Achieving impact in research:

Examples from MARS and other EU-funded projects

Daniel Hering
University of Duisburg-Essen

Contents

- A short project outline
- More (and less) successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public
- Conclusions

Contents

- A short project outline

- More (and less) successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public

- Conclusions

The MARS project

- FP7 project:
  Managing **A**quatic ecosystems and water **R**esources under multiple **S**tress
- February 2014 – January 2018
- Funding: 9 Mio Euro
- 24 partners

MARS PROJECT

Main questions

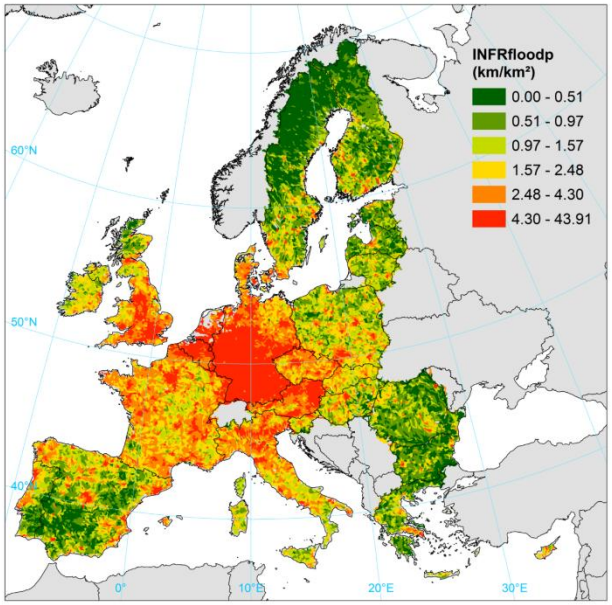
- How do stressors interact in affecting status and services of European water bodies?
- Despite the multitude of stressors, is there a common ground for restoration activities?
- How can the outcome of measures be predicted?

Experimental facilities

MARS catchments

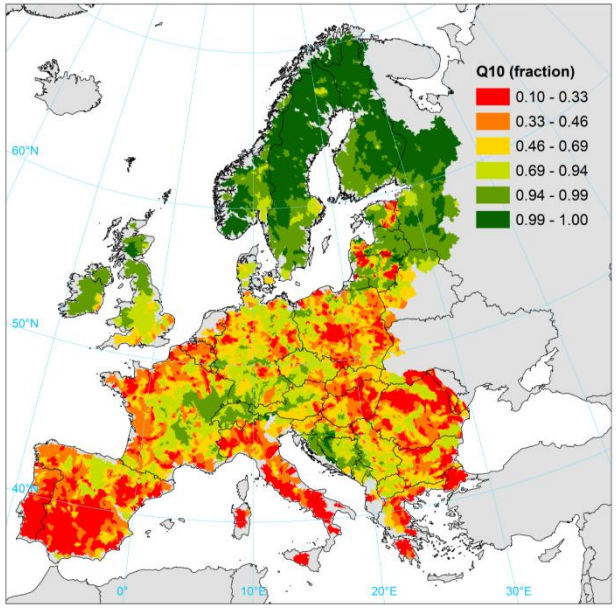
Multi-pressure–response relationships of EU rivers

Morphology



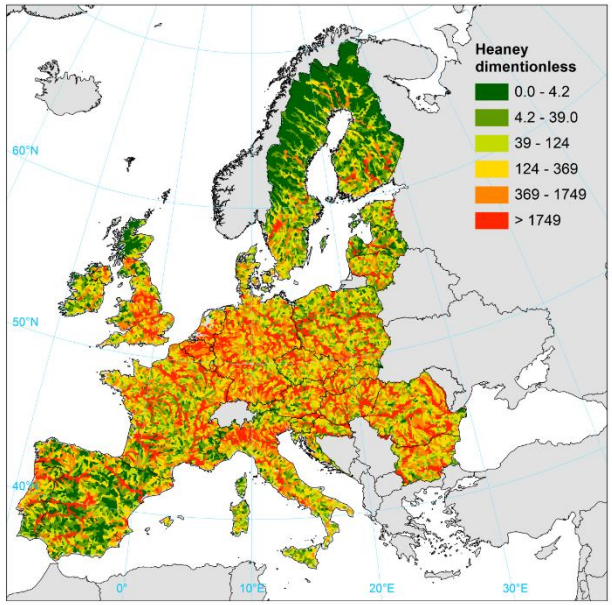
INERfloodp (km/km^2) =
Density of infrastructure
(roads and railways)
in the floodplains (km/km^2)

Hydrology



Q10 fraction =
Ratio between the number of days
the water flow is below the 10%-ile
with and without water abstractions (fraction)

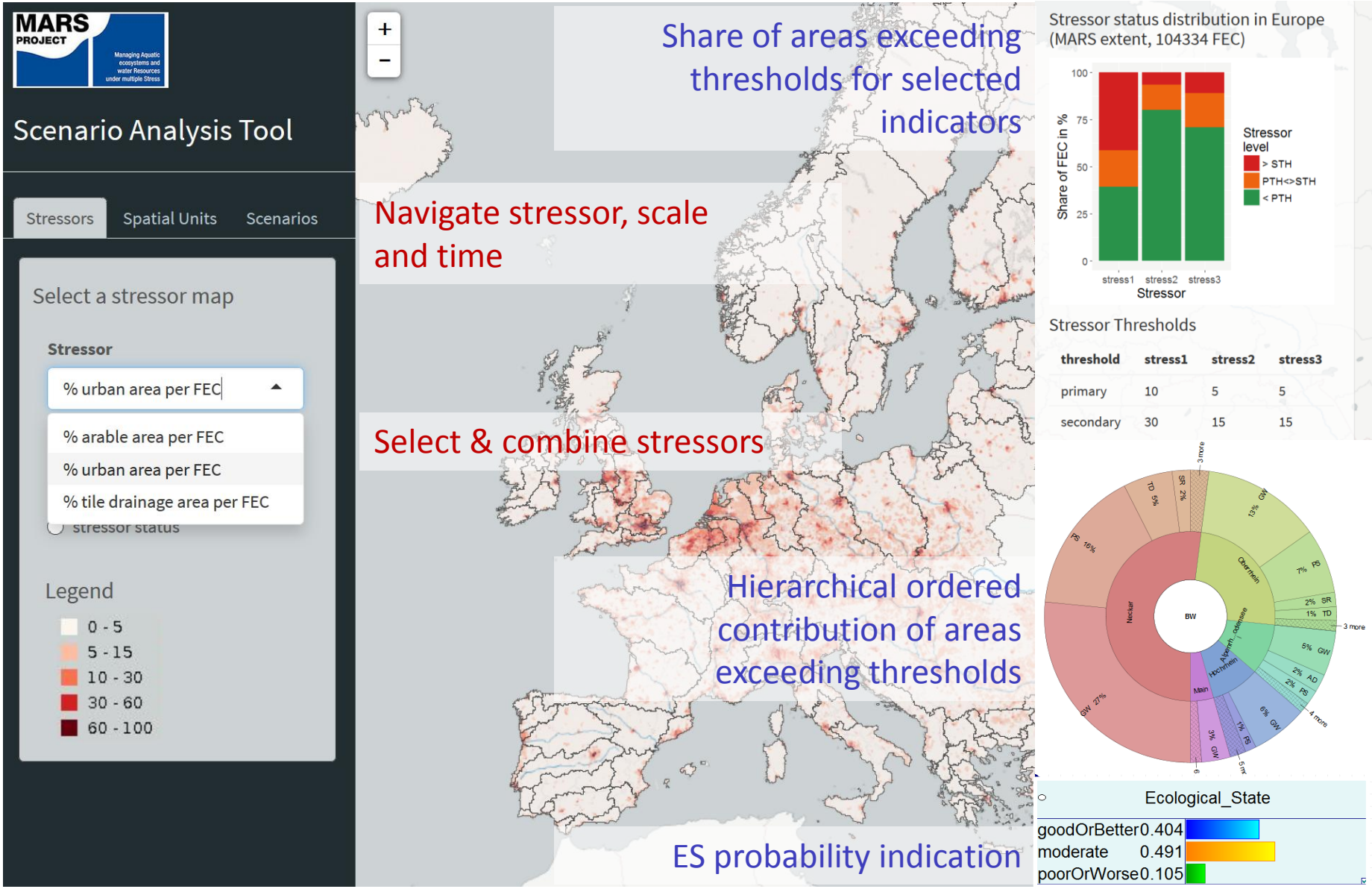
Pollution



Heaney dimensionless =
Relative intensity of the potential
pollution load from urban runoff
(dimensionless), estimated by the
Heaney model

Grizzetti B., et al. 2017.Scientific Rep

Preview of *Scenario Analysis Tool* user interface



Contents

- A short project outline
- More and less successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public
- Conclusions

How to address the scientific community?

- Scientific papers
  - Regular papers
  - Special issues
  - Summary papers at the end of a project
- Conference presentations
  - Regular presentations on conferences
  - Special sessions
  - Conference(s) organised by the project

How to measure success?

- Scientific papers — number, IF, citations
  - Regular papers
  - Special issues
  - Summary papers at the end of a project
- Conference presentations — number, audience
  - Regular presentations on conferences
  - Special sessions
  - Conference(s) organised by the project

MARS as an example

• Scientific papers	number, IF, citations
– Regular papers	> 180
– Special issues	2 (more to come)
– Summary papers at the end of a project	several to come
• Conference presentations	number, audience
– Regular presentations on conferences	> 50
– Special sessions	3
– Conference(s) organised by the project	2

Contents

- A short project outline
- More (and less) successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public
- Conclusions

MARS publications

	Already published	Drafted and planned
Number	>180	~ 100
Pages	~ 1,500	

MARS publications and deliverables

	Already published	Drafted and planned
Number	>180	~ 100
Pages	~ 1,500	

Number	13
Pages	> 2,500

Only useful for scientists

Ways to address “water managers”

- Key messages
- Tools and training sessions
- Online databases
- Guidance papers
- Workshops, targeted conferences

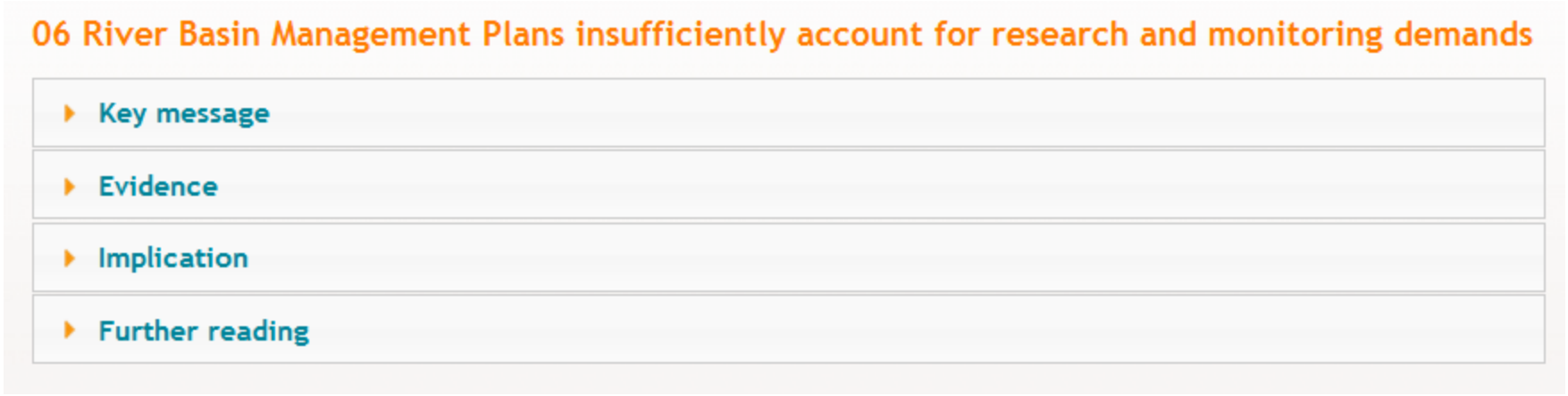
How to measure success?

- Key messages
- Tools and training sessions
- Online databases
- Guidance papers
- Workshops, targeted conferences

1. National implementation
2. Downloads, feedback, hits, conference attendance

Key messages on www.wiser.eu

- Simple presentation of complex results



Online databases with open access

www.freshwaterecology.info

The Taxa and Autecology Database for Freshwater Organisms

Search - Phytoplankton

Taxagroup

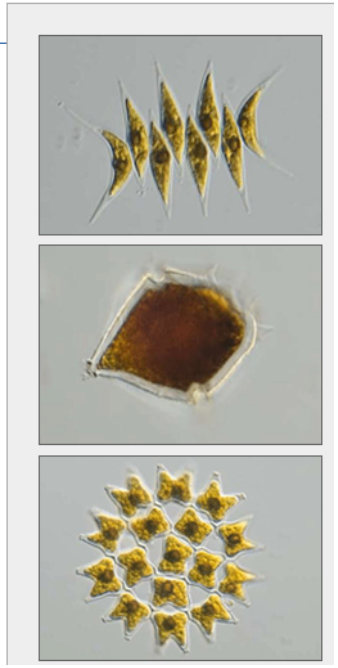
Taxalist according to REBECCA/WISER projects. For correct citation see Terms of use (citation).

Bacillariophyceae	Bacteria	Bicosoecidea
Bicosoecophyceae	Bodonophyceae	Chlorophyceae
Choanoflagellata	Chrysophyceae	Conjugatophyceae
Cryptophyceae	Cyanophyceae	Dictyochophyceae
Dinophyceae	Ebriophyceae	Euglenophyceae
Eustigmatophyceae	Heterotrophic plankton	Imbricatea
Klebsormidiophyceae	Microsporidia	Oomycetes
Pedinophyceae	Phytoplankton	Picoplankton
Prasinophyceae	Protozoa	Prymnesiophyceae
Raphidophyceae	Trebouxiophyceae	Ulvophyceae
Xanthophyceae	[Chlorophyta]	

Select all Deselect all

Search

Advanced search



MARS PROJECT

Tools

- Most tools produced in scientific projects are never being used

- Reasons are:
  - There is not really a demand
  - Users have not been involved from the very beginning
  - The tools are not maintained after the project's end

  - Language
  - Complexity
  - Tradition
  - Workload

Tools

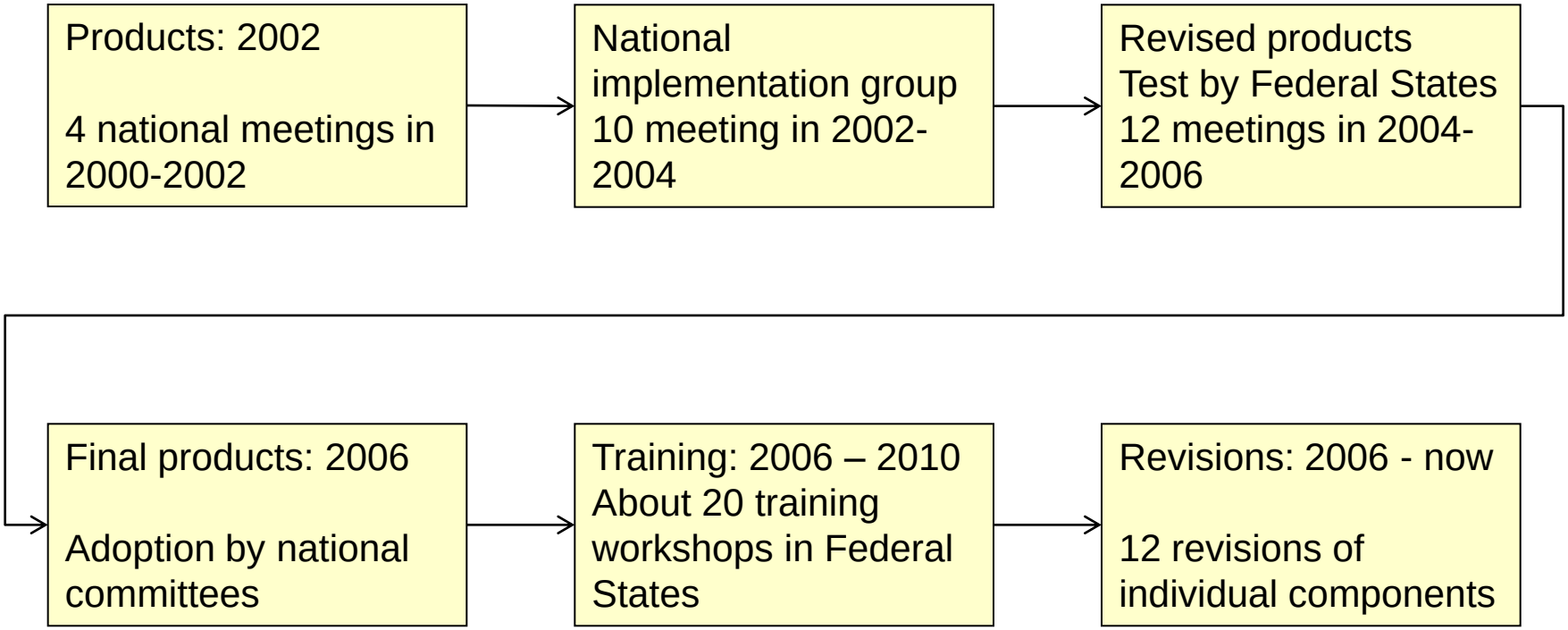
- A long and intense implementation phase is needed (before, within and after the project)

- Harmonisation of “supply” and “demand”

Successful tool example

- Project: AQEM
- Project period: 2000-2002
- Topic: River assessment with benthic invertebrates
- Results: Full assessment method covering field methods, lab methods, calculation, software…

Successful tool example



National implementation

- Adoption of product:
  - 4 years
  - 3 national projects
  - 26 meetings

- Maintenance of product:
  - Continuous
  - 20 training workshops
  - 12 revisions
  - 6 national projects

Contents

- A short project outline
- More (and less) successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public
- Conclusions

How to address “policy makers”?

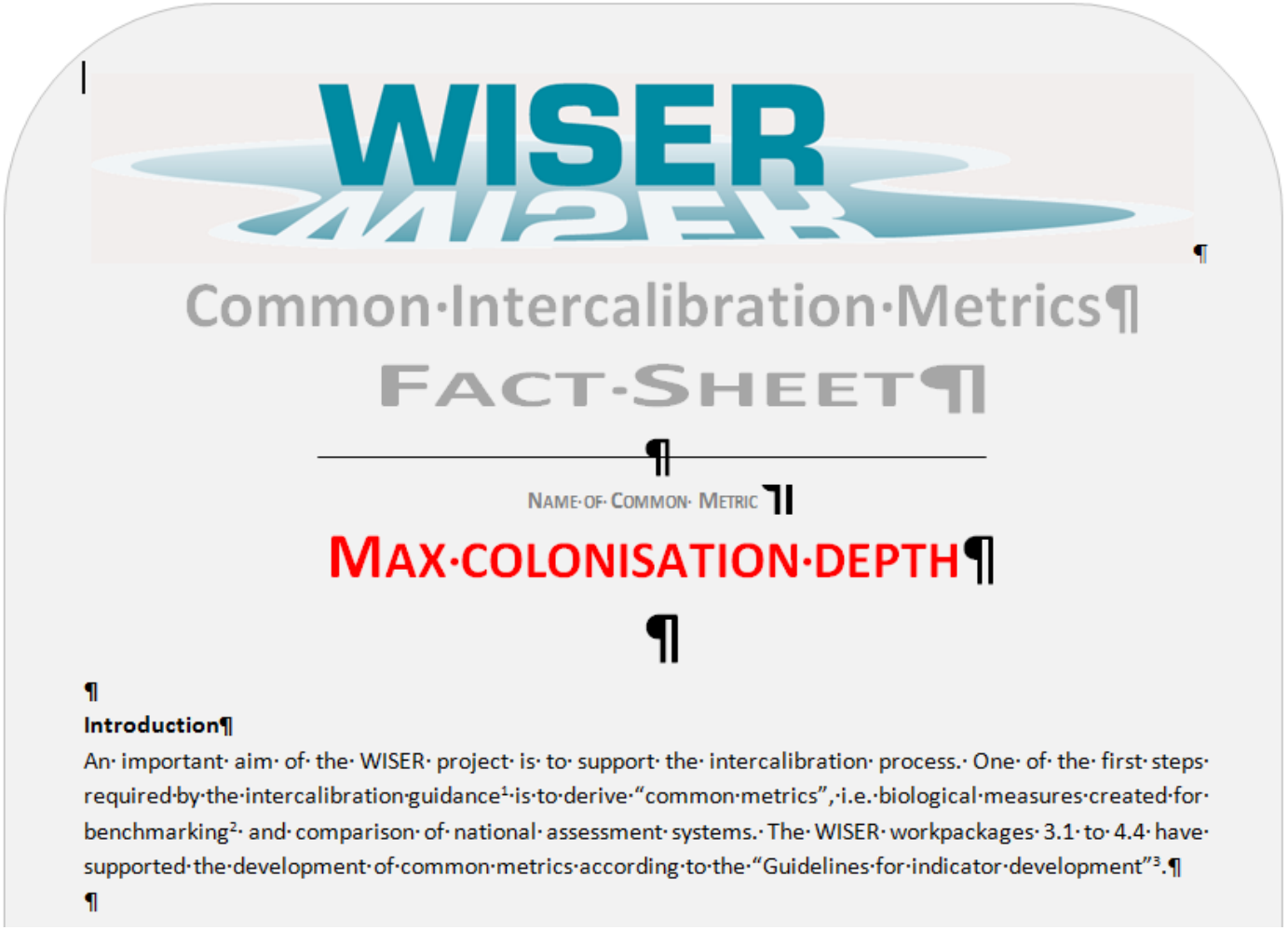
- Key messages
- Policy briefs
- Online databases
- Workshops, targeted conferences

How to measure success?

- Key messages
- Policy briefs
- Online databases
- Workshops, targeted conferences

1. Improving existing policies, inspiring new policies
2. Downloads, feedback, hits, conference attendance

Common metric fact sheets from WISER



WISER

Common·Intercalibration·Metrics¶

FACT-SHEET¶

NAME·OF·COMMON·METRIC¶

MAX·COLONISATION·DEPTH¶

Introduction¶

An· important· aim· of· the· WISER· project· is· to· support· the· intercalibration· process.· One· of· the· first· steps· required·by·the·intercalibration·guidance[1]·is·to·derive·"common·metrics",·i.e.·biological·measures·created·for· benchmarking[2]· and· comparison· of· national· assessment· systems.· The· WISER· workpackages· 3.1· to· 4.4· have· supported·the·development·of·common·metrics·according·to·the·"Guidelines·for·indicator·development"[3].¶

Policy briefs on www.freshwaterplatform.eu

AQUACROSS PROJECT
POLICY BRIEF 01

Managing aquatic biodiversity: from local to global – an EU perspective

ALTER-NET
POLICY BRIEF 01

Pursuing benefits for nature and society

BIOFRESH PROJECT
POLICY BRIEF 01

Raising the profile of freshwater biodiversity

BIOFRESH PROJECT
POLICY BRIEF 02

Mismatch between protected areas and freshwater biodiversity

Conferences

- MARS e-conference on the Water Framework Directive revision
- 19th to 21st September
- Registration details on www.freshwaterblog.eu

Contents

- A short project outline
- More (and less) successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public
- Conclusions

How to address the wider public?

- Blog
- Press releases

How to measure success?

- Blog — hits, visitors, re-tweets
- Press releases — number of articles…

But what do we want to achieve in the general public?

There are much more effective ways to raise awareness of nature, ecology and the environment.

The freshwater blog

Contents

- A short project outline
- More (and less) successful attempts to address
  - Scientific community
  - “Water managers”
  - “Policy makers”
  - Wider public
- Conclusions

Uptake of project results can be successful if…

- …there is a demand
- …users are known
- …involved
- …addressed through suited pathways and languages
- …in great intensity

MARS PROJECT

Tools can be successful if…

…defined in joint responsibilities of project and users

…implementation phase (after the project) is long and intense

…products are being maintained

General recommendations

- Focus on few user groups and pathways, and address them intensively

- Joint forces with other projects, e.g. through the Freshwater Information Platform