



**Finnish Environment Institute
Environment Management Structure**

17th August 2007, Helsinki, Finland
Alec Estlander & Esa Nikunen

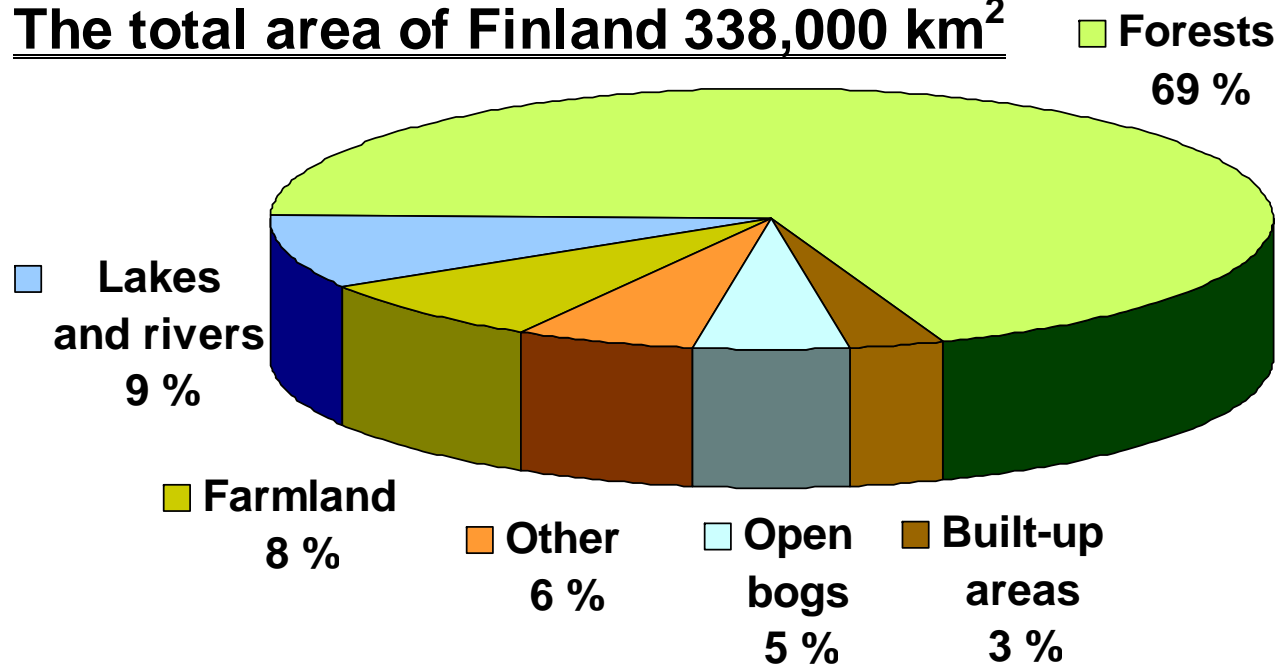
Facts about Finland

- The 7th largest country in Europe, 338 000 km² (3 x NW SA, 1/4 of SA)
- EU member since 1995 (we use €)
- The population is 5.2 million, 17 inhabitants per km²
- 67% live in towns or urban areas, 33% in rural areas
- Helsinki metropolitan area:
 - One million people (20 %)
 - 750 km² (0,2 %)
 - 500 000 cars (20 %)





The total area of Finland 338,000 km²



Environmental indexes / FINLAND

Water Poverty Index (WPI)

Finland ranked (2005) number one among 147 countries according to five criteria: resources, access, capacity, use and environmental impact.

Water Quality Indicator (WQI)

Finland ranked (2005) number one in water quality assessment among 122 countries.

Environmental Sustainability Index (ESI)

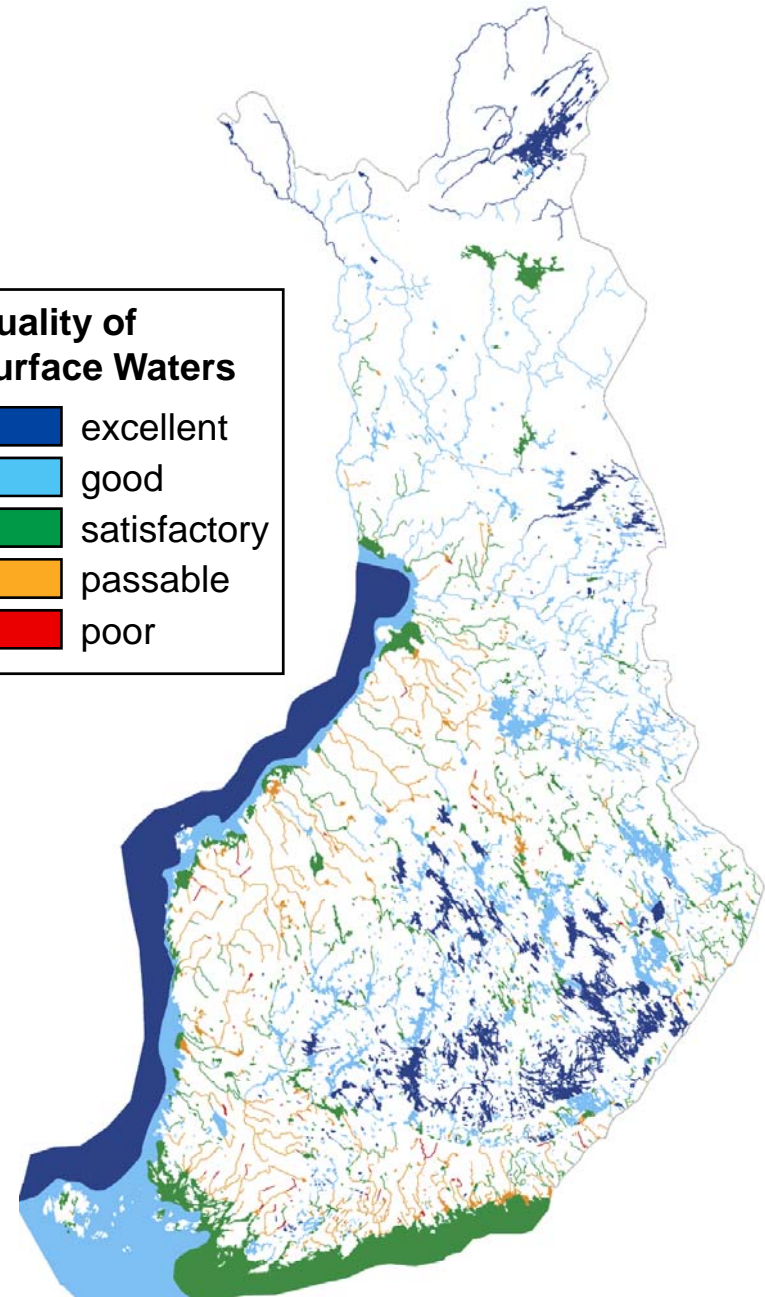
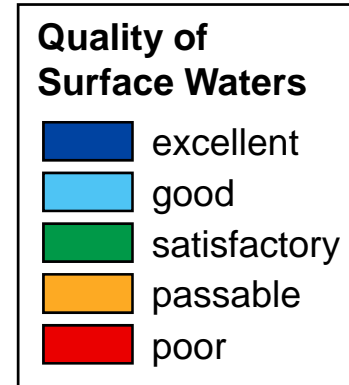
Finland ranked (2005) number one among 146 countries (three wins, one third place). ESI is produced for the World Economic Forum.

Environmental Performance Index (EPI)

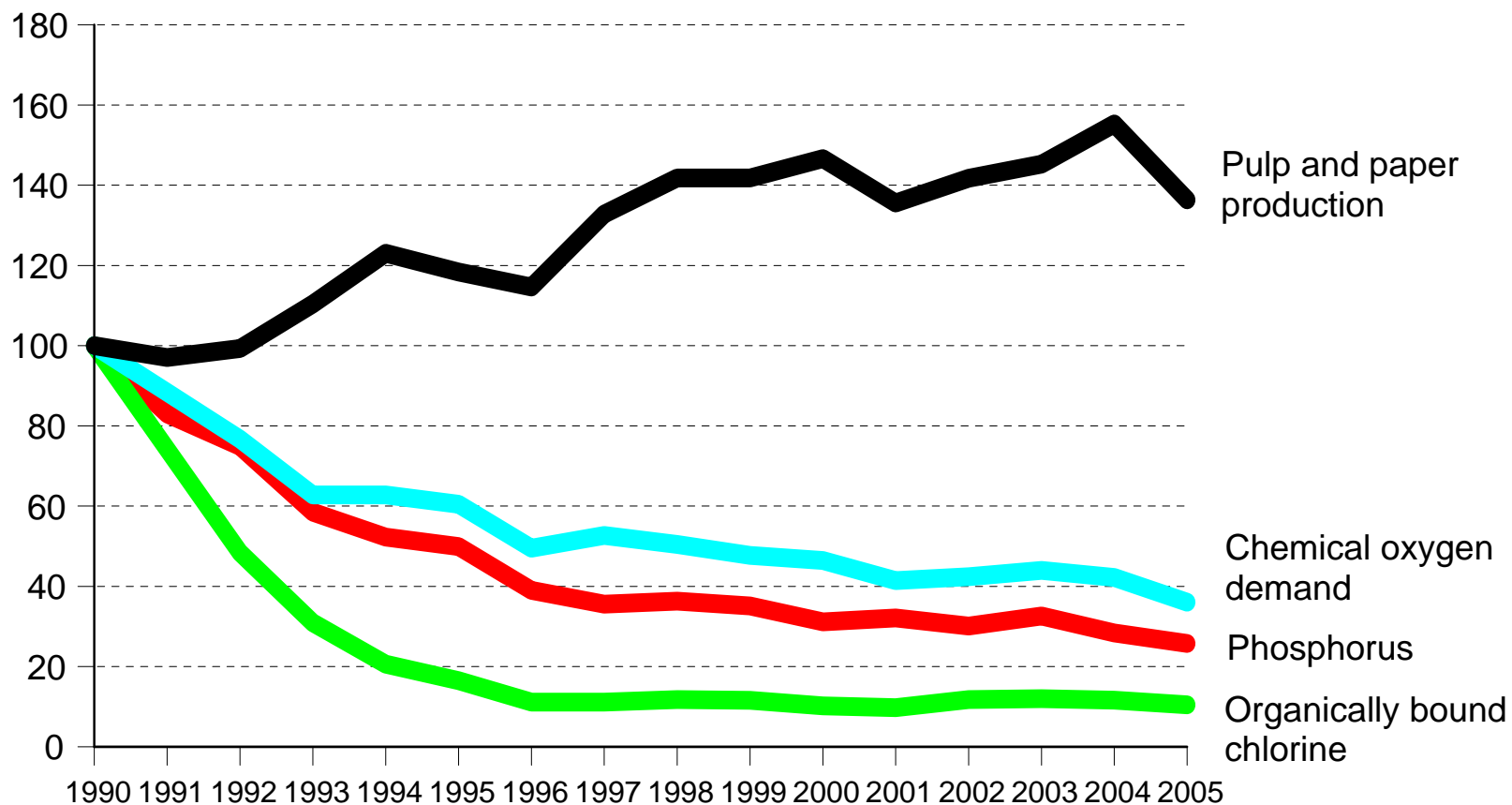
Finland ranked (2006) number three among 133 countries.

Water quality

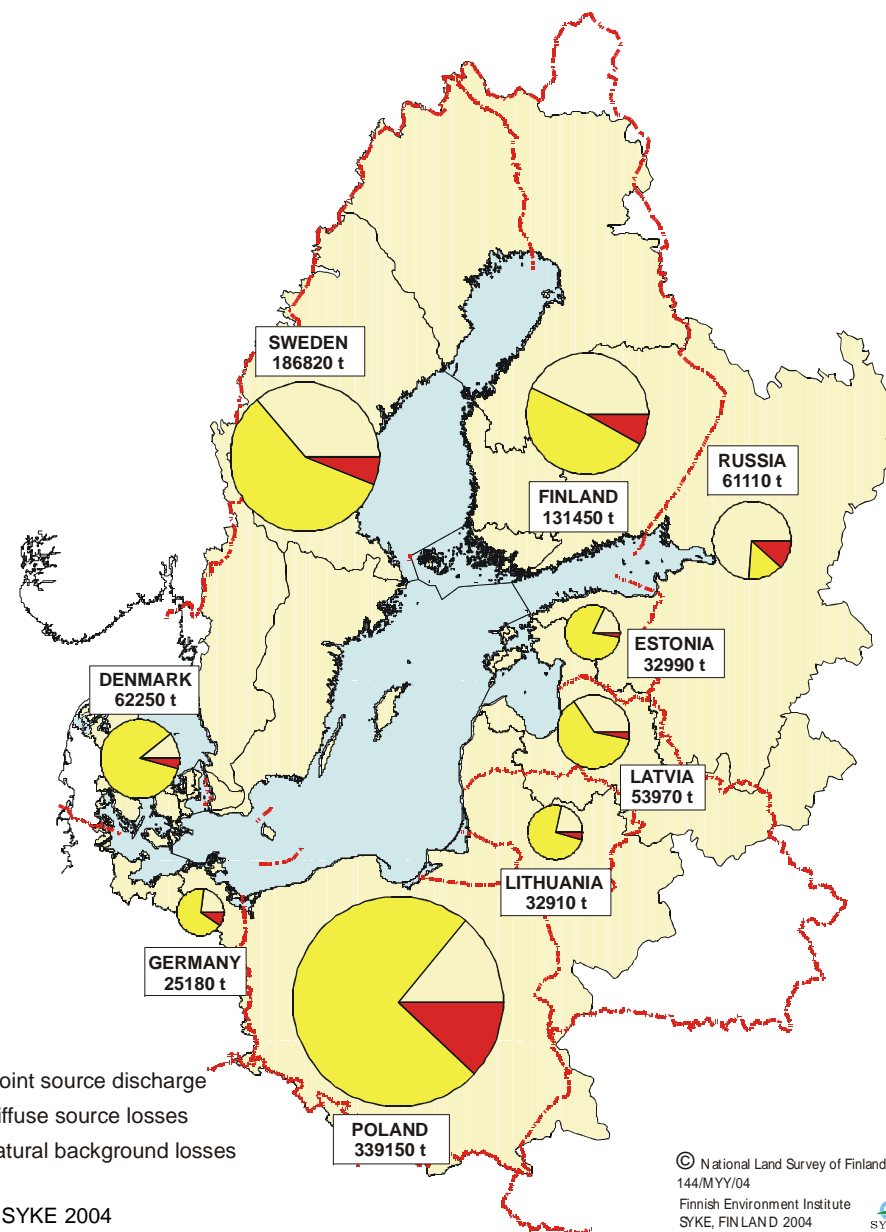
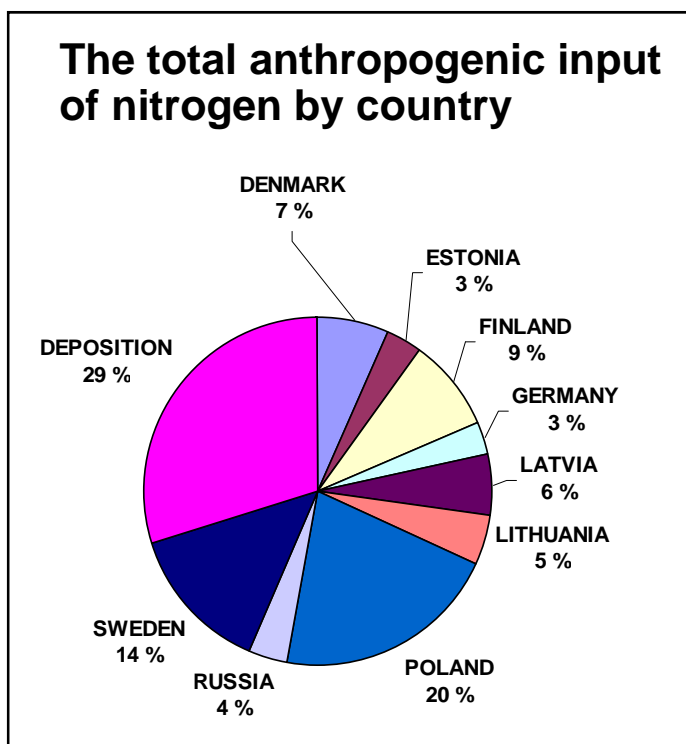
- **Water quality is classified as excellent or good in 80% of the lake area**
- **Less than 40 percent of the total length of rivers is classified as excellent or good**
- **Water bodies are highly vulnerable to environmental changes**
- **A high standard of water protection, based on the ecosystem approach, is a necessity**
- **Future water protection planned according to EU Water Framework Directive (implemented 2001-2009-2015)**



Pulp and paper industry production and effluent load into rivers and lakes (1990=100)

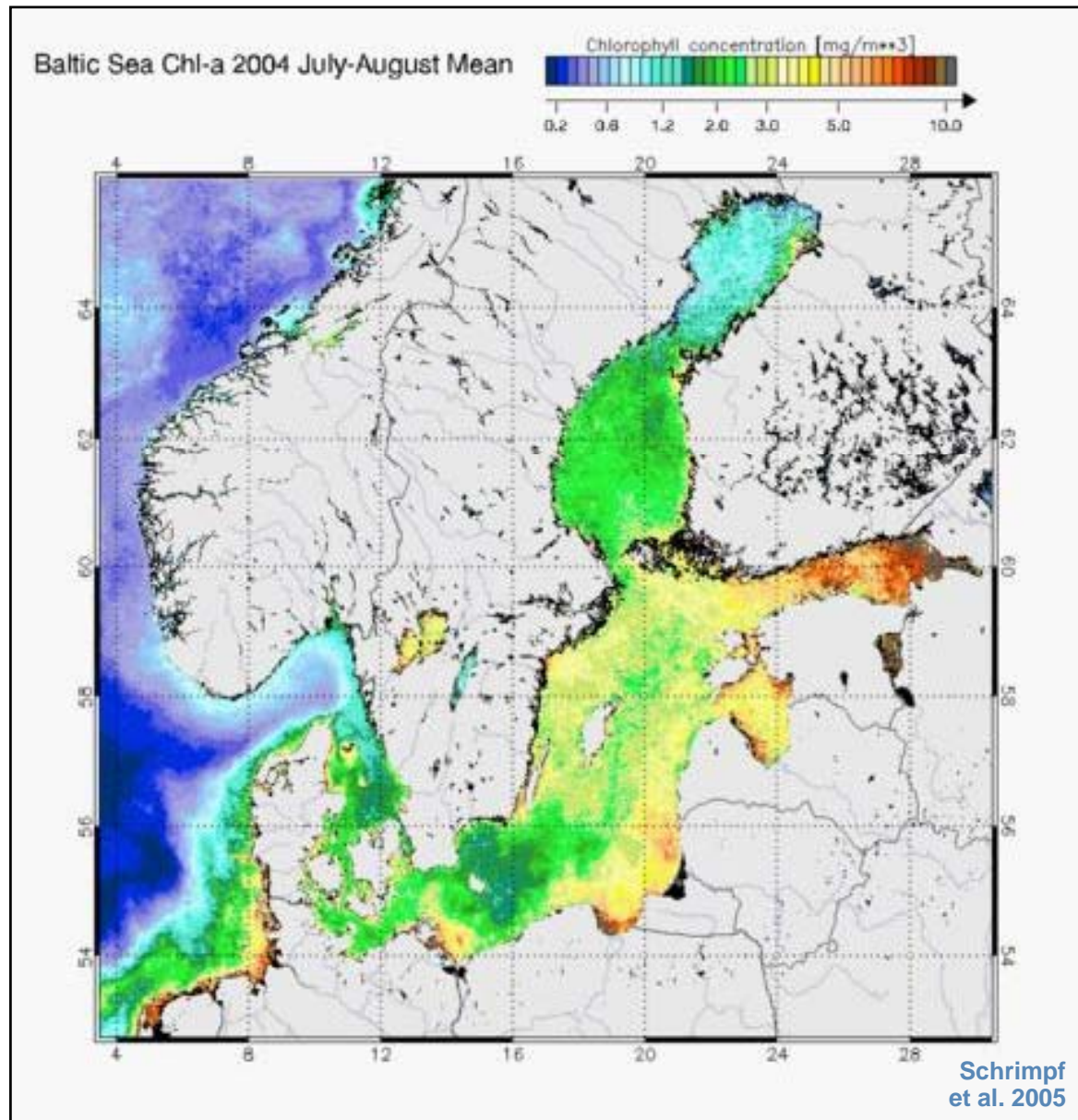


Inputs of nitrogen into the Baltic Sea catchment area in 2000 (tonnes/year)



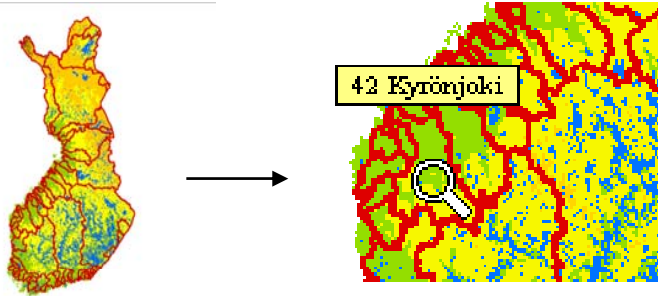
HELCOM, SYKE 2004

Chlorophyll-*a* distributions in the Baltic Sea July-August 2004 according to SeaWiFS -satellite data

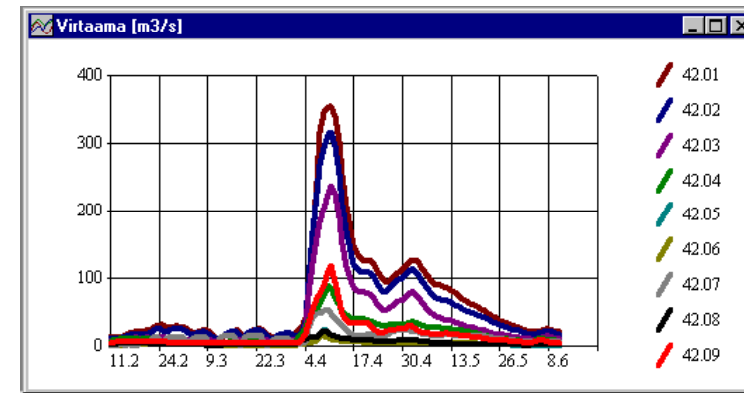
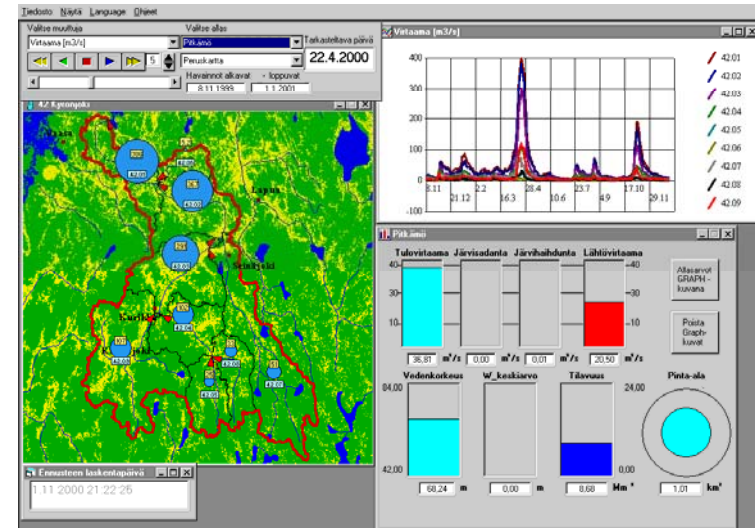


Water resources management

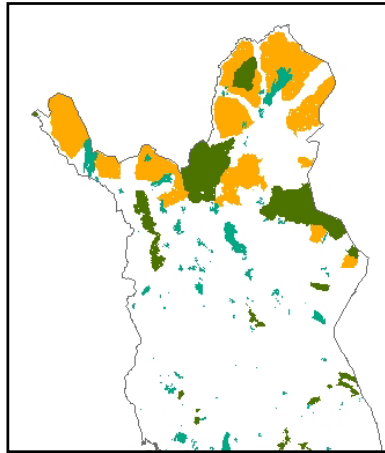
Flood forecasts






- **Watershed models cover 85 % of the country**
- **Forecasts are made daily for 300 discharge and water level observation points**
- **Forecasts are used for regulation, flood damage prevention and general information**
- **Floods are common in spring (snow melting period)**

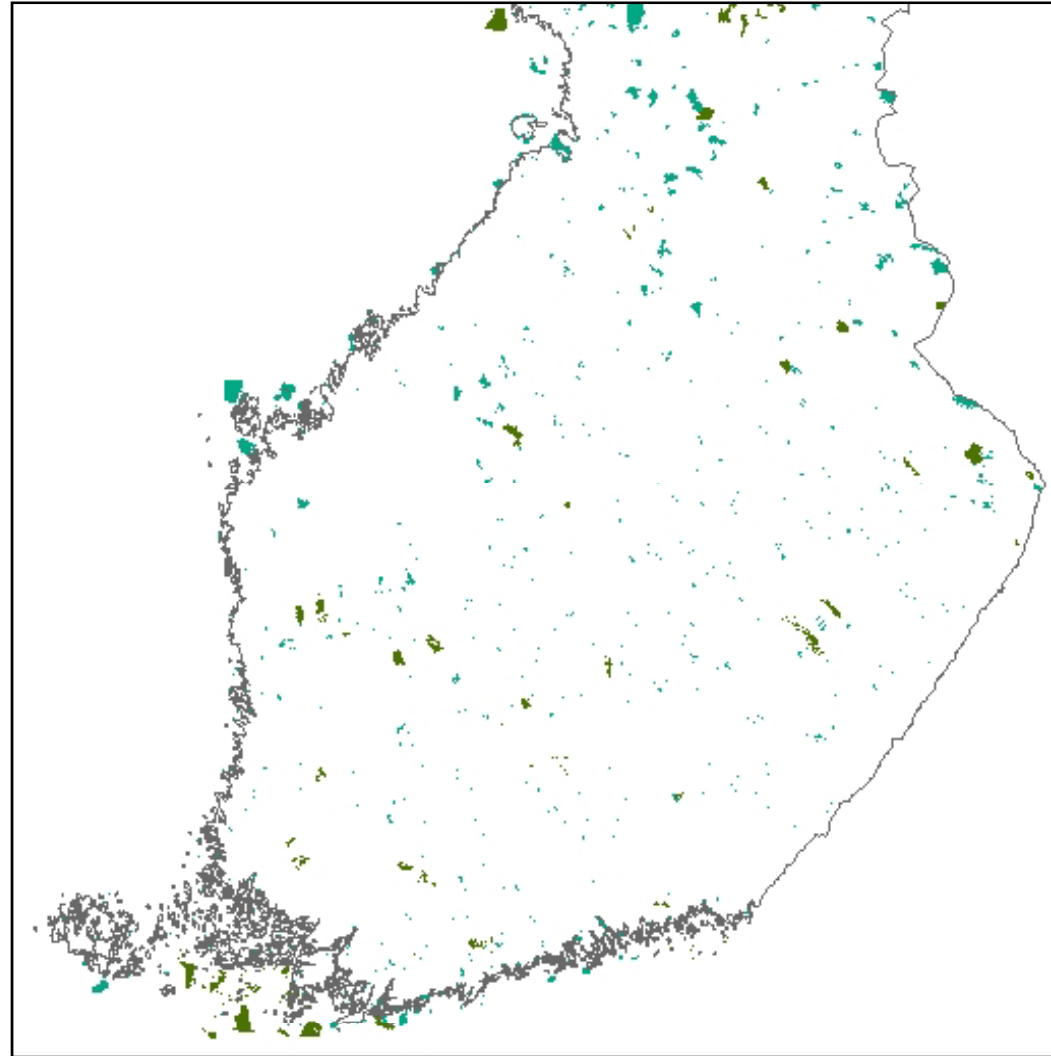


Protected areas in Finland

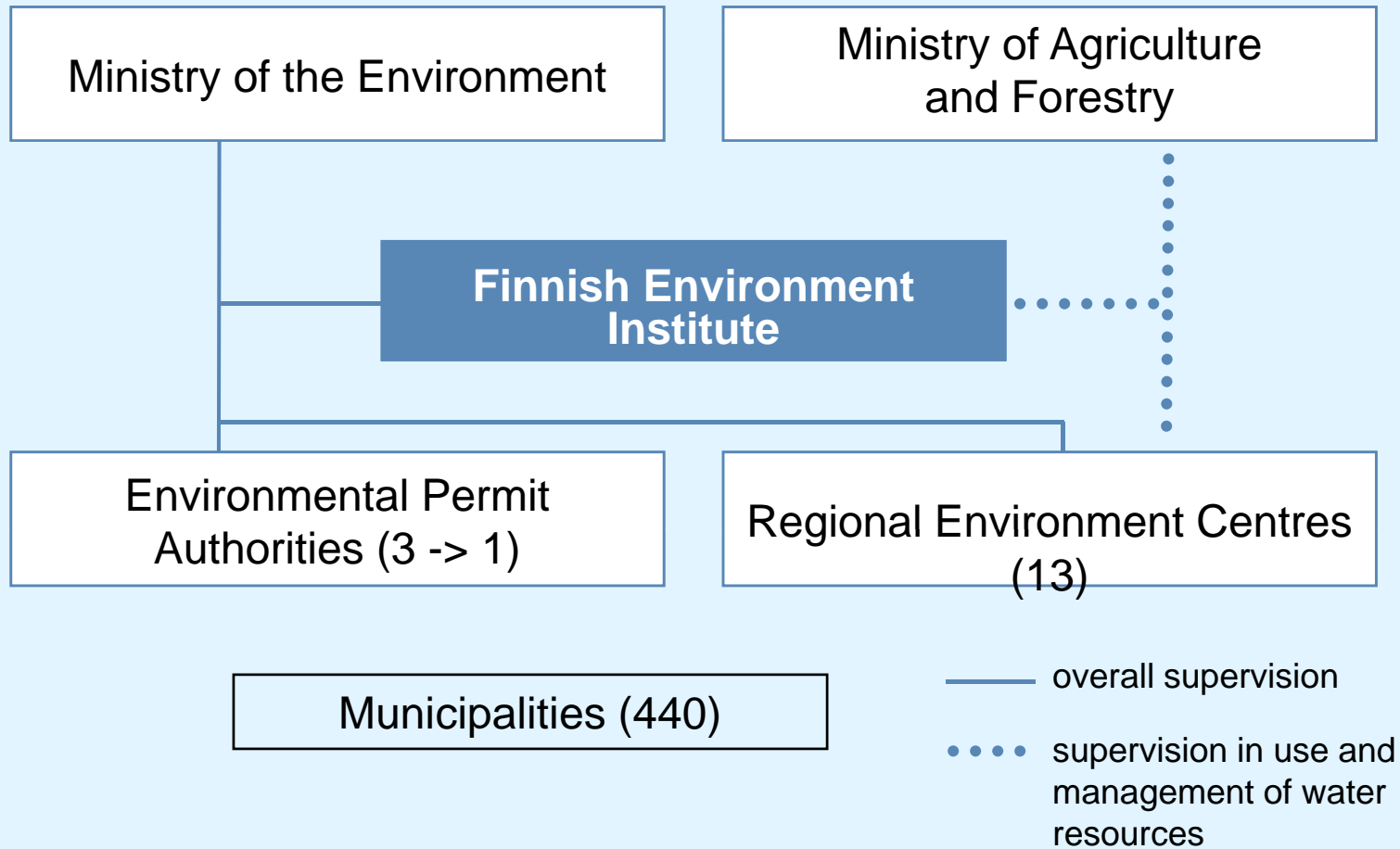


Protected areas

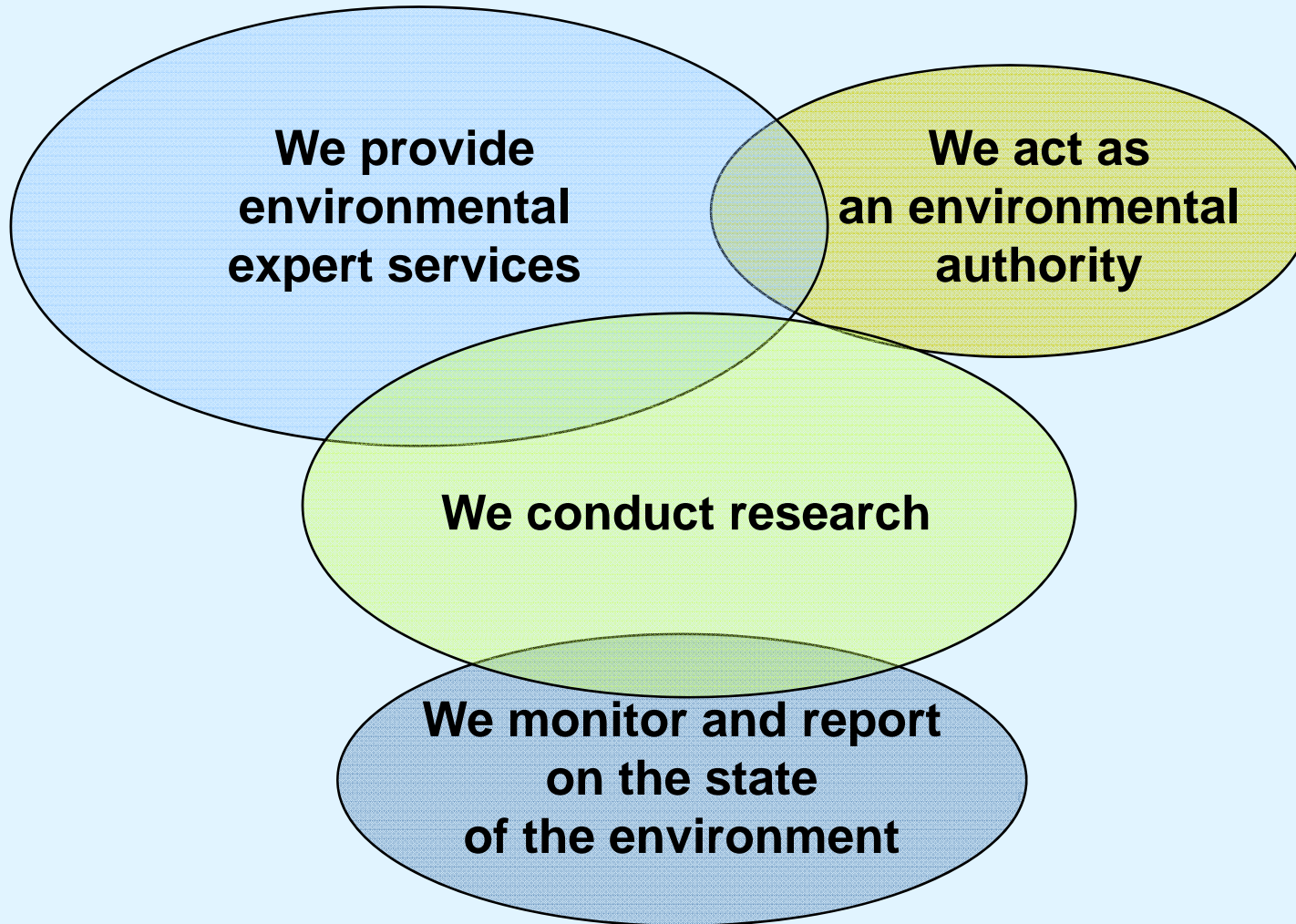
-  Wilderness reserves
-  National parks and strict nature reserves
-  Other protected areas



SYKE in the Finnish Environmental Administration

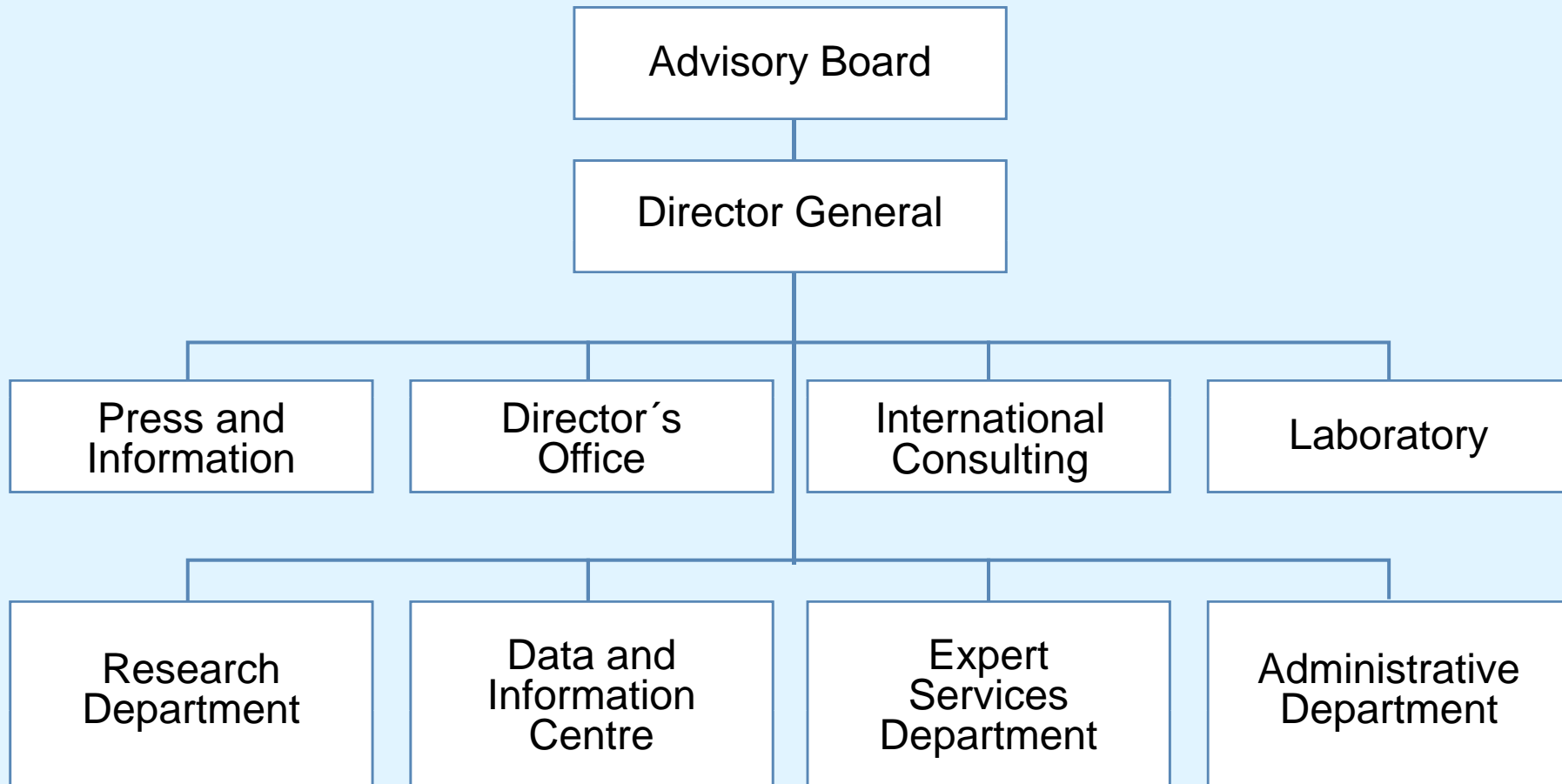


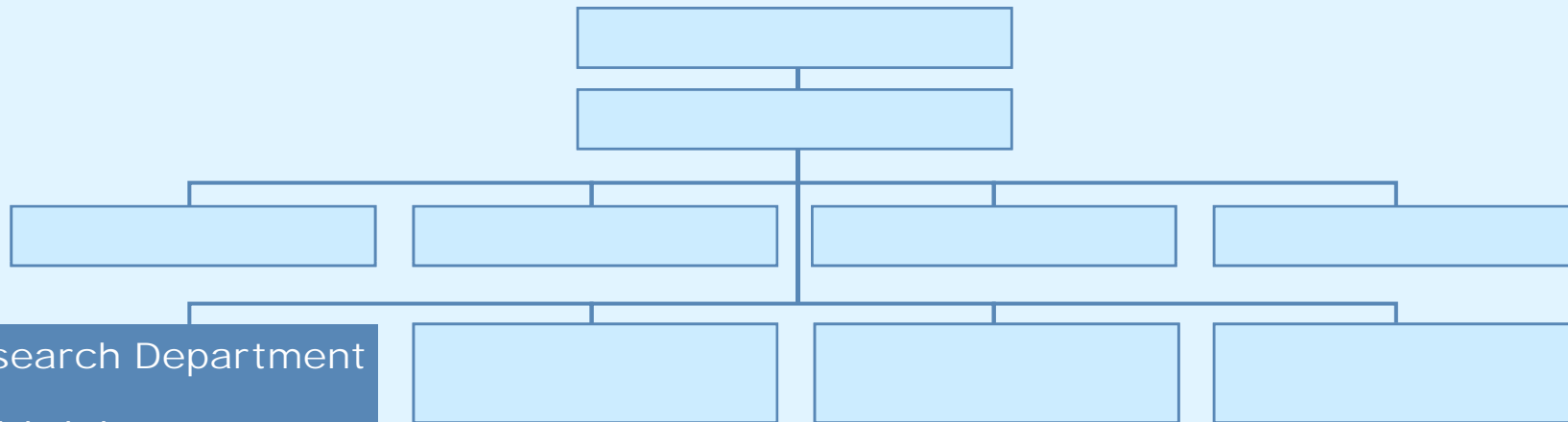
We are a unique combination



1 + 1 + 1 + 1 > 4

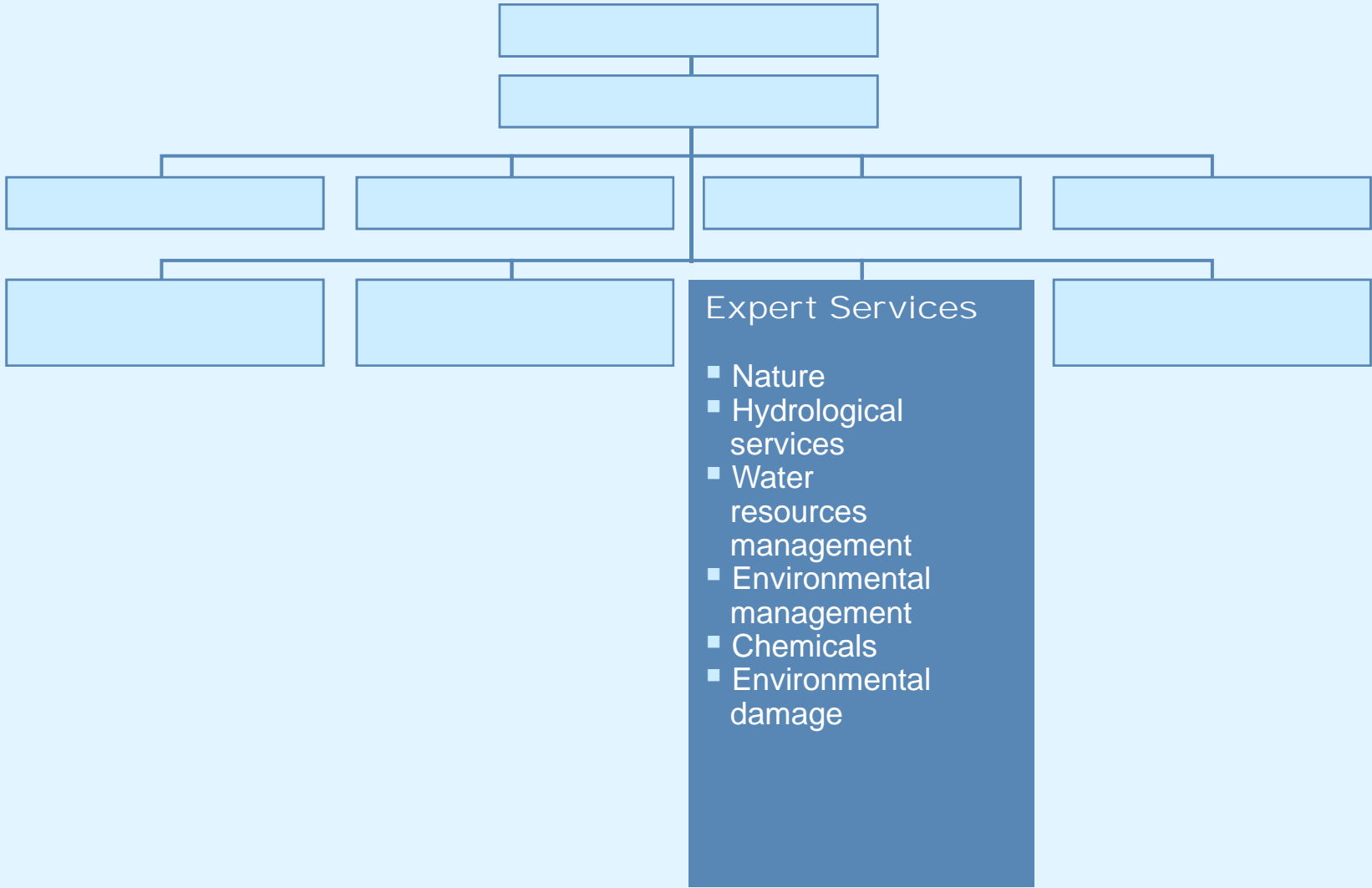
SYKE's organisation





Research Department

- Global change
- Biodiversity
- Integrated river basin management
- Protection of the Baltic Sea
- Contaminants and Risks
- Production and Consumption
- Environmental policy



Future development trends in SYKE

- **New challenging fields of operation**
 - energy issues: bioenergy and other renewables
 - climate change: prevention and adaptation
 - material efficiency and life-cycle assessment
 - sustainable production and consumption
 - chemical issues, and
 - changes in society and landscape

- **Interdisciplinary approach: integration of natural and technical sciences with socio-economic considerations**
 - strengthening of skills in environmental economics

- **More effective environmental monitoring - use of remote sensing, modelling and automation**



DET NORSKE VERITAS

MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 2491-2006-AE-HEL-FINAS

This is to certify that

FINNISH ENVIRONMENT INSTITUTE

Helsinki, Finland

has been found to conform to the Environmental Management System Standard

ISO 14001:2004

This Certificate is valid for the following product/service ranges:

RESEARCH, EXPERT AND DATA MANAGEMENT SERVICES, AUTHORITY TASKS,
LABORATORY, EDUCATION SERVICES, COMMUNICATION AND PUBLICATION SERVICES,
AND INTERNAL ADMINISTRATIVE SERVICES OF THE FINNISH ENVIRONMENT INSTITUTE IN
THE UNITS IN HELSINKI.

Place and date
Espoo, 2006-10-18

for the Accredited Unit
DNV Certification OY/AB


Kimmo Haarala
Management Representative



FINAS
Finnish Accreditation Service
S007 (ISO/IEC Guide 66)

This certificate is valid until
2009-09-30



Environmental issues in the new Government Programme of April 2007

- **Climate change: new strategy for climate and energy**
- increased use of renewable energy
- **Maintenance of the high level of environmental protection**
- **Environmental protection in international trade**
- **Export of environmental knowledge and technology**
- **Protection of Baltic Sea and oil spill combatting**
- **Nature protection & biodiversity**
- **More efficient environmental permitting**