



Slimme regionale specialisatie in watertechnologie



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EU Liaison Officer, Wetsus

combining scientific excellence with commercial relevance

- **Maritieme sector**
- **Deltatechnologie**
- **Watertechnologie**



Focus op thema's / clusters:

- energie
- watertechnologie
- healthy-ageing
- sensortechnologie
- agribusiness



Mondiaal (1): Water kwaliteit is cruciaal



1.1 miljard mensen zonder veilig drinkwater

2.5 miljard mensen zonder veilige sanitatie

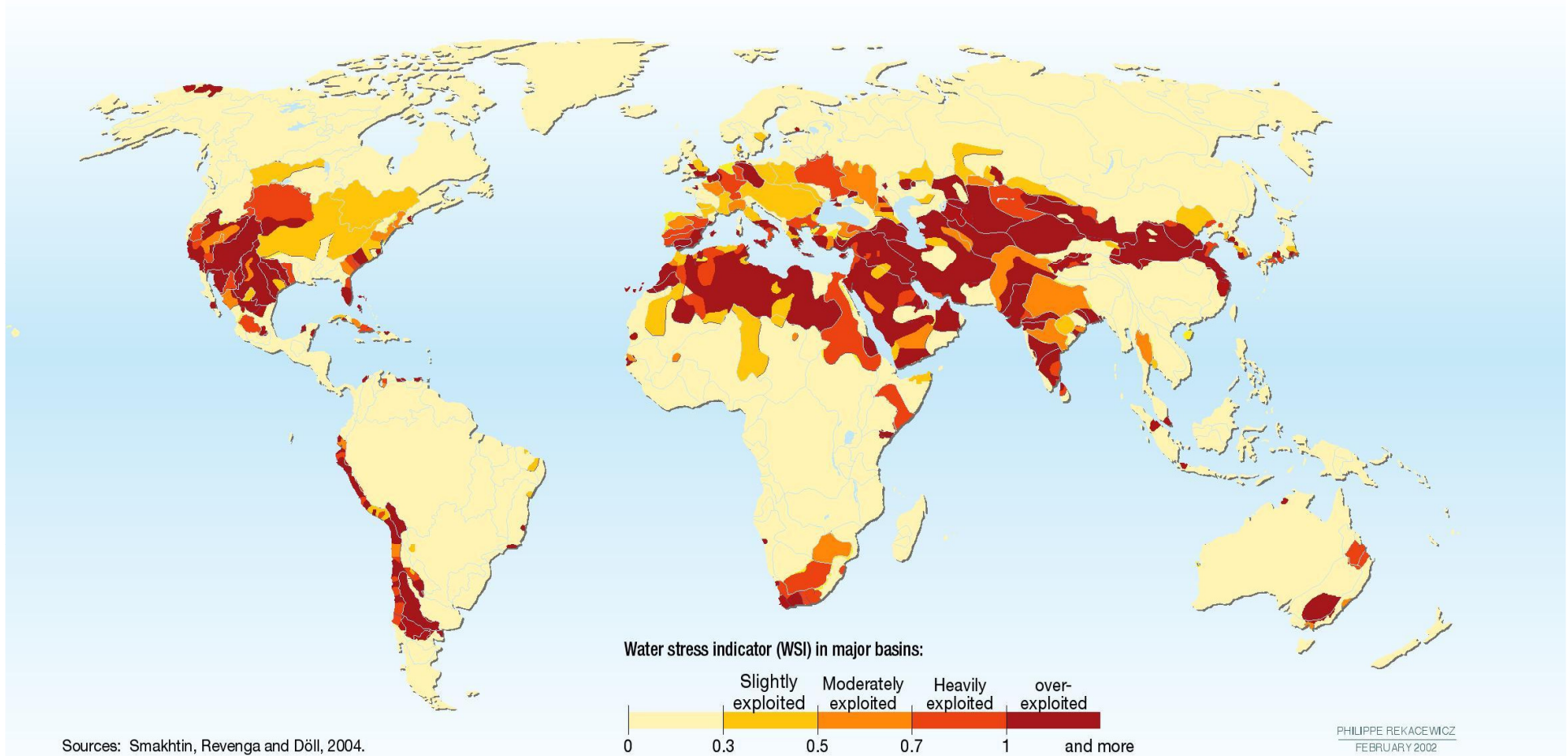


Toenemend tekort aan schoon zoetwater

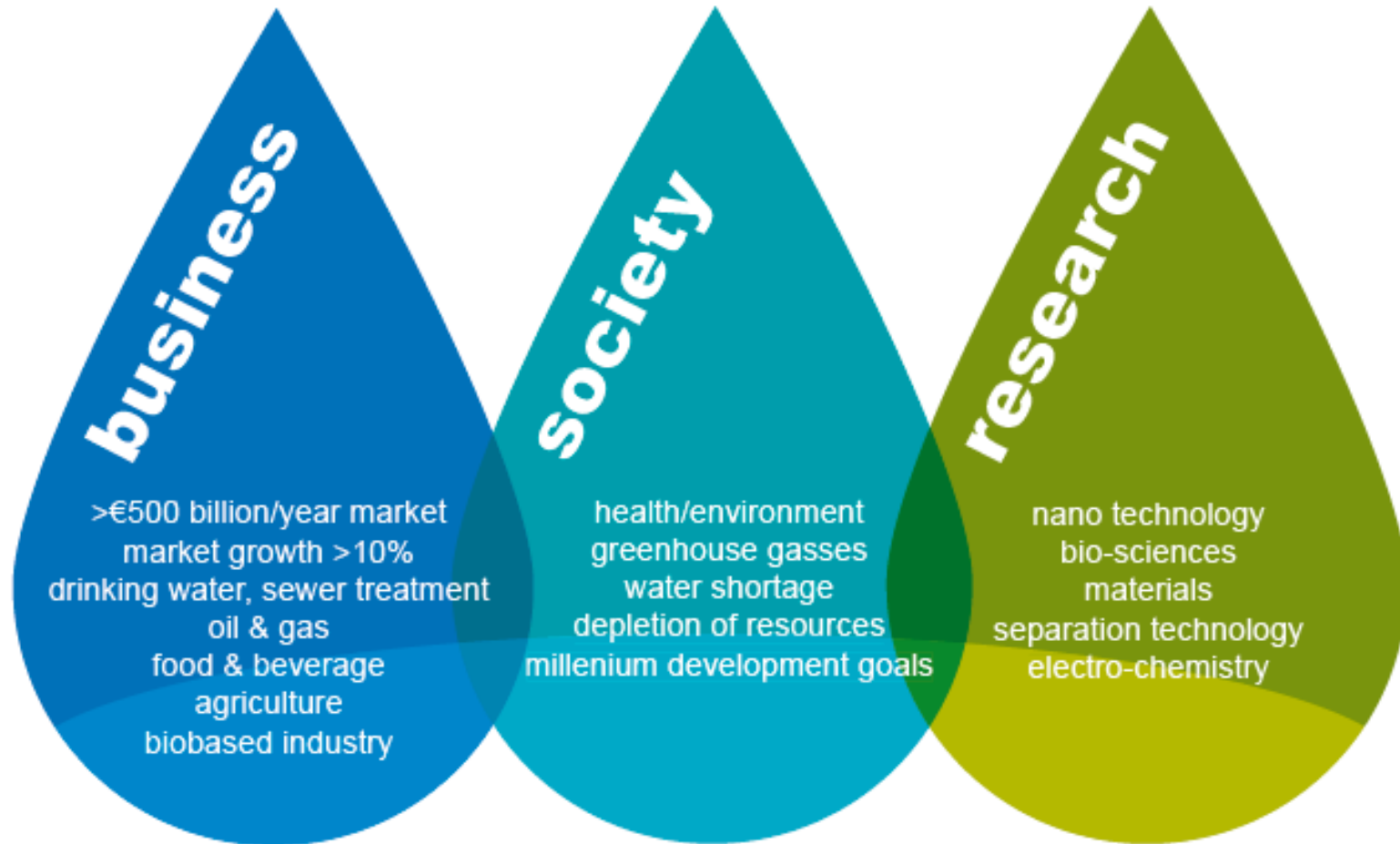


Afname biodiversiteit

Mondiaal (2): Water schaarste



Aspecten van Watertechnologie







Toponderzoek door unieke aaneenschakeling van kennisdisciplines

- 18 universities, 45 scientific chairs
- 93 companies
- 24 themes

Wetsus is a facilitating intermediary for trend-setting know-how development in the field of sustainable water treatment technology



Strategische samenwerking met 90 bedrijven

2003

Alliander
Vitens
Shell
Unilever

2004

Bioclear
Magneto
Energy Valley
Landustrie/Hubert
Norit/X-flow
Grontmij
Royal Haskoning
Thermphos
Heineken

2005

Nalco
Esco/Frisia Zout
Waterb. Groningen
Waterm. Drenthe
Paques
DHV
Evides
Global Membrains
Rabobank
Wetterskip Fryslân
Bright Spark

2006

WS Hunze en Aa's
Schlumberger
TCNN
Friesland Campina
Lionix
Kurita

2007

Aquacare
PWN
Brabant Water
Dow Chemicals
Coram
Stowa
Trojan UV
EasyMeasure
CvO-BTO

2008

De Alg
Fuji Film
Oasen
GMB
Ingrepro
Eneco
Syngenta
Neste Oil
AF&F
Microlan
Feyecon
NOM
Essent

2009

Applus RTD
Philips
Dutch Rainmaker
Arcadis
Avebe
Purac
AquaExplorer

2010

Femto Invest
Pure Green Techn.
Biaqua
Duynie
IMD
Van Remmen
Water ProMaSys
MAST Carbon
IPF/Grander
TailTec

2011

Water Alliance
Ballast Nedam
General Electric
A. Hak Beheer
Biothane
Algae Biotech
Aqua Nirvana Foundation
O2 Environmental
EFCseparations
Paqell
Voltea

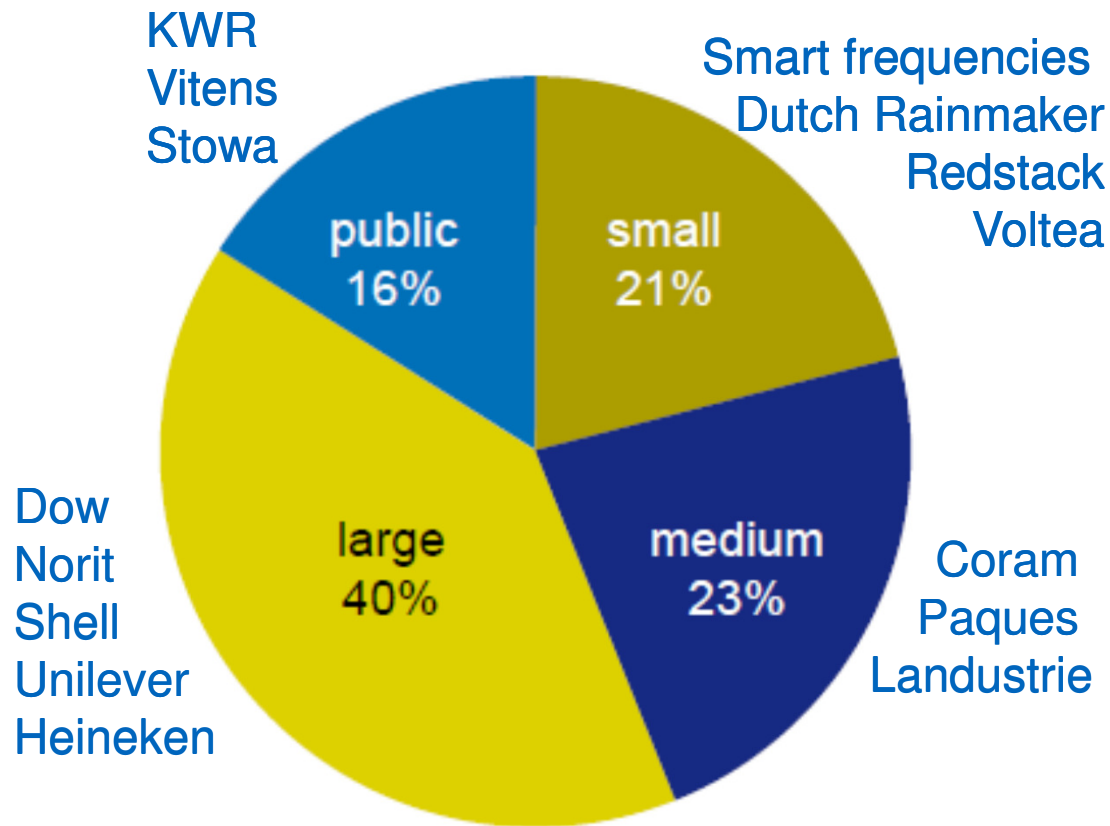
2012

Anglian Water
WS Noorderzijvest
Berson UV
Brightwork
Kuraray
Duplaco

2013

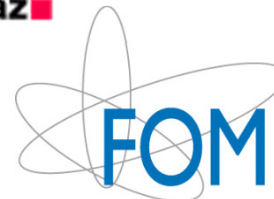
Kemira
Skion

MKBs en multinationals werken samen binnen Wetsus

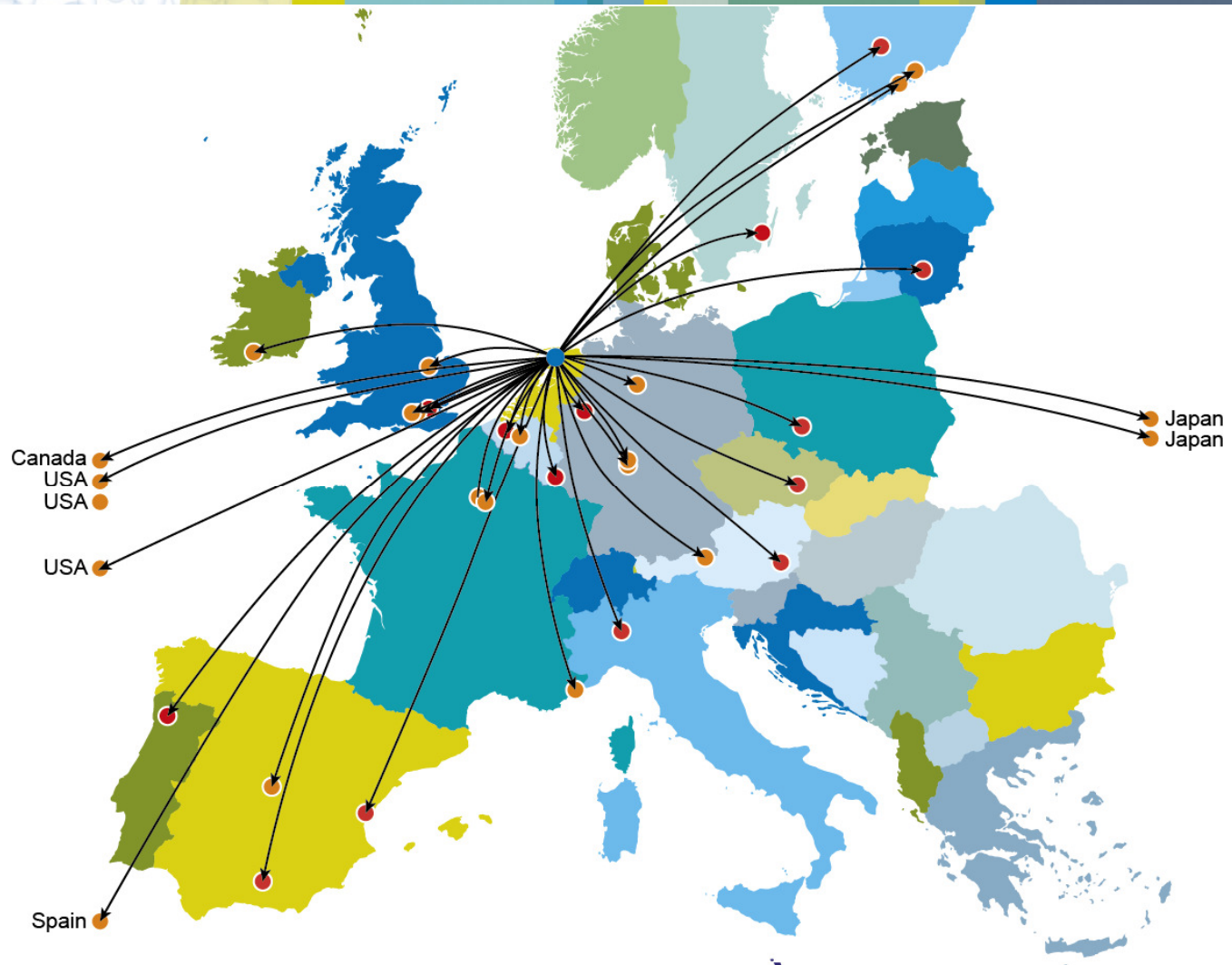




Multidisciplinariteit via kennispartners



Europese aaneenschakeling van watertechnologie partners

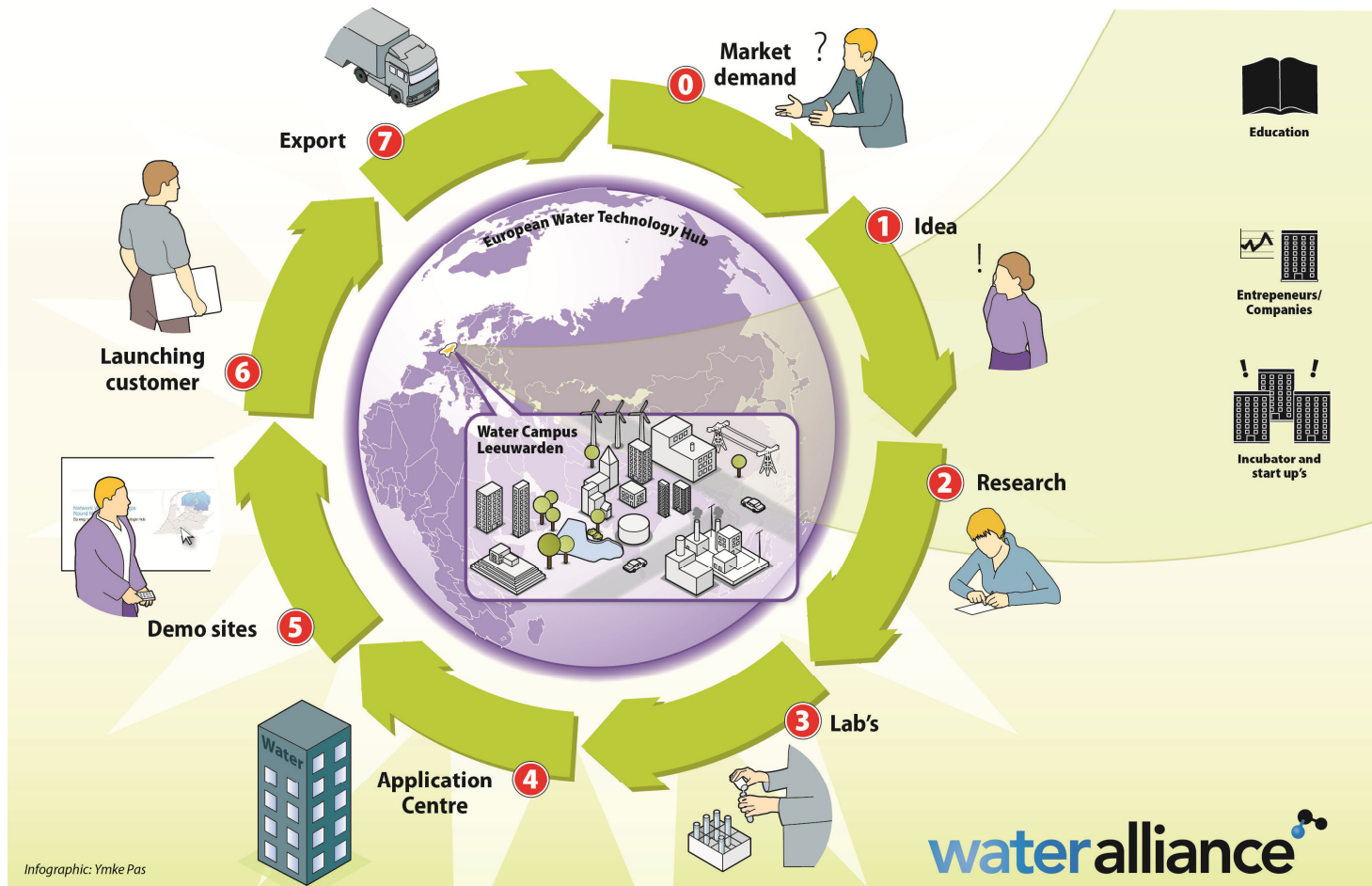


Positieve tevredenheidscijfers deelnemers in Wetsus onderzoeksprogramma

	%
Increased revenues	25
New products/technologies	31
New products/technologies within 5 years	71
Improved products/technologies	50
Expansion of own research	48
Effective innovation model	83

WaterCampus faciliteert innovatie en bedrijvigheid

Water Technology Innovation Chain From idea to market!



Demosites faciliteren de opschaling van technologieën



WetSalt
Desalination /
Blue Energy



Municipal Waste
Water Treatment



Hospital Waste
Water



Drinking Water+
Distribution



Sensing

Ondersteuning van MKB's en start-ups

- Incubator
- Innovation infrastructure
- Network
- Coaching
- Venture Capital
- Talent pool
- SME research tools
- Business Development



Watertechnologie start-ups sinds 2000

2000-2007

1	Solar dew
2	Whirlwind
3	Zonnewater
4	Ceparations
5	Bright Spark
6	Mosaicsystems
7	IMD b.v
8	Aqua-Aero Water Systems
9	SR Technology
10	Global Membrains
11	Bareau
12	Desah
13	Redstack
14	Solaq
15	Water Insight
16	Aqua Explorer
17	Voltea
18	Westt
19	Brightwork
20	Dutch rainmaker
21	Easymeasure
22	Groasis waterboxx
23	WaterProMaSys
51	legiofreewater
53	IWC innovative water conce
59	Tolwatertechniek

2008-2009

24	Capilix
25	Evodos
26	Legyon
27	Water for Everyone
28	Pharmafilter
29	Sustec
30	Sensiblu
31	AF&F (Algea Food and
32	Aquastill
33	Automatic Electric Europe s
34	Biaqua
35	Bucon
36	Metal membranes
37	Procede Water
38	Pure green technologies
39	Smart frequencies
40	Treecure
41	Water waves
42	W2C
49	EFCseparations B.V.
52	Intech
54	WE Consult
58	Bright water company
62	BWA water

2010-2012

43	HydrOWashR b.v.
44	Biotrack
45	Salttech
46	Tail Tec
47	PWN Technologies
48	Aqana
50	Paqell
55	Aiforo
56	WaterIQ
57	Aquaver
60	ExtIns Technologies
61	Duplaco

**Geel gearceerde
liggen op of rond de
WaterCampus**

- Programmas voor basis- en middelbaar onderwijs
- Ondersteuning van gelieerde HBO opleidingen
- Internationale onderzoeks master water process technologie
- Multidisciplinaire PhD-programs
- Talent mobility: Internationale ontmoetingsplek voor talent

Wetsus & WaterCampus deelname aan EU programma's

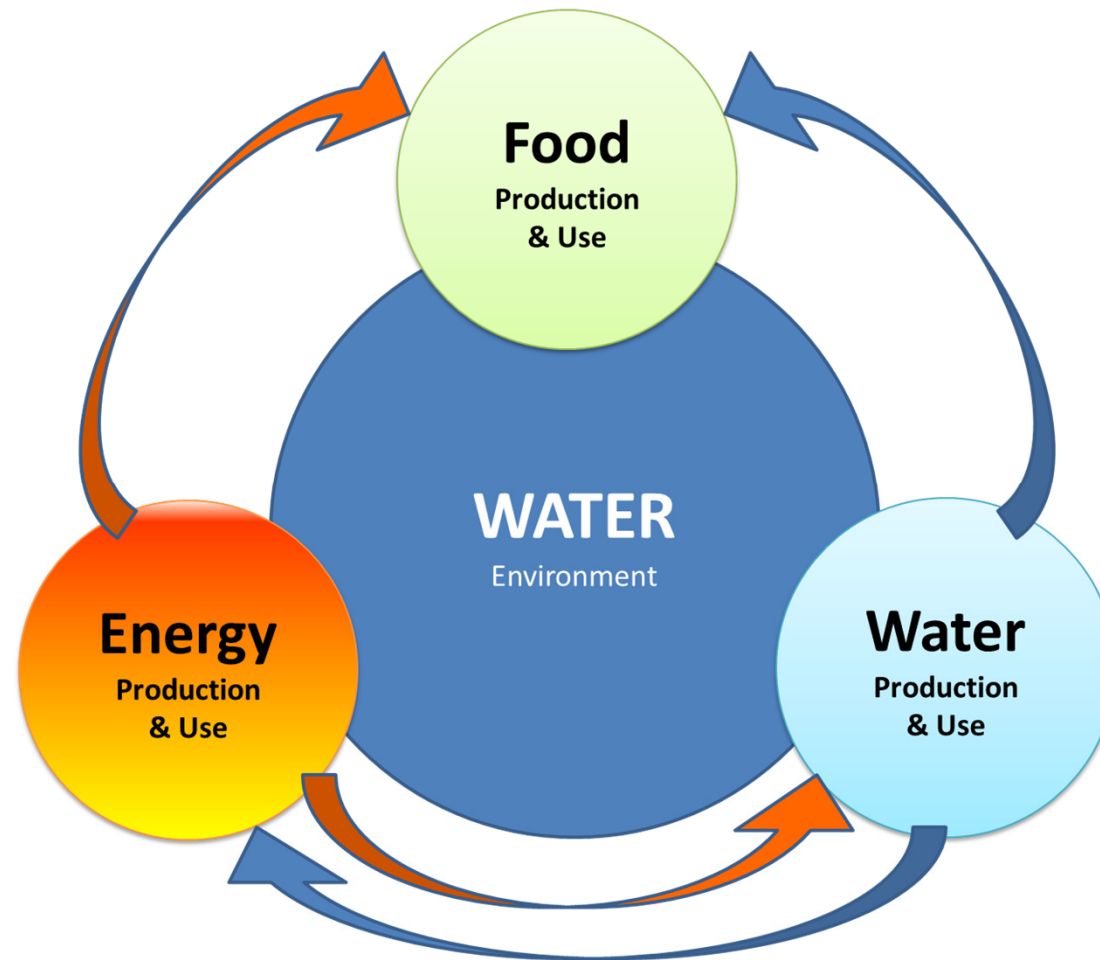
Huidige:

- KP7: 3 programma's
- Interreg: 4 relevante projecten
- EFRD: diverse watercampus projecten

Toekomst:

- Horizon 2020, RIS3, JPI, EIT , RIC, EIPwater.....

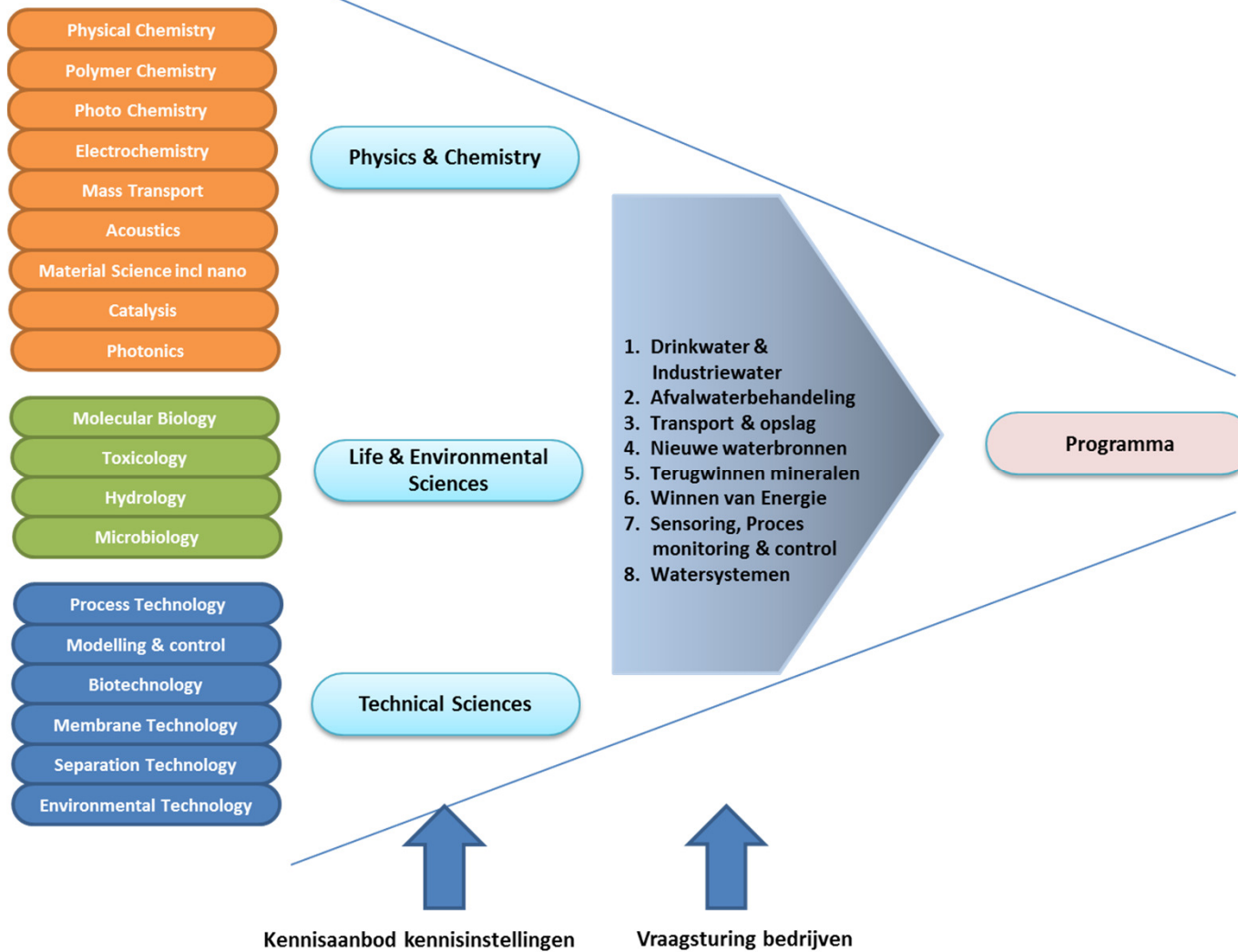
Gekoppelde uitdagingen vereisen Technologische Innovaties



Wetsus concentreert zich op 6 business challenges

- **Duurzame watervoorziening**
- **Afvalwaterbehandeling en hergebruik**
- **Nieuwe waterbronnen**
- **Hergebruik en productie van componenten**
- **Energie en water**
- **Sensing en Process Control**

Diverse disciplines nodig



High trust in afgebakende onderzoeksthema's (Blue Energy since 2003)

Companies (8)

Alliander
Eneco
Magneto
Landustrie
Fuji Film
Mast Carbon
A.Hak



Maarten van Riet
Theme manager



Universities 6 projects (4 PhD, 2 post-doc)

University Twente
Wageningen University



Redstack en Fuji: Blue Energy

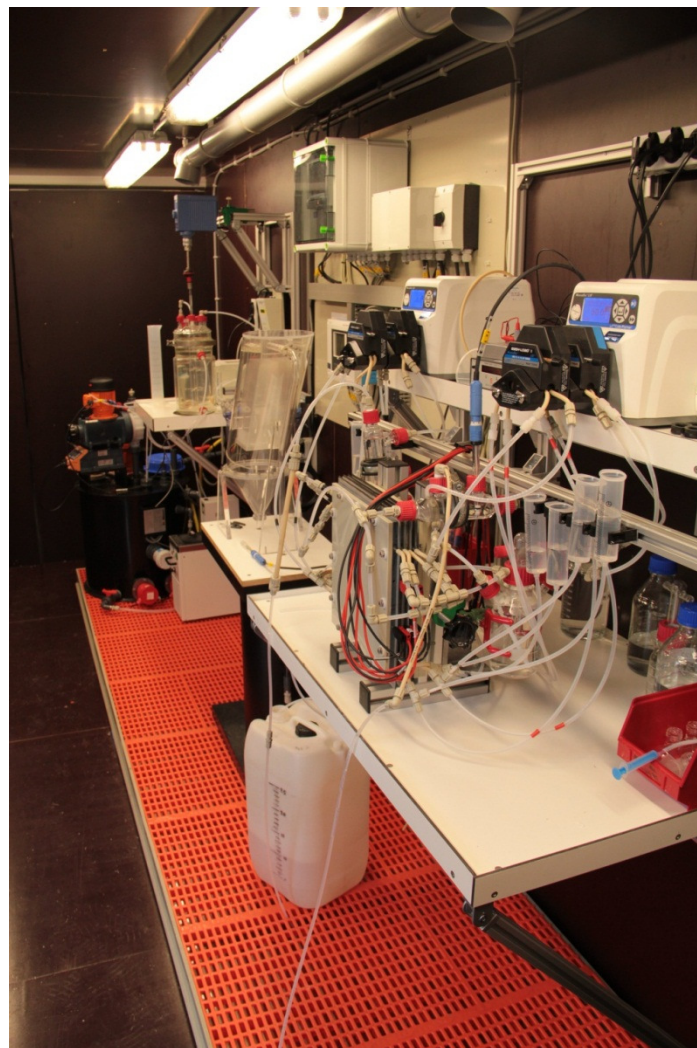


RED **STACK**

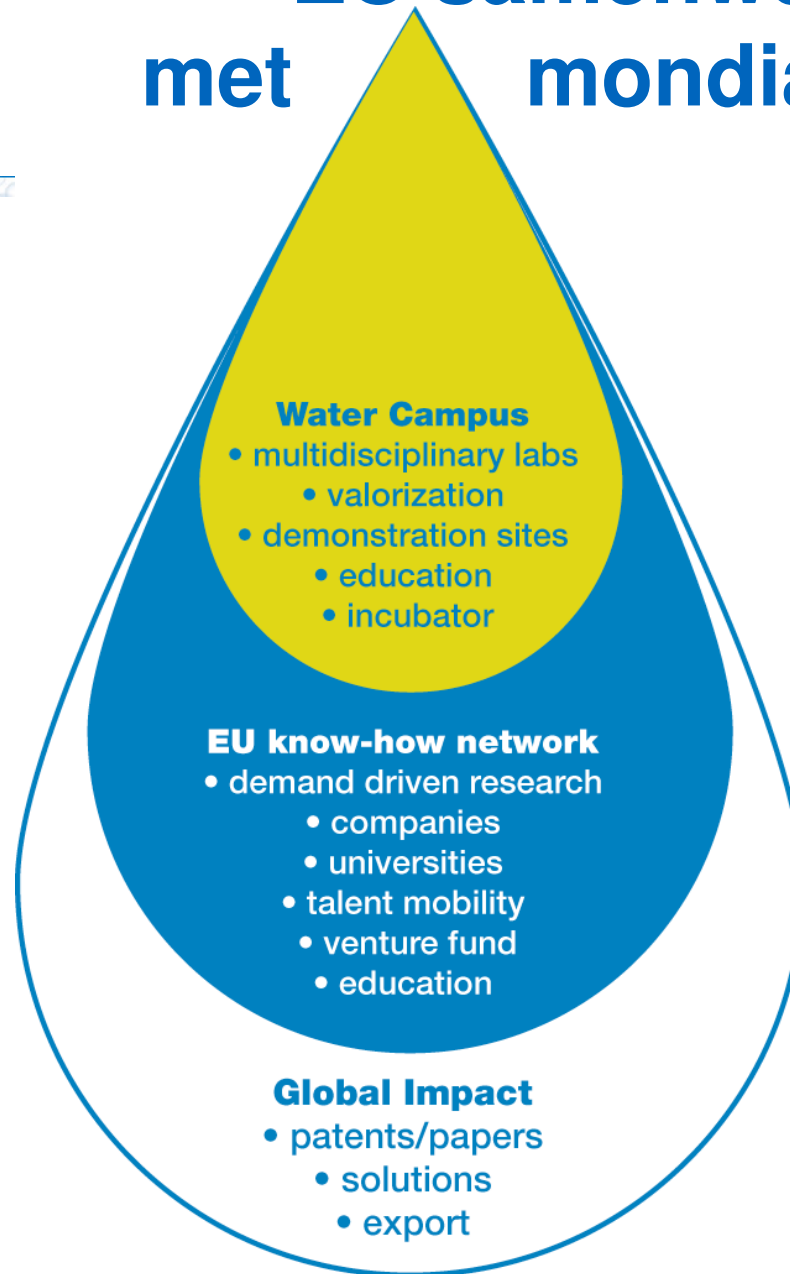
NH₃ terugwinning pilot plant



Kijkje in de pilot plant



EU samenwerking, met mondiale impact



www.wetsus.eu
www.watercampus.nl



Ministry of Economic Affairs

Ministry of Infrastructure & Environment

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