

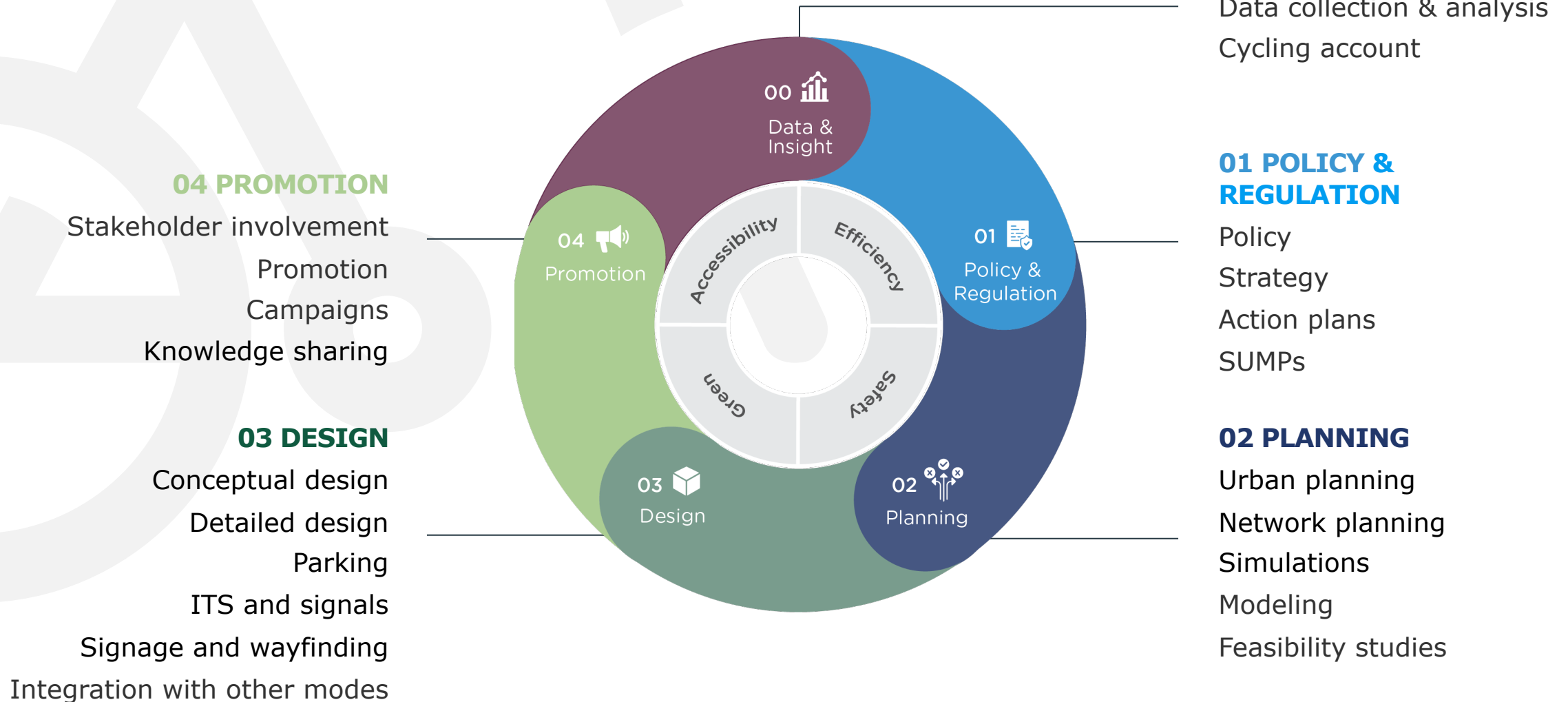
A group of cyclists is riding away from the camera on a wide city street. In the background, there are large, historic buildings with many windows and some with towers. A red circular speed limit sign with the number 40 is visible on the right side of the road. The scene is captured during the golden hour, with warm sunlight. A blue overlay covers the bottom left portion of the image, containing the Ramboll logo and title.

RAMBOLL

Bright ideas.
Sustainable change.

Planning and designing for cycling

Ramboll cycling services overview



02 Planning

References

02 Planning

A **coherent, accessible, safe and secure network of bike lanes**, paths and bicycle streets is the backbone in a cycling city.

But planning for cycling is more than planning new bike paths, bridges and tunnels. It is also about land use and spatial **planning for a city with shorter distances** and planning for the **integration and connection with other modes of transport**.

Understanding of the **DNA of cycling** and **cycling culture** is crucial when planning for cycling. A bicycle is not a small car and cyclists are not pedestrians on wheels.

Some examples of services Ramboll offers for this phase are:

- Modelling and simulations
- Potential studies
- Feasibility studies
- Master planning
- Network planning
- Safe school routes
- Cost-benefit analyses, socio economics
- Traffic safety analyses
- Bike sharing studies



BRUTUS

Cycling flow analysis

Challenge

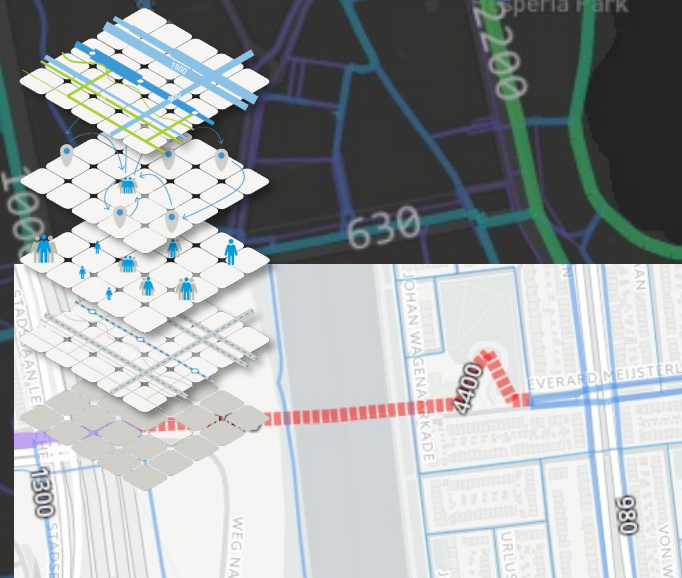
For modelling short trips like cycling and walking, one needs a high spatial resolution and detail in the description of urban structure and transport system, and it is important to take individual traveller characteristics into account.

What we did

Brutus is therefore very suitable for such scope with its high-density grid and individual-level approach. Therefore, there is a special class of Brutus models that focus on cycling and walking.

Impact

Travel demand is still modelled as multi-modal to get the modal shares to the correct level, but close attention is been paid to the bicycle network and route choices.



The Dafne Schippersbrug connects Utrecht's new district of Leische Rijn with the historic city center. Brutus correctly estimated the user potential of the bridge. A fact that was revealed by the automatic counters after opening.

RAMBOLL

Superhighways

Cycle Superhighway Network Plan

Challenge

Establish an easily recognizable and coherent network of cycle superhighways to link together the main hubs across 22 municipalities and the Copenhagen Capital Region.

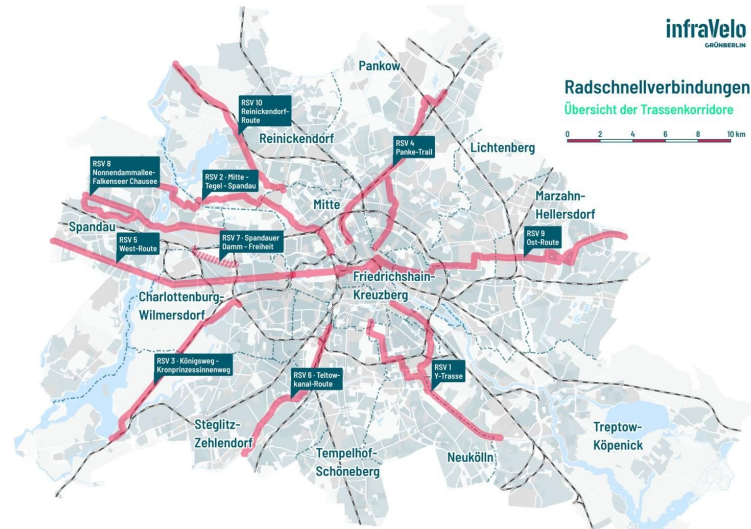
What we did

Concept development, creation of signature system elements, preparation of design standards catalogues, awareness campaign support

Effect

A visionary plan to prioritize and facilitate longer-distance bicycling has resulted in a highly successful and world-renowned network of direct routes throughout the capital region.

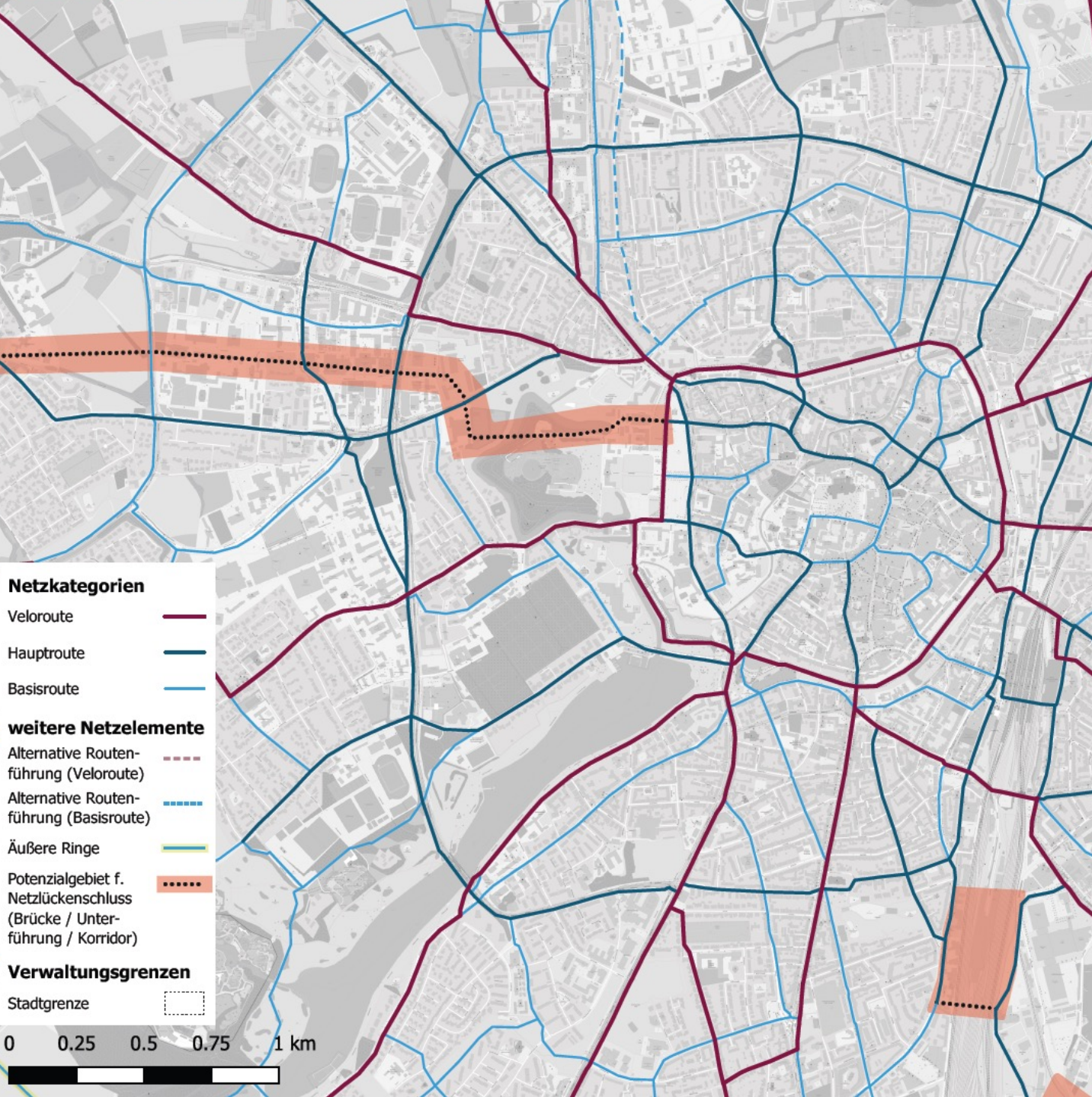




Cycle Super Highways Berlin

- Description: Feasibility Study and design for 6 of 10 Cycle Super Highways in Berlin (80 km corridor length); draft and detailed design
- Project Manager: Torsten Perner (DE)
- Client: GB infraVelo GmbH (owned by Berlin Senate)
- Scope:
 - Identification and assessment of possible routes
 - Preliminary design and cost-best analysis
 - Draft and detailed design
- Delivery period: 01/2019-12/2020 (Feasibility study)
Since 01/2021 (Design)
- Ramboll Business Units: Ramboll DE, DK, SE

Bicycle Network 2.0 Münster



- Description: The City of Münster (315,000 inh) has one of the highest modal share of cycling in Germany (40% of all trips). To further increase this share and to improve conditions for cycling a coherent and hierarchic network of cycling infrastructure has been developed.
- Project Manager: Torsten Perner (DE)
- Client: Münster municipality
- Scope:
 - Macroscopic simulation of bicycle traffic with Brutus
 - Network planning
 - Communication, participation and stakeholder management including a tracking campaign
 - Redesign of selected streets and intersections
- Delivery period: 08/2020-06/2023
- Ramboll Business Units: Ramboll DE, DK, SE, FI

BICYCLE NETWORK PLAN FOR TURKU CITY CENTER

CHALLENGE

In order to reach the set goals for bicycle traffic the bicycle network plan for city centrum needed an upgrade. The old plan has old standards of planning and it was mainly bidirectional. The city also has many addresses that are difficult to reach by bike.

WHAT WE DID

We planned new network plan based on latest bicycle traffic planning principles and best practises. The new network plan is mainly unidirectional. The project also included cross-sections of challenging parts of the network and we estimated the total cost of the change.

EFFECT

The new network plan helps to design and built a cohesive and logical set of bicycle routes. Eventually, the network will also make it easier to cycle in the city and increase bike traffic.

Cycle Super Highway Mainz-Wiesbaden

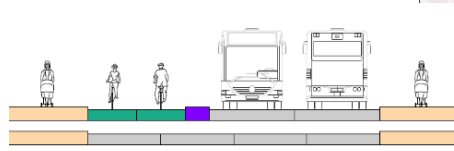
- Description: Feasibility study for a Cycle Super Highway between the both capitals of federal states (together 0.5 Mio inhabitants)
- Project Manager: Torsten Perner (DE)
- Client: Wiesbaden and Mainz municipalities
- Scope:
 - Identification and assessment of possible routes
 - Preliminary design for selected routes
 - Cost-best analysis
 - Recommendation and realisation plan
 - (Optional draft/detailed design – to be awarded in 2023)
- Delivery period: 01/2021-10/2022 (Feasibility study)
- Ramboll Business Units: Ramboll DE, DK, SE



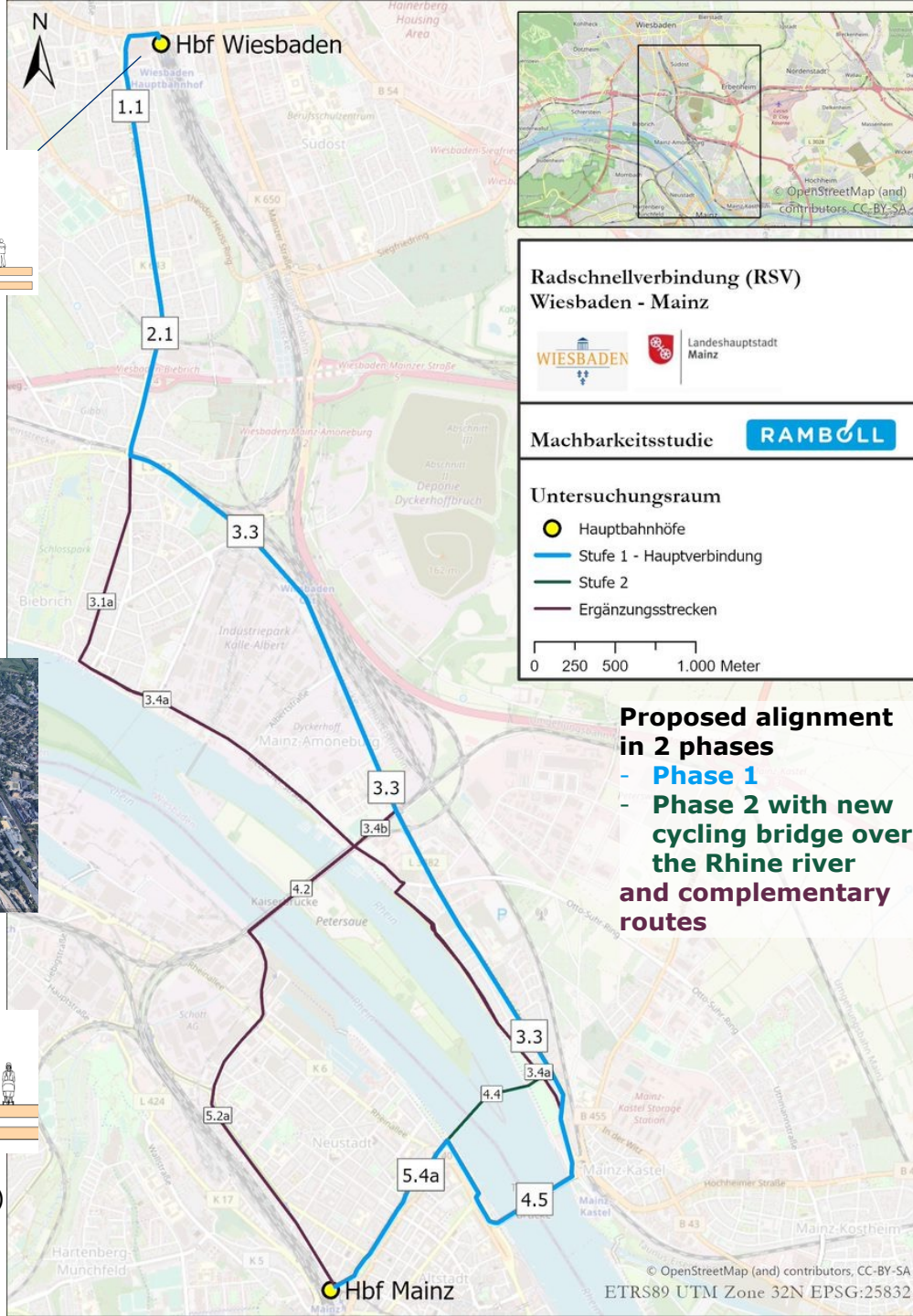
Proposed street design at Wiesbaden main station



New bridge for cyclists and pedestrians (phase 2)



Proposed cross-section on existing road bridge (phase 1)



Oslo City Center

Pre-study Stenersgata and more

Challenge

There is a lack of bicycle infrastructure through the center of Oslo. At the same time, the needs of public transport, pedestrians and goods delivery must be taken care of.

What we did

Rambøll assists Oslo municipality in carrying out a pre-study for bicycle facilitation for the missing links in the city center. This includes designing of 6 street sections.

Ramboll draws up various solutions and assesses these against requirements.

Effect

City of Oslo will use the report and the designs as a basis for implementing measures to better facilitate for cycling through the city center.



Jägersro, Malmö

Planning for the kind city for children

Challenge

The old horse racing arena in Malmö will move and the intention is to create the most sustainable residential area in the Nordics with 5000 housing units on the grounds. Aside from the arena, the area today is dominated by large car parking areas, car dealers and a shopping center.

What we did

Three teams were selected to develop a structural plan for the area. Ramboll services in the competition team included mobility planning and sustainability coordination.

Effect

Our team (Ramboll, Kanozi architects and Mareld landscape architects) delivered a proposal centered around the concept of a 'kind city for children' where mobility is focused on walking and cycling. This concept was implemented in everything from mobility to the design of front yards.



Kanozi arkitekter