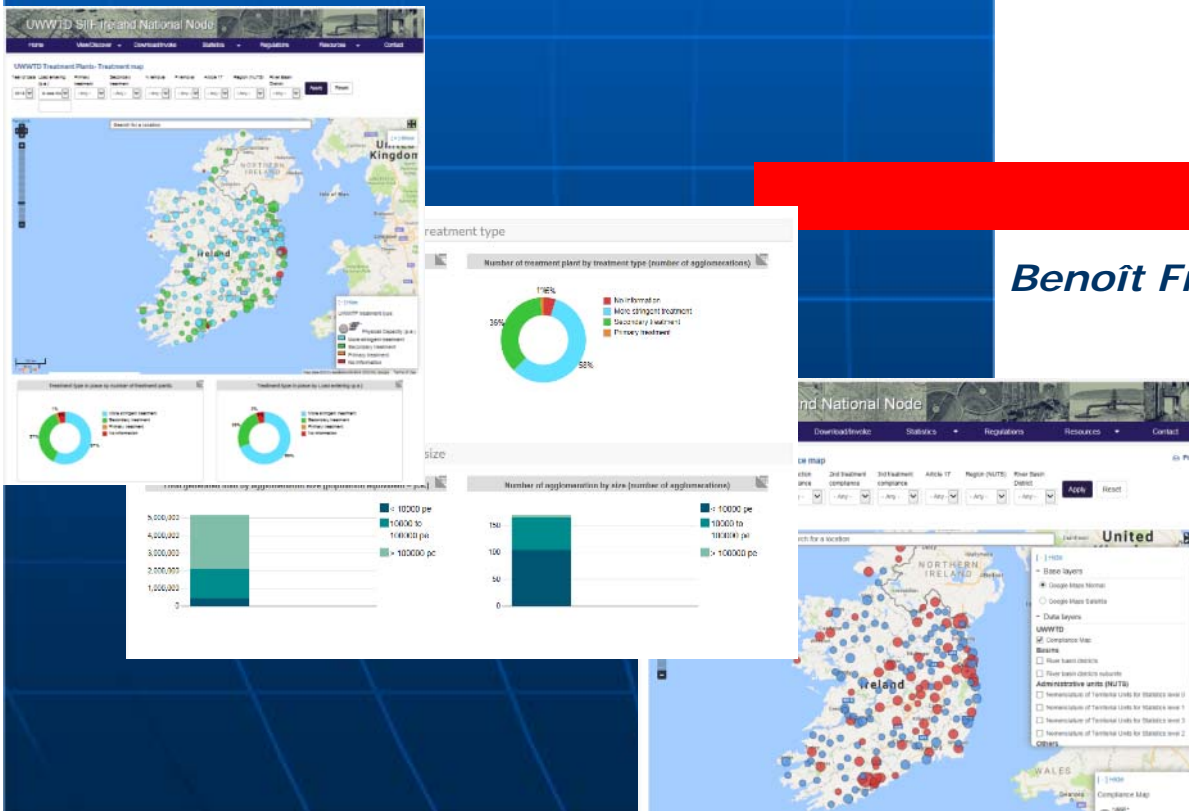




# ***INSPIRE for Reporting and Dissemination of Urban Waste Water Information***



***Benoît Fribourg-blanc<sup>1</sup> & Bruno Rakedjian<sup>2</sup>***

*(1) Office International de l'Eau  
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Directorate General Environment*

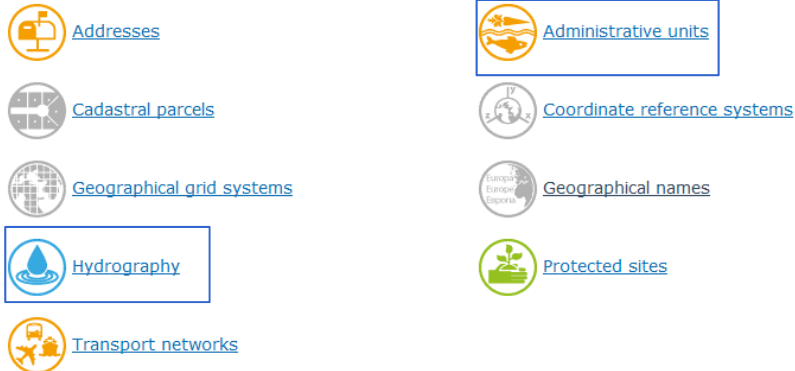


# Objectives & context

- **Better implementation** of Directives:
  - **Urban Waste Water Directive** 91/271/EEC
  - **INSPIRE Directive** 2007/2/EC
  - public access to **environmental information Directive** 2003/4/EC
- **A specific context:**
  - A need to **speed up** availability of information on Urban Waste Water and its Treatment (UWWT)
  - A **new concept**: Structured Implementation and Information Framework (SIIF)
  - A requirement for **testing** on a well established EU reporting framework: the biannual UWWT Directive reporting

# UWWTD SIIF: INSPIRE Themes covered

## ANNEX: 1



## ANNEX: 2



Part of UWWTD reporting

Useful for domain assessment

## ANNEX: 3



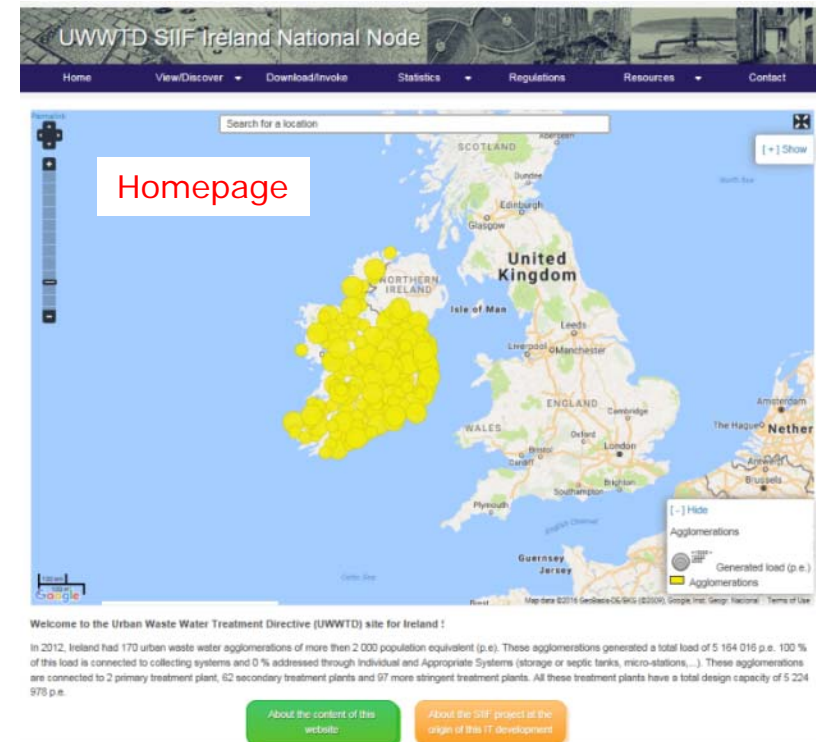
- INSPIRE **highly relevant** for the UWWTD SIIF
- **BUT:** not ultimate objective for UWWTD SIIF

# What was done?

- In close collaboration with **Commission** and **pilot Member States**
- Creation of a **generic open source** waste water **website**
  - Inspire compatible (Inspire services, organisation,...)
  - showing and using the data,
  - disseminating the data
  - tool free to be reused,
  - including many functionalities,
  - with maps, graphs, tables
  - with individual fiches...
  - and allowing regular evolution.

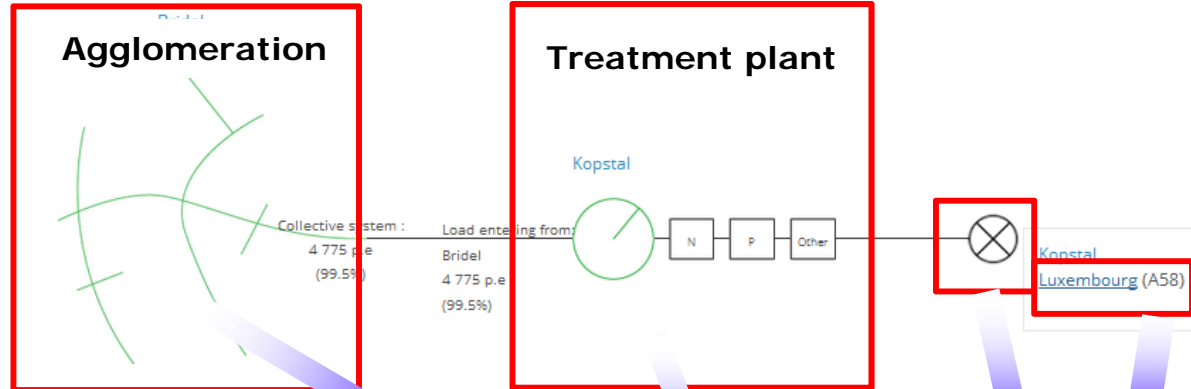
1. Generic website: [uwwtd.oieau.fr](http://uwwtd.oieau.fr)

2. web tool and documentation for developers:  
<https://github.com/OIEau/uwwtd>



# UWWTD SIIF: a tool for environmental domain experts

- INSPIRE schemas are not available for all objects
- The INSPIRE services are **not fully** implemented (needed?)



UWWT Directive			Agglomerations	Treatment plants	Discharge points	Sensitive areas
DISCOVERY SERVICE	[INSPIRE] Service 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.	Implementation	YES	YES	YES	YES
		Userfriendly	YES	YES	YES	YES
		Catalogue Middleware	YES	YES	YES	YES
		Comment / layer	YES	YES	YES	YES
		url hyperlink	<a href="http://www.uwwtd.oieau.fr/catalogue/srv/ows/catalog.search#/home">http://www.uwwtd.oieau.fr/catalogue/srv/ows/catalog.search#/home</a>			
Comment for the service	Doesn't exist but the metadata is available on the geo catalogue					
VIEW SERVICE	[INSPIRE] Service that makes it possible, as a minimum, to display, navigate, zoom in and out, pan or overlay viewable spatial data sets and to display legend information and any relevant content of metadata.	Implementation	YES	YES	YES	YES
		Userfriendly	YES	YES	YES	YES
		SIG Middleware	Geoserver	Geoserver	Geoserver	Geoserver
		Comment / layer				
		url hyperlink	WMS URL			
Comment for the service	implemented and fully functional					
DOWNLOAD SERVICE	[INSPIRE] Service that enables copies of spatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly.	Implementation	YES	YES	YES	YES
		Userfriendly	YES	YES	YES	YES
		SIG Middleware	Geoserver	Geoserver	Geoserver	Geoserver
		Comment / layer				
		url hyperlink	WFS URL			
Comment for the service	implemented and fully functional					
TRANSFORMATION SERVICE	[INSPIRE] Service that enables spatial data sets to be transformed with a view to achieving interoperability	Implementation	NO	NO	NO	NO
		Userfriendly	NO	NO	NO	NO
		SIG Middleware	Geoserver	Geoserver	Geoserver	Geoserver
		Comment / layer	pre processed	pre processed	pre processed	pre processed
		url hyperlink				
Comment for the service	No implemented yet					

# Implement INSPIRE Article 11: Discover

U **Dedicated menus** National Node

Home

View/Discover ▾

Download/Invoke

Statistics ▾

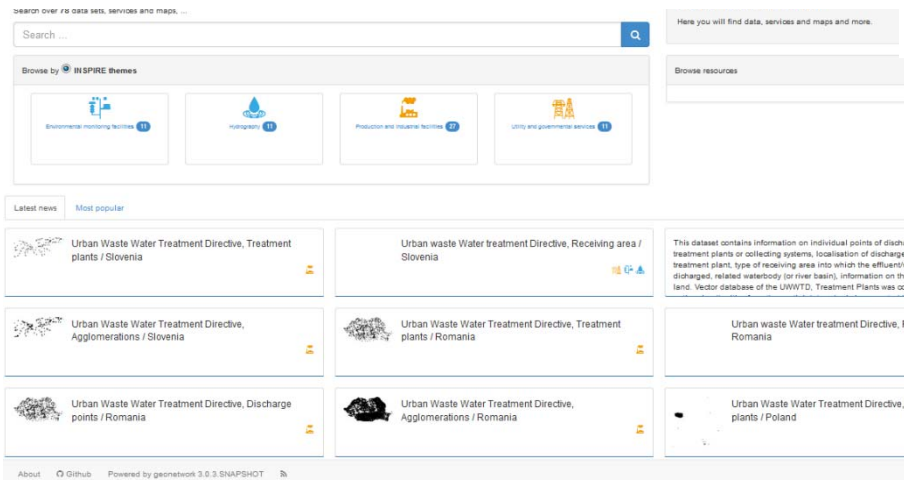
Regulations

Resources ▾

Contact

**Discover: Metadata**

Dissemination via Geoserver (cartographic service)  
and Geonetwork (catalogue)



Search over 46 data sets, services and maps...

Search ...

Here you will find data, services and maps more.

Browse by INSPIRE themes

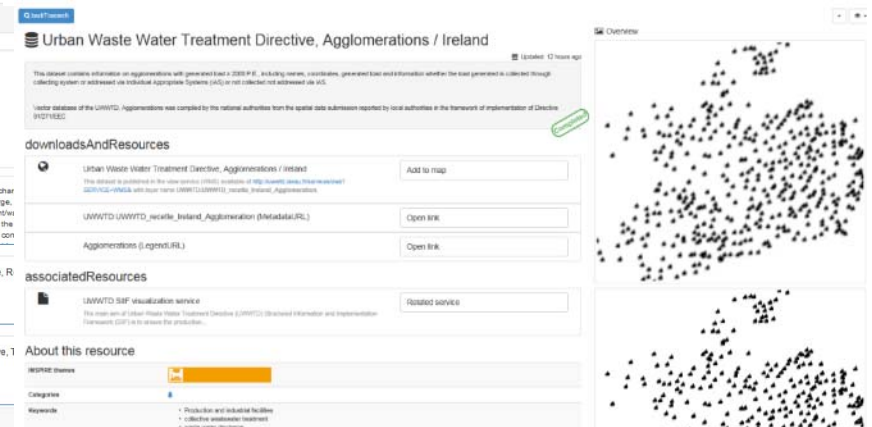
- Environmental monitoring facilities (11)
- Hydrographical (11)
- Production and industrial facilities (11)
- Utility and governmental services (11)

Latest news Most popular

- Urban Waste Water Treatment Directive, Treatment plants / Slovenia
- Urban waste Water treatment Directive, Receiving area / Slovenia
- Urban Waste Water Treatment Directive, Agglomerations / Slovenia
- Urban Waste Water Treatment Directive, Treatment plants / Romania
- Urban Waste Water treatment Directive, R Romania
- Urban Waste Water Treatment Directive, Discharge points / Romania
- Urban Waste Water Treatment Directive, Agglomerations / Romania
- Urban Waste Water Treatment Directive, 1 plants / Poland

About GitHub Powered by geonetwork 3.0.3.SNAPSHOT

Metadata fiches for each geographical object



Urban Waste Water Treatment Directive, Agglomerations / Ireland

This dataset contains information on agglomerations with generated data > 2005 P.E., including names, coordinates, generated base and information whether the base generated is collected through collecting system or not (based on Individual Agglomerations Systems (IAS) or not collected not addressed (no IAS)).

Vector database of the UWWTD. Agglomerations was compiled by the national authorities from the spatial data submission reported by local authorities in the framework of implementation of Directive 91/271/EEC.

downloadsAndResources

- Urban Waste Water Treatment Directive, Agglomerations / Ireland
- UWWTD (UWWTD\_escalier\_Ireland\_Agglomeration) (Metadata:RLC)
- Agglomerations (I-geonovURL)

associatedResources

- UWWTD SIF visualization service

About this resource

INSPIRE themes

Categories

Keywords

- Production and industrial facilities
- collective wastewater treatment
- wastewater discharge

→ To be developed: dissemination of statistics



# Implement INSPIRE Article 11: View



Discover/View:

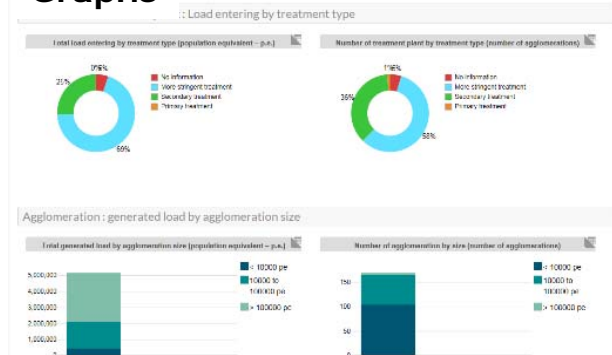
## Maps



## Tables

Name	Identifier Code	Generated Load (p.a.)	Total UWWTP Capacity (p.a.)	Region (NUTS)	RBD	Global compliance	Connection compliance	2nd treatment compliance	3rd treatment compliance	Article 17
Ringend	IEAG_144	282329	1640000	IE021 Dublin	IEA Eastern	Not Compliant	Compliant	Compliant	Not Compliant	No
Cork city	IEAG_83	284896	413000	IE025 South-West (SIL)	IESW South-Western	Not Compliant	Compliant	Compliant	Not Compliant	Yes
Dundalk	IEAG_298	179000	179000	IE011 Border	GBNIENB Neagh Bann	Not Compliant	Compliant	Compliant	Not Compliant	No
Limerick City and...	IEAG_771	130000	130000	IE023 Mid-West	IEGBNSH Shannon	Compliant	Compliant	Compliant	Not relevant	No
Drogheda	IEAG_299	101000	101000	IE011 Border	IEA Eastern	Compliant	Compliant	Compliant	Not relevant	No
Mutton Island WWTW	IEAG_182	91600	91600	IE013 West	IEWE Western	Compliant	Compliant	Compliant	Not relevant	No
Osberstown	IEAG_200	86408	80000	IE022 Mid-East	IEA Eastern	Not Compliant	Compliant	Compliant	Not Compliant	Yes
Killybegs	IEAG_119	81382	81382	IE011 Border	GBNIENW North Western	Not Compliant	Compliant	Not Compliant	Not Compliant	No
Leixlip	IEAG_201	78677	80000	IE022 Mid-East	IEA Eastern	Not Compliant	Compliant	Compliant	Not Compliant	No
Waterford City	IEAG_469	76456	190600	IE024 South-East (SIL)	IESE South-Eastern	Not Compliant	Compliant	Compliant	Not Compliant	No
Swords	IEAG_148	62901	60000	IE021 Dublin	IEA Eastern	Not Compliant	Compliant	Compliant	Not Compliant	No

## Graphs



# Implement INSPIRE Article 11: Download

## UWWTD SIIF Ireland National Node

Home

View/Discover ▾

**Download/Invoke**

Statistics ▾

Regulations

Resources ▾

Contact

**Download** 

### Data and metadata

In this section you can access to the data used on the platform and download them.

Select the  
year

2012 ▾

Apply

Reset

Title	Coverage	Files available
Full UWWTD reported data	Country	xml
Agglomerations	Country	xml, csv, shp, kml
Urban Waste Water Treatment plants	Country	xml, csv, shp, kml
Discharge points	Country	xml, csv, shp, kml
Sensitive areas	Country	xml, csv, shp, kml

### Metadata

In this section you can access the metadata fiches for each of the four geographical layers covered by UWWTD (01/07/1/550)

Title	Coverage	Download	View
Agglomerations	Country	xml, pdf	html, xml, pdf
Urban Waste Water Treatment plants	Country	xml, pdf	html, xml, pdf
Discharge points	Country	xml, pdf	html, xml, pdf
Sensitive areas	Country	xml, pdf	html, xml, pdf

### Services

#### Webservice

#### Agglomeration

#### Treatment plant

#### Discharge point

#### Receiving area

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

**GetFeature:**  
access to data in  
GML format

[Agglomeration](#)

[Agglomeration](#)

[Download](#)  
[UrbanWasteWaterTreat  
mentPlant](#)

[UrbanWasteWater  
TreatmentPlant](#)

[DischargePoint](#)

[DischargePoint](#)

[ReceivingArea](#)

[ReceivingArea](#)

**→ Urban waste water  
data can be now reused  
everywhere**



# Implement INSPIRE Article 11:

Transformation services: Focused on pragmatic and useful solution

Publicly available

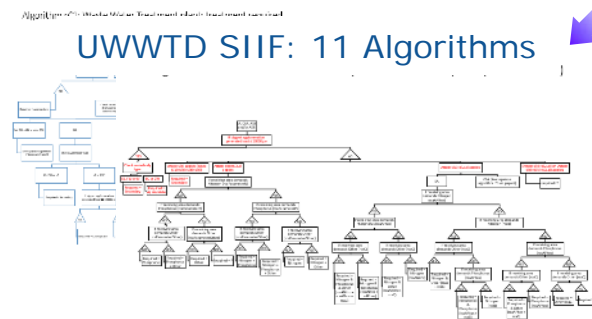
```
XML files
...
<!-- XML Schema Definition (XSD) for WWT Agglomerations -->
<!-- Root Element -->
<!-- Agglomerations -->
<!-- Agglomeration -->
...
</root>
```

UWWT Directive



UWWTD SIIF Transformation

Pre-processed (no WPS)



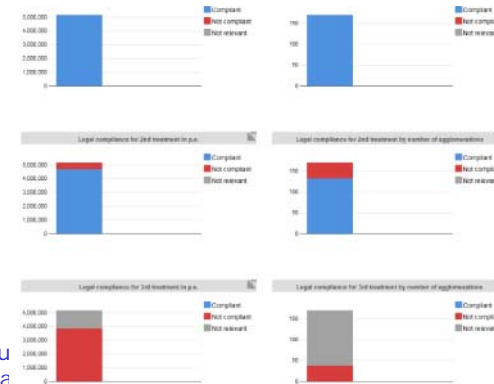
Small audience, 28MS national authorities

UWWTD SIIF Visualisation

Visualisation: Compliance maps



Visualisation: Compliance graphs





Office International de l'Eau

Under contract for



# INSPIRE: an incentive for environmental domains experts

## Online available layers (OGC web services):

- Administrative and hydrographic
- EEA Natura 2000
- bathing water,
- State of Environment water monitoring layers

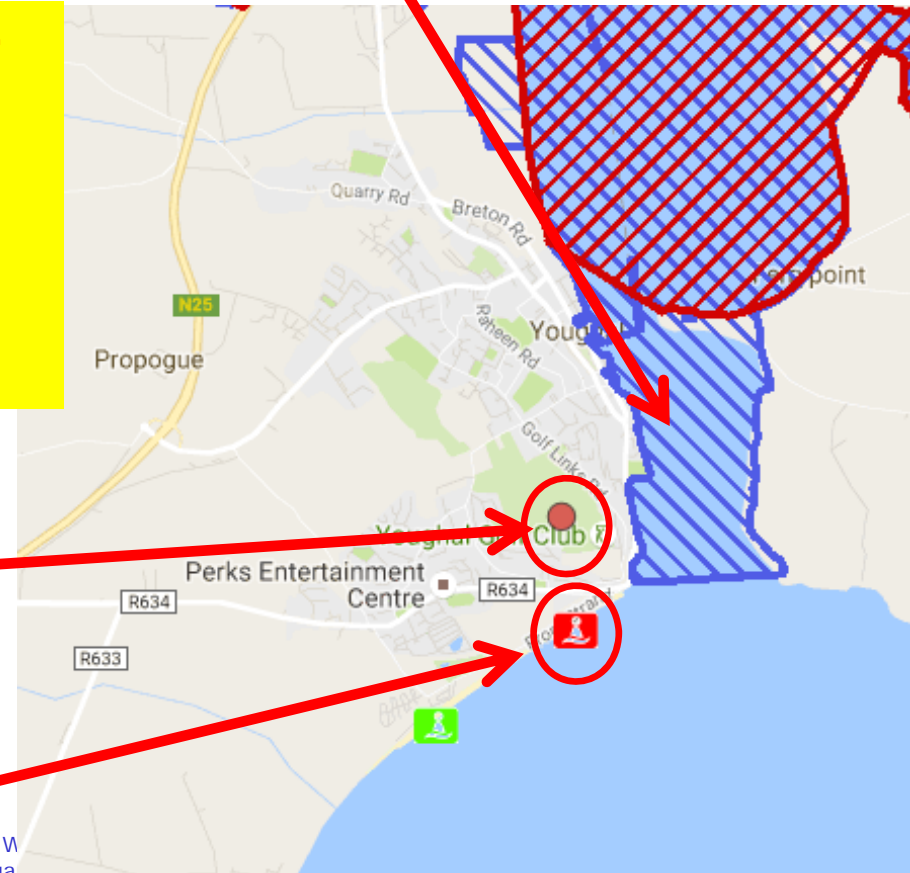
### Natura 2000



→ Allow crossing different layers for a better understanding of the relationships between pressure and impact

Agglomeration not compliant

Bathing water in poor quality



# Conclusion: A win-win process

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The Commission has financed the development of a urban waste water website that :

- Fills the INSPIRE national **implementation gap**,
- Increases **transparency**,
- Increases the **use of reporting data** by different types of users,
- Improves the reporting **process**,
- Avoids some MS to **develop their own website**
- Can be improved and updated with new needs **by all users**
- Contributes to **growth and jobs** and digital agenda of the Commission

Under contract for



# Thanks for your attention

*Benoît Fribourg-blanc*  
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Come and visit...

...Live presentation today  
at **15.00 - Room H1**

+ feedback of **Romania** and the  
**European Commission (DGENV)**

*Office  
International  
de l'Eau*