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umweltbundesamt

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UWWTD SIIF national toolbox

How to manage the UWWTD SIIF toolbox

Version 2.0

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This document has been produced by OIEau.

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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
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- 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.

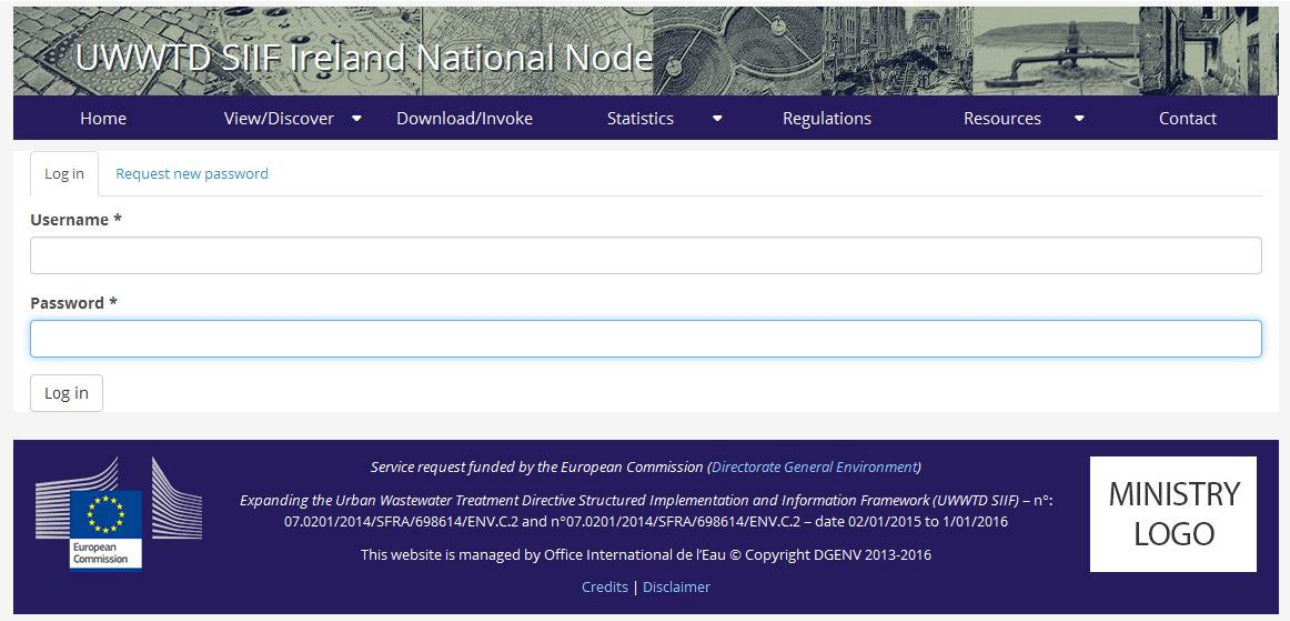
On the website, configuration and administration guides are available at the address: www.[your *site url]/admin/help*

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.

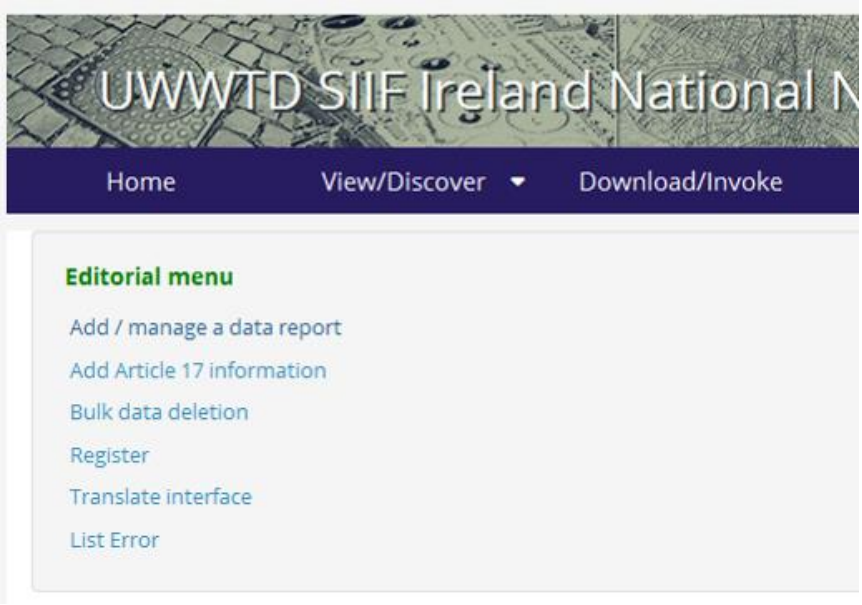


If you have not yet changed your default password your login and password will be:

- 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

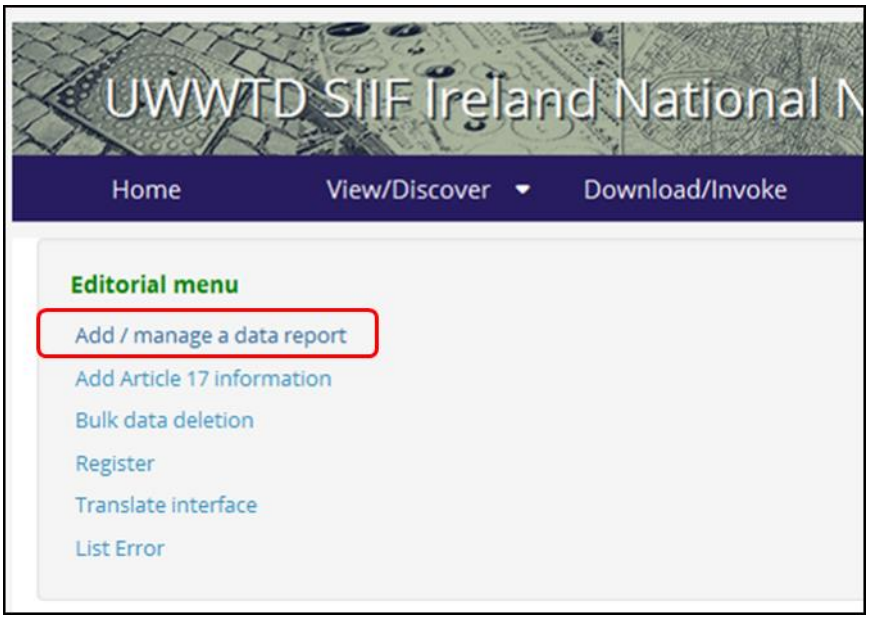
2.2.1 Importing or Adding UWWTD article 15 data and/or GIS files of receiving areas for a given year

Objective: adding a UWWTD dataset for a new year.

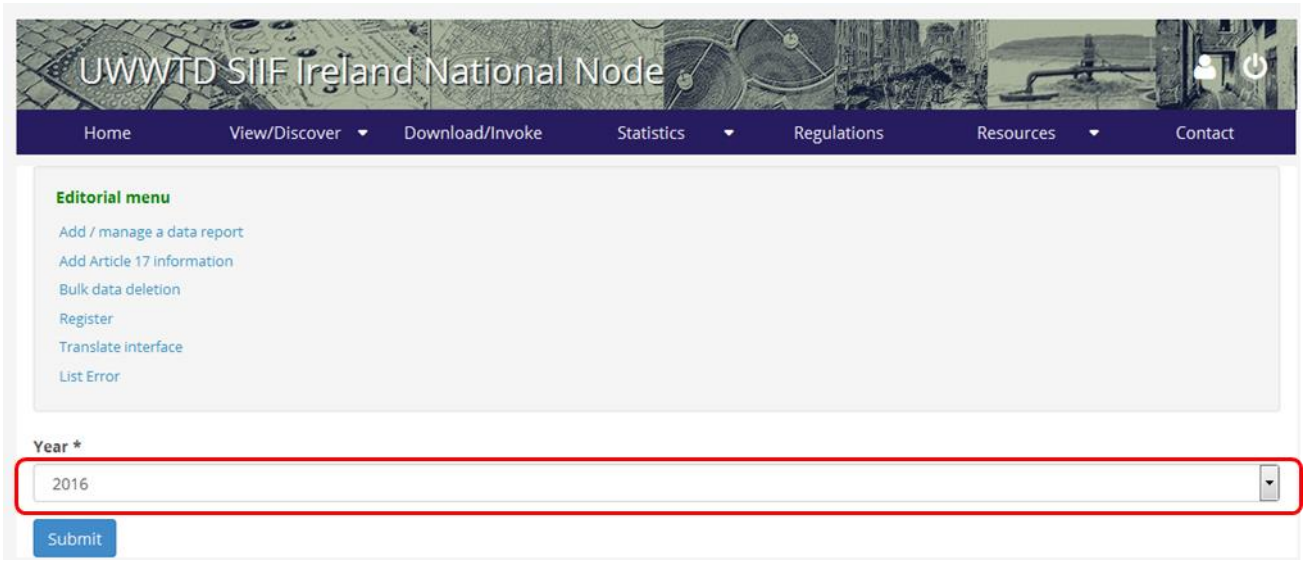
To add data for a new year you must either have:

- 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.

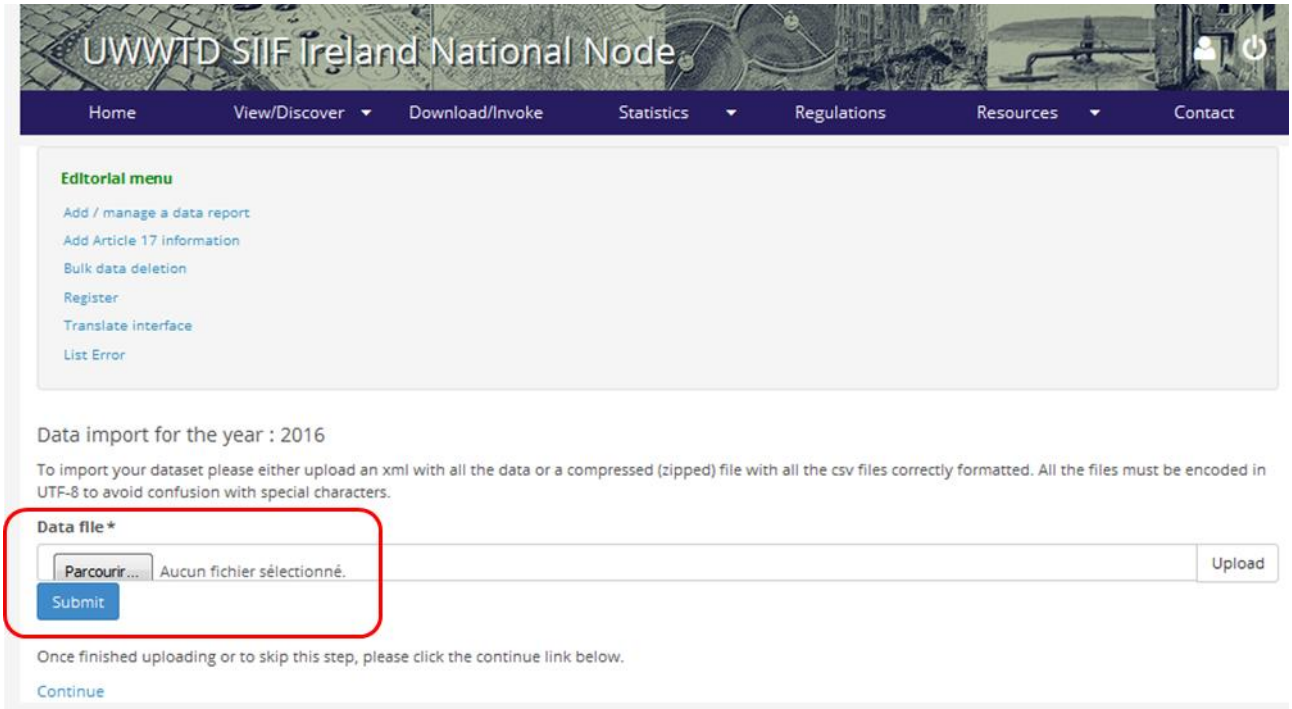
1/ Connect as an administrator of the system and select add/manage a data report



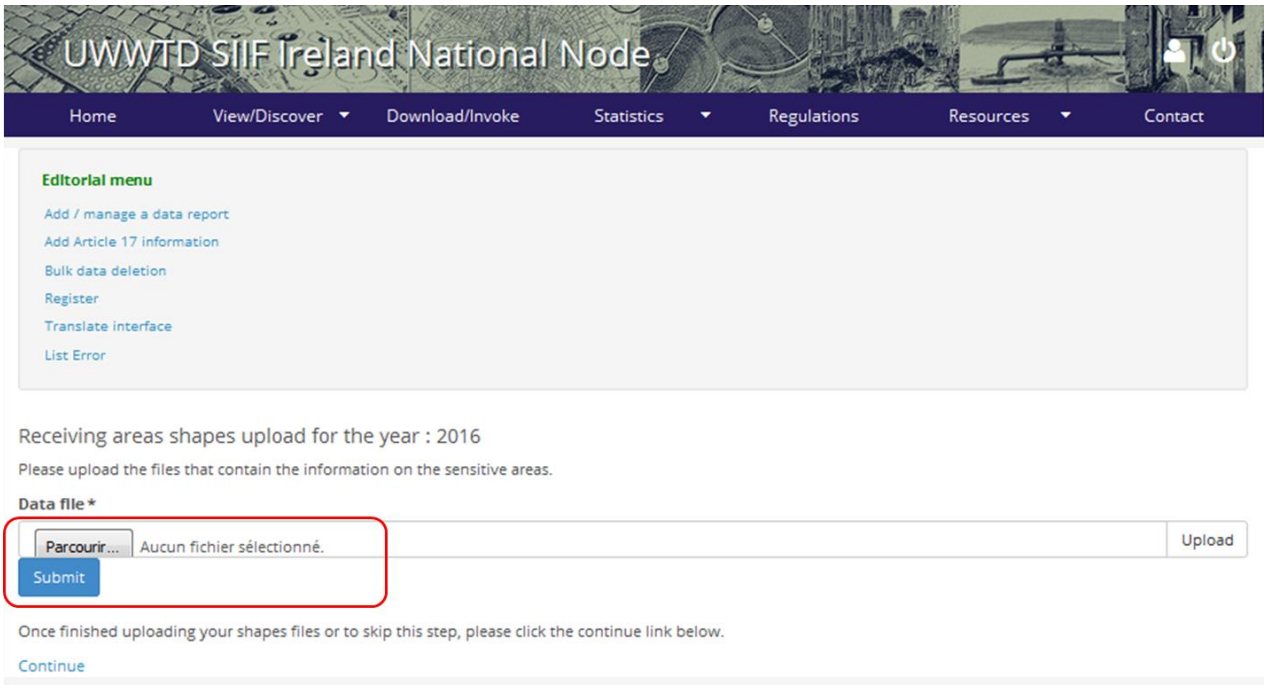
2/ Choose the year which your data concerns



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

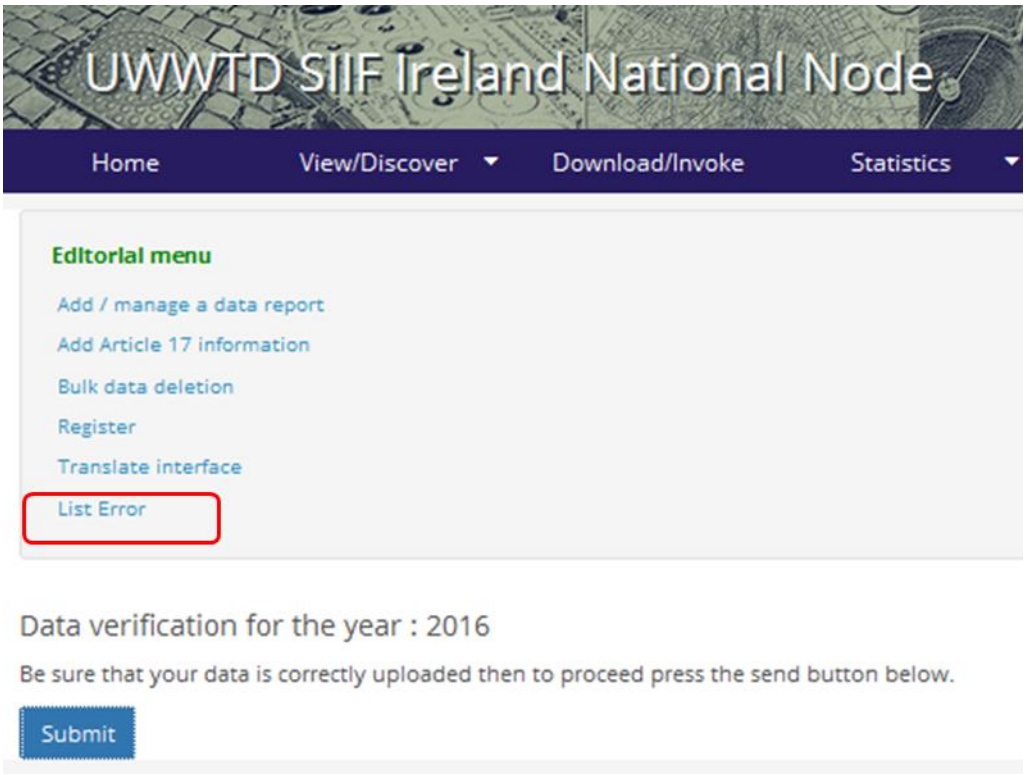
Once you have finished importing a dataset it may be possible that some errors have occurred due to missing or poorly formatted data.

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

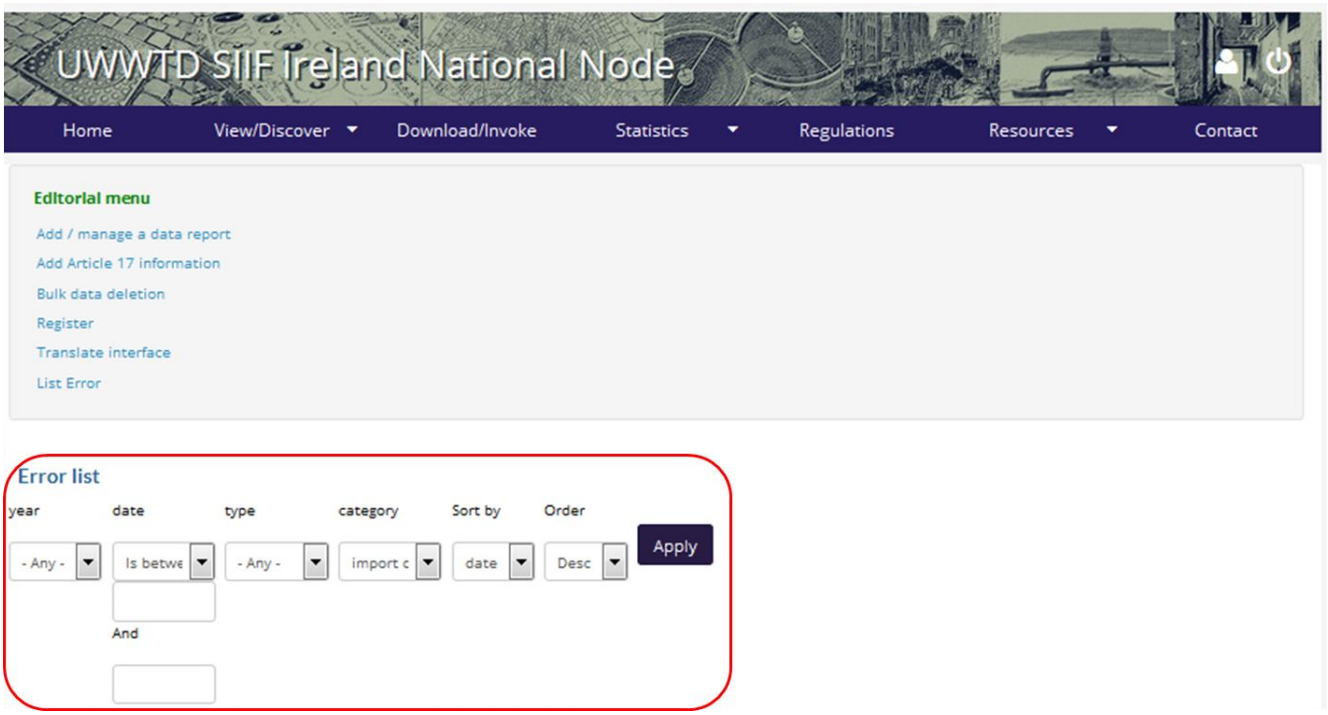
1/ Click the editorial menu link ‘List error’

2/ Sort and select the errors for deletion

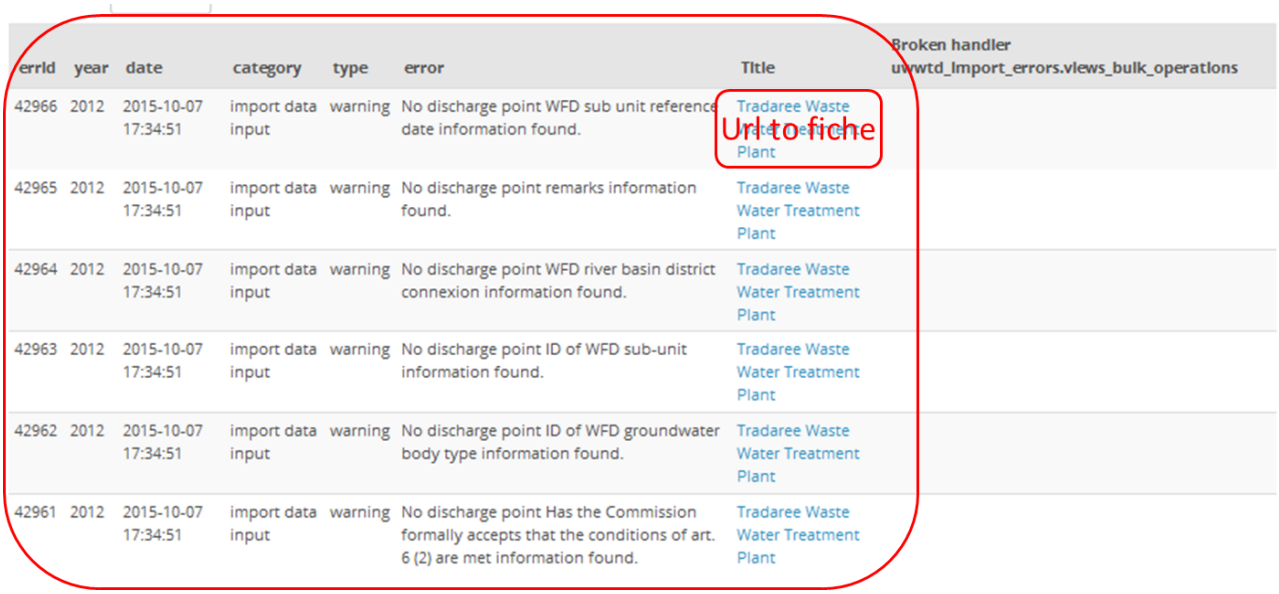
Once on the error management page you can view any error that may have occurred and see which data element they concern.



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.

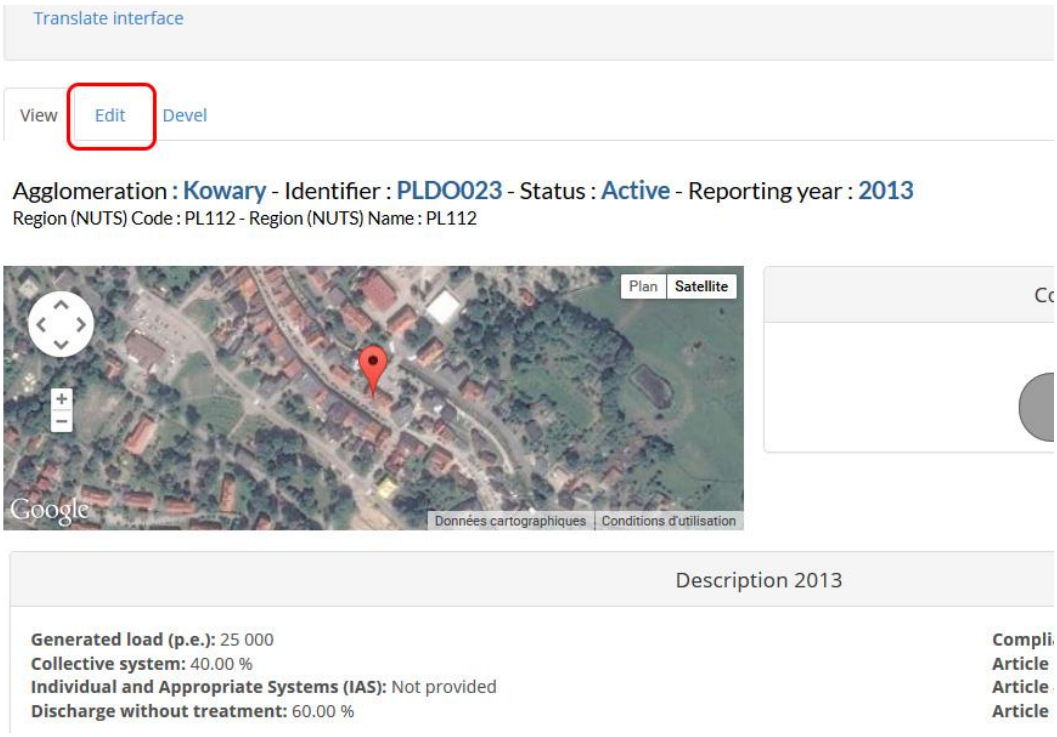
After identifying an error or if you simply want to change some of the information provided by the dataset then you will need to modify the element concerned. You may also wish to delete an element from the website.

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

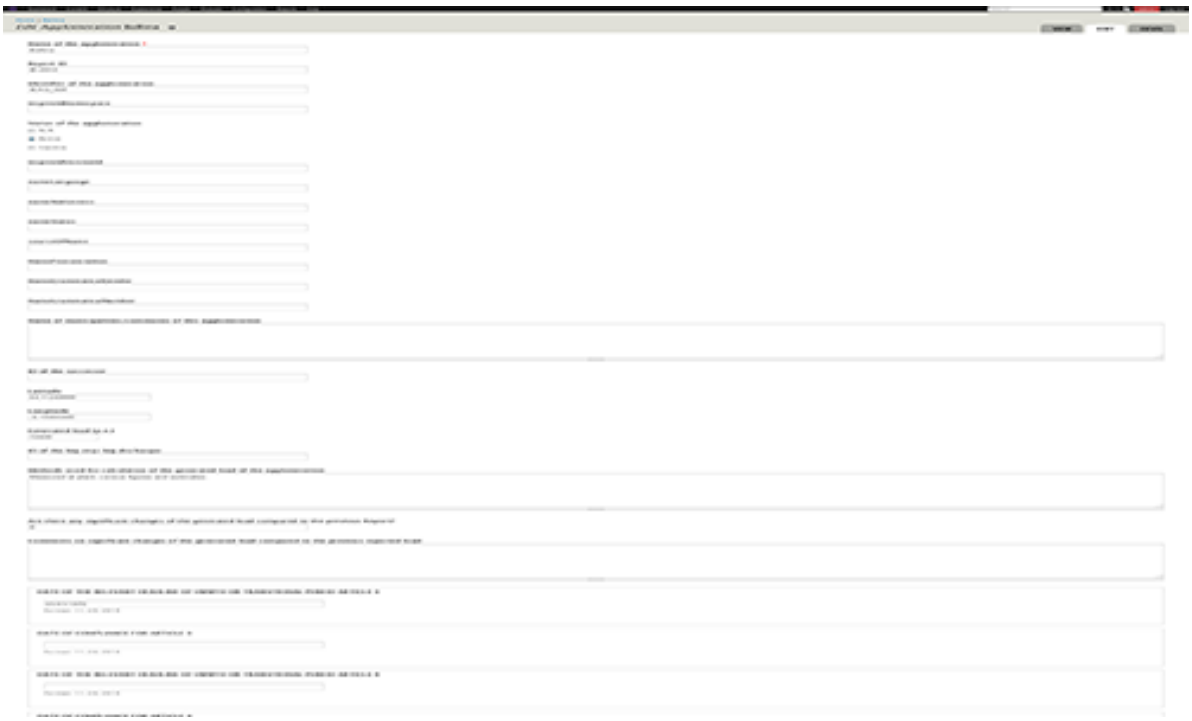
The URL will be constructed in the following format: http://www.[website base address]/[year of data]/[type of data]/[element site id]

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

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


Translate interface
View
Edit
Devel
Agglomeration : Kowary - Identifier : PLDO023 - Status : Active - Reporting year : 2013
Region (NUTS) Code : PL112 - Region (NUTS) Name : PL112
Plan
Satellite
Google
Données cartographiques
Conditions d'utilisation
Description 2013
Generated load (p.e.): 25 000
Collective system: 40.00 %
Individual and Appropriate Systems (IAS): Not provided
Discharge without treatment: 60.00 %

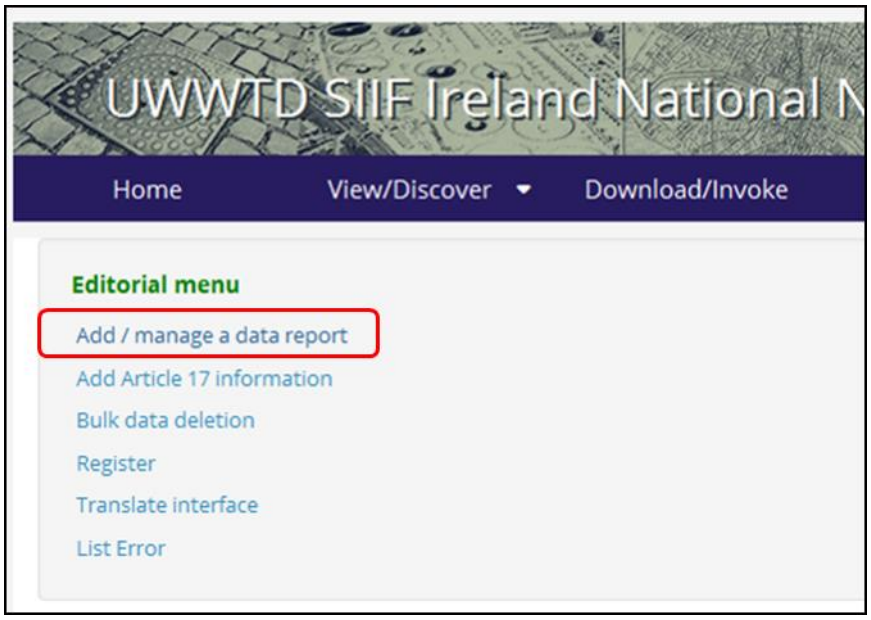
3/ You will now have a list of all the data for the element which you can either edit or delete.



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.

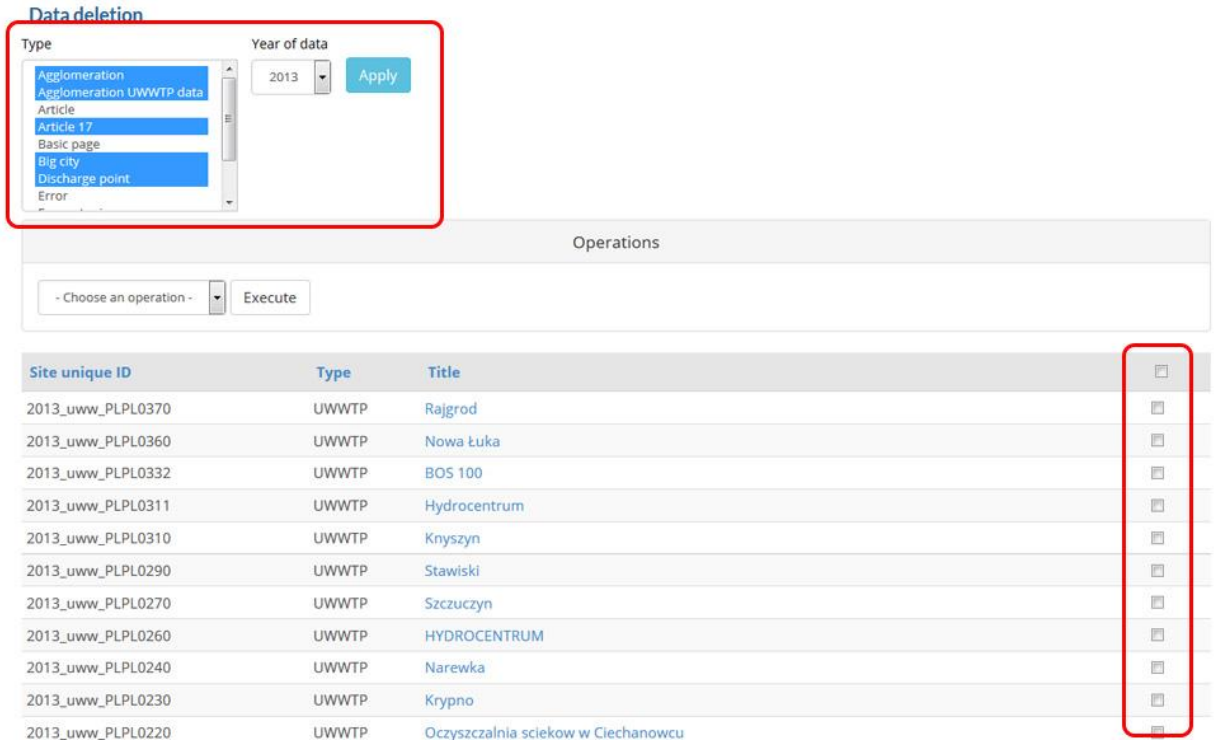
Having changed some of the information in your dataset it is recommended but not obligatory that you rescan your dataset to calculate the conformity.

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

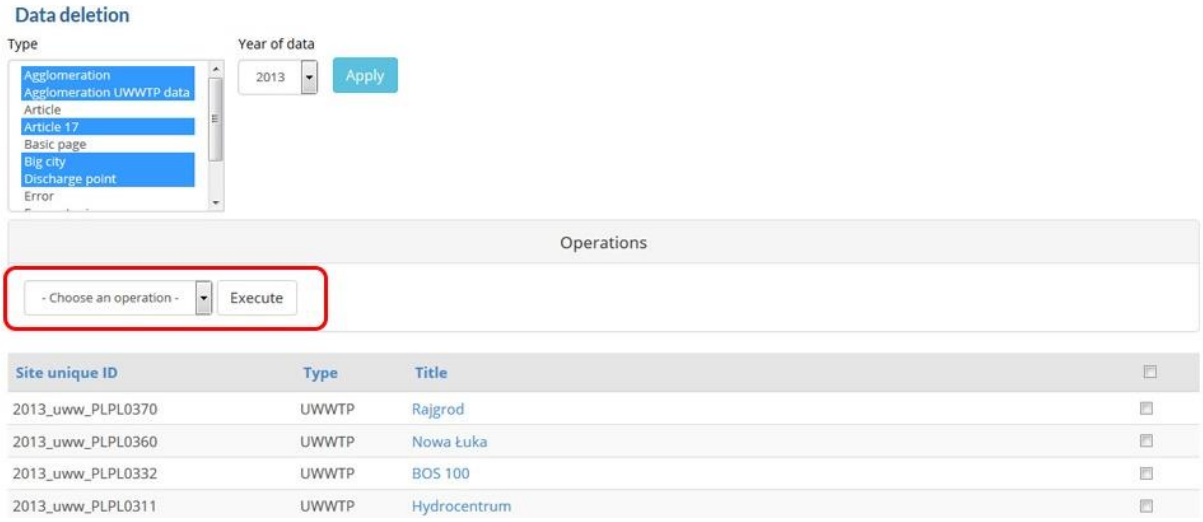
1/ You must first go to the following address: [your site base url]/destroy-data or to the Bulk data deletion menu in the administration menu. You will need to have the rights to do this.

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

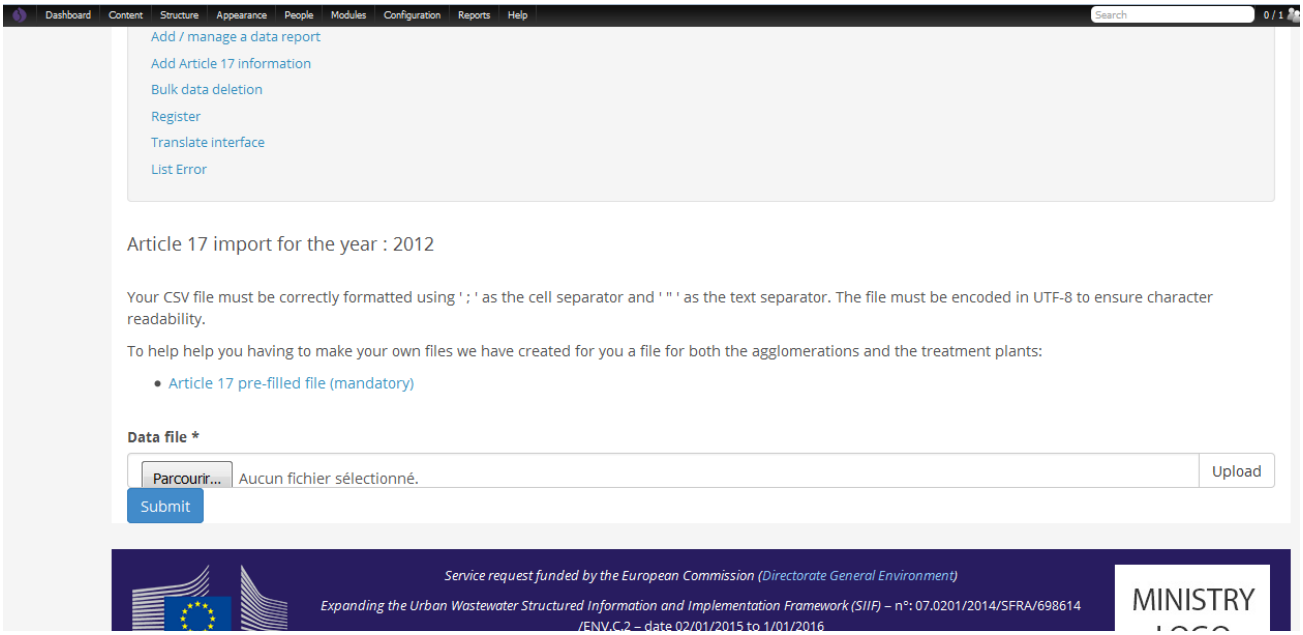
To insert article 17 information you will need to first create correct Excel file. To begin this step click on "Add Article 17 information".

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 pre-filled 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.

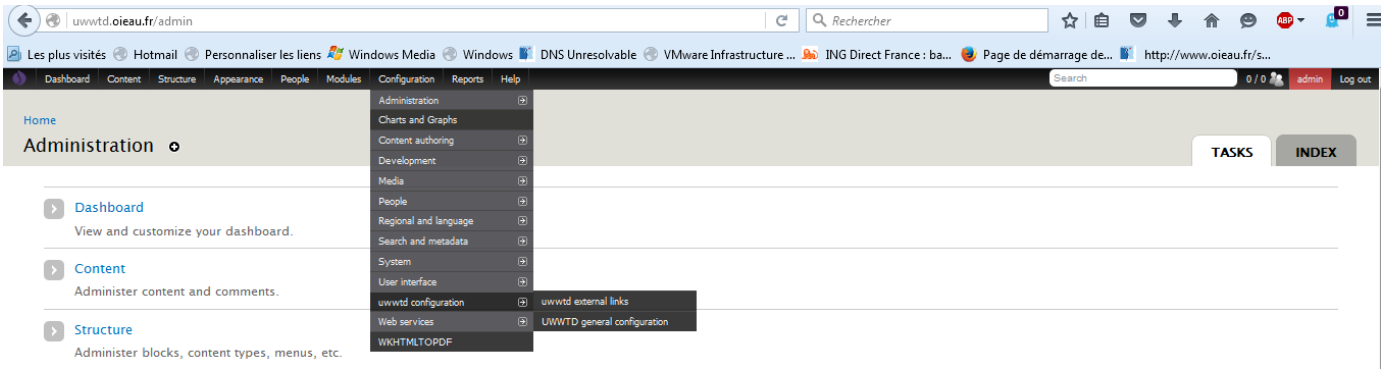


Once completed, the data should be made visible on the agglomeration and treatment plant fiches with information (check with the “Article 17” filter on the dedicated webpages).

2.2.7 Add external links

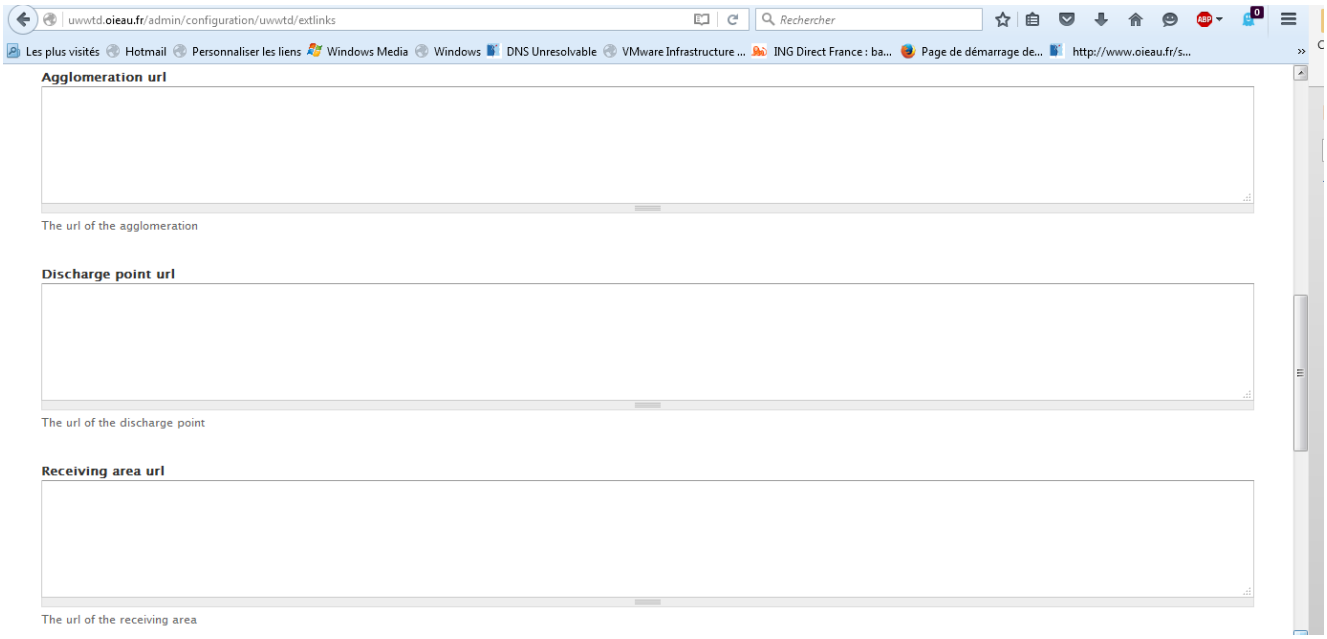
If a national portal is giving information on the individual objects in a structured manner: Agglomeration, Treatment plant, discharge point or receiving area and uses at least one key information available in the dataset reported to Europe (ideally the IDCode but the name might be also possible), the 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-SITE.com/wastewater/agg/[Identifier]



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

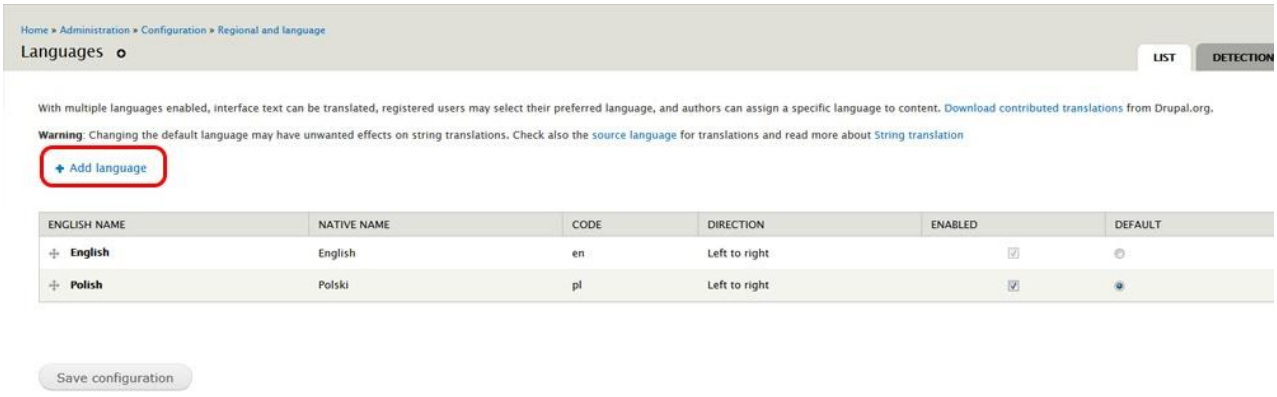
To insure everything runs smoothly, and once all previous steps are implemented, you need to flush all cached data. To clear all the cached data on your platform please hover your mouse over the Drupal logo situated to the far left of the admin menu and click on ‘flush all caches’.

2.3 Add a new language

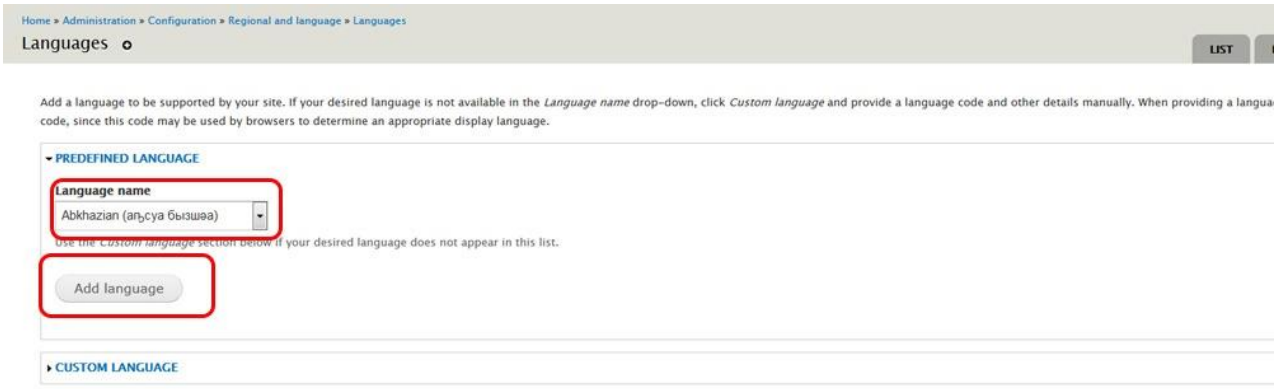
To be able to translate the text users will see when connecting to the web portal, you must first install a new language to be used.

1/ Navigate to [yourwebsite]/admin/config/regional/language

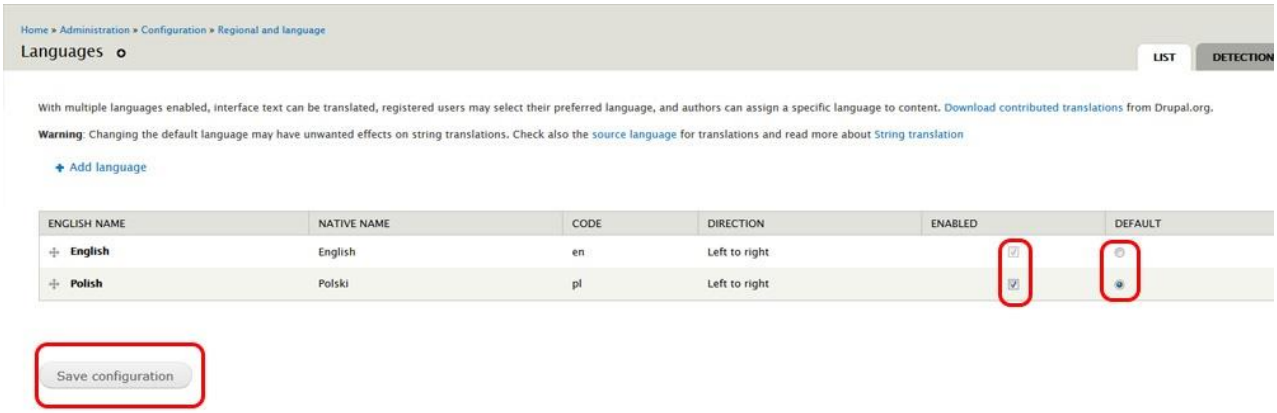
2/ Click on the link ‘Add language’



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

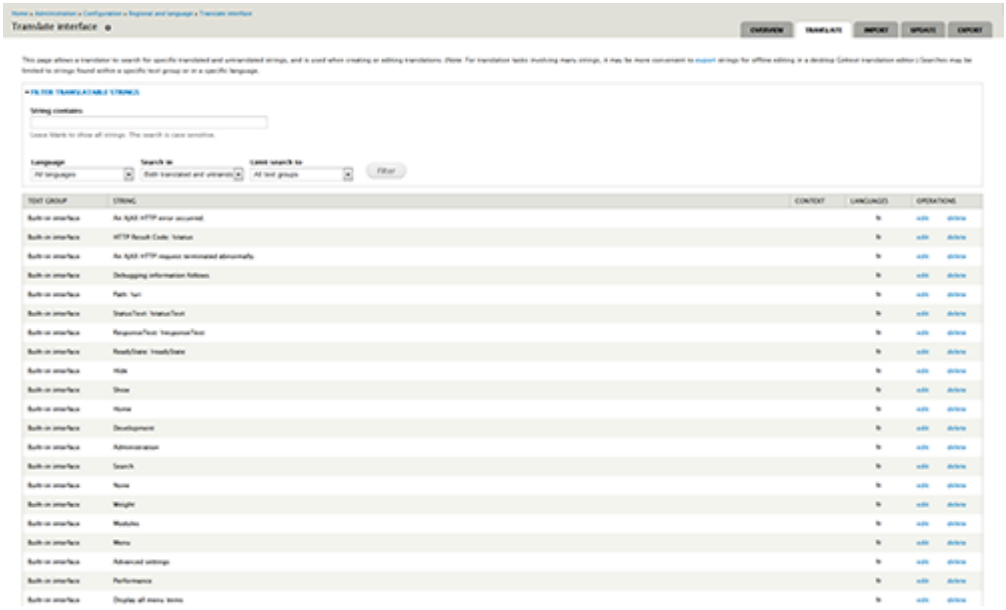
To start translating your interface, please first see the section of how to add a language to your Drupal installation.

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

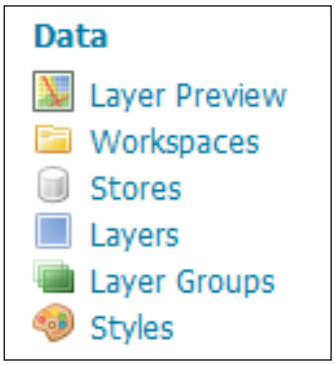
It is possible for your web portal to recalculate the conformity of your elements without having to go through all the steps for importing a data set.

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

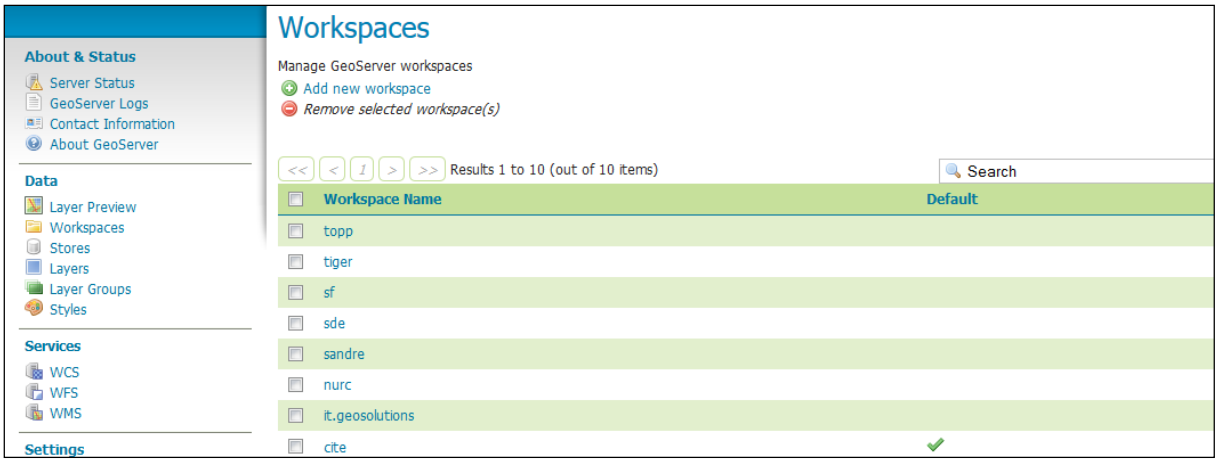


2.6.1 Creating a workspace : « UWWTD » :

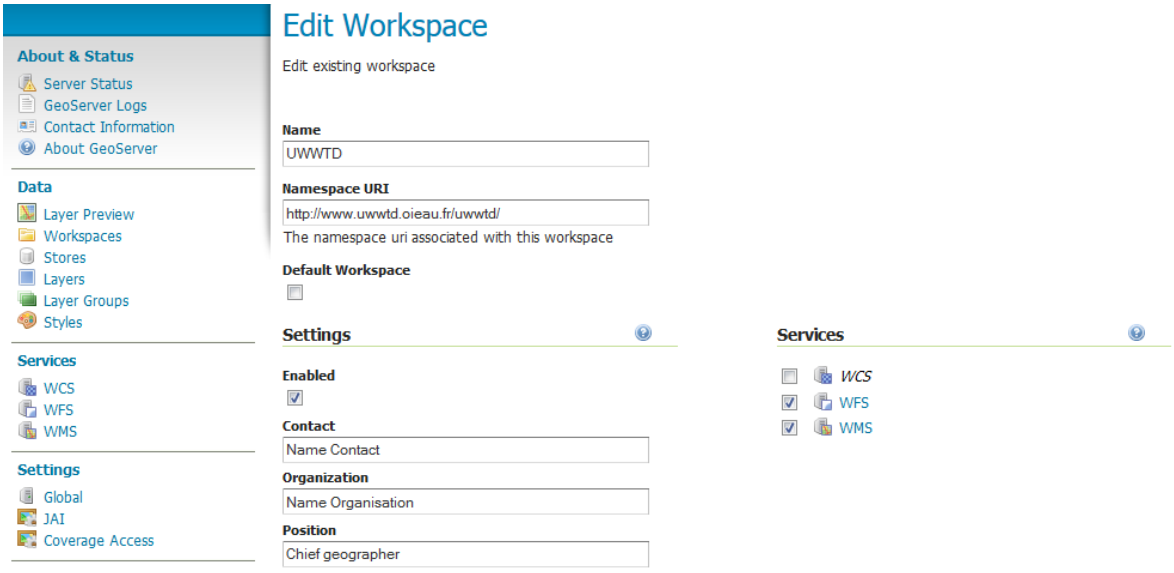
The first step is to create a working space, which will hold the project services

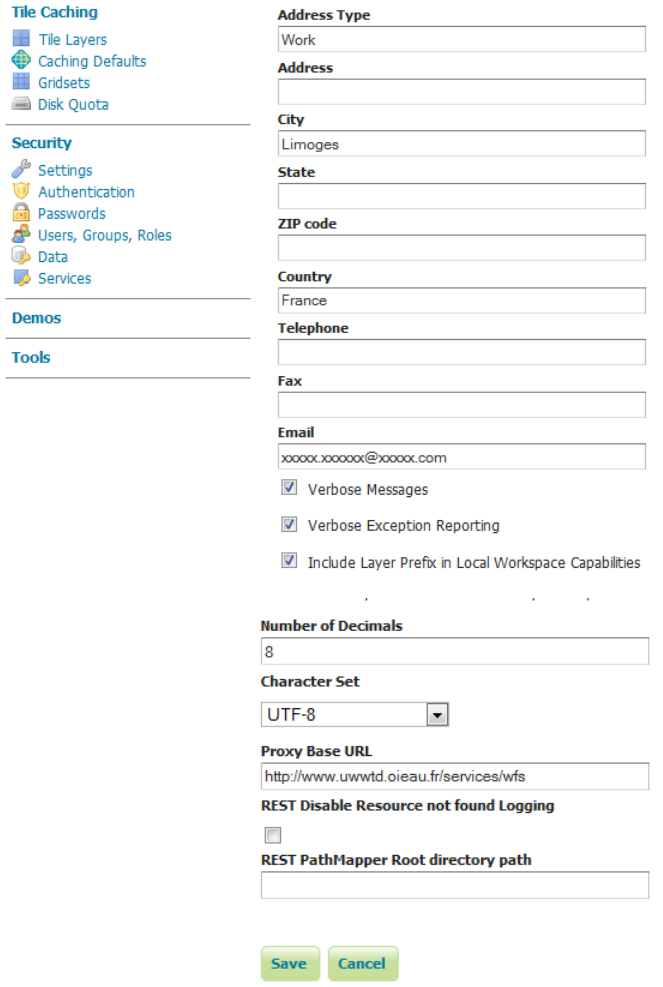
In order to do so :

- 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
    - A contact name
    - Tick the services : WMS, WFS




Tile Caching
Tile Layers
Caching Defaults
Gridsets
Disk Quota
Security
Settings
Authentication
Passwords
Users, Groups, Roles
Data
Services
Demos
Tools
Address Type
Work
Address
City
Limoges
State
ZIP code
Country
France
Telephone
Fax
Email
xxxxx.xxxxxx@xxxxx.com
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
Save
Cancel

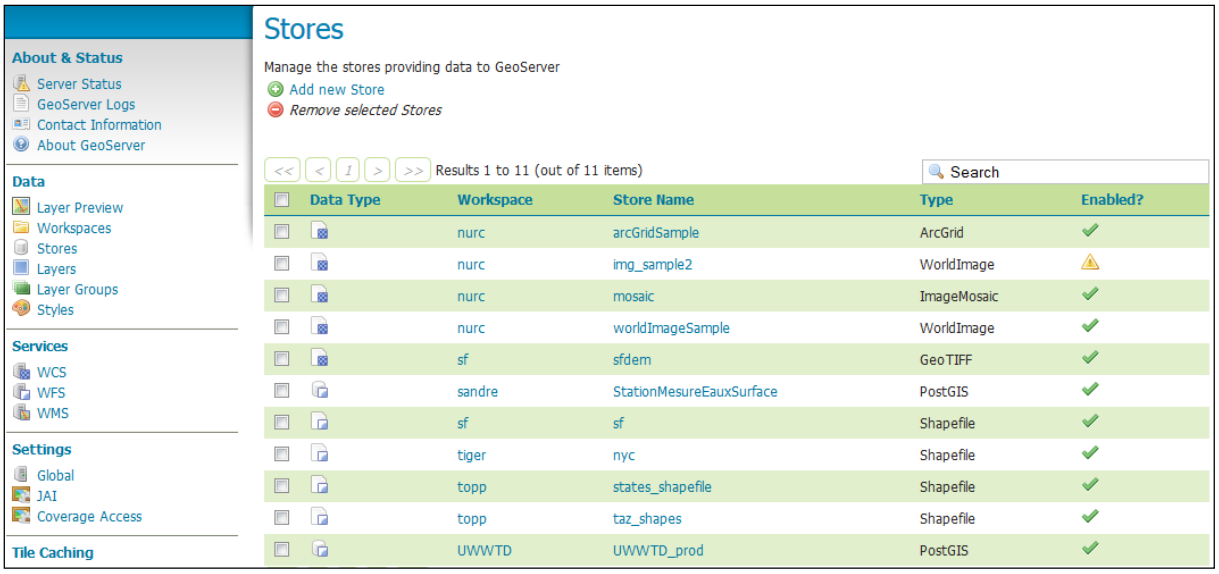
2.6.2 Creating a" UWWTD_country" store:

(Examples : UWWTD_Slovenia, UWWTD_Cyprus, UWWTD_Lithuania)

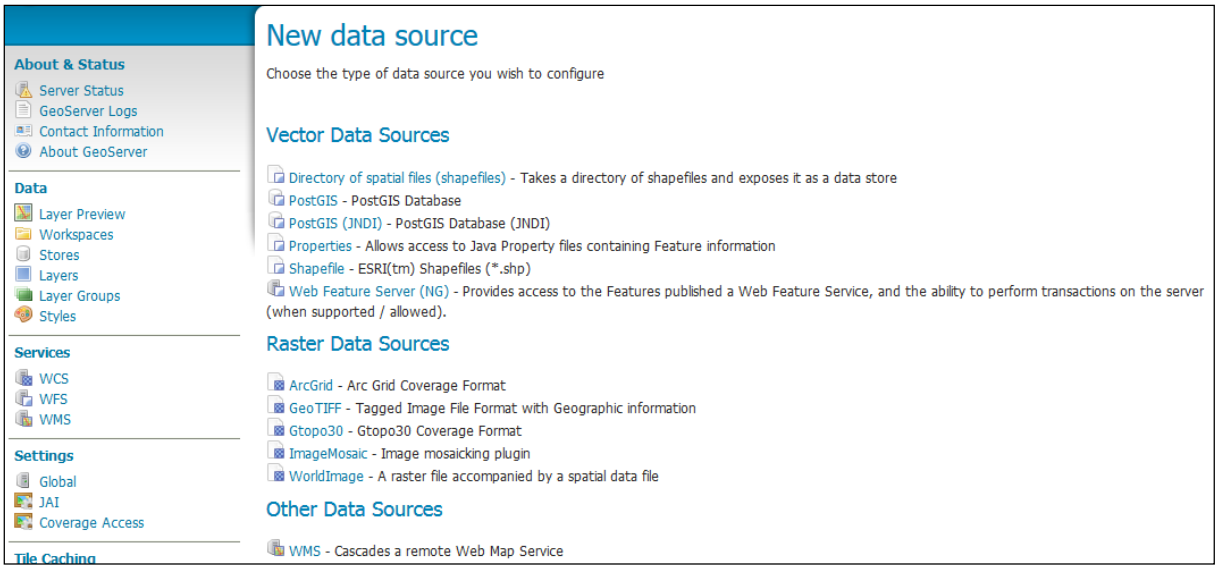
The second step consist in creating 1 or several stores depending on the input data format which will contain the information layers.

For that:

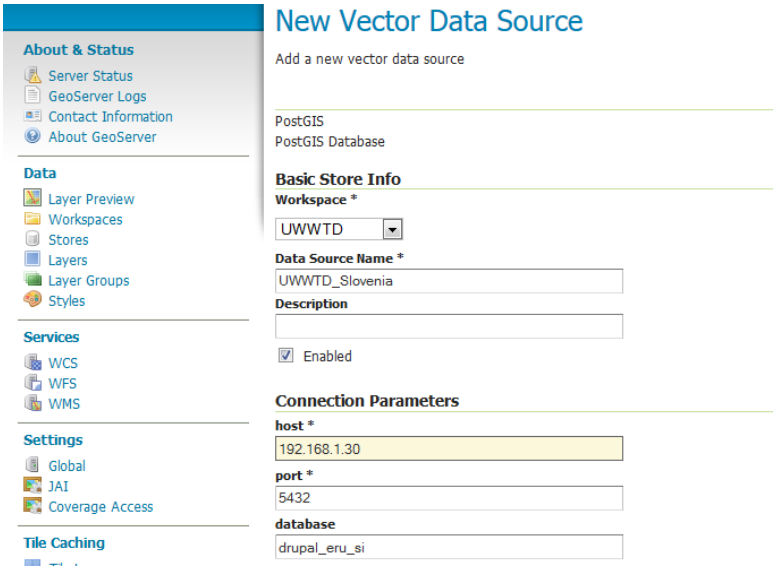
- Click on « Add new store »

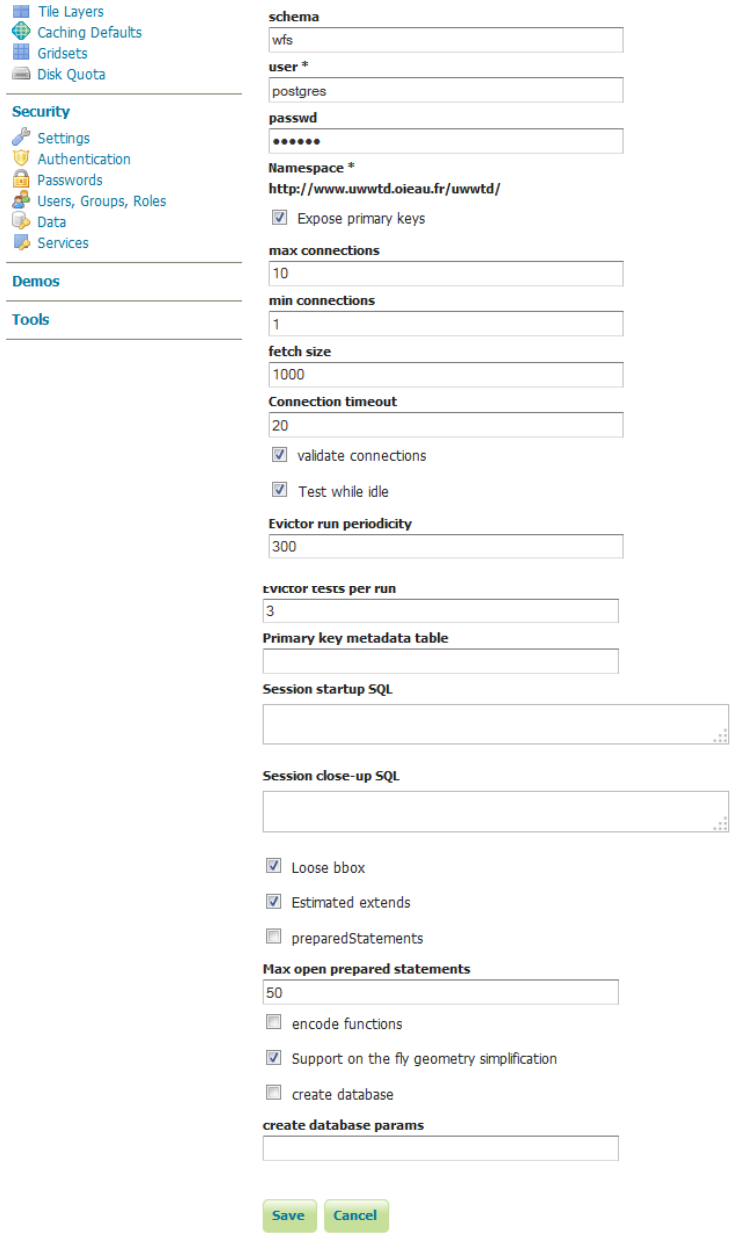


- Select the source format : PostGIS in our project



- Fill in the form as followed



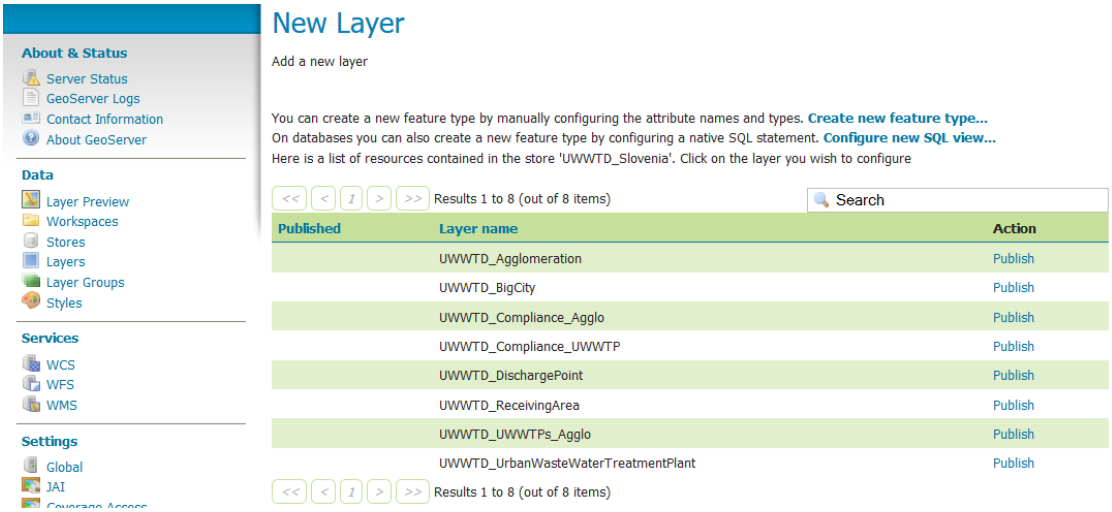


- Select the workspace
- Enter the name of the store: UWWTD Slovenia, or UWWTD_Cyprus, or UWWTD_Lithuania
- Enter the name of the database and its access :
  - drupal_eru_si (Slovenia)
  - drupal_eru_cy (Cyprus)
  - drupal_eru_li (Lithuania)
- Enter the name of the schema containing the data

2.6.3 Create and publish layers:

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

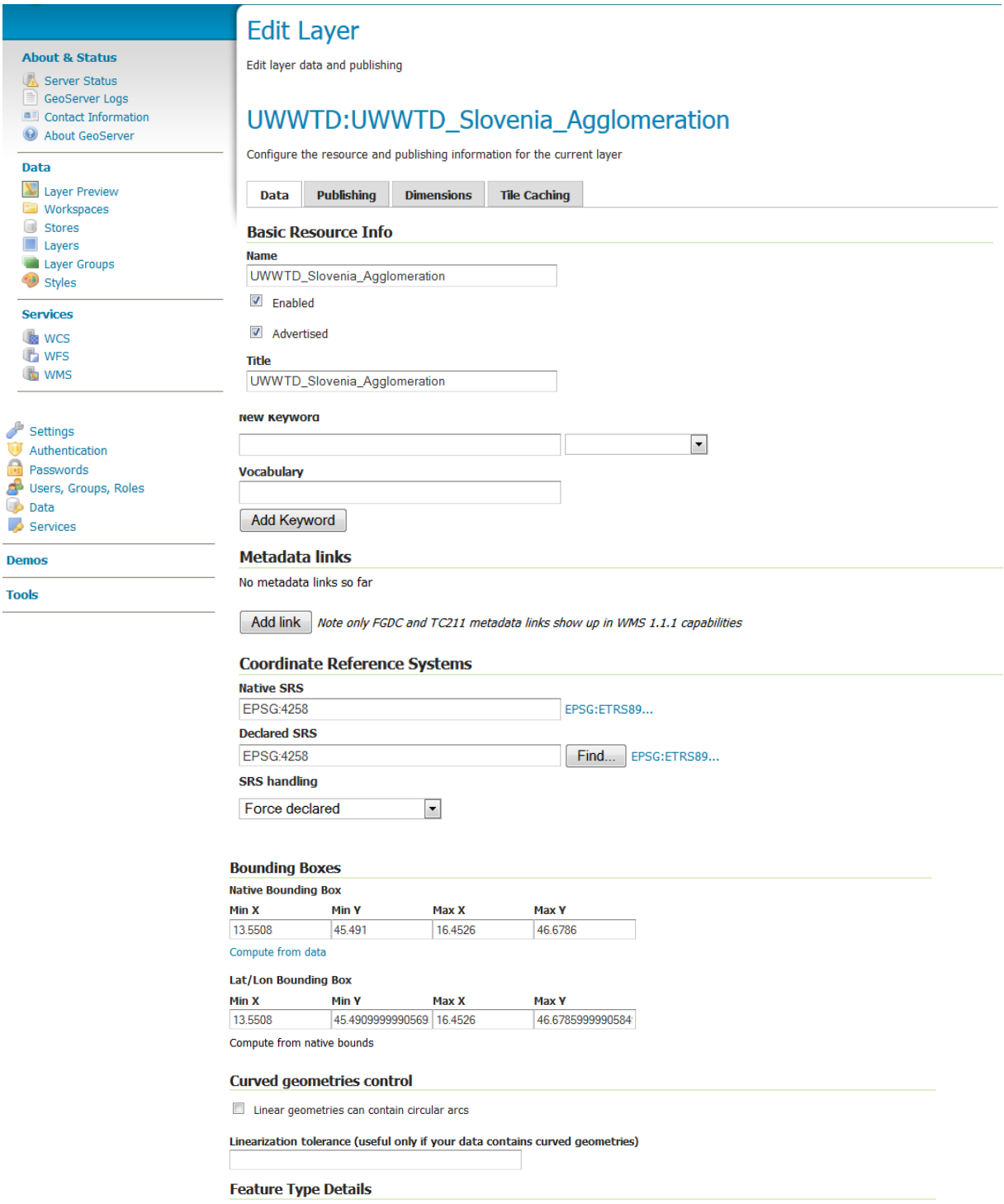
- UWWTD_Agglomeration
- UWWTD_DischargePoint
- UWWTD_ReceivingArea
- UWWTD_UrbanWasteWaterTreatmentPlant



- 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.


About & Status
Server Status
GeoServer Logs
Contact Information
About GeoServer
Data
Layer Preview
Workspaces
Stores
Layers
Layer Groups
Styles
Services
WCS
WFS
WMS
Settings
Authentication
Passwords
Users, Groups, Roles
Data
Services
Demos
Tools
Edit Layer
Edit layer data and publishing
UWWTD:UWWTD_Slovenia_Agglomeration
Configure the resource and publishing information for the current layer
Data
Publishing
Dimensions
Tile Caching
Basic Resource Info
Name
UWWTD_Slovenia_Agglomeration
Enabled
Advertised
Title
UWWTD_Slovenia_Agglomeration
New keyword
Vocabulary
Add Keyword
Metadata links
No metadata links so far
Add link
Note only FGDC and TC211 metadata links show up in WMS 1.1.1 capabilities
Coordinate Reference Systems
Native SRS
EPSG:4258
EPSG:ETRS89...
Declared SRS
EPSG:4258
Find...
EPSG:ETRS89...
SRS handling
Force declared
Bounding Boxes
Native Bounding Box
Min X
Min Y
Max X
Max Y
13.5508
45.491
16.4526
46.6786
Compute from data
Lat/Lon Bounding Box
Min X
Min Y
Max X
Max Y
13.5508
45.4909999990569
16.4526
46.6785999990584
Compute from native bounds
Curved geometries control
Linear geometries can contain circular arcs
Linearization tolerance (useful only if your data contains curved geometries)
Feature Type Details

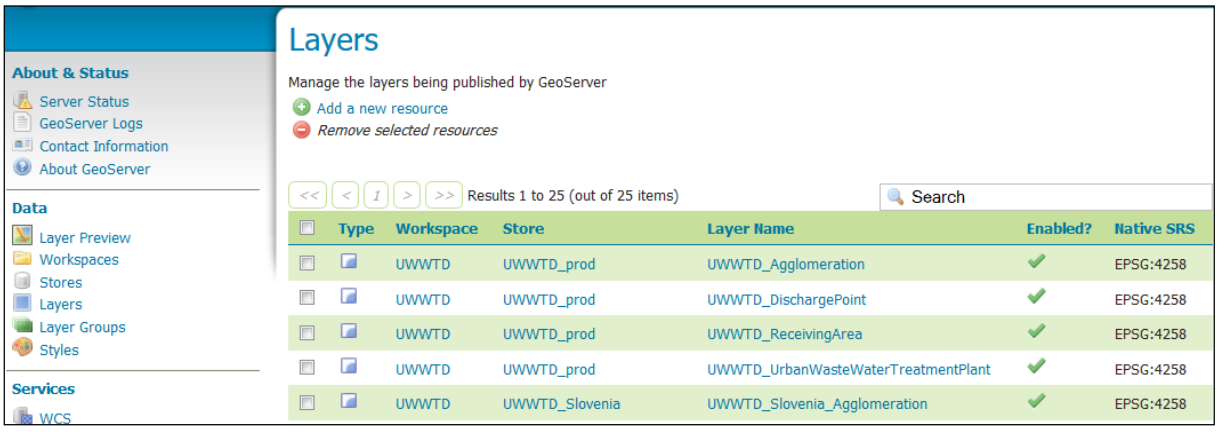
siteId	String	false	1/1
aggCode	String	true	0/1
repCode	String	true	0/1
aggName	String	true	0/1
aggState	String	true	0/1
aggNUTS	String	true	0/1
aggGenerated	Integer	true	0/1
bigID	String	true	0/1
aggCalculation	String	true	0/1
aggChanges	String	true	0/1
aggChangesComment	String	true	0/1
aggPeriodOver	String	true	0/1
aggC1	BigDecimal	true	0/1
aggMethodC1	String	true	0/1
aggC2	BigDecimal	true	0/1
aggMethodC2	String	true	0/1
aggPercWithoutTreatment	BigDecimal	true	0/1
aggMethodWithoutTreatment	String	true	0/1
the_geom	Geometry	true	0/1
aggPercPrimTreatment	BigDecimal	true	0/1
aggPercSecTreatment	BigDecimal	true	0/1
aggPerStringentTreatment	BigDecimal	true	0/1
aggSewageNetwork	String	true	0/1
aggBestTechnicalKnowledge	String	true	0/1
aggSewerOverflows_m3	Integer	true	0/1
aggSewerOverflows_pe	Integer	true	0/1
aggRemarks	String	true	0/1
aggHaveRegistrationSystem	String	true	0/1
aggExistMaintenancePlan	String	true	0/1
aggExplanationOther	String	true	0/1
aggInhabitants	String	true	0/1
aggForecast	String	true	0/1
aggAccOverflowNumber	String	true	0/1
aggDilutionRates	String	true	0/1
aggAccOverflows	String	true	0/1
aggExplanationOther	String	true	0/1
aggInhabitants	String	true	0/1
aggForecast	String	true	0/1
aggAccOverflowNumber	String	true	0/1
aggDilutionRates	String	true	0/1
aggAccOverflows	String	true	0/1
aggOtherMeasures	Integer	true	0/1
aggPressureTest	Integer	true	0/1
aggVideoInspections	Integer	true	0/1
repReportedPerdiod	String	true	0/1

Reload feature type ...

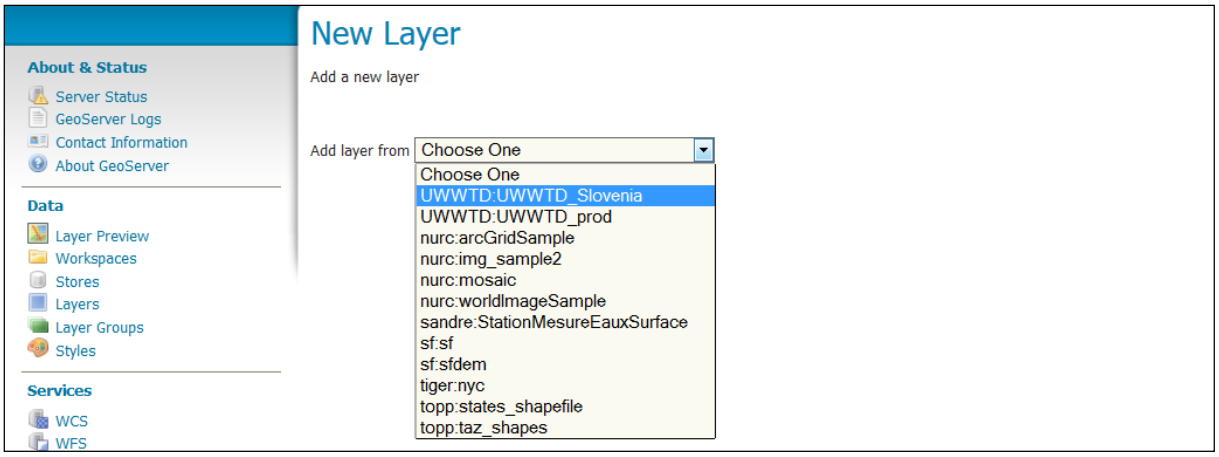
Save Cancel

Do the operation as many times as necessary

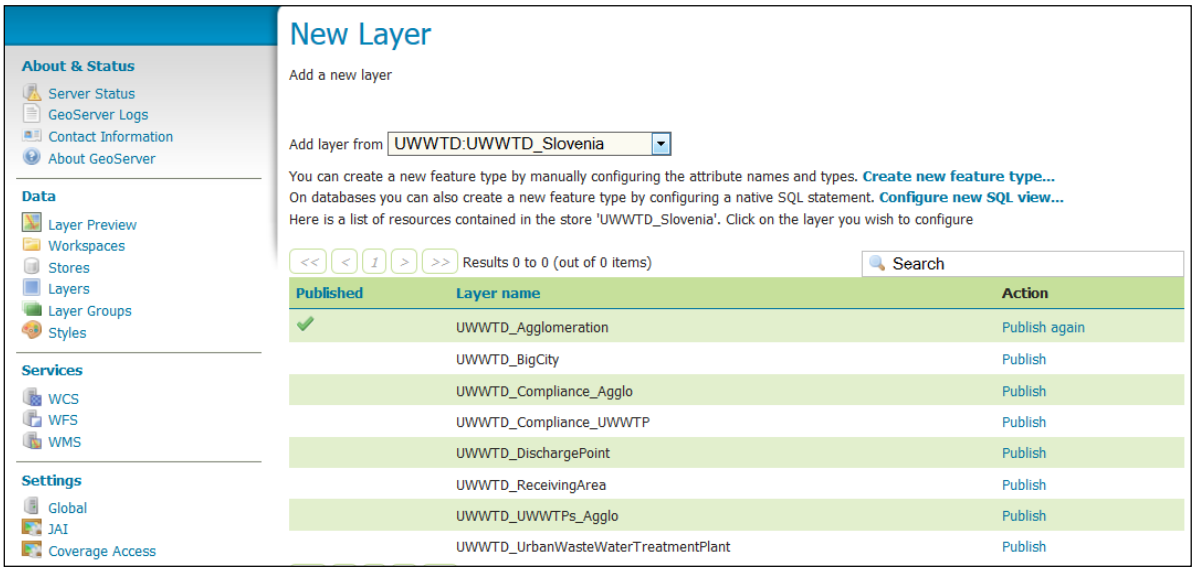
- Add a new resource



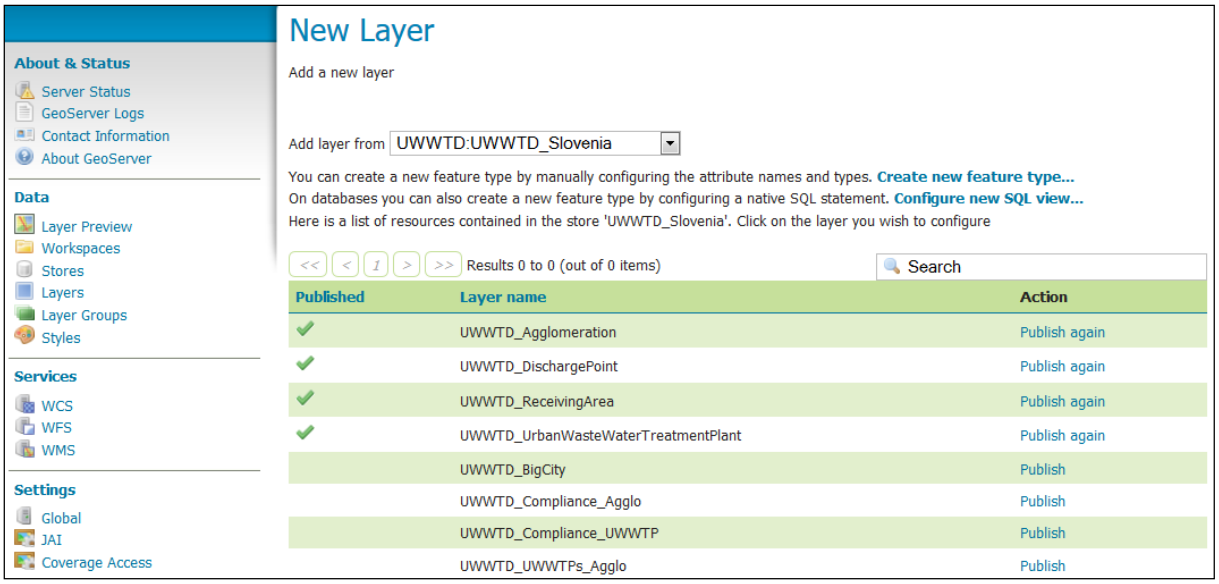
- Select the store in the list :

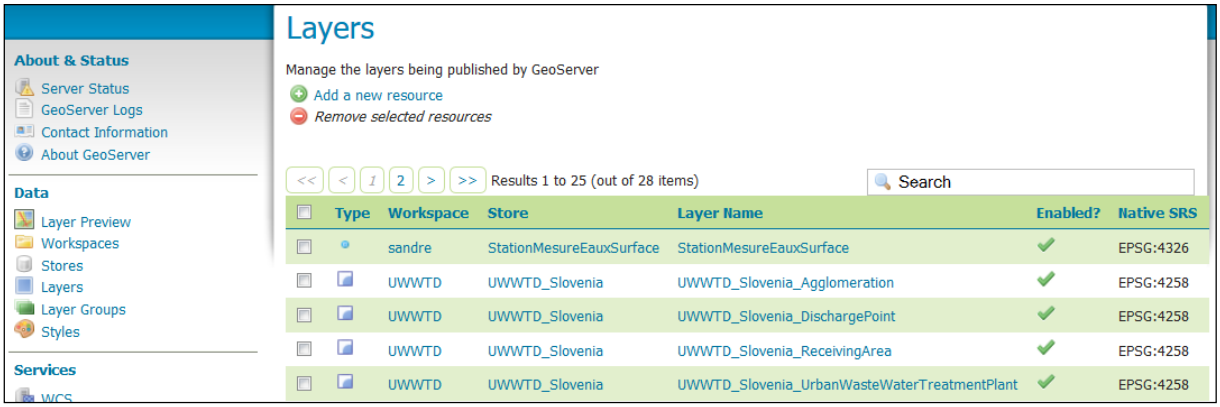


- And publish another layer:

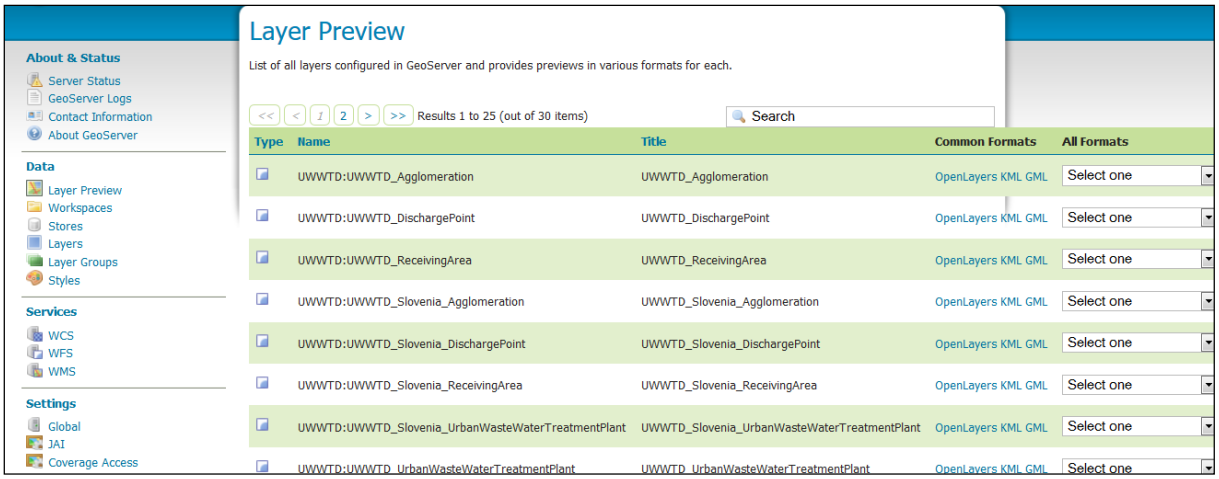


At the end, the 4 layers are published (green tick):





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:

GetCapabilities (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:

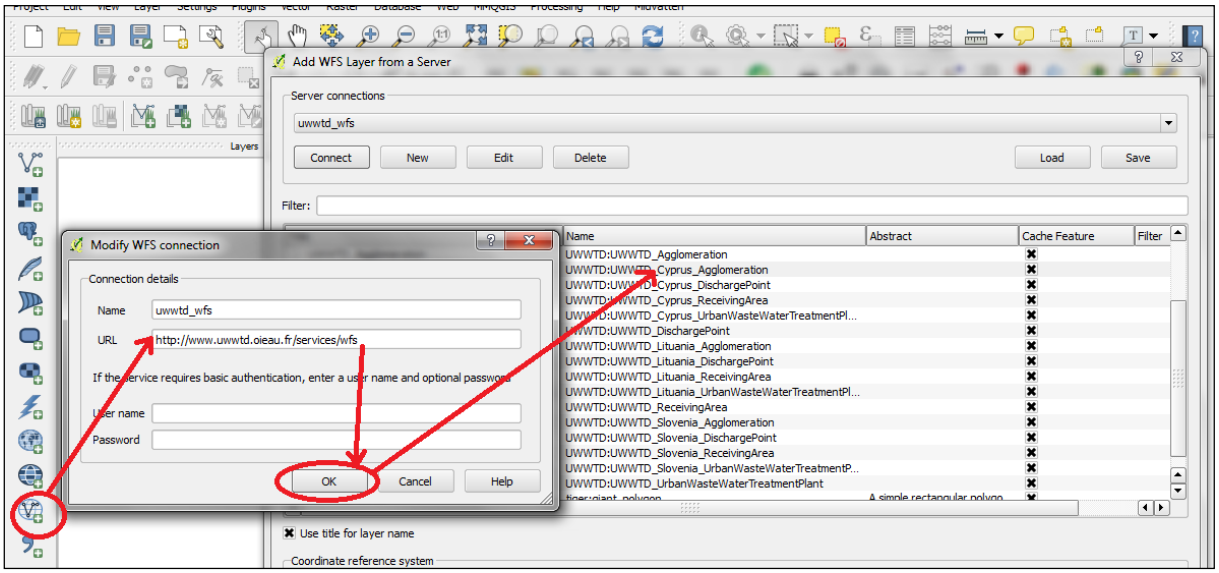
- UWWTD_Cyprus_Agglomeration
- UWWTD_Cyprus_DischargePoint
- UWWTD_Cyprus_ReceivingArea
- UWWTD_Cyprus_UrbanWasteWaterTreatmentPlant

The services section comprises for each object the two following:

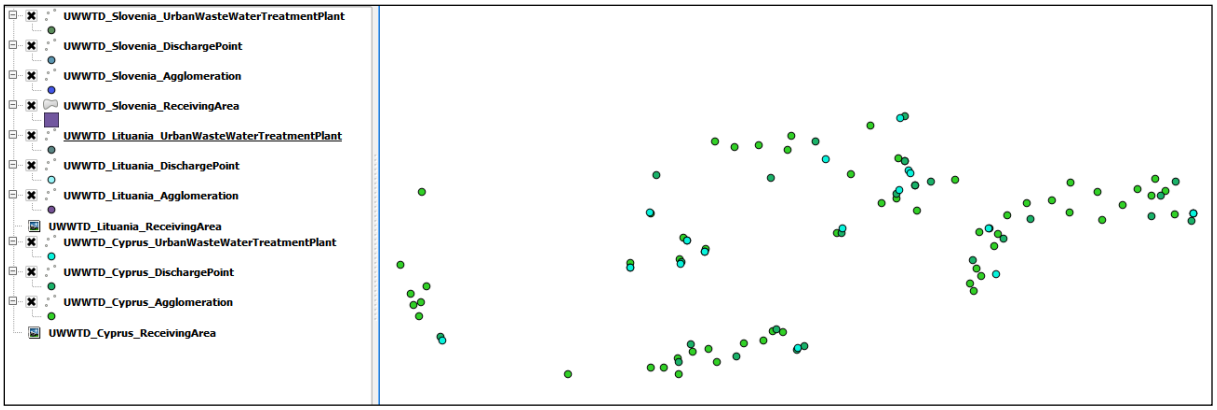
- DescribeFeatureType (description of the information layers: name and format of the fields) :
- GetFeature (Access to the data content in GML format) :

2.6.5 Access from a GIS software, like QGis:

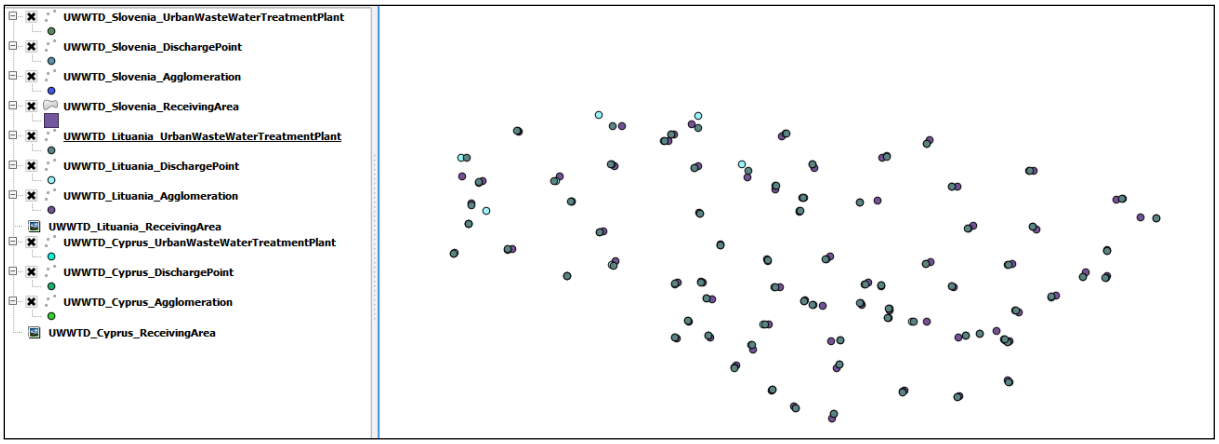
Access through WFS : *http://www.uwwtd.oieau.fr/services/wfs*



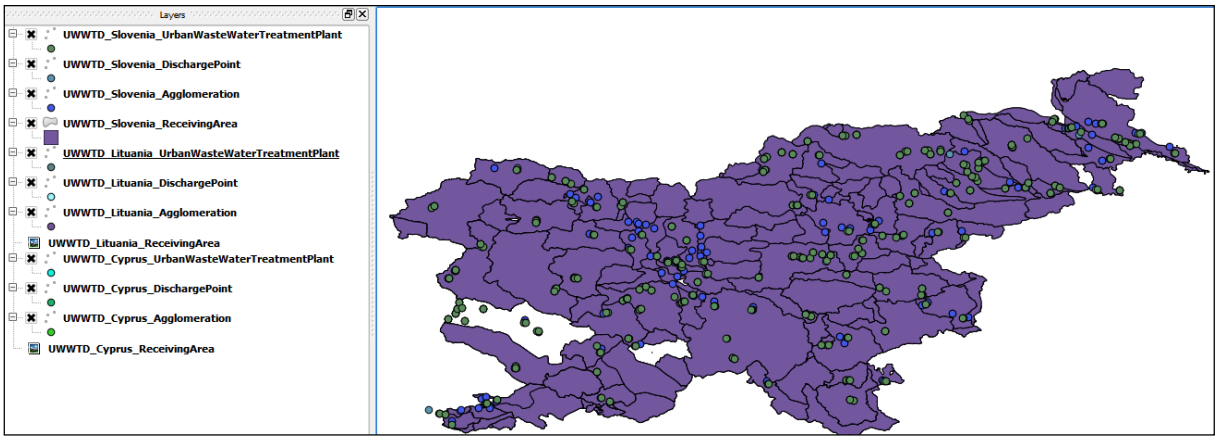
Example with Cyprus :



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).

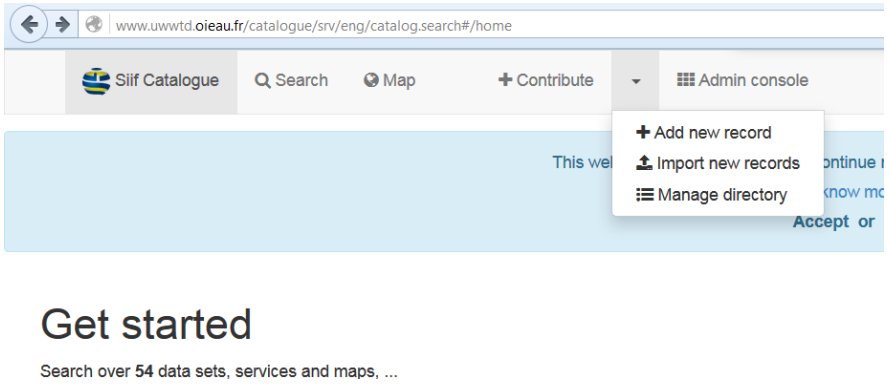


Figure 1 : Add new record in Geonetwork

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

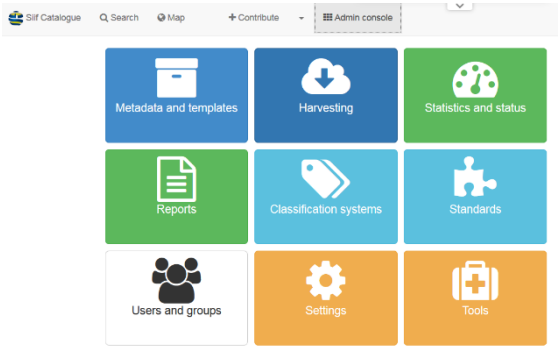


Figure 2 : Geonetwork admin console

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.

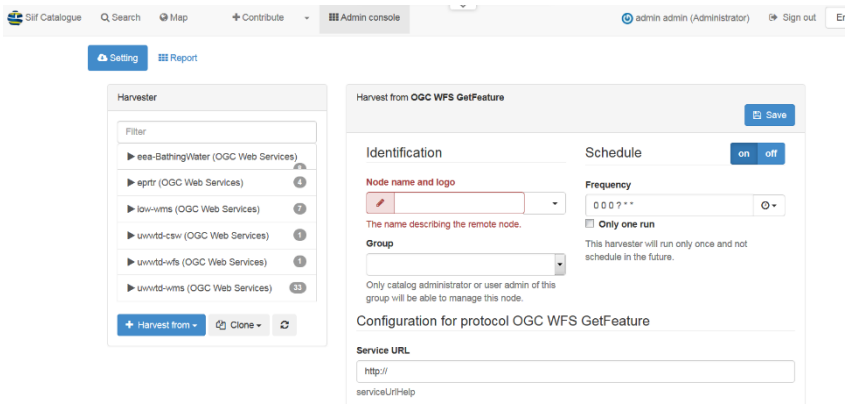


Figure 3 : Geonetwork : harvest from OGC WFS

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).

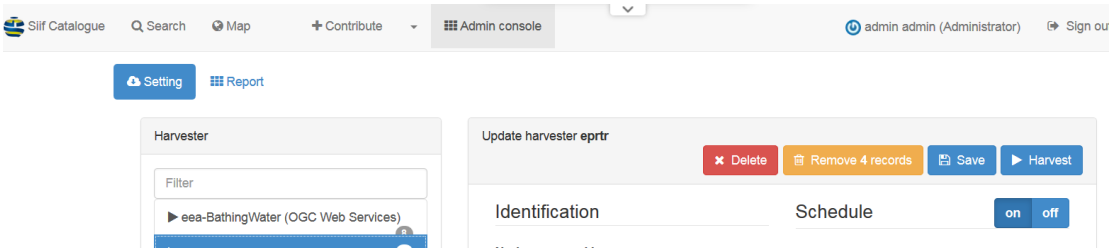


Figure 4 : Geonetwork, start harvesting service

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).

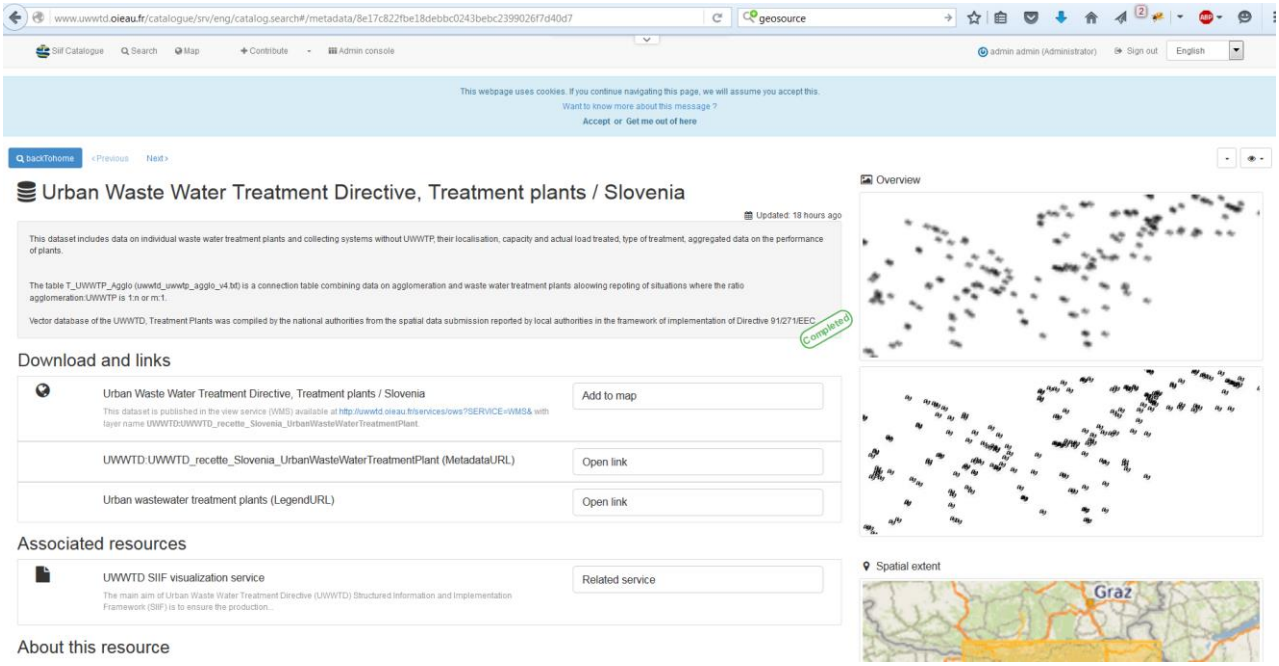


Figure 5 : Geonetwork : harvested metadata page

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 :

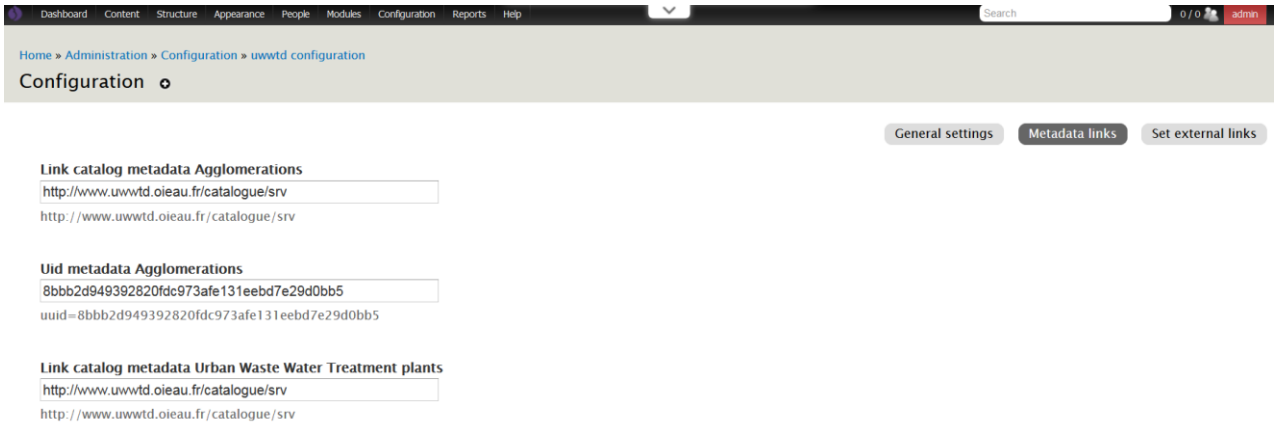


Figure 6 : UWWTD SIIF, set metadata form

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)

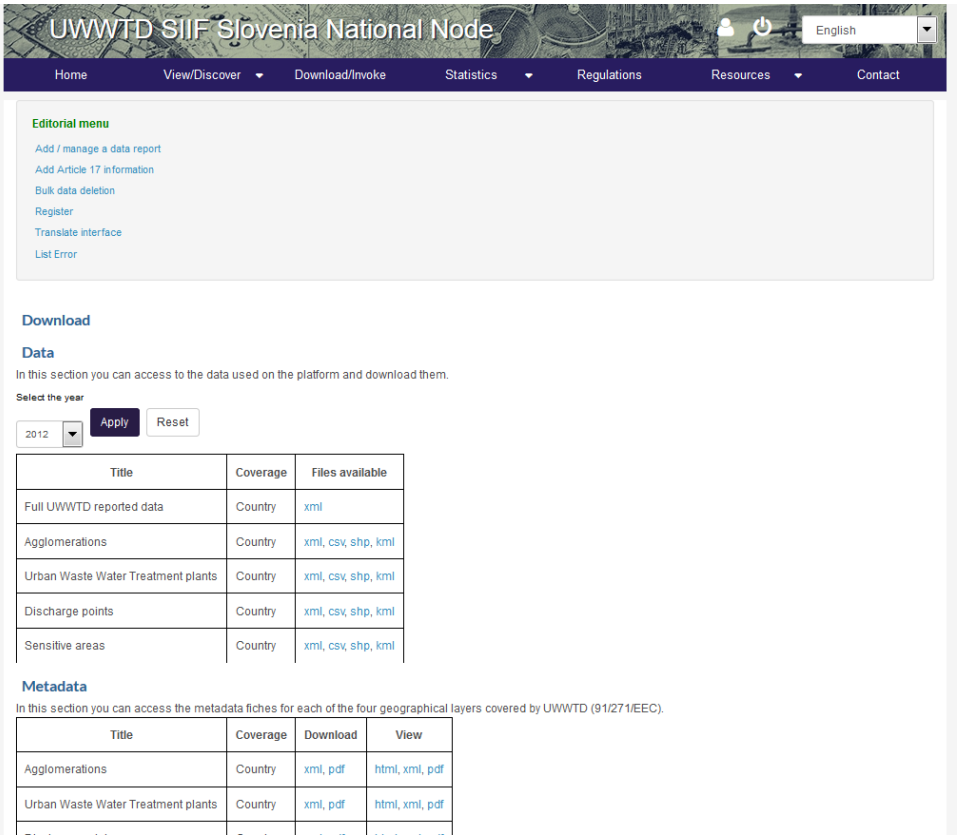


Figure 7 : Download/invoke page

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).

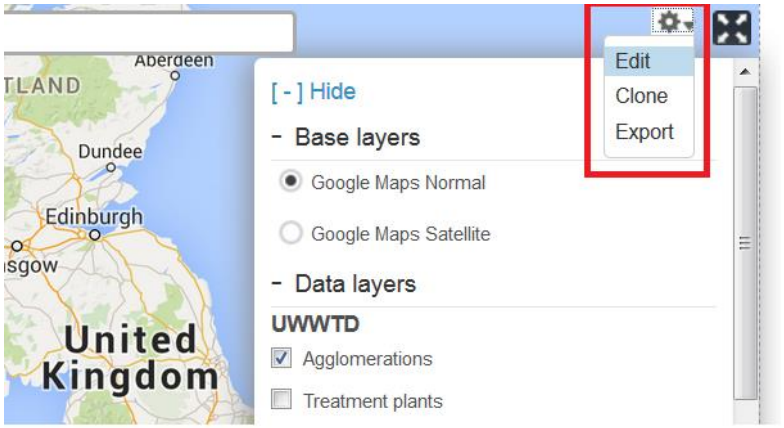


Figure 8 : Edit a map on Drupal

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.

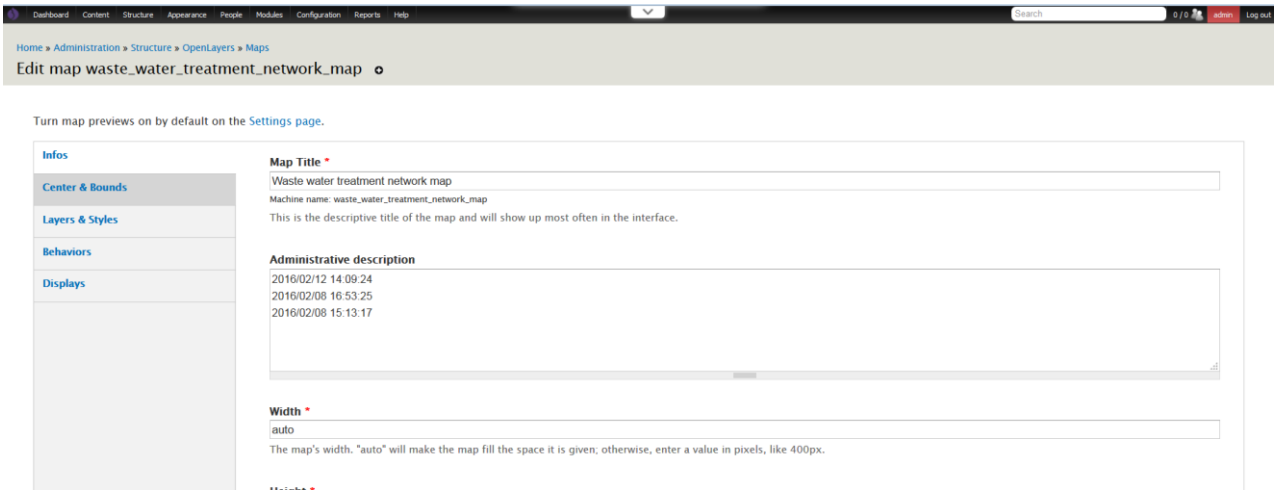


Figure 9 : Map edit form in Drupal

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 web-mapping 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)

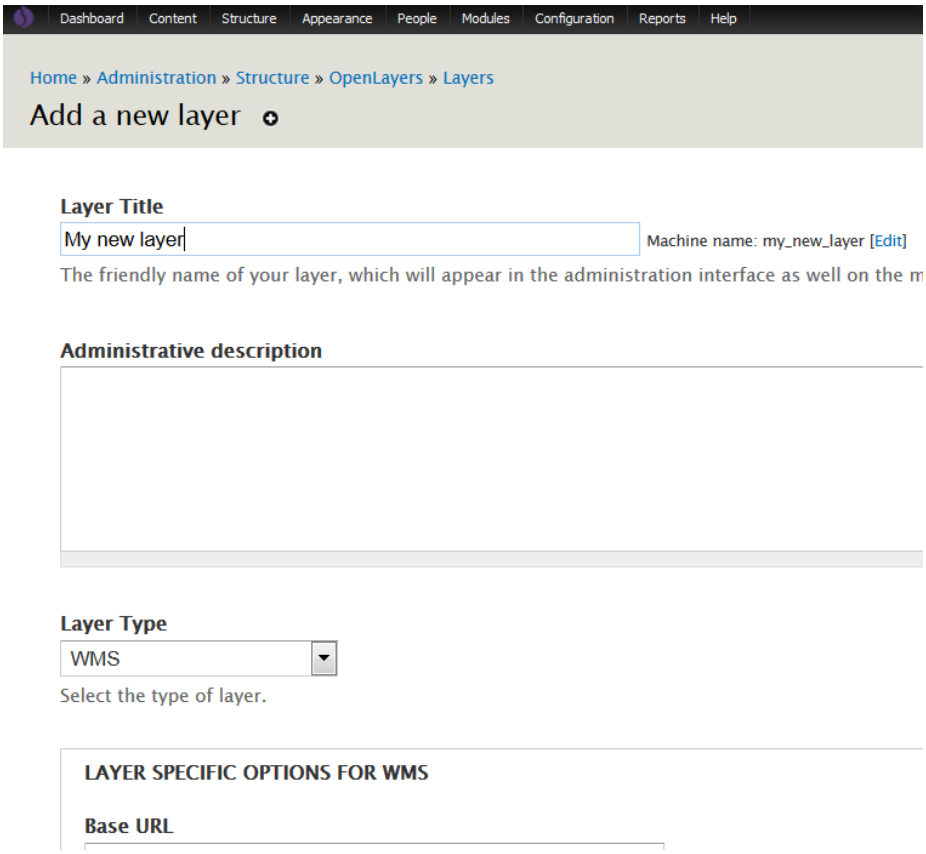


Figure 10 : Add new layer

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.

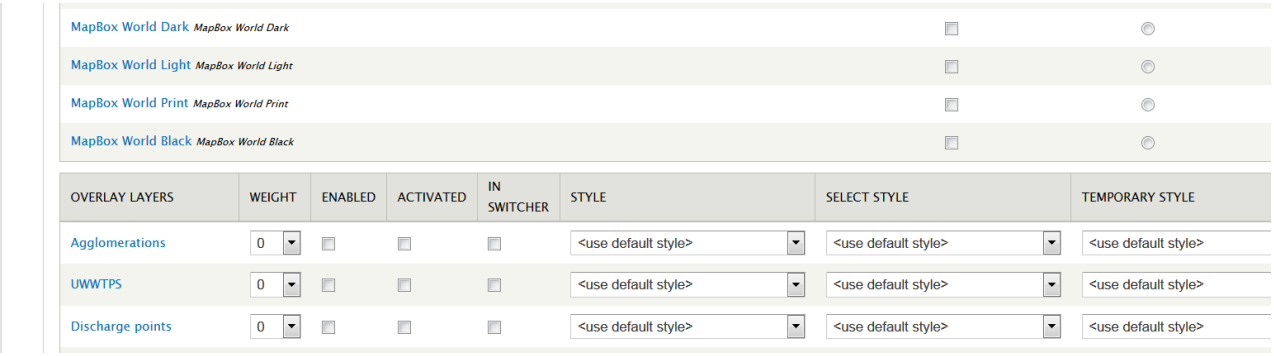


Figure 11 : Extract of Layers and styles in map edit form

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.

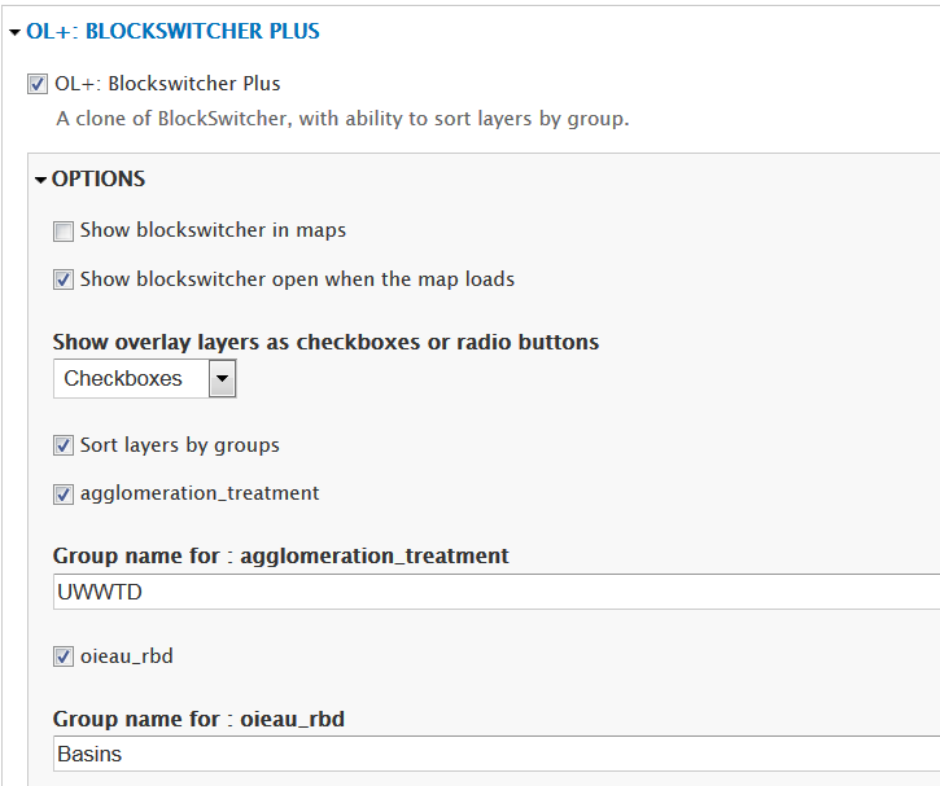


Figure 12 : OL+ : Blockswitcher plus

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

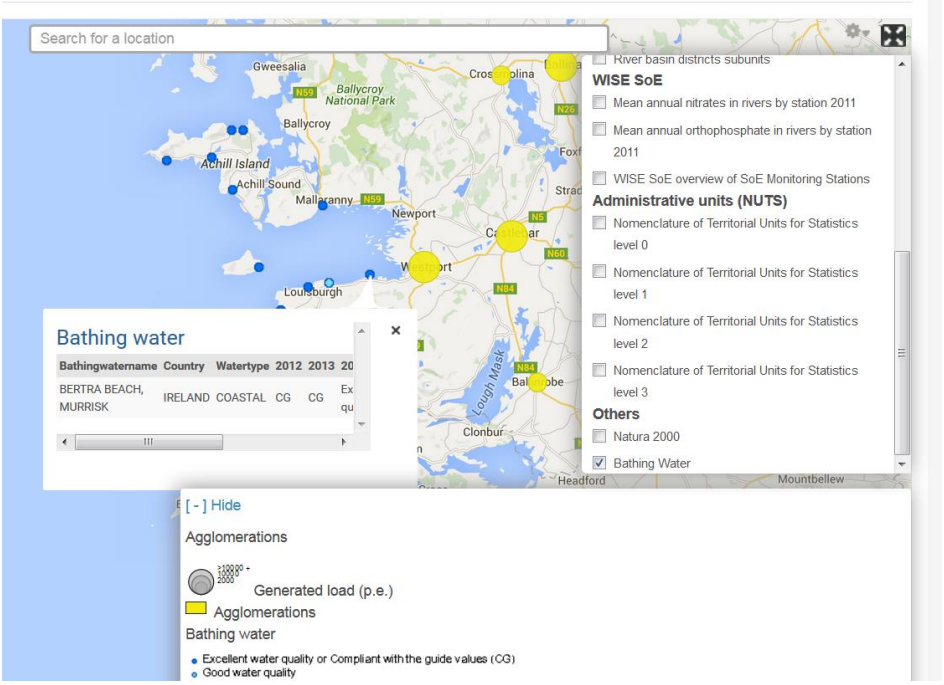


Figure 13 : Example of queryable WMS layer : Bathing Water

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”

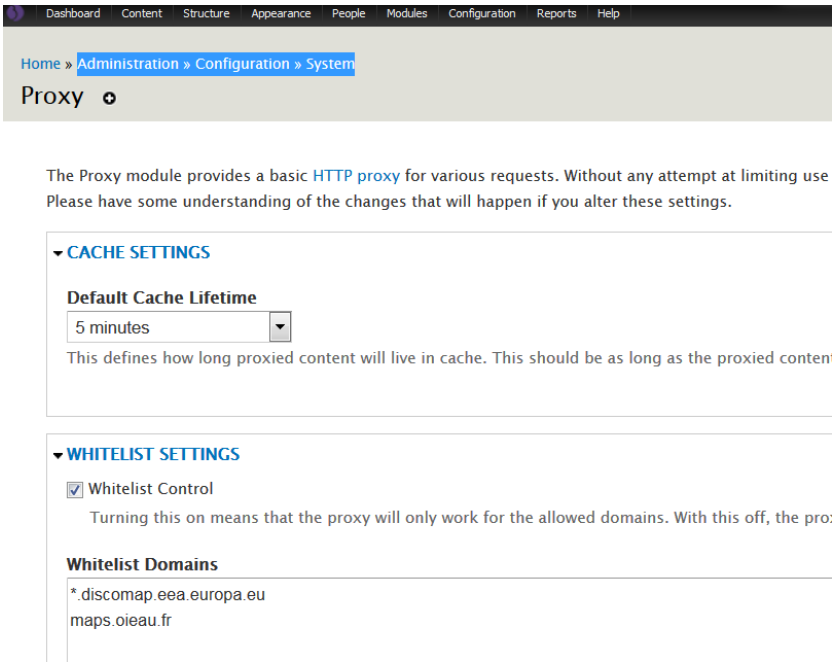


Figure 14 : Proxy settings

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/*