dataset. To insure this, you will certainly have to correct the national dataset and report it on Eionet again to avoid inconsistencies between the publically available national and European dataset. The normal process should be:

- identification of a set of modifications /corrections needed on the dataset for one or more years
- correction of the dataset(s)
- submission to the dedicated CDR envelope(s)
- import of the new xml file(s) on the UWWTD SIIF platform
- recalculation of compliance

The import and calculation functions of the toolbox require only small manual operations and allow delete and replace a dataset by another one and recalculate the compliance, and this option should be preferred.

However, the UWWTD SIIF toolbox allows you to modify or delete a single element for a given year and this is described hereunder. If you decide to modify an element directly in the website, be sure that it will be coherent with the content of last national dataset to avoid incoherence between the reported data and the visualization of them.

After identifying an error or if you simply want to change some of the information provided by the dataset then you will need to modify the element concerned. You may also wish to delete an element from the website.

1/ To modify or delete an element, first go to the relevant page for the element and the correct year.

The URL will be constructed in the following format: http://www.[website base address]/[year of data]/[type of data]/[element site id]

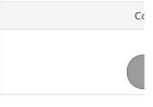
Example: http://www.uwwtd_pl/2013/agglomeration/pldo023

2/ Then click the Drupal link to modify the element.



Agglomeration: Kowary - Identifier: PLDO023 - Status: Active - Reporting year: 2013
Region (NUTS) Code: PL112 - Region (NUTS) Name: PL112



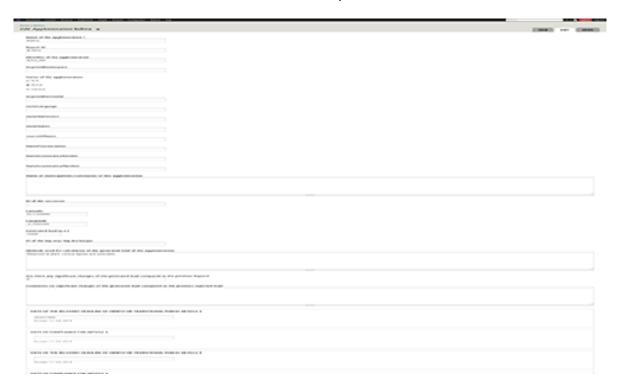


Descr	iption 2013
Generated load (p.e.): 25 000	Compli
Collective system: 40.00 %	Article
Individual and Appropriate Systems (IAS): Not provided	Article
Discharge without treatment: 60.00 %	Article





3/ You will now have a list of all the data for the element which you can either edit or delete.



2.2.4 Modification of data for a given year

It is also possible to modify an entire dataset for a given year. This can be useful when trying to import a revision for a given year where a large amount of data was incorrect. Please be careful, once validated there is no possibility to come back to previous version except by reprocessing everything. You will need to have the rights to do this.

1/ Select the 'Add / manage a data report' main menu link.







2/ Select and submit the European validated XML file or compressed .ZIP file containing the appropriate .CSV files.

By uploading again a dataset you will modify the data contained in each of the year's data and therefore allow you to modify any wrong information on a large scale.

Please note that this will not affect any previously calculated information concerning the conformity of any elements nor will it delete any.

3/ You may now wish to revaluate the conformity of your data.

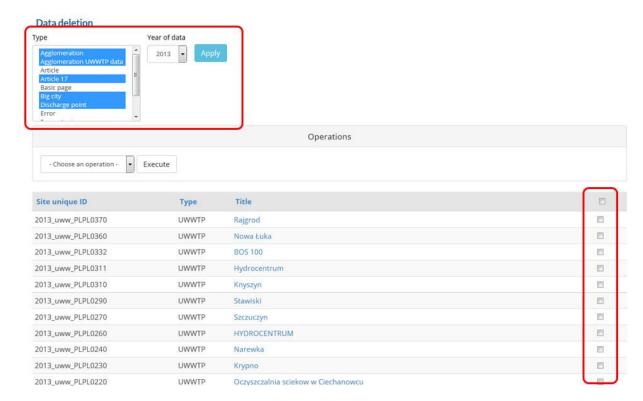
Having changed some of the information in your dataset it is recommended but not obligatory that you rescan your dataset to calculate the conformity.

To achieve this you can skip the next step 'import of .SHP files' by clicking on the link 'continue' to the end.

2.2.5 Deletion of data for a given year

1/ You must first go to the following address: [your site base url]/destroy-data or to the Bulk data deletion menu in the administration menu. You will need to have the rights to do this.

2/ Once on this page you can select the year you wish to destroy plus the type of data.

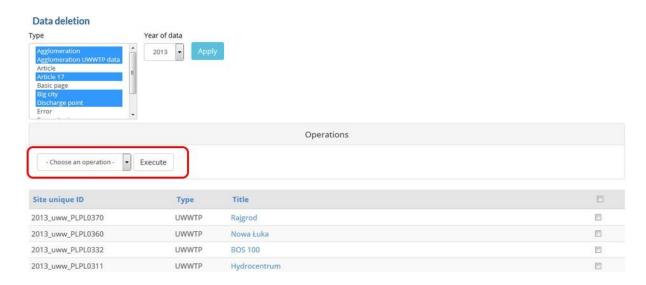


Please note you can delete an entire data file by selecting all types of data for the year.

3/ Next click on the "submit" button to proceed to deleting the elements selected. **PROCEED CAREFULLY with this** function, there is no safety net, no recovery is possible once you click!







2.2.6 Importing or Adding UWWTD article 17 data for a given year

2.2.6.1. Create your Excel file

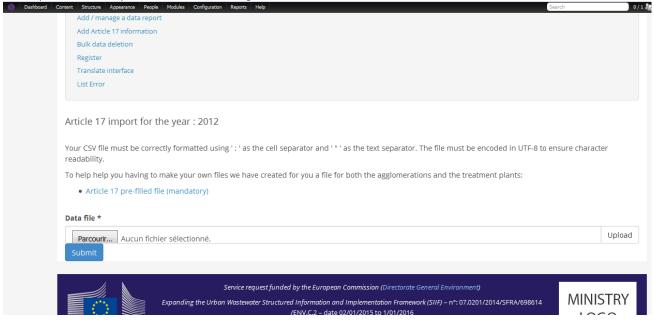
To insert article 17 information you will need to first create correct Excel file. To begin this step click on "Add Article 17 information".

Once done you will notice a link to a pre-filled file: you need to first click on the link to launch the generation of the file. Once done, you can download it by clicking on the link that states "get the article 17 prefilled file for year XX" and it will open in excel.

The file contains the data already imported with the Article 15 xml file (see section 2.2.1 above). Please fill out the file with all your information without modifying the layout and then save it.

2.2.6.2. Upload the new Excel file

Next upload the newly created Excel file using the file browser and click the 'submit' button.



Once completed, the data should be made visible on the agglomeration and treatment plant fiches with information (check with the "Article 17" filter on the dedicated webpages).

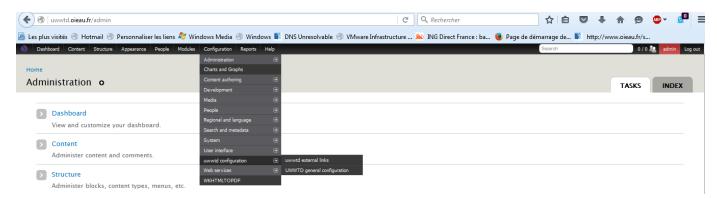




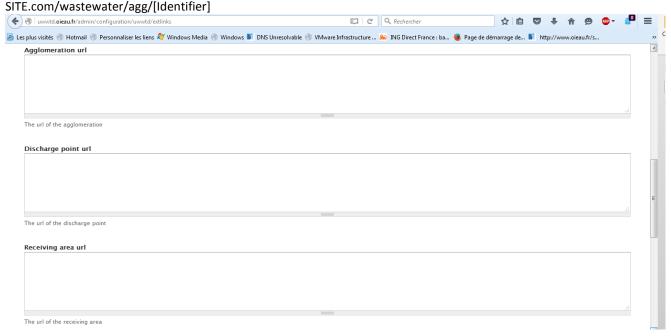
2.2.7 Add external links

If a national portal is giving information on the individual objects in a structured manner: Agglomeration, Treatment plant, discharge point or receiving area and uses at least one key information available in the dataset reported to Europe (ideally the IDCode but the name might be also possible), the system allows to include a link to it in the fiches.

This is done via the following configuration menu:



Which brings you to the following page where you can enter the structure of the link for each type of fiche. For instance you can enter in the box Agglomeration url a text of the form: www.YOURWEB-



2.2.8 Calculate the national Register

Before to start this, perform a flush of all cached data to insure everything is clean. To clear all the cached data on your platform please hover your mouse over the Drupal logo situated to the far left of the admin menu and click on 'flush all caches'.





The tool includes a module to automatically generate the national register used to elaborate the national chapter of the EU Commission implementation report. To generate this you simply need to click on "Register" and follow the instruction (select the year, re-calculate if already exists).

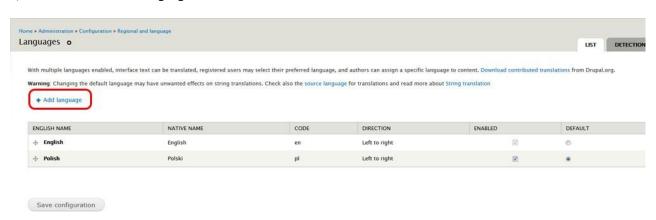
2.2.9 Perform a flush of all the cached data

To insure everything runs smoothly, and once all previous steps are implemented, you need to flush all cached data. To clear all the cached data on your platform please hover your mouse over the Drupal logo situated to the far left of the admin menu and click on 'flush all caches'.

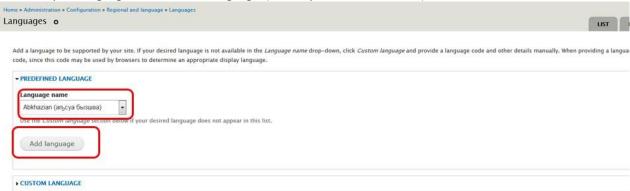
2.3 Add a new language

To be able to translate the text users will see when connecting to the web portal, you must first install a new language to be used.

- 1/ Navigate to [yourwebsite]/admin/config/regional/language
- 2/ Click on the link 'Add language'



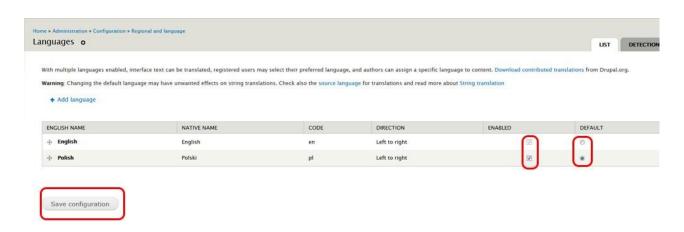
3/ Choose your language and click 'Add language' (this may take a few minutes)



4/ You can now configure which language to be used by default and if you choose you can disable others.







2.4 Translating a word or phrase

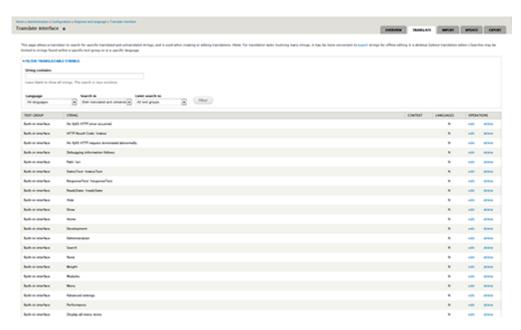
To start translating your interface, please first see the section of how to add a language to your Drupal installation.

You can either translate the entire text or you may wish to translate a certain expression that you found on the portal. In such case, you can use the "search" function of the translation interface to find back an expression. In both cases, you can translate as described in the following.

1/ After the last step, to translate the interface you must head to the page found at [your site base url]/admin/config/regional/translate/translate.

You will land on a page that lists all the strings already translated.

WARNING: If you have just connected to the web portal be sure to remove '/user' from the URL before.



2/ From here, select the string you wish to translate and click edit, enter the text and click on submit. You will land on a page that lists all the strings already translated including your last string.

3/ If you wish to update the translated content, you can find your string in the list generated and click edit on any of them.





4/ You will be presented with a list of all your added languages and their translations if entered. You can now edit the text for your language and click save translations to save them.

2.5 Reprocessing the conformity

It is possible for your web portal to recalculate the conformity of your elements without having to go through all the steps for importing a data set.

To do this, navigate to [yourwebsite]/data, choose the year you want to recalculate and instead of importing more information just click on the link 'continue' until you reach the step concerning the conformity.

2.6 Setting up the webservices

The Geoserver interface offers 3 levels

- Workspaces
- Stores
- Layers



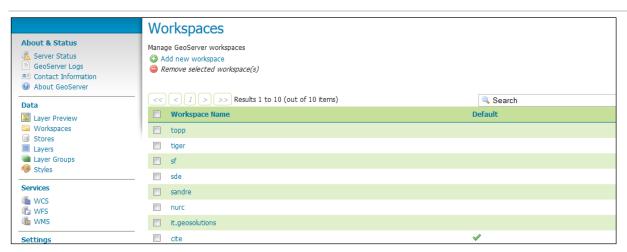
2.6.1 Creating a workspace: « UWWTD »:

The first step is to create a working space, which will hold the project services In order to do so:

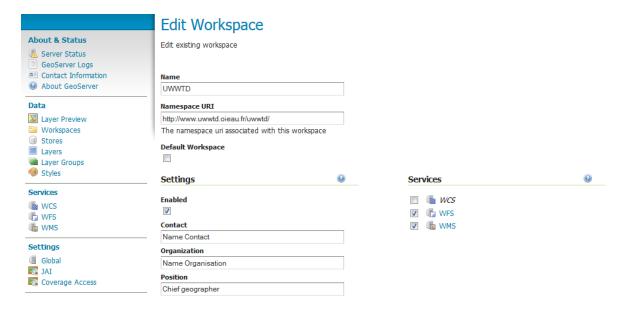
- Click on "Workspace" (on the left) and "add new workspace"







- Fill in the information as followed:
 - The name of the workspace
 - The URI (Uniform Resource Identifier) to access
 - o A contact name
 - o Tick the services: WMS, WFS







Tile Caching	Address Type	
Tile Layers	Work	
Caching Defaults	Address	
Gridsets	radicas	
Disk Quota	_ City	
Security	Limoges	
	State	
Authentication	Succ	
Passwords	ZIP code	
📤 Users, Groups, Roles	ZIP code	
Data		
Services	Country	
Demos	France	
Delitos	Telephone	
Tools		
	Fax	
	Email	
	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
	✓ Verbose Messages	
	Verbose Exception Reporting	
	Include Layer Prefix in Local Workspace Capabilities	
	Number of Decimals	
	8	
Character Set		
	UTF-8 ▼	
	Proxy Base URL	
	http://www.uwwtd.oieau.fr/services/wfs	
	REST Disable Resource not found Logging	
	REST PathMapper Root directory path	





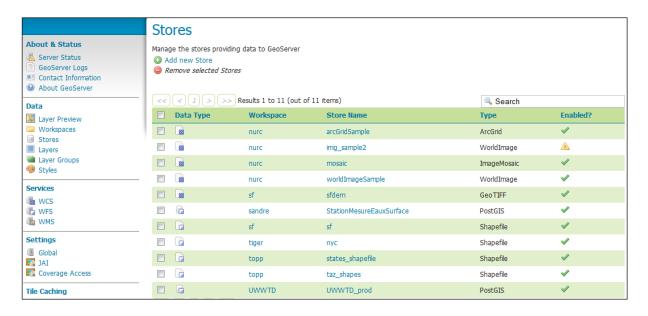
2.6.2 Creating a" UWWTD_country" store:

(Examples: UWWTD_Slovenia, UWWTD_Cyprus, UWWTD_Lithuania)

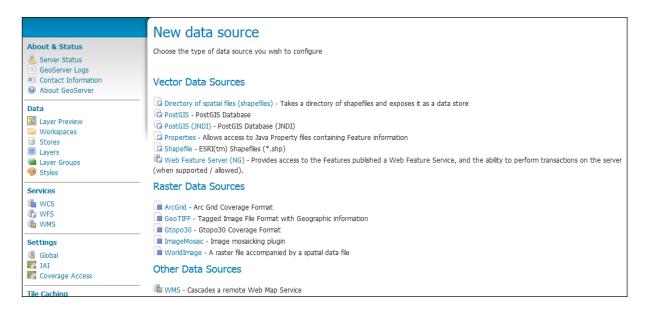
The second step consist in creating 1 or several stores depending on the input data format which will contain the information layers.

For that:

- Click on « Add new store »



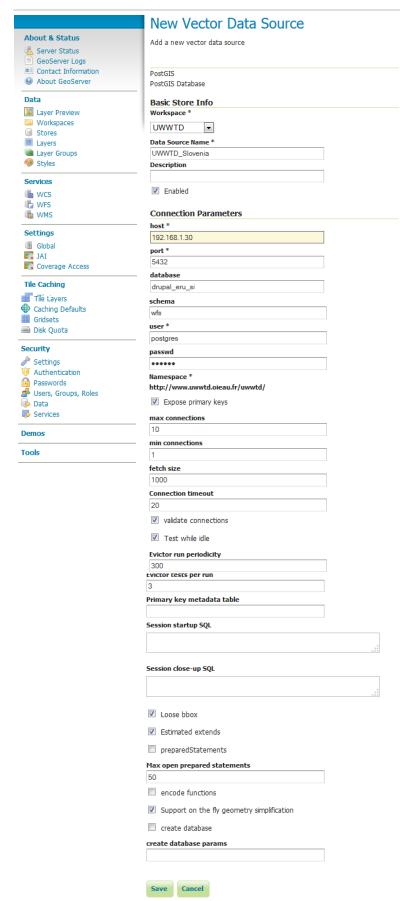
- Select the source format : PostGIS in our project



- Fill in the form as followed









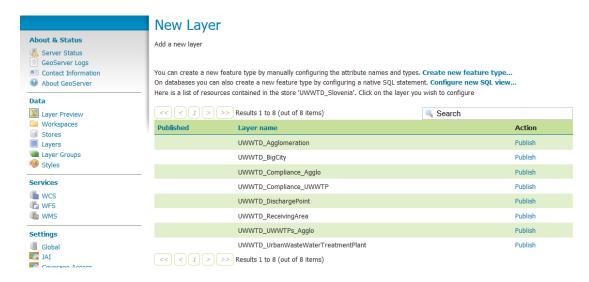


- Select the workspace
- o Enter the name of the store: UWWTD Slovenia, or UWWTD_Cyprus, or UWWTD_Lithuania
- Enter the name of the database and its access :
 - drupal eru si (Slovenia)
 - drupal_eru_cy (Cyprus)
 - drupal_eru_li (Lithuania)
- Enter the name of the schema containing the data

2.6.3 Create and publish layers:

The aim is to publish layers from the database tables, previously selected:

- UWWTD_Agglomeration
- UWWTD_DischargePoint
- UWWTD_ReceivingArea
- UWWTD_UrbanWasteWaterTreatmentPlant



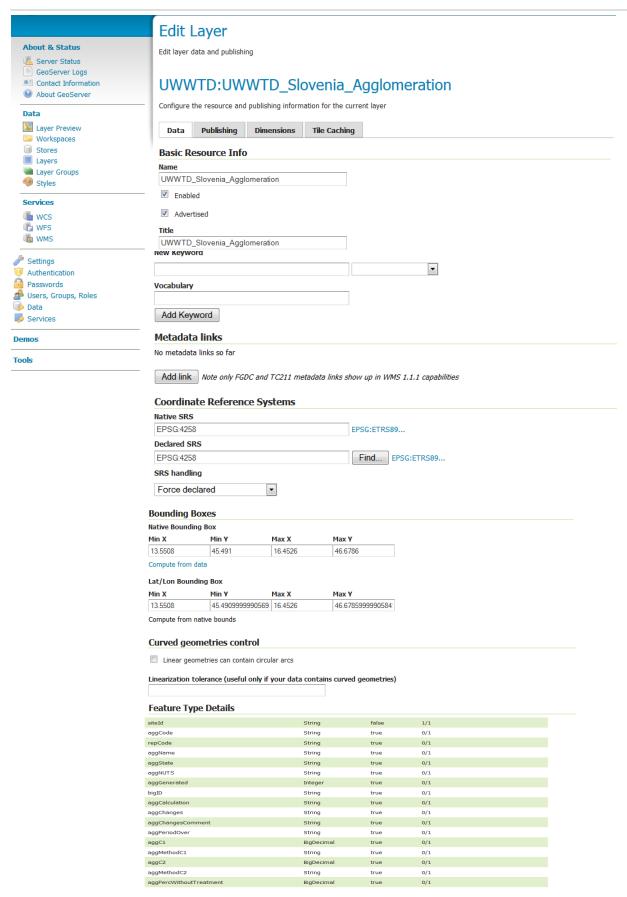
- Click on "Publish" for the 4 layers, one after the other.

The form displays with 4 sub-topic:

- The « data » sub-topic is used to precise the "name" to link to the data : « UWWTD_Slovenia_Agglomeration ». Check that « enable » and « advertised » are checked. It may define the projection system (if it isn't completed; generally it is automatically completed) and the bounding boxes of the data; for this, click on« Compute from data » and « Compute from native bounds » in the paragraph « Bounding boxes ».
- The "publishing" sub topic is used to define the style of the curve : point/polyline/polygon formats, pattern
- The content of the 2 other sub-topic forms could remain unchanged.

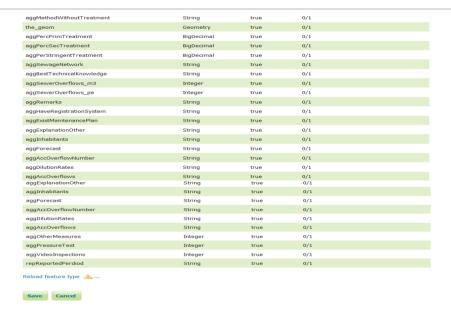










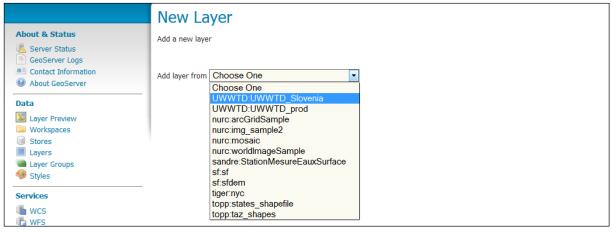


Do the operation as many times as necessary

- Add a new resource



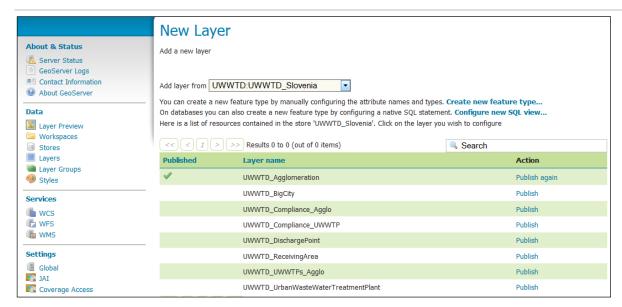
- Select the store in the list:



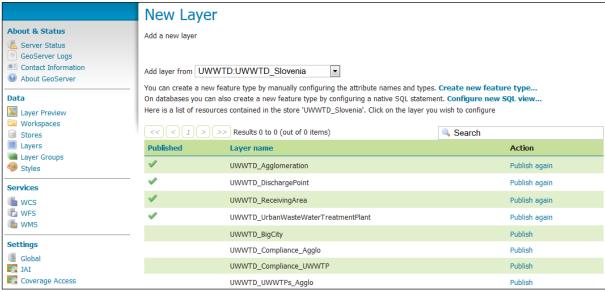
- And publish another layer:







At the end, the 4 layers are published (green tick):

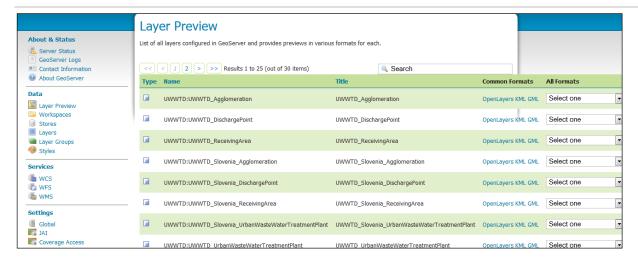




The topic "Layer preview » allow the visualisation of the layer in several formats (kml, gml, ...):







2.6.4 Access to the services

The services can be accessed via the download/invoke section of the platform. It can be queried to know what is possible using the getcapabilities usual function as follows:

<u>GetCapabilities</u> (Description of the service available functions or possibilities : Layer name, available requests, map projections...) :

http://www.uwwtd.oieau.fr/services/wfs/?service=WFS&version=1.1.0&request=GetCapabilities

The information layers to be used are of the form UWWTD_[country name]_object :

Example with Cyprus:

- UWWTD_Cyprus_Agglomeration
- UWWTD_Cyprus_DischargePoint
- UWWTD_Cyprus_ReceivingArea
- UWWTD_Cyprus_UrbanWasteWaterTreatmentPlant

The services section comprises for each object the two following:

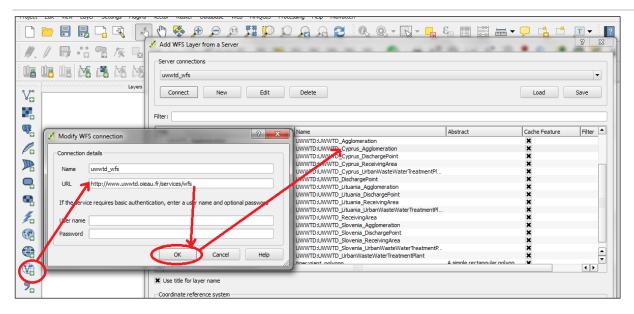
- <u>DescribeFeatureType</u> (description of the information layers: name and format of the fields):
- GetFeature (Access to the data content in GML format):

2.6.5 Access from a GIS software, like QGis:

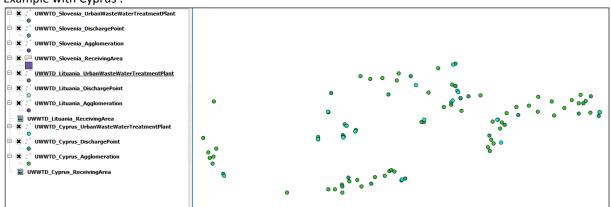
Access through WFS: http://www.uwwtd.oieau.fr/services/wfs



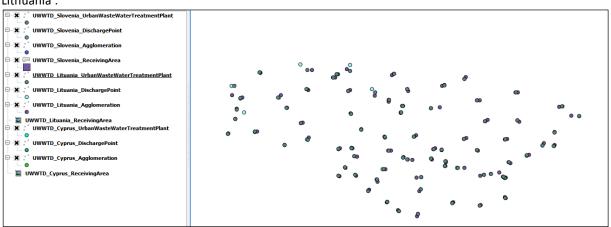




Example with Cyprus:



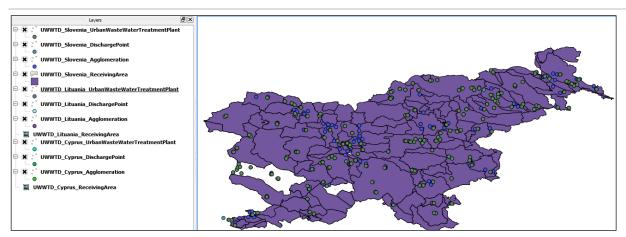
Lithuania:



Slovenia:



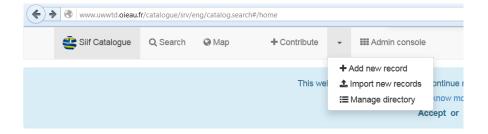




2.7 Create webservices metadata

2.7.1 Create metadata on geonetwork catalogue

If you have a metadata catalog like geonetwork or geosource and for implement the INSPIRE directive, you can fill a metadata sheet for each data layer. You also set a harvesting system if your layers are distribute by a webservice. For create a new record on a Geonetwork catalogue for describe a geographical layer, log on geonetwork with an admin account, and go to the "contribute" menu and click on "Add new record" like bellow and select "Geographic information – Metadata 19139).



Get started

Search over 54 data sets, services and maps, ...

Figure 1: Add new record in Geonetwork

In order to create a harvester, go to "Admin console" menu and click on "Harvesting" like on bellow screenshot.



Figure 2: Geonetwork admin console





For easing, your work, geonetwork provide various type of harvesting. Currently, you have to set OGC WFS webservices, by clicking on "+ Harvest from" in the bottom of "harvester" block on the left of screen.

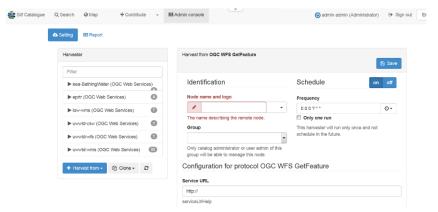


Figure 3: Geonetwork: harvest from OGC WFS

Then fill all mandatory fields and save your harvester and finally, select your harvester and click on "Harvest" (blue button on the right of screen).

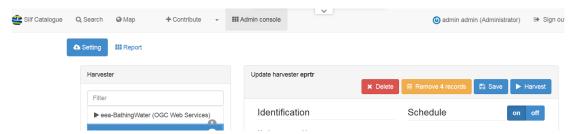


Figure 4: Geonetwork, start harvesting service

After the end of the harvest process, you will find your new metadata in the front page of the catalog in "latest news" tabs on page bottom. You can view your new metadata with a click on the title (see the example bellow).

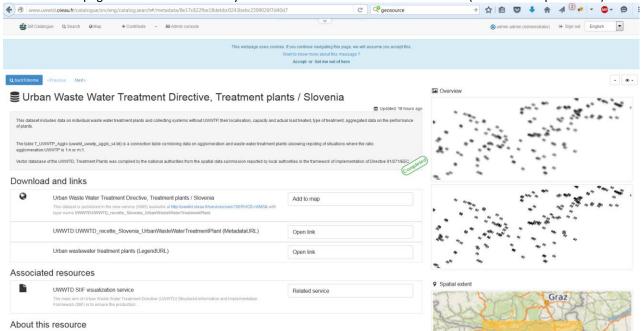


Figure 5 : Geonetwork : harvested metadata page





In your browser address bar, you can see a strange long string of random characters after the metadata argument: Eg: : http://www.uwwtd.oieau.fr/catalogue/srv/eng/catalog.search#/metadata/8e17c822fbe18debbc0243bebc2399026f7d40d7.

This string is the Universal Unique Identifier – UUID – string and it identify your metadata page.

2.7.2 Declare metadata on UWWTD SIIF plateform

In first requisite you need to have your information in a metadata catalogue like geonetwork (see 2.7.1) and note all UUID of metadata page. Then, go to to your UWWTD SIIF platform administration menu in "Home » Administration » Configuration » uwwtd configuration » Metadata links" (in this url : http://[my server address]/admin/config/uwwtd/download). Then fill fields with URL of your catalogue and give UUID of each layer like the screenshot bellow :

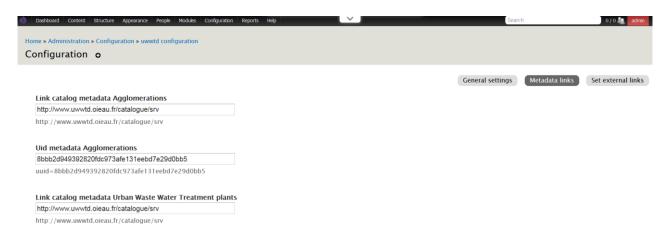


Figure 6: UWWTD SIIF, set metadata form

Finally click on "Save configuration" at the bottom of the form and go to "Download/Invoke" page (public area) of your website (see the following screenshot)





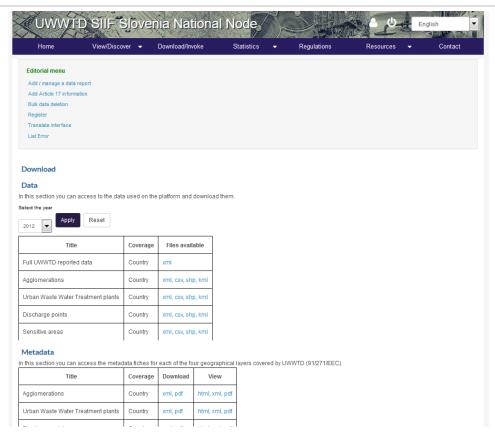


Figure 7: Download/invoke page

2.8 Managing maps on the UWWTD SIIF platform

2.8.1 Manage map settings

Each map on UWWTD SIIF platform can be edited with the administration interface of Drupal. In order to access to the "edit map" functionality, you must be connected with the admin account and then go on a page witch containing a map. On the top right corner of each map, on the "hover" map event a small grey gear appear. On click, a tooltip appear and you can click on "Edit" (see the red box on the screen below).

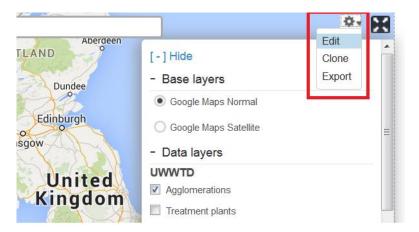


Figure 8: Edit a map on Drupal





The "edit" link open a form page with all settings of the current map. Fields are sorted in sub-section: Infos, Center & Bounds, Layers and Styles, Behaviors and Display.

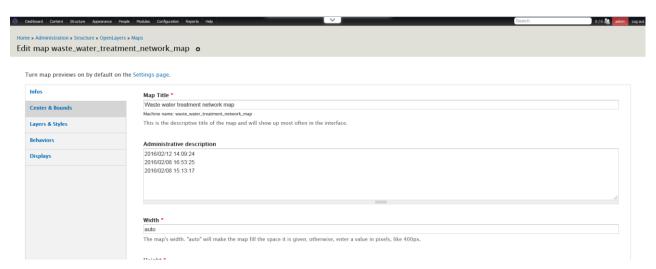


Figure 9: Map edit form in Drupal

You can also access to all maps settings on this URL: http://[my web site adresse]/admin/structure/openlayers/maps available in "Administration > Structure> Openlayers > Maps" menu

For more information on map with drupal, you can visit the official documentation of "Openlayers" module for Drupal available here: https://www.drupal.org/node/1636666

2.8.2 Add new layers

At first, you must be connected with the "admin" account and you need to have strong knowledge in webmapping technology. If not, we recommend to post a new ticket on the Github space available here: https://github.com/OIEau/uwwtd/issues

With the Drupal Administration interface, you can add new geographical layers base on internal/external data. For internal data (for Drupal one), the best way is to use the "Views" module all documentation can be consulted on this URL: https://www.drupal.org/node/1481374. For external data, you can use followings formats/standards: Bing, CloudMade, GeoJSON, Google, GPX, Image, KML, MapTiler, OSM, PointGrid Layer, TMS, WMS, WMTS, XYZ. If you want to set a queryable layer, you only can use the WMS standard in overlay mod with the "getfeatureinfo" capacity in the geojson format (available for e.g. with map server 7, Geoserver 2.8 and ArcGIS online)

The layer management interface of Drupal is located in "Administration > Structure> Openlayers > Layers" on this URL: http://[my web site adresse]/admin/structure/openlayers/layers. For declare a new layer click on "Add layer" link and then fill layer descriptions fields on the proposed form. For external data the main format is the "WMS" (in layer type format field)



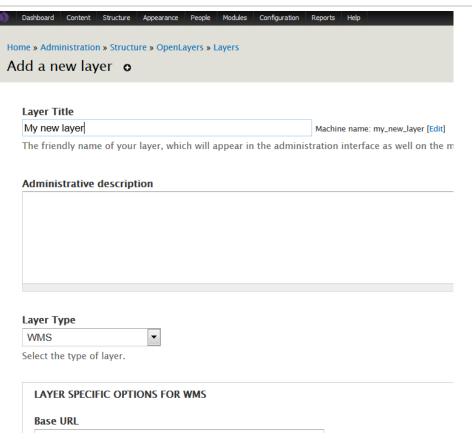


Figure 10: Add new layer

In this form we have to pay attention to the "base layer" field. If you check this field, your layer will be a base layer like the google map or open street map layer. You can only use base layer as background layer.

If you want to stack layer with other layers and use it like an "overlay" layer uncheck this field. (You can take example on the "Bathing water" layer)

After you have set your parameters click on "save" button. Now your layer can be used in Drupal maps. So if you want to display your layer on a map, you have to edit the map settings (see 2.9.1), and in "Layers and styles" section check your layer and save the current map.

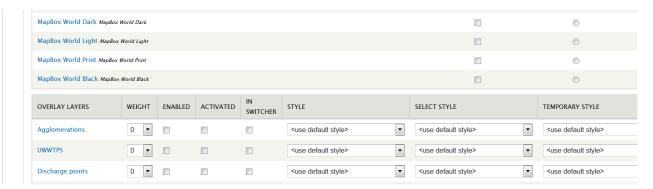


Figure 11: Extract of Layers and styles in map edit form

If you want to display your layer in the layers switcher behaviour, you have to reopen the edit map form, and go to behaviour section. In this section go to "OL+: Blockswitcher plus" area check your layer, and give the "group name" and save the map.





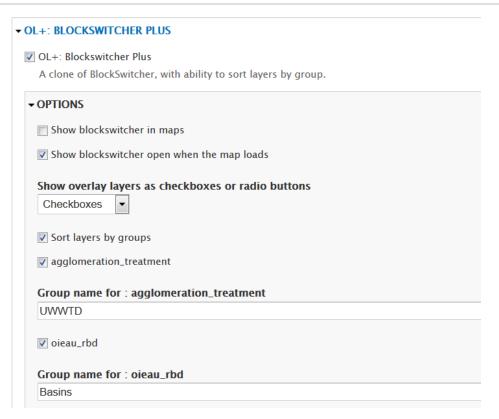


Figure 12: OL+: Blockswitcher plus

Your layer can be queryable if you use a WMS layer or an Openlayers Views layer (see the screen bellow).

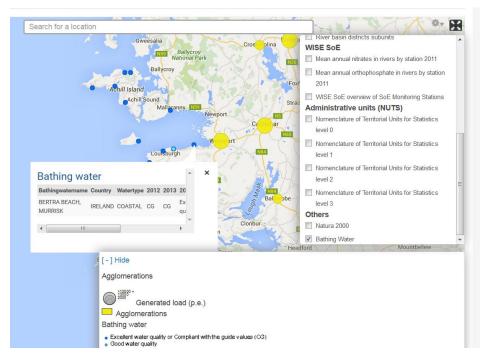


Figure 13: Example of queryable WMS layer: Bathing Water

For Openlayers Views layers you have to read the official documentation of Openlayers Views module.





For WMS layers, you need to use a map server with the the "getfeatureinfo" capacity in the geojson format (available for eg with mapserver 7, geoserver 2.8 and arcgis online). You also need to declare the domain of your server map server in the proxy "white list" settings in the following menu "Administration » Configuration » System » Proxy"

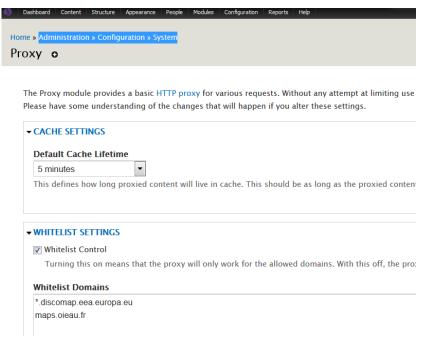


Figure 14: Proxy settings

For developers only, you can change the content rendering of the result popup on the layer with a specific Drupal hook: hook_wms_getfeatureinfo_alter(&\$result, &\$url). We recommend to create your own Drupal module in order to do it. You can find examples at the end of the uwwtd.module file (search function uwwtd_wms_getfeatureinfo_alter(&\$result, &\$url))

2.9 To go further

The web portal has been designed using the CMS Drupal. All the relevant information can be found here: https://www.drupal.org/

