

SDC Workshop

Passenger- Centered
Experience Design in
Smart Mobility

Who are we?

DM Tech 

DM Tech is a mobility focused start-up that aims at leveraging disruptive technologies for sustainable mobility. Started in 2017 as a Hyperloop division in Sypron Solutions and with its strong vision, experienced team, and insightful advisors, launched as a separate company in 2019.

Throughout this short timeline, we achieved many milestones towards improving our solutions, building our network and possible client's base.

Problem



Governmental Vision

Smart City>>> Smart Mobility

Solution Providers

- Access to testing facilities
- Market Desirability
- Solution Integration
- Feasibility Studies
- Knowledge Transfer



SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

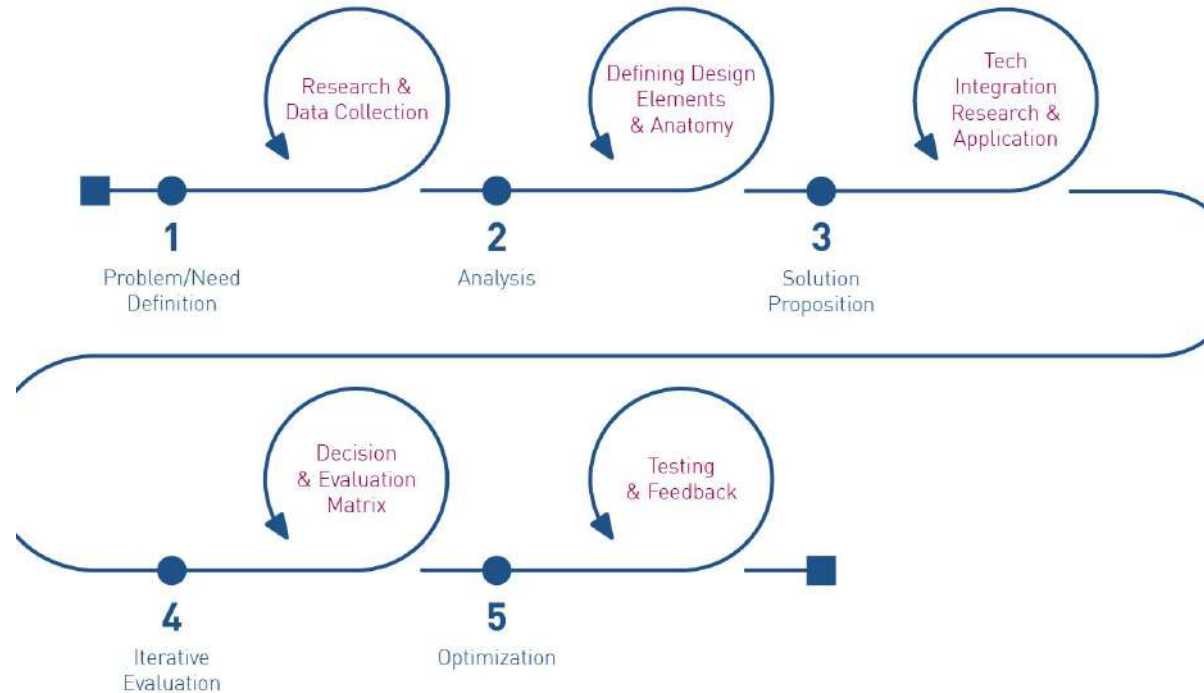

SUSTAINABLE DEVELOPMENT GOALS

Opportunity

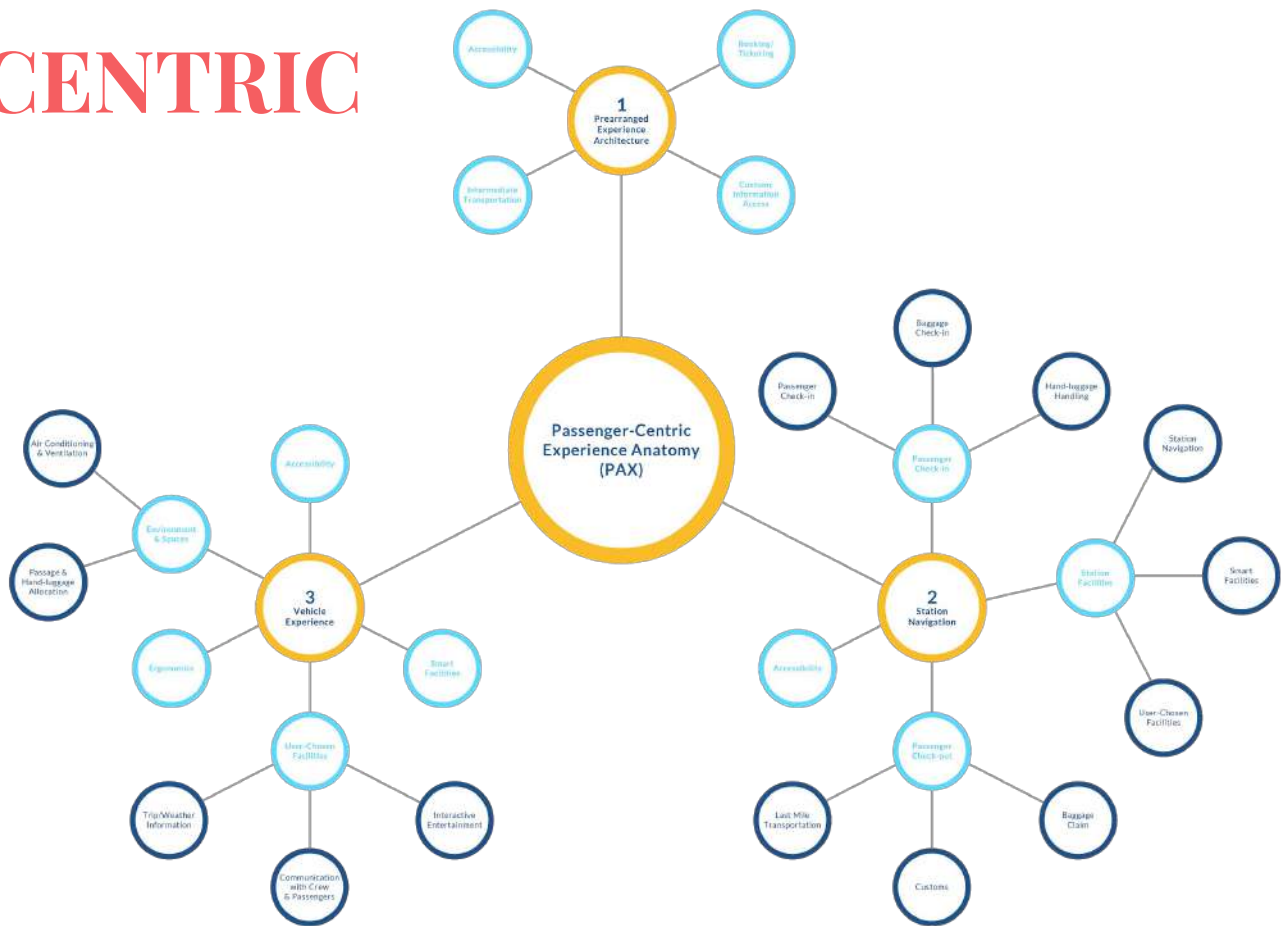
Methodology

Smart Mobility with a
Humanity Perspective.

User Experience Design Process for Smart Mobility



PASSENGER-CENTRIC EXPERIENCE ANATOMY (PAX)



Pre-arranged Experience

Get personal and dictate the kind of journey you want to have

Booking/Ticketing

Customs Information Access

Intermediate Transportation

Station Experience

Figuring out the flow of
navigation

Passenger Check-In

Passenger Check-In

Baggage Check-In

Hand-Luggage Handling

Station Facilities

Station Navigation

Smart Facilities

User-Chosen Facilities

Passenger Check-Out

Baggage Claim

Customs

Last Mile Transportation

Vehicle Experience

Smart interactive
passenger-vehicle
interaction

User-Chosen Facilities

Interactive Entertainment

Crew-Passenger Communication

Trip/Weather Information

Ergonomics

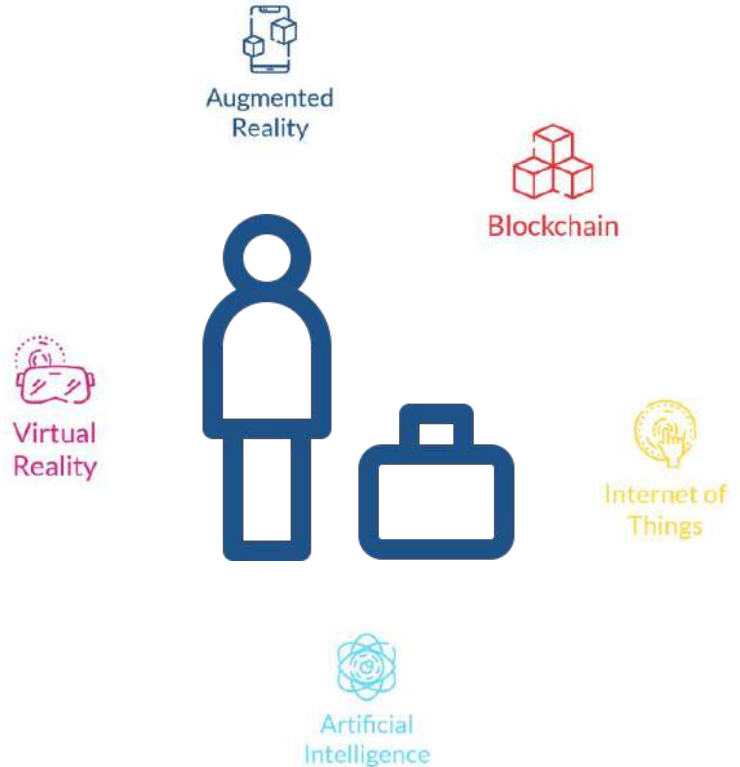
Environment and Spaces

Passage and Hand-Luggage Allocation

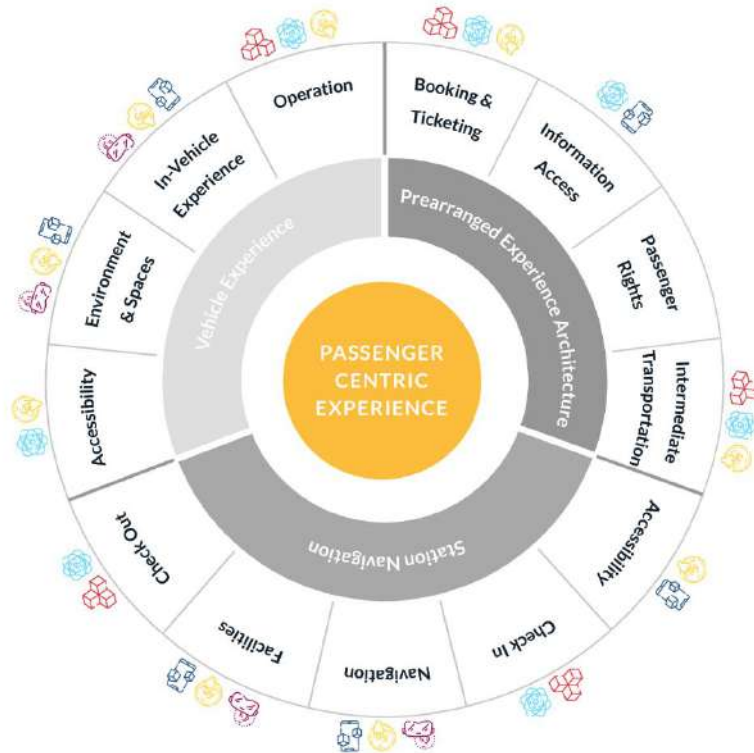
Air Conditioning and Ventilation

Tech Integration

- Communication is a key aspect when it comes to travel, and technology is serving to enhance communication between stations officials and passengers to provide them with the best possible experience.
- The focus was on five main technologies that have been highly enhancing various industrial solutions, and recently have been introduced in the smart mobility market to develop different smart solutions for mobility challenges.



Tech- Integrated PAX Index



Augmented Reality



Artificial Intelligence



Virtual Reality



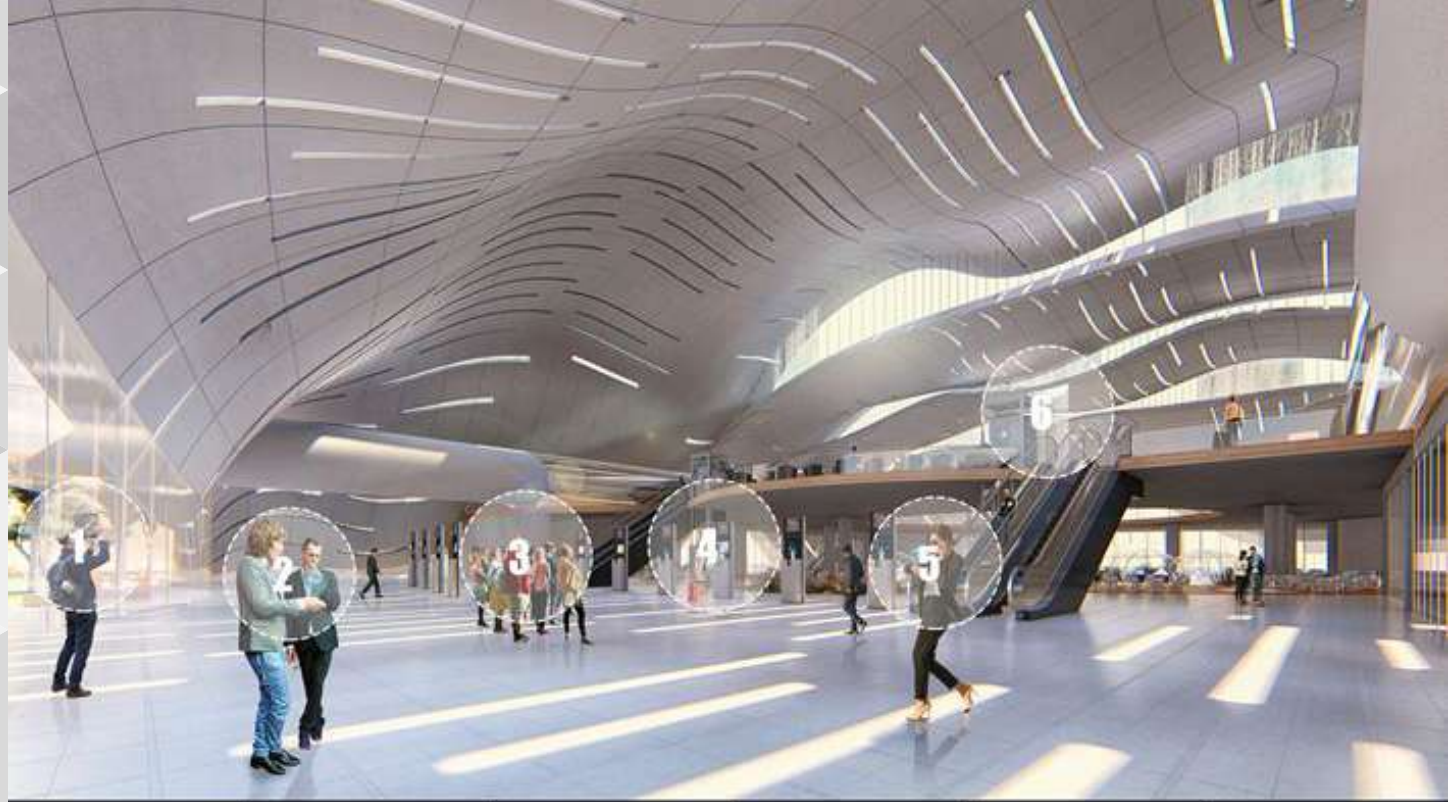
Blockchain



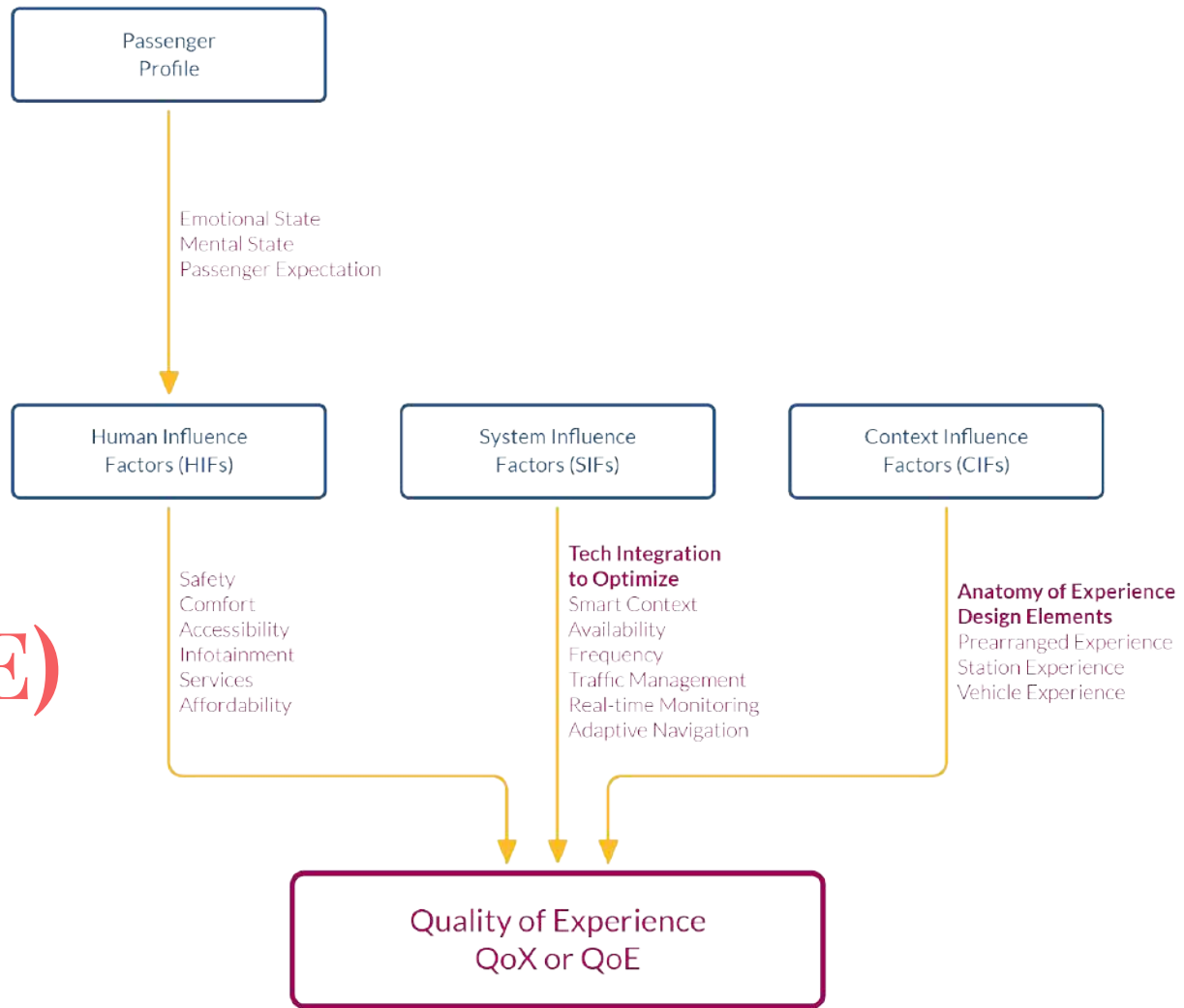
Internet of Things



**HOW DOES THIS
TECHNOLOGY MAKE A
DIFFERENCE IN THE
PASSENGER EXPERIENCE?**



QUALITY OF EXPERIENCE (DESIGN ANATOMY PERSPECTIVE)



Human Influence Factors (HIFs)

- Passenger Profile
- Mental/ Emotional State
- Needs
- Expectations
- New Experiences

Safety

Smartness

Comfort

Accessibility

Infotainment

Affordability

System Influence Factors (HIFs)

“Technological factors that
can be readily measured
from various factors”

Traffic
Management

Availability

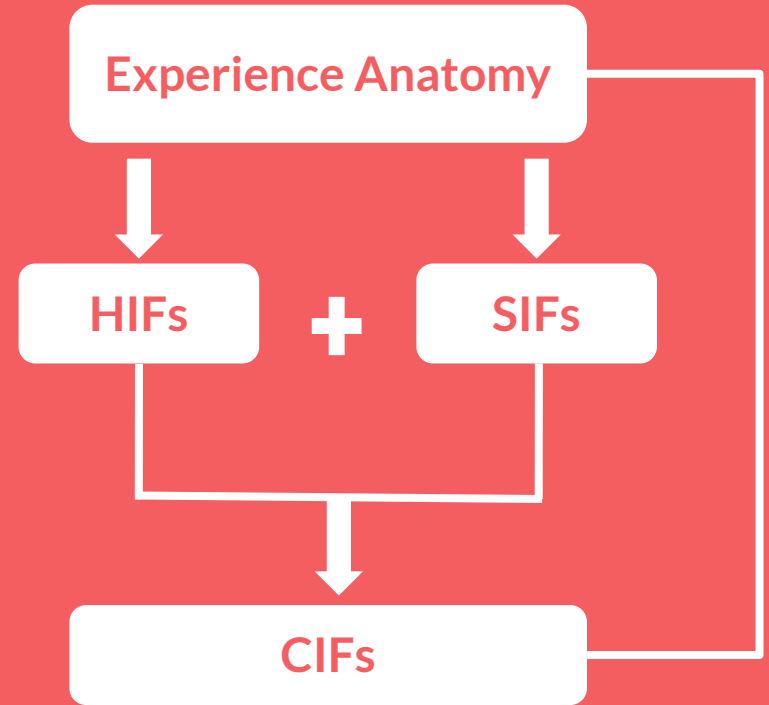
Real-Time
Monitoring

Frequency

Adaptive
Navigation

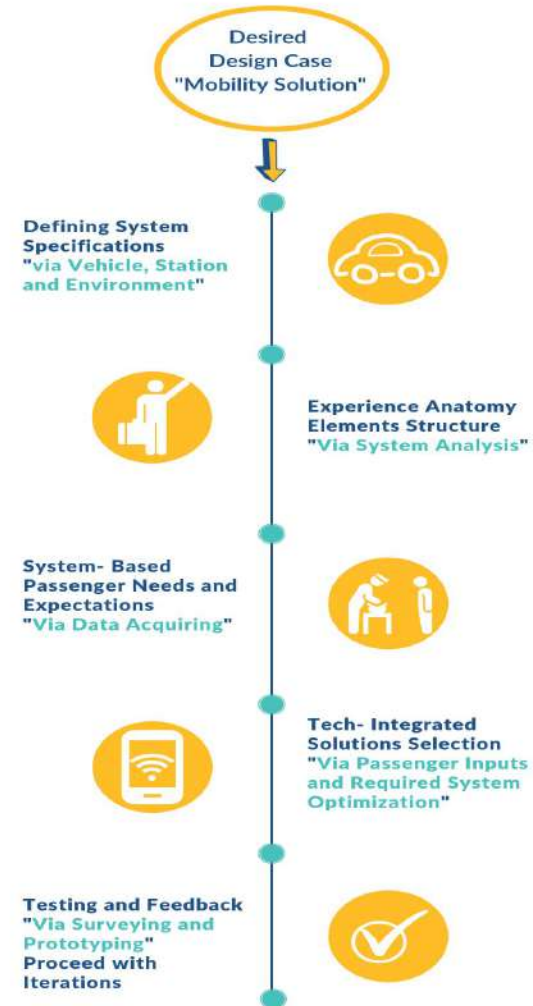
Context Influence Factors (HIFs)

Representing physical, temporal, social, and economic contexts that influence the passenger's perceived quality of experience for the smart mobility system or services.



QoX in a Decision Matrix

- We are developing our own design guiding tool in the form of a decision matrix that will help designers and engineers customize their own experience anatomy.
- The matrix takes in consideration all expected anatomy elements integrated with recommended influence factors by the provider.
- Then it will guide the designer through possible integration sections, recommended anatomy, and possible optimization.



An aerial rendering of a hyperloop station in a desert landscape. The station features a large, white, curved, tent-like structure with a central entrance. The surrounding area is landscaped with palm trees, a swimming pool, and a parking lot. A road with several cars is visible in the foreground. In the background, there are large sand dunes and a body of water on the left side. The sky is blue with some clouds.

Case Study

“Hyperloop Passenger-Centric Experience Design”

Accessibility

1. Station Arrival
2. Parking Area (Intermediate Transport Access to/ from Station).
3. Station Entrance (Passenger Check-in).
4. Fast access (for business class)
5. Exhibition entrance

Station Facilities

6. Resort zone (ground level)
7. boarding zone (first level)
8. Administration area
9. Exhibition
10. cafes and restaurants





NEXT on Our List !

Eco Community

Launching our Educational & Training Program across Egypt and the UAE.

Advanced Studies & Dev

Presenting our case study “Sense the city Mobility” in Mombasa, Kenya during African-Crossroads.

Experience Custom-Design

VR Exhibition for A Passenger- Centric Experience Design during Vested Summit Hurghada, Egypt.

**Thank You &
Ready for Questions!**

Disruptivemobility.com