

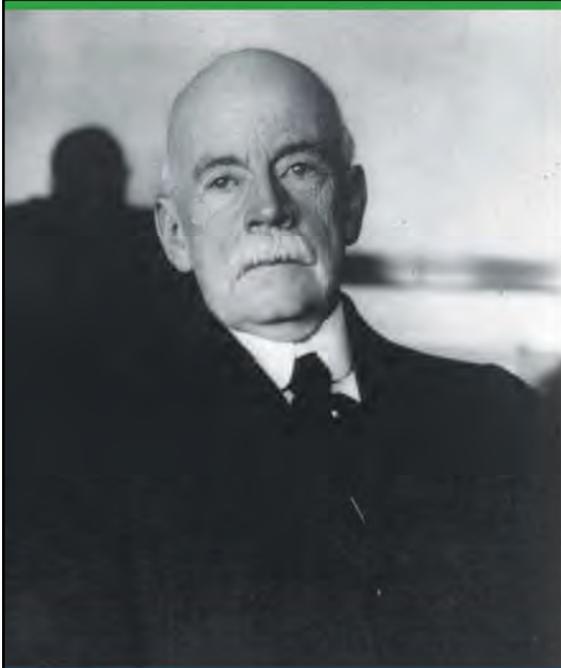


Leading California Cities Into the Future

City Managers Annual Meeting
February 14, 2019

Jim Madaffer, Madaffer Enterprises, Inc.
Jim Lewis, City Manager, Pismo Beach
John Keisler, Director of Economic Development, Long Beach
Gary Halbert, City Manager, Chula Vista





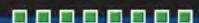
**“Everything that can be
invented, has been
invented.”**

- Charles Holland Duell, 1898



**“In my opinion, all previous
advances in the various lines of
invention will appear totally
insignificant when compared with
those which the present century will
witness. I almost wish that I might
live my life over again to see the
wonders which are at the threshold.**

- Charles Holland Duell, 1902







Smart City Technologies
Save Money

This slide features a green background with a network of white lines and dots. The text is centered in white. At the bottom, there is a dark blue horizontal bar with a cityscape image and a row of seven small green squares.



Smart City Technologies
Save Money
Reduce Staff Time

This slide features a green background with a network of white lines and dots. The text is centered in white. At the bottom, there is a dark blue horizontal bar with a cityscape image and a row of seven small green squares.

Smart City Technologies

- Save Money
- Reduce Staff Time
- Reduce Greenhouse Gas Emissions

This slide features a night city skyline background with a green semi-transparent overlay. The text is centered and white. At the bottom right, there is a row of seven small green squares.

Smart City Technologies

- Save Money
- Reduce Staff Time
- Reduce Greenhouse Gas Emissions
- Save Energy

This slide features a night city skyline background with a green semi-transparent overlay. The text is centered and white. At the bottom right, there is a row of seven small green squares.

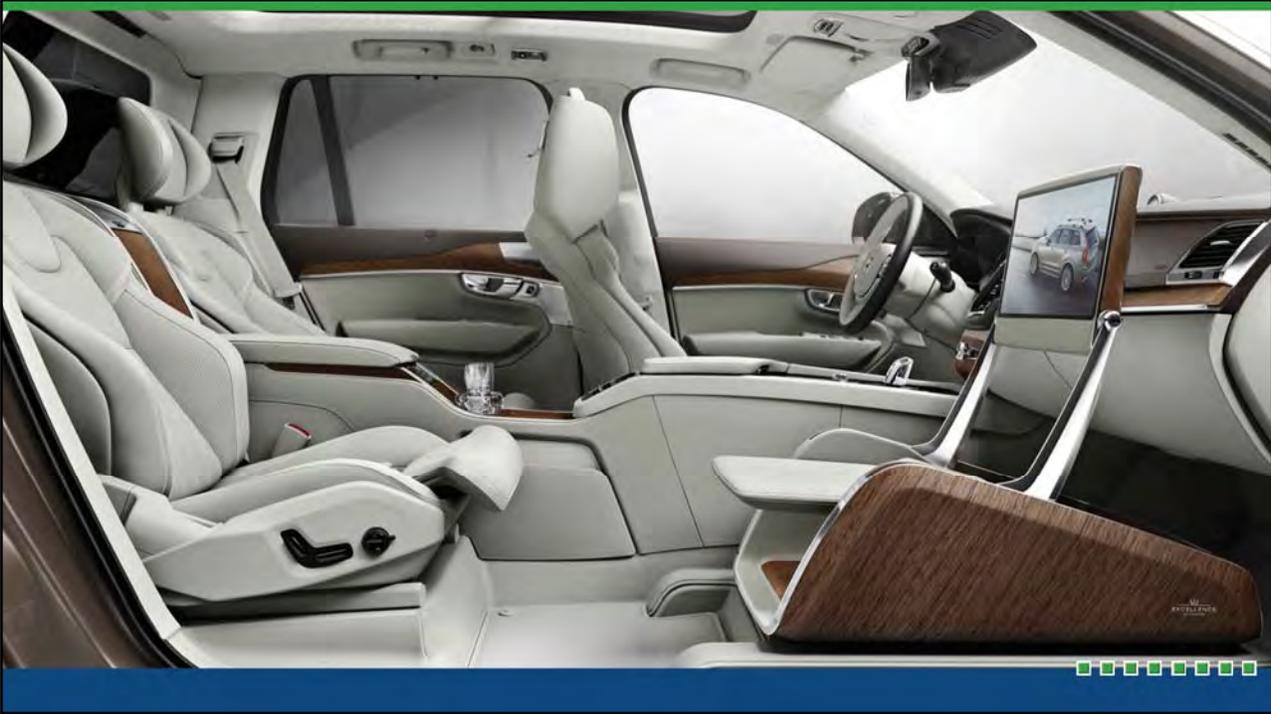


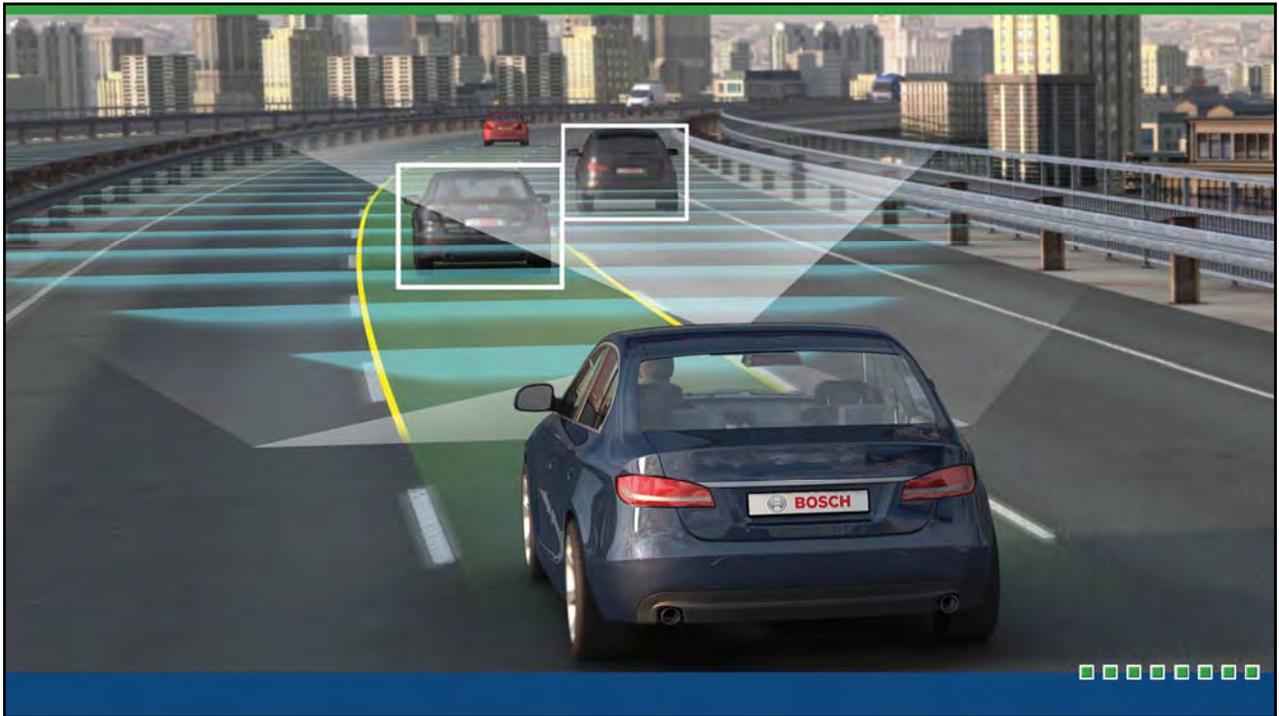
Smart City Technologies

- Save Money
- Reduce Staff Time
- Reduce Greenhouse Gas Emissions
- Save Energy

Improve Efficiency, Revenues and Quality of Life

This slide features a green background with a faint cityscape and network patterns. The text is centered and presented in a clean, white, sans-serif font. At the bottom right, there is a small graphic of seven green squares in a horizontal row.







5th AVE NYC
1900

Where is the
Car?



5th AVE NYC
1913

Where is the
Horse?



▶▶ FAST FORWARD TO 1985



'Expert' Disruption Forecasts

AT&T hired McKinsey & Co to forecast cell phone adoption by the year 2000

THEIR (15-YEAR) PREDICTION

900,000

SUBSCRIBERS

THE ACTUAL NUMBER WAS

109 million

They were off
by a factor of:

120x



It's usually the **'experts'** and **'insiders'**
who **dismiss** Disruptive Opportunities

"There's no chance that the iPhone is going to get any significant market share. No chance...."

Steve Ballmer, CEO Microsoft, 2007

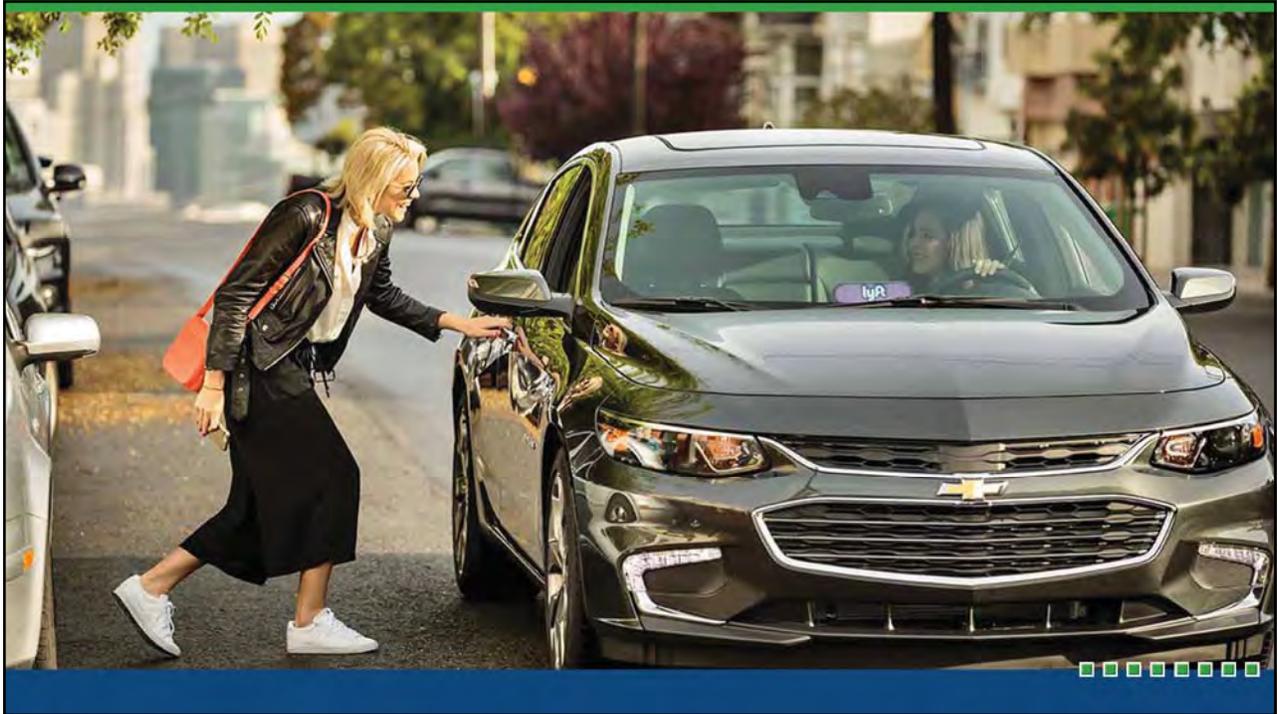
"The iPhone's impact will be minimal. It will only appeal to a few gadget freaks. Nokia and Motorola have nothing to worry about."

Bloomberg Analyst, 2007

"It's important that [Internet] expectations aren't cranked too high. The total number of users is still very small..."







Defining a “smart and connected” city

- “A smart city uses information and communication technology to enhance livability, workability and sustainability.”
— *Smart Cities Council*
- “For the City of Chula Vista, being a smart city means using technology and advanced data analytics tools to grow the economy, engage the community, improve government efficiency, and enhance quality of life.”
— *City of Chula Vista Smart City Strategic Action Plan*
- “A smart city optimizes systems by using technology and data to improve service delivery and customer satisfaction while creating new opportunities for engagement and problem-solving for better shared outcomes.”
— *City of West Hollywood Smart City Strategic Plan*

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The strategic roadmap model

Cities

- Chula Vista, CA
- West Hollywood, CA
- Austin, TX
- Pittsburgh, PA
- Saratoga Springs, NY
- Montréal, Québec
- Birmingham, England

“If you don’t know where you’re going, you’ll never get there.”

1. What outcomes do we want to achieve?
2. What do we need to put in place to achieve it?
 - Physical infrastructure, governing policies, staffing, outreach and engagement
3. How do we prioritize in a constrained environment?
4. Who is responsible for what activities along the way?
5. How do we measure progress?

Transforming Pismo Beach into a More Resilient, Connected, and Attractive City

League of California Cities City Manager's Department Meeting

February 14, 2019

JAMES R. LEWIS
City Manager
CITY OF PISMO BEACH



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The Smart City

A Smart City connects data, technology and sensors to city services and people with the goal of improving the quality of life and strengthening the community.



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Smart Cities- Why and How

- How “Smart” are you?
- Where do you need to be “Smarter”?
- Is working “Smarter” harder?
- What would your City look like being “Smarter”?



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Smart City Assessment

Assessment and planning is key to success

- Where are you headed?
- Where is biggest benefit?
- What amount of change can you handle?
- What partners do you have?

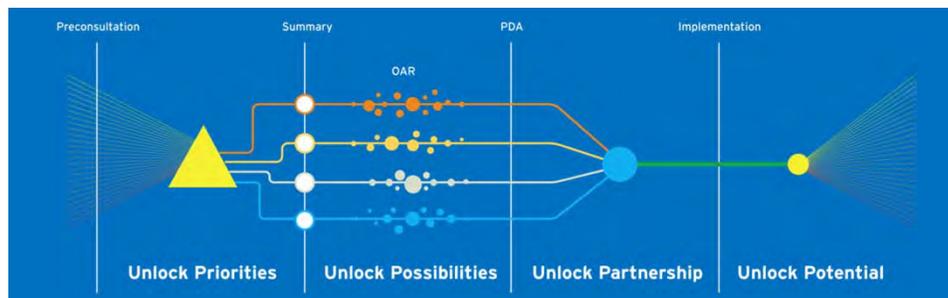
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HOW CAN PISMO BE A BETTER CITY TODAY?

*The City of Pismo Beach aims to be a Better City Today **by using technology to collect, communicate, and analyze data** to improve the design and operations of its core systems and programs, as well as **citizen and tourist engagement**, for greater efficiency and effectiveness; the city's **sustainability, resilience, bottom line, quality of life and visitor experience** will improve as a result.*

UTILIZING THE UNLOCK PROCESS

ENGIE's Unlock Process™ was used as a guiding framework to uncover City priorities, opportunities, and strategies to improve the utilization of technology and data in Pismo Beach.



UNLOCKING OPPORTUNITY IN PISMO BEACH

Unlock Priorities

Evaluation of Pismo Beach through:

- Online research reviewing 19 City documents
- City staff survey: 29 responses
- 10 stakeholder interviews with executive staff and community leaders

Mapped findings onto **ENGIE's City 360 Scan**

Unlock Possibilities

Facilitated a workshop with approximately 20 City staff and community leaders on August 14, 2018

Discovered that **citizen engagement, transportation and water infrastructure** were the primary opportunity areas for improvement

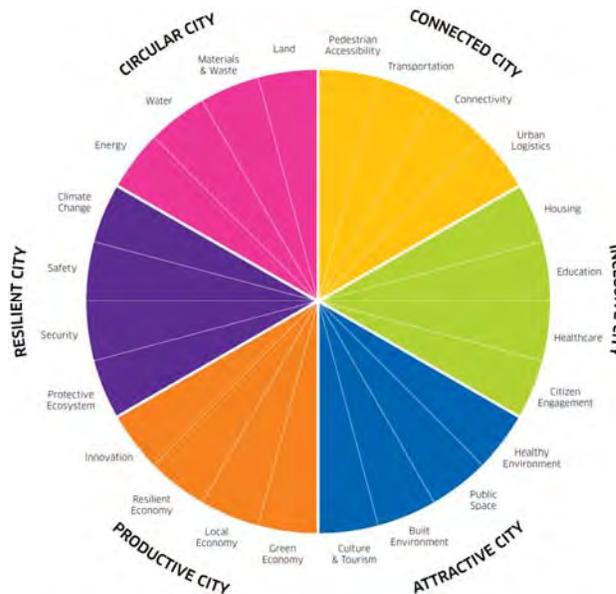
Unlock Partnerships

Developed a roadmap to serve as a **prioritization and implementation guide** for the 5 City projects identified in the workshop and developed

1. Smart Parking Strategy
2. Smart Water Meters
3. Improvements to the City Website
4. Pomeroy Promenade Enhancement Project
5. Highway Digital Signage

ENGIE'S CITY 360 SCAN

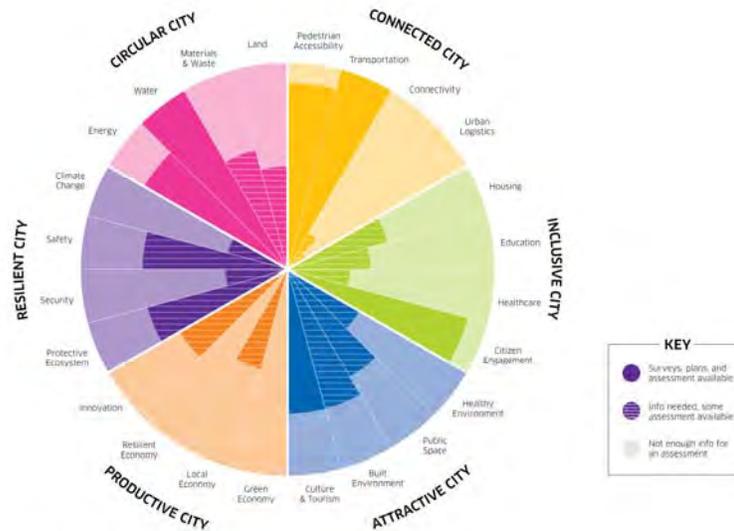
ENGIE has developed the City 360 Scan as a framework to provide a **holistic and measurable view** of "better city" readiness and maturity.





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ASSESSING PISMO: 360 Scan Results



****Note: Categories with 0 score fall outside of the jurisdiction of the City government.**

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Where We Are Focusing

- Transportation
- Parking
- Recycled Water/Utilities
- Citizen Engagement/Web Content

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KEY FINDINGS & OPPORTUNITIES: 360 Scan

CIRCULAR CITY

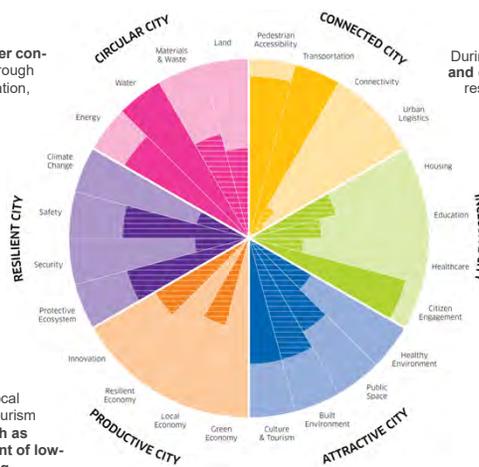
Pismo Beach has stressed **water conservation as a key priority**, through recycled water, customer education, and replacement of Inefficient infrastructure.

RESILIENT CITY

With the adoption of more Technology, the City has set goals **around IT security and further leveraging digital resources** to improve public safety, such as boosted emergency and Advisory alerts on social media.

PRODUCTIVE CITY

Pismo Beach enjoys a robust local economy, though reliance on tourism has generated **challenges such as congestion and limited amount of low- and moderate-income housing**.



CONNECTED CITY

During peak tourism times, **parking and congestion are key issues** for residents and visitors. Increasing **pedestrian accessibility and multi-modal transportation** are also City goals.

INCLUSIVE CITY

In recent years, Pismo Beach has prioritized **citizen engagement and communication** with residents and visitors, particularly online.

ATTRACTIVE CITY

The City's economy is reliant on visitors; approximately **40% of the City's revenue** is generated from a Transient Occupancy Tax.

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PRIORITY PROJECT #2: Smart Water Meters

Discovered Challenge: Security of future water supply is a key concern for the City and region.

To continue working toward Pismo Beach's water conservation goals, smart water meters can quickly **detect leaks**, show consumers **real-time water use** to encourage conservation, and **reduce water loss**.

Milestones



Procurement



Staff training on software and billing mechanisms



Installation of meters



Resident outreach on real-time monitoring and water conservation

PRIORITY PROJECT #3: City Website

Discovered Challenge: Since the City website is a primary source of information for visitors and residents, the city wants to make the site more effective and user-friendly.

Online improvements in **information tools, e-services, utility, transparency, and civic engagement** features of the City website will increase **the effectiveness of Pismo's communication and service to residents and visitors**.

Milestones



User interviews and baseline assessment of existing website



User testing with new design and functionality



Website redesign based on input



Launch of new website

PRIORITY PROJECT #4: Pomeroy Promenade Enhancement

Discovered Challenge: The mixed pedestrian and vehicle traffic for a 3 block area of Pomeroy Ave. causes considerable traffic downtown.

*Digital signs installed in downtown Pismo Beach can facilitate the **temporary closure** of 3 blocks of Pomeroy Ave. to cars during peak capacity days, **increasing pedestrian accessibility and improving traffic flow.***

Milestones

-  Public education and engagement campaign
-  Urban landscape design and sign placement planning process
-  Procurement for digital signs
-  User testing
-  Launch weekend closure



PRIORITY PROJECT #5: Highway Digital Signage

Discovered Challenge: Vehicles avoiding freeway traffic by traveling through Pismo's downtown causes unwanted traffic.

*Dynamic message signs on the CA-101 freeway can be remotely changed **to divert additional traffic** in downtown Pismo Beach **during peak congestion times**, such as weekend events or popular tourism days.*

Milestones

-  Negotiations with CalTrans
-  Planning the location of the digital signs
-  Procurement for digital signs
-  Digital sign installment on the freeway
-  Launch weekend closure



INTRODUCING THE PROJECT PARTNERS



ENGIE is the #1 supplier of energy services in the world. Driven by their ambition to create harmonious progress, they take on major global challenges including combatting climate change, advancing green mobility, and providing sustainable energy to all. With a focus on decarbonization, decentralization, and digitalization, ENGIE offers innovative strategies for cities to improve quality of life for their constituents.



Nutter Consulting LLC is a smart cities and sustainability consulting firm that helps cities, foundations and nonprofit organizations. The firm draws on over two decades of experience working with clients to deliver comprehensive strategic plans, innovative and groundbreaking stakeholder convenings as well as insightful and relevant market and policy analysis.

City of Long Beach

Leading California Cities Into the Future
February 14, 2019



LONG BEACH



<https://youtu.be/Dnv1CL0DtVc>

WORLD FAMOUS ATTRACTIONS

KNOWING YOUR HISTORY

LONG BEACH'S ENVIRONMENT FOR DEMONSTRATION PROJECTS & STRATEGIES



1909
Residents issued a \$240,000 bond to build a municipal wharf



1940s
The Navy selected Long Beach as the principal landing site for the Navy fleet, and Donald Douglas produced more than 4,200 C-47 Skytrain planes for the war near the Long Beach Airport.



1930s
Ford, DuPont, and Proctor and Gamble operated factories in the harbor, and oil was discovered under the city.



1960s
Long Beach became the Queen City when it opened the ocean liner Queen Mary from Cunard Lines.

CONNECTED INFRASTRUCTURE, CONNECTED CITY, CONNECTED PEOPLE

- A HISTORY OF INNOVATION**
 - Modern Sea Port
 - Railway
 - Airport
 - Freeway System
 - Leader for Engineering, Advanced Manufacturing, and Goods Movement
- LEADING INTO THE 21ST CENTURY**
 - Economic Opportunity
 - Access to Services
 - Livability
 - Safety
 - Mobility
 - Sustainability
- LONG BEACH'S VISION**
 - Urban Automation
 - Connected Vehicles
 - Intelligent, Sensor-Based Infrastructure
 - Urban Analytics
 - User-Focused Mobility Services and Choices
 - Urban Delivery and Logistics
 - Strategic Business Models and Partnering Opportunities
 - Smart Grid, Roadway Electrification & Electric Vehicles
 - Connected, Involved Citizens
 - Architecture and Standards
 - Low-Cost, Efficient, Secure, and Resilient ICT
 - Smart Land Use



STRATEGIC PLANNING



BLUEPRINT

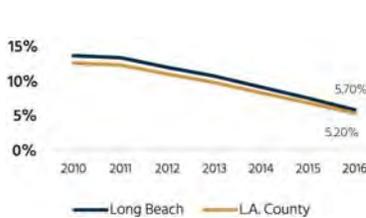
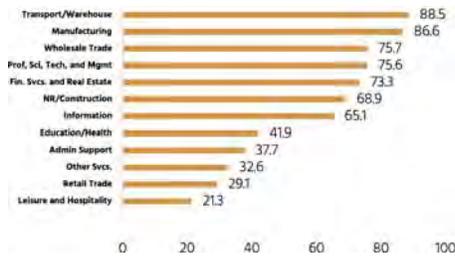
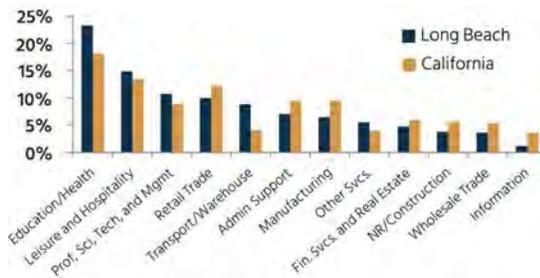
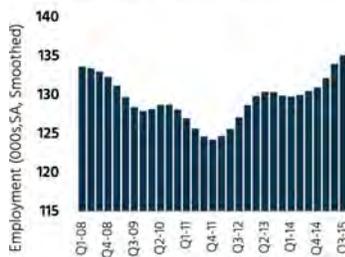
FOR ECONOMIC DEVELOPMENT
 Creating economic opportunities for workers, investors, and entrepreneurs

City of LONG BEACH

Lakewood Village
Downtown
Wrigley
City of Long Beach
Carmelitos
Uptown
Bluff Heights
Zaferia
El Dorado Park
Belmont Shore

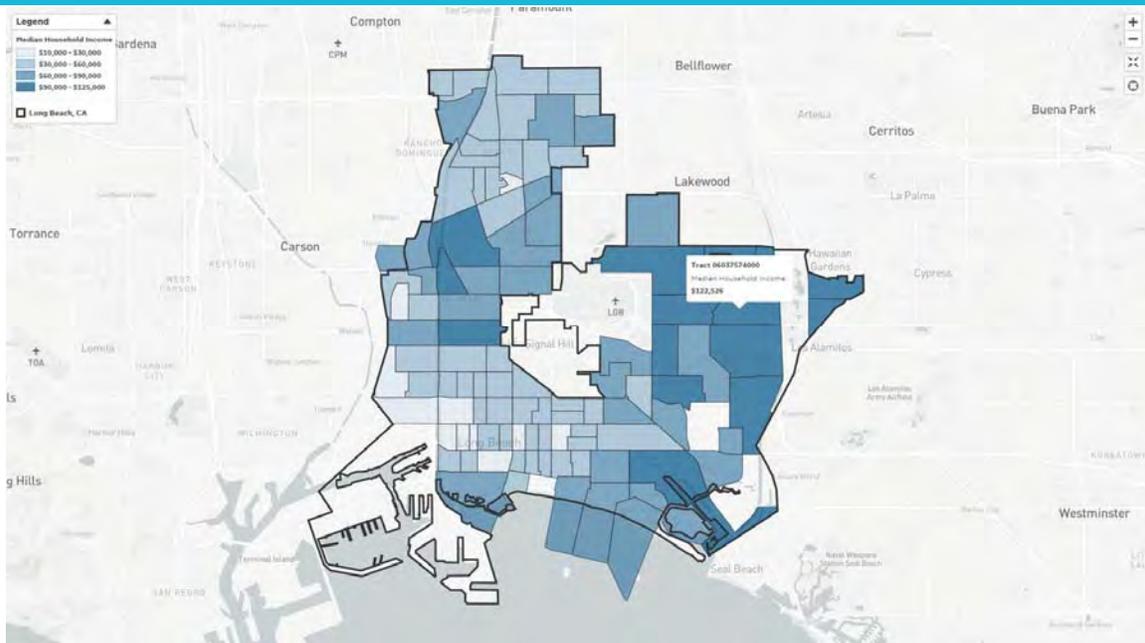
KNOWING YOUR DATA

2015 Total Private Employment



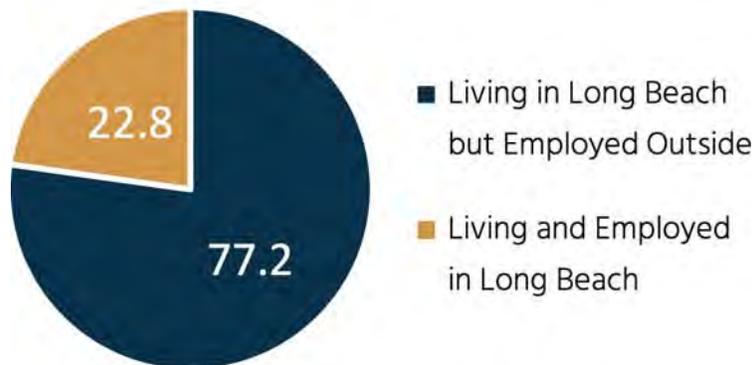
	Long Beach		L.A. County	
	Median Income	5-Year Growth	Median Income	5-Year Growth
White	\$69,809	5.9%	\$70,772	3.9%
Black	\$39,273	4.2%	\$33,744	-0.2%
Asian	\$59,087	15.7%	\$54,880	3.3%
Hispanic	\$43,869	7.8%	\$38,854	2.4%
Other	\$46,237	18.7%	\$35,615	-3.5%

OPENING YOUR DATA



OPENING YOUR ECONOMY

Labor Force: Inflow and Outflow



CONNECTING YOUR PEOPLE



EXPANDING YOUR PORTS



EXPANDING YOUR PORTS



EXPANDING YOUR NETWORK



EXPANDING YOUR NETWORK

City Build Scenarios #1-3

Scenario #1

Build Fiber Backbone & Laterals - Connect 143 City Buildings

• ~\$12.6 Million Cost

Scenario #2

Extend to Connect Commercial Corridors

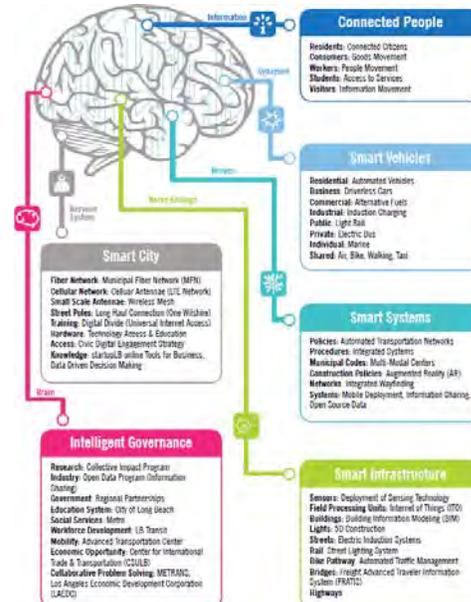
- ~\$32.8 Million Cost
- Lease Excess Capacity to Network Tenant(s)
- Business Enterprise Services Offered by City or Network Tenant(s)

Scenario #3

Extend Network Citywide

- ~\$182.5 Million Cost
- Lease Excess Capacity to Network Tenant(s)
- Business Enterprise and/or Residential Services Offered by Tenant(s)

CONNECTING YOUR INFRASTRUCTURE



LEVERAGING PUBLIC PRIVATE PARTNERSHIPS



LEVERAGING OPEN SOURCE PLATFORMS



6-22-17 Award for Innovative Use of Technology at the 2017 American Planning Association (APA) Los Angeles Section Awards Gala.

9-17-17 Government Experience Award in the Government-to-Business category, by the Center for Digital Government.

https://youtu.be/JS-PZl65_Q4

Built by non-profit tech company using Design Thinking principals. **P3 innovation partnership** includes funding from private foundations, local government, non-profit civic tech, and Commerce Department innovation challenge prize monies.

Launched October 2016, and **open source code** made available on Github to encourage innovation. 2nd City, Minneapolis launched its own BizPortal using Long Beach code from Github in 2018.



OPENING PROCUREMENT

Startitup



Beat the odds - start a successful business

Android app coming soon

An easy path to success for entrepreneurs and small business owners



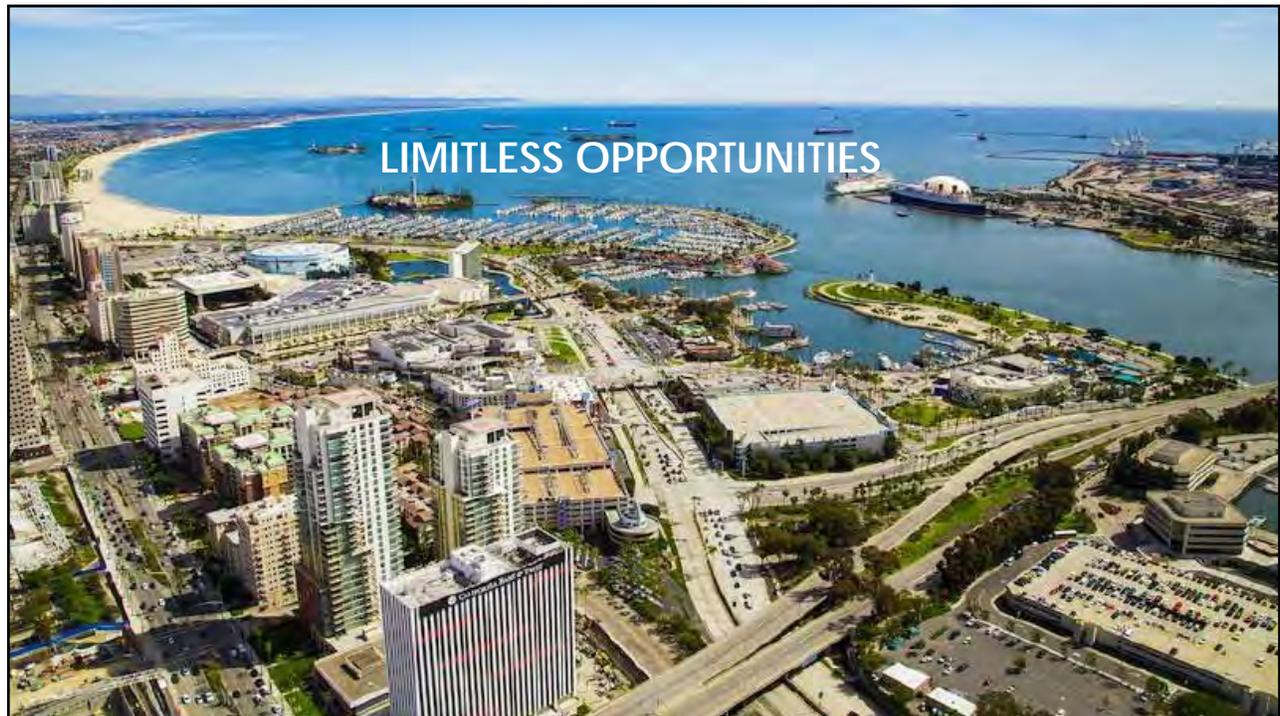
Innovative P3 identified through a Citymart "**Open Procurement Challenge**" in 2017 includes public, private, and non-profit development partners.

Mobile app assists businesses in **beating national average** survival rate for small businesses and startups.

Pilot launched January 2018 with multiple partners bringing different assets and subject matter expertise to the table.

"It's government as an investor. It's the government trying to stimulate the creation of new technology and new businesses"

John Keisler, Director Economic Development, City of Long Beach



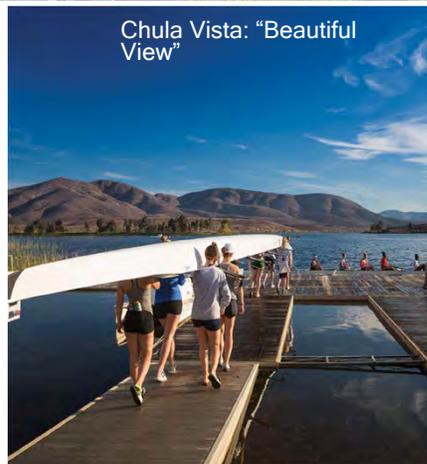


A Smart & Sustainable City

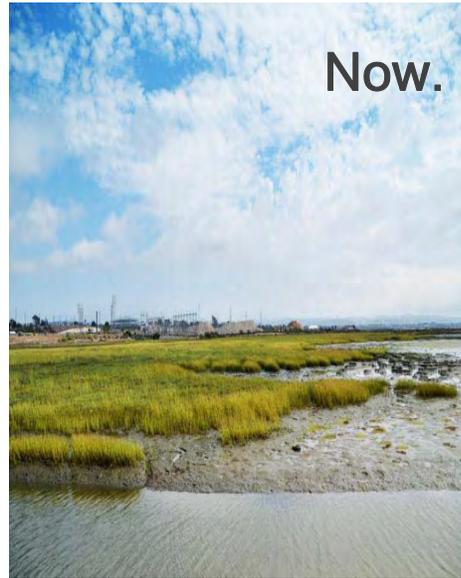
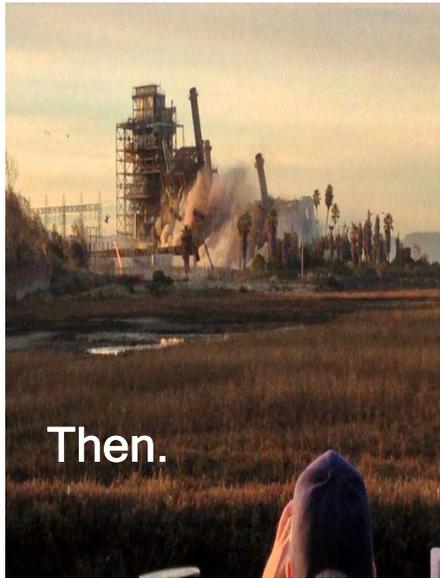
Gary Halbert, City Manager



City owns & operates a U.S. Olympic Training Site.



Chula Vista: "Beautiful View"



Smart Bayfront
Smart City test bed

- Energy & Water
- Communications
- Smart Infrastructure

Smart City Strategic Action Plan

4

Goals

10

Objectives

39

Initiatives

71

**BE BETTER
THAN YOU
WERE
YESTERDAY**



- Public safety
- Community engagement
- City operations & services



Launched Digital HQ (Website)



Projects



Open Data

Making city information public



Telecommunications Master Plan

City-wide network upgrades



Unmanned Aerial Systems / Drones

Accelerating drone technology



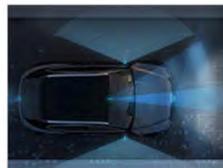
Technology Training

Classes for beginners



Free Internet Access

Closing the digital divide

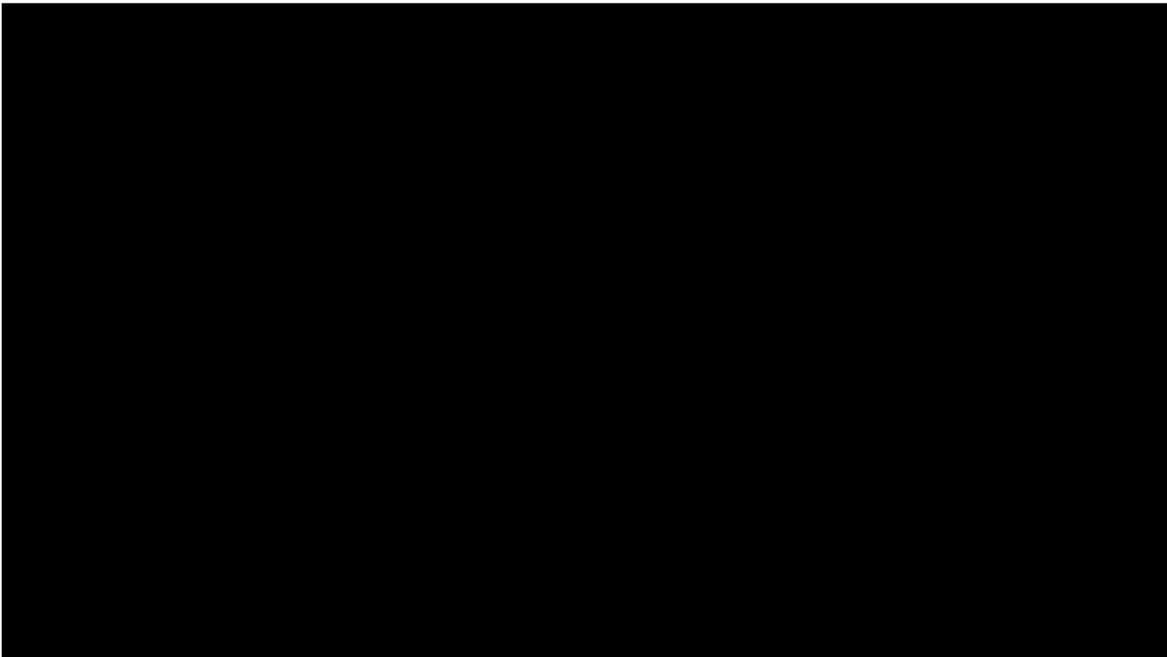


Autonomous Vehicles

Proving grounds for advanced
transportation technology



Projects



CITY LAUNCH

SAN DIEGO, CA • 2019

HOSTED BY



WITH SUPPORT FROM

CITY INNOVATE

mohuman



www.connectedcc.org | 877.468.5222 | answers@connectedcc.org

What is CityLaunch 2019

CityLaunch 2019 is focused on connecting innovators, businesses and startups with elected officials, city managers, CIOs, CTOs, IT Directors, Data Managers, Innovation Chiefs, Policy Analysts and Business System Specialists.

The event is hosted by Connected Communities Collaborative, a nonprofit organization dedicated to helping local governments strategically integrate and leverage technological innovation to enhance economic prosperity, environmental sustainability, and quality of life.

Connected Communities Collaborative works to give local governments the strategies they need to implement smart city technologies.



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Preparing for a Smarter Future

- Learn how to develop a smart city strategic roadmap tailored to your city
- Receive hands-on coaching from practitioners with a track record of success
- Discover how your city can become a Connected Community
- Gain access to a full suite of ongoing resources, including monthly webinars
- Enhance your conference with your choice of 4 Technical Tours
- Network with civic leaders from peer cities and meet leading technology providers and practitioners
- Re-imagine your city services with technologists and innovators from across the US



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When & Where?

JOIN US
March 10-12, 2019

Hard Rock Hotel
Downtown San Diego
207 Fifth Avenue
San Diego, CA 92101



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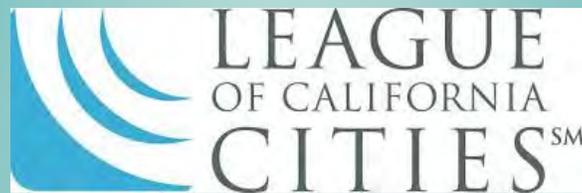
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