

# Creating and Nurturing a Smart City Ecosystem

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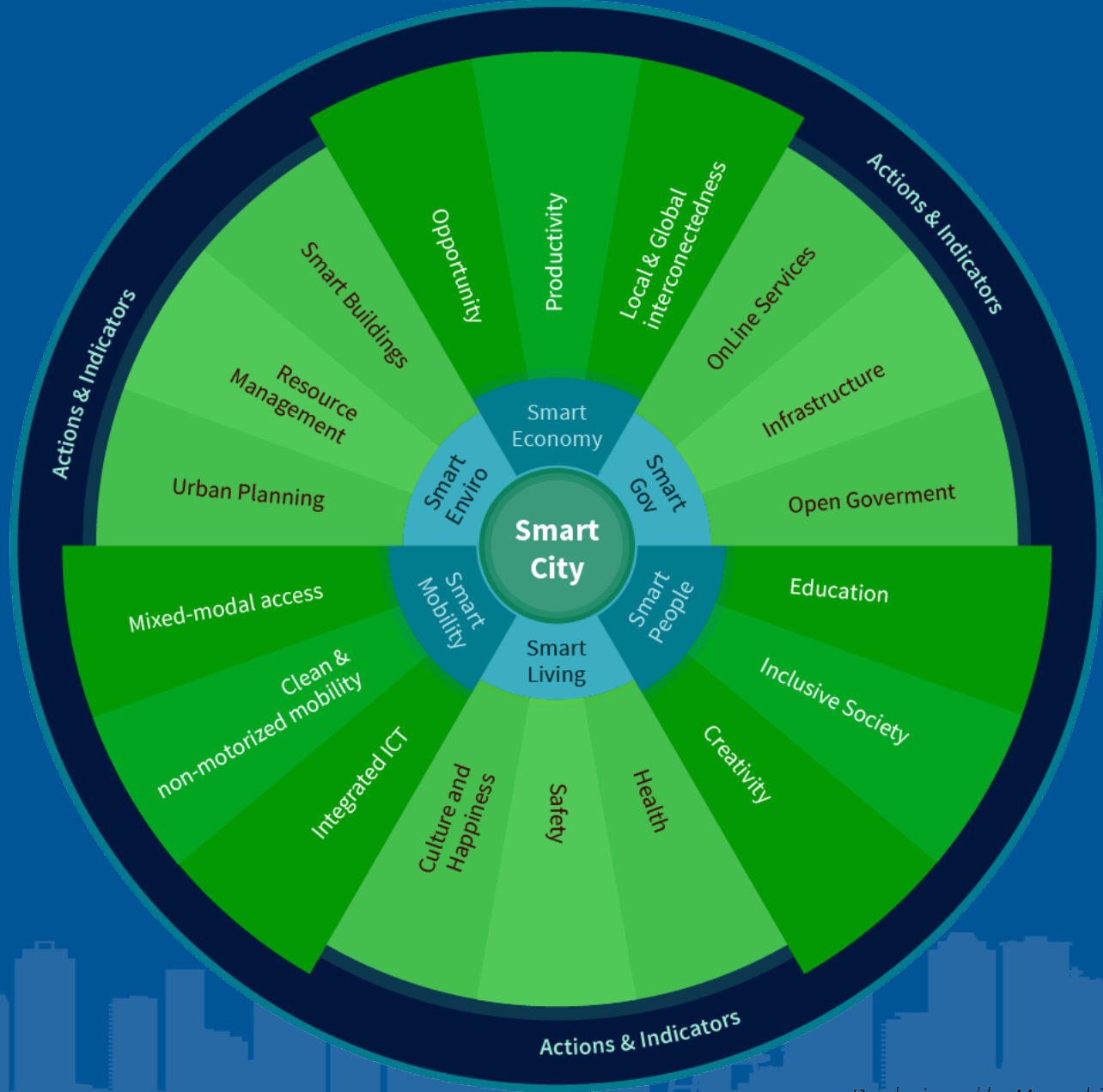
# “Team Work makes the Dream Work” Stevie Wonder

- A Smart City cannot be just about Data and Technology
- Needs to be about People, about Quality of Life for Citizens
  - What do people want?
  - Who will make it happen?
- Smart City = Community
- Does “Smart City” replace “Sustainable City?”

# Building the Smart City EcoSystem

- **Ecosystem:** a system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environment.
- **Mutualism:** A type of symbiosis where both species benefit from the interaction.
- **Smart:** using a broad, integrated approach to improving the efficiency of city operations, the quality of life for its citizens, and growing the local economy. Data and technology form the fundamental platform.

# Smart City Wheel





ENVISION: CHARLOTTE  
UNITING FOR A SUSTAINABLE CITY



# Envision Charlotte

**A unique Public Private Plus partnership building a smart city that will lead to the most sustainable urban core in the country. Using data & technology to find efficiencies that will reduce the cost of doing business in Charlotte while driving reductions in Energy, Water, Waste and Air Pollution.**







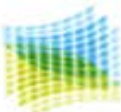
# Energy Program Goal – 20% reduction in energy use

Partners: Duke Energy; Verizon; Cisco.

16% Reduction in energy use!

Energy Consumption

\$17.1 Million in Savings!



# Water Program

Partners: **Itron**

**CH2MHILL®**

**verizon**

- Equipment Installed
- Baseline to be set
- Programs to be implemented

Water Consumption

Energy Consumption



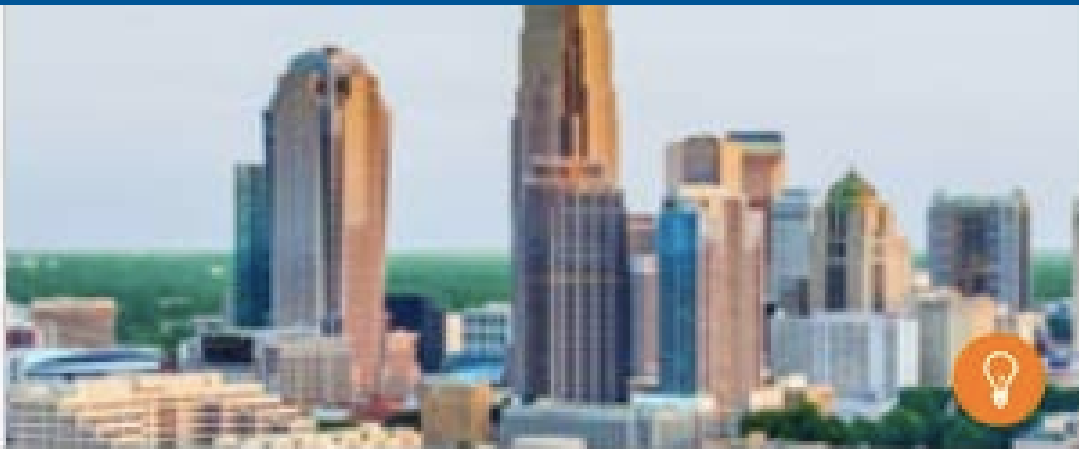
**NIST**



GLOBAL CITY  
TEAMS CHALLENGE



**usignite**



## Envision Charlotte: Energy

ENERGY, CHARLOTTE, LOCAL, ENVISION, UPTOWN,  
ECONOMY



## Envision Charlotte: Water

ENERGY, WATER, ENVISION, CHARLOTTE, LOCAL





- Launched June 1, 2015 during the Global Cities Teams Challenge Event.
- Eight cities from Europe, U.S. and Asia announced their commitment to build a coalition.
- Coalition aims to involve local and regional authorities, universities, research organizations, NGO's and businesses to voluntarily commit to share smart city and community solutions.
  - Solutions that have shown real tangible economic and societal benefits.
- Through new partnerships within the Global Smart City and Communities Coalition, these solutions can accelerate smart city and smart community deployments around the world.

# Charlotte Smart City Cabinet

- ***Vision:*** *Charlotte, North Carolina is recognized as a global smart city leader using innovation, partnerships & collaboration, data science, and technology to improve the quality of life and economic opportunity for all citizens.*
- ***Mission:*** *Proactively applying innovation, technology and data to enhance, transform and improve citizen services.*

# Charlotte Smart City Cabinet

## *Goals & Objectives:*

- Achieve internal efficiencies between departments by providing ready access to City departmental operational data;
- Use data to improve and enhance the City's portfolio of services;
- Support the City's strategic initiative for *Citizen Engagement* by providing citizens with open, transparent access to public data;
- Support the City's *High Growth Entrepreneurship Strategy* by enabling civic technologists and other parties to leverage public data for new products, services and markets; and
- Integrate and participate with the larger external smart city effort in Charlotte.

# Charlotte Community Smart City Cabinet

## Key Components for a Successful Smart City Ecosystem

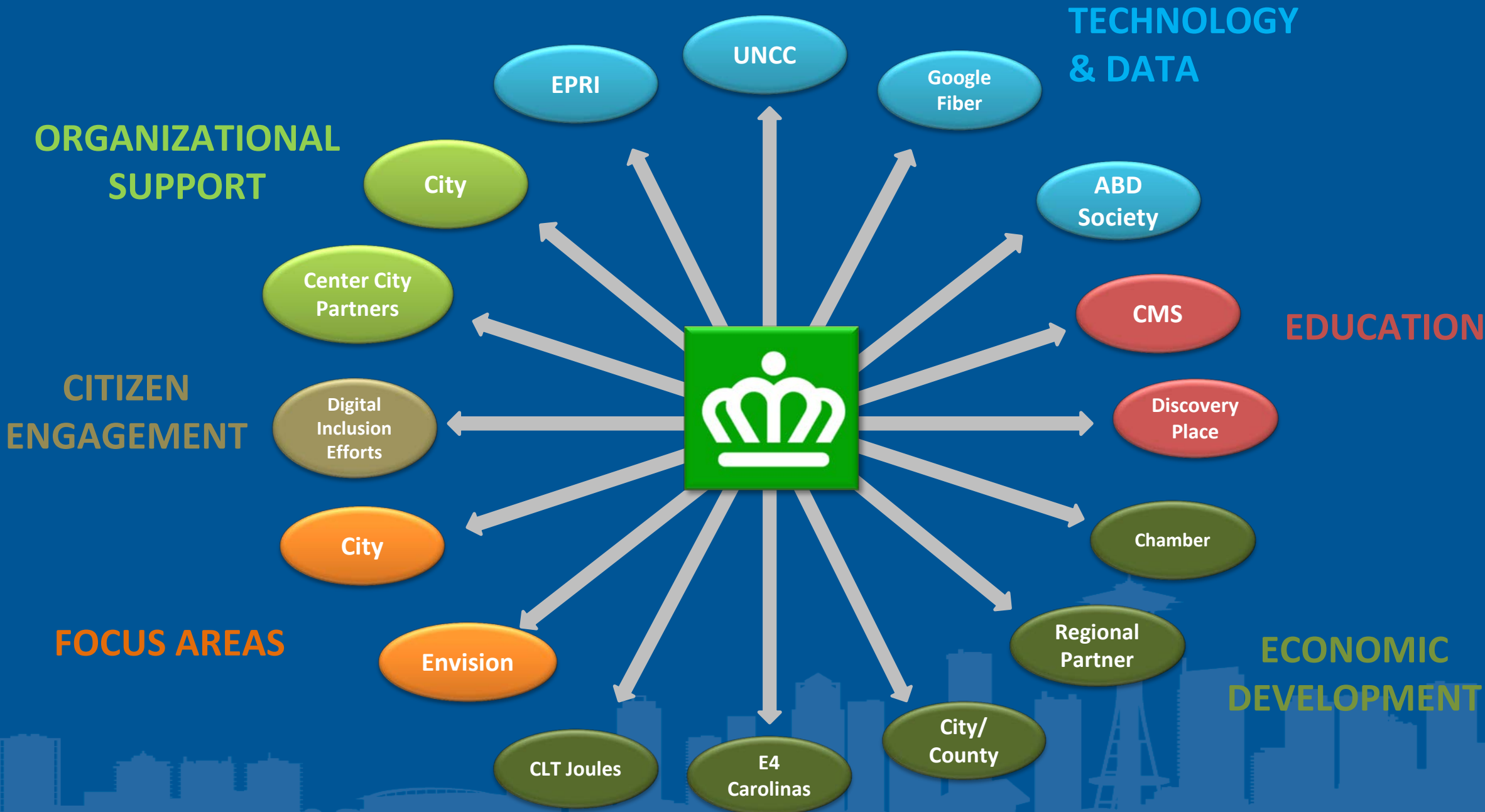
- **Organizational Support** –visionary leadership & champion(s) to create a smart city road map and foster cross-entity communication, coordination and alignment.
- **Focus Areas**- energy, water, transportation, citizen services, etc.
- **Data & Technology**- Building a modernized infrastructure to allow for data collection, analytics, reporting and smart city technology applications in focus areas.
- **Education** – Building the infrastructure & curriculum from cradle to cap and gown in STEM.



# Charlotte Community Smart City Cabinet

## Key Components for a Successful Smart City Ecosystem

- **Financial Resources**- funding for short and long term projects through a variety of resources.
- **Economic Development**- pioneering new system models that will change business development and fuel economic growth.
- **Citizen Engagement**- empowerment through smart technology applications to facilitate citizen's access to resources and services. Conquering the digital divide.
- **Marketing** – letting community know of the opportunities to participate and benefit & looking for national/international partners.



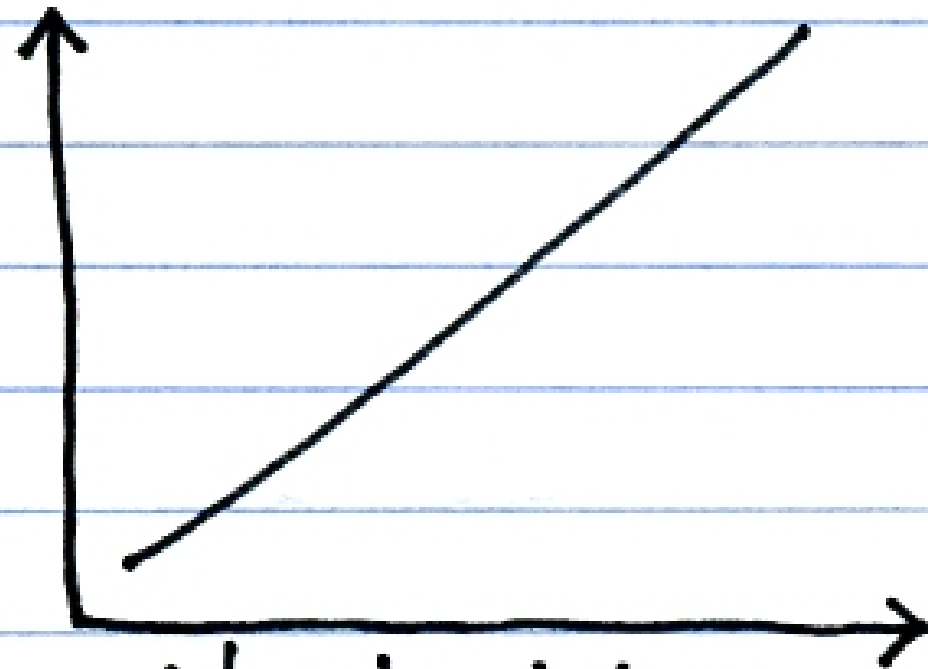


# Conclusion

- Smart City has to be more than just data & technology
- Must include citizens & entities
- Build an ecosystem as the platform to host your smart city
- What will you put on that platform? What pillars?
- How to make it sustainable? Where are the resources from?
- Don't reinvent the wheel
- Team Work makes the Dream Work



Quality of  
life for  
everyone



Needs doing  
nerdy things

A photograph of two cyclists riding on a paved path. The cyclist in the foreground is seen from the back, wearing a dark shirt and shorts. The cyclist in the background is wearing a dark jacket, pants, and a white helmet, with a bag on their bicycle. The path is surrounded by green grass and trees. In the background, a city skyline with several tall buildings is visible under a bright sky. The text "Questions/Comments?" is overlaid in the center of the image.

Questions/Comments?

# Contact Information

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