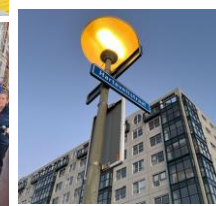
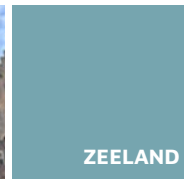
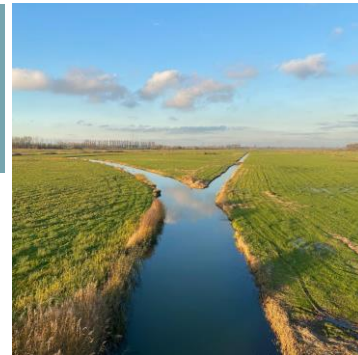


The Netherlands

RESILIENCY & MOBILITY TOUR

Baltimore Metropolitan
Council, Bicycle and
Pedestrian Advisory Group
January 17, 2024





Mayor Gavin
Buckley

Netherlands Trip Overview

LEARNING OBJECTIVES:

- **Resiliency Challenges:** See how a country that sits below sea level has adapted.
- **Best Practices:** To confirm that our current plan aligns with research and experience.
- **Public Transport:** Understand and see the return on investment on pedestrian and cycling infrastructure investments.
- **Multi-Modal Transit:** Making connections to microtransit to reduce cars on the road.
- **Funding:** Learn about innovating funding strategies and how the Dutch have avoided the politicization of resiliency projects.



[https://www.youtube.com/w
atch?v=0lCii3mDSEk](https://www.youtube.com/watch?v=0lCii3mDSEk)

Itinerary:

MON., NOV. 13:

THE HAGUE

- Netherlands Water Partnership (Ministry of Infrastructure & Water)
- Dutch Cycling Embassy
- Dutch Cycling Tour to Scheveningen
- Bosch Slabbers



DUTCH CYCLING EMBASSY



Experience the Dutch cycling culture first-hand



Think about best possible solutions and achievable results



Act by applying these solutions to your local context



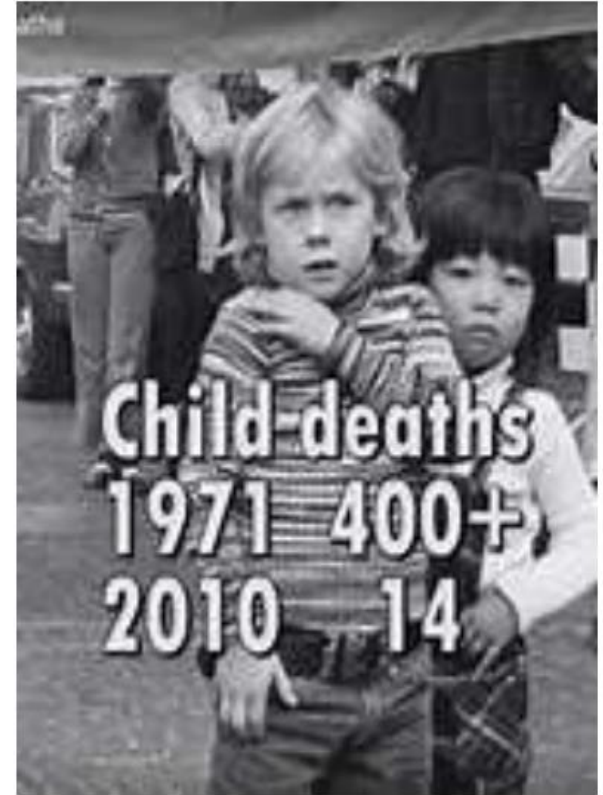
Learn more about effective policies and best practices



- After the Second World War planners prioritized cars to manage the increased traffic.
- Structuurplan Dudok – 1949.
- The Hague's plans foresaw no role for cyclists.
- Bombings as a unique opportunity to erase old structures and build new ones.
- Plans like the 'Dwarsweg' were



Protests all over the Netherlands



The Hague Transformation

Has Annapolis explored a car-circulation plan?

- No-way, not possible, cars need access everywhere
- Open to testing in a small area
- Exploring how to implement
- Underway
- Whats a car-circulation plan?

© Arcadis 2022



Den Haag

Make way for bikes!

Cycling Strategy The Hague 2040



Circulation Study Results

- Less through traffic in the city centre;
- Accessibility by car of the city centre still good;
- Air quality has improved significantly;
- Quality improvement for pedestrians and cyclists due to increase of car free area;
- Currently one of the largest pedestrian zones in Europe.



Reallocating Right of Way



Before



After

Itinerary

TUE., NOV. 14:

ROTTERDAM

- Arrival by train, walk to municipality
- Dutch cycling tour with stops at water storage parking garage, Central Station, and Urban Water Square Benthemplein



**EXAMPLE: HOFPLEIN
SQUARE**, an intersection where
pedestrians, bicycles, cars, buses
and trams all safely interact.





BIKE STORAGE

The holistic approach to urban planning requires convenient storage for users.



Day 4 – International Safe Cycling Conference

- On our way to the conference.
- Typical rush hour in Den Haag

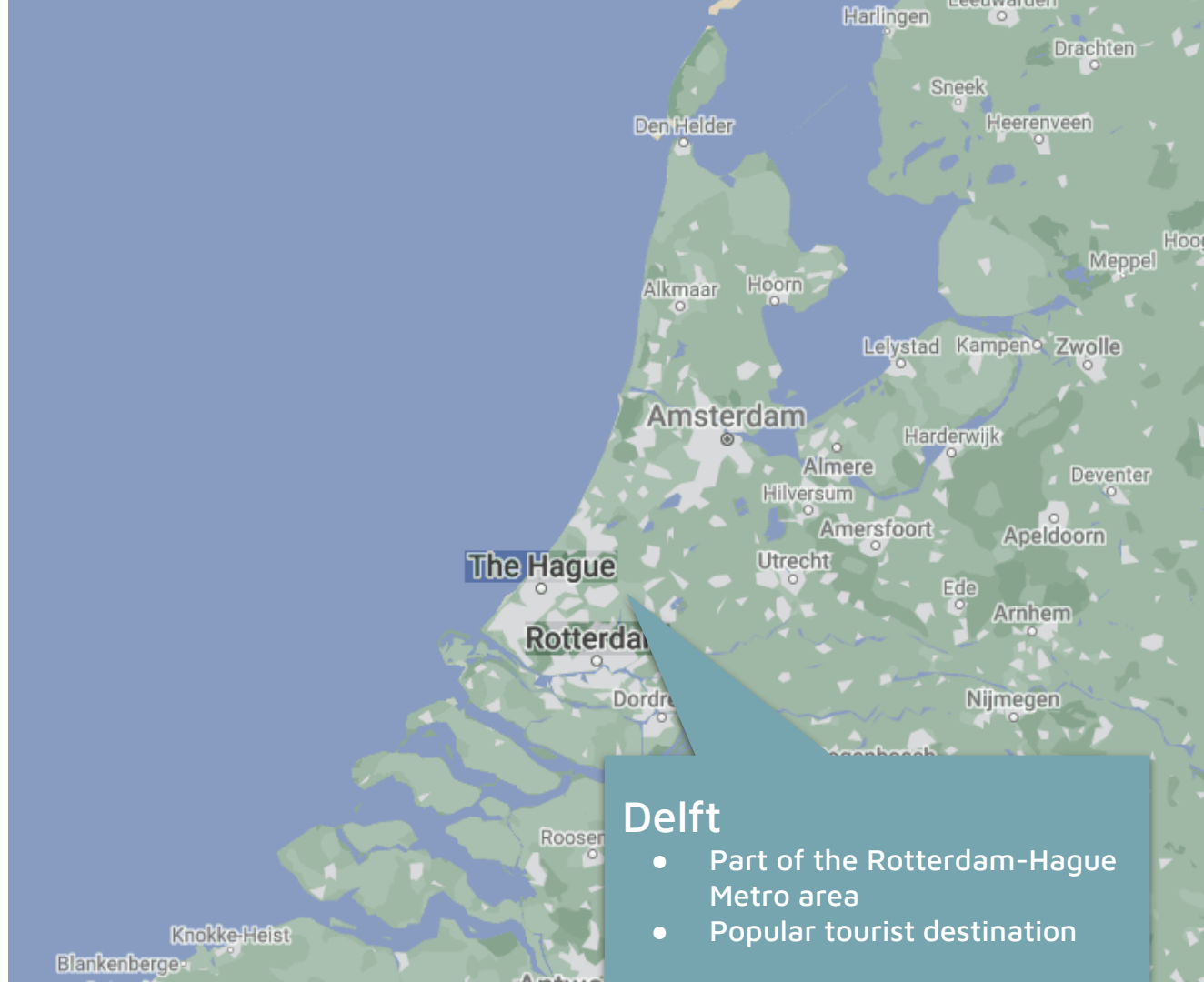


Itinerary

WED., NOV. 15:

DELFT

- Arrival by train at Central Station
- Visit to Hoogheemraadschap Delft and IHE Water Institute
- Visit to TU Delft Campus/Flood Proof Holland
- Dutch Cycling Tour Delft
- Alt: Walking Tour



Delft

- Part of the Rotterdam-Hague Metro area
- Popular tourist destination

TRAFFIC SAFETY

Reducing the risk of an accident by 50% per kilometre cycled would result in savings related to:

- human costs (costs of pain and suffering)
- production loss
- medical costs
- administrative costs

Savings of \$/ 14.800 million.

Travel time

An average cycling trip would be reduced by 2.5 minutes.

Savings of \$/ 26.398 million.

Compared with other means of transport, people that cycle:

- live longer
- suffer less from illness
- are happier
- are more productive

Savings of \$/ 7.642 million.

HEALTH EFFECTS

Equality

- Higher participation in social activities
- Less social exclusion
- Creation of social capital

TRAVEL TIME RELIABILITY

Reliability of travel time for people cycling would improve because of

- reduced waiting times at junctions
- exclusive lanes separated from other vehicles

Savings of \$/ 9.416 million.

For every \$ol invested in Lima's Bike Plan, the city saves:



s/19

Benefit/Cost Ratio 19.0

LIMA'S BIKE PLAN SCBA RESULTS

Total costs: \$/ 1.211 million (-)

Total benefits: \$/ 22.978 million (+)

Balance: \$/ 21.766 million (+)

Comfort

- Wider bike lanes
- Improved lighting
- Clearer signposting
- Increased perception of safety
- Priority at junctions
- Quality of paving

There is less congestion when motorised trips are exchanged for bicycle trips.

Savings of \$/ 26.168 million.

AIR AND NOISE POLLUTION

More bicycle trips would result in cleaner air and less noise pollution.

Savings of \$/ 2.919 million.

CONGESTION

BIKE-NOMICS IN LIMA

Decisio developed a Social Cost Benefit Analysis (SCBA) for the proposal of the updating of the Cycling Infrastructure Plan for Lima and Callao (**Bike Plan**) prepared by The World Bank.

SCBA for Lima's Bike Plan

Several bikenomics aspects were analysed, assuming an increase of Lima's cycling modal share from 0.9% in 2019 to 15% of trips by 2050.

What is a Social Cost Benefit Analysis (SCBA)?

- A standard methodology (mandatory in The Netherlands for public investments) for evaluating the impacts of any investment compared with its costs.

What is bikenomics?

The assessment of social impacts related to cycling.

Bikenomics

<https://cedelft.eu/publications/handbook-on-the-external-costs-of-transport-version-2019/#:~:text=The%20Handbook%20provides%20methodologies%20and,and%20costs%20of%20habitat%20damage.>

About CE Delft > Topics > Publications > Working at > Contact

REPORT

Handbook on the External Costs of Transport – Version 2019

 June 2019  Freight Transport, Aviation, Passenger Transport, Transport Economics, Maritime Shipping

The Handbook on the external costs of transport presents the best practice on the methodology to estimate different categories of external costs of transport. Additionally, it provides an overview of state of the art input values (e.g. the value of time or the value of a statistical life) that can be used to produce estimations of external costs by users of the Handbook themselves. Finally, the Handbook presents total, average and marginal external cost figures, which can be used directly by the users.

The 2019 version of the Handbook is an update of the 2008 and 2014 versions. Any new evidence that has become available on the methods and input values for estimating external costs of transport in research and policy since

Your contact person



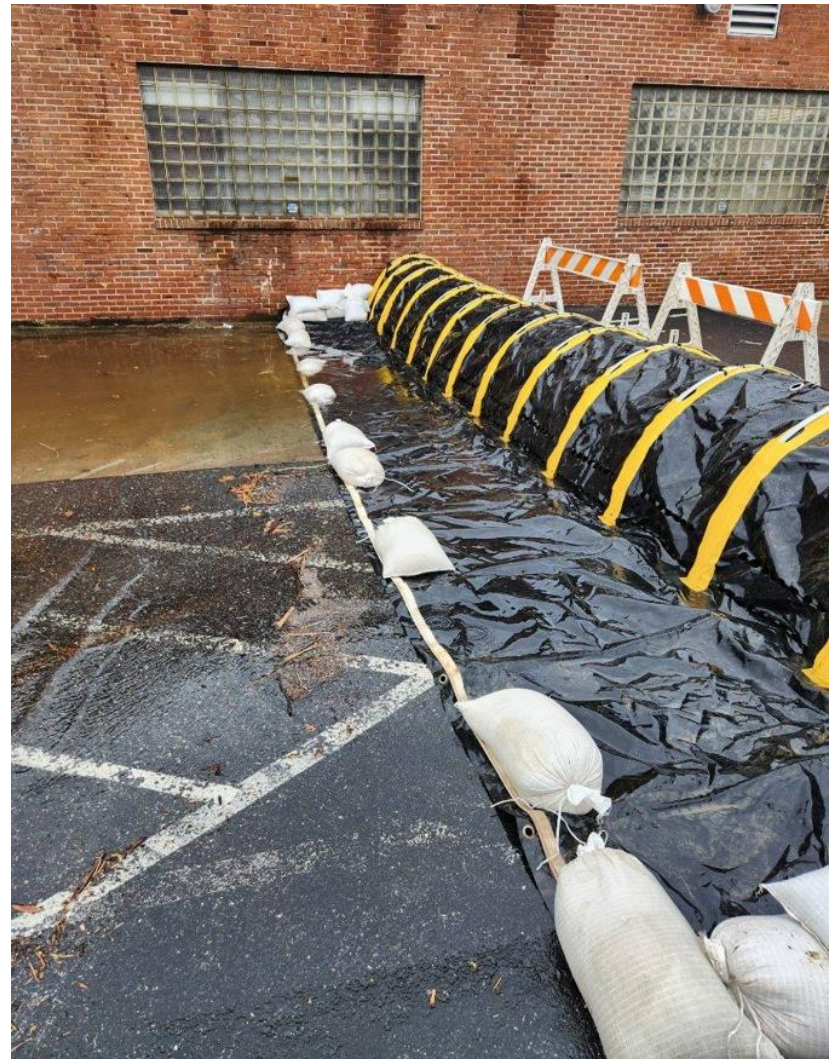
THE DELFT INSTITUTE FOR WATER EDUCATION



When hydrated, performs better than 3 meters of compacted clay



Compromise Street,
City of Annapolis,
January 9, 2024



Itinerary

FRI., NOV. 17:

ZEELAND

- Maeslant Barrier - Storm Surge Barrier
- Noordwaardpolder
- In-Dune Parking Garage Katwijk aan Zee
- Visit to Van Nelle Factory



“Zuid-Holland”

- Southernmost province in the Netherlands
- Large parts are below sea level.

TREES IN PUBLIC PLACES AND WATERFRONTS



- Mature trees in event spaces
- Co-exist with parking
- Provide ecoservices - stormwater filtration & capture, reducing temperatures, carbon capture
- Preserves viewscape





Maeslant Barrier:

- Storm Surge Barrier
- Two 689-foot gates with two 777 feet steel trusses holding each



Takeaways

A group of approximately ten people are posed for a photo on a sidewalk in front of a multi-story brick building. They are dressed in various styles of raincoats and jackets, including a green hooded jacket, a grey trench coat, a blue hooded jacket, a black jacket, and a yellow jacket. One person in the center is wearing a blue hooded jacket and is kneeling. Another person is holding a black umbrella. The background shows the brick building with many windows and some trees with autumn foliage.

**Attend
Educational
Sessions**

**Bring
Knowledge Back**

**Meet with
Suppliers**

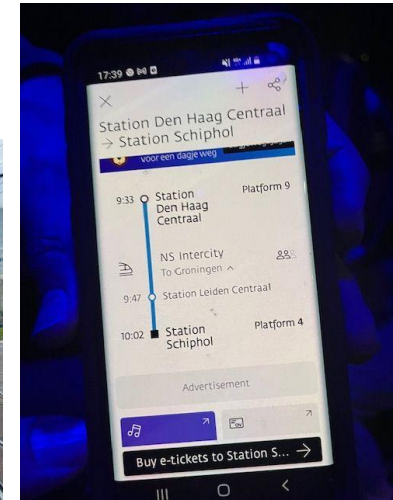
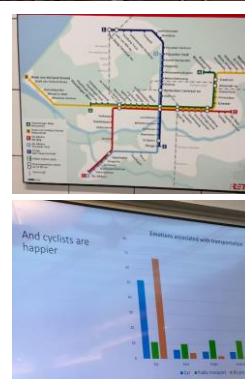
**Building Networks
and Resources**

**Investigating
New Technologies**



INTEGRATED TRANSPORTATION SYSTEMS

- Trains
- Trams
- Bikes
- Buses
- Scooters
- Pedestrians



Secretary Rebecca Flora Address

<https://www.youtube.com/watch?v=S5pVfxaeRuY&t=4s>