





AI MANAGED ELECTRIC SHUTTLE PROJECT



Kingston Gorton Consulting



# THE PROBLEM

Increasing Urban Mobility within limited Space



CONGESTION & TRAFFIC



ENVIRONMENTAL IMPACT



LIMITED INFRASTRUCTURE



### THE IDEA

Unlock the Potential of Waterways

- Almost 700 million people currently live in coastal cities
- NY, Tokyo, Shanghai, Mumbai and others have public ferries
- Emission-free on-demand water shuttle services would help prevent cities from traffic collapse
- Decommissioning unprofitable, non-electrified railways requires modern, high-performance, and emission-free alternatives











# THE MARKETS

Key Market Segments & Opportunities

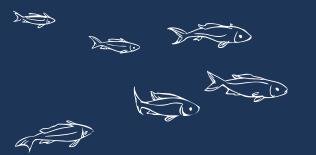
- Cities with a growing population & mobility needs
- Communities prioritising eco-friendly transportation options
- Areas undergoing urban expansion with government support
- Sustainable tourism



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# THE ENVIRONMENT

An estimated **680 million people** live in coastal cities and river deltas, an increase to around **1 billion** is expected.



Dust from tyre abrasion contains toxic substances such as 6PPD quinone. These can cause massive damage to entire fish populations.

#### **CAR REPLACEMENT**

If 10% (68 million people) switch to water shuttles for a 10km commute, up to **102 million kg of CO<sub>2</sub>e** could be saved daily and the mortality risk for fish populations could be reduced.

#### A RELIABLE EMISSION-FREE WATER SHUTTLE

will reduce CO<sub>2</sub>e by Mega Tonnes each year and sustainably reduce the burden on the environment.



## THE METHODOLOGY

A modular approach for different markets

CONSISTENT TRANSFER OF DESIGN METHODOLOGIES for modular vehicle designs to the development of the water shuttle









# THE SHUTTLE SOLUTION



## MODULAR POWERTRAIN COMPONENTS

with specific regional applications



#### **BATTERY CAPACITY**

designed for operating area



- Low-resistance hull design also suitable for protected waters (e.g., lakes, inland waterways, and rives)
- Variable hull dimensions for specific regional requirements





### THE DIGITAL SOLUTION

Al-powered routing & fleet management

Our AI doesn't just react to current demand; it anticipates future needs. By analysing historical data, real-time inputs (like traffic, weather, and event schedules), and even emerging patterns, the system is designed to accurately predict passenger flow. This allows for proactive adjustments to ferry schedules and resource allocation, minimising wait times, preventing overcrowding, and ensuring optimal efficiency. We use advanced machine learning models, including time series analysis and neural networks, to continuously refine our predictions and adapt to evolving demand patterns.

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## THE DIGITAL SOLUTION

Al-powered routing & fleet management



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Our Al platform is designed for dynamic optimisation, meaning it can adapt to changing conditions in real-time. If there's an unexpected surge in demand, a traffic disruption, or a mechanical issue, the system automatically adjusts ferry routes, dispatches additional vessels, and communicates updates to passengers. This ensures a seamless and responsive service, even in the face of unforeseen circumstances. The Al also optimises charging schedules based on ferry availability, minimising operational costs and maximising the lifespan of the batteries.







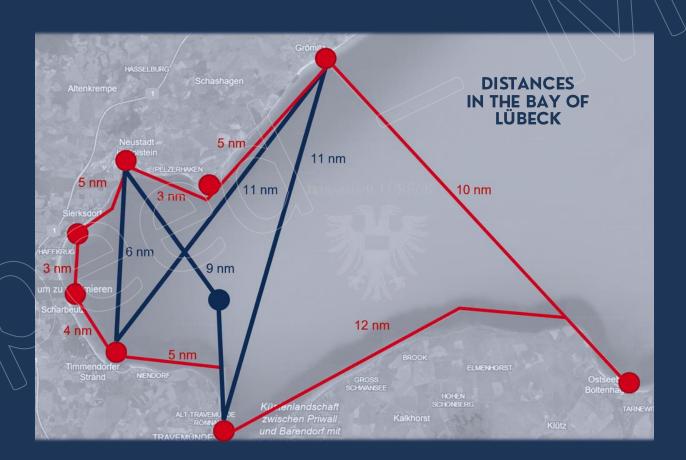
## THE PILOT PROJECT

Infrastructure enables cross-bay shuttle network



Connecting Lübeck (UNESCO World Heritage City) with seaside resorts via waterways in the tradition of the old Hanseatic League





#### FEHMARNBELT TUNNEL

Fixed Link Project Germany – Denmark will also open new mobility opportunities for seaside resorts



# THE OUTLOOK

Result Estimation Pilot Projects













01

#### **SEED PHASE**

EUR 2 million for further product development, team expansion and market entry

03

#### PROTOTYPE IN SERIES A

EUR 4 million for the development of the product for scaling and monetisation

02

#### MVP

Minimum Viable Product available functionality, reliability, usability, design



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