



Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

Governance of water management in Finland

Antton Keto
Ministerial Adviser
Ministry of the Environment

Heikki Mäkinen
CEO
Lake Vesijärvi Foundation

Europe INBO 2019
17-20 June 2019

Content

- Water resources in Finland
- History of water protection
- Finnish water administration
- From governing to governance
- Implementing governance principles in practice
 - International Water Strategy
 - State level
 - WFD national platform from communicative planning perspective
 - The Finnish Watercourse Restoration Network
 - Basin level
 - Description of relevant actors at basin level

The land of waters

187 888 lakes
(total area 33 350 km²)

314 000 km of shoreline

178 947 islands

22 085 springs

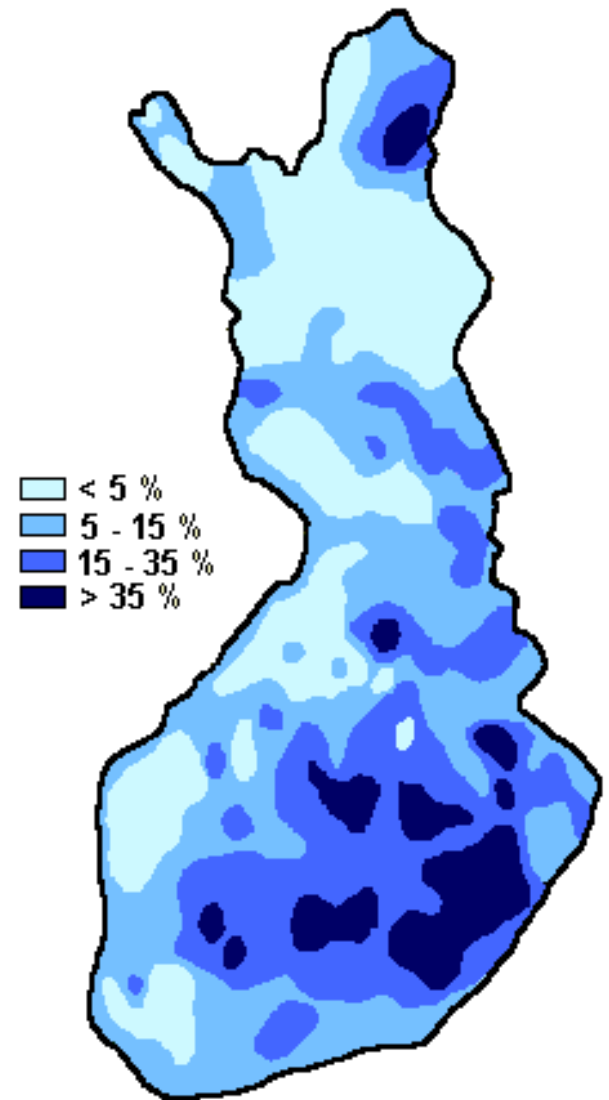
647 rivers

Freshwater reserves:

108 000 Mm³/a

21 000 m³/a capita

57 000 liter/d/person



Proportion of water in the area

Groundwater

Total number of classified groundwater areas: **3 900**
Total water yield: **5.8 Mm³/day**

The ground water quality in the aquifers is rank among the best in the world

Practical measures to protect the groundwater resources are designed in groundwater protection plans, drafted by the local authorities in co-operation with the local waterworks and other stakeholders.



Drinking Water

Approximately 90 percent of the Finnish population were served by municipal waterworks

- Near 60 % percent of the served water is groundwater

Over 300 000 inhabitants in sparsely populated areas in Finland live outside the public waterworks, using mainly ground water from private wells.



Wastewater treatment

Wastewater treatment in urban areas account for 80 percent of the population

- All urban and industrial wastewater is treated
- 95 percent reduction of organic matter,
- 95 percent reduction of phosphorus,
- 55 percent reduction of nitrogen

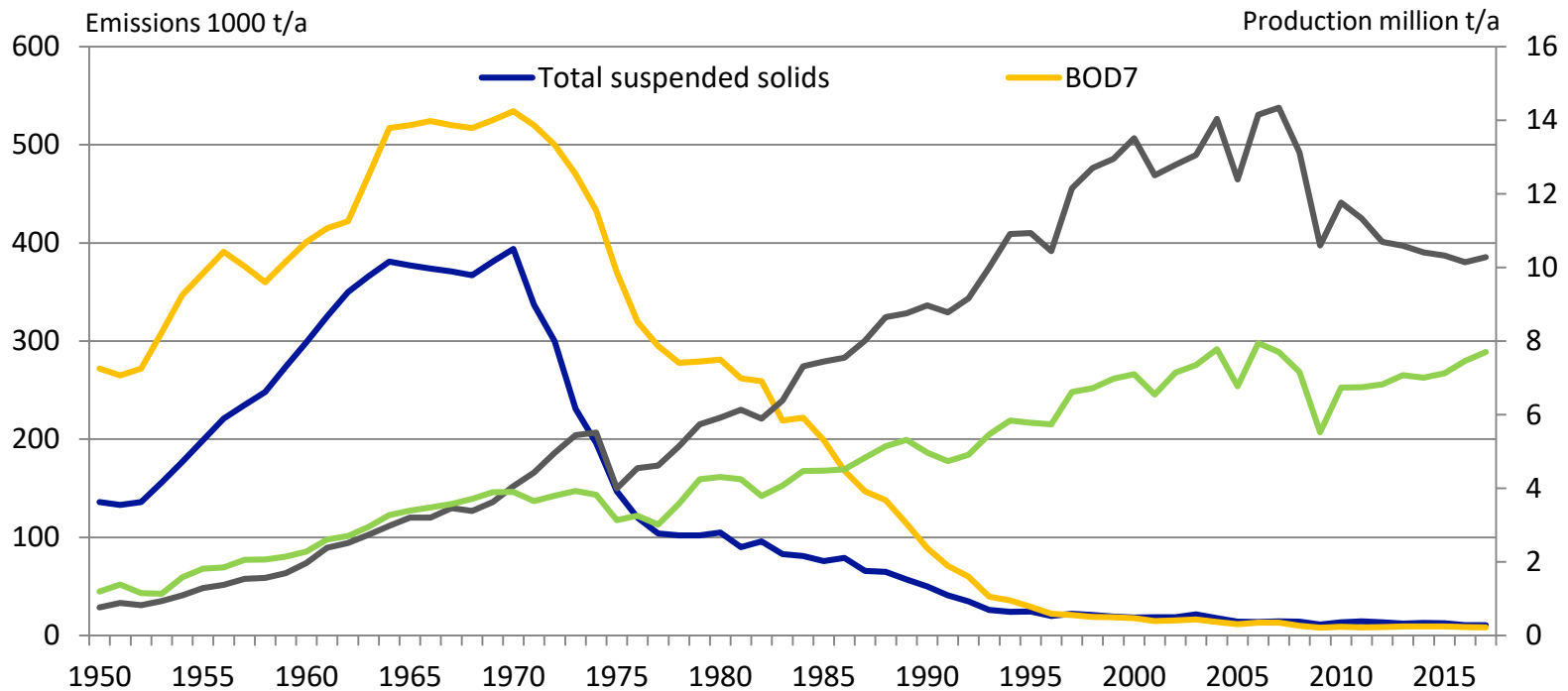
Legislation (2017) sets minimum standards for the treatment of wastewater from households outside sewerage networks in sensitive areas



Short history of water protection in Finland

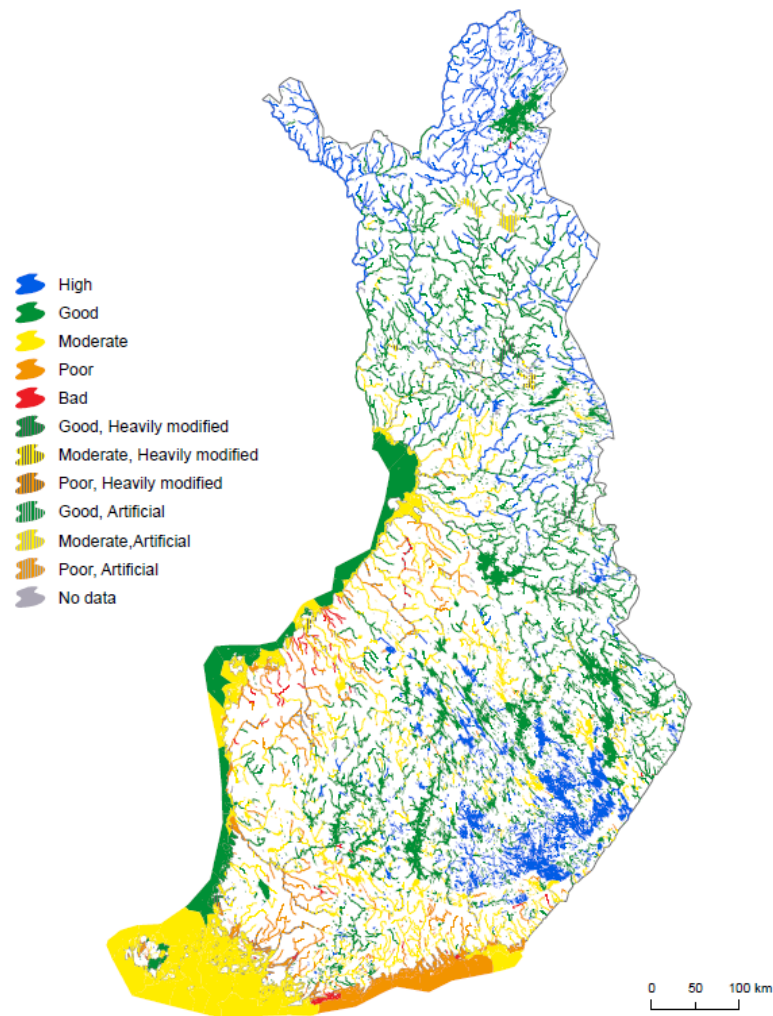
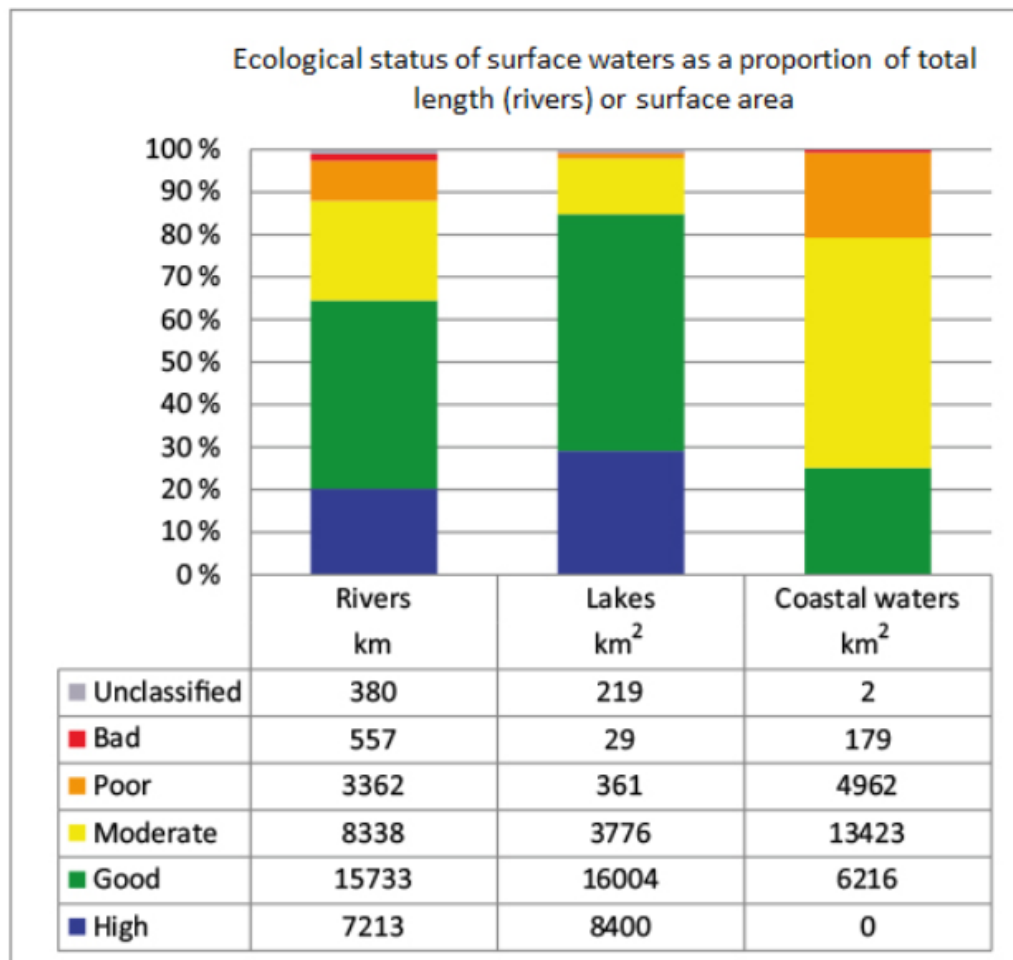
- Efficient treatment of industrial and municipal waste waters started in 1970`s
- Integrated water resources management plans in the 1970`s and 1980`s
- Ministry of Environment was established in the 1980`s
- Four national Water Protection Programmes since 1974, the latest adopted in 2006
- In the 21st century, EU directives have provide framework for the water pollution prevention and management: Water Framework, Marine Strategy Framework, Nitrate, Groundwater, EQS, Urban Waste Water etc.
- River Basin Management Plans covering all surface and groundwater areas

Production of the pulp and paper industry in Finland and waste water load



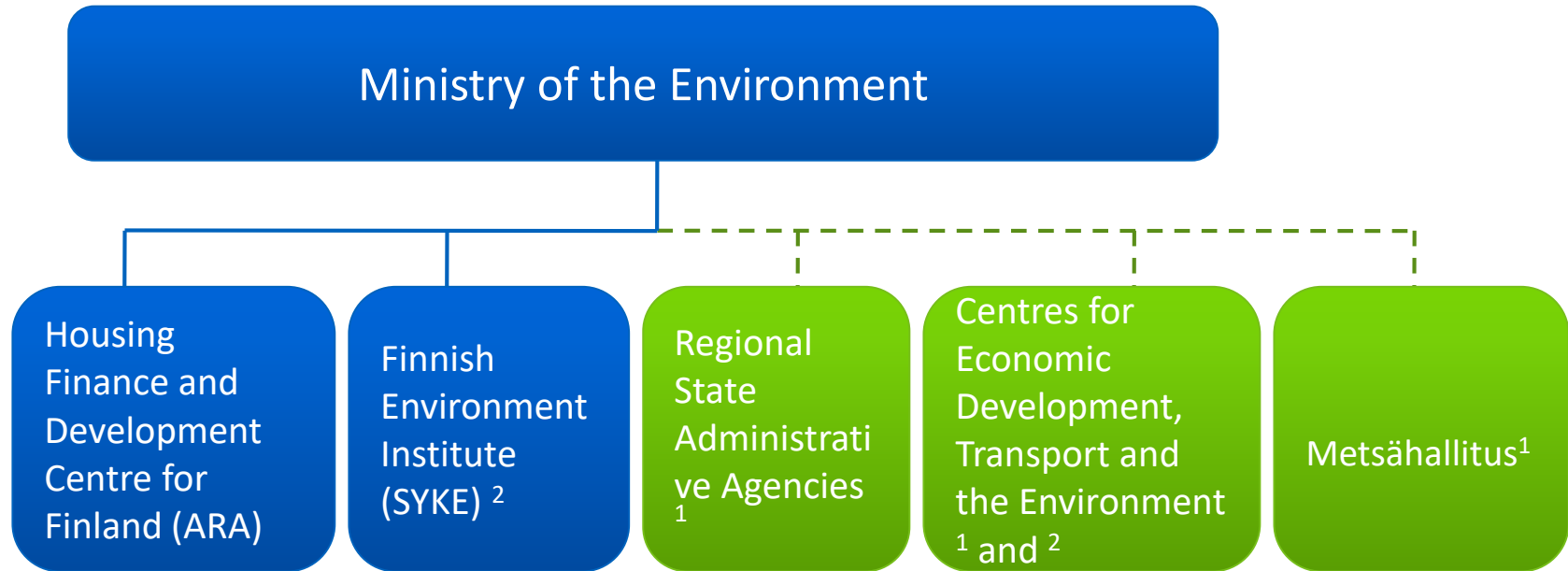
Ecological status of freshwaters in Finland

Ecological status of surface waters 2015



Classification is based on data from years 2006-2012.
© SYKE, Luke, ELY-centres, Ålands landskapsregering, MML

Finland's environmental administration



1) The Ministry of the Environment guides the work related to environmental issues of the Regional State Administrative Agencies and the Centres for Economic Development, Transport and the Environment. Additionally, the Ministry guides the nature conservation work of the Natural Heritage Services Unit for Metsähallitus.

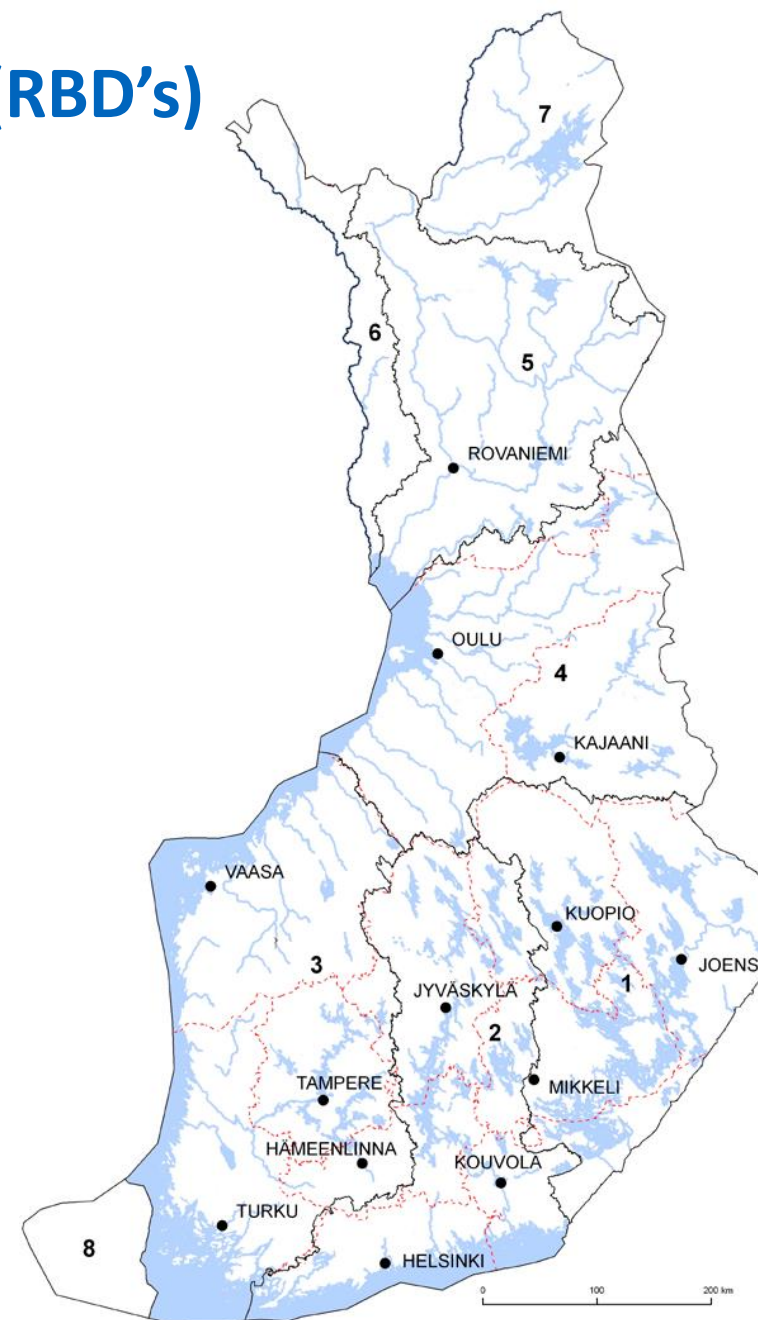
2) The Ministry of Agriculture and Forestry is responsible for the work related to water resource management of the Finnish Environment Institute and the Centres for Economic Development Transport and the Environment.

Finland's eight river basin districts (RBD's)

1. Vuoksi RBD
2. Kymijoki-Gulf of Finland RBD
3. Kokemäenjoki-Archipelago Sea-Bothnian Sea RBD
4. Oulujoki-Iijoki RBD
5. Kemijoki RBD

Two international river basin districts (IRBD) have also been designated covering parts of Finland:

6. Tornionjoki IRBD (shared with Sweden)
7. Teno, Näätämöjoki and Paatsjoki IRBD (shared with Norway)
8. A separate RBD has been defined to cover the autonomous Åland Islands, where the WFD is being implemented by the provincial government.



Finnish Legislation

Environmental Protection Act 2014

Water pollution

- UWWT
- Industry
- Peat production
- Agriculture etc.

Specific Acts or degrees on

- River basin management plans
- Marine protection
- Flood risk management plans
- Water services
- Discharge of nitrates
- Waste water on rural areas

Water Act 2011

Use of water resources

- Water abstraction
- Water regulation
- Hydropower
- Water related construction etc.

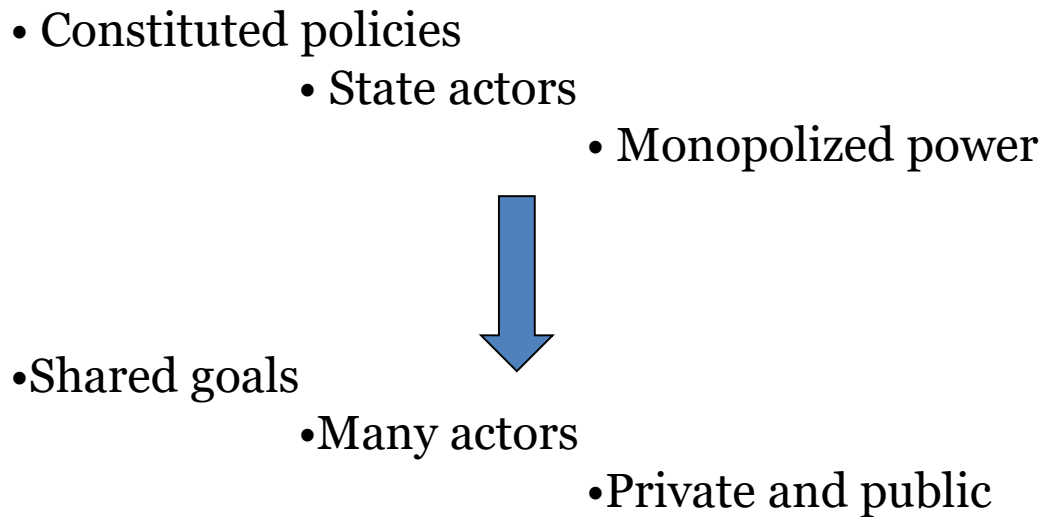
From Governing to Governance

Governance has many meanings

- Good governance/ La bonne gouvernance
- Global governance
- Corporative governance
- Governance/ New public management
- **Societal governance**

(Pierre 2000)

Societal governance



Finnish tradition to work together voluntarily



Implementing Governance principles into practice

International level



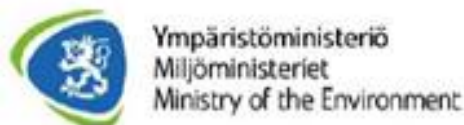
FINNISH WATER WAY



INTERNATIONAL WATER STRATEGY FINLAND

Collaborative approach

- *Finnish Water Way* is a multi-stakeholder approach toward sustainable water management
 - Cross-sectoral collaboration on water issues between ministries, research institutes and civil society
- Strategy signed by 6 ministers representing 5 ministries



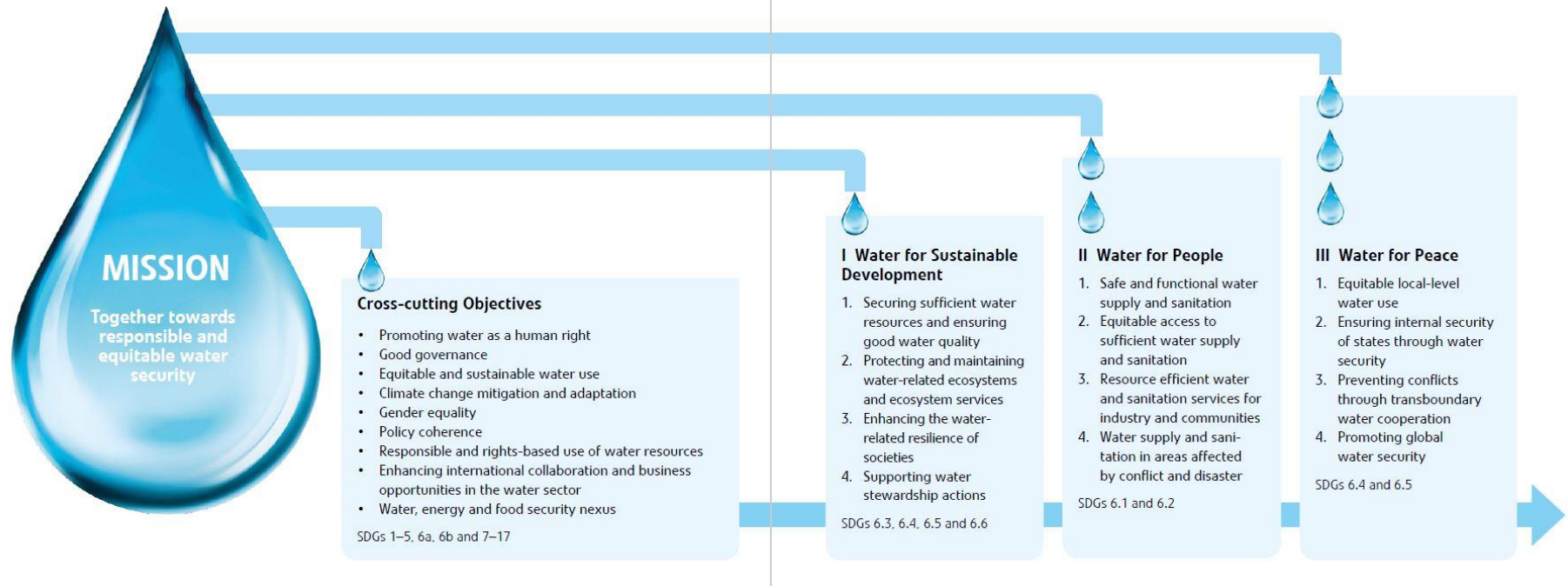
Ministry of Economic Affairs
and Employment of Finland



Objectives

- At the core of the Strategy are 3 pillars that together with cross-cutting objectives pave the way for water security:
 - I. Water for Sustainable Development
 - II. Water for People
 - III. Water for Peace
- The objectives of the Strategy are grouped under these pillars

Objectives



Means

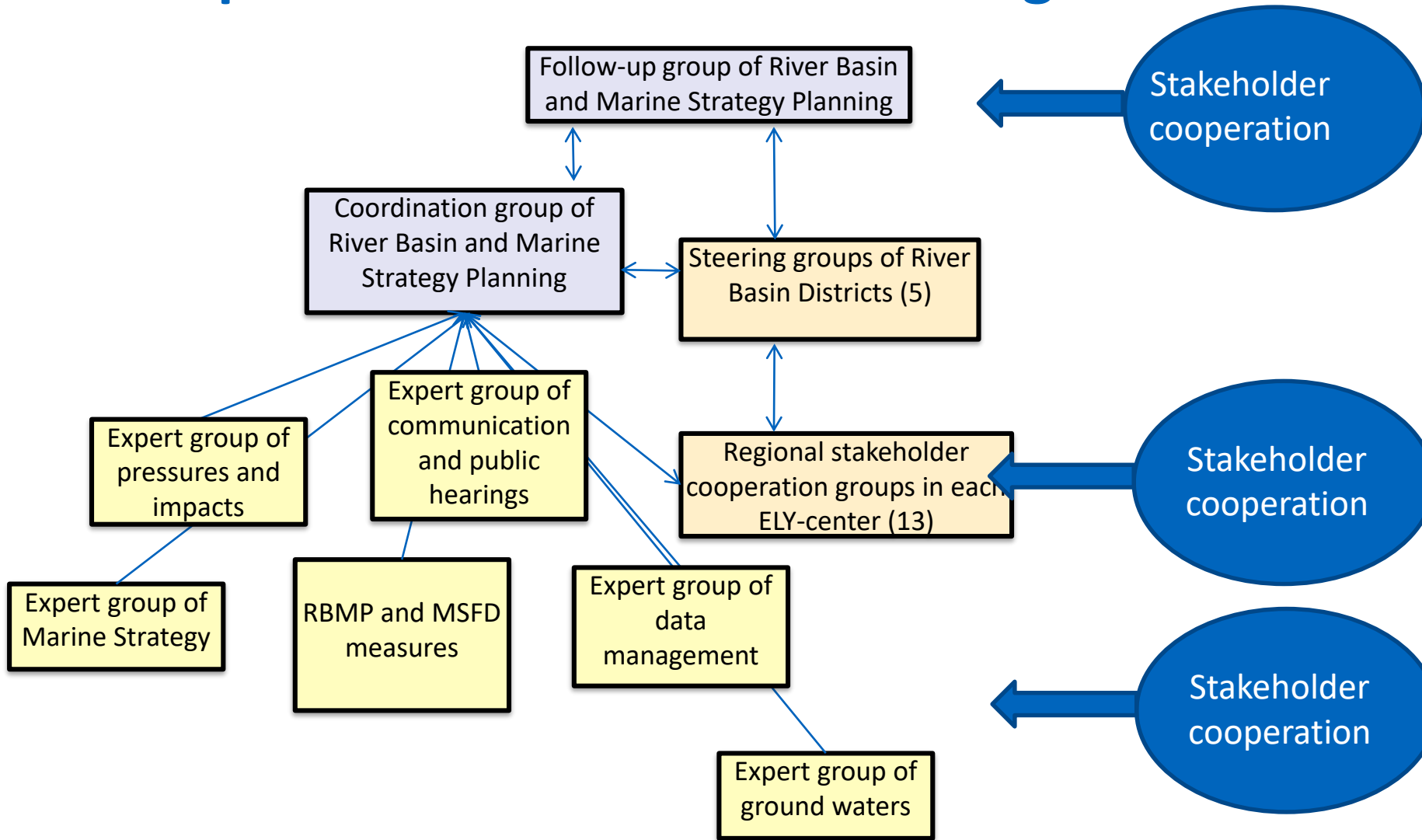
The Strategy also lays out a set of means – policies, concrete actions and tools, that are required to achieve the objectives

The means are further specified in the Action Plan, which supports the implementation of the Strategy and is reviewed and updated periodically

National level



National platform of River Basin Management






Finnish watercourse restoration network

*Finnish watercourse restoration network is
an open platform for all that provides information and experiences
on improving the status of waters*

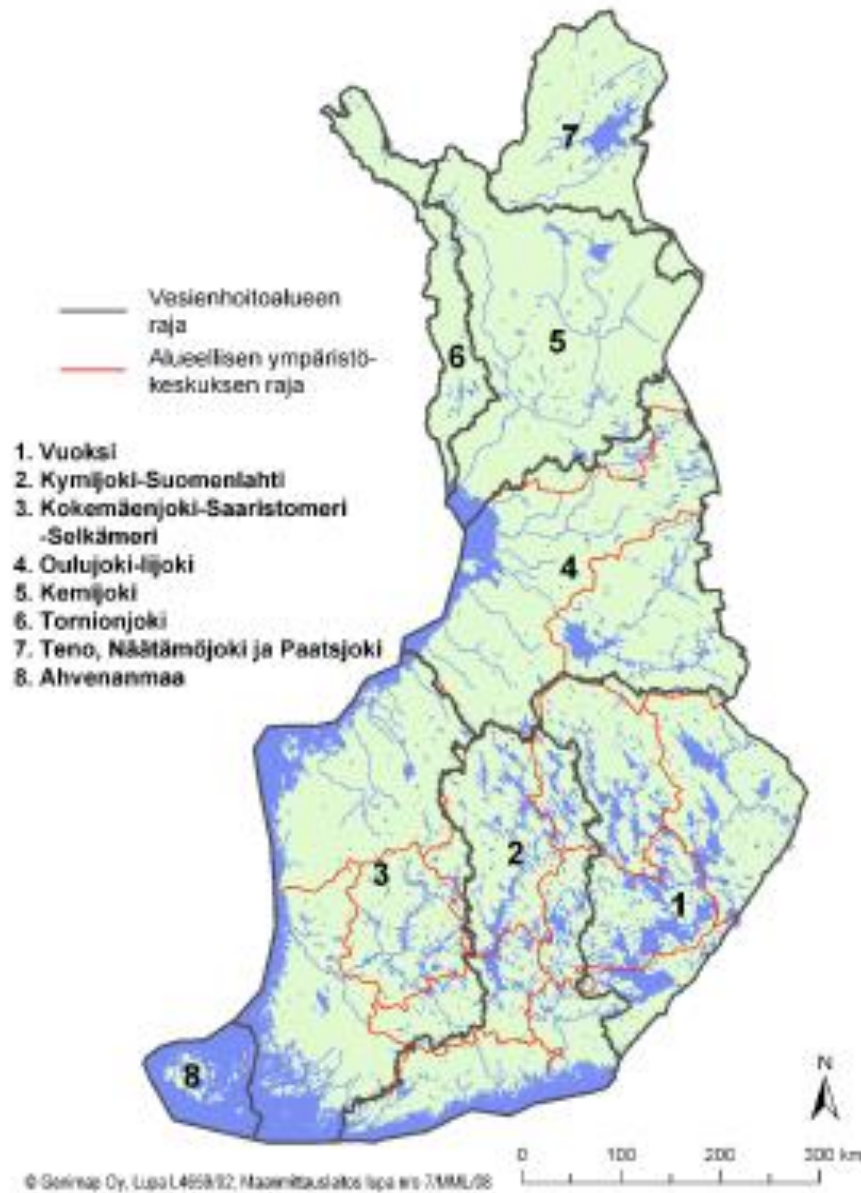
Goals

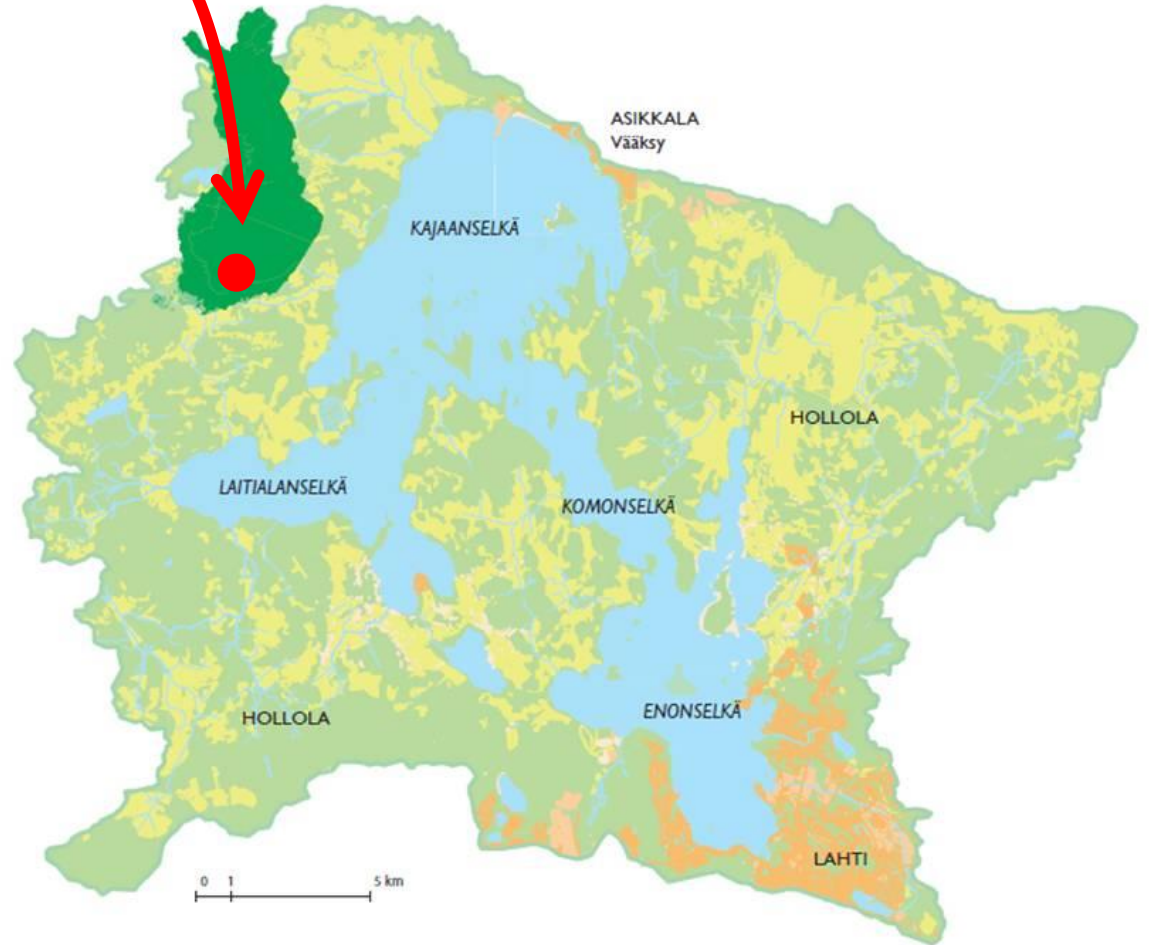
- Bring together expertise in planning of water protection and restoration
 - Promote networking between administration, researchers, local actors and operators, and financiers
 - Support local operators by practical information and professional assistance
 - Disseminate up-to-date information for example on financial opportunities, events, and legislation
- 

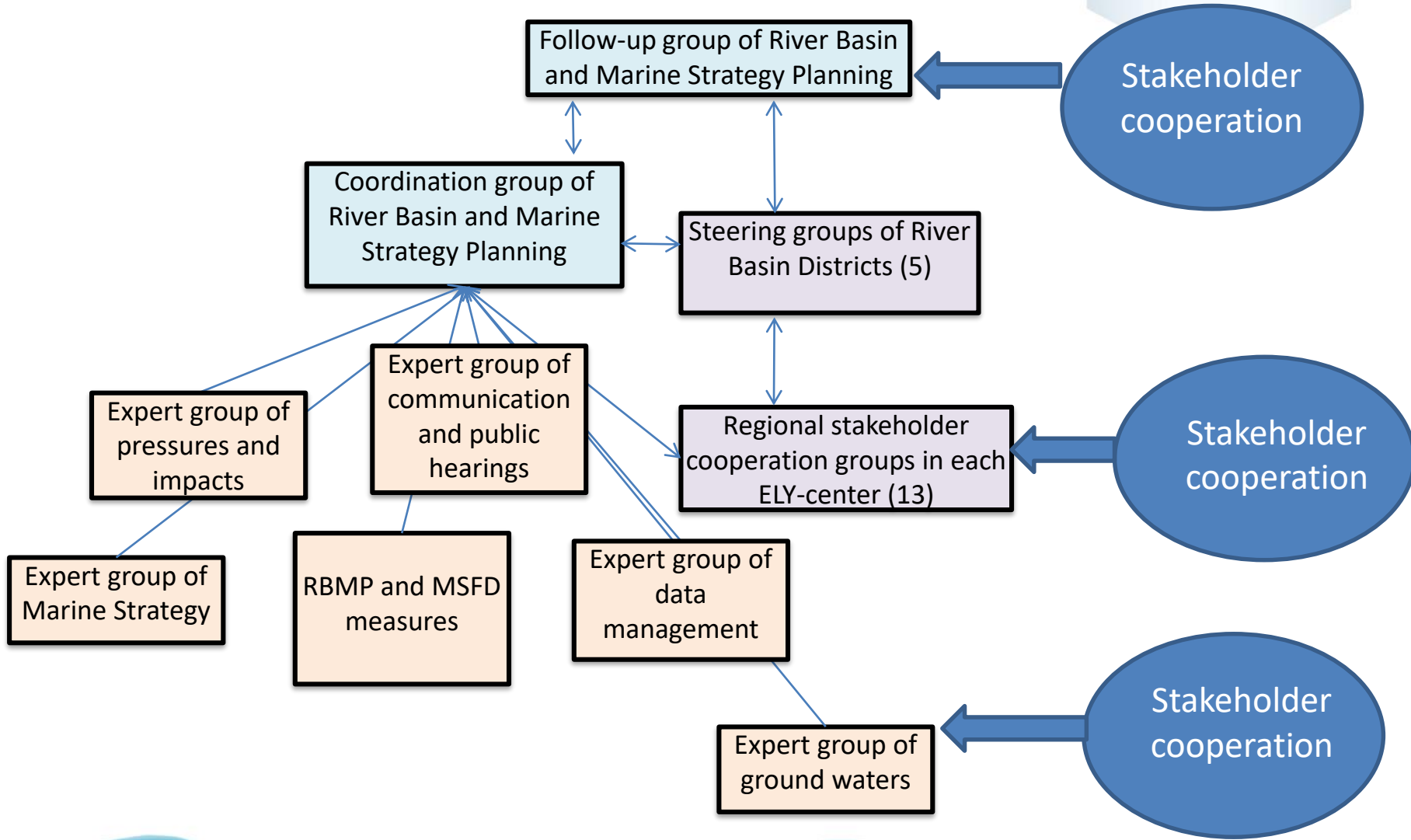
Basin level

Basin level

- Larger or smaller basins
- River basin districts
- Basin of Lake Vesijärvi

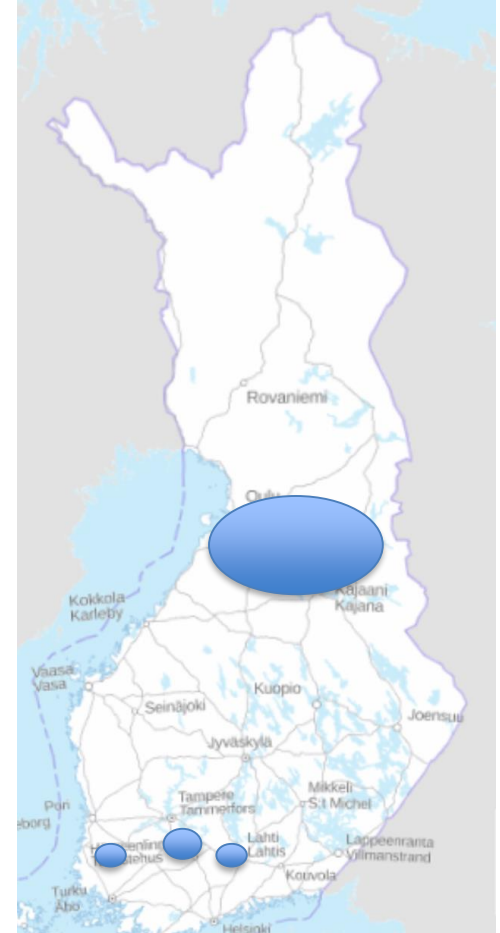






Finnish initiatives in implementing governance principles in water management at basin level

- Pyhäjärvi Institute
- Lake Vanajavesi Foundation
- Lake Vesijärvi Foundation
- Vyyhti Network



Lake Vesijärvi Foundation



1960`s -1970`s



Lahti harbour 1982





Mukkula 1988



Enonsaari 1989



Paimelanlahti 1992

Cyanobacterial blooms in a city harbour 2006

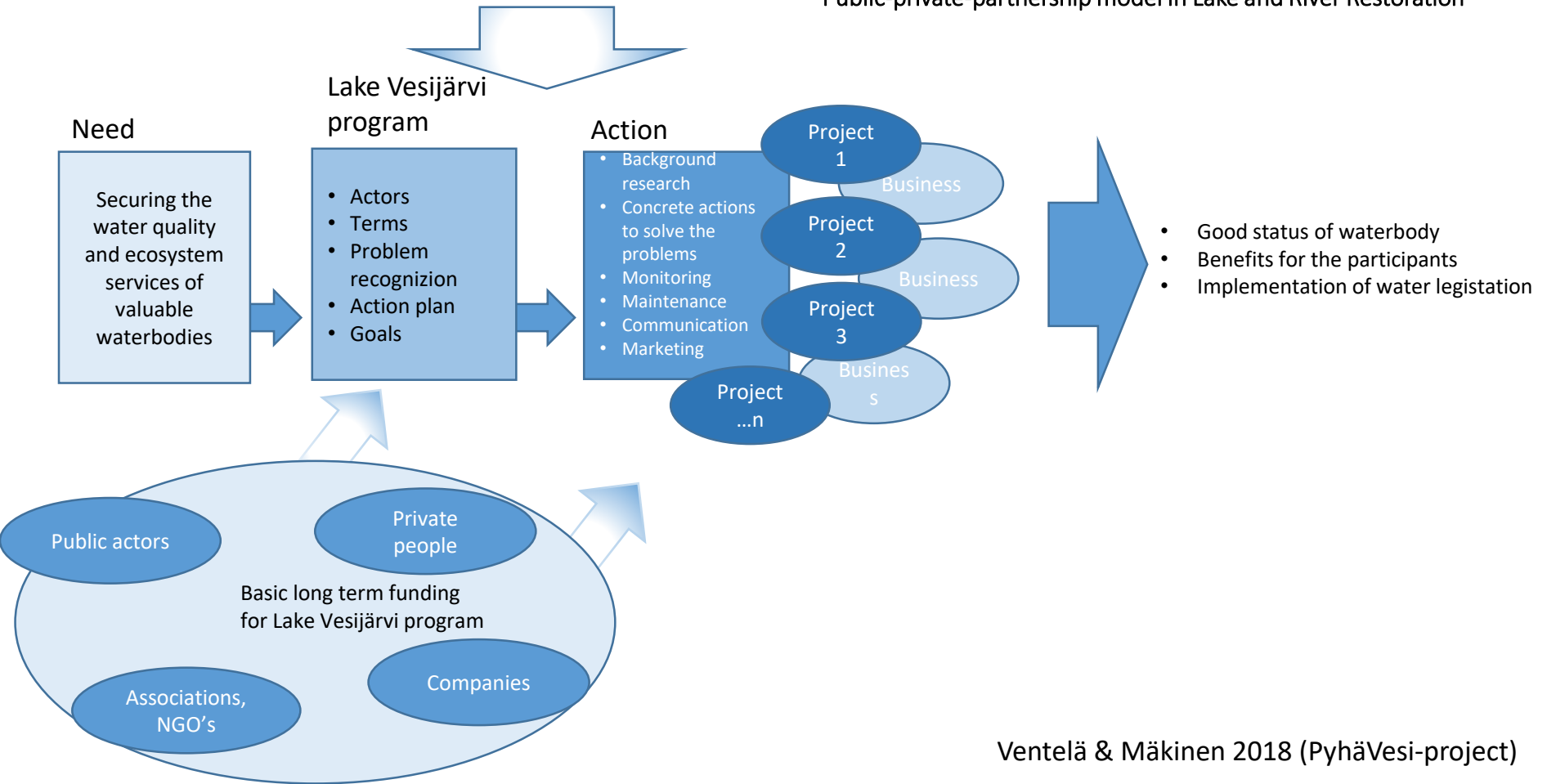


Lake Vesijärvi Foundation

- Combination of public and private resources
- Established 2007
- Secure funding for research, maintenance and management efforts
- Improve the awareness of Lake Vesijärvi by many different kinds of communication
- Promote efforts to improve water quality of Lake Vesijärvi
- Prepare a plan for lake management

Needs of water legislation (WFD)

Public-private-partnership model in Lake and River Restoration



We have achieved a lot...

New players in the field – more resources

- Private enterprises
- Lions Clubs, Rotary Clubs
- Hunters organizations
- Musicians
- Artists
- Local media



Illustration: HarmoniCOP project team

Social capital



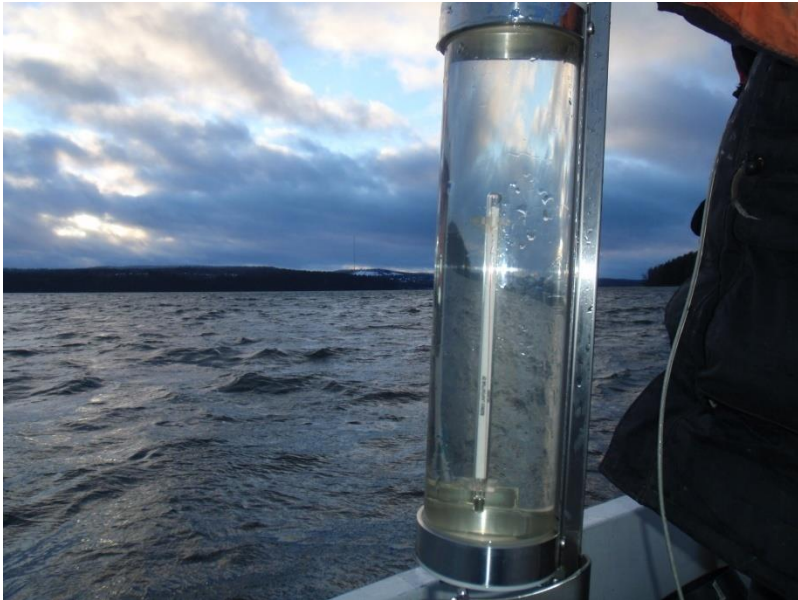
Illustrations: HarmoniCOP project team













Kuvat: Pekka Tuuri



Thank you!