

# ▶ International Commission for the Protection of the Rhine



Internationale  
Kommission zum  
Schutz des Rheins

Commission  
Internationale  
pour la Protection  
du Rhin

Internationale  
Commissie ter  
Bescherming  
van de Rijn

International  
Commission  
for the Protection  
of the Rhine



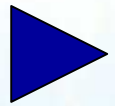
# The Rhine, a European river





# The Rhine catchment





# Characteristics of the Rhine



**3rd European river**  
after Volga and Danube



**9 countries in the watershed**  
Italy, Austria, Liechtenstein, Switzerland,  
France, Germany, Belgium, Luxemburg,  
Netherlands



**Inhabitants**  
58 million



**Drinking water**  
for 20 million people

# ▶ Hydrography of the Rhine



▶ **Catchment area**  
200.000 km<sup>2</sup>

▶ **Length**  
1320 km

▶ **Navigable length: 825 km**

▶ **Discharge**  
2200 m<sup>3</sup>/sec (at D/NL-border)

▶ **Mean discharge Basel: 1.000 m<sup>3</sup>/s**

- Maximum in June
- Lowest discharge: 202 m<sup>3</sup>/s (February)
- Extreme flood 1882: 4600 m<sup>3</sup>/s
- Flood 1999: ca 5000 m<sup>3</sup>/s

▶ **Mean discharge Lobith: 2.200 m<sup>3</sup>/s**

- Minimum in January
- Lowest discharge: 620 m<sup>3</sup>/s (1947, November)
- Extreme flood 1926, January: 12.600 m<sup>3</sup>/s
- Flood 1995, January: ca 12.000 m<sup>3</sup>/s

▶ **Difference in altitude Rotterdam-Basel: 260 m**



# Functions of the Rhine



The ideal river...

... for nature protection

... for agriculture

... for drainage

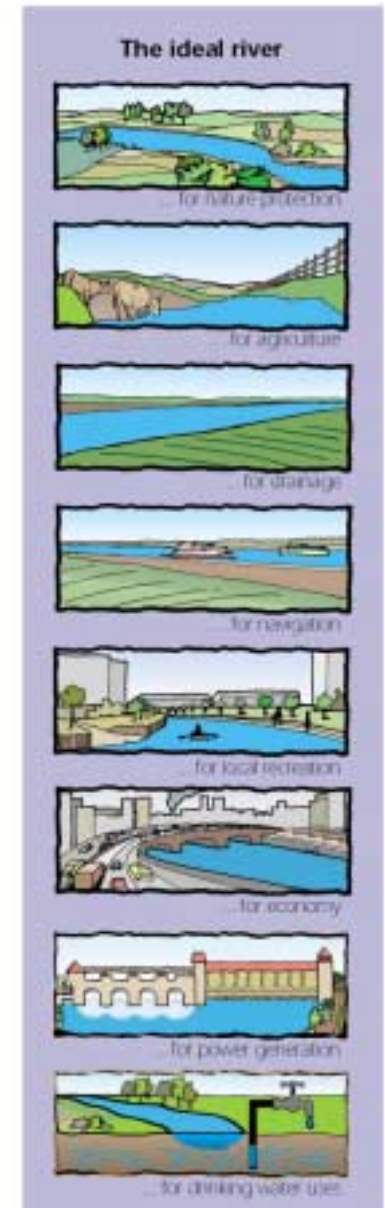
... for navigation

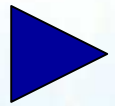
... for local recreation

... for economy

... for power generation

... for drinking water uses





# Functions of the Rhine



1838

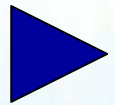


1872



1980





# International Rhine Commission



## **ICPR**

Established 1950



## **Members**

Switzerland, France, Germany, Luxemburg,  
Netherlands, European Community



## **Observers**

### **Countries**

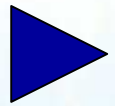
- Austria
- Liechtenstein
- Belgium / Wallonia

### **Intergovernmental Organizations (IGO's)**

- River commissions
- OSPAR Commission
- Central Commission for Navigation on the Rhine

### **Non-Governmental Organizations (NGO's)**

- Drinking water industry
- Chemical industry
- Nature protection
- Flood protection



# What makes the ICPR effective?



## Rules of cooperation

- De-centralised organization
- National delegations
  - political mandate
  - technical know how
  - funds
- Consensus
- Decisions are recommendations
- Obligation to report on the implementation of measures
- Political trust, no sanctions
- Neutral secretariat
- Rhine Convention
- Rules of procedure and financial regulations



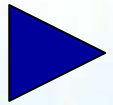
## Regular budget

- Regular budget (1.000.000 €/a)
- 75% salaries (secretariat)
- Rent, publications, computers, communication

# ▶ ICPR: Landmarks

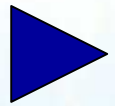


- ▶ 1950 Foundation
- ▶ 1963 Treaty of Berne
- ▶ 1972 1st Rhine Ministers' Conference
- ▶ 1976 Rhine Chemical Convention
- ▶ 1977 Rhine Chlorides Convention
- ▶ 1986 Accident at Sandoz
- ▶ 1987 Rhine Action Program
- ▶ 1991 Chlorides Protocol
- ▶ 2003 Convention on the Protection of the Rhine



# 1986: Fire at Sandoz, Schweizerhalle (CH)





# Rhine Action Program



## Duration

1987 – 2000



## Results

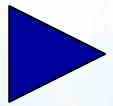
Water quality has considerably improved

Accidents have been considerably reduced

The Rhine fauna has recovered



**From a sewer into a living river**



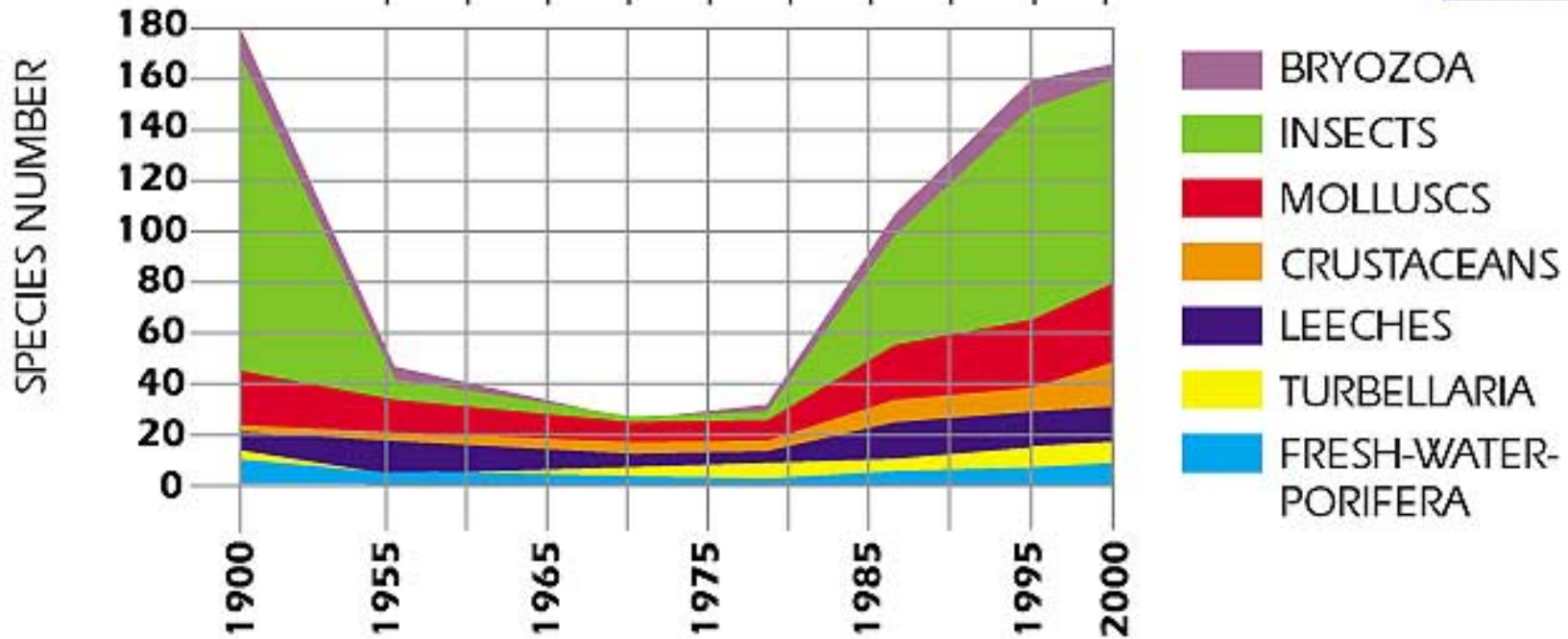
# Rhine Action Program

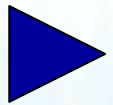


## Invertebrates

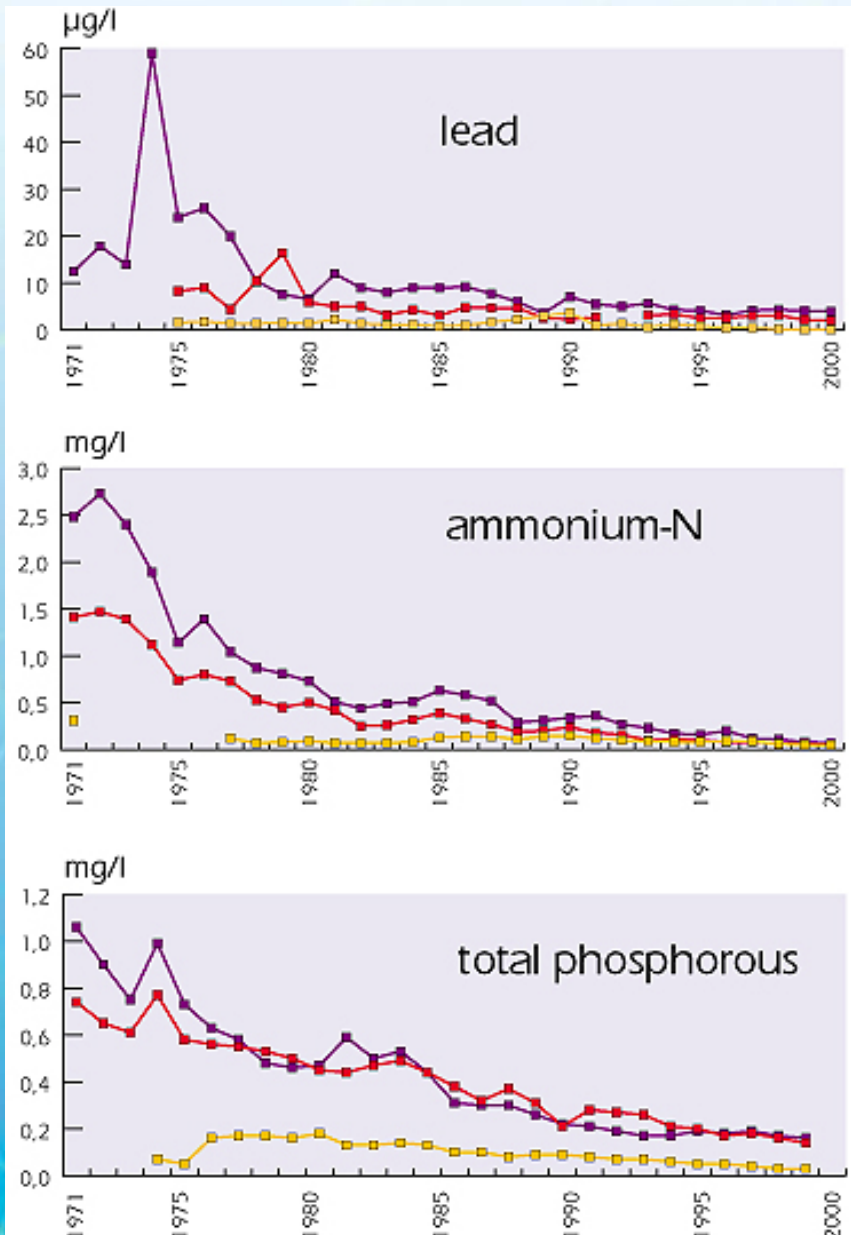


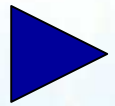
Species number of invertebrates in connection with the oxygen content of the Rhine





# Rhine Action Program





# Rhine 2020



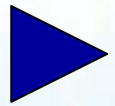
## Program on the sustainable development of the Rhine

- ▶ Ecosystem improvement
- ▶ Flood prevention
- ▶ Water quality improvement
- ▶ Groundwater protection



## Duration

2000 - 2020



# Rhine 2020: Ecosystem improvement



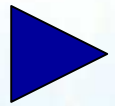
## Objectives

- ▶ Restoration of mainstream as backbone of the Rhine system
- ▶ Improvement of habitat for flora and fauna



## Measures (expl.)

- ▶ Permit natural flooding
- ▶ Enhance extensive agricultural use of alluvial areas
- ▶ Preserve the freely flowing sections of the Rhine



# Rhine 2020: Flood prevention



## Objectives

- ▶ 10% reduction of damage risks and 25% reduction by 2020
- ▶ Increase flood awareness
- ▶ Improve flood warning systems



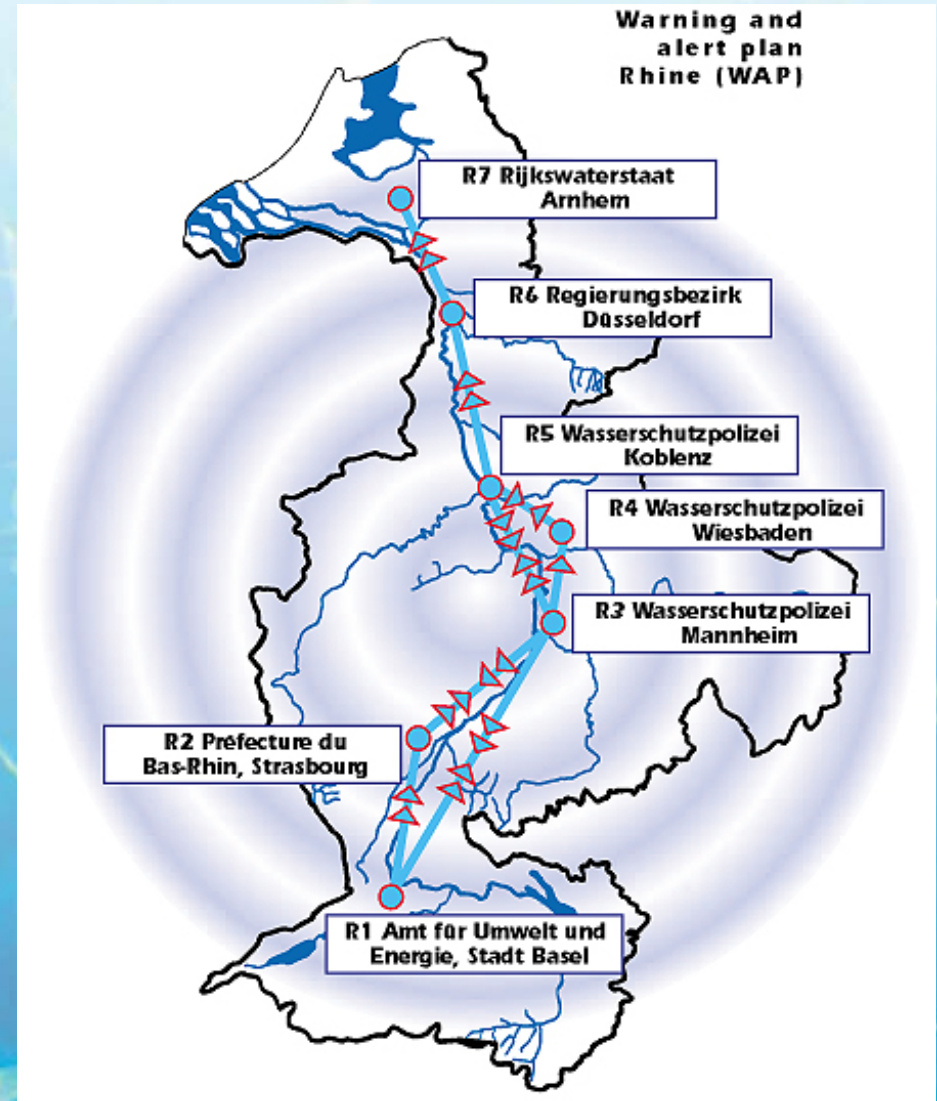
## Measures (expl.)

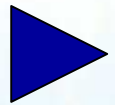
- ▶ Increase water retention by reactivating inundation areas
- ▶ Maintain and strengthen dikes
- ▶ Draft maps illustrating the risks of inundation (for spatial planners)

# Warning and alert plan Rhine (WAP)



## Warning and alert plan Rhine (WAP)

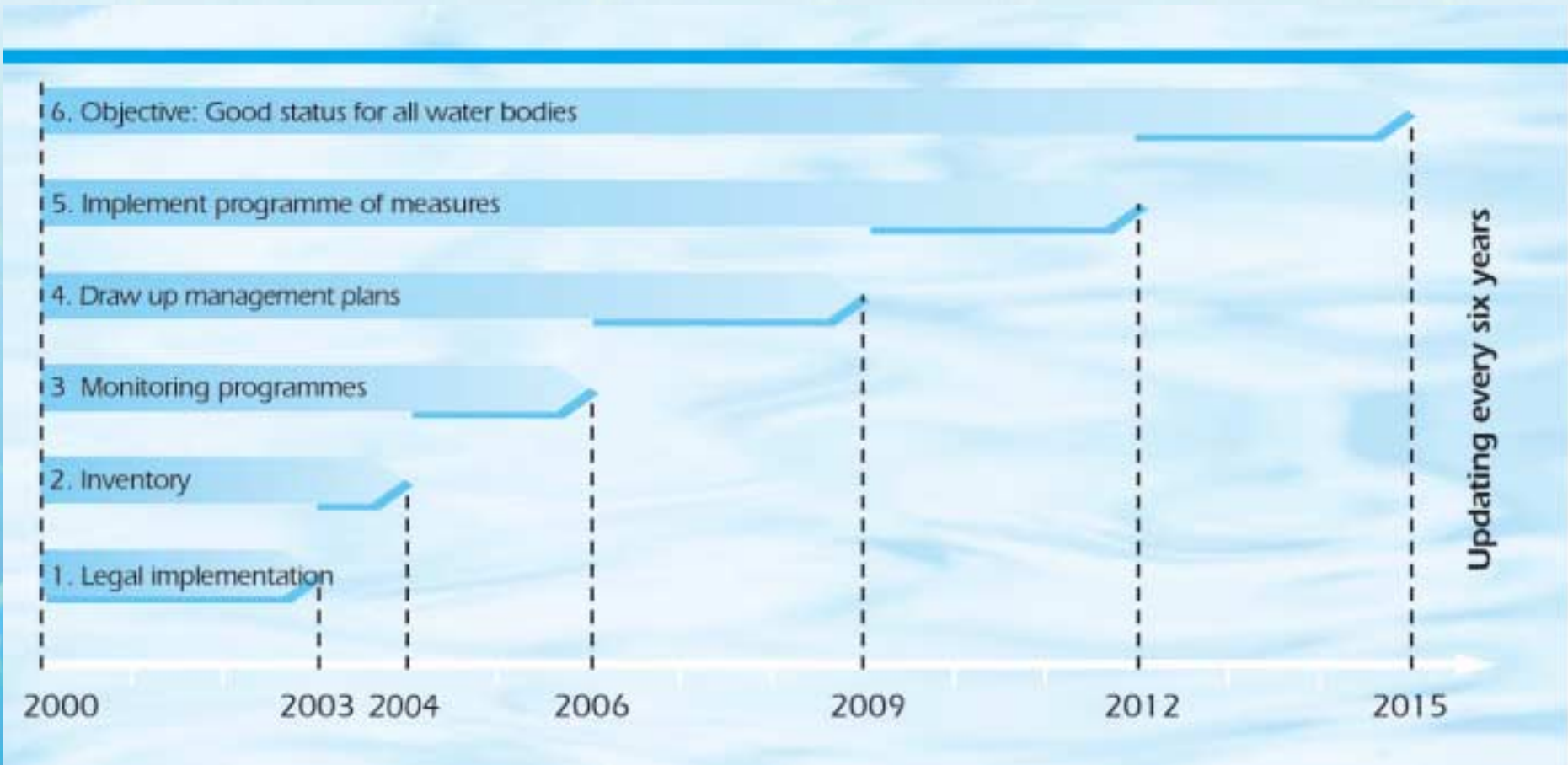


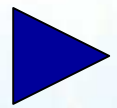


# Implementing Water Framework Directive



## Water Framework Directive: WFD





Thank you for your attention!



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