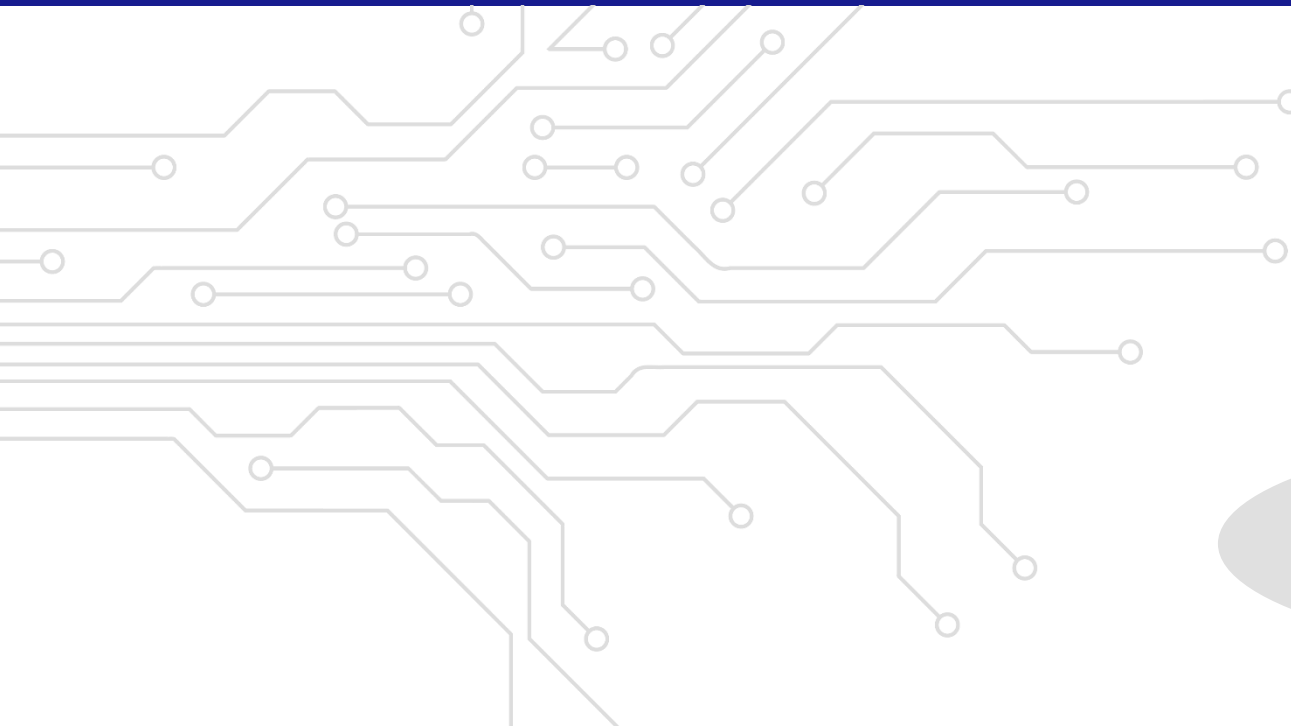




World Government Summit 2017

Self-Driving Transport: Global Challenges and Opportunities



Historical vs Now

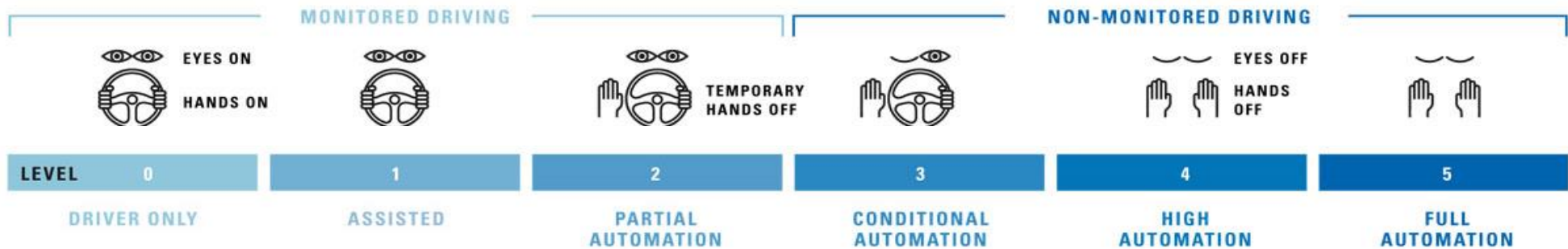
1970's, 80's



Present day

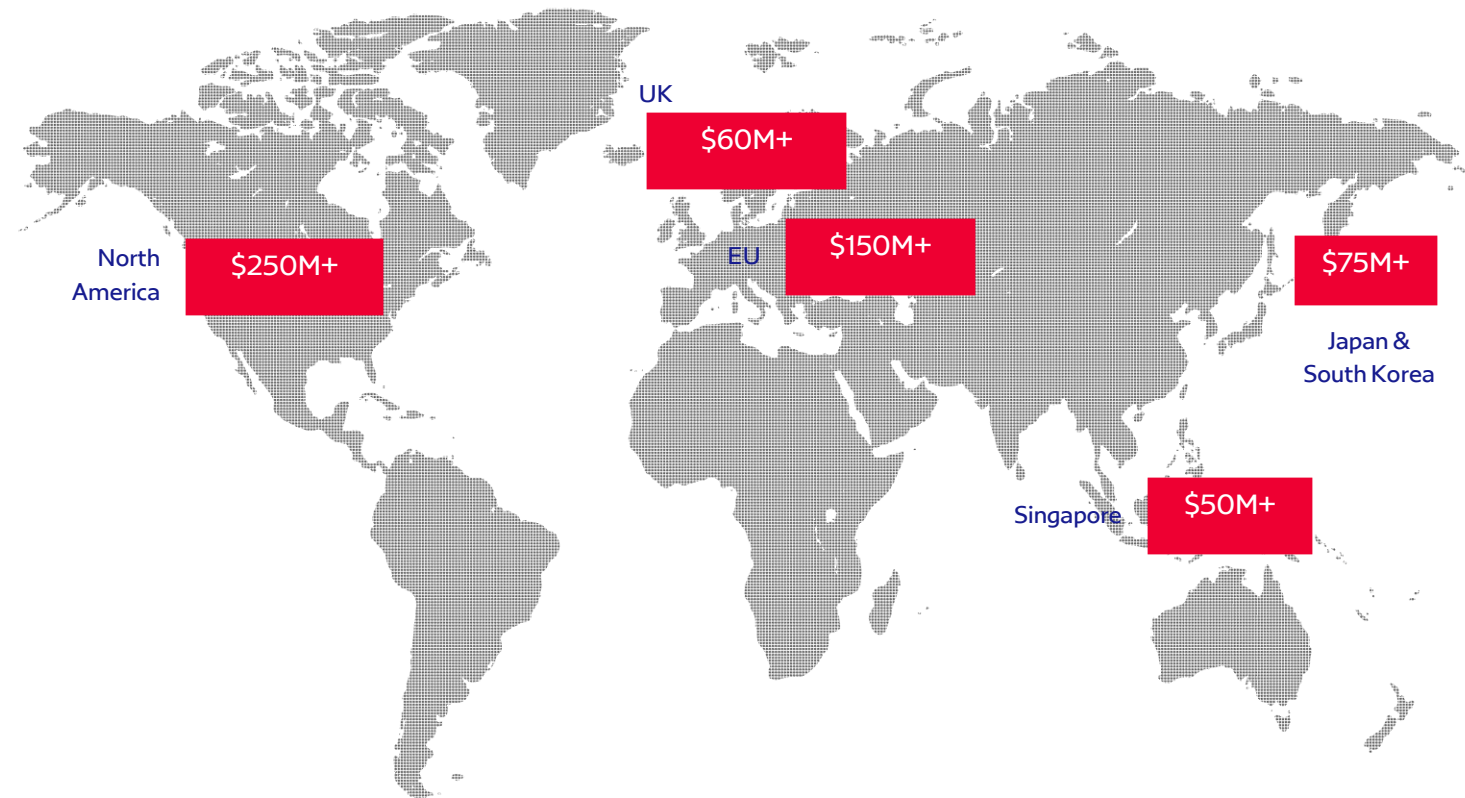


Society of Automotive Engineers (SAE) – Levels of Automation



International Benchmark

Government
investment
programmes



Self-Driving Testing and Testbeds

Sweden



Michigan



California



Taiwan



Singapore





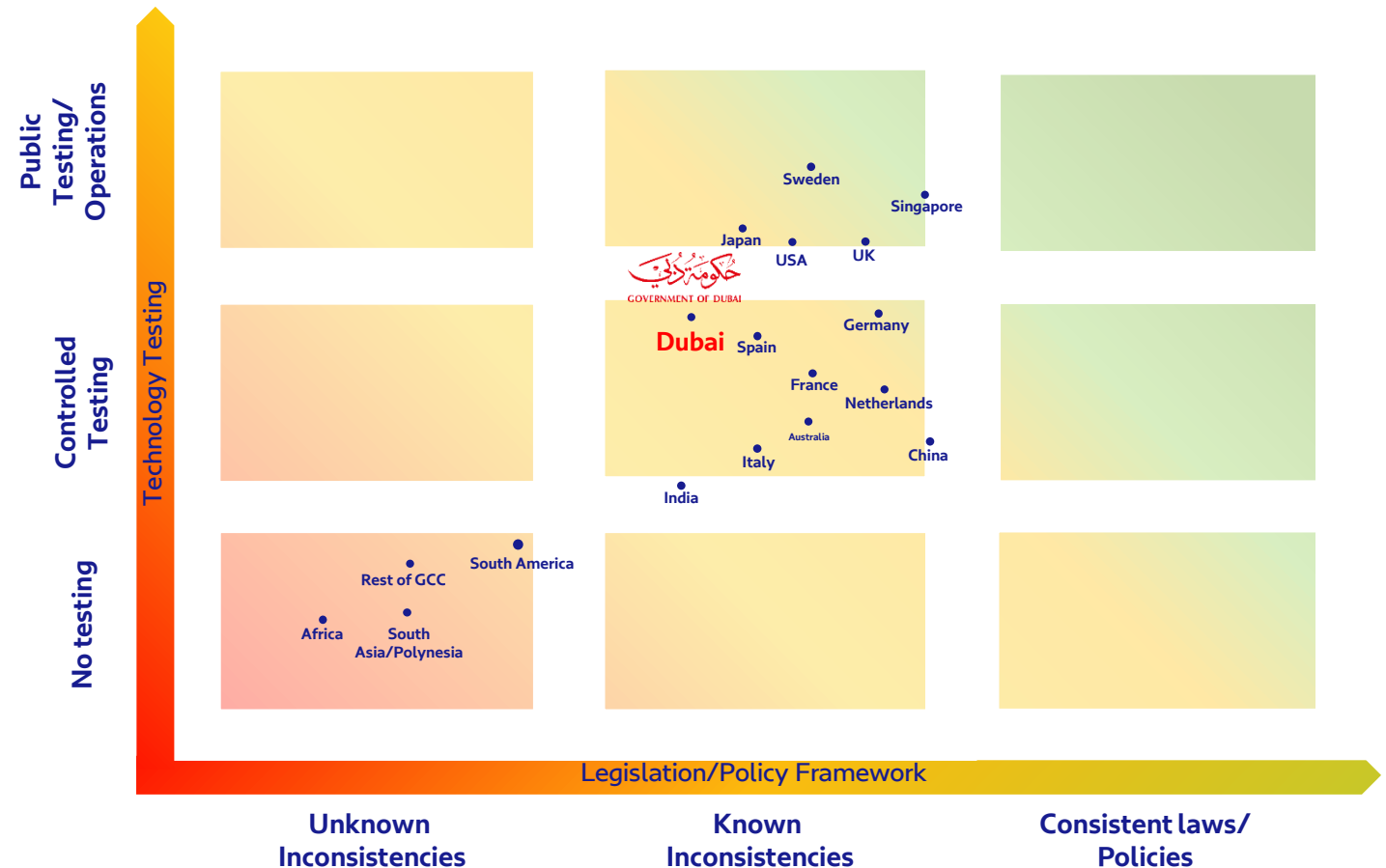
A Vision for the Future of Transport

“By 2030, 25 percent of all transportation trips in Dubai will be smart and driverless.”

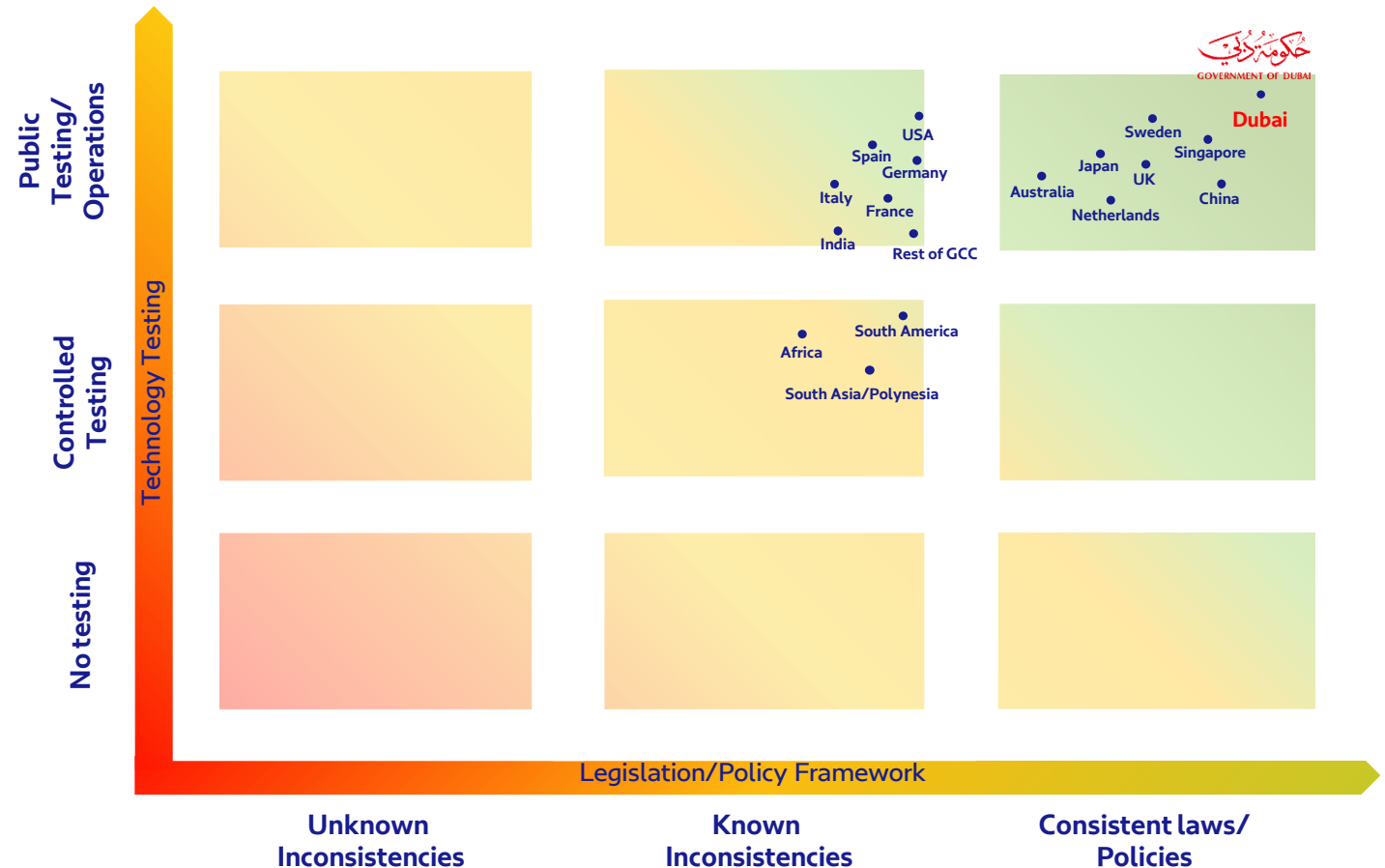
His Highness Sheikh Mohammed bin Rashid Al Maktoum
Vice President and Prime Minister of the UAE and Ruler of Dubai



International Benchmark 2016



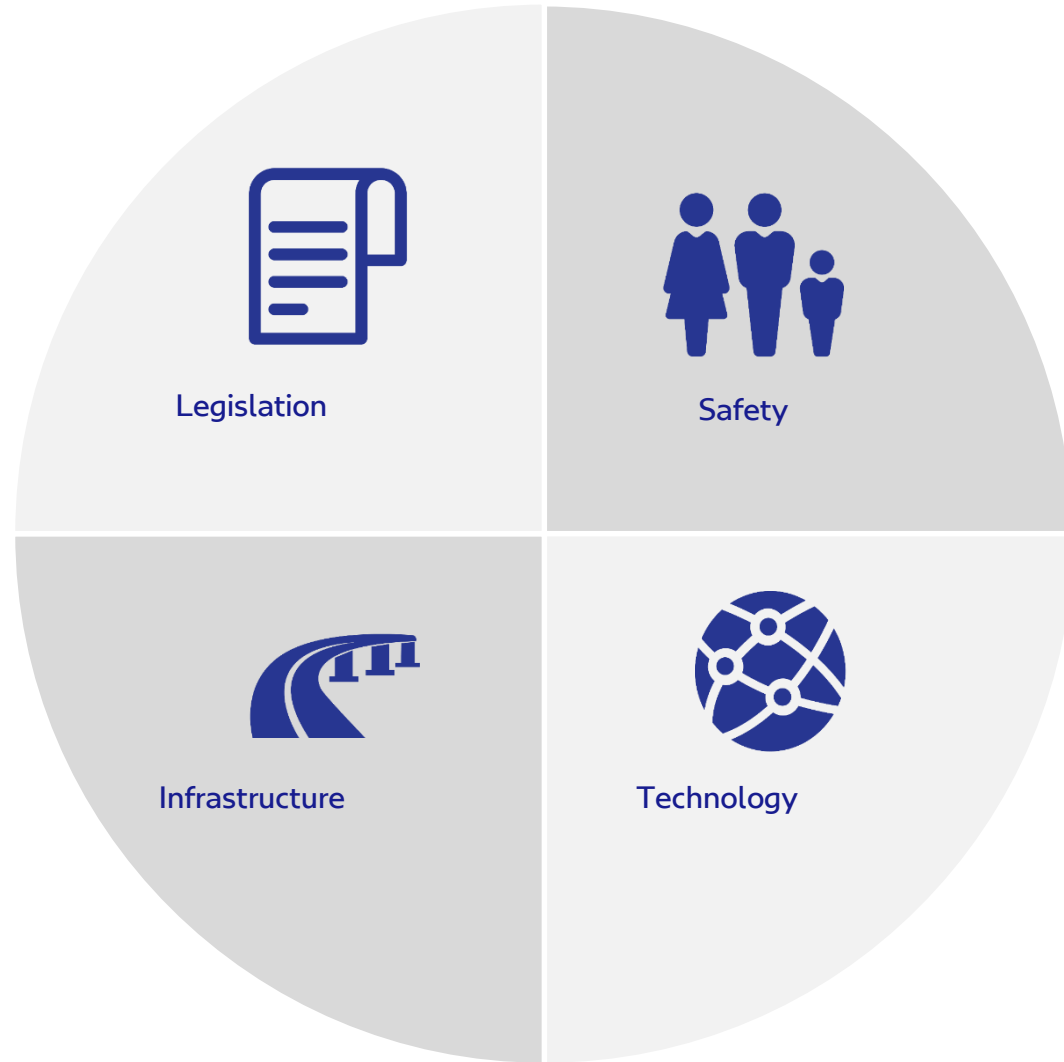
International Benchmark 2030 (Estimated)



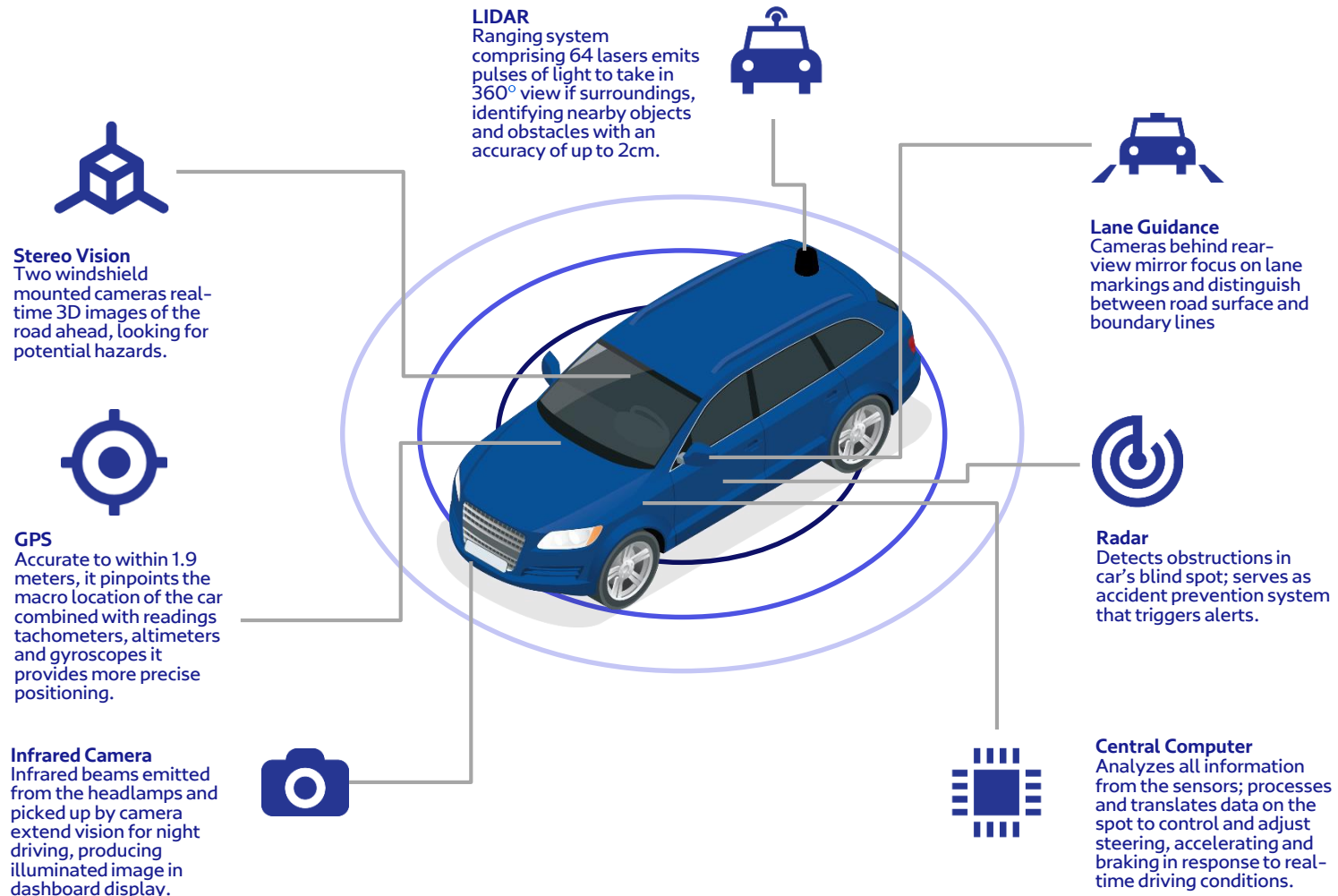
Self-Driving Vehicle Video



Global Challenges



Self-Driving Vehicle Technology



Dubai Challenges



**EXTREME WEATHER
CONDITIONS**
Humidity, Fog, Sandstorms

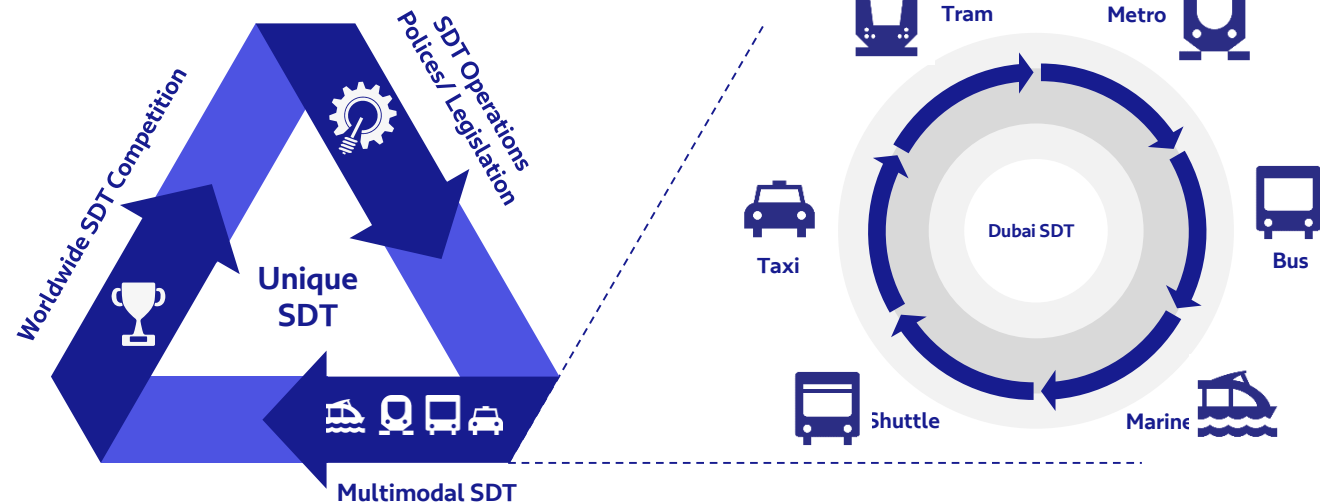


Cultural Diversity
People Acceptance















FIRST MILE / LAST MILE
High Temperatures

Dubai Self-Driving Transport (SDT) Strategy



Dubai Self-Driving Transport (SDT) Targets

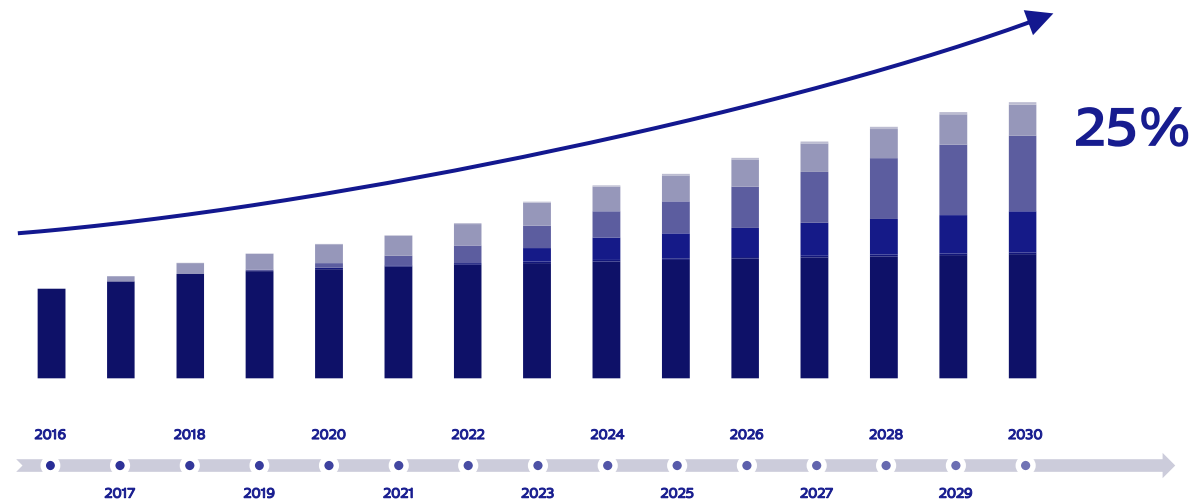
| | | | 2016 % of Total trips by SD mode | 2030 % of Total trips by SD mode |
|---|---|-------------------------|--|--|
|  |  | Metro | 8.8% | 12.2% |
|  |  | Tram | 0% | 0.2% |
|  |  | Shuttle & Cable-cars | 0% | 2.5% |
|  |  | Marine Transport | 0% | 0.2% |
|  |  | Taxi / Rideshare | 0% | 3.5% |
|  |  | BRT, Rider & Runner | 0% | 6.4% |

Total Self-driving Public Transport

25%

Dubai Self-Driving Transport (SDT) Enablers

| | |
|--|--|
| 1. Legislation | <ul style="list-style-type: none"> •Testing •Operations |
| 2. Driver Behavior & Acceptance | <ul style="list-style-type: none"> •Driver behavior in Level 2-3 vehicles •Driver acceptance of SDT |
| 3. Driver & Vehicle Licensing/Registration | <ul style="list-style-type: none"> •SDT driver licensing •SD vehicle testing, registration, renewal |
| 4. Insurance/Liability | <ul style="list-style-type: none"> •Crash liability of self-driving vehicles •Insurance requirements |
| 5. Infrastructure Requirements | <ul style="list-style-type: none"> •Infrastructure improvements for SDT •Crowd sourcing and analytics |
| 6. Cyber security/Data Privacy | <ul style="list-style-type: none"> •Self-driving vehicle security •On-board data recording and retrieval |
| 7. Connected Vehicle Enablers | <ul style="list-style-type: none"> •Communication (V2I, V2V, V2X) •Connected cloud |
| 8. HD Mapping | <ul style="list-style-type: none"> •Accurate HD Mapping •Over the air update |



Self-Driving Transport (SDT) Current Benefits in Dubai

6.4% 

Punctuality Improvements
Compared to trains in other major cities

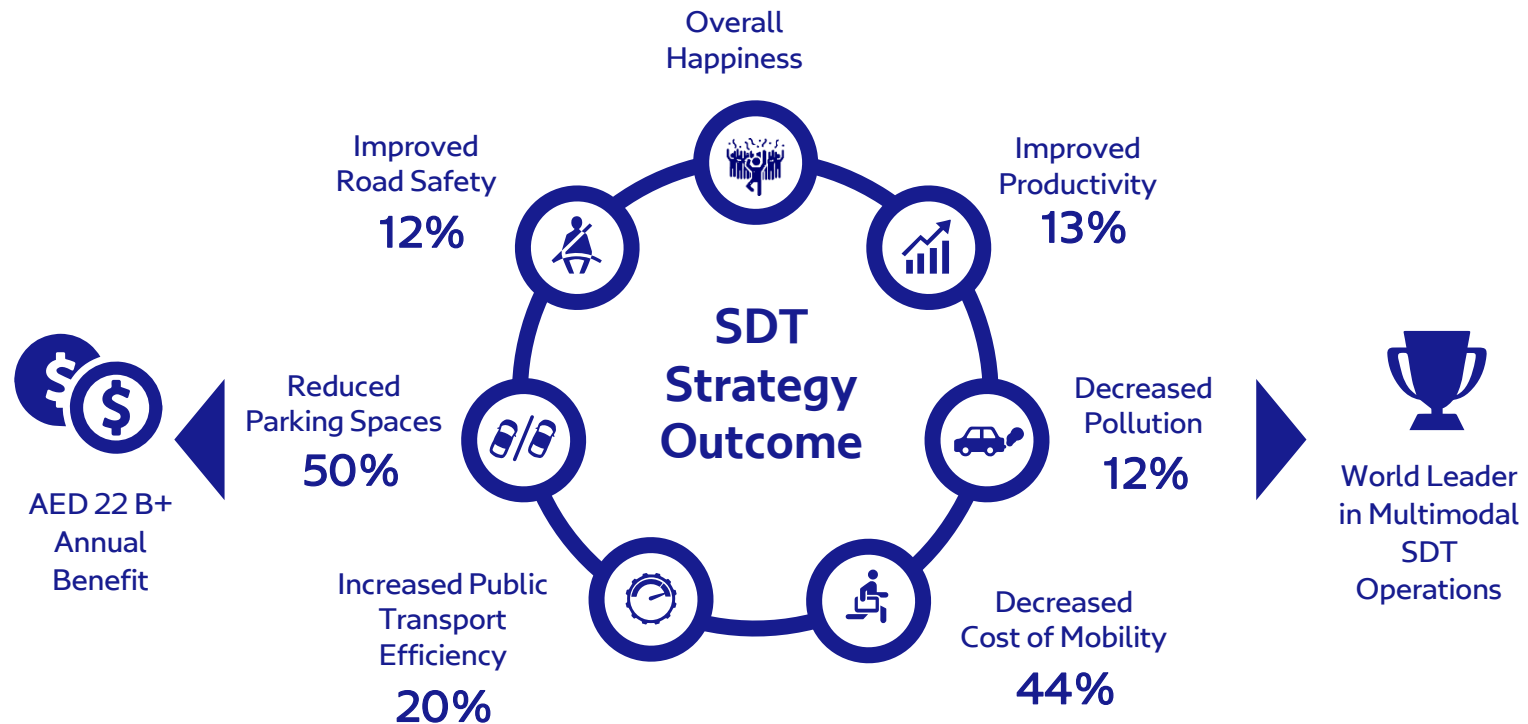


7% 

Reductions in Operational Costs
Attributed to driver costs only



Self-Driving Transport (SDT) Future Benefits in Dubai



Dubai is already Progressing: Trials

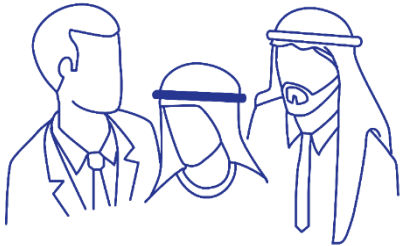


Satisfaction Results of Self-Driving Shuttle

“Mohammed Bin Rashid Boulevard” Trial

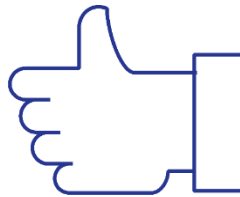
1200 

Survey sample size for Self-Driving
Vehicle Passengers
Ages between 40 and 20



95% 

Overall Satisfaction of the
driverless vehicle users



96% 

Satisfaction on safety
aspects of the Self-Driving
vehicle



85% 

Thinks that Self-Driving
vehicle will reduce traffic
accidents





MoUs and Partnerships

hyperloop | one

DAIMLER

next future transportation inc.

EASY
MILE



Autonomous Aerial Vehicle Video



Self-Driving Transport: Global Challenges and Opportunities

Thank you