AV Bus
AV Shuttles today
Very low speed
aTaxi/Private
USDOT demos, Uber, Google, Patchwork laws/policies, Smart Cities
INTERNATIONAL BENCHMARK

NETHERLANDS

Truck and car Platooning, low speed shuttles
Saturday
May 28th, 2016
INTERNATIONAL BENCHMARK

HMI issues, CV-AV links, cross-border issues, laws & policies, mega-projects
Large scale deployment pilot on automated and connected vehicles
Declaration of Amsterdam

Cooperation in the field of connected and automated driving

14-15 April 2016
INTERNATIONAL BENCHMARK

SWEDEN

Vision Zero, Volvo Drive Me
SELF DRIVING CARS IN REAL TRAFFIC
A UNIQUE TECHNOLOGY FROM VOLVO CARS
RTA Dubai tests the world’s first ‘Autonomous Pods’
UBER'S FLIGHT PLAN
CBS NEWS GETS FIRST LOOK AT RIDEHARE'S PLAN TO FLY RIDERS
Write it down
Date it
Identify obstacles
Partners
Action plan
Time limit
Benefits assessment
A goal without a plan is just a wish.

Antoine de Saint-Exupery
A Vision for the Future of Transport

Reduce transportation costs by 44 percent or AED 900 million, saving AED 1.5 billion through reduction of environmental pollution, and AED 18 billion through raising efficiency of the transport sector by 20 percent.

The Dubai World Challenge for self-driving transport will be the largest international tender for companies and research and development centres to implement scenarios and applications of this technology on Dubai roads.

By 2030, 25 percent of all transportation TRIPS in Dubai will be smart and driverless. The strategy is projected to generate economic revenues and savings of up to AED 22 billion a year.

- His Highness Sheikh Mohammad Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai
DUBAI SELF DRIVING TRANSPORT STRATEGY

INTERNATIONAL BENCHMARKING
EXISTING PT MODES
2030 TRIP PROJECTIONS
STAKEHOLDER COORDINATION
SDT TARGETS
BUILDING BLOCKS
SDT STRATEGY & ROADMAP

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EXISTING PT MODES
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SDT STRATEGY & ROADMAP
Expected Technology Evolution

Level 4
- AV Shuttles 10km/hr
- AV Shuttles 30km/hr
- AV Shuttles 45km/hr
- AV Shuttles 65km/hr
- AV Shuttles 100km/hr

Level 3
- AV Bus
- aTaxi

Level 2
- aTaxi
- AV Bus

Years:
- 2016
- 2020
- 2023
- 2025
- 2027
- 2030
“Working backwards” from a tangible goal is a feasible strategy for long range planning under uncertainty.

Particularly when supply-side models for AV (and traveler choice assumptions) are hard to come by.
Agency Capability Maturity Dimensions Related to AV/CV

- Legislation
  - Testing
  - Operations

- Driver Behavior & acceptance
  - Driver behavior and safety in Level 2-3 vehicles
  - Driver acceptance of SDT

- Driver & Vehicle Licensing/Registration
  - SDT driver licensing
  - Self-driving vehicle testing, registration and renewal

- Insurance/Liability
  - Crash liability of self-driving vehicles
  - Insurance requirements

- Infrastructure requirements
  - Infrastructure improvements for SDT compatibility
  - Crowd-sourcing and analytics

- Cyber security/Data privacy
  - Self-driving vehicle security
  - On-board data recording and retrieval

- Connected vehicle enablers
  - Communication (V2I, V2V, V2X)
  - Connected cloud

- HD Mapping
  - Accurate HD mapping
  - Over the air update

Systems and Technology

Collaboration

Staffing, Organization, and Culture

Performance Measures

Business Processes
Manual traffic control
The ability to “take over” control or redirect
Public Acceptance

DRIVE THRU ROBOT DRIVER PRANK