ScaldWIN

An Interreg IVB NWE project aimed at improving surface and groundwater quality in the international Scheldt river basin district

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Temse, 27 June 2013

Content

- General context
- ScaldWIN actions
- Conclusions

General context
Water Framework Directive

The European Water Framework Directive (WFD) states that by 2015 the good status has to be reached in all European waters (groundwater + surface water)

⇣

Need for coordinated water management in international river basin districts, a.o. Scheldt IRBD

General context
Water Framework Directive

Previous Interreg IIIB project Scaldit (2003-2008): transnational analysis of current situation in Scheldt river basin district (art. 5 WFD)

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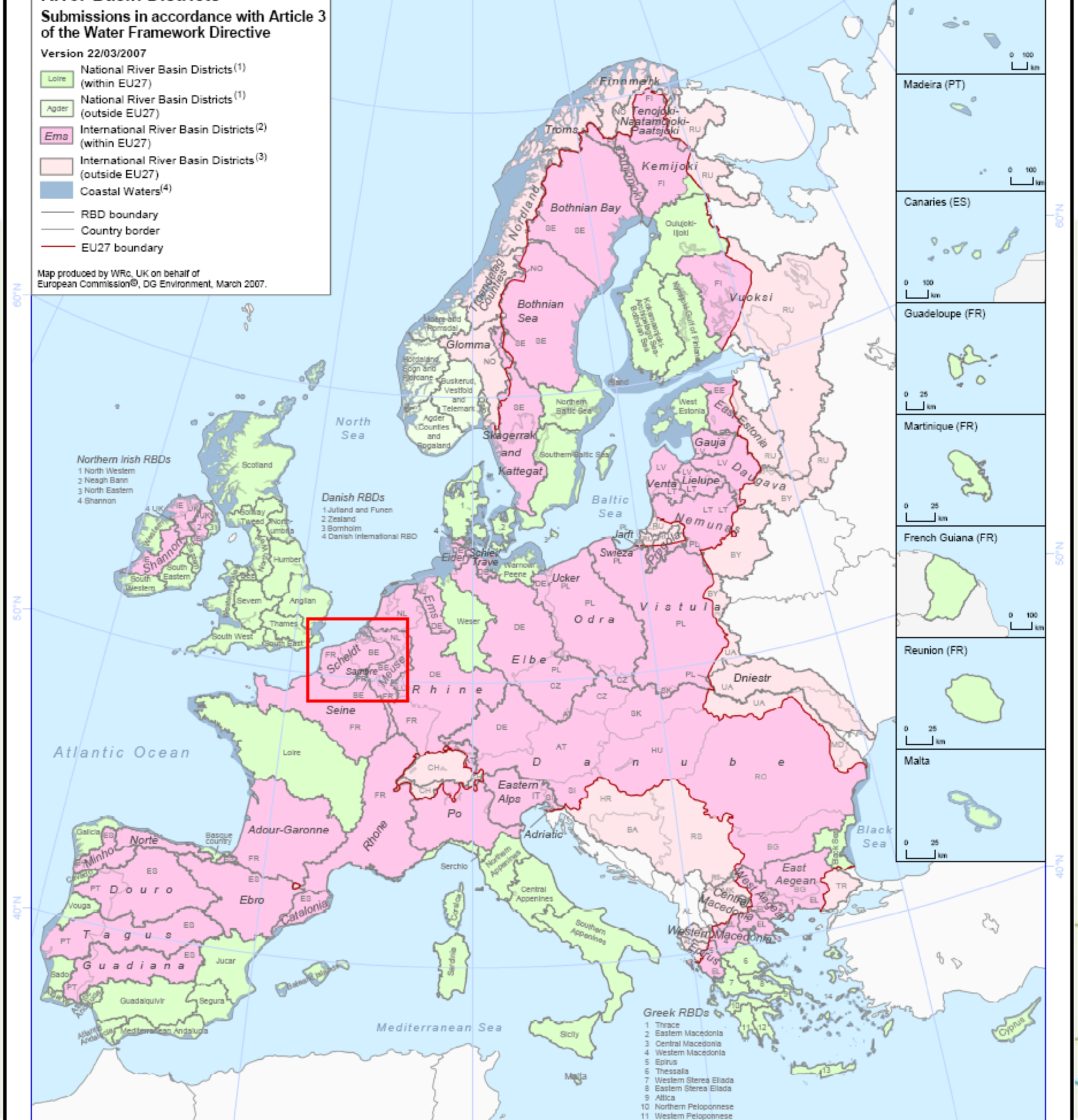
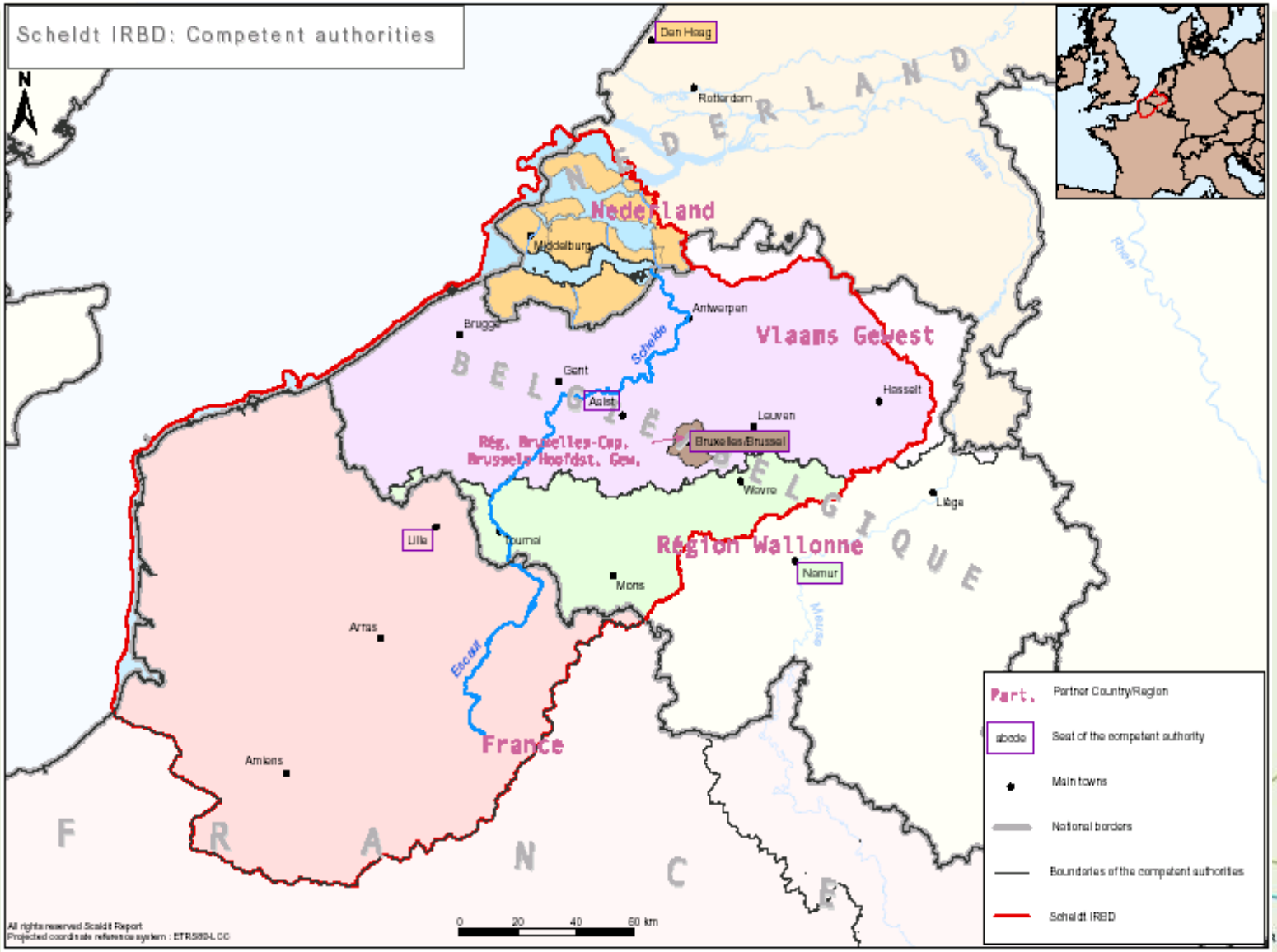
Basis for ScaldWIN project, in which a number of WFD measures with a transnational dimension are implemented within the Scheldt river basin district


Submissions in accordance with Article 3 of the Water Framework Directive
Version 22/03/2007
National River Basin Districts (1) (within EU27)
National River Basin Districts (1) (outside EU27)
International River Basin Districts (2) (within EU27)
International River Basin Districts (3) (outside EU27)
Coastal Waters (4)
RBD boundary
Country border
EU27 boundary
Map produced by WRc, UK on behalf of European Commission©, DG Environment, March 2007.
Northern Irish RBDs
1 North Western
2 Neagh Bann
3 North Eastern
4 Shannon
Danish RBDs
1 Jutland and Funen
2 Zealand
3 Bornholm
4 Danish International RBD
Greek RBDs
1 Thrace
2 Eastern Macedonia
3 Central Macedonia
4 Western Macedonia
5 Epirus
6 Thessalia
7 Western Sterea Ellada
8 Eastern Sterea Ellada
9 Attica
10 Northern Peloponnese
11 Western Peloponnese
Madeira (PT)
Canaries (ES)
Guadeloupe (FR)
Martinique (FR)
French Guiana (FR)
Reunion (FR)
Malta
Atlantic Ocean
North Sea
Baltic Sea
Mediterranean Sea
Black Sea
Scheldt
Sambre
Meuse
Rhine
Seine
Loire
Adour-Garonne
Rhone
Danube
Elbe
Odra
Vistula
Dniestr
Ems
Weser
Po
Eastern Alps
Adriatic
Douro
Tagus
Guadiana
Ebro
Minho
Norte
Catalonia
Jucar
Segura
Guadalquivir
Bothnian Bay
Bothnian Sea
Kemijoki
Vuoksi
Glomma
Skagerrak and Kattegat
Gauja
Daugava
Lielupe
Venta
Nemunas
Swieza
Jarft
Pregolia
Ucker
Finnmark
Troms
Nordland
Scotland
Humber
Anglian
Thames
Severn
South West
South East
Shannon
East Aegean
Central Macedonia
Western Macedonia
Sicily
Sardinia
Corsica
Cyprus

Map of the Scheldt International River Basin District



Characteristics Scheldt international river basin district (IRBD)

- Scheldt IRBD = river basin Scheldt + added river basins (Brugse Polders, IJzer, Aa, Boulonnais, Canche, Authie, Somme)
- International river basin district: France, Belgium (Flemish Region, Walloon Region, Brussels Capital Region, Belgian federal state) and the Netherlands
- Surface: 36,416 km²; Inhabitants: 12,8 million

High pressure on water system

- High intensity of use: population, industry, agriculture, transport, tourism/recreation, …
- Few undisturbed nature areas, high pressure on remaining open space

Characteristics Scheldt international river basin district (IRBD)

- High number of HMWB & AWB
- High number of WBs in bad or poor status

Party	Percentage		
	Heavily modified	Artificial	Total
France	14 %	8 %	22 %
Walloon region	35%	15%	50%
Brussels Capital Region	67 %	33 %	100 %
Flemish Region	50,5%	27,5%	78%
Netherlands	34 %	62,5 %	96,5 %

Party	Bad	Poor	Moderate	Good	High	No info
Flemish Region	66	49	46	0	0	0
Walloon region	29	23	16	1	0	10
Brussels Capital Region	1	1	1	0	0	0
France	11	9	17	18	0	0
Netherlands	0	0	1	0	0	0
Total	107	82	81	19	0	10

- High number of exemptions

General context
Project objectives

- Contribute to a better quality of surface and groundwater bodies in the Scheldt IRBD by:
  - Implementation of a number of transnational actions in order to improve the status of surface and groundwater bodies
  - Development of indicators to assess the costs, effects and benefits of WFD measures
  - Raising public awareness

General context
Interreg IVB North West Europe

- Financial instrument of EU Cohesion Policy
- Focus on North West Europe: BE, FR, DE, IE, LU, NL, GB en CH
- Contributes to European Territorial Cooperation Objective by financing transnational projects
- Aim of the IVB-Programme is to make the NWE region more competitive, environmentally friendly and cohesive

www.nweurope.eu

ScaldWIN
Facts and figures

- Project area = entire Scheldt RBD
- 8 partners from F (2), WAL, BR, FL, NL (3)
- Strong interlinkage with International Scheldt Commission
- 2009-2014
- Cofinanced by Interreg IVB NWE, priority 2 ‘Managing resources and risks’
- Budget: € 8.646.694 (50% ERDF)

ScaldWIN Partners

Vlaamse Milieumaatschappij - Lead partner (VL)

Leefmilieu Brussel - Bruxelles Environnement (BR)

Direction générale opérationnelle de l'Agriculture, des Ressources naturelles et de l'Environnement (W)

Direction régionale de l'environnement, de l'aménagement et du logement Nord - Pas-de-Calais (F)

Lille Métropole Communauté Urbaine (F)

Waterschap Scheldestromen (NL)

Provincie Zeeland (NL)

Ministerie Infrastructuur en Milieu (NL)

ScaldWIN
Work packages

WP1: Improving the quality of surface water bodies by river restoration

WP2: Management of sediment transport

WP3: Sustainable management of transboundary groundwater layers

WP4: Development of indicators to assess costs, effects and benefits of WFD measures

WP5: Public awareness raising

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WP1: Improving the quality of surface water bodies by river restoration

- 4 actions:
  - 5 river restoration investments on (transboundary) water courses in different contexts: rural area (FL, WAL), urban area (BR), polder area (NL), protected historical and natural site (FL) → different solutions ; common goal = improving status of water body and fish migration
  - Monitoring the effect of the investments
  - Cost-benefit analysis on removing or improving migration barriers on water courses (study by FR)
  - Transnational inventory on priority fish migration barriers in the Scheldt IRBD and joint declaration with regard to remediation of priority fish migration barriers

WP1: River restoration projects

- Investment on the transboundary river Marke (small river in rural area) - Flemish region:
  - Reconnection of an old river and meanders → more natural river system, 3 fish migration barriers solved, better water drainage (reduced flood risk)
  - Investment completed

WP1: River restoration projects

- Investment on the river Eastern Dender (small river in rural area) - Walloon region:
  - Restoration of fish migration by solving 2 fish migration barriers
  - Investment in study phase: for each migration barrier, 3 scenarios for solving the barriers

WP1: River restoration projects

- Investment on the transboundary polder water body Othene (rural polder area) - the Netherlands:
  - Creating a more natural morphology of the banks and restoration of fish migration by solving 2 fish migration barriers
  - Investment partly completed (1 fish migration barrier solved) and partly in preparatory phase (hydrological modelling, negotiations on land acquisition going-on , …)

WP1: River restoration projects

- Investment on the transboundary Molenbeek brook (small river in urban area) - Brussels capital region:
  - Creating a new bed for the Molenbeek river (currently disappearing in the sewage system) and reconnection to the Willebroek canal; ecological development of two main green zones with high ecological potential → restoration of river continuity + landscape and recreation benefits and increase of flood resilience
  - Investment in preparatory phase (permit demand, preparatory studies going-on, …)

WP1: River restoration projects

- Investment on the river Demer (river in protected historical and natural site) - Flemish region:
  - Reconnection of an old river course (Tuylterdemer) and restoring the valley system of the river and some tributaries → recovery of river continuity and fish migration, creation of natural habitats
  - Investment in construction phase

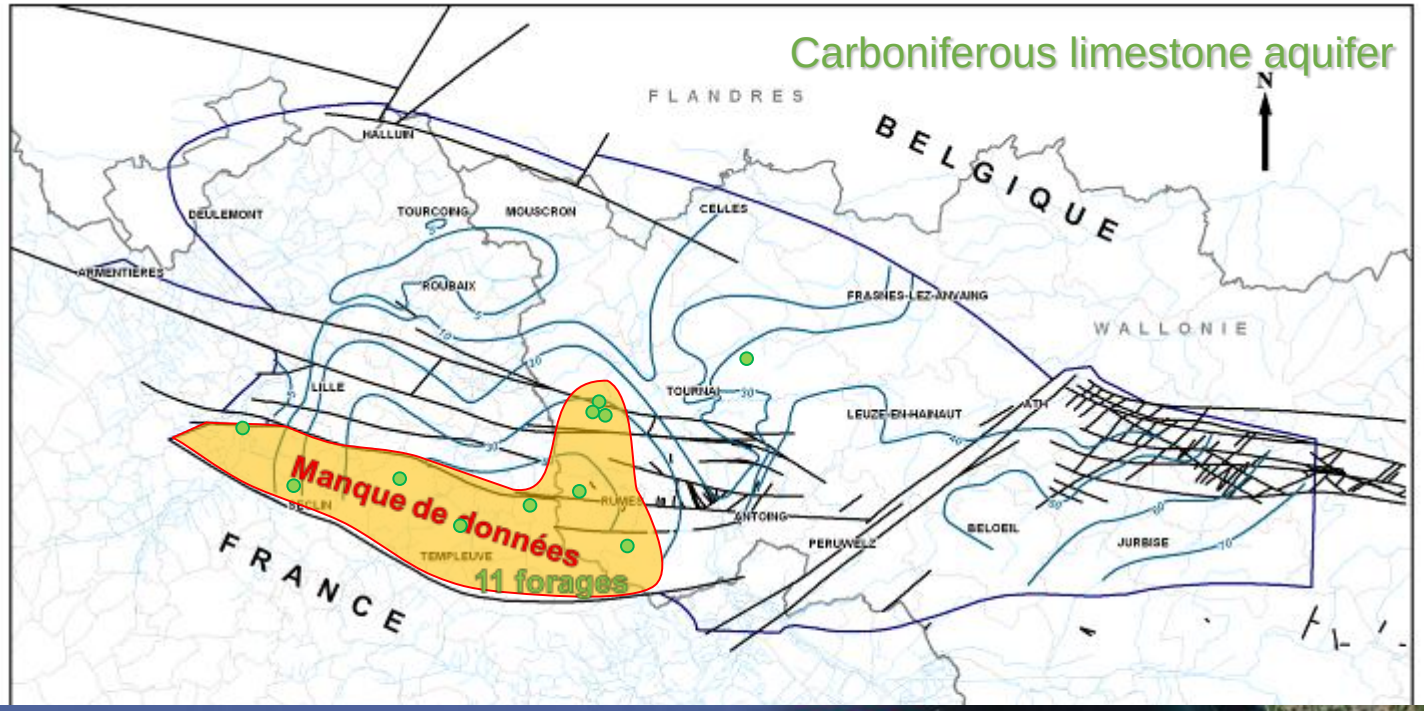
WP2: Management of sediment transport

- 4 actions:
  - Monitoring of sediment loads on non navigable rivers in WAL by 4 newly installed automatic sampling stations
  - Development of a sediment transport model (FL)
  - Construction of 3 sediment ponds (investment in FL) to capture sediment in a concentrated way
  - Study on leachability of heavy metals in dredged sediments

WP3: Sustainable management of transboundary groundwater layers

- 4 actions:
  - Transboundary monitoring of groundwater quality and quantity to harmonize the transnational management of
    - carboniferous limestone aquifer = deep aquifer on FR, FL, WAL territory threatened by overexploitation
    - shallow groundwater in Dutch-Flemish polder area threatened by salinization
  - Build up a joint conceptual and a numerical model for the carboniferous limestone aquifer
  - Investigate, a.o. by means of a numerical model, the distribution of fresh and salt water in groundwater of NL-FL polder area and the possible effects on this distribution as a result of sea level rise
  - Joint declaration by competent regional authorities for a sustainable transboundary management of these groundwater resources

Carboniferous limestone aquifer



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WP4: Indicators to assess costs, effects and benefits of WFD measures

- 3 actions:
  - Developing a set of indicators on the level of the Scheldt IRBD to assess the costs and the effects of the measures of the first WFD programmes of measures of the Scheldt riparian states
  - Comparison of the indicators and methods used by the partners to assess benefits of measures hereby making use of the results of WP 1, 2 and 3
  - Comparison of the indicators and methods used by the partners to evaluate disproportionality and investigate possibilities on alternative financing mechanisms illustrated by application on WP 1, 2 and 3
  - First report on indicators available on ScaldWIN website

WP5: Public awareness raising

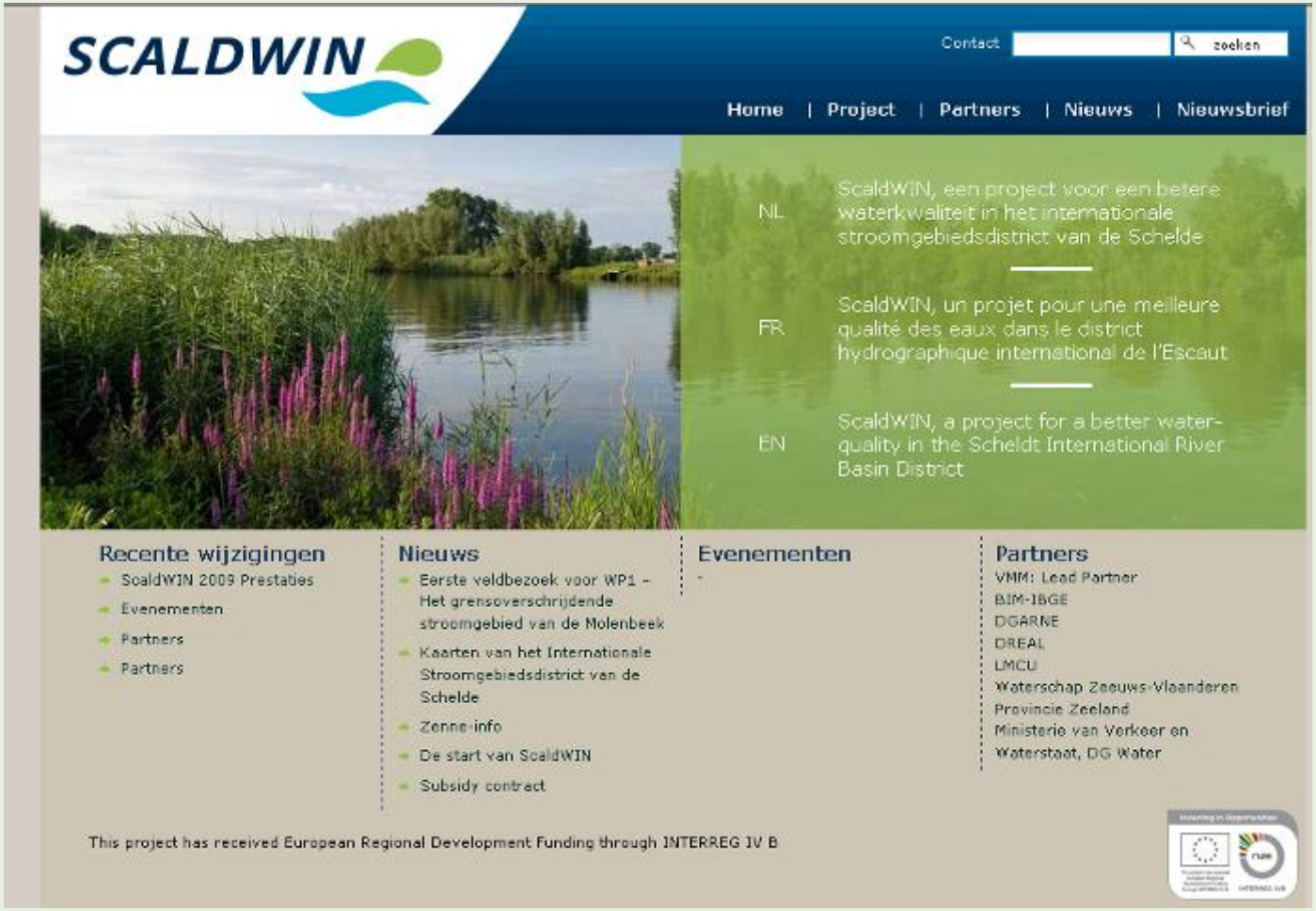
- 4 actions:
  - Networking events: seminars, International Scheldt Week, to raise awareness about transnational aspects of integrated water management in the Scheldt IRBD
  - Project Website in French, Dutch and English
  - Electronic newsletters
  - Brochures, reports, …

International Scheldt Week 2011 + 2013

- Broad range of activities throughout Scheldt IRBD
- 1st edition ISW: 15 - 22 May 2011
- 2nd edition ISW: 22 March - 1 April 2013
- 15 partners (broader network than ScaldWIN partners)
- Communication campaign with own website, brochure, press event, facebook page, …
- Kick-off: international Scheldt day
- www.scheldeweek.com
- www.semainedelescaut.com

Conclusions

- Water management benefits from a transnational approach by exchanging knowledge and experiences, undertaking joint monitoring, modelling, transnational effects of investments, …
- Interreg programmes are highly suitable for ‘water projects’ because of transnational dimension of water management, raising funds where national budgets are restricted, link with resource management, climate change, …



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