

Coachella Valley Regional Mobility Dialogue Series

Transportation Planning and Smart Cities: The Next Steps for the Coachella Valley

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Agua Caliente Casino Resort Spa - Rancho Mirage, California

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Prelude

- ▶ Coachella Valley which is comprised of nine cities is a sustainable corridor with a sparse population surrounded by majestic mountains, pristine hiking trails, Native Indian reservations, and diverse fauna and flora. Its main industries are: agriculture, tourism, wind farming, arts/cultural events (indoor/outdoor), hotels & hospitality, golfing, private homes and condos (with their multitude of home owners' associations), casinos, retail, advanced learning/training institutions, etc. - this is a world-acclaimed tourist resort all year-round
 - ▶ Hence, the extreme traffic congestions seen in the urban dense/innovative cities located within our own Riverside County, San Bernardino County, LA County, San Diego County, Santa Clara County, etc. are not yet experienced here
 - ▶ However, we can easily digitally transform the existing transportation infrastructure to enhance the current quality of life for
 - ▶ Students, employees, employers, tourists, retired residents, etc. whether in a vehicle, motorbike, bicycle, e-scooter or on foot
 - ▶ Easy access to all means of transportation to effortlessly/rapidly get to schools, colleges, doctors/dentists, employers, city center, parks & trails, events, friends/family, retail stores & restaurants, etc.
 - ▶ Mobility
 - ▶ Safety
 - ▶ the entire region with provisions/anticipation for/in making this a technology innovation corridor without the urban sprawl and without the destruction to the vast natural beauty and biodiversity of the region

What?

Industry 3.0

Existing transportation
Infrastructure Vectors

Digital
Transformation

Industry 4.0

Intelligent Transportation
System Vectors

- There is inefficient Traffic light/intersection management
- There is inefficient monitoring of non-optimal road conditions via CCTV and other technologies
- There is inefficient monitoring/enforcement of traffic laws via CCTV and other technologies
- There is no inbound flow control using technologies
- There is lack of air pollution (e.g. NOX, etc.) monitoring, noise pollution monitoring and actuation
- There is a lack of intelligent street lights/signs on roads/highways/parking lots, etc.
- Transaction times are too long at toll booths, parking meters, police citations, drive throughs, etc.
- There is inefficient logistics management utilized in all supply chains
- There is inefficient monitoring of land clearing before construction, etc.
- There is slow response times to patient critical needs, frequent negligence, and late interventions
- etc.

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similarity

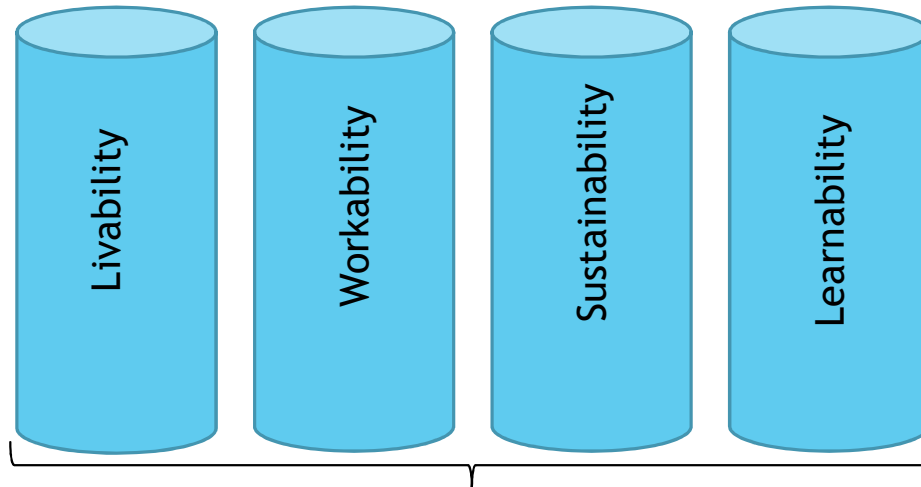
HealthSaaS™



SENSORCOMM TECHNOLOGIES
IoT Pollution Monitoring of Vehicles

Why?

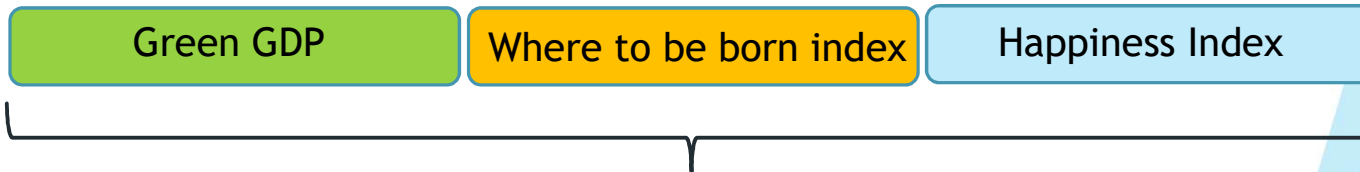
Cities want:



Smart City Council promotes these 4 pillars

For all of its Human Resources and Biodiversity

World cities get scored based on the following indices:



- Inclusive of the following and more:
 - Pollution Index
 - Climate Index
 - Traffic commute time Index
 - Cost of Living Index
 - Safety Index
 - Purchasing Power Index
 - Health Care Index
 - Property Price to Income Index

Transport and Traffic Management

How?

Intelligent Transportation Systems

Intelligent Transportation Applications

Emergency Vehicle Notification Systems

Automatic Road Enforcement

Variable Speed Limits

Dynamic Traffic Light System

Collision Avoidance System

Cooperative Systems on the Road: Connected Vehicles, etc.

New Business Models

Air Quality Monitoring & Actuation

Water Quality Monitoring & Actuation

Light Quality Monitoring & Actuation

Sound Quality Monitoring & Actuation

Thermal Quality Monitoring & Actuation

Mind & Body Monitoring & Actuation

Nourishment Monitoring & Actuation

Cybersecurity

Automated City Space Planning

Asset & Fleet Management

Net Zero Energy Buildings

Zero Net Energy Carbon Neutral City

Autonomous Vehicles

Anti-congestion, law enforcement, safety, sustainability & transparency

Technology Infrastructure (IoT: Sensors, Gateway, Cloud, Security, Manageability, AI, etc.)

Intelligent Transportation Technologies

Wireless Communications

Computational Technologies

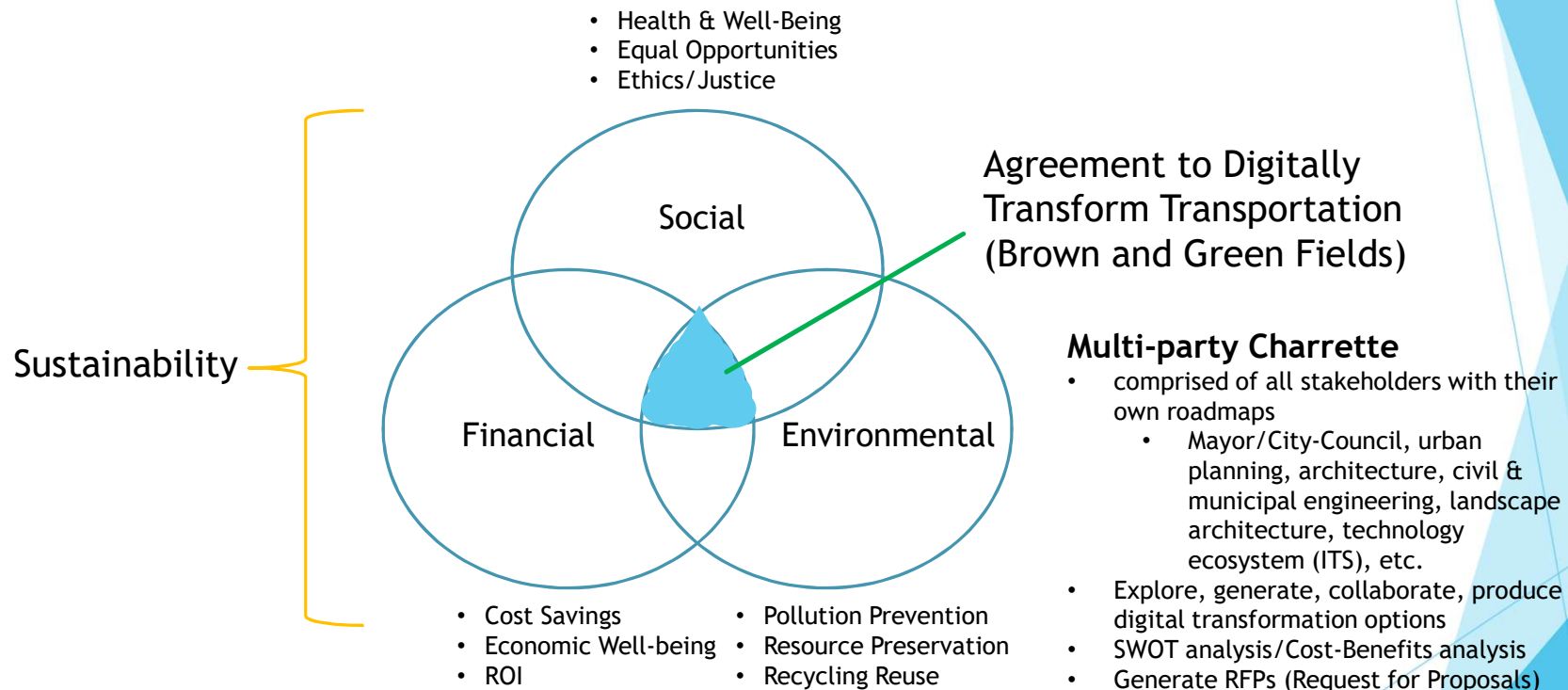
Floating car data
Floating cellular data

Sensing Technologies

Automated Open Access Broadband Network

Who?

The Triple Bottom Line for Smart City Transportation



Where?



Collaborative Digital Transformation effort amongst the 9 cities of Coachella Valley:



When?

- ▶ Call to Action is NOW
 - ▶ Build Smart City Charrette
 - ▶ Assemble Key stakeholders
 - ▶ Review current Roadmaps / intersections
 - ▶ Collaborative SWOT and Cost/Benefits Analysis
 - ▶ Set some quarterly achievable goals for both green city development as well as brown city digital transformation
 - ▶ RFP to suppliers/contractors/consultants, etc.
 - ▶ See real-live technology demonstrations
 - ▶ Proposal review and approval
 - ▶ Contracts signed
 - ▶ Transformation begins

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