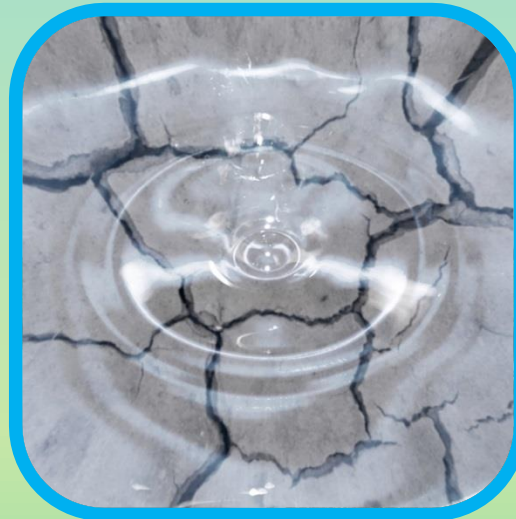


# FAIRWAY

Gerard Velthof

*Wageningen Environmental research*



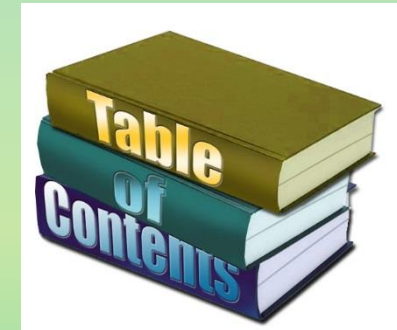
# Contents of this presentation

General objectives and expected impacts of FAIRWAY and WaterProtect

Case studies in FAIRWAY and Action labs in WaterProtect

Fairway:

- Partners
- Case studies
- Multi-actor platforms
- Indicators
- Decision support tools
- Governance
- Integration
- Impacts



# H2020 call text



*Water farms – improving farming and its impact on the supply of drinking water (RUR-04-2016)*

## Expected impacts

- Cooperation between stakeholders
- Involvement of farmers and other citizens in monitoring
- New water governance models
- Integrated scientific support for relevant EU policies
- Harmonised datasets

Proposals should fall under the concept of the 'multi-actor approach'



# General objectives FAIRWAY and WaterProtect

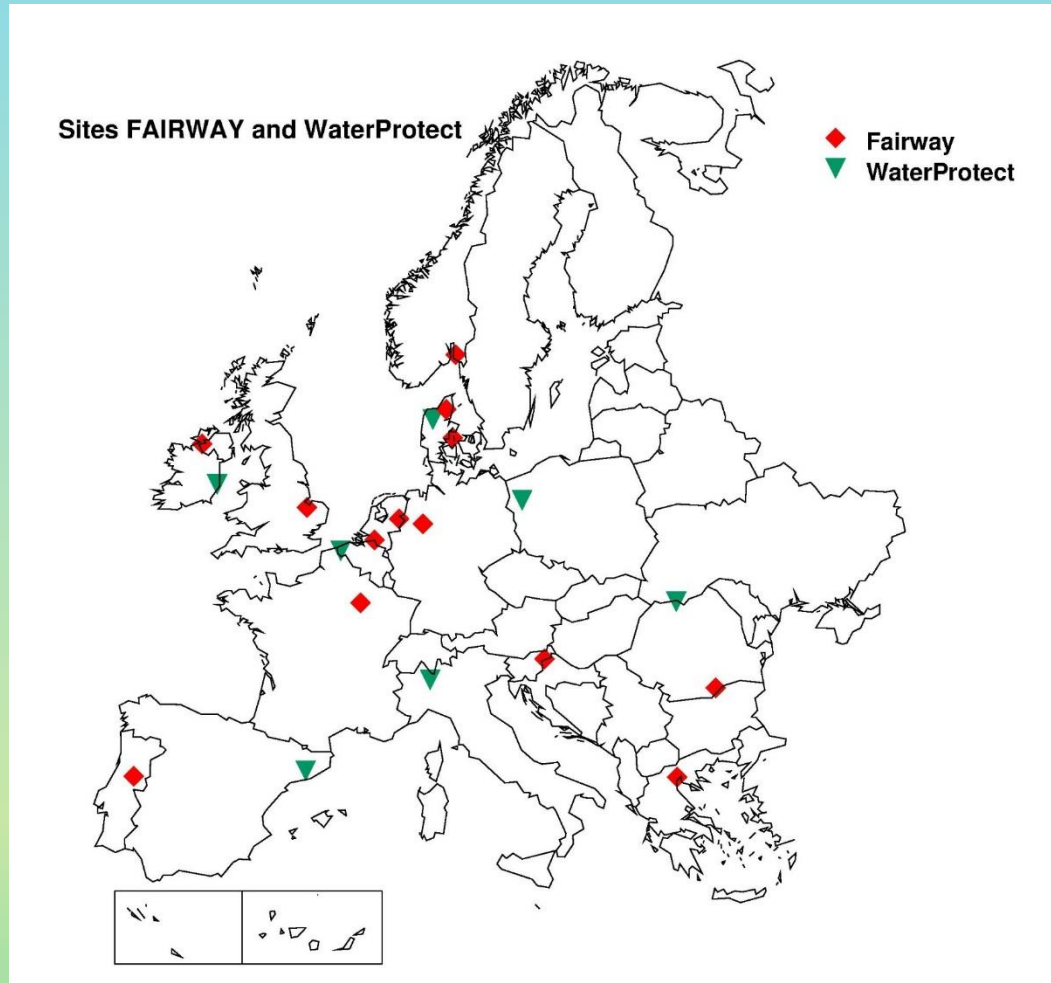
To contribute to a more effective protection of drinking water resources against nitrate and pesticide pollution from agriculture

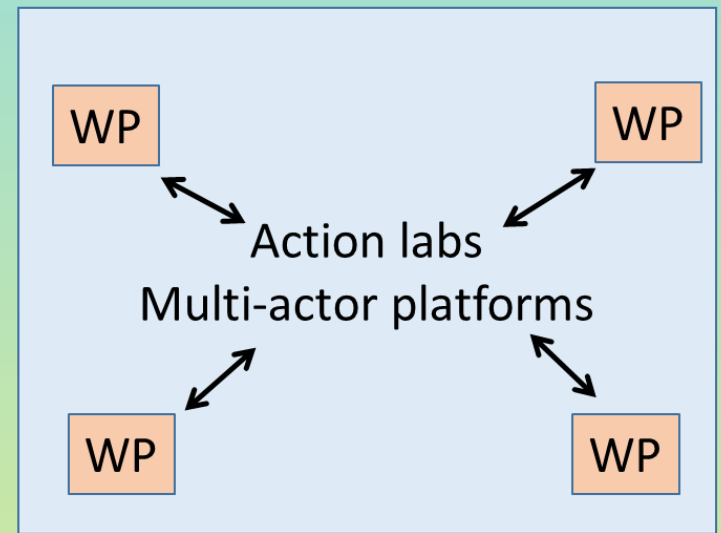
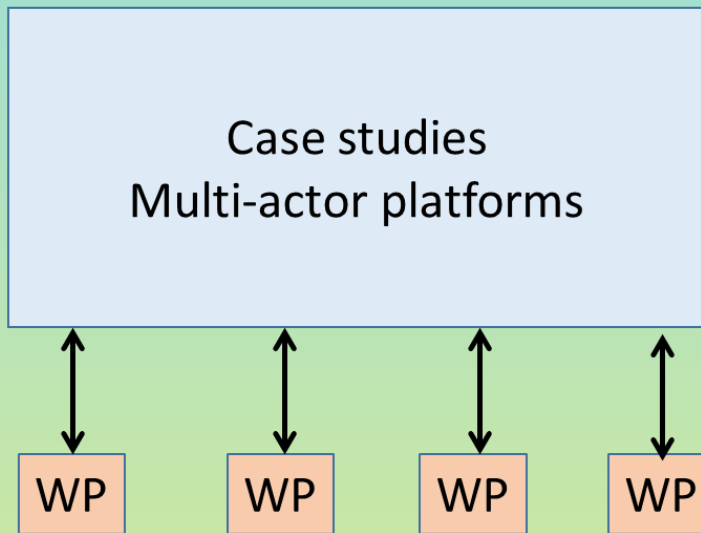
by identification and further development of innovative measures and governance approaches,

together with relevant local, regional and national actors.

# FAIRWAY case studies

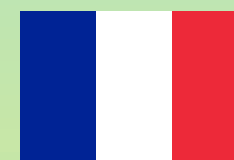
## WaterProtect Action labs



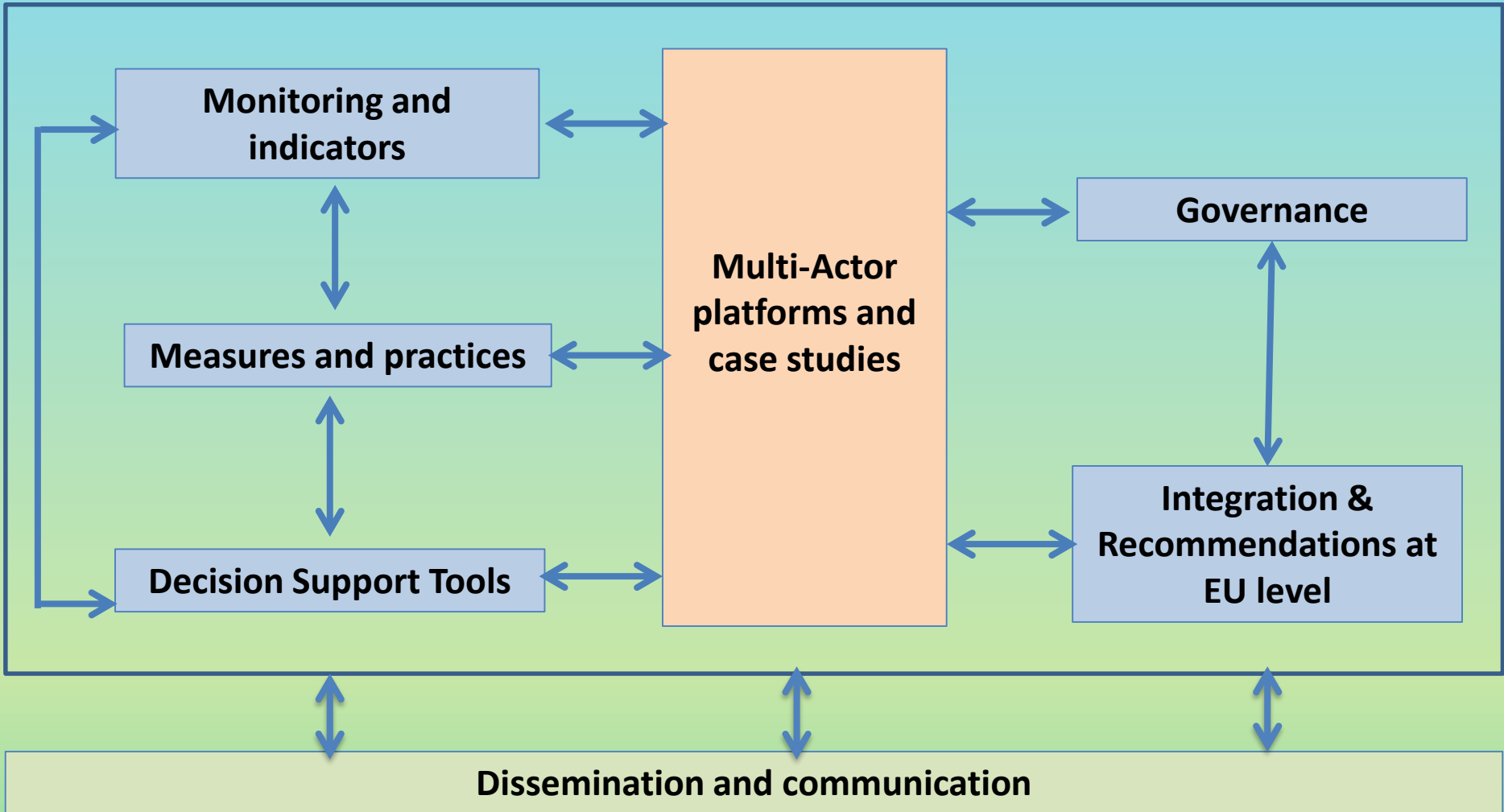


# FAIRWAY: 22 partners in 11 countries

Partner	Acronym	Country
Wageningen Research	WUR	NL
RoyalHaskoning-DHV	RHDHV	NL
Wageningen University	WU	NL
BRGM	BRGM	FR
Landbrug/SEGES	SEGES	DK
NIVA	NIVA	NO
Univerza v Ljubljani	UL	SI
Fondazione per lo Sviluppo Sostenibile del Mediterraneo	MEDES	IT
CLM	CLM	NL
Thünen Institute	Thuenen	DE
Coimbra Polytechnic Agri. School	IPC/ESAC	PT
University Lincoln	UoL	UK
ICPA	ICPA	RO
Aristotle University of Thessaloniki	AUTH	EL
Agri-Food & Biosciences Institute	AFBI	UK
Aarhus University	AU	DK
GEUS	GEUS	DK
RIVM	RIVM	NL
Kmetijsko gozdarski zavod Maribor	KGZ Maribor	SI
ADAS	ADAS	UK
LWK (Chamber of Agriculture)	LWK	DE
Scienceview Media B.V.	Scienceview	NL



# FAIRWAY





# 13 case studies in FAIRWAY

- 1 Island Tunø, Denmark
- 2 Aalborg, Denmark
- 3 Anglian Region, England
- 4 La Voulzie, France
- 5 Lower Saxony, Germany
- 6 Axios river, Greece
- 7 Derg catchment, Northern Ireland
- 8 Overijssel, Netherlands
- 9 Noord-Brabant, Netherlands
- 10 Vansjø, Norway
- 11 Baixo Mondego, Portugal
- 12 Arges-Videa, Romania
- 13 Dravsko Polje, Slovenia



# 13 case studies in FAIRWAY

- Sources of drinking water: groundwater and surface water
- Dry and wet areas in EU
- Different agricultural systems
- Large and small public supplies and private wells
- Nitrates, pesticides, and both
- Different challenges
- Well developed and less developed Multi Actor Platforms



# Multi-actor platforms

What is a multi-actor platform?

“a more-or-less ongoing mechanism in which actors meet regularly to foster exchange and promote joint decision making and collaboration in a continuously evolving way” (Acquaye-Baddoo et al. 2010).

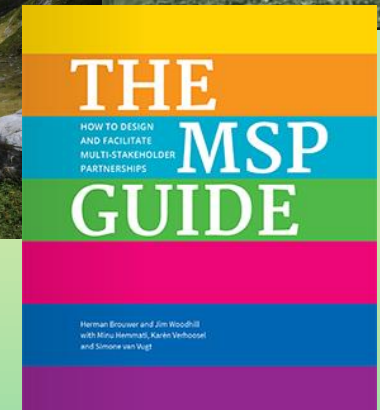
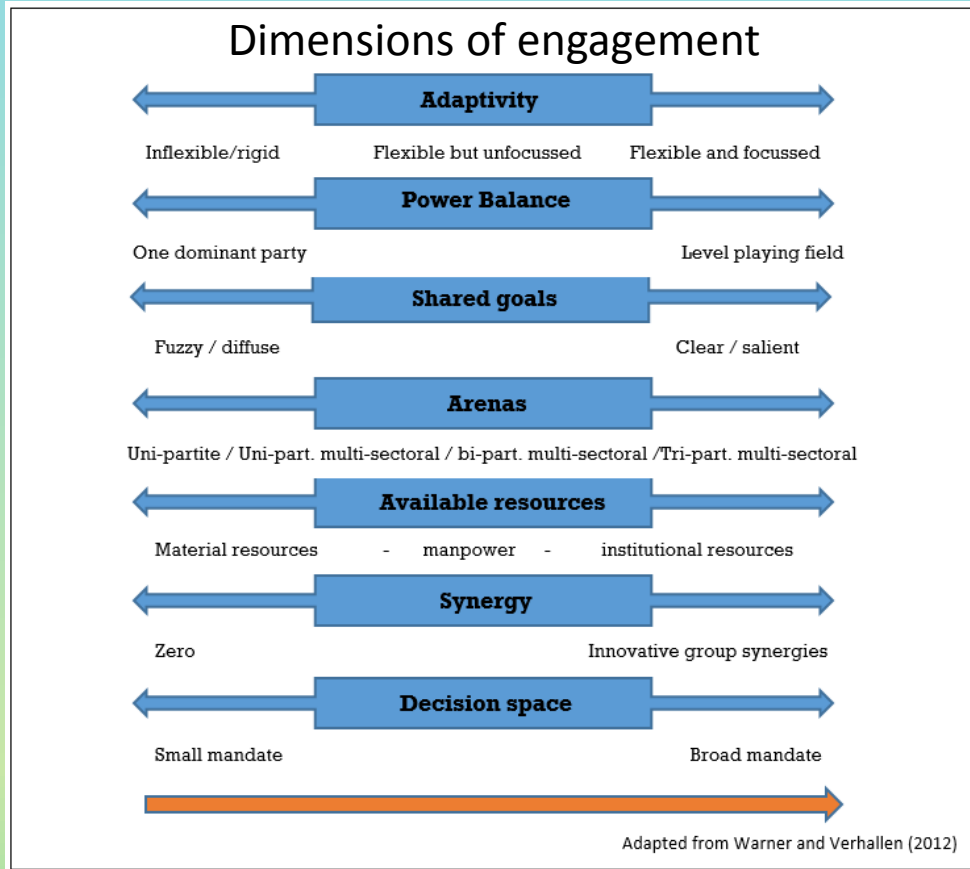
Actors:

- Farmers, Farmers' Association, Advisors, Chamber of agriculture
- Drinking water companies, River association
- Municipalities, Provinces, National level
- Civil society
- Academia/researcher
- Private sector
- Other....



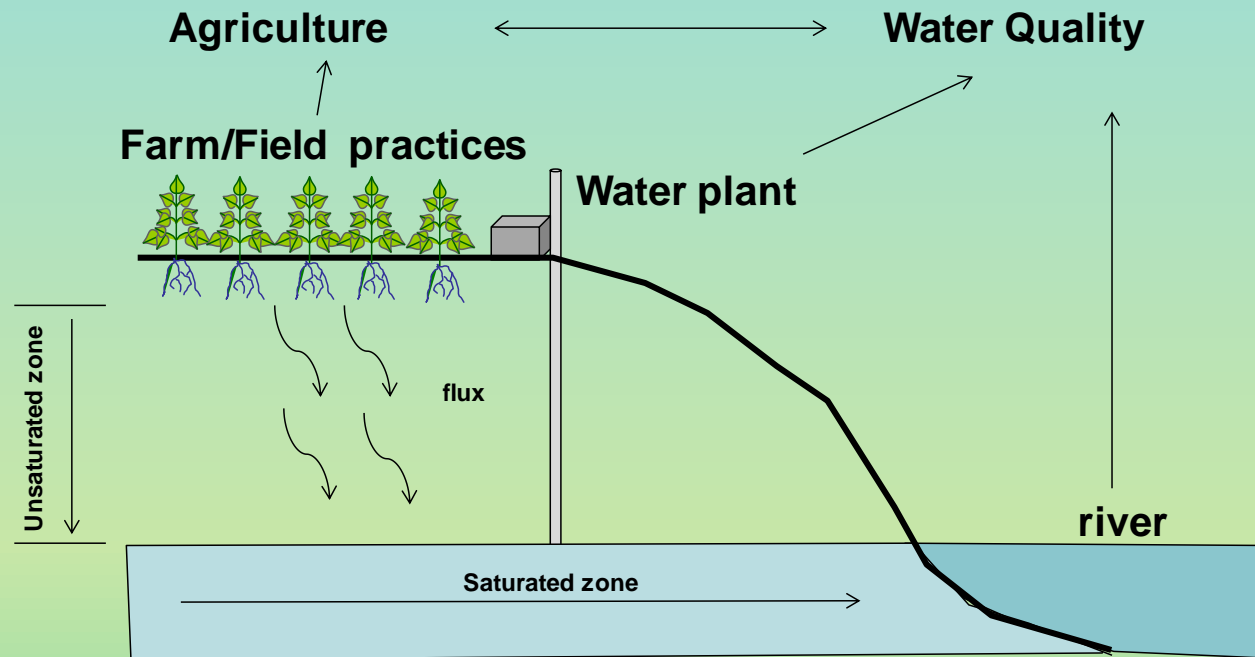
# Establishment of multi-actor platforms

## Stakeholder engagement plans

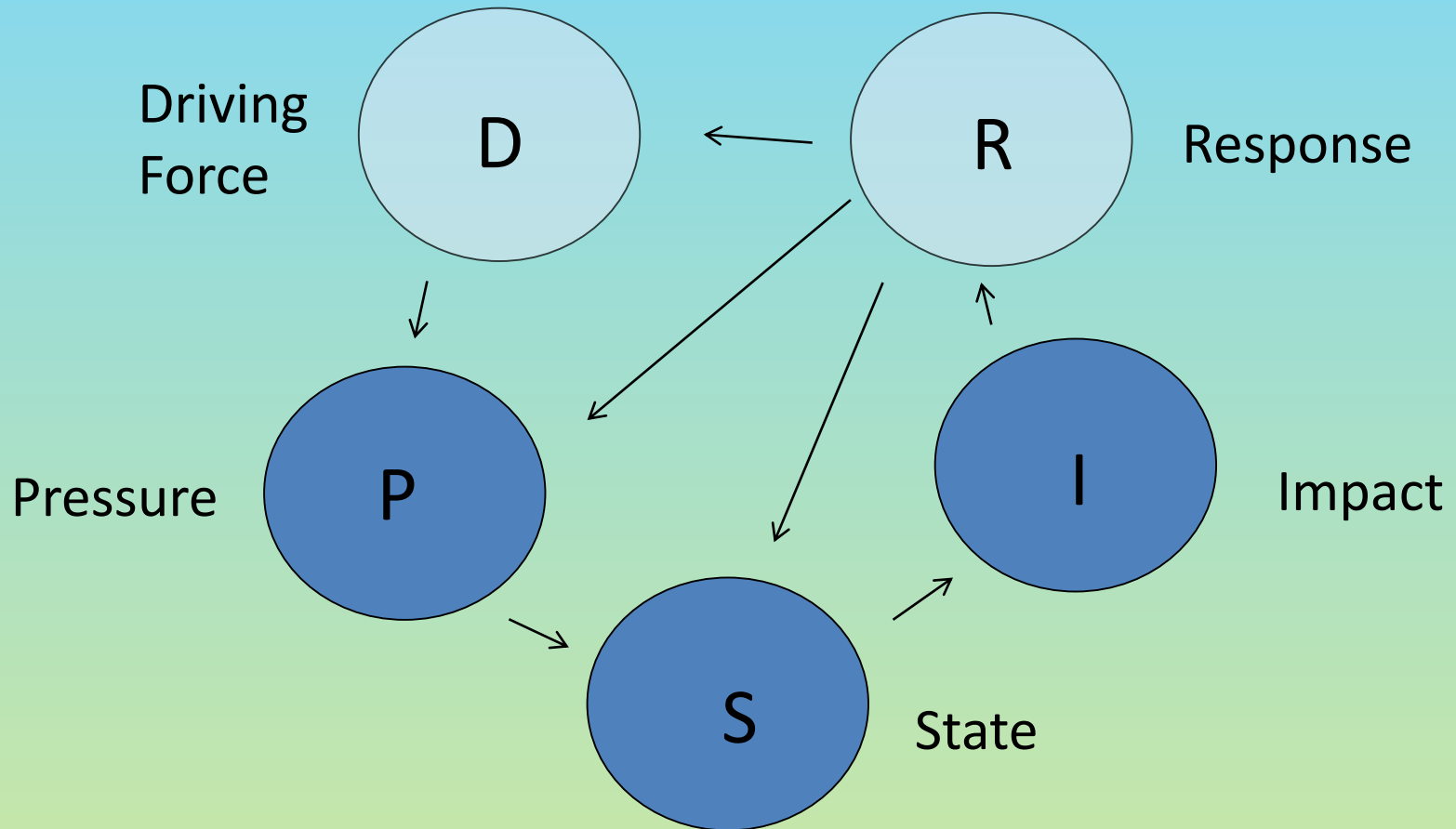


# Indicators

To identify, evaluate and further develop transparent agri-environmental indicators to monitor and assess the impact of measures and good practices on drinking water quality



# Indicators: the DPSIR model



DPSIR framework propose a chain of causal links starting with '*driving forces*' (e.g human activities) leading to political '*responses*' '*Pressures*' (emissions) '*states*' and '*impacts*' (on ecosystems or human health) will be studied

# Example. Results of review- State indicators for nitrate

study site	water source	Drinking water in collection point				Soil leaching
		annual ave.	max. conc.	freq.	time-series	
1. Tunø, DK	GW	Green	Green	Green	Green	Green
2. Aalborg, DK	GW	Green	Green	Green	Green	Green
3. Anglian region, UK	GW	Green	Green	Green	Red	Yellow
4. La Voulzie, FR	GW	Green	Green	Red	Green	Green
5. Lower Saxony, GE	GW	Green	Green	Green	Green	Yellow
6. Axios river, EL	SW/GW	Green	Green	Green	Green	Yellow
7. Dreg, N-IRL	SW	Red	Red	Red	Green	Red
8. Overijssel, NL	GW	Green	Green	Green	Green	Green
9. Noord Brabant, NL	GW	Green	Green	Green	Green	Red
10. Vansjø, N	SW	Green	Grey	Grey	Green	Green
11. Baixo Mondego, PT	SW/GW	Green	Green	Green	Green	Grey
12. Arges Videa, RO	GW	Green	Green	Green	Green	Green
13. Dravsko Polje, SL	GW	Green	Green	Green	Green	Green

■ Yes!   
 ■ No, I do not need it.   
 ■ No, I do not have data.   
 ■ No, I do not know it.

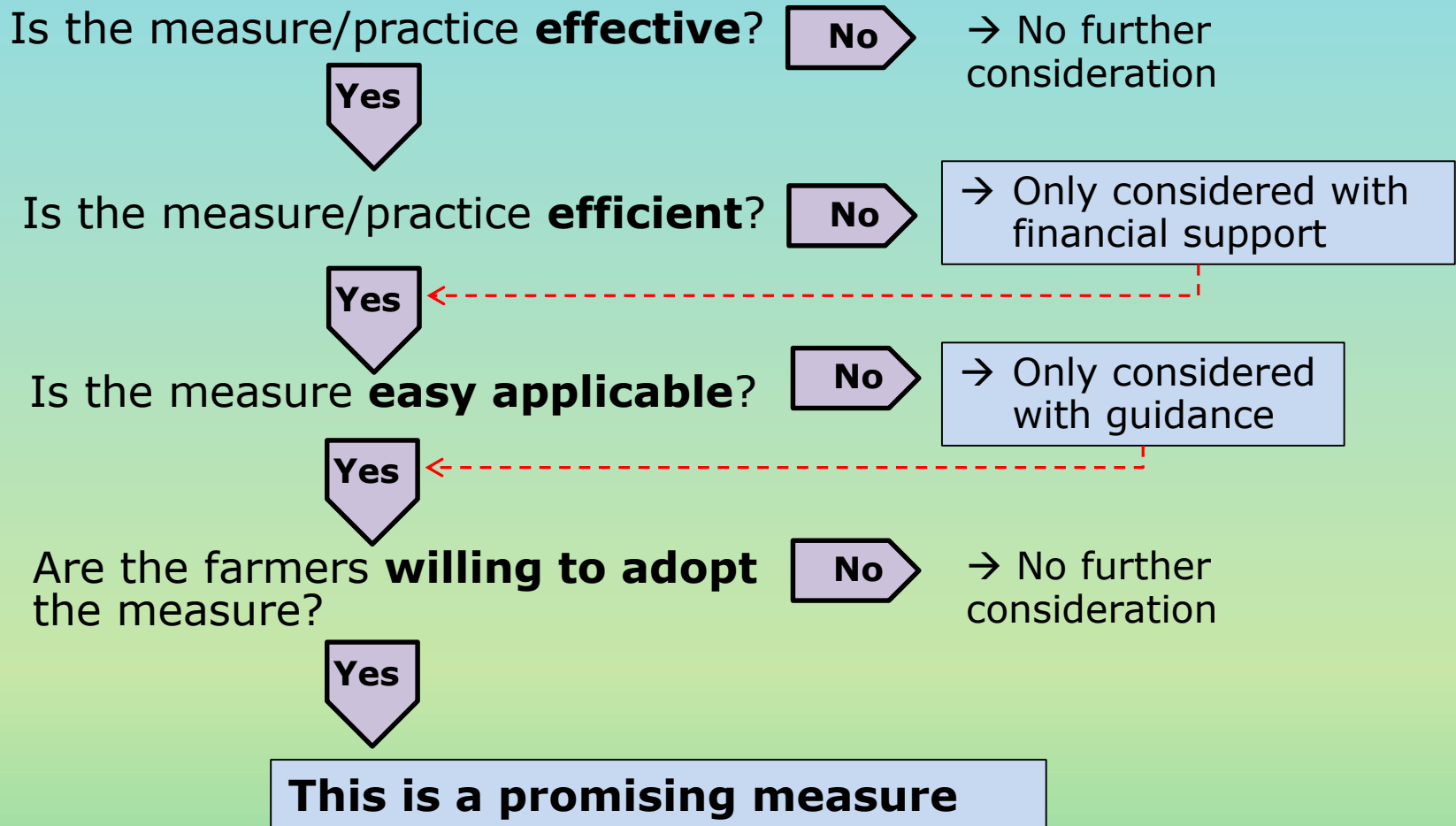
# Measures to decrease nitrate and pesticide pollution: key challenges

1. Many measures have been proposed/reviewed already;  
→ **go beyond the state-of-the art**
2. Many measures have been assessed rather qualitatively;  
→ **analyses quantitatively as much as possible**
3. Many measures are site-specific;  
→ **define/describe the mechanisms**
4. Many measures have not been implemented/tested in practice fully;  
→ **identify the limiting/critical factors for implementation**
5. Nitrate is nitrate, but pesticides are numerous and evolving;  
→ **consider also the emerging pesticides**





# Measures and best practices: outline of analytical framework



# Decision support tools

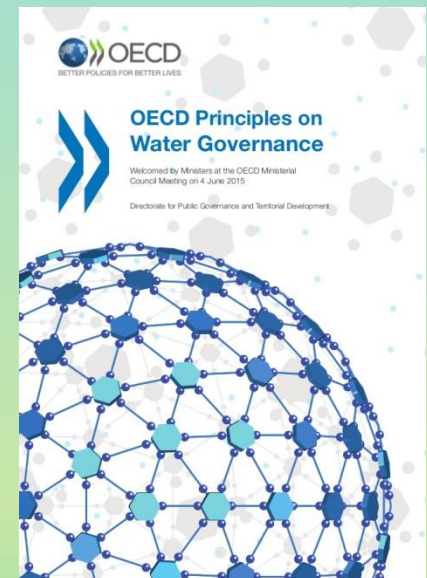
Evaluation of decision support tools and to what extent they have reached the target to secure both water quality and farmers income

- Selection and evaluation of decision support tools
- Literature study
- Criteria for selection most promising support tools
  - Case studies
  - Multi-actor platforms
  - Agriculture together with water managers – different perspectives
- Beyond borders – application of tools in different national/local contexts



# Governance

- Analysis of coherence and consistencies of EU and national policies related to water quality
- Assessment of governance arrangements in case studies
- Identify lacks and legal spill over effects
- Cost-efficient and coherent management models
- Develop legitimate governance arrangements



# EU Directives with link to water quality

- Water Framework Directive
- Drinking water Directive
- Nitrates Directive
- Groundwater Directive
- Pesticides Directive
- Habitats Directive
- Environmental Impact Assessment (EIA) Directive
- Industrial Emissions Directive
- Rural Development Program
- Common Agricultural Policy



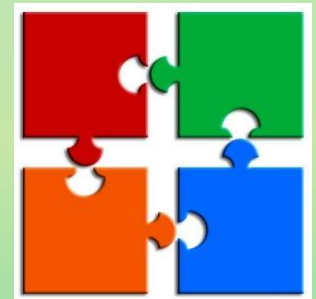
# Integration and EU recommendations

To document/implement an integrated scientific support for relevant EU-policies related to drinking water quality

Integrated assessments and recommendations of most promising measures, policies and tools at national and EU level

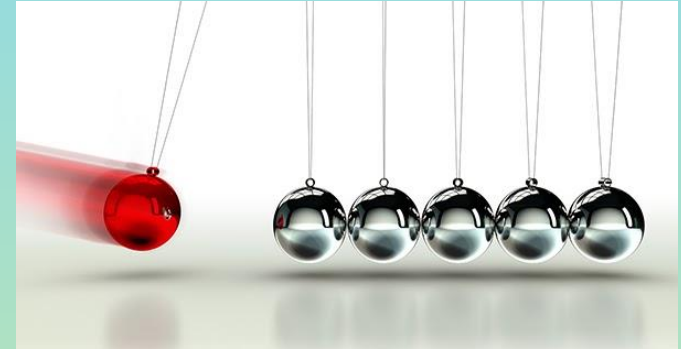
Workshop this afternoon:

- Evaluation of the barriers/issues around providing integrated scientific support for EU policy



# Impacts of FAIRWAY

- Innovative and effective measures, practices and indicators
- Easy-to-use tools
  - farm management
  - monitoring by farmers and citizens
- Improved governance approaches for drinking water protection
- Improved science-policy interface



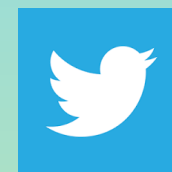
Based on scientific reviews and the experiences in the case studies and actors in the Multi-Actor Platforms

# Dissemination and communication

Development of the FAIRWAY Plan for the Exploitation and Dissemination of Results (PEDR)



Development of methods of knowledge transfer and dissemination

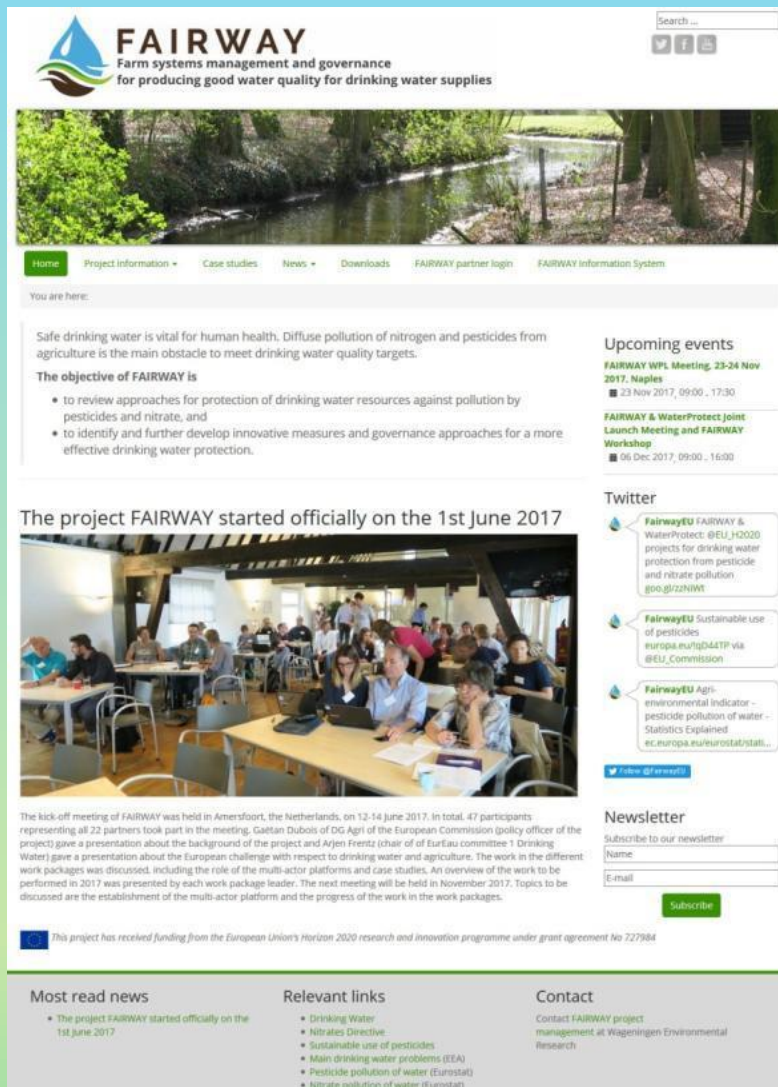


[www.fairway-project.eu](http://www.fairway-project.eu) – website dedicated to the dissemination of project information



FAIRWAY – visual impact





The screenshot shows the FAIRWAY website homepage. At the top left is the FAIRWAY logo with the tagline "Farm systems management and governance for producing good water quality for drinking water supplies". A search bar and social media icons are in the top right. Below the header is a large image of a stream. A navigation menu includes Home, Project information, Case studies, News, Downloads, FAIRWAY partner login, and FAIRWAY Information System. The main content area features a "You are here:" breadcrumb, a paragraph about drinking water quality, and a section titled "The objective of FAIRWAY is" with two bullet points. To the right, there are "Upcoming events" for a meeting in Naples and a joint launch meeting in Brussels. Below that is a "Twitter" section with three tweets. A "Newsletter" sign-up form is also present. At the bottom, there are sections for "Most read news", "Relevant links", and "Contact".

**FAIRWAY**  
Farm systems management and governance  
for producing good water quality for drinking water supplies

Search ...

Home Project information Case studies News Downloads FAIRWAY partner login FAIRWAY Information System

You are here:

Safe drinking water is vital for human health. Diffuse pollution of nitrogen and pesticides from agriculture is the main obstacle to meet drinking water quality targets.

**The objective of FAIRWAY is**

- to review approaches for protection of drinking water resources against pollution by pesticides and nitrate, and
- to identify and further develop innovative measures and governance approaches for a more effective drinking water protection.

**Upcoming events**

**FAIRWAY WPL Meeting, 23-24 Nov 2017, Naples**  
■ 23 Nov 2017, 09:00 - 17:30

**FAIRWAY & WaterProtect joint Launch Meeting and FAIRWAY Workshop**  
■ 06 Dec 2017, 09:00 - 16:00

**The project FAIRWAY started officially on the 1st June 2017**

The kick-off meeting of FAIRWAY was held in Amersfoort, the Netherlands, on 12-14 June 2017. In total, 47 participants representing all 22 partners took part in the meeting. Gaetan Dubois of DG Agri of the European Commission (policy officer of the project) gave a presentation about the background of the project and Arjen Frensz (chair of EurEau committee 1 Drinking Water) gave a presentation about the European challenge with respect to drinking water and agriculture. The work in the different work packages was discussed, including the role of the multi-actor platforms and case studies. An overview of the work to be performed in 2017 was presented by each work package leader. The next meeting will be held in November 2017. Topics to be discussed are the establishment of the multi-actor platform and the progress of the work in the work packages.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727984

**Most read news**

- The project FAIRWAY started officially on the 1st June 2017

**Relevant links**

- Drinking Water
- Nitrates Directive
- Sustainable use of pesticides
- Main drinking water problems (EEA)
- Pesticide pollution of water (Eurostat)
- Nitrate pollution of water (Eurostat)

**Contact**

Contact FAIRWAY project management at Wageningen Environmental Research

Name

Email

Subscribe

- Essential information about the project, partners, work packages, study sites
- News, newsletter, events
- Documents, project leaflet, press releases, scientific publications
- Subscribe to the FAIRWAY newsletter on the website



# Thank you!

