



ZERO WAVE
ZERO NOISE
ZERO EMISSION



Challenges to overcome



2.5 billion
additional people are
expected to live in
urban areas by 2050



72%
of the planet is
consisting of water,
many cities built
around waterways

266 billion €
cost of the yearly
congestion in the biggest
30 cities around the
world



92%
of the world's population
breathes polluted air



Vision and Ambition

Our vision

In 2050, there will be 4 billion cars in the streets, and even if they are all powered by clean energy, it will still create massive traffic jams. We believe that the future of mobility will rise from the water, a natural, historic path in the cities that has been underrated for a long time.

Our ambition

We want to open waterways for everybody, all around the world, by creating a new way to move people at car speed, with no impact on the environment nor on the cities' infrastructure.

The goal is to make the riding experience on waterways the best possible so that people will be glad to choose the most eco-conscious transport solution.



**LET'S MAKE
OUR CITIES
FLOW AGAIN**

SeaBubbles experience

- 🌀 Flying on the water experience
- 🌀 Comfortable, no seasickness
- 🌀 Electric + hydrogen propulsion units
- 🌀 No noise
- 🌀 No emission
- 🌀 No waves



In order to provide a seamless experience, **docking stations** are being developed, as well as a **user-friendly app**.

The simulation – the challenge

Is transport on demand better than public transport related to?

- ☐ Passenger Ride Time
- ☐ CO2 Emissions
- ☐ Load Factor
- ☐ Cost of Operation

The simulation – the area (line 20 – 24)



The simulation – the research company

International Group on AVIATION AND MULTIMODAL TRANSPORT RESEARCH

- Interdisciplinary group of high profile researchers and developers
- Use of innovative tools, methodologies and technology
- Common interest in transportation

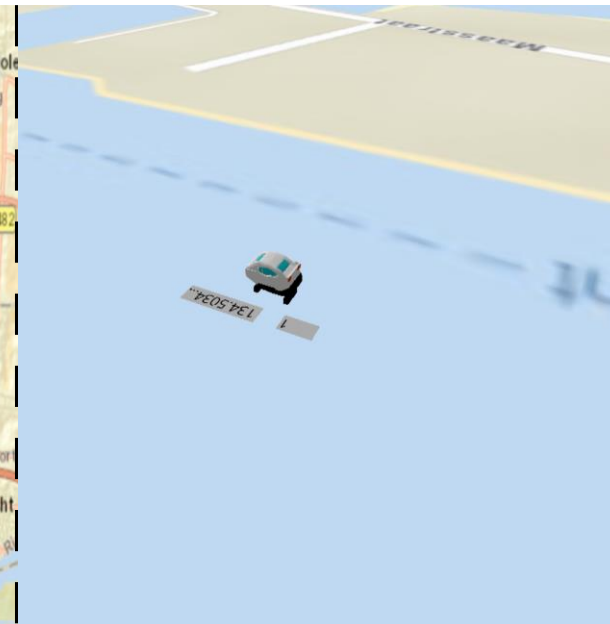
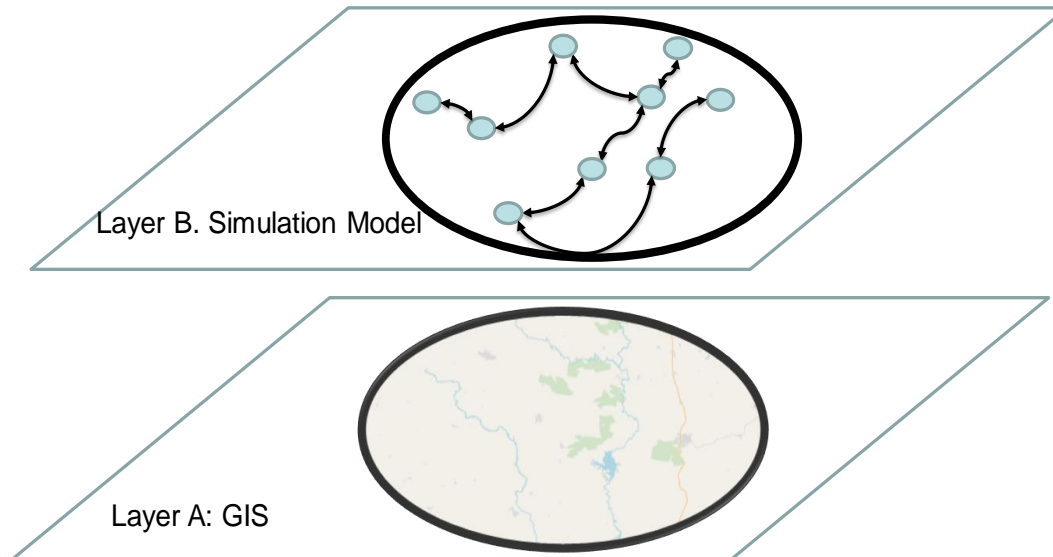


The simulation – data collection

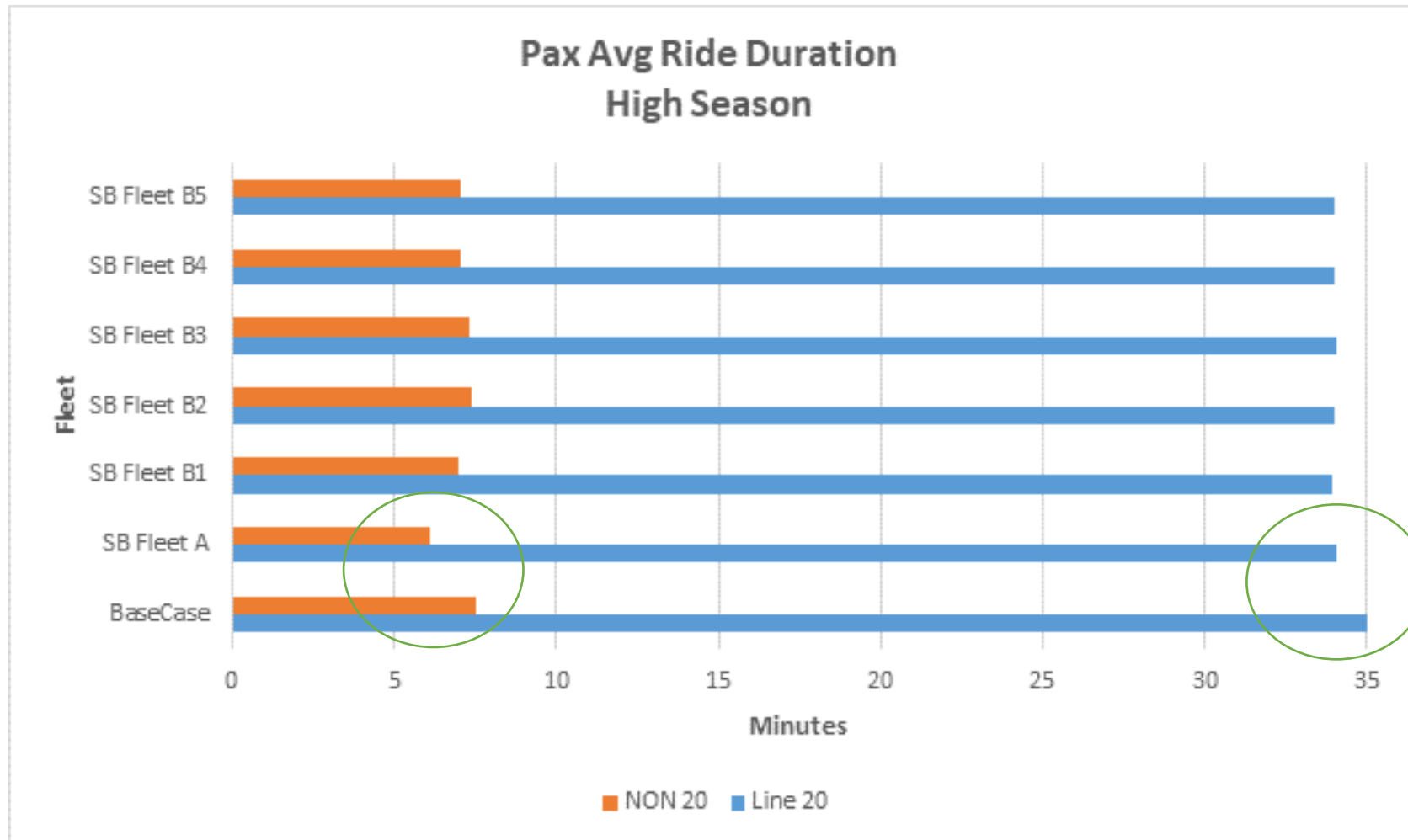
- Passengers data from OV-chipcard and headcounts for:
 - High season
 - Low season
 - Weekends
- Vessels Waterbus (speed, time, exhaustion, number of passengers per line)
- Bubbles 4p and 13p (speed, time, exhaustion, number of passengers)

Data delivered from Waterbus and SeaBubbles

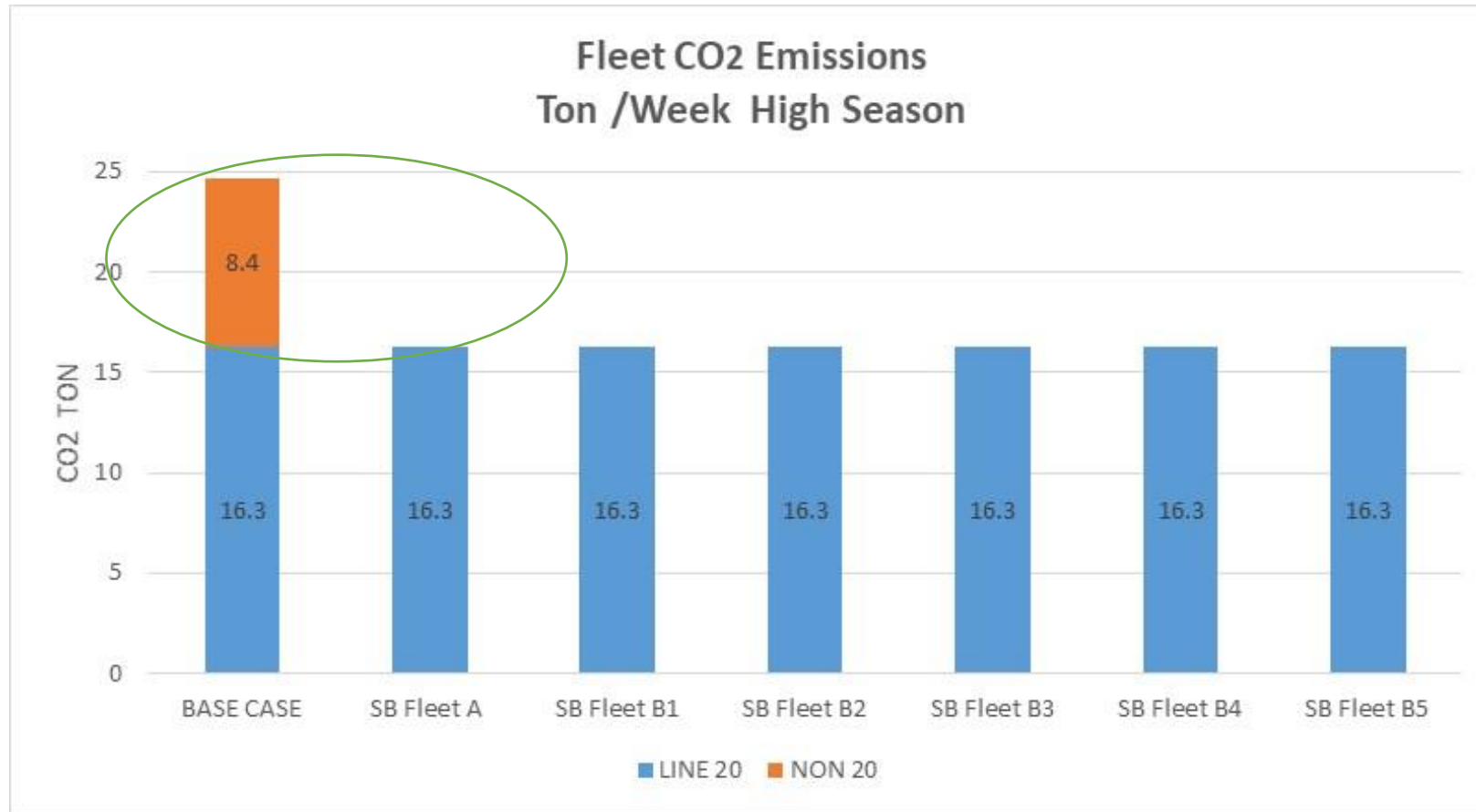
The simulation – computer model



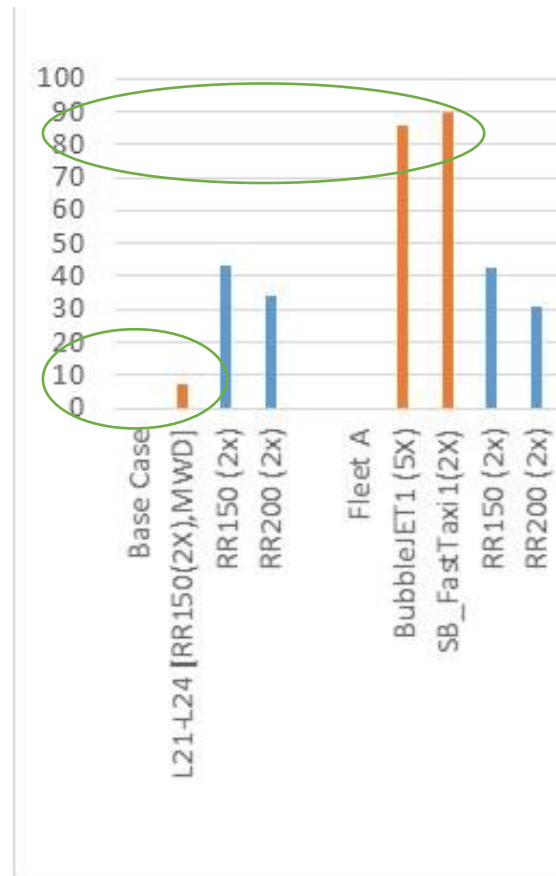
The simulation – result average ride (high season)



The simulation – result CO2 reduction (high season)



The simulation – result load percentage (weekend)



The simulation – result costs (high season)



The simulation – conclusion

- Drastically reduced green house-related emissions
- Reduction operational costs with 9%
- Reduction travel time by 15%
- Utilization rate from 7% to 80%

The simulation – more research

- Increase financial benefits:
 - Picking up passengers during the ride
 - (De) operationalize boats at smaller time slots
- Higher passenger satisfactions
 - 24 / 7 operations
 - Ease of mooring at more places
 - No waiting time, transport on demand
- More Covid 19 friendly (less contact between passengers)

Can we improve public transport in rural area's and small cities with transport on demand with these lessons learned?

Questions and contact details



maurice@seabubbles.nl



seabubbles.nl



+31 651093613



[maurice-van-der-meche-8a15814](https://www.linkedin.com/in/maurice-van-der-meche-8a15814)