

From grey to green and blue – The transformation of an industrial city in the Ruhr area

Sebastian Schlecht
Strategic Management
European Green Capital

Department Environment, Mobility and Sports
City of Essen, Germany



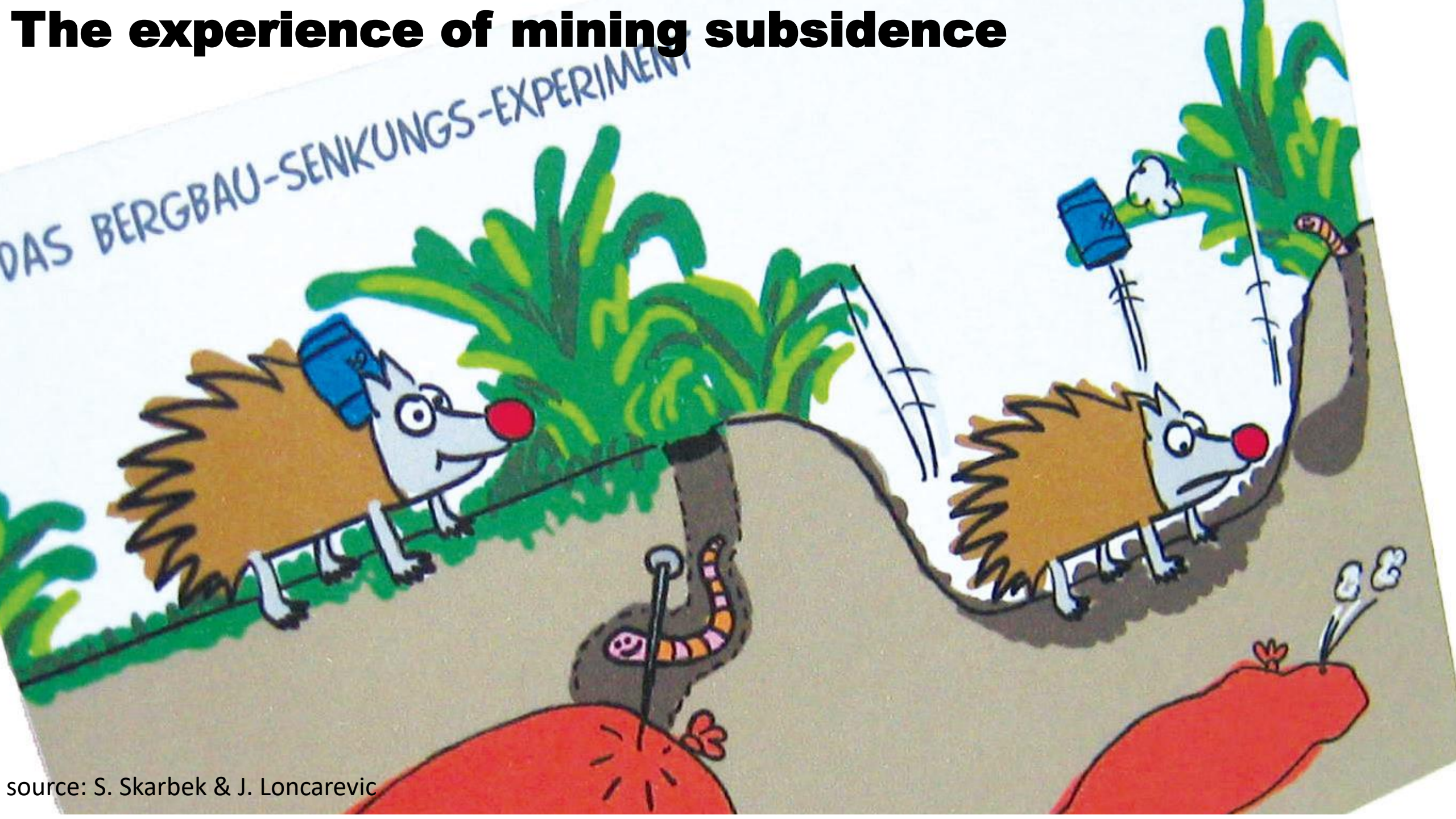


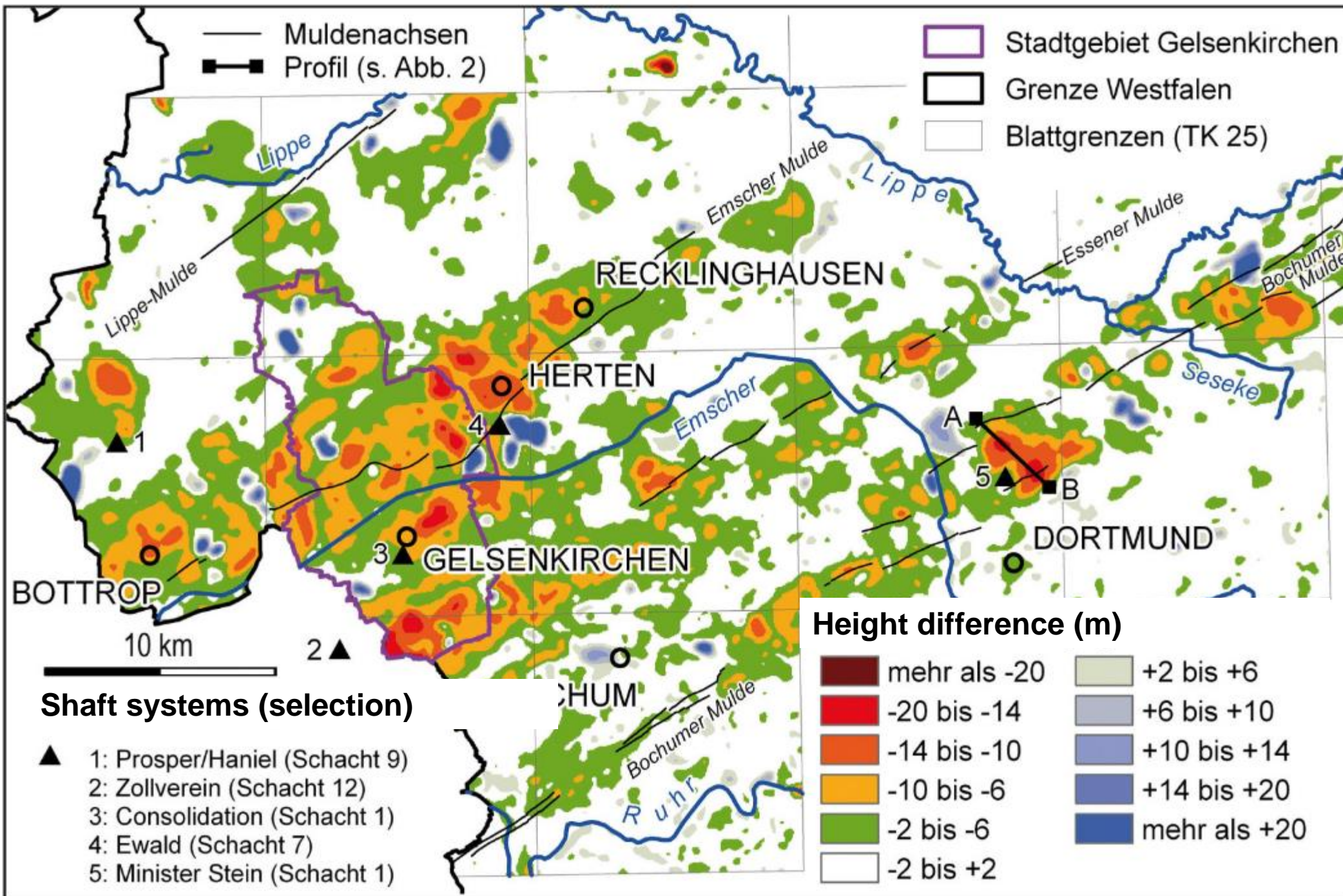
Essen has 591,000 inhabitants and is a central part of the Ruhr Metropolis, the city of cities, in which over 5 million people live in a landscape that has been shaped and fragmented by heavy industrialization



Zollverein Park UNESCO World Cultural Heritage Site

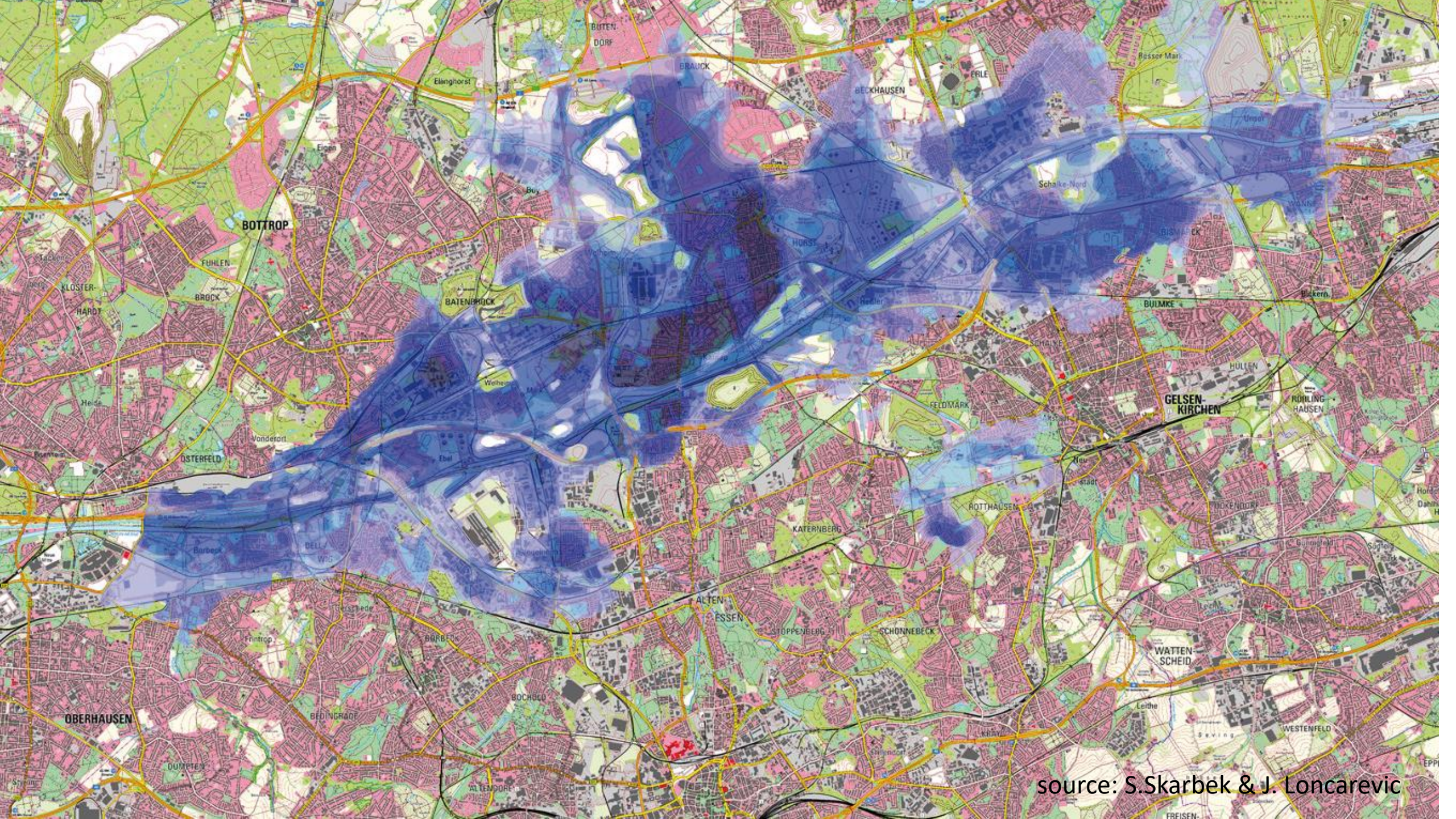
The experience of mining subsidence



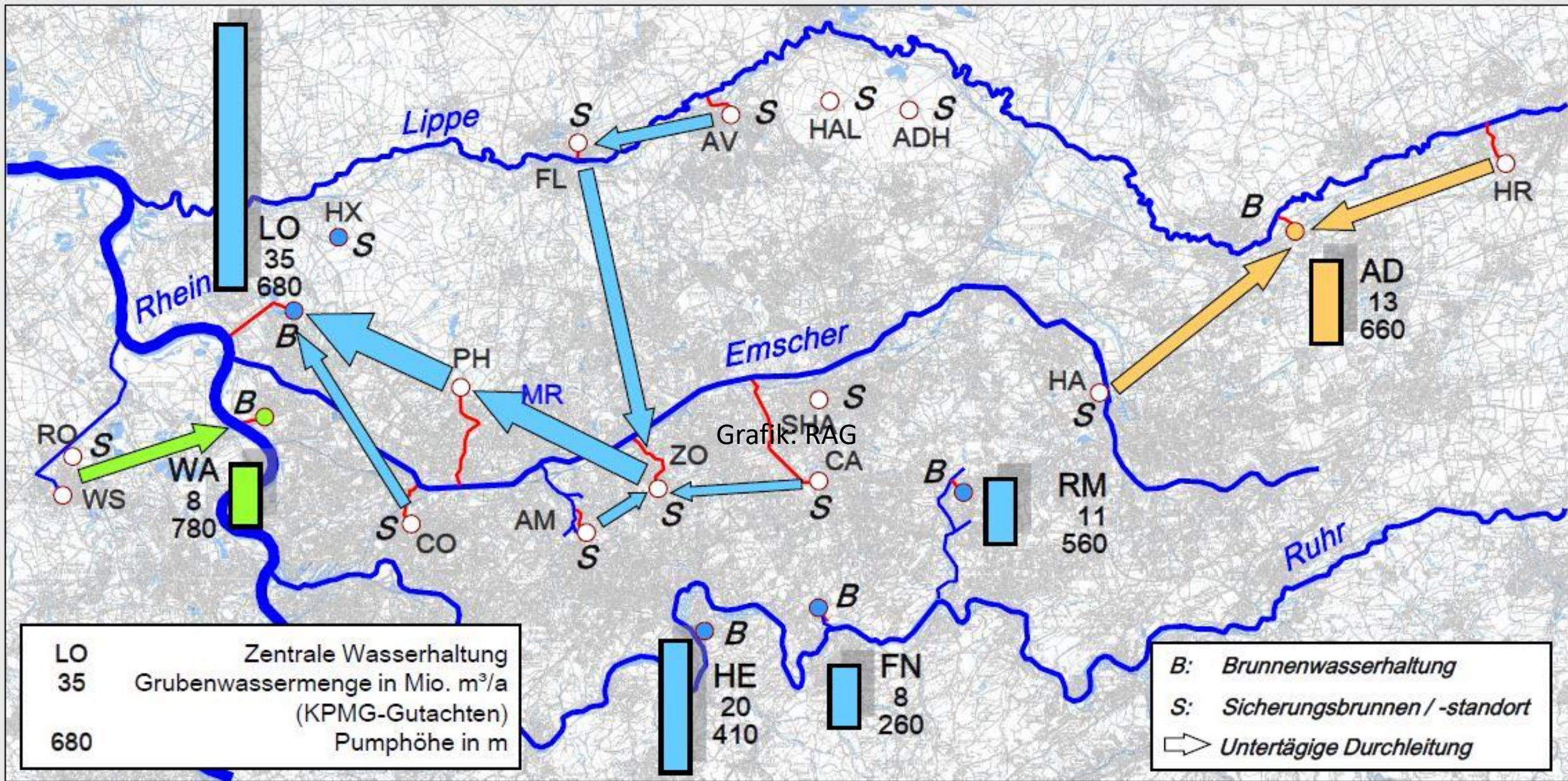


In order to maintain their runoff, rivers had to be raised and dammed above subsidence areas. Along its main course, the river Emscher is now bordered by dykes that are up to 10 m high for 75 km.

If the pumping stations were to fail, part of the artificially drained areas in one of the most densely populated urban areas in Europe would be under water. The total amount of water pumped from the subsidence areas in the Emscher and Lippe regions amounts to a total of 608 million m³. This corresponds to almost three times the capacity of the Bleiloch-talsperre in Thuringia, the largest dam in Germany.



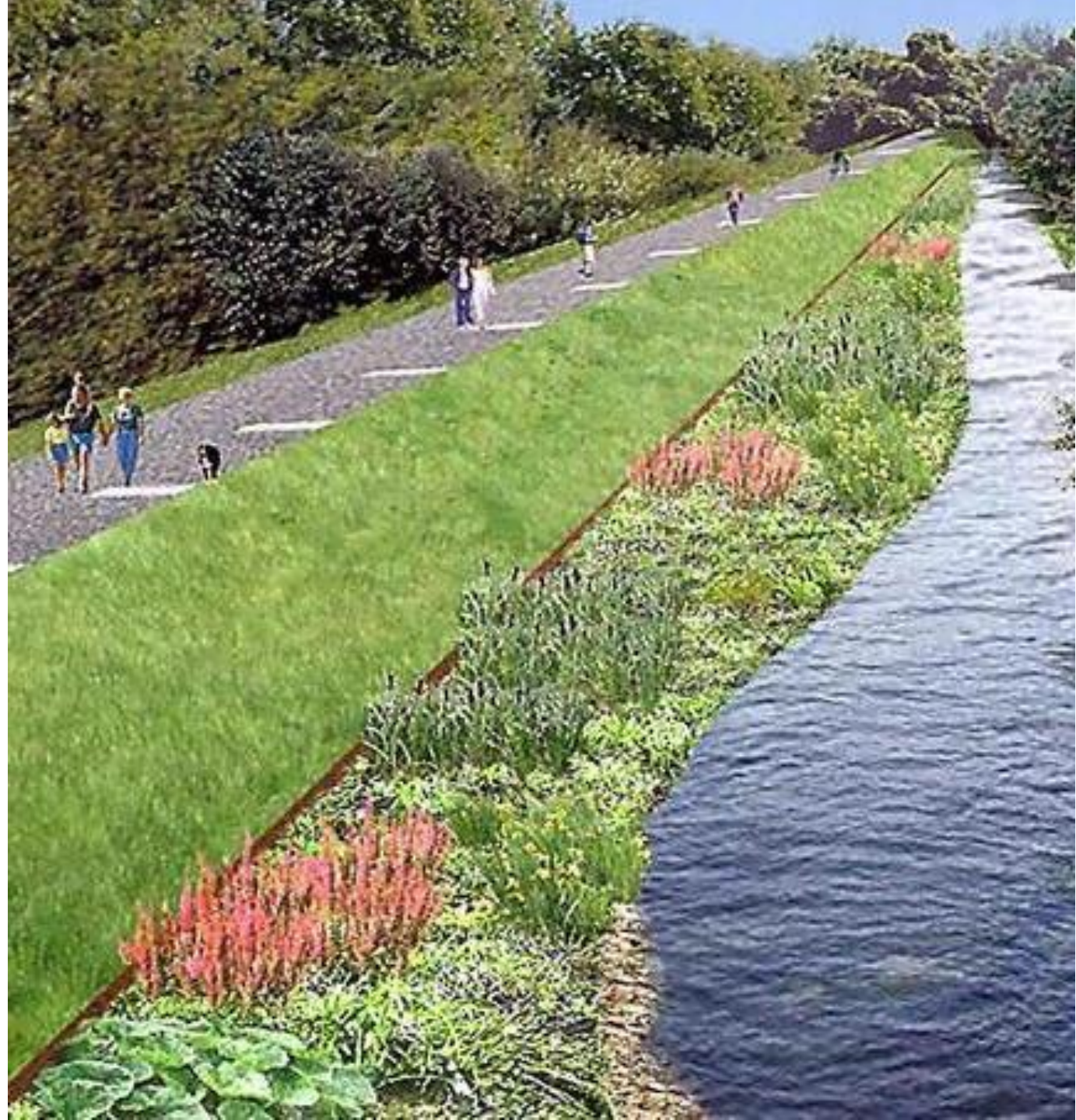
source: S.Skarbek & J. Loncarevic



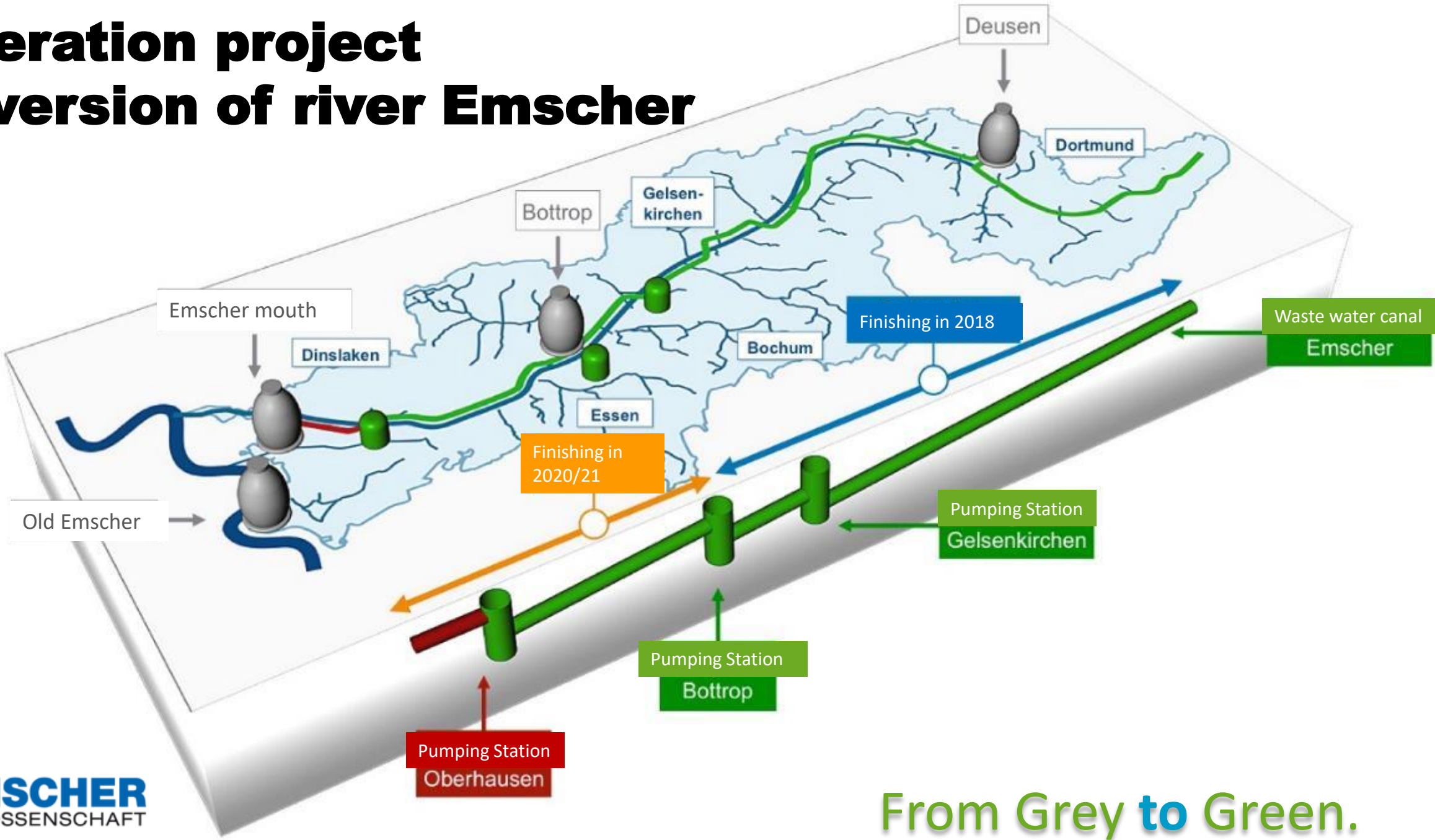
Mine water management as an eternal task

Conversion of river Emscher

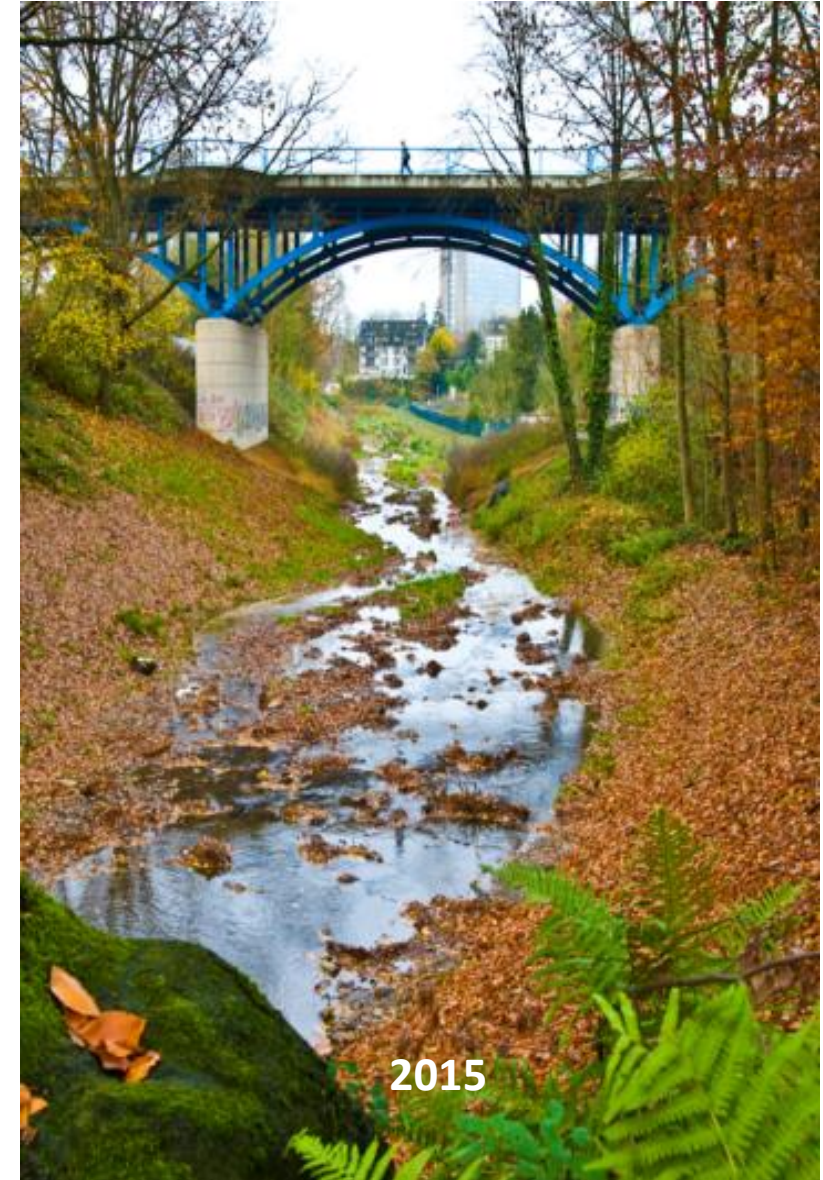
- ✓ 865 km² coverage aerea
- ✓ 85 km lenght
- ✓ 1.300.000 m³ excavation

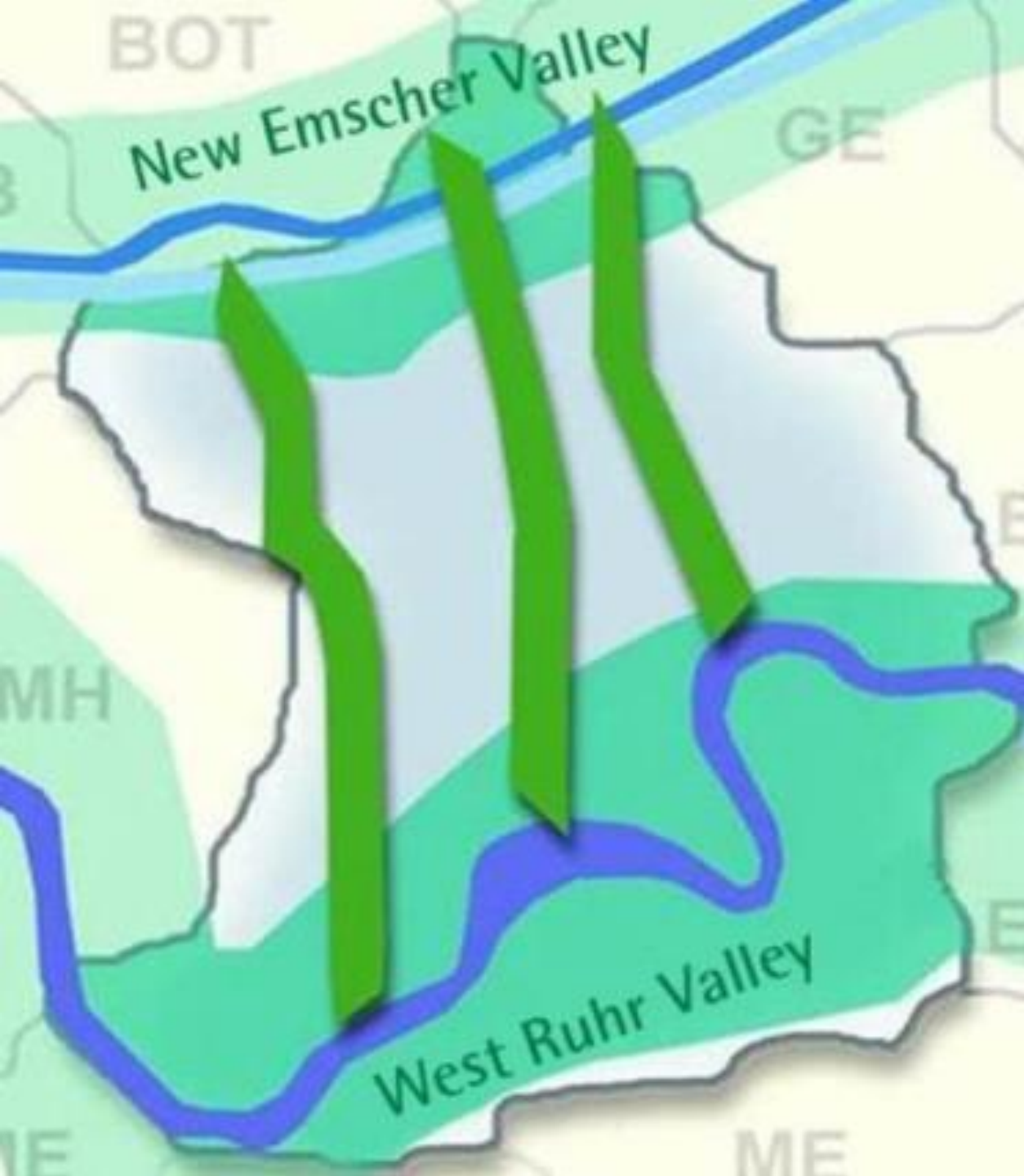


Generation project Conversion of river Emscher

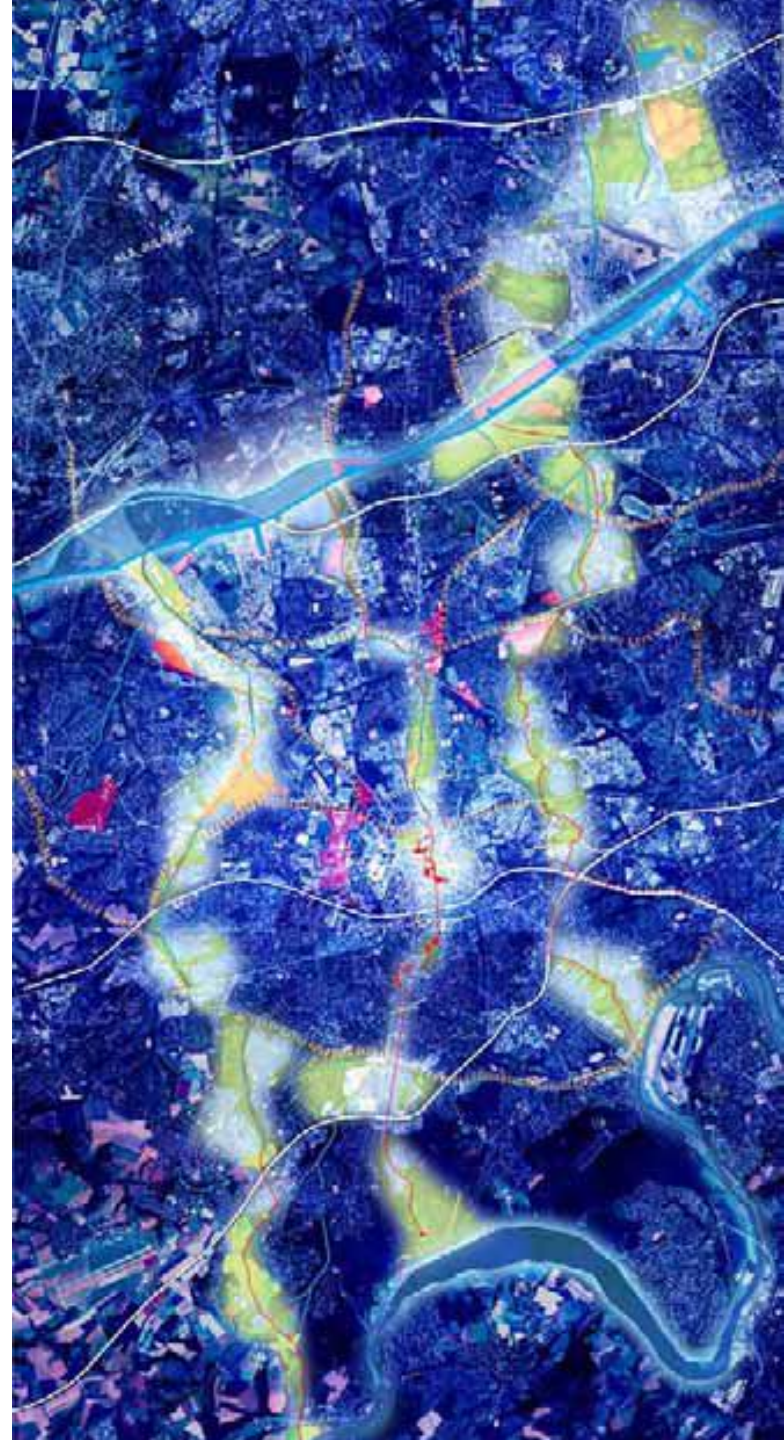


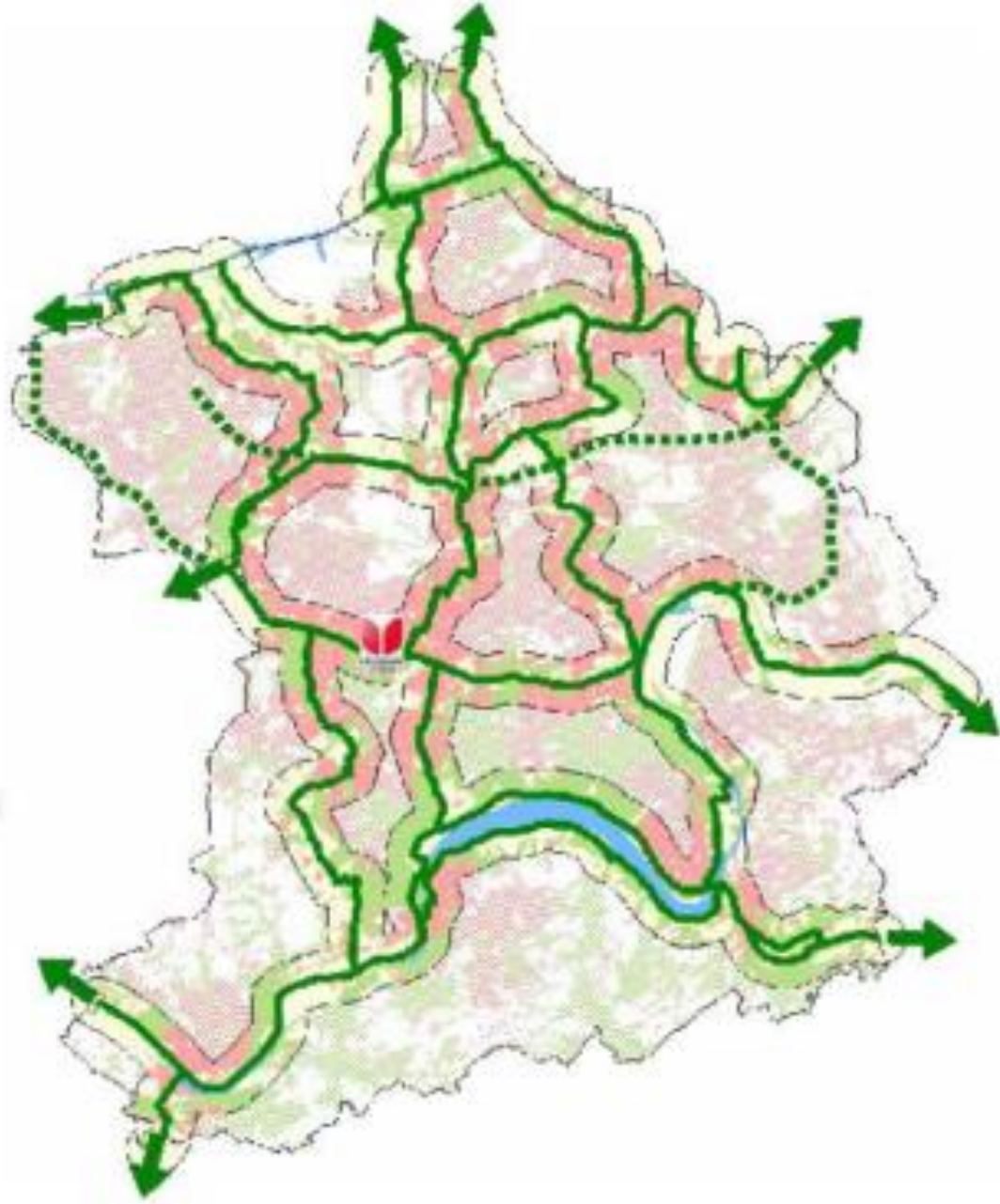
From the open sewer to living space:





NEW WAYS TO THE WATER





Connect through green



- Developing a green network for people and biodiversity
- Conversion of sewage and industrial rail infrastructure
- Connection to regional goals
- Involvement of the unemployed and educational programs
- More than 500 individual projects over 15 years

Swimming the river Ruhr



- First official bathing area at river Ruhr, since 2017
- Swimming in a river conform with the mit der European Bathing Water Directive

5th
Anniversary
of the Paris
Agreement





Essen 2014 © Stadt Essen



Essen 2018 © Stadt Essen



Essen 2020 © Emergency Rescue

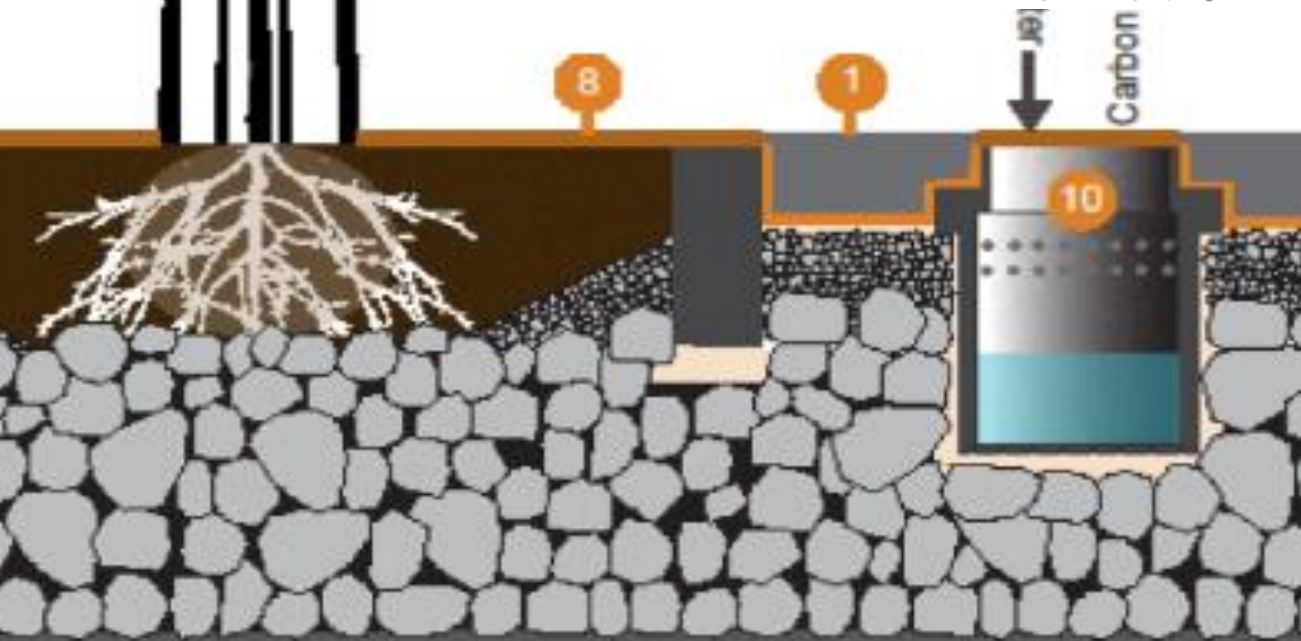
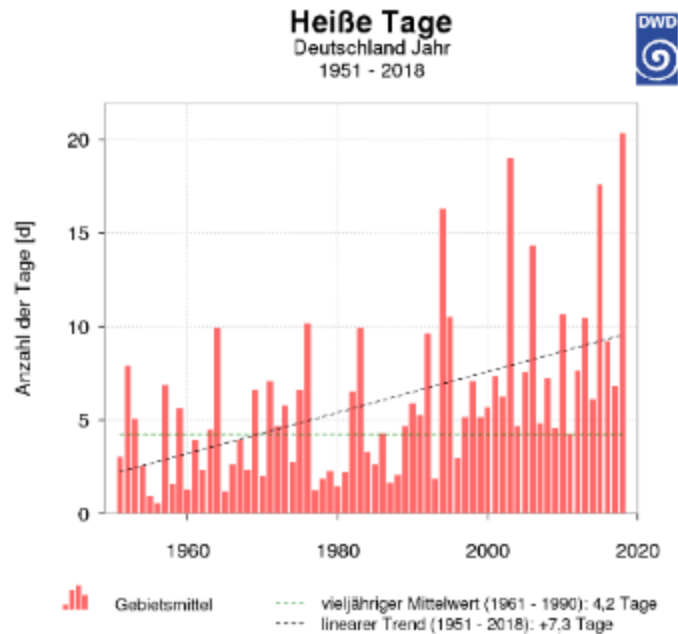
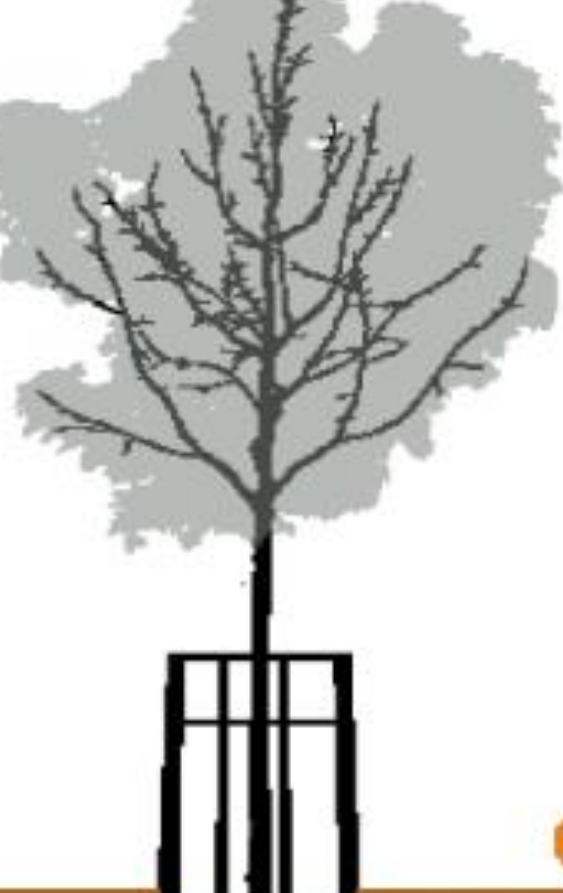


Essen 2020 © Radio Essen



Resilient and climate-adapted nature ensures quality of life and avoids follow-up costs





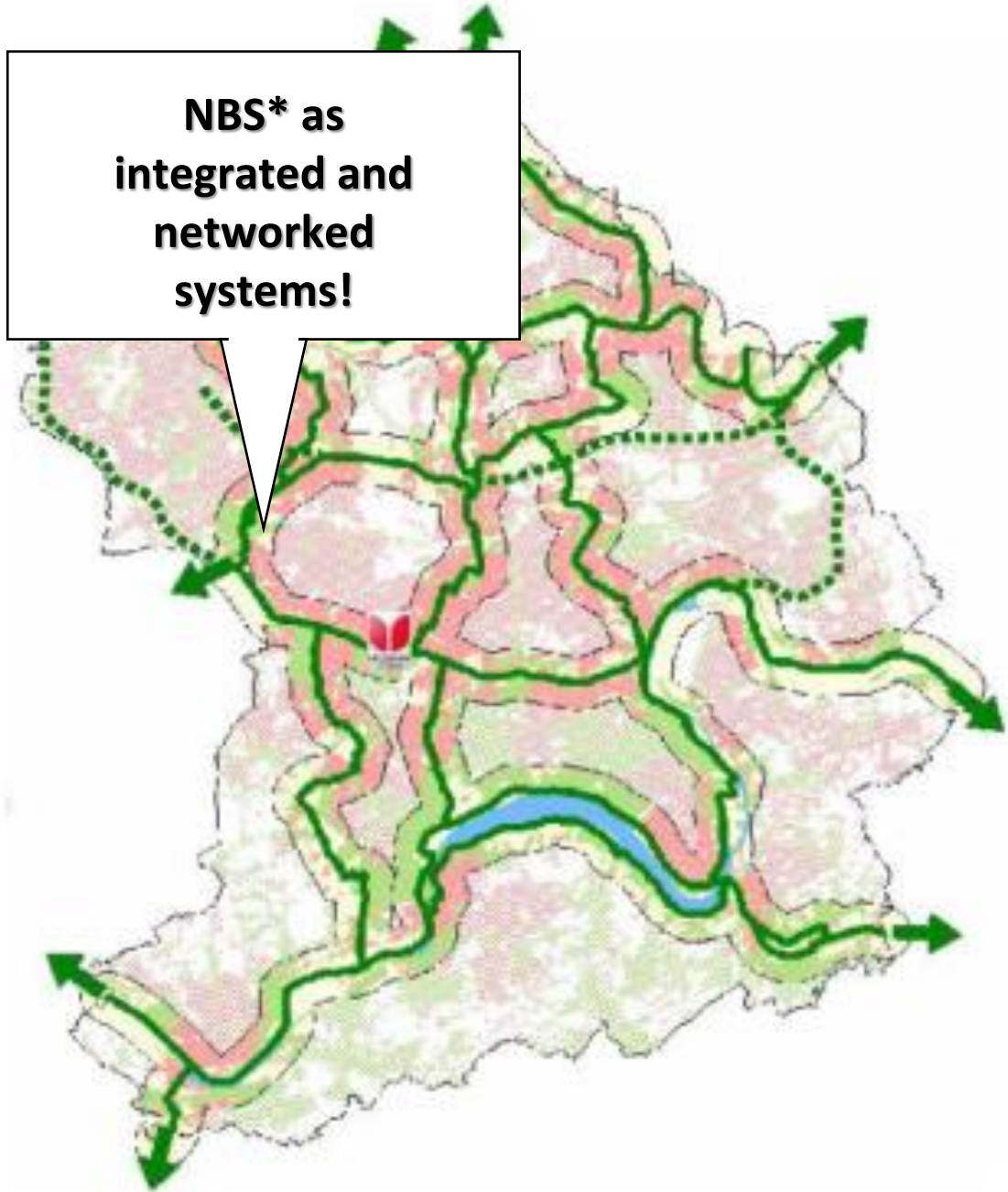
	positiv	negativ	%
Flächenanzahl [n]:	2.775	560	83,2
Beschirmungsfläche [m ²]:	93.517	2.792	97,1
Gesamtvolumen [m ³]:	1.533.041	27.019	98,3

Achievement of goals
through data analysis
& performance
evaluation



validiertes Ergebnis

- positiv validiert
- negativ validiert



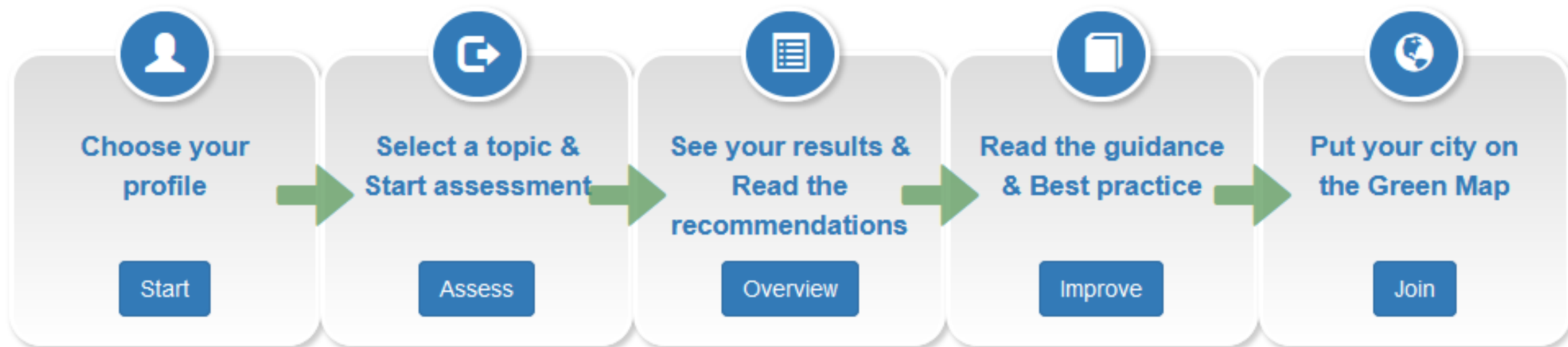
* Terms of use for service facilities special part (NBS-BT) - Stadtwerke Essen



Welcome to the Green City tool

This tool is both a simple self-assessment and benchmarking tool for cities, and a source of information and advice for anyone wanting to learn more about how we can make cities greener and more sustainable. This tool is all about city governance and the approach taken to sustainable urban planning – it is not about quantitative indicators of sustainability, although it will guide you to the best places to find such information.

To start using the tool, simply click on the first step below to choose your profile:





Steer integrated and holistic!





University district

open urban spaces mobilize investments



Krupp-Park

open urban spaces improve live quality



Niederfeldsee

open urban spaces offer chances and perspectives

Thanks for your attention!

Sebastian Schlecht, City of Essen



The city of future is a powerful landscape!

