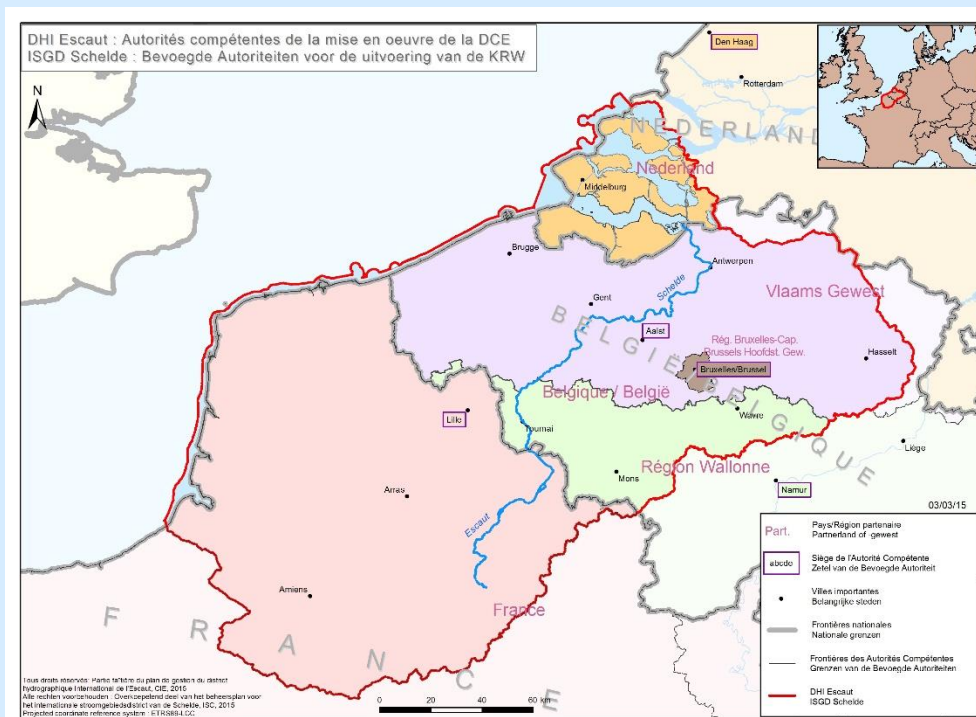




# International Commission of the Scheldt (ICS)

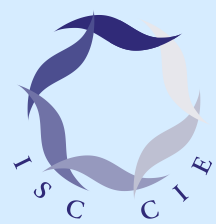
## EUROPE-INBO 2015

### *Roundtable 4: Local transboundary implementation of WFD*



22-23 October  
2015

Arnould Lefébure - Secretary general ICS



# EG: Water Framework Directive

2

BOTH HELPFUL & ANTINOMIC

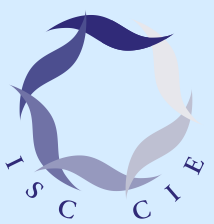
WFD ⇒ international coordination in transboundary districts

**YET** every member state reports nationally to EC (*and not the districts*)

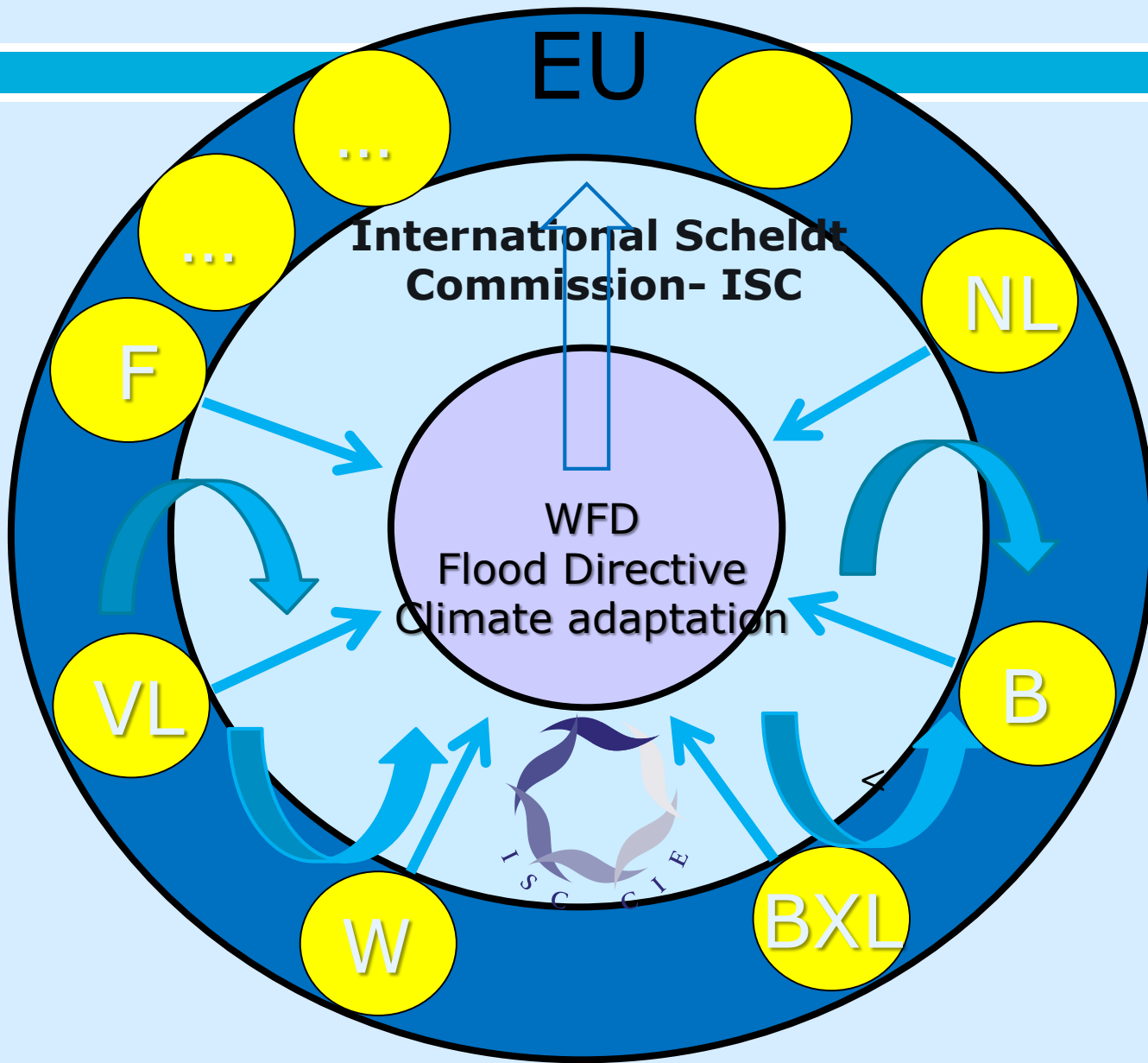
⇒ Implementation of coordination at international level is a risk

**WHAT DOES INTERNATIONAL COORDINATION MEAN?**

# EG: WFD – How does it work?

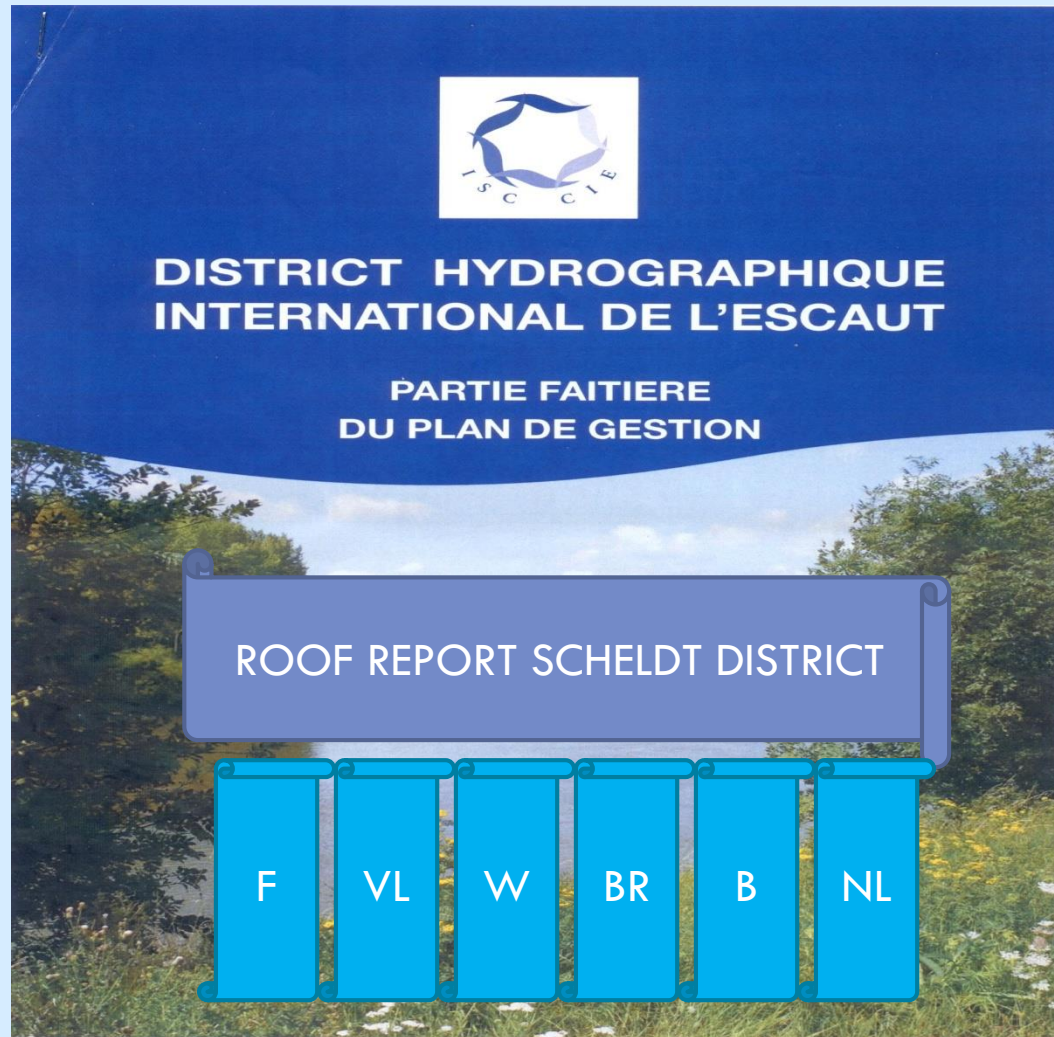
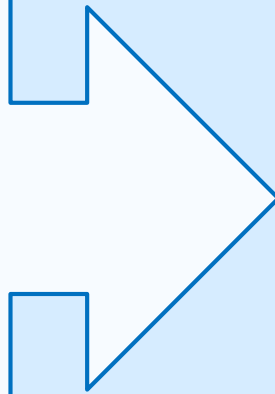


3



# WFD

planification to reach  
the **GOOD STATUS**  
(art. 13-15)  
**COORDINATION**  
required in the  
international district  
(art.3)

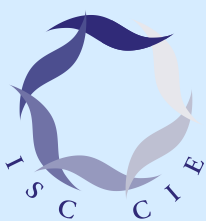


New Roof Report coming up → December 2015

WHAT'S THE MANAGEMENT PLAN SCHELDT?



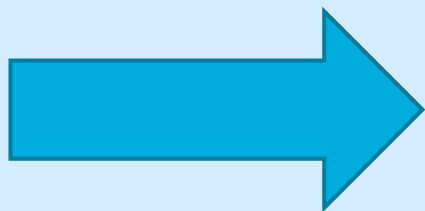
Cartography / Filing cards transboundary co-ordination fresh surface water, coast- and transition water/ Masterplan Fish/ Three-yearly report water quality/ Memorandum reducing nitrate originating from agriculture/ Filing cards coordination transboundary aquifers/ Economic analysis/ 1<sup>st</sup> strategic memorandum on adaptation to climate change/ Water management matters/ Outline memorandum SARR



# Implementing local transboundary coordination?

6

- ❑ In order to get more **TRANSBOUNDARY COHERENCE** and a better **LOCAL TRANSBOUNDARY GOVERNANCE**



**bilateral standard forms**

- **Border surface waterbodies**
- **Transboundary aquifers**



# Factsheets for bi- and trilateral coordination of transboundary water bodies

- about 50 factsheets, bilateral of sometimes trilateral

<b>Eaux de transition</b>					
	FR	WAL	BR	VL	NL
Escaut Maritime / Escaut Occidental				X	X
<b>Eaux douces de surface</b>					
	FR	WAL	BR	VL	NL
Yser	X			X	
Heidebeek	X			X	
Bergenvaart	X			X	
Canal Dunkerque-Nieuport	X			X	
Lys	X	X		X	
Escaut	X	X		X	
Grande Espierre		X		X	
Espierre Noire	X	X		X	
Rone		X		X	
Dendre		X		X	
Marke		X		X	
Canal Charleroi-Bruxelles		X	X	X	
Senne		X	X	X	
Woluwe			X	X	
Dyle		X		X	
Laan		X		X	
Nethen		X		X	
Grande Gette		X		X	
Petite Gette		X		X	
Canal Gand-Terneuzen				X	X
Liaison Escaut-Rhin				X	X
Canal Léopold				X	X

# Content of factsheets\_1

- ❑ For every transboundary watercourse:
  - ❑ Location of the watercourse and of the main **monitoring stations** of the monitoring network
  - ❑ **Classification** (big river, stream,...),
  - ❑ the **Type** (significantly modified, artificial,..) and the substantiation thereof
  - ❑ **Environmental objectives** in force (GEP, EQS, ...) for physical-chemical, chemical and biological aspects
  - ❑ **Assessment Status** (2012/2013) in detail of ecological and chemical status (European and specific substances)



# Content factsheets\_2

- ❑ For every transboundary watercourse:
    - ❑ **Measures**, planned for the watercourse by the different delegations
    - ❑ **Objectives 2021/exemptions**
    - ❑ Specific items for which **coordination** among delegations might take place
  - ❑ similarities and differences found are described and analyzed
- ⇒ often additional investigations.

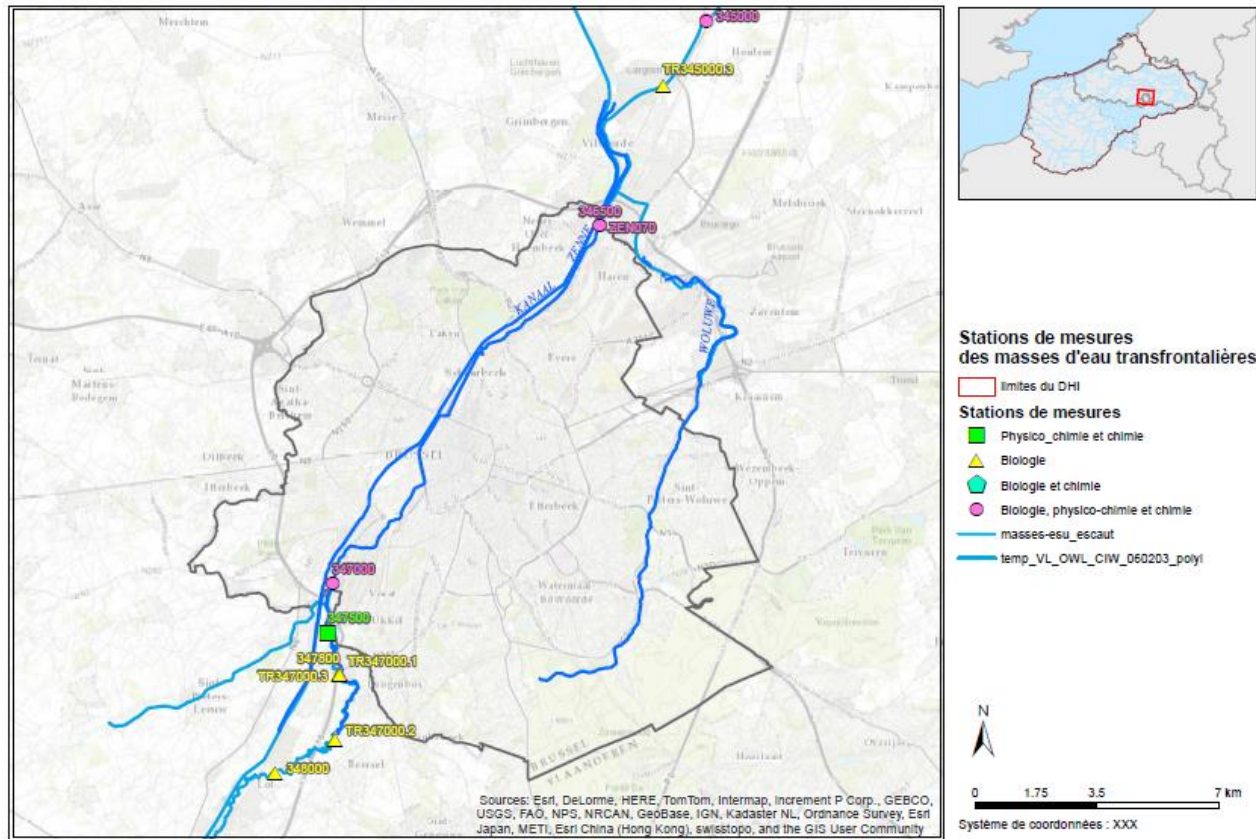
# Content factsheets\_3

Conclusion: the factsheets:

- ❑ Tool to get a clearcut understanding of the other delegations' working method = an interesting **working tool**.
- ❑ **published in attachment to the RRMP** through the ISC's website.
- ❑ Useful to supply info for the various parties' RRMP to be made up.

# Joint maps indicating the location of the monitoring stations

## FICHE TRANSFRONTALIÈRE DE LA MASSE D'EAU : ZENNE



- 1 joint map for every factsheet
- locate the transboundary watercourse
- Locate the main measuring points.

# Factsheets\_Main findings\_1

## ❑ **Classification:**

- ❑ Based on the European directives,
- ❑ Noticeably the same for all Parties.
- ❑ Difference in reporting to Europe for the smallest watercourses

## ❑ **Status** – likewise – very few differences found

# Factsheets\_Main findings\_2

- ❑ **Environmental objectives and status assessment**
  - ❑ Chemical quality – European EQS – few/no differences
  - ❑ **Ecological quality** (physical chemistry, biology, specific substances) – numerous differences
    - ❑ Intercalibration is not sufficient to eliminate differences
    - ❑ The choice of parameters to qualify the physical-chemical quality leads to differences
    - ❑ Biological status: calculate an average over several years (WAL, NL, ..) versus using the data of the most recent year (VL, BR) (cf. high variability in biology)
  - ❑ Frequency and strategy in monitoring: differences just as well

# Factsheets\_Main findings\_4

- ❑ Overview of the most frequent causes of differences regarding the status assessment
  - ❑ differences regarding objectives/comparative frameworks
  - ❑ differences regarding monitoring frequency/strategy and measuring precision
  - ❑ Structural differences in the watercourse, often more downstream pressure, yet more dilution
  
- ❑ **In spite of the numerous (small) (technical) differences in objectives and assessments, the overall appreciation of the watercourse's quality is coherent on both sides of the border.**

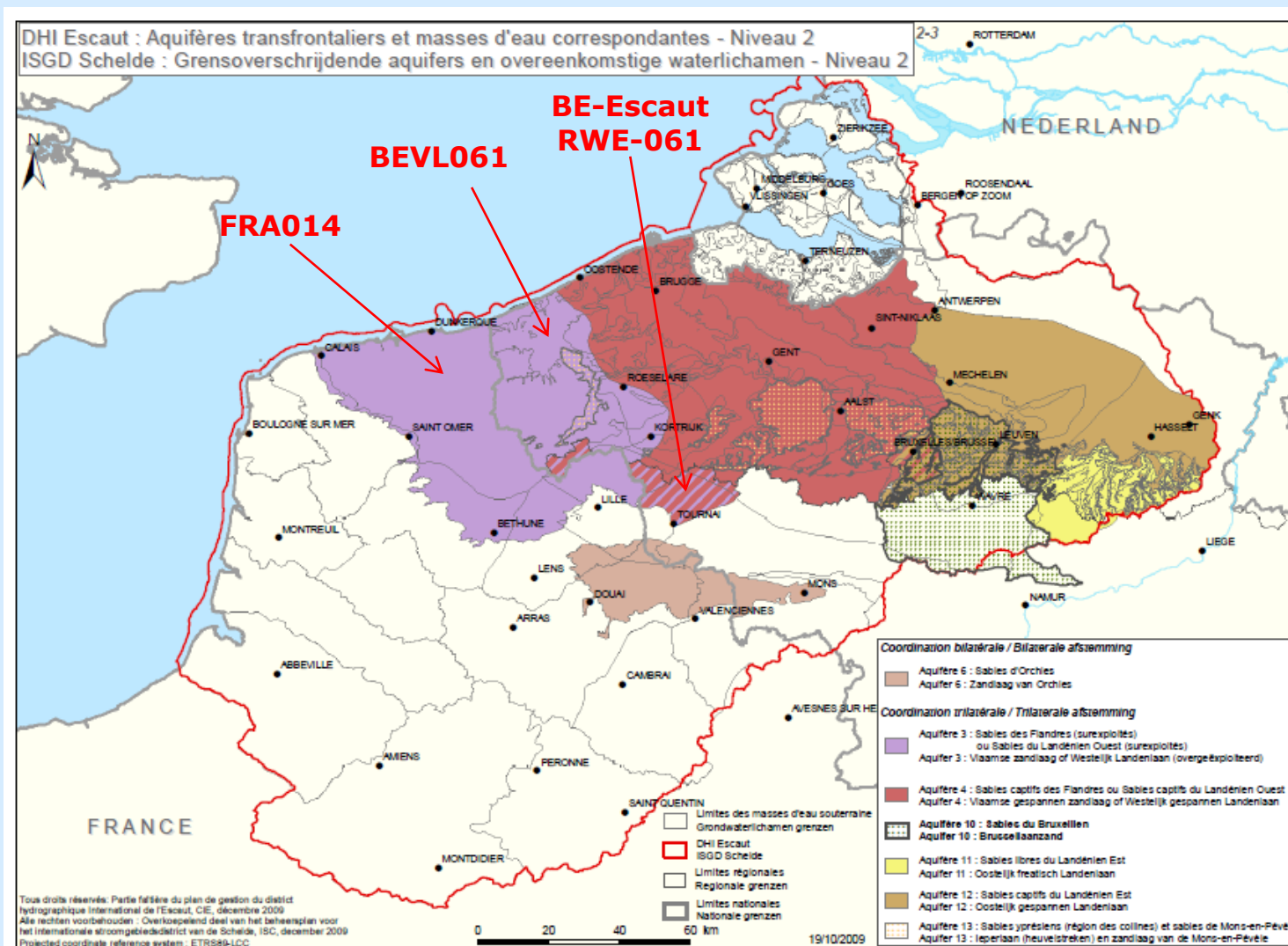
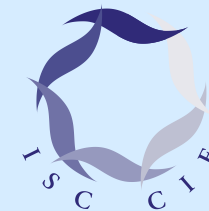
# Transboundary aquifers: the necessity of coordination



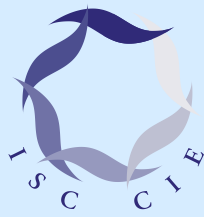
- **22 transboundary aquifers**
- **42 borderline groundwater bodies**



# Transboundary aquifers: the necessity of coordination

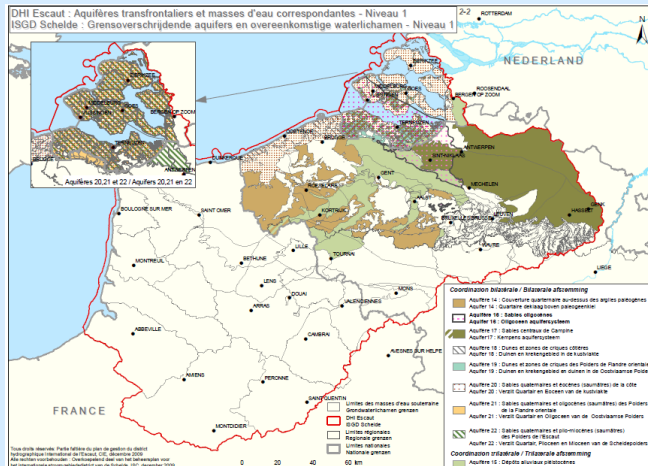
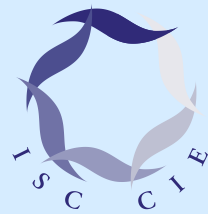


# Transboundary aquifers: the necessity of coordination

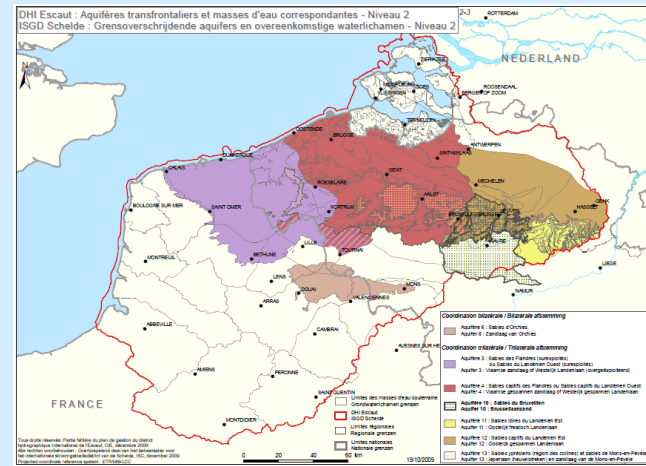


- **22 transboundary aquifers**
- **42 borderline groundwater bodies**
- **Very different geological contexts  
(sand, limestone, ...)**
- **Very different hydrogeological contexts  
(unconfined, captive watertable, ....)**

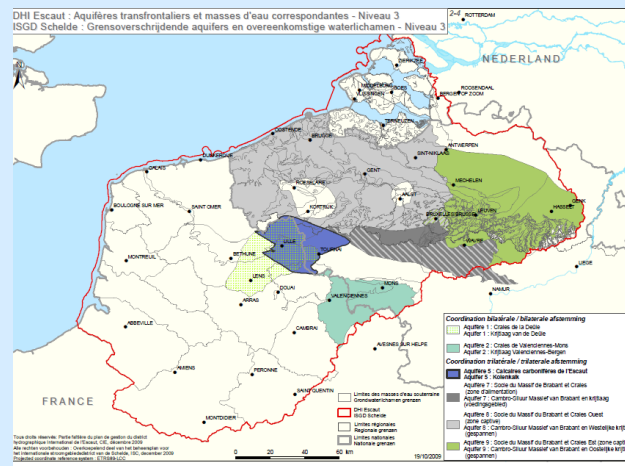
# Transboundary aquifers: the necessity of coordination



**Level 1 : quaternary sand**

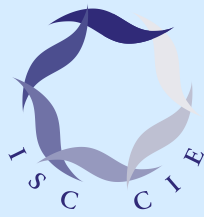


**Level 2 : cenozoic sand**



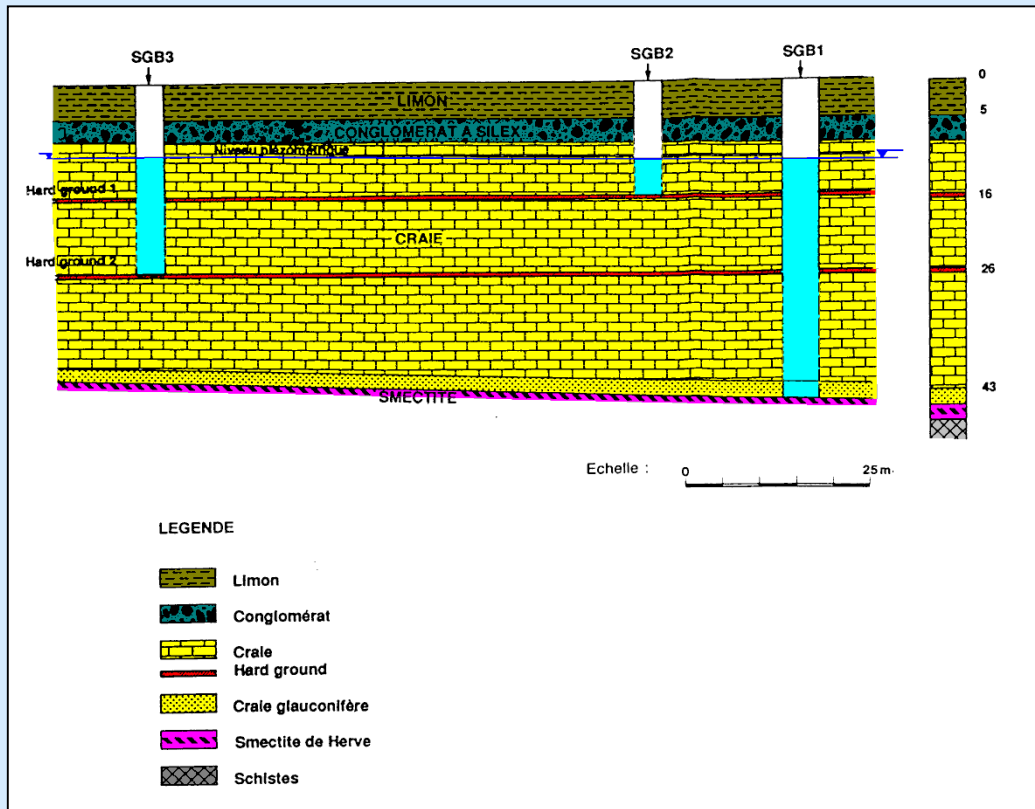
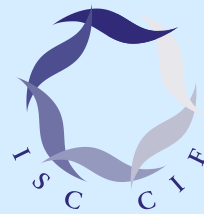
**Level 3 : mesozoic and paleozoic limestone**

# Transboundary aquifers: the necessity of coordination



- **22 transboundary aquifers**
- **42 borderline groundwater bodies**
- **Very different geological contexts**  
(sand, limestone, ...)
- **Very different hydrogeological contexts**  
(unconfined, captive watertables, ....)
- **Specific sampling methods :**  
(frequency, density, depth,...)
- **(Slight) disparities among quantitative and qualitative criteria**

# Transboundary aquifers: the necessity of coordination



	$\text{NO}_3^-$	Bentazon
	48 mg/l	242 ng/l
	35 mg/l	14 ng/l
	20mg/l	< 10 ng/l

Example : influence of the sampling depth on qualitative results

# Transboundary aquifers: the necessity of coordination



- 22 transboundary aquifers
- 42 groundwater bodies
- Very geological contexts  
(sand, limestone, ...)
- Very different hydrogeological contexts  
(unconfined, captive watertable, ....)
- Sampling methods :  
(frequency, density, depth,...)
- (Slight) disparities among qualitative and quantitative criteria

**Conclusion : making of technical bilateral or trilateral factsheets for every transboundary aquifer is a necessity!**

# The making of a technical factsheet

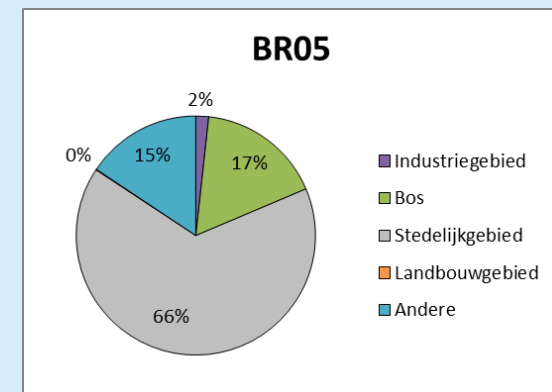
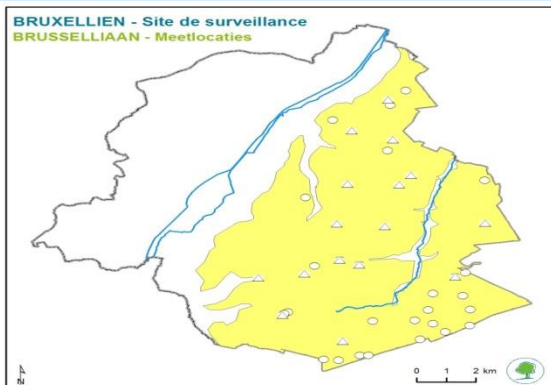
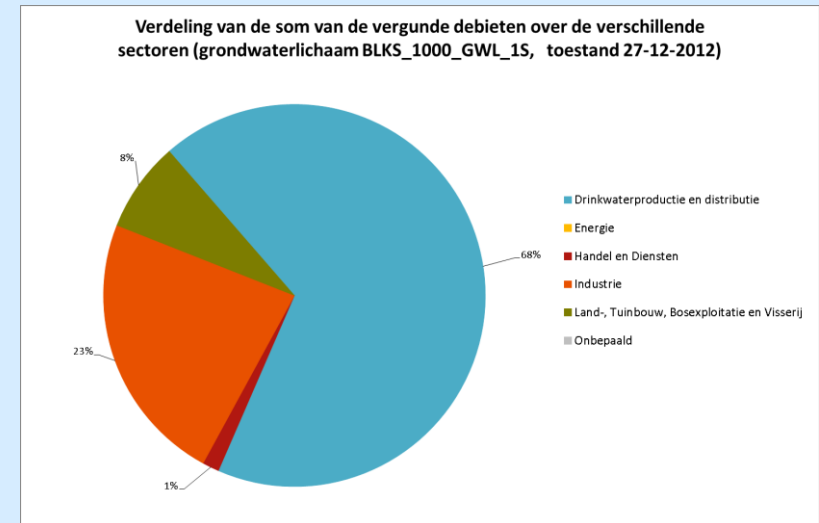
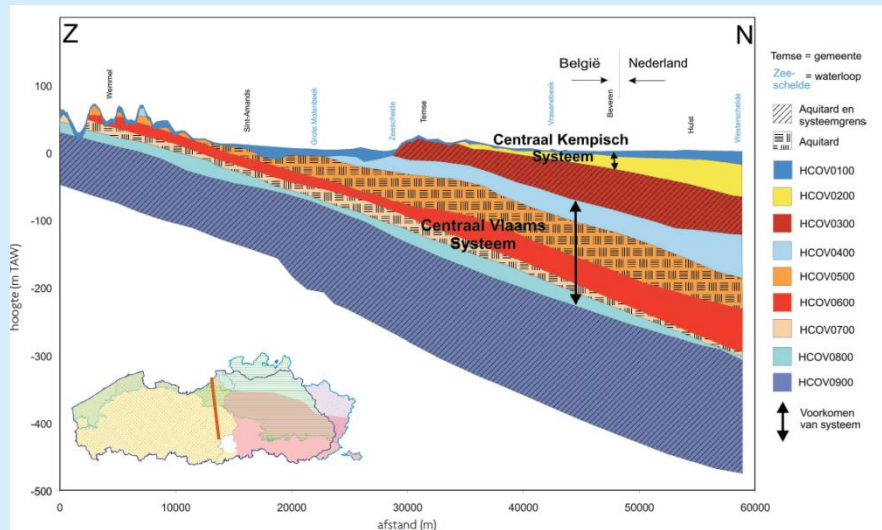
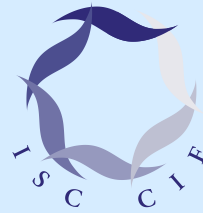


## Content of the factsheets:

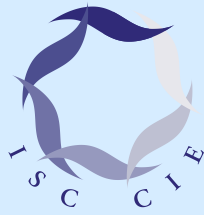
1. Identifying the aquifer and the water body
2. Map to locate the aquifer
3. Characteristics of the water body
  - Reference of the water body
  - Land use (pie chart)
  - Quantitative pressure (reference year) :
    - Precipitation, abstracted volumes
    - Monitoring networks
    - Piezometric trends and comments
    - Index of the quantitative status
  - Qualitative pressure (reference year) :
    - Existence of nature-related risks
    - Existence of human risks
    - Index of quality reference parameters
    - Index of the qualitative status
4. Overall status of the water body
  - Overall status and downgrading parameter(s)
5. Objectives Framework Directive (2015, 2021, 2027)
6. Measures put in place



# Making a technical factsheet

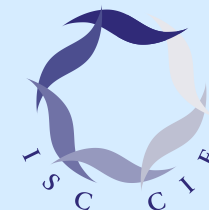


# Using the information



- Comparison of rough data
- Comparison of quantitative and qualitative diagnostics
- Comparison « Framework directive » `s objectives
- Comparison of measures put in place

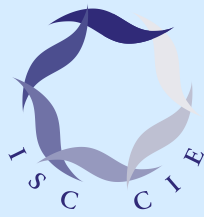
# Using the information



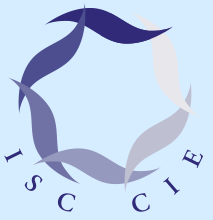
Aquifère	ID	F		NL		Bx		VL	
		Quant.	Qual.	Quant.	Qual.	Quant.	Qual.	Quant.	Qual.
Craie de la Deûle	1	FRA003	FRA003						
<del>Craies de Valenciennes - Mons</del>	<del>2</del>	<del>FRA007</del>	<del>FRA007</del>						
<del>Sables des Flandres</del>	<del>3</del>	<del>FRA014</del>	<del>FRA014</del>					BEVL061	BEVL061
Sables captifs des Flandres	4					BR03	BR03	BELV062	BELV062
Calcaires du Carbonifère	5	FRA015	FRA015					BELV063	BELV063
Sables d'Orchies	6	FRA018	FRA018						
Massif Cambro-Silurien et craies	7					BR02	BR02	BELV064	BELV064
Massif Cambro-Silurien et craies (ZO)	8					BR01	BR01	BELV066	BELV066
Massif Cambro-Silurien et craies (ZE)	9					BR01	BR01	BEVL015	BEVL015
Sables bruxeliens	10					BR05	BR05	BEVL007	BEVL007
Sables libres du Landénien (ZE)	11							BEVL010	BEVL010
Sables captifs du Landénien (ZO)	12					BR03	BR03	BEVL011	BEVL011
Sables yprésiens	13					BR04	BR04	BEVL028	BEVL028
Couverture quaternaire	14							BEVL021	BEVL021
Dépôts alluviaux du Pléistocène	15			NLGWSC2	NLGWSC2			BEVL022	BEVL022
Sables Oligocènes	16			NLGWSC5	NLGWSC5			BEVL023	BEVL023
Sables de Campine	17			NLGWSC3	NLGWSC3			BEVL031	BEVL031
Dunes et zones côtières	18			NLGWSC3	NLGWSC3			BEVL041	BEVL041
Dunes et polders de Flandre orientale	19			NLGWSC3	NLGWSC3			BEVL042	BEVL042
Sables quaternaires et oligocènes de la côte	20			NLGWSC4	NLGWSC4			BEVL043	BEVL043
Sables quaternaires et oligocènes des Polders	21			NLGWSC4	NLGWSC4			BEVL044	BEVL044
Sables quaternaires et plio-miocènes de l'Escaut	22			NLGWSC4	NLGWSC4			BEVL045	BEVL045

Status of water bodies in transboundary aquifers  
Situation 2012

# Conclusions



- Strive for coherence in data referring to an aquifer
- Analysis of disparities in diagnostics
- Analysis of methodologies
- Discussions based on scientific data
- Justification of disparities
- Standardization of the methods
- difficulty to predict future status



# Discussion

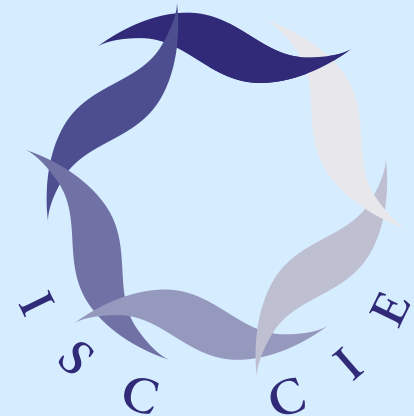
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Questions?



THANK YOU FOR YOUR  
ATTENTION

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Arnould Lefébure - Secretary general