



**EUROPE'S LARGEST RIVER RESTORATION PROJECT:
THE RE-BIRTH OF THE EMSCHER BASIN –
TRANSFORMING A FORMER MINING LANDSCAPE INTO A
SUSTAINABLE AND LIVEABLE REGION**

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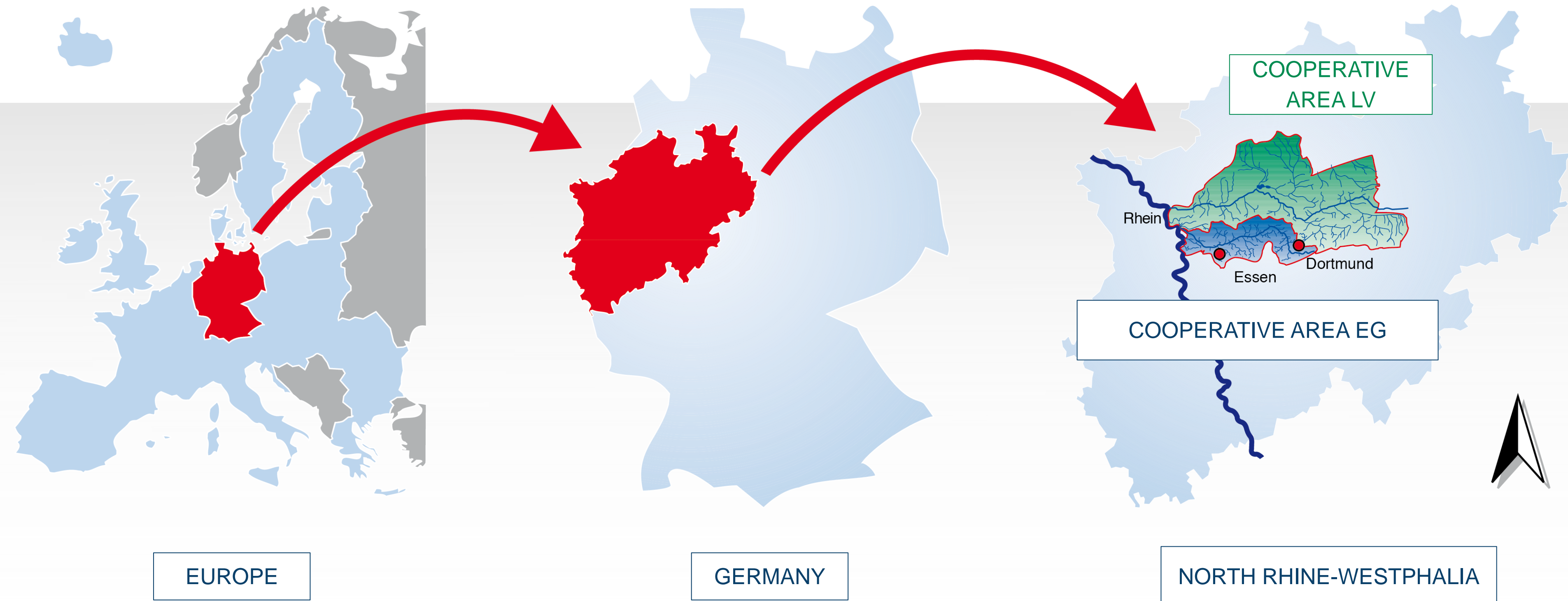
July 11th, 2017



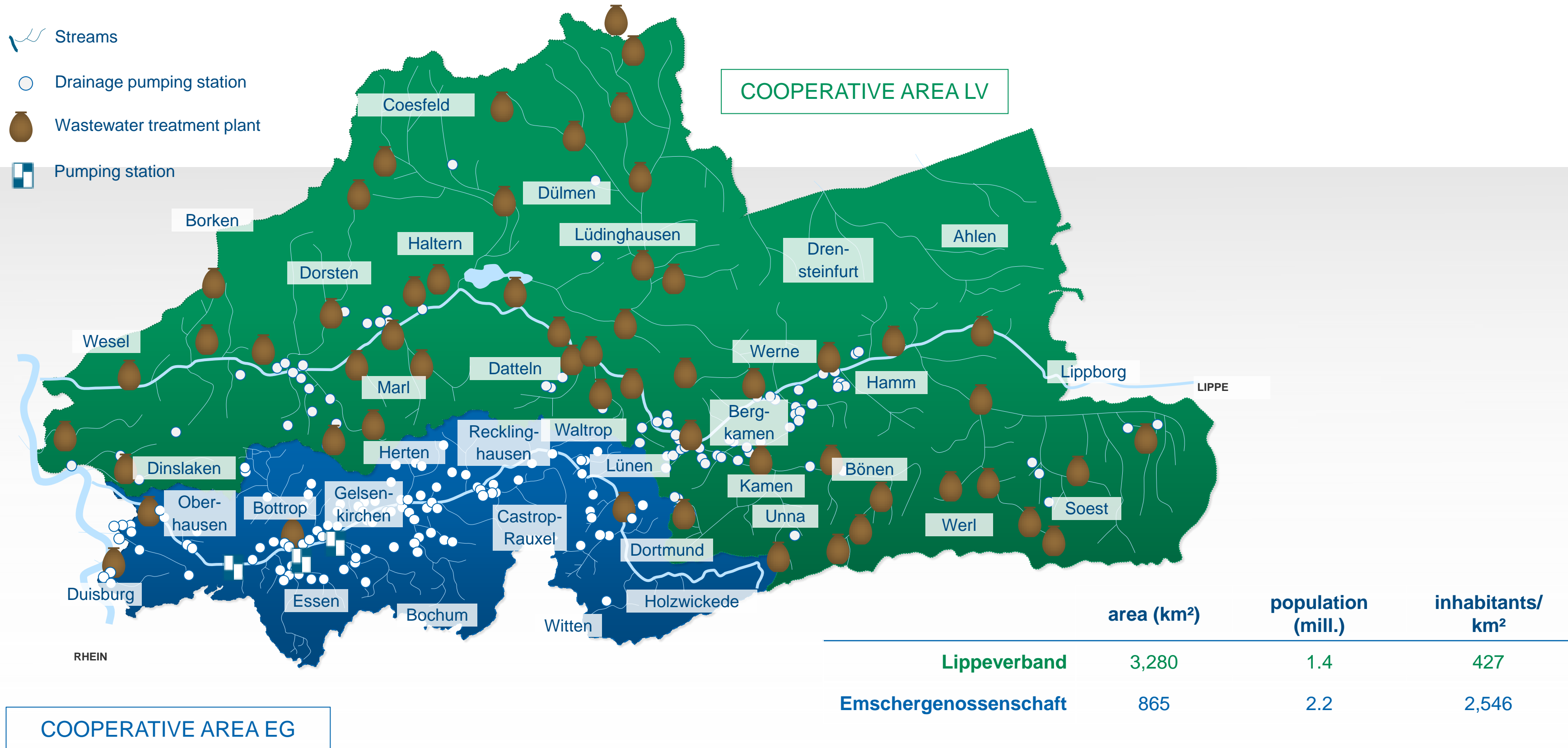
**... PORTRAIT OF A
RIVER MANAGER**

Emschergenossenschaft / Lippeverband

Public water associations for over a 100 years



Our catchment areas

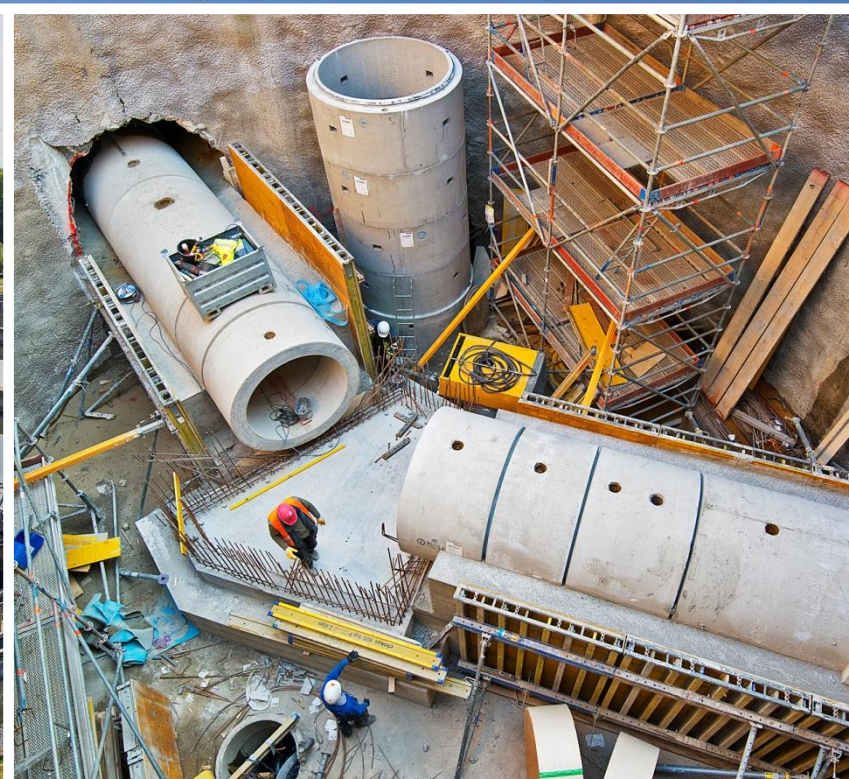


Our Motivation ...

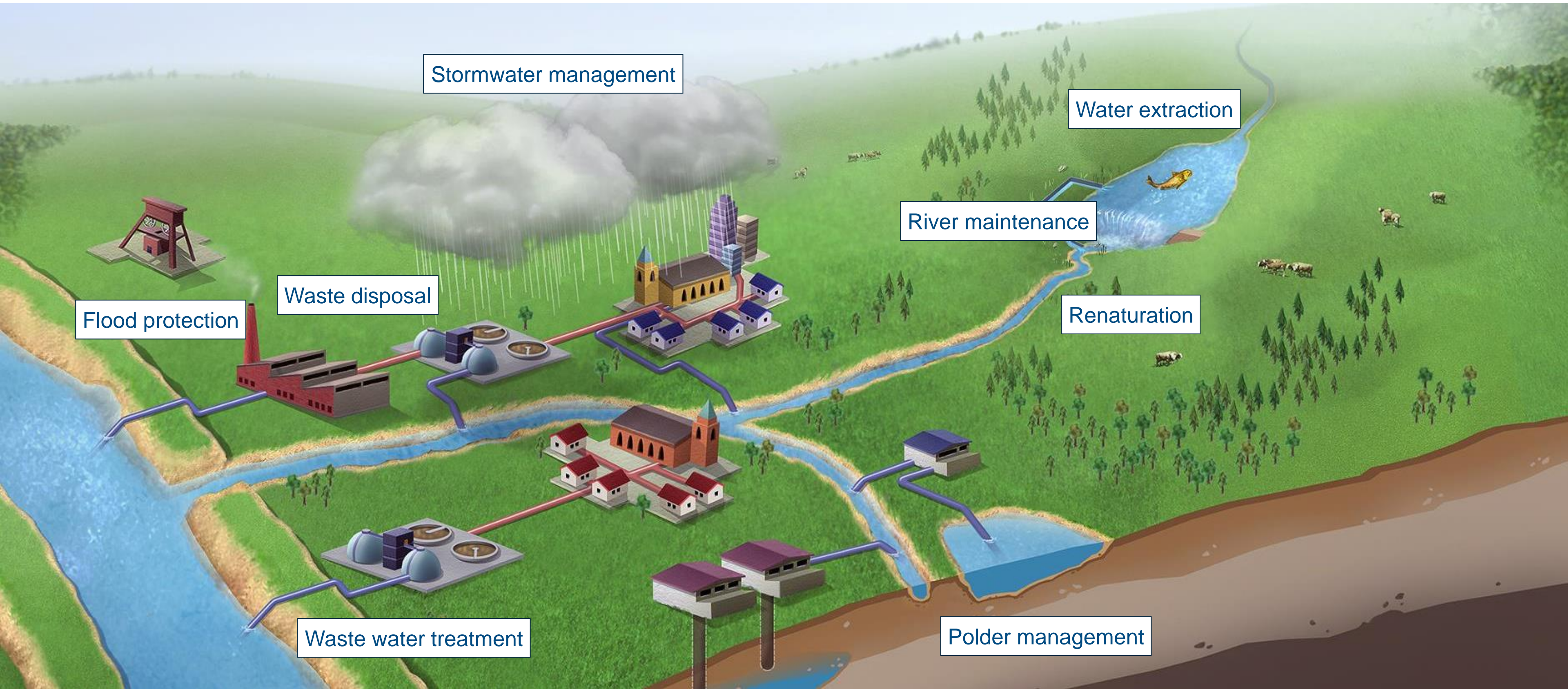


KEY FACTS

- We manage the natural river catchments of Emscher and Lippe
- We are service providers around the water cycle
- Together we are the largest water board in Germany
- We are water board cooperatives in the form of public sector entities
- We are a water board since 1899

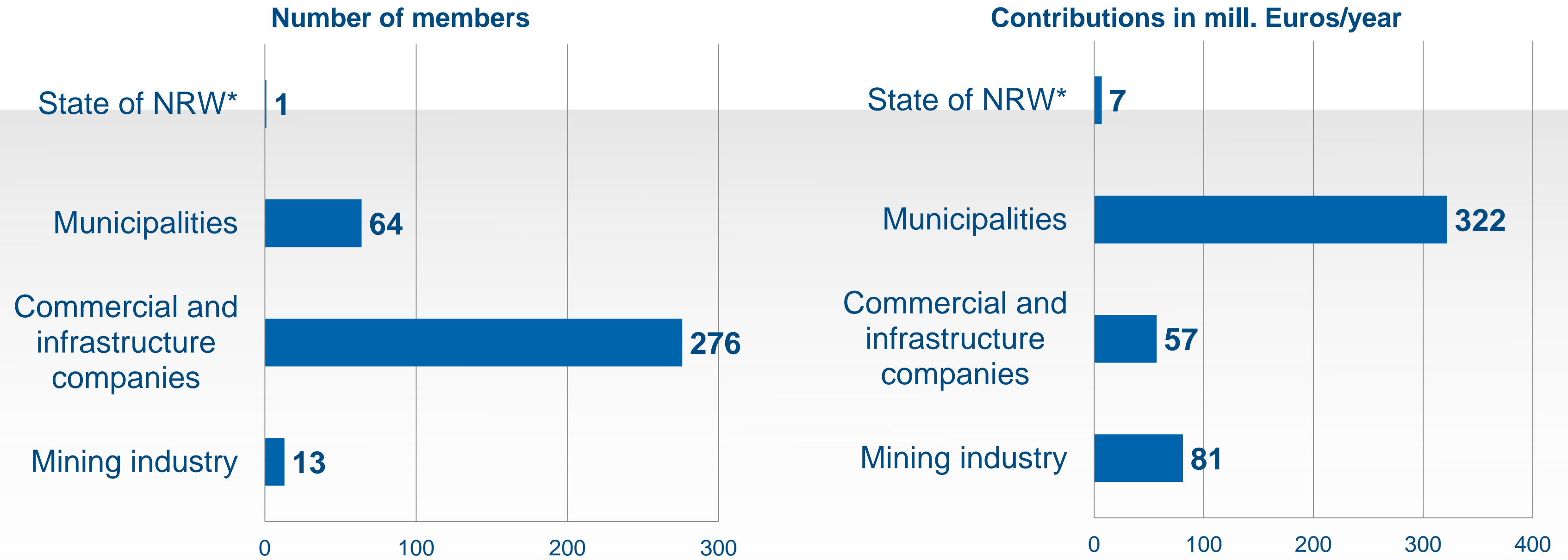


Integrated water management for the complete water cycle



Member structure

Emschergenossenschaft and Lippeverband (2016)



* only Lippeverband

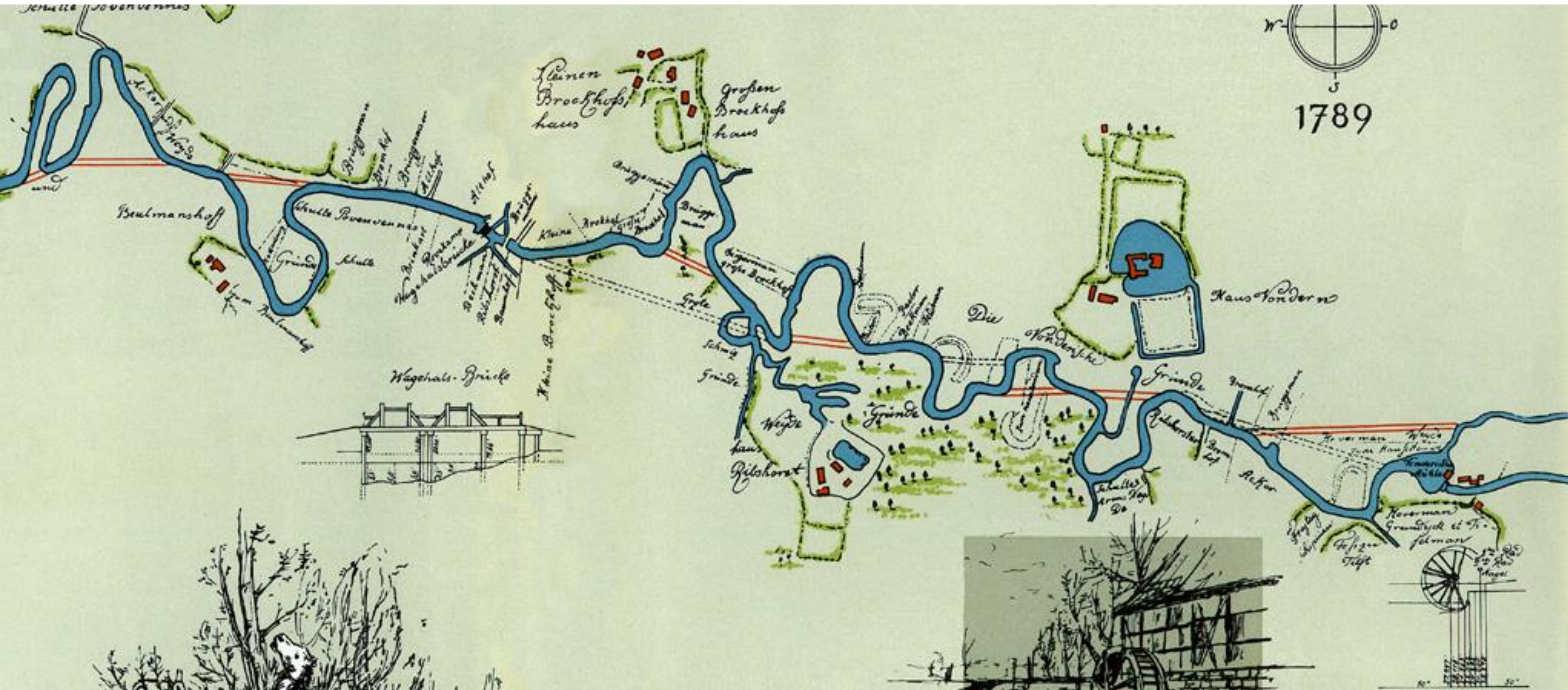
**A modern enterprise under the supervision of the Ministry of Environment:
 self government, controlled by the members**



FROM GREY TO BLUE: THE EMSCHER RESTORATION

Where the story starts: Historical Emscher around 1800

Villages, mills, fish and crayfish

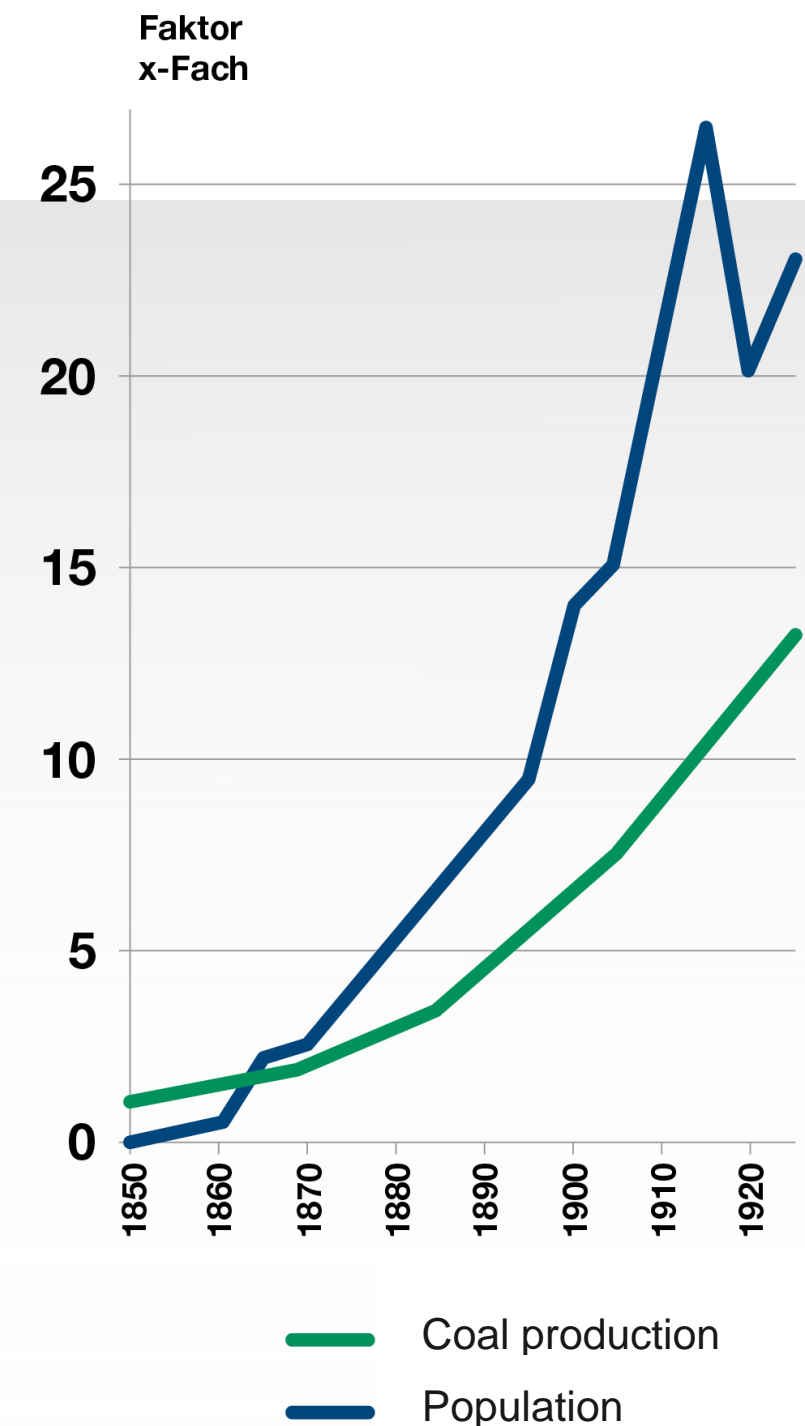


The Emscher valley in times of industrialization

Booming economy – increasing population



Population development and coal production 1850 to 1920



The emscher valley around 1900

Flooding caused epidemics and diseases – municipalities were not able to solve the problems on their own



The solution: Founding of a cooperative in 1899

- Cooperation of public law
- Members: Municipalities, industries, mining companies
- Self-administration and self-responsibility
- Non-profit
- River basin management: water, waste-water, ground water, flood protection
- Today largest waste-water company in Germany

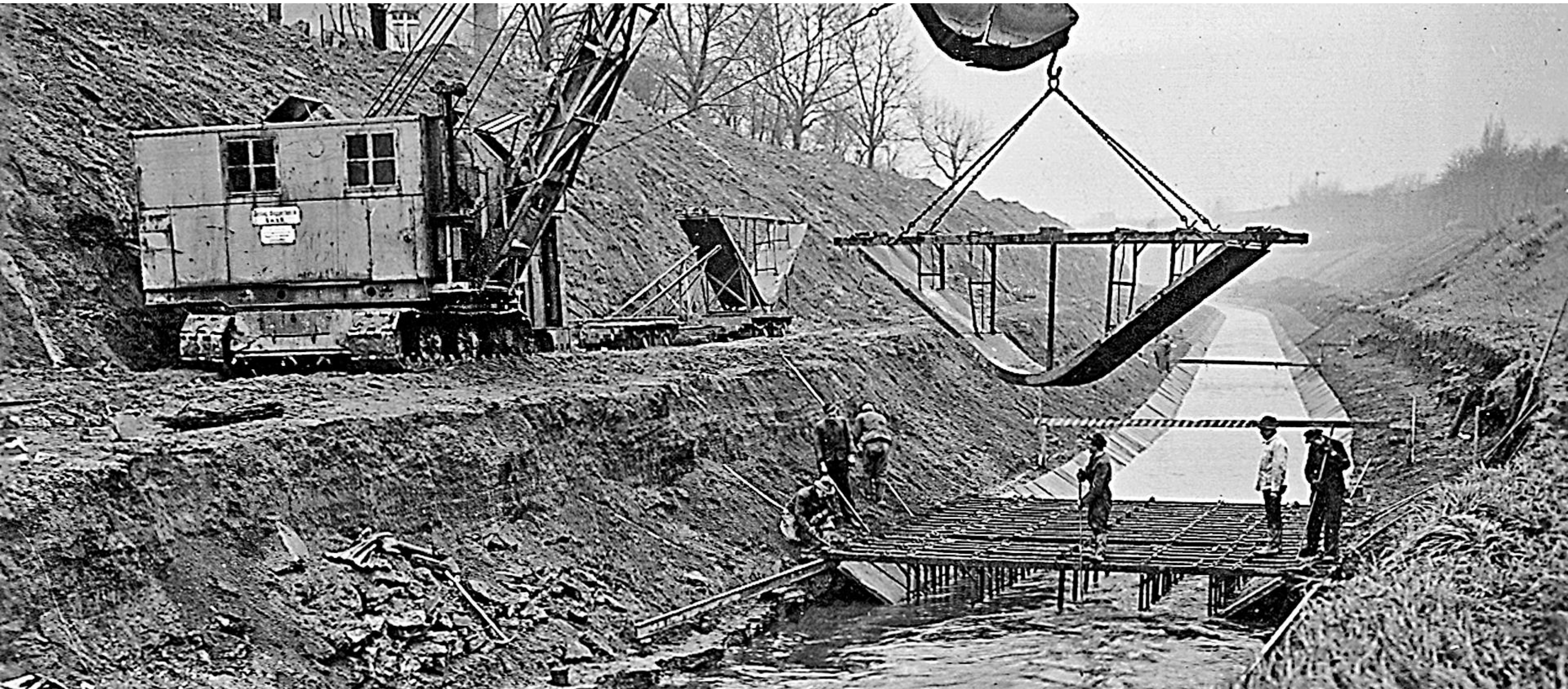


The „founders “ of the Emschergenossenschaft, 1899

The construction of the technical Emscher system

1900 – 1940

EMSCHER **LIPPE**
GENOSSENSCHAFT EGLV.DE VERBAND



The technical Emscher system

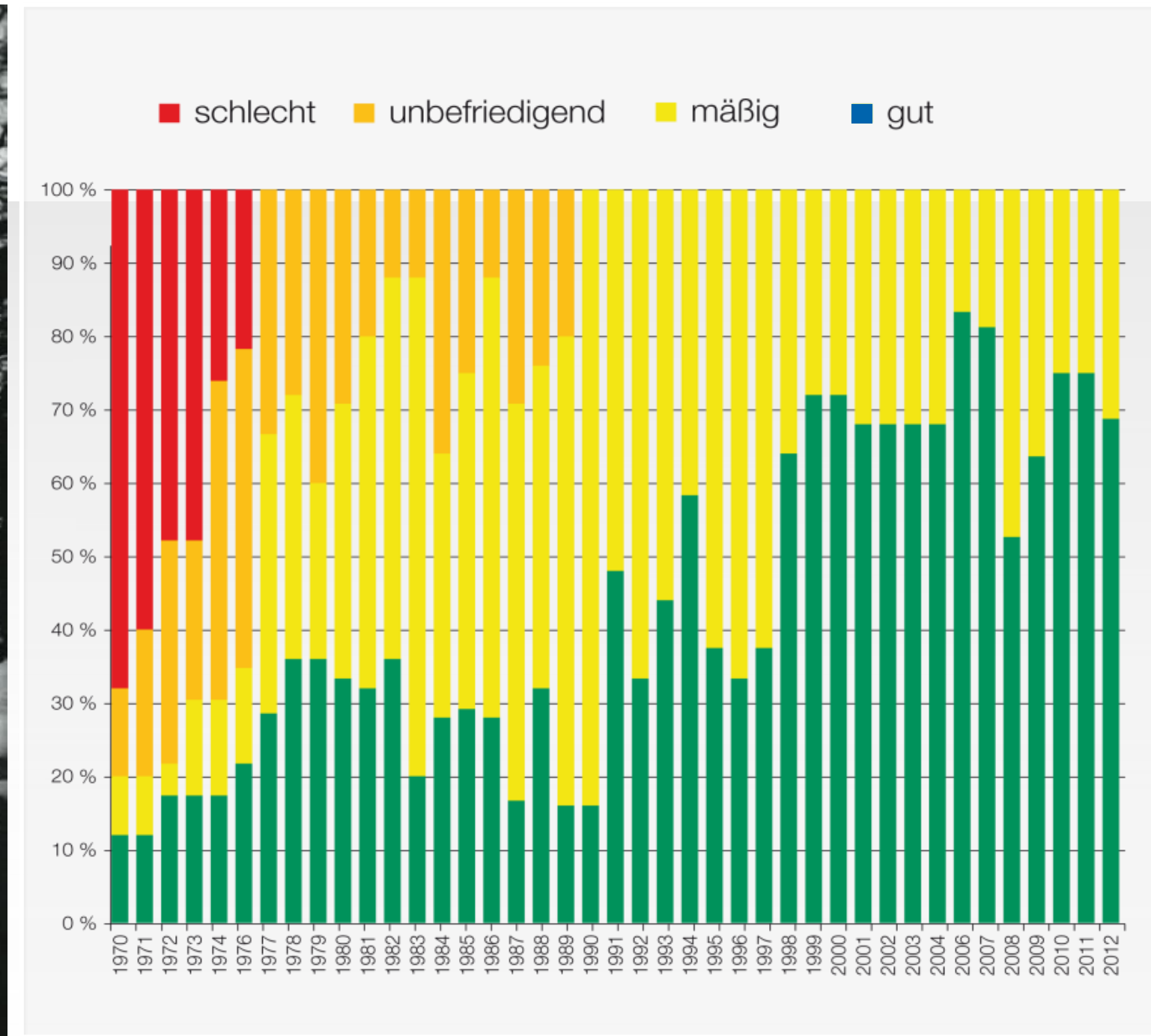
Efficient waste and stormwater transport – but not sustainable for man and nature



Water quality in Germany in the 70ies and 80ies

Polluted rivers by nutrients and chemicals as a result of the „Wirtschaftswunder“

River Lippe, 1964



Starting point for river restoration programs in Germany: The Sandoz Chemical Spill, 1986

Caused by a fire and its subsequent extinguishing

- Major environmental disaster at Sandoz agrochemical storehouse, Basel, Switzerland
- Tons of pollutants entering the Rhine and turning it red
- Massive mortality downstream: fauna of River Rhine extinct for hundreds of kilometers



Important impetus: IBA Emscher Park 1990

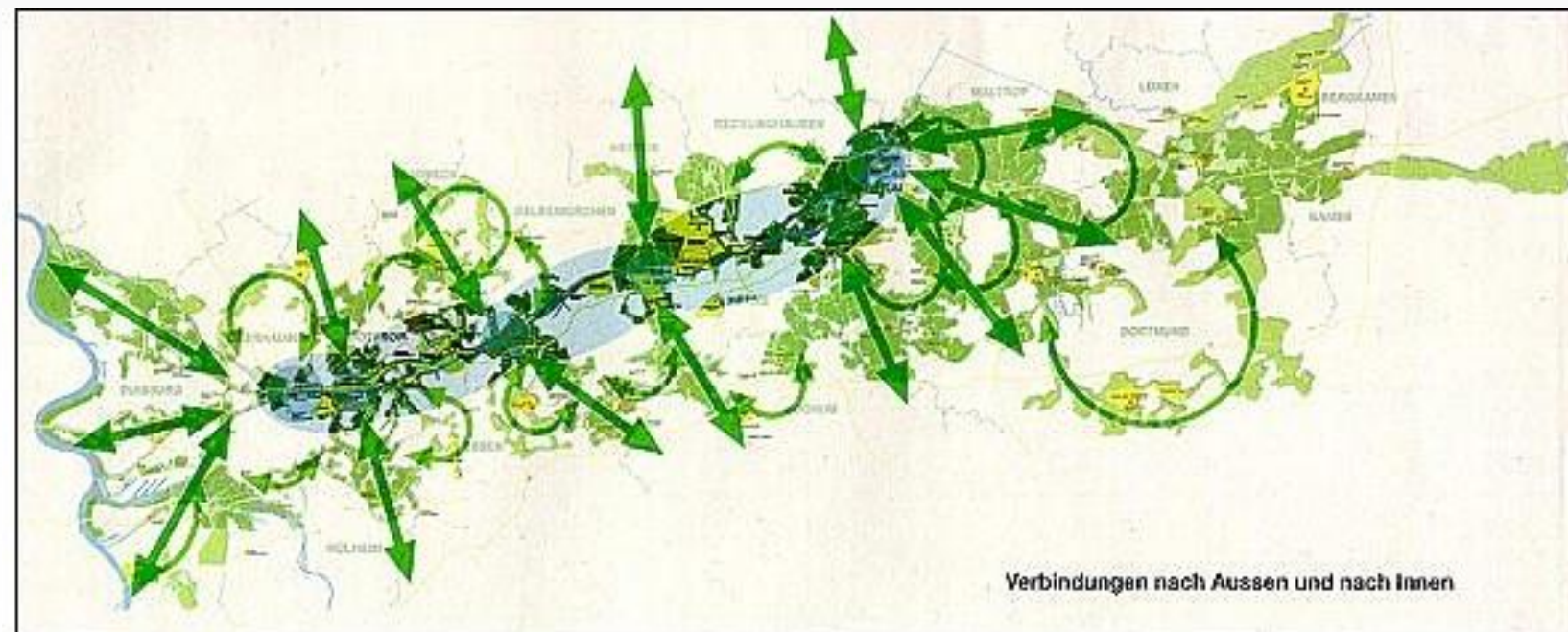
Internationale Architecture Exhibition Emscher Park

A paradigm shift from the “rust belt” towards a green, modern and wealthy metropolitan area

A holistic approach by restructuring a former industrial region with outstanding urbanistic, architectural, cultural, ecological and economic incentives

Main aims:

- **Ecological restoration of the river Emscher system**
- Reconstruction of landscape – the Emscher Landscape Park
- Industrial cultural heritage as national treasure
- Working in the park
- New forms of houses and housing
- New options for social, cultural and sports activities



The Emscher restoration: A generational project

Groundbreaking 1992 – completion 2020/21



THE MASTER PLAN



The Masterplan Emscher-Zukunft: More than engineering and ecology

2884 single projects for urban development and landscape planning



Water economy



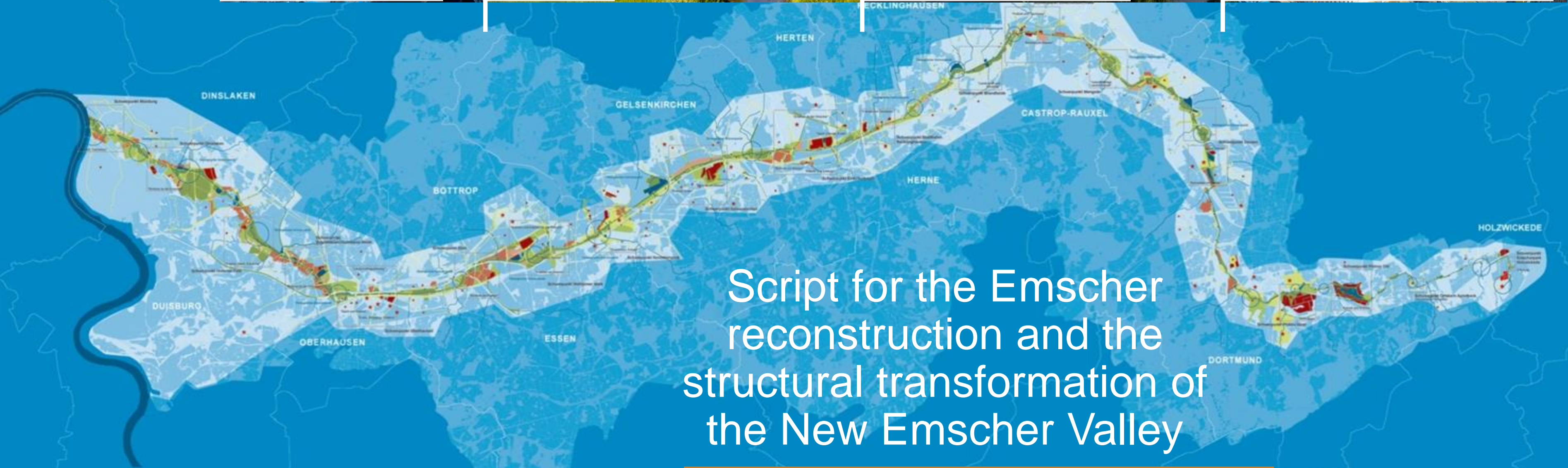
Ecology



Urban development

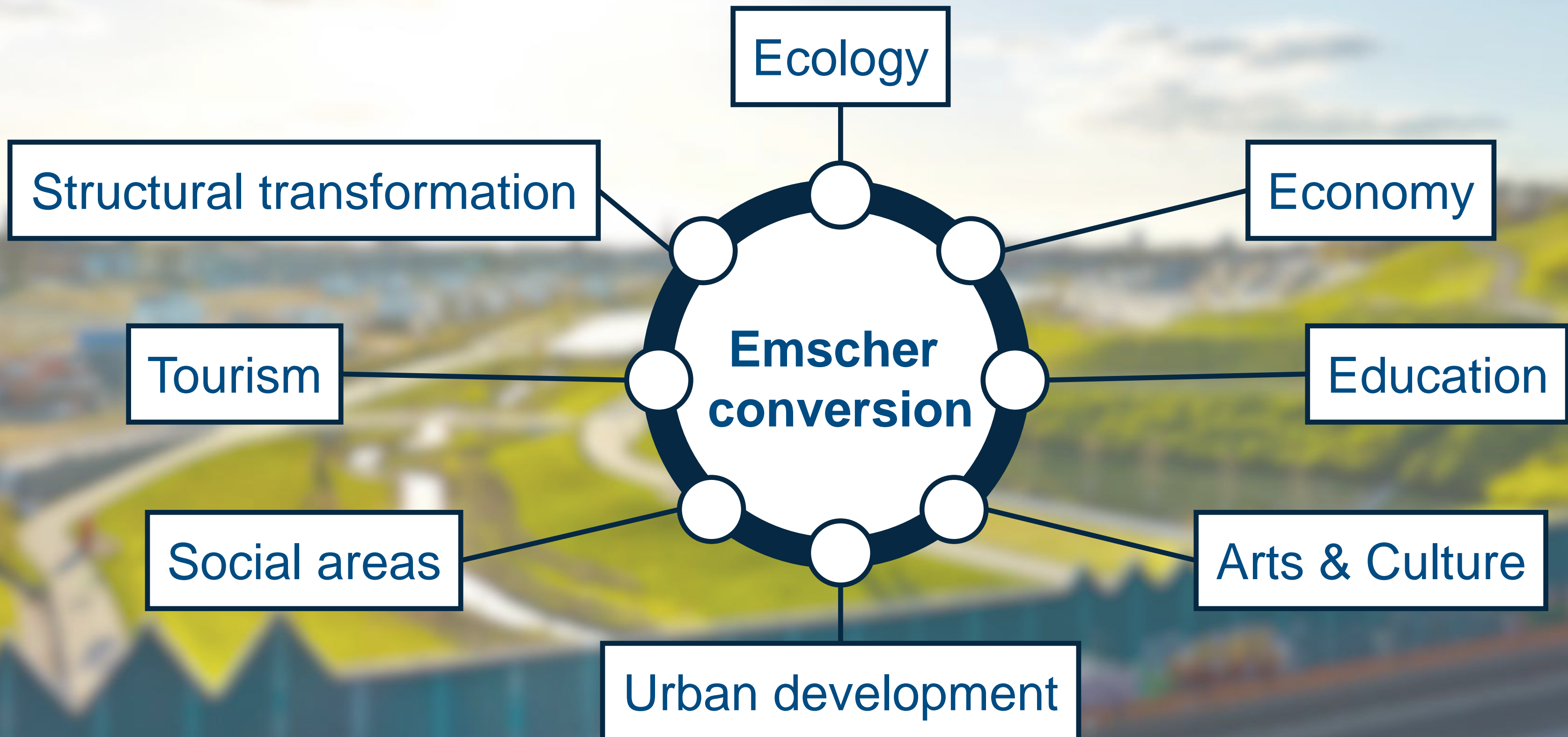


Design and Construction



Script for the Emscher
reconstruction and the
structural transformation of
the New Emscher Valley

The Emscher project: a vital impulse



The Emscher project

The largest river basin restoration project in Europe

- Budget frame: **> 5 billion Euros**
- Construction of **4 decentral wastewater treatment plants**
- **420 km** of sewers
- **330 km** of renatured waterways

**WASTEWATER FREE
IN 2020/21**



**RESULTS – THE NEW
EMSCHER VALLEY**

The new water landscape is designed

Completion of ecological improvement



UP TO NOW **135 KM**
COMPLETED (OF 330 KM)



More than 100 endangered
species of invertebrates and fish

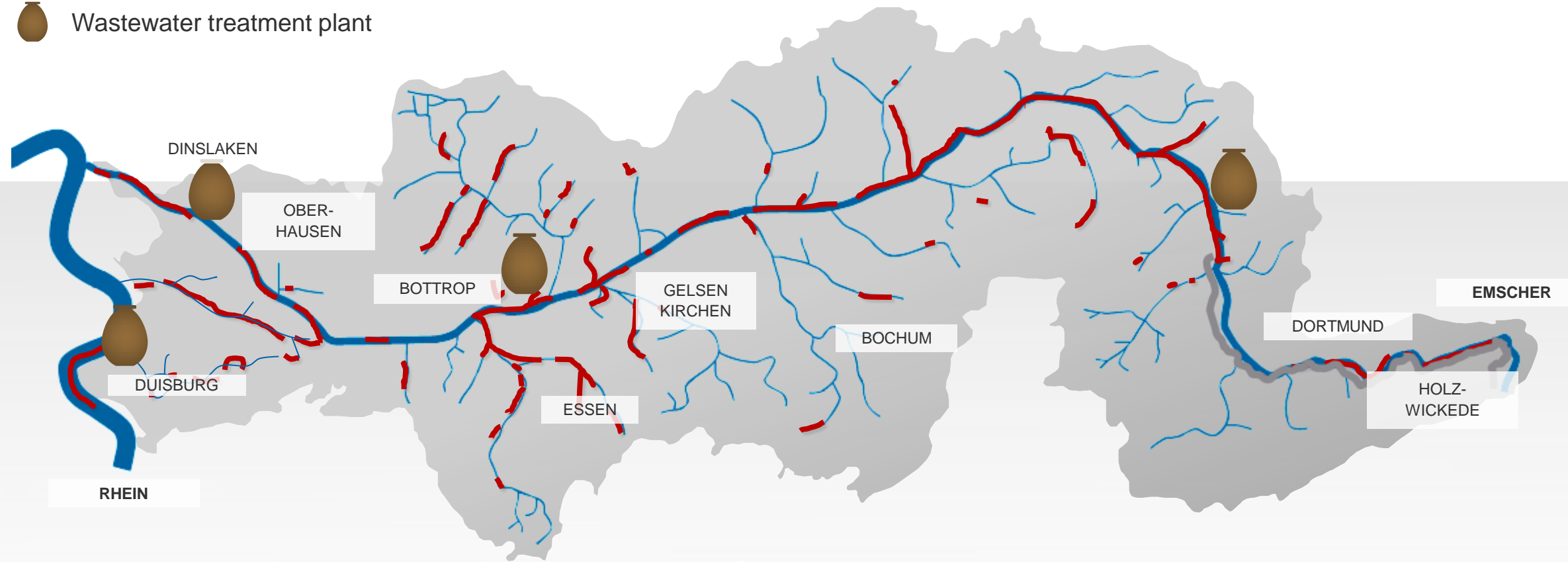
The Emscher restoration –
new wilderness for a colorful urban biodiversity

We offer access to the water bodies

128 km of cycle paths and walkways already completed

— Completed cycle paths and walkways

🗿 Wastewater treatment plant



Improvement of deprived urban areas

A former waste water treatment plant becomes a public park



Berne Park in Bottrop

From steel works to urban recreation and new housing: Lake Phoenix in Dortmund

Integrated water management for multifunctional areas

- Floodwater retention basin for 250,000 m³
- Lake ecosystem and leisure facilities





Lake Phoenix, Dortmund

PARTICIPATION AND MEDIATION PROJECTS

„Der Zauberlehrling“



Legal involvement: Plan approval procedure

850 maps

5000 pages

5 meters

Zoning procedure



Participation with „bottom up“ emphasis

Young citizens are planning a nature and water experience area, Recklinghausen



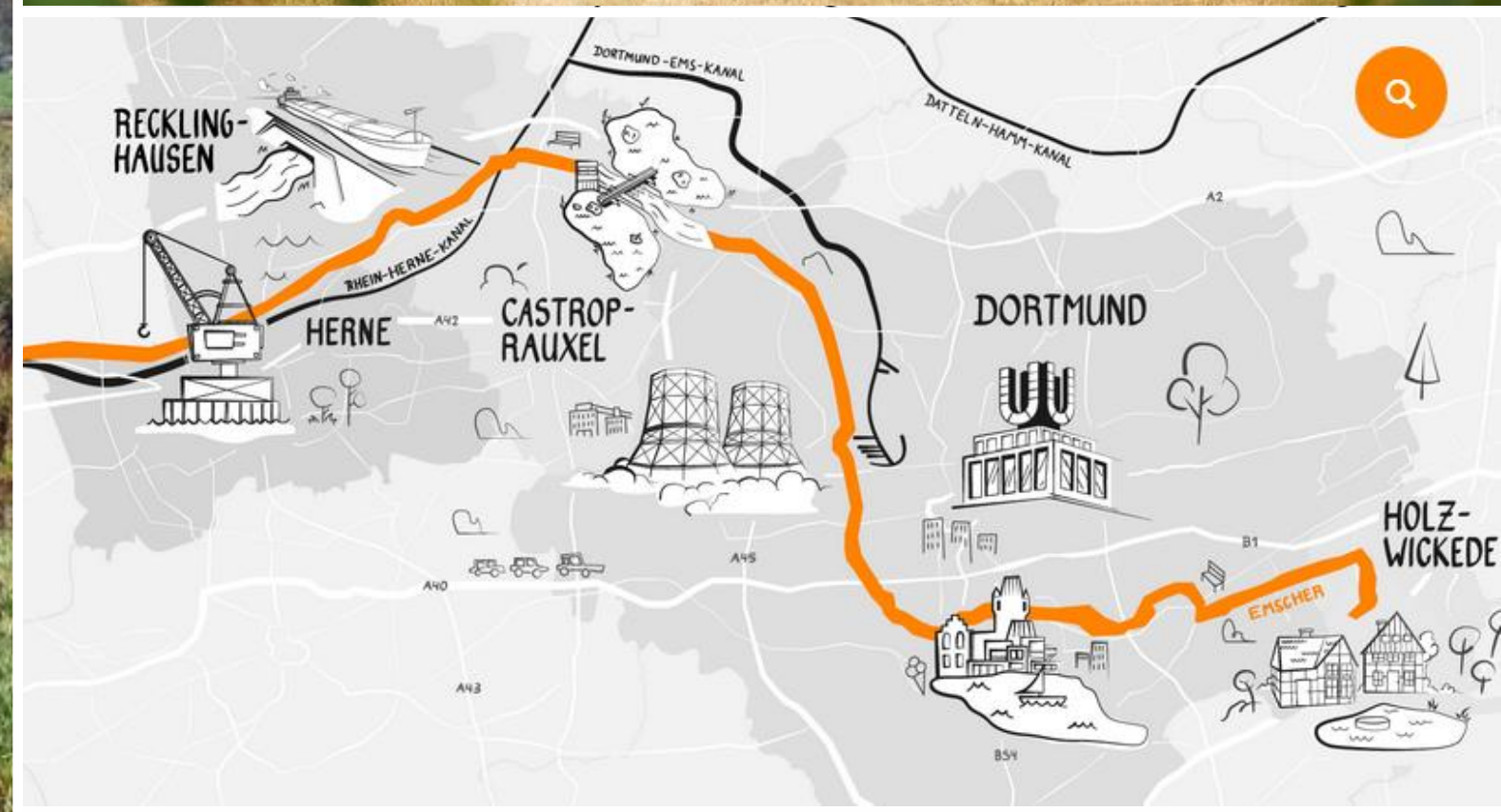
Art as mediator

Triennale Emscherkunst

**emscher
kunst
2016**

4. Juni bis
18. September

**ENTDECKE
DIE
KUNST**



Environmental education

25 school partnerships
and 'Blue Classrooms'



Citizen science projects for new biodiversity



The emscher restoration

A great chance for the whole region

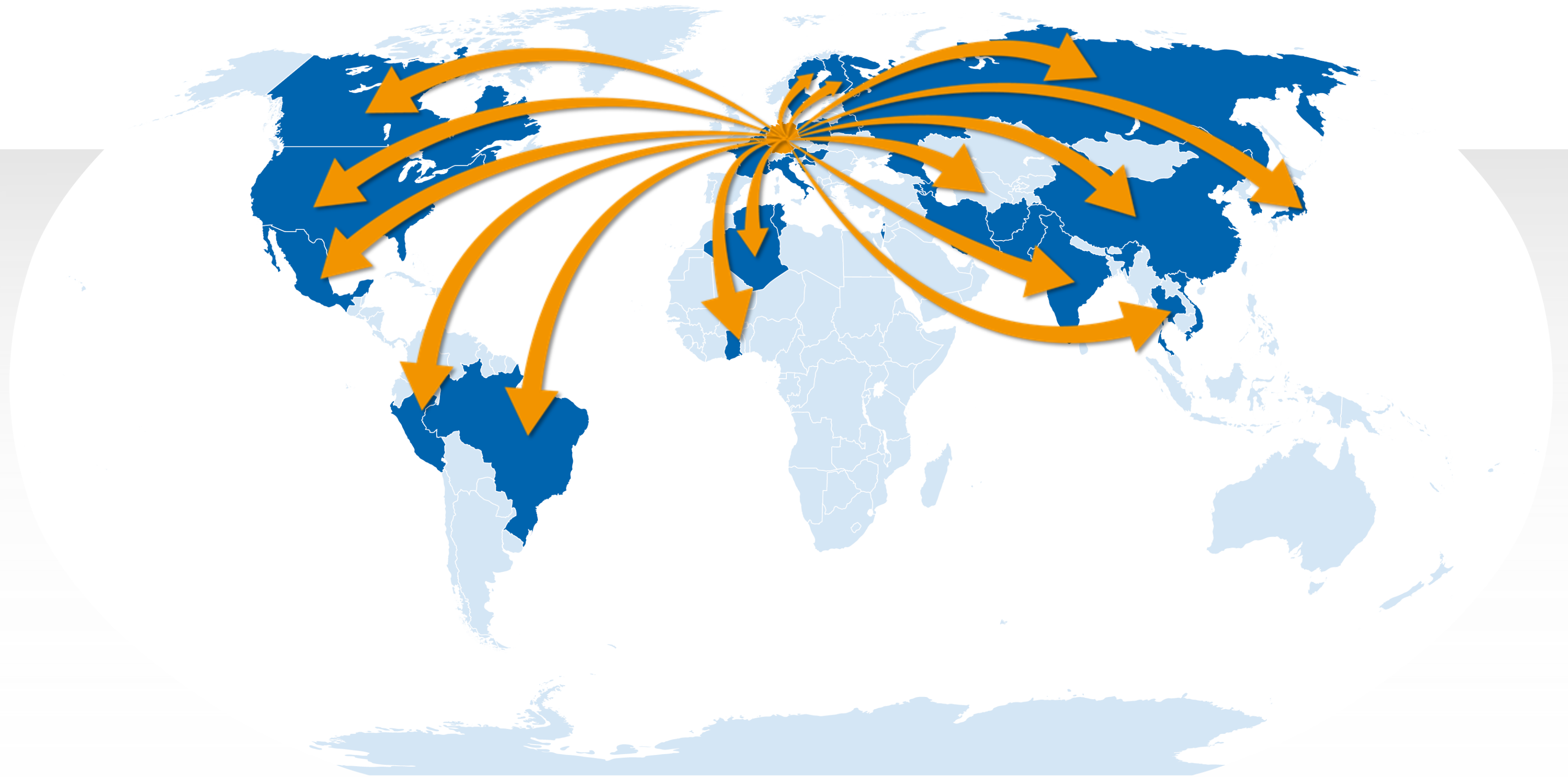


- Modernisation of the technical wastewater infrastructure
- Development of the Emscher as linear habitat with new ecological areas and leisure facilities

- Designing of landscape and the urban shape
- Improving the quality of life
- Economic improvement of the Emscher region

An exemplary Project

We share our know-how worldwide



**THANK YOU FOR
YOUR ATTENTION!**

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