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March 2020

SUPPORT ON THE IMPLEMENTATION OF THE URBAN WASTE WATER TREATMENT DIRECTIVE (91/271/EEC)

SEMIOLOGY DOCUMENT OF UWWTD-SIIF PLATFORM

RAMBOLL

International Office for Water

SUPPORT ON THE IMPLEMENTATION OF THE URBAN WASTE WATER TREATMENT DIRECTIVE (91/271/EEC) SEMIOLOGY DOCUMENT OF UWWTD-SIIF PLATFORM

Project name	**Support on the implementation of the Urban Waste Water Treatment Directive (91/271/EEC)**
Project no.	**Specific Contract 070201/2018/787684/SFRA/ENV.C.2**
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CONTENTS

1. INTRODUCTION

This document is part of the documentation for the UWWTD SIIF websites which are available at the following URL: https://uwwtd.eu

It is the semiology document, describing specifically the semiology used on the set of UWWTD SIIF websites for maps and charts.

2. GENERAL INSTRUCTION

All maps are displayed in WGS84 (epsq:4326)
The background for all maps uses an OpenStreetMap layer provided by the http://tile.openstreetmap.org/ service.

3. AGGLOMERATION

3.1 Compliance

Compliance fields are only available on active agglomeration (field “aggState” = 1) with a generated load (field “AggGenerated”) >= 2,000 p.e. The compliance is assessed on each article of UWWTD (Art. 3, 4, 5, 6) and the hierarchical compliance gives the “legal compliance” at agglomeration (or receiving area) level.

3.1.1 Categories and style

Categories are based on computed “Compliance” field of the agglomeration entity. In the following table the style is detailed for each case used on compliance maps.

Code	Label	Fill	Stroke
C	Compliant	Red : 79 Green :145 Blue :225 Opacity : 0.8 rgb(79,145,225) rgba(79,145,225,0.8) Hexa : #4F91E1 CSS4 : #4F91E1CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
QC	Questionable Compliance (deprecated, replaced by « Compliant »)	Red : 233 Green :150 Blue :122 Opacity : 0.8 rgb(233,150,122) rgba(233,150,122,0.8) Hexa : #E9967A CSS4 : # E9967ACC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

Code	Label	Fill	Stroke
PD	Pending Deadline (deprecated, replaced by « Not relevant »)	Red : 143 Green : 188 Blue : 143 Opacity : 0.8 rgb(143,188,143) rgba(143,188,143,0.8) Hexa : #8FBC8F CSS4 : #8FBC8FCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NC	Not Compliant	Red : 217 Green : 60 Blue : 60 Opacity : 0.8 rgb(217,60,60) rgba(217,60,60,0.8) Hexa : #D93C3C CSS4 : #D93C3CCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NR	Not relevant	Red : 162 Green : 162 Blue : 162 Opacity : 0.8 rgb(162,162,162) rgba(162,162,162,0.8) Hexa : #A2A2A2 CSS4 : #A2A2A2CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NI	No information	Red : 107 Green : 107 Blue : 107 Opacity : 0.8 rgb(107,107,107) rgba(107,107,107,0.8) Hexa : #6B6B6B CSS4 : #6B6B6BCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
?	? (deprecated, replaced by « No information »)	Red : 234 Green : 139 Blue : 46 Opacity : 0.8	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px

Code	Label	Fill	Stroke
		rgb(234,139,46) rgba(234,139,46,0.8) Hexa : #EA8B2E CSS4 : #EA8B2ECC	rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

3.1.2 Maps

- **Location**

Coordinates of agglomeration entities are using Latitude (field “aggLatitude”) and Longitude (field “aggLongitude”) provided in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

- **Map Symbol**

On maps, agglomerations are symbolized by a scale point. The point size is defined by the generated load of the agglomeration in population equivalent - p.e. - (field “aggGenerated”) with 4 size categories:

- [0-2,000[p.e.,
- [2,000-10,000[p.e.,
- [10,000-150,000[p.e.,
- >=150,000 p.e.

The scale of the point is defined by the “circle area” method with

- a min radius of 4 pixels (px) for the first class
- a max radius of 15px for the last class

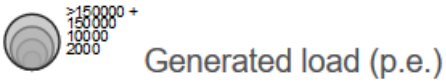

Figure 1 : generated load legend

- **Map example**

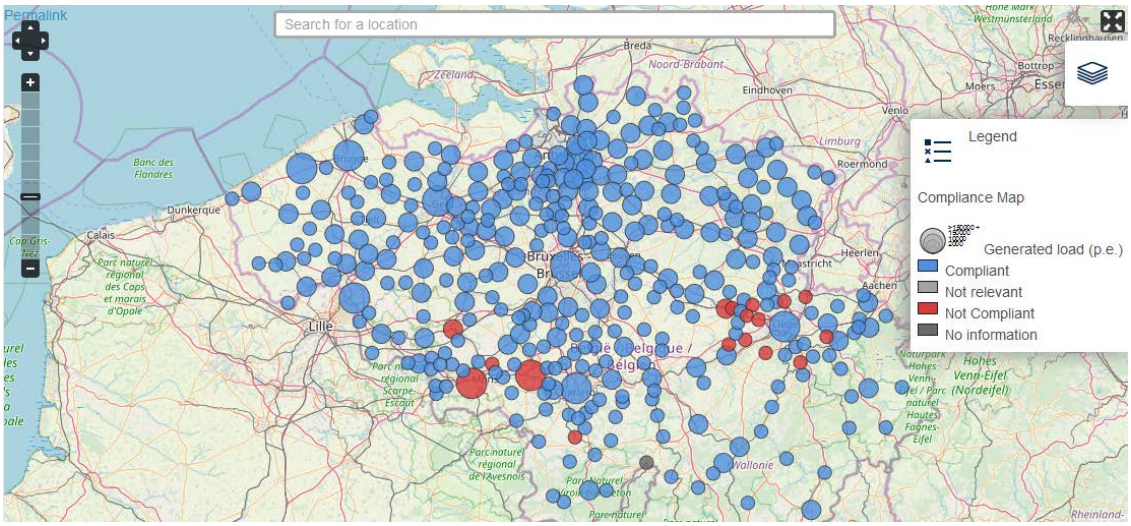

Figure 2 : Agglomerations - Compliance map

3.1.3 Charts

- **Annual chart**

Type: donut

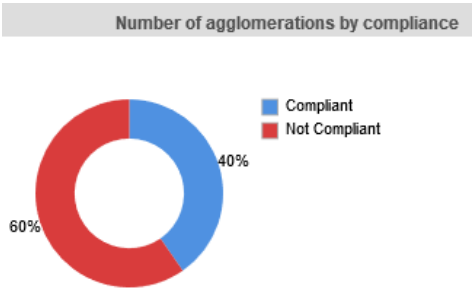

Figure 3 : annual compliance graph

- **Pluriannual chart**

Type: stacked barchart

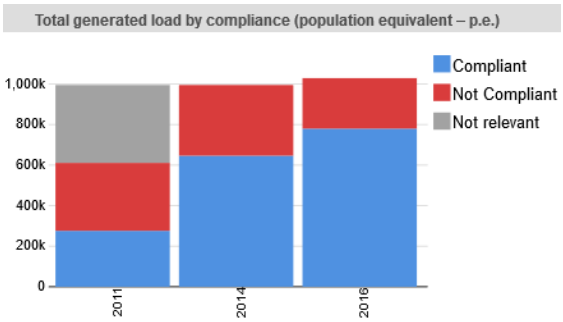

Figure 4 : multiannual compliance graph

3.2 Collection type

Collection map only uses active agglomerations (field “aggState” = 1) with a generated load (field “AggGenerated”) >= 2,000 p.e.

3.2.1 Categories and style

Categories are based on 3 fields of agglomeration description in the UWWTD report:

- aggC1: Rate of generated load of agglomeration collected through collecting system (% of the agglomeration size in p.e. – aggGenerated),
- aggC2: Rate of generated load of agglomeration addressed through Individual Appropriate Systems - IAS (% of the agglomeration size – aggGenerated).
- aggPercWithoutTreatment: Rate of generated load of agglomeration not collected through collecting systems and not addressed through IAS (% of the agglomeration size – aggGenerated).

According to data dictionary: aggC1 + aggC2 + aggPercWithoutTreatment = 100

Code	Label	Fill	Stroke
aggC1	Collecting system	Red : 0 Green :101 Blue :142 Opacity : 0.8 rgb(0,101,142) rgba(0,101,142,0.8) Hexa : #00658E CSS4 : #00658ECC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
aggC2	Individual and Appropriate Systems (IAS)	Red : 0 Green :206 Blue :209 Opacity : 0.8 rgb(0,206,209) rgba(0,206,209,0.8) Hexa : #00CED1 CSS4 : #00CED1CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
aggPercWithoutTreatment	Discharge without treatment	Red : 217 Green : 60 Blue : 60 Opacity : 0.8 rgb(217,60,60) rgba(217,60,60,0.8) Hexa : #D93C3C CSS4 : # D93C3CCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

3.2.2 Maps

- **Location**

Coordinates of agglomeration entities are using Latitude (field “aggLatitude”) and Longitude (field “aggLongitude”) provided in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

- **Map Symbol**

On maps, agglomerations are symbolized by a scale pie chart. The size of the pie chart is defined by the generated load of the agglomeration in population equivalent - p.e. - (field “aggGenerated”) with 4 size categories:

- [0-2,000[p.e.,
- [2,000-10,000[p.e.,
- [10,000-150,000[p.e.,
- >=150,000 p.e.

The size of the scale pie chart is defined by the “circle area” method with

- a min radius of 4px for the first class
- a max radius of 15px for the last class

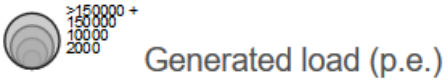

Figure 5 : generated load legend

➢ **Map example**

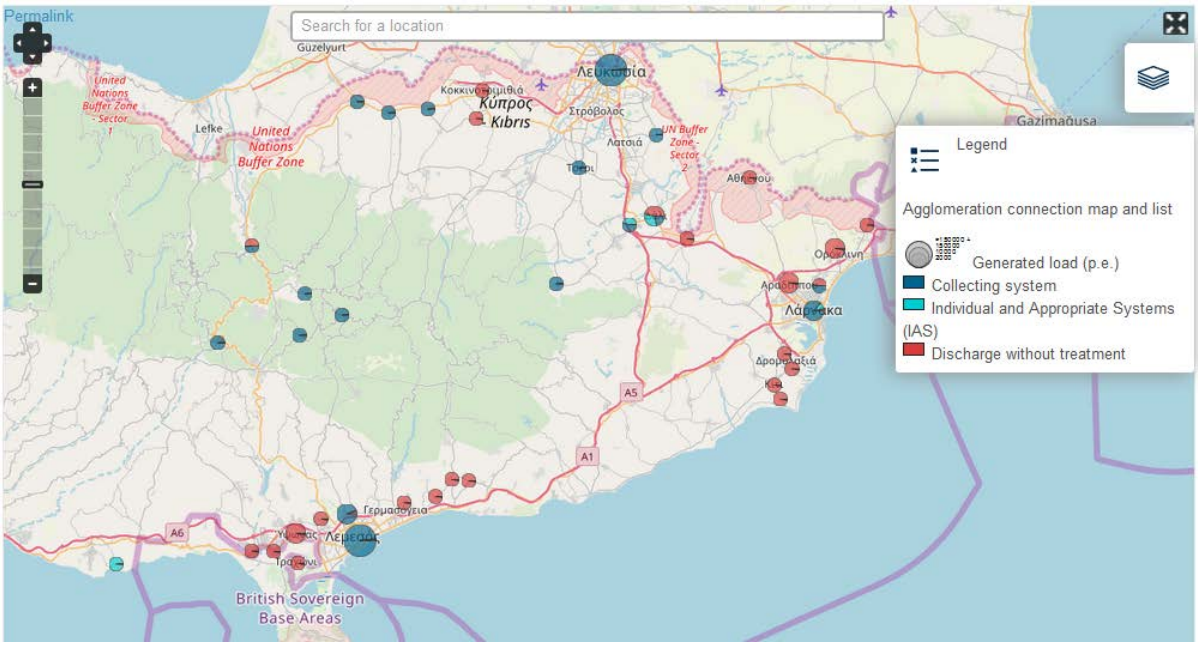

Figure 6 : Agglomeration collection map

3.2.3 Charts

➢ **Annual chart**

Type: donut

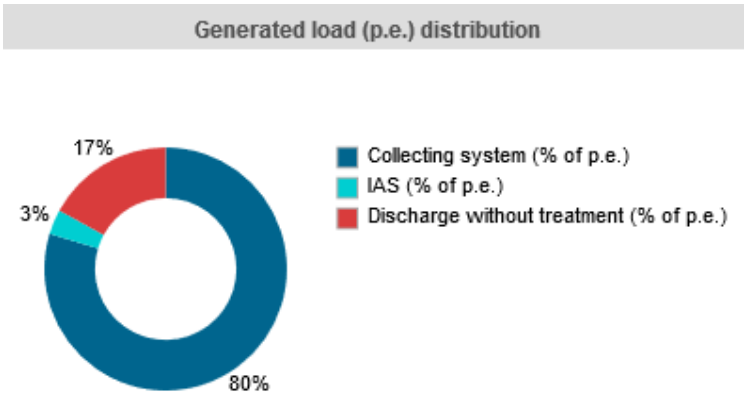

Figure 7 : annual collection graph

- **Pluriannual chart**

Type: stacked barchart

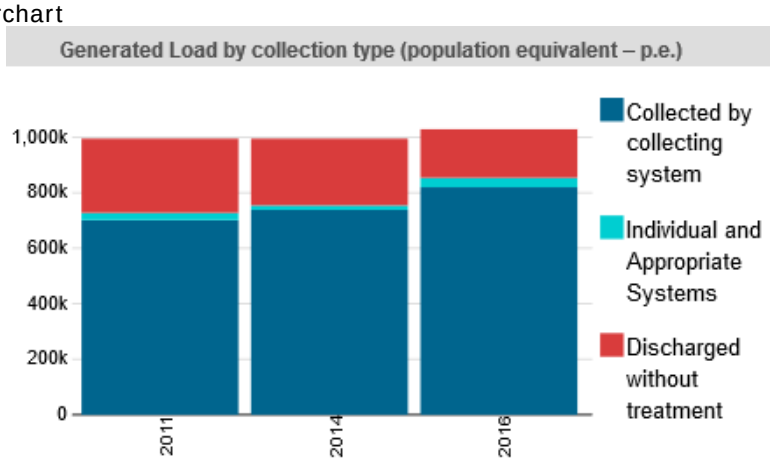

Figure 8 : multiannual collection graph

3.3 Sewage network types

3.3.1 Categories and style

Categories are based on “aggSewageNetwork” field of agglomeration description in the UWWTD report:

Code	Label	Fill	Stroke
B	Separative and combine system	Red: 69 Green: 148 Blue: 54 Opacity : 0.8 rgb(69,148,54) rgba(69,148,54,0.8) Hexa : #459436 CSS4 : #459436CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
S	Separative system	Red : 79 Green : 145 Blue : 225 Opacity : 0.8 rgb(79,145,225) rgba(79,145,225,0.8) Hexa : #4F91E1 CSS4 : #4F91E1CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
C	Combine system	Red : 189 Green : 136	Red : 34 Green :34

Code	Label	Fill	Stroke
		Blue : 66 Opacity : 0.8 rgb(189,136,66) rgba(189,136,66,0.8) Hexa : #BD8842 CSS4 : #BD8842CC	Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NI	No information	Red : 162 Green : 162 Blue : 162 Opacity : 0.8 rgb(162,162,162) rgba(162,162,162,0.8) Hexa : #A2A2A2 CSS4 : #A2A2A2CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

3.3.2 Maps

There is no map developed for this yet.

3.3.3 Charts

- **Annual chart**

Type: donut

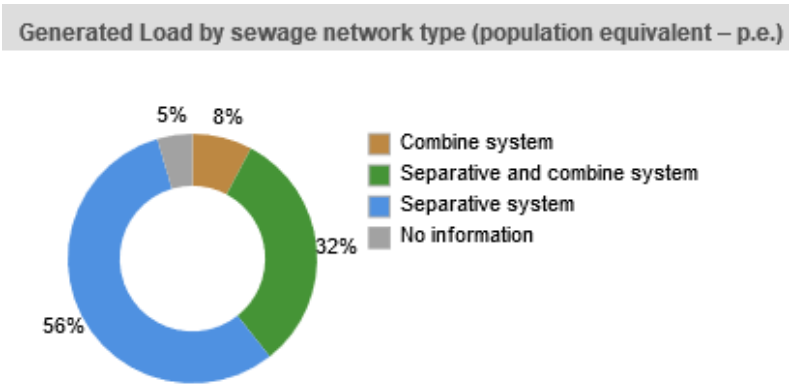

Figure 9 : annual sewage network types graph

- **Pluriannual chart**

Type: stacked barchart

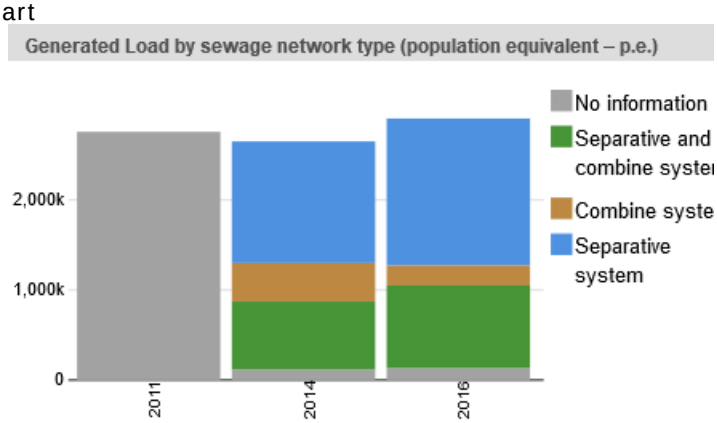

Figure 10 : multiannual sewage network types graph

3.4 Agglomeration size

3.4.1 Categories and style

Categories are based on “aggGenerated” field of agglomeration description in the UWWTD report:

Code	Label	Fill	Stroke
<10,000 pe	<10,000 p.e.	Red: 0 Green: 85 Blue: 114 Opacity : 1 rgb(0,85,114) rgba(0,85,114,1) Hexa : #005572 CSS4 : #005572FF	Width : 0px
10,000 p.e. to 100,000 p.e.	10,000 p.e. to 100,000 p.e.	Red: 0 Green: 139 Blue: 141 Opacity : 1 rgb(0,139,141) rgba(0,139,141,1) Hexa : #008B8D CSS4 : #008B8DFF	Width : 0px
> 100,000 p.e.	> 100,000 p.e.	Red: 0 Green: 85 Blue: 114 Opacity : 1	Width : 0px

Code	Label	Fill	Stroke
		rgb(0,85,114) rgba(0,85,114,1) Hexa : #81BEAA CSS4 : #81BEAAFF	

3.4.2 Charts

Type: stacked barchart

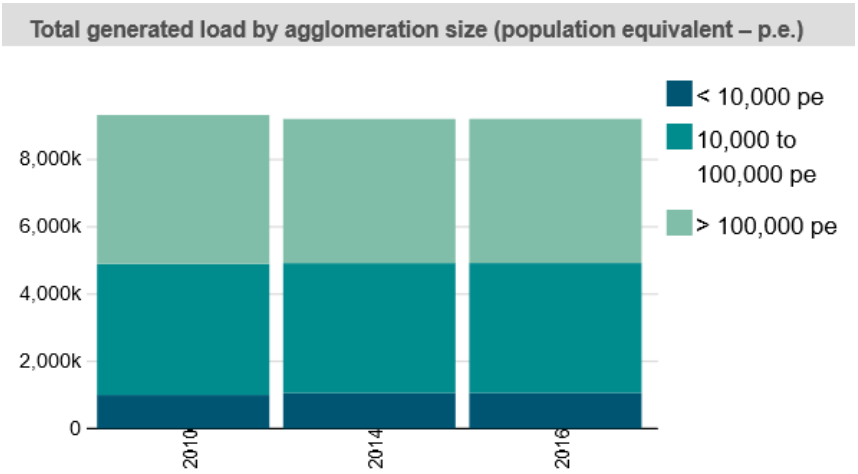

Figure 11 : multiannual generated load by agglomeration size categories graph

4. URBAN WASTE WATER TREATMENT PLANT (UWWTP)

4.1 Compliance

Compliance fields are only available on active agglomeration (field “aggState” = 1) with a generated load (field “AggGenerated”) >= 2000 p.e.. The compliance is assess on each article of UWWTD (art 3, 4, 5, 6) and the hierarchical compliance give the “global compliance”at agglomeration (or sensitive area) level in accordance of principle on out all out.

4.1.1 Categories and style

Categories are based on computed “Compliance” field of the treatment plant entity.

Code	Label	Fill	Stroke
C	Compliant	Red : 79 Green :145 Blue :225 Opacity : 0.8 rgb(79,145,225) rgba(79,145,225,0.8) Hexa : #4F91E1 CSS4 : #4F91E1CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
QC	Questionable Compliance (deprecated, replaced by « Compliant »)	Red : 233 Green :150 Blue :122 Opacity : 0.8 rgb(233,150,122) rgba(233,150,122,0.8) Hexa : #E9967A CSS4 : # E9967ACC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
PD	Pending Deadline (deprecated, replaced by « Not relevant »)	Red : 143 Green : 188 Blue : 143 Opacity : 0.8 rgb(143,188,143) rgba(143,188,143,0.8) Hexa : #8FBC8F CSS4 : #8FBC8FCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NC	Not Compliant	Red : 217 Green : 60 Blue : 60 Opacity : 0.8	Red : 34 Green :34 Blue :34 Opacity : 0.7

Code	Label	Fill	Stroke
		rgb(217,60,60) rgba(217,60,60,0.8) Hexa : #D93C3C CSS4 : #D93C3CCC	Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NR	Not relevant	Red : 162 Green : 162 Blue : 162 Opacity : 0.8 rgb(162,162,162) rgba(162,162,162,0.8) Hexa : #A2A2A2 CSS4 : #A2A2A2CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NI	No information	Red : 107 Green : 107 Blue : 107 Opacity : 0.8 rgb(107,107,107) rgba(107,107,107,0.8) Hexa : #6B6B6B CSS4 : #6B6B6BCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
?	? (deprecated, replaced by « No information »)	Red : 234 Green : 139 Blue : 46 Opacity : 0.8 rgb(234,139,46) rgba(234,139,46,0.8) Hexa : #EA8B2E CSS4 : #EA8B2ECC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

4.1.2 Maps

- **Location**

Coordinates of treatment plant entities are using Latitude (field “uwwLatitude”) and Longitude (field “uwwLongitude”) provide in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

➢ **Map Symbol**

On maps treatment plants are symbolized by a scale point. The size of the point is defined by the design (physical) capacity of the plant in population equivalent- p.e. - (field "uwwCapacity") with 4 size categories:

- [0-2,000[p.e.,
- [2,000-10,000[p.e.,
- [10,000-150,000[p.e.,
- >=150,000 p.e.

The size of the scale point is defined by the "circle area" method with

- a min radius of 4px for the first class
- a max radius of 15px for the last class

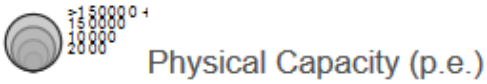

Figure 12 : treatment plant organic design capacity (physical capacity) legend

➢ **Map example**

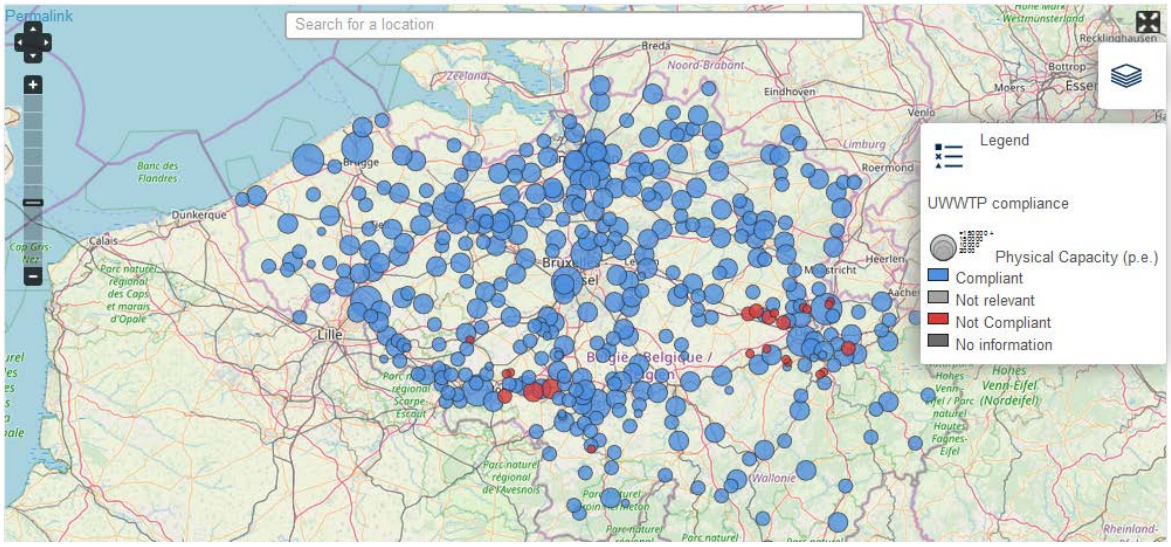

Figure 13 : Treatment plants - Compliance map

4.1.3 Charts

➢ **Annual chart**

Type: donut

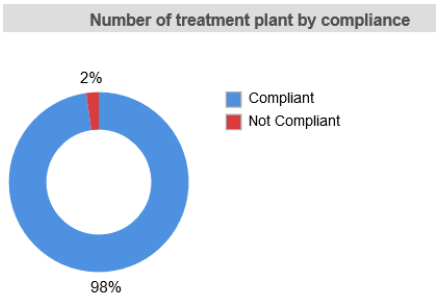

Figure 14 : annual number of treatment plants by compliance graph

- **Pluriannual chart**

Type: stacked barchart

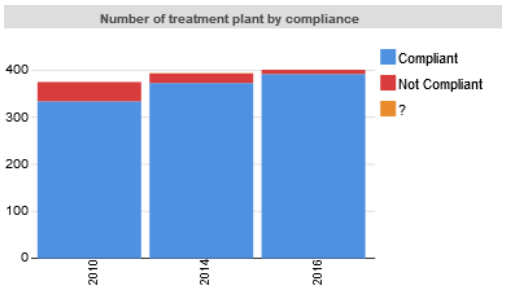

Figure 15 : multiannual number of treatment plants by compliance graph

4.2 Treatment type

4.2.1 Categories and style

Categories are based on computed “Treatment type in place” field of the treatment plant entity. This field is calculated from “uwwPrimaryTreatment”, “uwwSecondaryTreatment” and “uwwOtherTreatment” of the uwwtd report.

Code	Label	Fill	Stroke
P	Primary	Red : 234 Green : 139 Blue : 46 Opacity : 0.8 rgb(234,139,46) rgba(234,139,46,0.8) Hexa : #EA8B2E CSS4 : #EA8B2ECC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
S	Secondary treatment	Red : 60 Green : 197 Blue : 60 Opacity : 0.8 rgb(60,197,60) rgba(60,197,60,0.8) Hexa : #3CC53C CSS4 : #3CC53CCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
MS	More stringent treatment	Red : 93 Green : 223	Red : 34 Green :34

Code	Label	Fill	Stroke
		Blue : 255 Opacity : 0.8 rgb(93,223,255) rgba(93,223,255,0.8) Hexa : #5DDFFF CSS4 : #5DDFFFCC	Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NI	No information	Red : 217 Green : 60 Blue : 60 Opacity : 0.8 rgb(217,60,60) rgba(217,60,60,0.8) Hexa : #D93C3C CSS4 : #D93C3CCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

4.2.2 Maps

- **Location**

Coordinates of treatment plants entities are using Latitudes (field “uwwLatitude”) and Longitudes (field “uwwLongitude”) provide in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

- **Map Symbol**

On maps treatment plants are symbolized by a scale point. The size of the point is defined by the physical capacity in population equivalent- p.e. - (field “uwwCapacity”) with 4 size categories:

- [0-2,000[p.e.,
- [2,000-10,000[p.e.,
- [10,000-150,000[p.e.,
- >=150,000 p.e.

The scale of the point is defined by the “circle area” method with

- a min radius of 4px for the first class
- a max radius of 15px for the last class

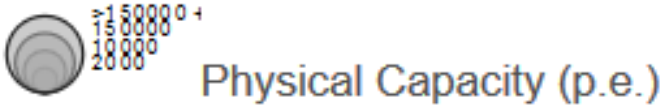

Figure 16 : treatment plant organic design capacity (physical capacity) legend

- **Map example**

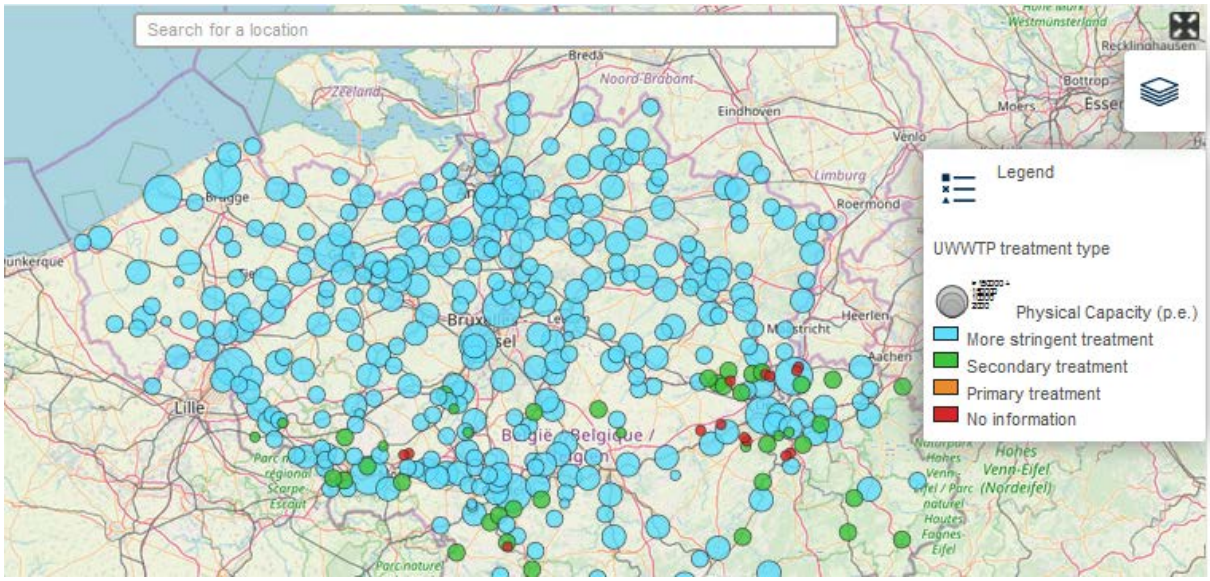

Figure 17 : Treatment plant categories map

4.2.3 Charts

- **Annual chart**

Type: donut

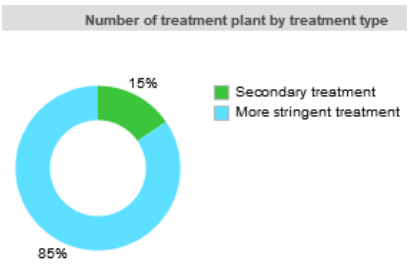

Figure 18 : annual number of treatment plants by treatment type graph

- **Pluriannual chart**

Type : stacked barchart

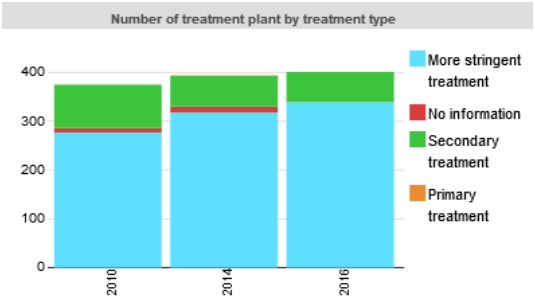

Figure 19 : multiannual number of treatment plants by treatment type graph

4.3 Pressure, entering & discharged load

4.3.1 Categories and style

In UWWTD report, stakeholders can report entering and discharged loads for 4 parameters : BOD, COD, Nitrogen et Phosphorus. Values are expressed in tons/years and can measured, estimated or calculated. Each case is given by a different field in the report with the following list:

uwwBODIncomingMeasured, uwwBODIncomingCalculated, uwwBODIncomingEstimated,
uwwCODIncomingMeasured, uwwCODIncomingCalculated, uwwCODIncomingEstimated,
uwwNIncomingMeasured, uwwNIncomingCalculated, uwwNIncomingEstimated,
uwwPIncomingMeasured, uwwPIncomingCalculated, uwwPIncomingEstimated,
uwwBODDischargeMeasured, uwwBODDischargeCalculated, uwwBODDischargeEstimated,
uwwCODDischargeMeasured, uwwCODDischargeCalculated, uwwCODDischargeEstimated,
uwwNDischargeMeasured, uwwNDischargeCalculated, uwwNDischargeEstimated,
uwwPDischargeMeasured, uwwPDischargeCalculated, uwwPDischargeEstimated.

In order to produce charts and maps fields have be summed up by parameter for incoming and discharge separately.

Code	Label	Fill	Stroke
COD	Chemical Oxygen Demand	Red : 216 Green : 118 Blue : 0 Map Opacity : 0.8 Entering load Opacity : 1 Discharged load opacity : 0.75 rgb(216,118,0) Hexa : #D87600	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
BOD	Biological Oxygen Demand	Red : 91 Green : 51 Blue : 73 Map Opacity : 0.8 Entering load Opacity : 1 Discharged load opacity : 0.75 rgb(91,51,73) Hexa : #5B3349	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
N	Nitrogen	Red : 135 Green : 206 Blue : 235 Map Opacity : 0.8 Entering load Opacity : 1 Discharged load opacity : 0.75 rgb(135,206,235)	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222

Code	Label	Fill	Stroke
		Hexa : #87CEEB	CSS4 : #222222B3
P	Phosphorus	Red : 255 Green : 153 Blue : 0 Map Opacity : 0.8 Entering load Opacity : 1 Discharged load opacity : 0.75 rgb(255,153,0) Hexa : #FF9900	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

4.3.2 Maps

- **Location**

Coordinates of treatment plant entities are using Latitude (field “uwwLatitude”) and Longitude (field “uwwLongitude”) provide in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

- **Map Symbol**

On maps, treatment plants pressures are symbolized by a scale point. The size of the point is defined by the discharged load in tons per year with 4 size categories:

- 0 to 50 tons per year,
- 50 to 100 tons per year,
- 100 to 1000 tons per year,
- Over 1000 tons per year,

The size of the scale point is defined by the “circle area” method with

- a min radius of 4px for the first class
- a max radius of 15px for the last class

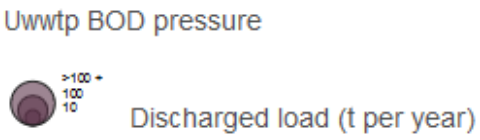

Figure 20 : discharge load size legend

➢ **Map example**

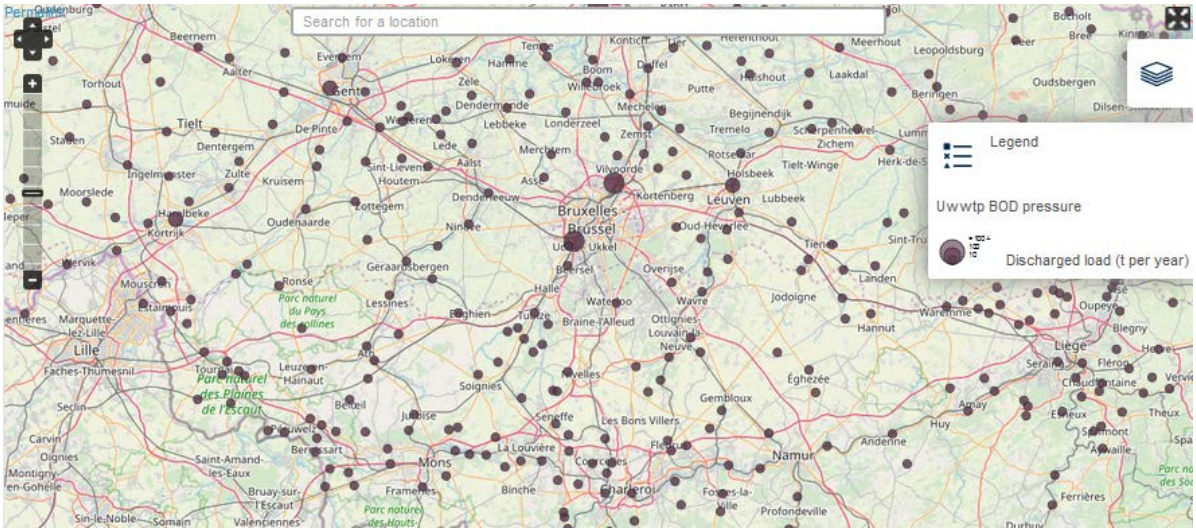

Figure 21 : Discharge of BOD by agglomeration map

4.3.3 Charts

Type: combined barchart

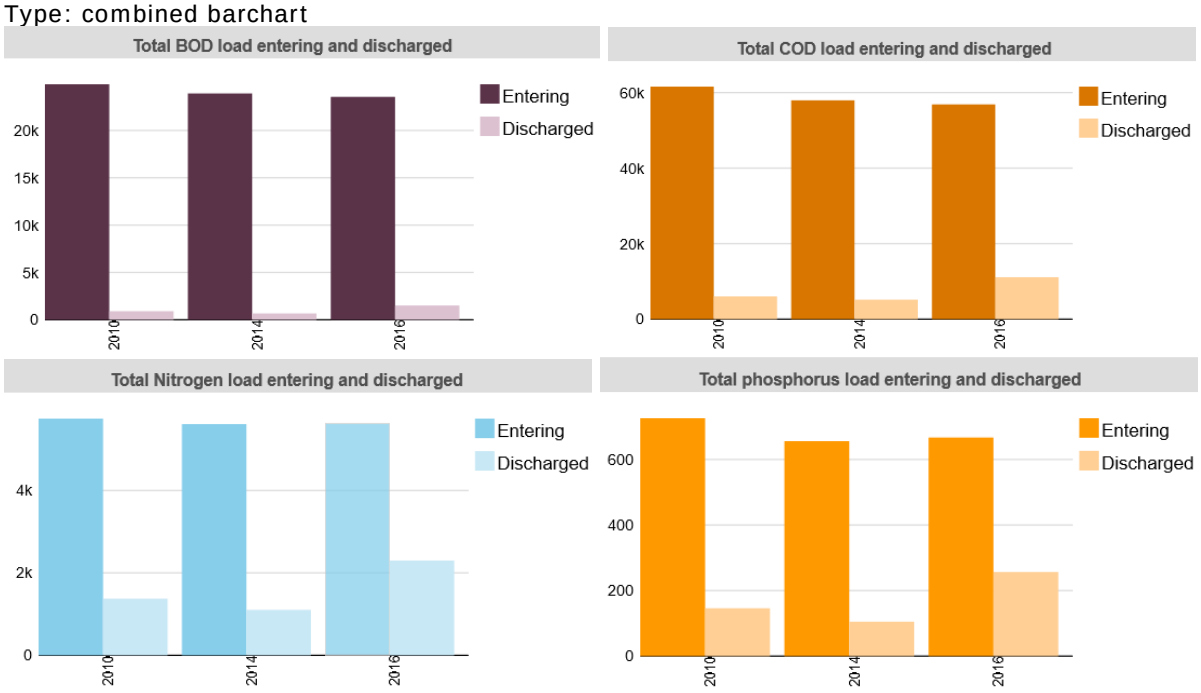

Figure 22 : multiannual entering and discharged loads (BOD, COD, N and P) graphs

5. DISCHARGE POINT (DCP)

5.1 Compliance

Compliance fields are only available on active agglomerations (field “aggState” = 1) with a generated load (field “AggGenerated”) >= 2000 p.e. The compliance is assessed on each article of UWWTD (art 3, 4, 5, 6) and the hierarchical compliance gives the “legal compliance” at agglomeration (or receiving area) level.

5.1.1 Categories and style

Categories are based on computed “Compliance” field of the treatment plant entity linked to the discharge point.

Code	Label	Fill	Stroke
C	Compliant	Red : 79 Green :145 Blue :225 Opacity : 0.8 rgb(79,145,225) rgba(79,145,225,0.8) Hexa : #4F91E1 CSS4 : #4F91E1CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
QC	Questionable Compliance (deprecated, replaced by « Compliant »)	Red : 233 Green :150 Blue :122 Opacity : 0.8 rgb(233,150,122) rgba(233,150,122,0.8) Hexa : #E9967A CSS4 : # E9967ACC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
PD	Pending Deadline (deprecated, replaced by « Not relevant »)	Red : 143 Green : 188 Blue : 143 Opacity : 0.8 rgb(143,188,143) rgba(143,188,143,0.8) Hexa : #8FBC8F CSS4 : #8FBC8FCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NC	Not Compliant	Red : 217 Green : 60 Blue : 60	Red : 34 Green :34 Blue :34

Code	Label	Fill	Stroke
		Opacity : 0.8 rgb(217,60,60) rgba(217,60,60,0.8) Hexa : #D93C3C CSS4 : #D93C3CCC	Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NR	Not relevant	Red : 162 Green : 162 Blue : 162 Opacity : 0.8 rgb(162,162,162) rgba(162,162,162,0.8) Hexa : #A2A2A2 CSS4 : #A2A2A2CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
NI	No information	Red : 107 Green : 107 Blue : 107 Opacity : 0.8 rgb(107,107,107) rgba(107,107,107,0.8) Hexa : #6B6B6B CSS4 : #6B6B6BCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
?	? (deprecated, replaced by « No information »)	Red : 234 Green : 139 Blue : 46 Opacity : 0.8 rgb(234,139,46) rgba(234,139,46,0.8) Hexa : #EA8B2E CSS4 : #EA8B2ECC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

5.1.2 Maps

- **Location**

Coordinates of treatment plant entities are using Latitude (field “uwwLatitude”) and Longitude (field “uwwLongitude”) provided in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

➢ **Map Symbol**

On maps, discharge points are symbolized by a scale point. The size of the point is defined by the design (physical) capacity of the treatment plant in population equivalent- p.e. - (field "uwwCapacity") with 4 size categories:

- [0-2,000[p.e.,
- [2,000-10,000[p.e.,
- [10,000-150,000[p.e.,
- >=150,000 p.e.

The scale of the point is defined by the "circle area" method with

- a min radius of 4px for the first class
- a max radius of 15px for the last class

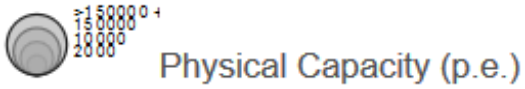

Figure 23 : discharge point organic design capacity (physical capacity of the treatment plant it is linked to) legend

➢ **Map example**

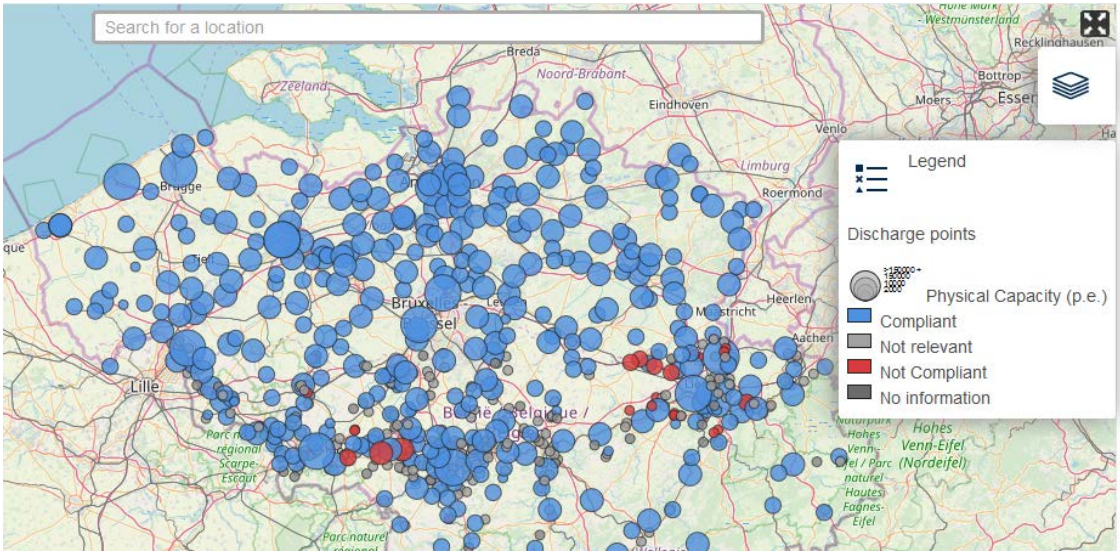

Figure 24 : Treatment plants - Compliance map

5.1.3 Charts

Type: stacked barchart

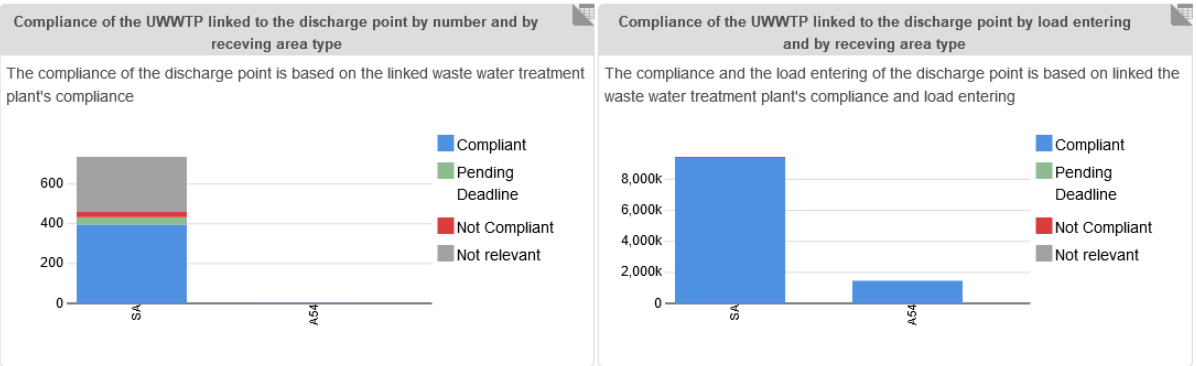

Figure 25 : compliance by type of receiving area by number of treatment plants and by load graphs

5.2 Reuse

5.2.1 Categories and style

Categories are based on “dcpIrrigation” field of discharge point entity.

Code	Label	Fill	Stroke
IN	Infiltration	Red : 51 Green : 77 Blue : 92 Opacity : 0.8 rgb(51,77,92) rgba(51,77,92,0.8) Hexa : #334D5C CSS4 : #334D5CCC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
IR	Irrigation	Red : 69 Green : 148 Blue : 54 Opacity : 0.8 rgb(69,148,54) rgba(69,148,54,0.8) Hexa : #459436 CSS4 : #459436CC	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3
OT	Other	Red : 2 Green :101 Blue :140 Opacity : 0.8	Red : 34 Green :34 Blue :34 Opacity : 0.7 Width : 1px

Code	Label	Fill	Stroke
		rgb(2,101,140) rgba(2,101,140,0.8) Hexa : #02658C CSS4 : #02658CCC	rgb(34, 34, 34) rgba(34, 34, 34, 0.7) Hexa :#222222 CSS4 : #222222B3

5.2.2 Maps

- **Location**

Coordinates of discharge points entities are using Latitudes (field “dcpLatitude”) and Longitudes (field “dcpLongitude”) provide in the UWWTD report converted and displayed in WGS 84 (EPSG:4326).

- **Map Symbol**

On maps, discharge points are symbolized by a scale point. The size of the point is defined by the Mean annual volume of waste water treated (m3/year) of the treatment plant (field “uwwWasteWaterTreated”) with 4 size categories:

- [0-2,000[p.e.,
- [2,000-10,000[p.e.,
- [10,000-150,000[p.e.,
- >=150,000 p.e.

The size of the scale point is defined by the “circle area” method with

- a min radius of 4px for the first class
- a max radius of 15px for the last class

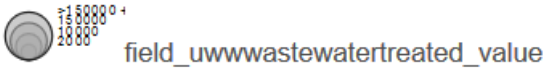

Figure 26 : legend for size in p.e. of the discharged waste water for which a reuse is reported

- **Map example**

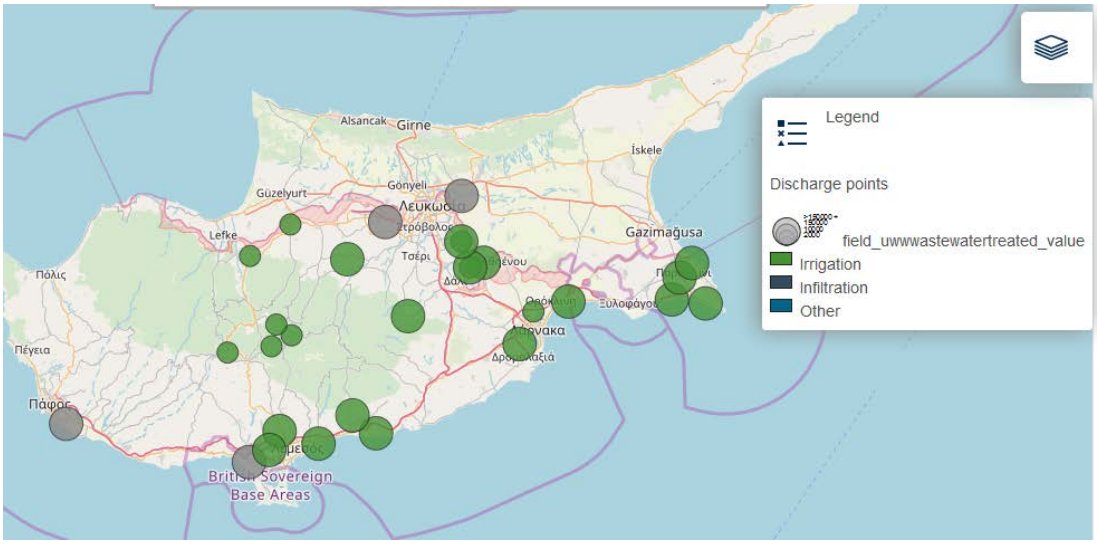

Figure 27 : Reuse by agglomeration and type map

5.2.3 Charts

Type : stacked barchart

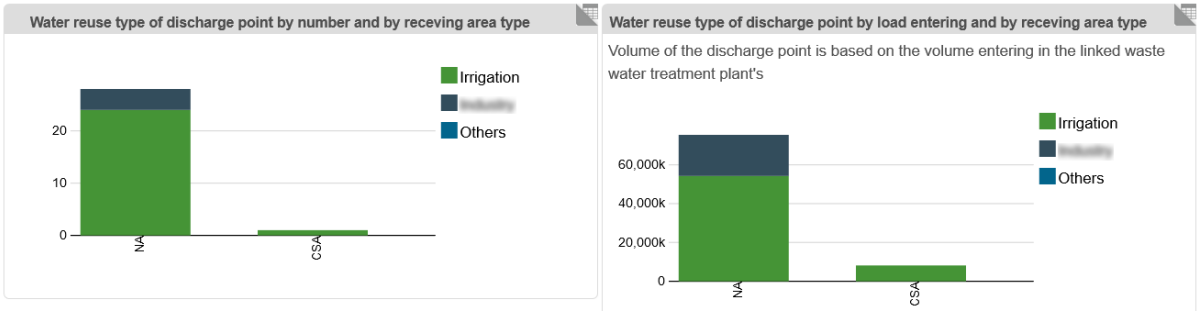

Figure 28 : reuse of waste water reported by number of discharge point and by load for the different receiving areas types graph

6. RECEIVING AREA – SENSITIVE AREA

6.1 Categories and style

Categories are defined by the combination of “rcaZtype” field and “rcaSpZTyp” field (for article 5.4 case) of ReceivingAreasSAMain tag in the article 15 of UWWTD report.

Code	Label	Fill	Stroke
UWWCMSA	Catchment of Sensitive area	Red : 218 Green : 165 Blue : 32 Opacity: 0.8 rgb(218,165,32) rgba(218,165,32,0.8) Hexa: #DAA520 CSS4: #DAA520CC	Red : 0 Green : 0 Blue : 0 Width: 1 Opacity: 0.9 rgb(0,0,0) Hexa: #000000
UWWCMSA_A54	Catchment of Sensitive area apply article 5.4	Red : 160 Green : 82 Blue : 45 Opacity: 0.8 rgb(160,82,45) rgba(160,82,45,0.8) Hexa: # A0522D CSS4: # A0522DCC	Red : 0 Green : 0 Blue : 0 Width: 1 Opacity: 0.9 rgb(0,0,0) Hexa: #000000
UWW55CMSA	Catchment of Sensitive area defined in the sense of Article 5.5 of the UWWTD	Red : 255 Green : 165 Blue : 0 Opacity: 0.4 rgb(255,165,0) rgba(255,165,0,0.4) Hexa: #FFA500 CSS4: #FFA50066	Red : 128 Green : 0 Blue : 128 Opacity: 0.8 rgb(128,0,128) rgba(128,0,128,0.8) Hexa: #800080 CSS4: #800080CC
UWWCASA	Coast area Sensitive area	Red : 25 Green : 25 Blue : 112 Opacity: 0.6 rgb(25,25,112) rgba(25,25,112,0.6) Hexa: #191970 CSS4: #19197099	Red : 255 Green : 222 Blue : 173 Opacity: 0.8 rgb(255,222,173) rgba(255,222,173,0.8) Hexa: #BDB76B CSS4: #BDB76BCC
UWWCASA_A54	Coast area Sensitive area apply article 5.4	Red : 25 Green : 25 Blue : 112 Opacity: 0.6 rgb(25,25,112) rgba(25,25,112,0.6)	Red : 189 Green : 183 Blue : 107 Opacity: 0.8 rgb(189,183,107) rgba(189,183,107,0.8)

Code	Label	Fill	Stroke
		Hexa: #191970 CSS4: #19197099	Hexa: #BDB76B CSS4: #BDB76BCC
UWWCLSA	Coast line Sensitive area	Red : 255 Green : 0 Blue : 255 Opacity: 0.6 rgb(255,0,255) rgba(255,0,255,0.6) Hexa: #FF00FF CSS4: #FF00FF99	Red : 0 Green : 0 Blue : 0 Width: 1 Opacity: 0.8 rgb(0,0,0) Hexa: #000000
UWWLKSA	Lake Sensitive area	Red : 143 Green : 188 Blue : 143 Opacity: 0.9 rgb(143,188,143) rgba(143,188,143,0.9) Hexa: # 8FBC8F CSS4: #8FBC8FE6	Red : 0 Green : 0 Blue : 0 Width: 1 Opacity: 0.9 rgb(0,0,0) Hexa: #000000
UWWRSA	River Sensitive area	Red : 100 Green : 149 Blue : 237 Opacity: 0.9 rgb(100,149,237) rgba(100,149,237,0.9) Hexa: #6495ED CSS4: #6495EDE6	Red : 100 Green : 149 Blue : 237 Opacity: 0.9 rgb(100,149,237) rgba(100,149,237,0.9) Hexa: #6495ED CSS4: #6495EDE6
UWWTWSA	Transitional water Sensitive area	Red : 0 Green : 139 Blue : 139 Opacity: 0.9 rgb(0,139,139) rgba(0,139,139,0.9) Hexa: #008B8B CSS4: #008B8BE6	Red : 0 Green : 0 Blue : 0 Width: 1 Opacity: 0.9 rgb(0,0,0) Hexa: #000000
UWWTDLSA	Less Sensitive Area	Red : 173 Green : 255 Blue : 47 Opacity: 0.9 rgb(173,255,47) rgba(173,255,47,0.9) Hexa: #ADFF2F CSS4: #ADFF2FE6	Red : 0 Green : 0 Blue : 0 Width: 1 Opacity: 0.9 rgb(0,0,0) Hexa: #000000

6.2 Maps

➢ Location

Geographical shapes of sensitive area entities are using geometries provided in shapefiles of UWWTD report converted and displayed in WGS 84 (EPSG:4326).

➢ Map Symbol

Entities are polygon or multi-polygons except for river water bodies which are provided as lines or multi-lines.

➢ Map example

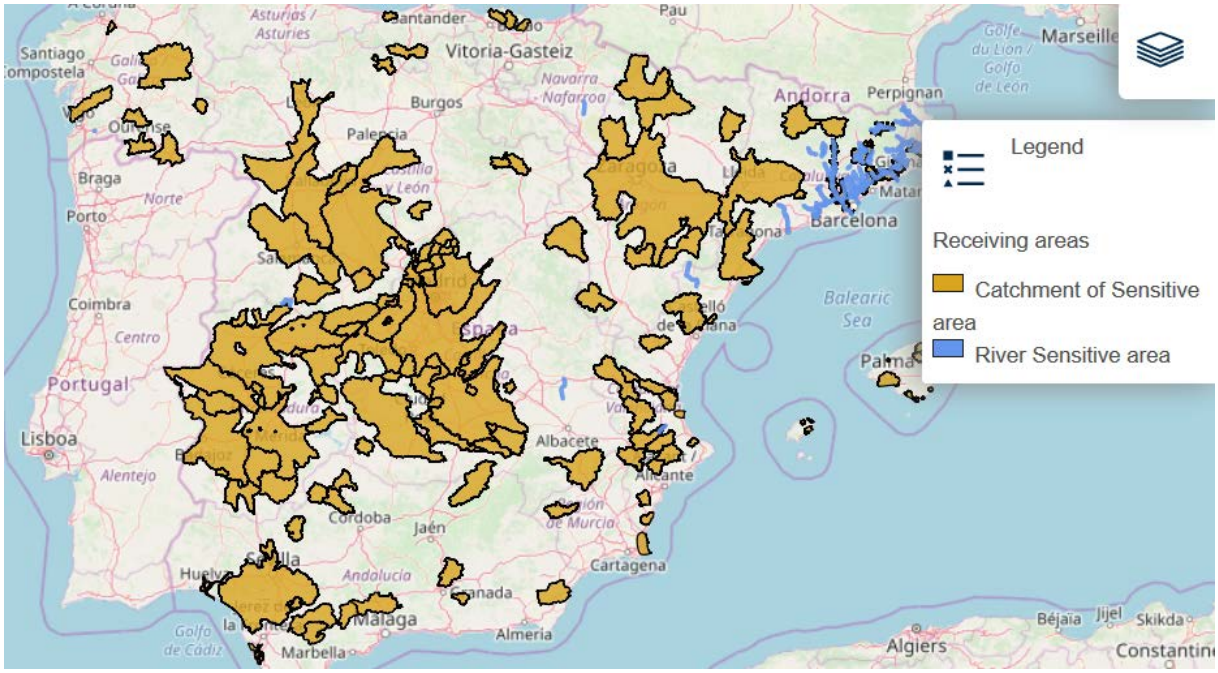

Figure 29 : sensitive areas map

7. SLUDGE DESTINATION

7.1 Categories and style

Sludge production data are provided by various fields in the UWWTD report on article 15 in the "MSLevel" tag. The source field of each data is given after the category's label in the following table.

In the UWWTD report, Sludge production fields are in tons of dry substance per year (T DS/year).

Code	Label	Fill	Stroke
dcp	Discharged into surface waters : Pipelines (field "mslDischargePipelines")	Red : 181 Green : 181 Blue : 191 rgb(181,181,191) Hexa : #B5B5BF	none
dcs	Discharged into surface waters : Ships (field "mslDischargeShips")	Red : 104 Green : 104 Blue : 114 rgb(104,104,114) Hexa : #686872	none
dco	Discharged into surface waters : Others (field "mslDischargeOthers")	Red : 45 Green : 45 Blue : 55 rgb(45,45,55) Hexa : #2D2D37	none
rua	Re-used: Soil and agriculture (field "mslReuseSoilAgriculture")	Red : 69 Green : 148 Blue : 54 rgb(69,148,54) Hexa : #459436	none
ruo	Re-used: Others (field "mslReuseOthers")	Red : 142 Green : 197 Blue : 71 rgb(142,197,71) Hexa : #8EC547	none
dil	Disposed: Landfill (field "mslDisposalLandfill ")	Red : 91 Green : 51 Blue : 73 rgb(91,51,73) Hexa : #5B3349	none

Code	Label	Fill	Stroke
dii	Disposed: Incineration (field "mslDisposalIncineration")	Red : 242 Green : 128 Blue : 48 rgb(242,128,48) Hexa : #F28030	none
dio	Disposed: Others (field "mslDisposalOthers")	Red : 242 Green : 159 Blue : 128 rgb(242,159,128) Hexa : #F29F80	none
missing	Missing (difference between field "mslSludgeProduction" and all other sludge fields)	Red : 231 Green : 76 Blue : 60 rgb(231,76,60) Hexa : #E74C3C	none

7.2 Charts

Type: stacked barchart

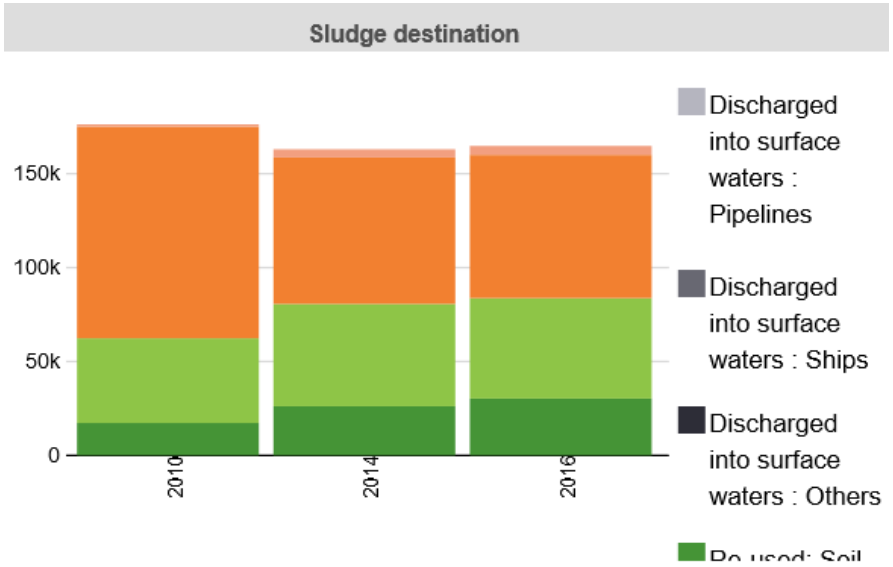

Figure 30 : multiannual sludge destinations graph

8. IMPLEMENTATION PROGRAMME (ARTICLE 17)

The UWWTD report on article 17 entails information on past, current and planned investment (in million €) at national level, for each agglomeration with a special focus on collection (IAS and sewage network), and for each non-compliant treatment plant. These data can be rendered with a yearly chart at national scale and normalized with population census of the country.

8.1 Categories and style

Code	Label	Fill	Stroke
CS	Collecting system	Red : 100 Green : 149 Blue : 237 rgb(100,149,237) Hexa : #6495ED	none
TP	Treatment plant	Red : 205 Green : 133 Blue : 63 rgb(205,133,63) Hexa : #6495ED	none

8.2 Charts

Type: stacked barchart

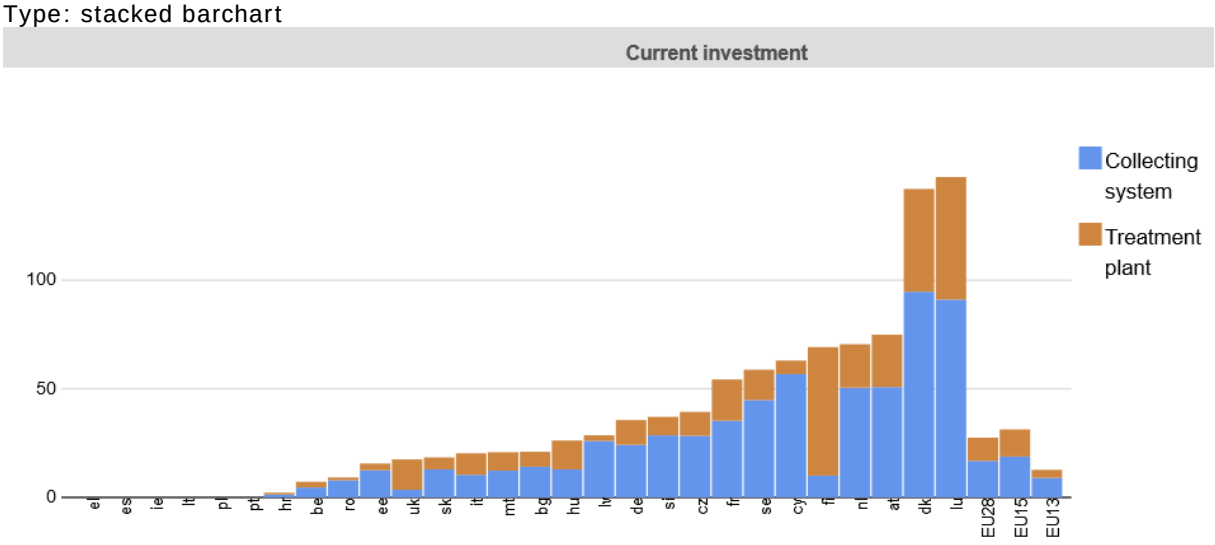

Figure 31 : current investment by country graph

9. EU MAPS

EU Maps are produced by the EU SIIF node. Data are harvested using Web Feature Services (WFS) from each national SIIF nodes and aggregated & computed at EU level. EU maps are divided in the three following main types and produced for each article and/or geographical scale (national, Nuts 2 and RBD sub-units).

9.1 Degree of compliance maps at MS, Nuts 2 and RBD levels

9.1.1 General description

Datavisualization (like maps) are based on following information's:

- **Geographical scales :**
  - Country (NUTS 0 v2016) : https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts
  - NUTS 2 (v2016) : https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts
  - RBD from https://www.eea.europa.eu/data-and-maps/data/wise-wfd-spatial-2

- **Compliance type :**
  - Global compliance of agglomeration
  - Article 3 compliance of agglomeration on waste water collection
  - Article 4 compliance of agglomeration on secondary treatment
  - Article 5 compliance of agglomeration on more stringent treatment

- **Rate calculation**

The compliance rate is calculated with the following formula:

Rate = 100 * Compliant load / Targeted load

Where:

- Loads are expressed in population equivalent,
- Compliant load is the sum at geographical scale of:
  - each agglomeration's generated load (field "aggGenerated") for article 3 where:
    - compliance status is Compliant (C) or Questionable compliant (QC),
    - load = "aggGenerated"x"(aggC1+aggC2)"/100
  - each agglomeration's connected load for article 4 where:
    - compliance status is Compliant (C),
    - connected load = "aggGenerated"x"aggC1"/100,
  - each agglomeration's connected load for article 5 where:
    - compliance status is Compliant (C),
    - a more stringent treatment is required (based on agglomeration size and receiving area type),
    - connected load = "aggGenerated"x"aggC1"/100,

- Targeted load is the sum at geographical scale of:
  - each agglomeration's generated load (field "aggGenerated") for article 3 & global compliance where compliance status is given,
  - each agglomeration's connected load for article 4 where :
    - compliance status is given (C, QC, PD, NC, NI),
    - targeted load = "aggGenerated"x"aggC1"/100,
  - each agglomeration's connected load for article 5 where :

- compliance status is given (C, QC, PD, NC, NI),
- a more stringent treatment is required (based on agglomeration size and receiving area type),
- targeted load = "aggGenerated"x"aggC1"/100,

9.1.2 Rainbow style

The rainbow style was the historical rendering of EU maps and is maintained in order to keep an homogenous style across reporting's. For printing purpose however, especially for black & white printers, the "monochromatic" style works better and was therefore implemented for the specific case of the development of country summary factsheets.

Code	Label	Fill	Stroke
0	No data	Red : 254 Green : 254 Blue : 254 Opacity: 1 rgb(254, 254, 254) Hexa :#FEFEFE	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
1	97-100 %	Red : 70 Green : 130 Blue : 180 Opacity: 1 rgb(70, 130, 180) Hexa :#4682B4	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
2	95-97 %	Red : 117 Green : 222 Blue : 93 Opacity: 1 rgb(117, 222, 93) Hexa :#75DE5D	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
3	85-95 %	Red : 240 Green : 240 Blue : 24 Opacity: 1 rgb(240,240,24) Hexa :#F0F018	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
4	70-85 %	Red : 253 Green : 174 Blue : 97 Opacity: 1 rgb(253,174,97) Hexa :#FDAE61	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

Code	Label	Fill	Stroke
5	0-70 %	Red : 215 Green : 25 Blue : 28 Opacity: 1 rgb(215,25,28) Hexa :#D7191C	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
msonly	Compliance assesment on whole territory only	Red : 75 Green : 75 Blue : 75 Opacity: 1 rgb(75, 75, 75) Hexa :#4B4B4B	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
pd	Not Subject to compliance due to ongoing transitional period	Red : 128 Green : 128 Blue : 128 Opacity: 1 rgb(128, 128, 128) Hexa :#808080	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
noneu	Non EU countries	Red : 236 Green : 236 Blue : 236 Opacity: 1 rgb(236,236,236) Hexa :#ECECEC	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

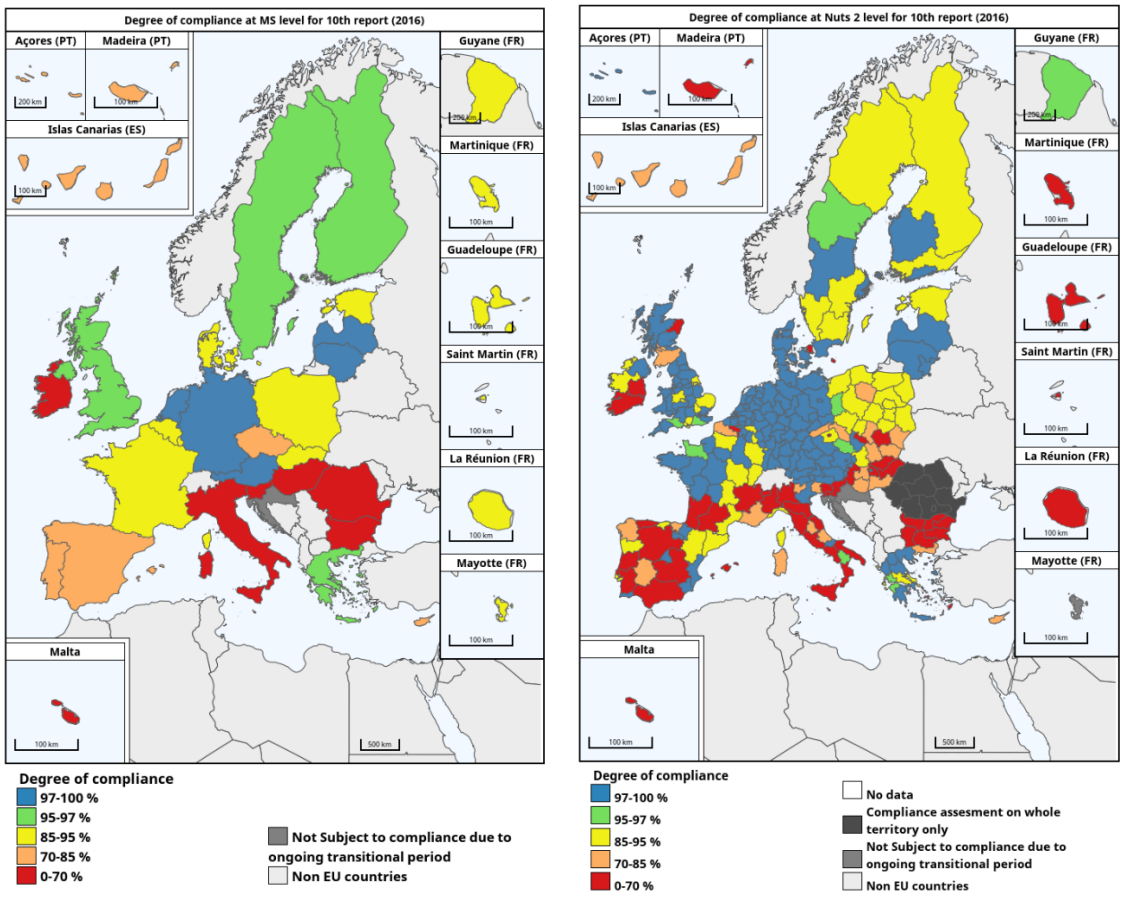

Figure 32 : European overview compliance maps, rainbow legend

9.1.3 Monochromatic style

The monochromatic is recommended for printing purpose. The selected colors allow a good rendering when they are converted in shade of grey by black & white printers.

Code	Label	Fill	Stroke
0	No data	Red : 254 Green : 254 Blue : 254 Opacity: 1 rgb(254, 254, 254) Hexa :#FEFEFE	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
1	97-100 %	Red : 252 Green : 225 Blue : 171 Opacity: 1 rgb(252,225,171) Hexa :# FCE1AB	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

Code	Label	Fill	Stroke
2	95-97 %	Red : 220 Green : 154 Blue : 68 Opacity: 1 rgb(220,154,68) Hexa :#DC9A44	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
3	85-95 %	Red : 207 Green : 126 Blue : 45 Opacity: 1 rgb(207,126,45) Hexa :#CF7E2D	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
4	70-85 %	Red : 190 Green : 74 Blue : 42 Opacity: 1 rgb(190,74,42) Hexa :#BE4A2A	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
5	0-70 %	Red : 167 Green : 32 Blue : 35 Opacity: 1 rgb(167,32,35) Hexa :#A72023	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
msonly	Compliance assesment on whole territory only	Red : 75 Green : 75 Blue : 75 Opacity: 1 rgb(75, 75, 75) Hexa :#4B4B4B	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
pd	Not Subject to compliance due to ongoing transitional period	Red : 128 Green : 128 Blue : 128 Opacity: 1 rgb(128, 128, 128) Hexa :#808080	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

Code	Label	Fill	Stroke
noneu	Non EU countries	Red : 236 Green : 236 Blue : 236 Opacity: 1 rgb(236,236,236) Hexa :#ECECEC	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

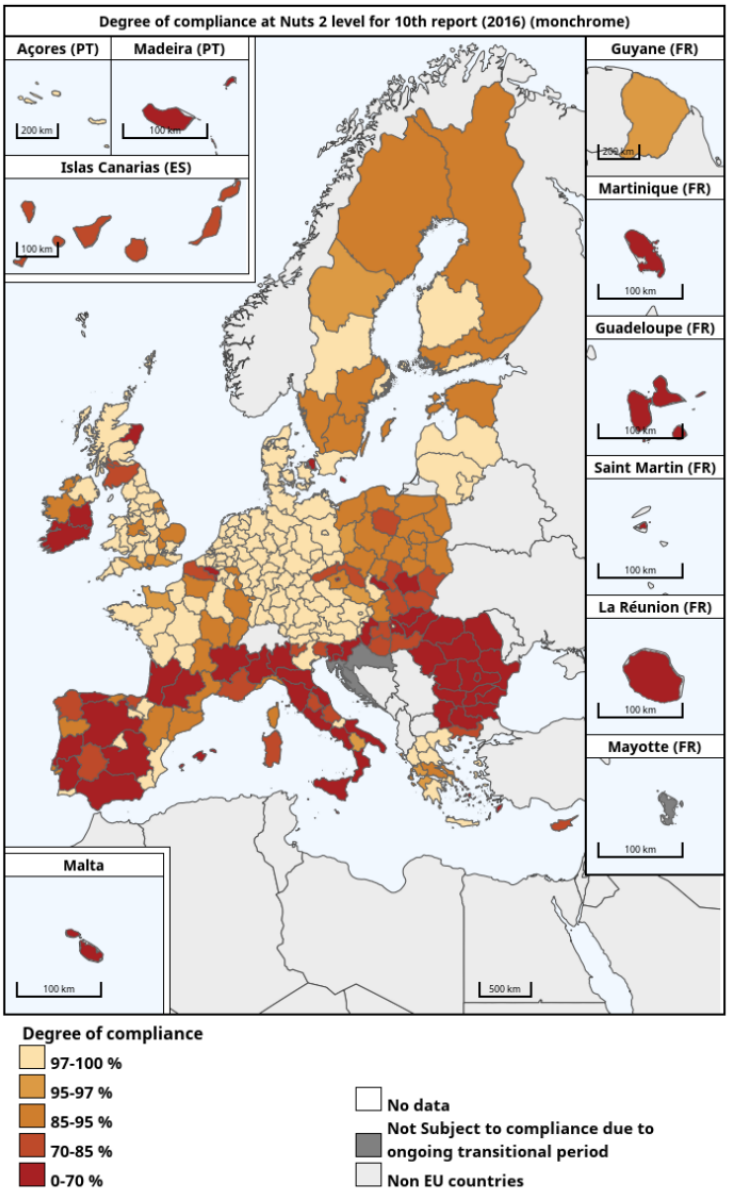

Figure 33 : European overview compliance maps, monochromatic legend

9.2 Degree of distance to target maps at MS, NUTS 2 and RBD levels

9.2.1 General description

Datavisualization (like maps) are based on following information's:

- **Geographical scales :**
  - Country (NUTS 0 v2016) : https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts
  - NUTS 2 (v2016) : https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts
  - RBD from https://www.eea.europa.eu/data-and-maps/data/wise-wfd-spatial-2

- **Distance to target (distance to compliance) by article :**
  - Distance to target with Article 3 of agglomerations on waste water collection
  - Distance to target with Article 4 of agglomerations on secondary treatment (performance & equipment)
  - Distance to target with Article 5 of agglomerations on more stringent treatment (performance & equipment)

- **Distance to target (DTT)**

The Distance To Target (DTT) is calculated for each agglomeration during the register generation (legal compliance) by national SIIF nodes. This data is then harvested by the EU SIIF node and the rate is calculated with the following formula:

Rate = 100 * Distance to target / Targeted load

Where:

- DTT and targeted load are expressed in population equivalent (p.e.),
- DTT is the sum of each agglomeration DTT at geographical scale for the studied article, given by the register calculation,
- Targeted load is the sum at geographical scale of
  - each agglomeration's generated load (field "aggGenerated") for article 3 & global compliance where compliance status is given,
  - each agglomeration's connected load for article 4 where :
    - compliance status is given (C, QC, PD, NC, NI),
    - targeted load = "aggGenerated"x"aggC1"/100,
  - each agglomeration's connected load for article 5 where :
    - compliance status is given (C, QC, PD, NC, NI),
    - a more stringent treatment is required (based on agglomeration size and receiving area type),
    - targeted load = "aggGenerated"x"aggC1"/100,

9.2.2 Categories and style

Code	Label	Fill	Stroke
0	No data	Red : 254 Green : 254 Blue : 254 Opacity: 1 rgb(254, 254, 254) Hexa :#FEFEFE	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

Code	Label	Fill	Stroke
1	0-3 %	Red : 70 Green : 130 Blue : 180 Opacity: 1 rgb(70, 130, 180) Hexa :#4682B4	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
2	3-5 %	Red : 117 Green : 222 Blue : 93 Opacity: 1 rgb(117, 222, 93) Hexa :#75DE5D	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
3	5-15 %	Red : 240 Green : 240 Blue : 24 Opacity: 1 rgb(240,240,24) Hexa :#F0F018	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
4	15-30 %	Red : 253 Green : 174 Blue : 97 Opacity: 1 rgb(253,174,97) Hexa :#FDAE61	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
5	30-100 %	Red : 215 Green : 25 Blue : 28 Opacity: 1 rgb(215,25,28) Hexa :#D7191C	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
msonly	Compliance assesment on whole territory only	Red : 75 Green : 75 Blue : 75 Opacity: 1 rgb(75, 75, 75) Hexa :#4B4B4B	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

Code	Label	Fill	Stroke
pd	Not Subject to compliance due to ongoing transitional period	Red : 128 Green : 128 Blue : 128 Opacity: 1 rgb(128, 128, 128) Hexa :#808080	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464
noneu	Non EU countries	Red : 236 Green : 236 Blue : 236 Opacity: 1 rgb(236,236,236) Hexa :#ECECEC	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

9.2.3 Maps

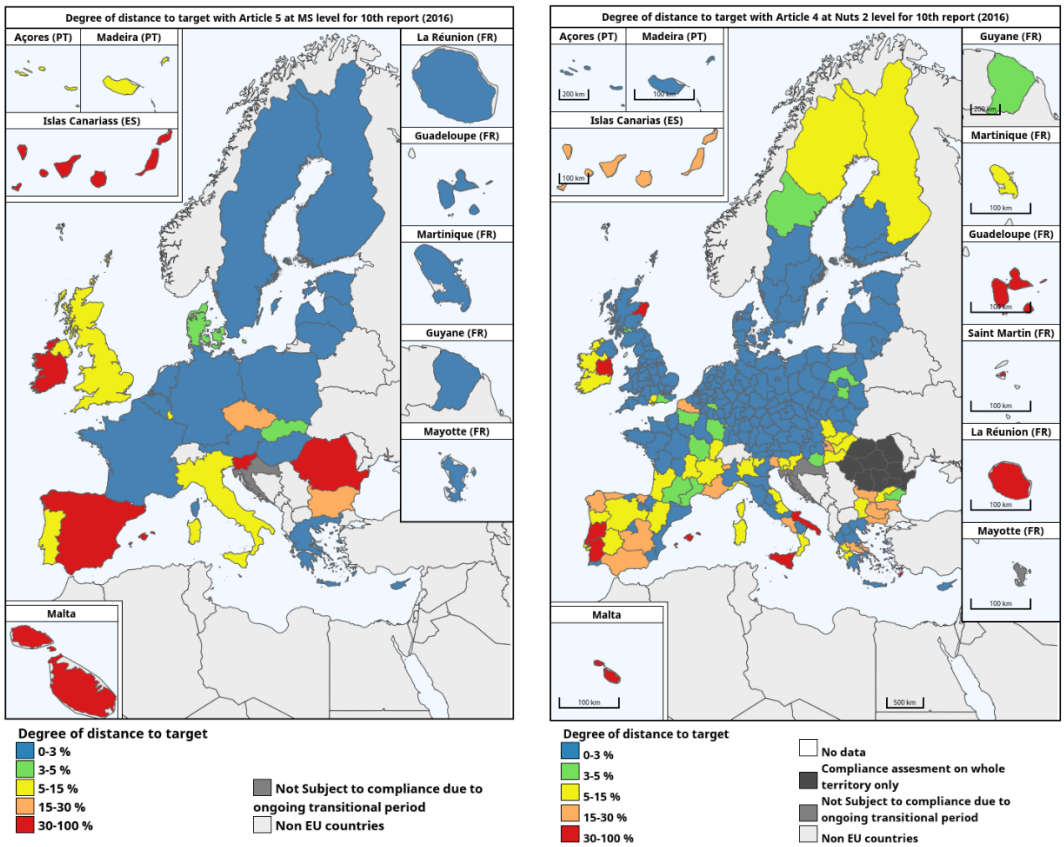

Figure 34 : European overview distance to target maps, rainbow legend

9.3 Sensitive area

9.3.1 Categories and style

Categories are defined by the combination of “rcaZtype” field and “rcaSpZTyp” field (for article 5.4 case) of ReceivingAreasSAMain tag in the article 15 of UWWTD report.

- On water body type no distinction are made between river, lake, transitional and coastal water bodies. Only the difference between sensitive area and catchment of sensitive area is made.
- On specialized zone type all zone types are evaluated.

Code	Label	Fill	Stroke
SA-523	Sensitive areas (MS applies Art 5(2-3))	Red : 75 Green : 132 Blue : 0 Opacity: 1 rgb(75,132,0) Hexa :#4B8400	Red : 75 Green : 132 Blue : 0 Width: 1 rgb(75,132,0) Hexa :#4B8400
CSA-523	Catchment of sensitive areas (MS applies Art 5(2-3))	Red : 164 Green : 213 Blue : 150 Opacity: 1 rgb(164,213,150) Hexa :#A4D596	Red : 164 Green : 213 Blue : 150 Width: 1 rgb(164,213,150) Hexa :#A4D596
SA-58-523	Sensitive area (MS applies Art 5(2-3) and Art 5(8))	Red : 150 Green : 150 Blue : 100 Opacity: 1 rgb(150,150,100) Hexa :#969664	Red : 150 Green : 150 Blue : 100 Width: 1 rgb(150,150,100) Hexa :#969664
SA-58-54	Sensitive area (MS applies Art 5(4) and Art 5(8))	Red : 63 Green : 52 Blue : 142 Opacity: 1 rgb(63,52,142) Hexa :#3F348E	Red : 63 Green : 52 Blue : 142 Width: 1 rgb(63,52,142) Hexa :#3F348E
SA-54	Sensitive area (MS applies Art 5(4))	Red : 101 Green : 74 Blue : 169 Opacity: 1	Red : 101 Green : 74 Blue : 169 Width: 1

Code	Label	Fill	Stroke
		rgb(101,74,169) Hexa :#654AA9	rgb(101,74,169) Hexa :#654AA9
NA	Normal areas	Red : 250 Green : 248 Blue : 204 Opacity: 1 rgb(250,248,204) Hexa :#FAF8CC	Red : 250 Green : 248 Blue : 204 Width: 1 rgb(250,248,204) Hexa :#FAF8CC
noneu	Non EU countries	Red : 236 Green : 236 Blue : 236 Opacity: 1 rgb(236,236,236) Hexa :#ECECEC	Red : 100 Green : 100 Blue : 100 Width : 1px rgb(100, 100, 100) Hexa :#646464

9.3.2 Maps

- **Location**

Geographical shapes of sensitive area entities are using geometries provided in the shapefiles of UWWTD report, converted and displayed in WGS 84 (EPSG:4326).

- **Map Symbol**

Entities are polygon or multi-polygons except for river water body which are lines or multi-lines.

- **Map example**

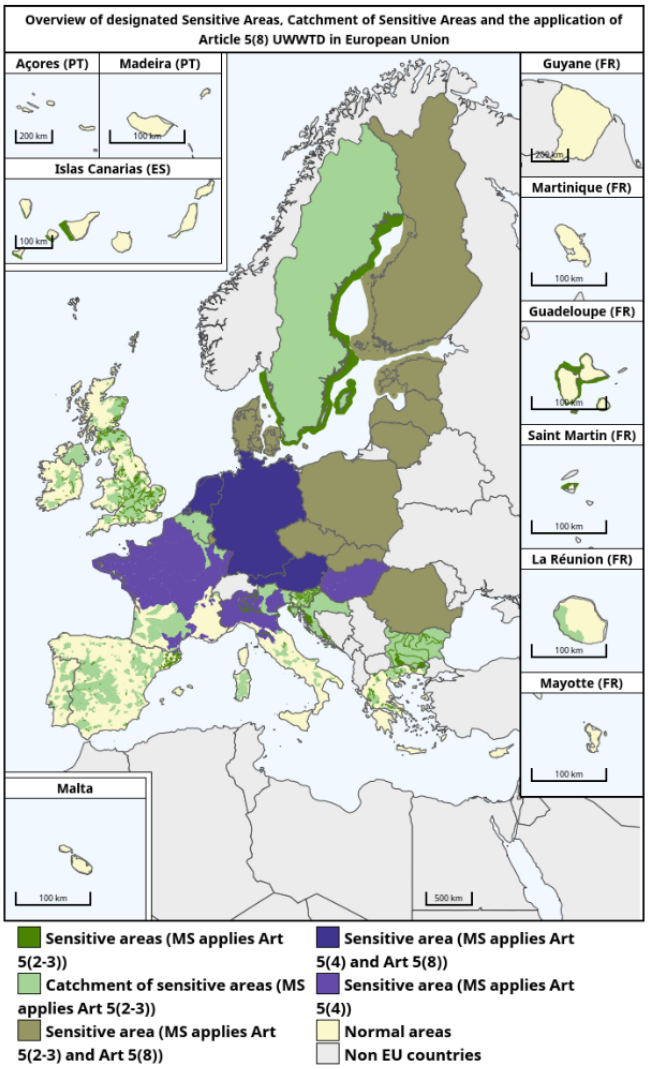

Figure 35 : European overview of designated sensitive areas