Elements of Smart Government

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AGENDA

10 minutes | **Introduction to the topic and speakers**

10 minutes | **Colorado Springs**

10 minutes | **Lone Tree**

30 minutes | **moderated panel discussion**

THE ALLIANCE

A 501(c)3 non-profit founded to **create technology partnerships** that prove next-generation solutions to improve Colorado's quality of life

Nation's largest statewide coalition dedicated to advancing smart cities

The Alliance is built to accelerate civic innovation through partnership building, education, research, and consulting

SMART GOVERNMENT IS...

The Internet of Things (IoT), applications, and data should *not* define Smart Cities.

The process by which they solve problems should.

Our Smart Government Definition

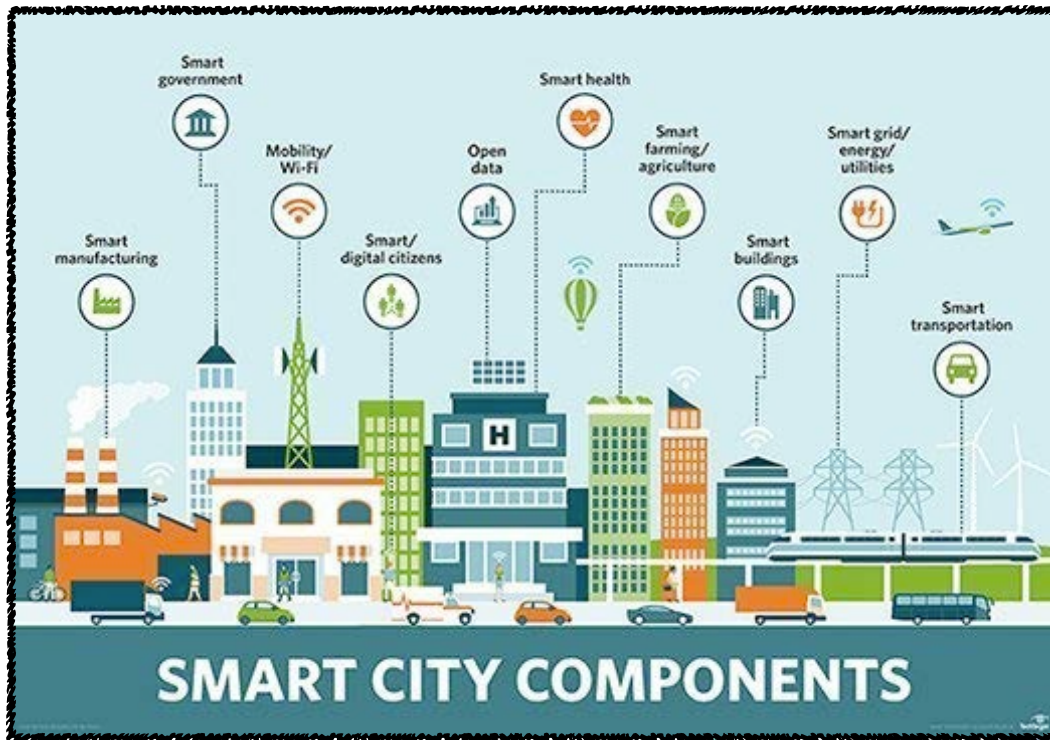*Smart Cities are innovative problem solvers, collaborative partners, and technology enthusiasts, in that order.*

HOW?

Most publications, plans, or studies of smart cities point to <u>infrastructure</u>, <u>technology</u>, or <u>applications</u> needed to become "smart"

Digital twin | 5G | AV | Fiber | AI

It leaves governments struggling to focus or prioritize WHAT they should be doing to become smarter, and it limits the scope of what smart cities can be
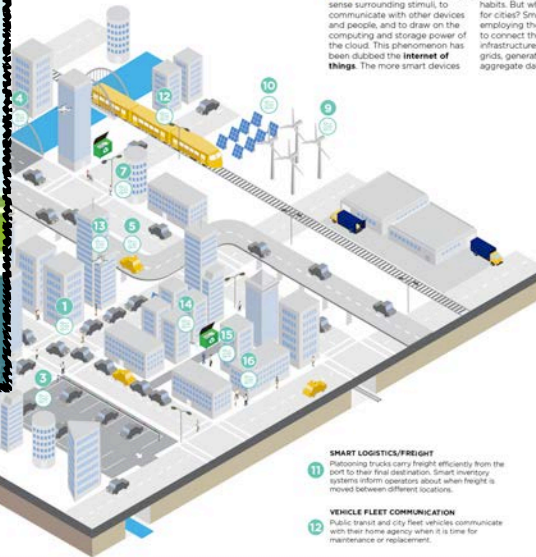
SMART CITY COMPONENTS

Smart government

Smart health

Smart government

Mobility/ Wi-Fi

Smart farming/ agriculture

Smart grid/ energy/ utilities

Open data

Smart manufacturing

Smart/ digital citizens

Smart buildings

Smart transportation

INTERNET OF THINGS IN **CONNECTED CITIES**

Every consumer product and piece of infrastructure increasingly has the ability to sense surrounding stimuli, to communicate with other devices and people, and to draw on the computing and storage power of the cloud. This phenomenon has been dubbed the **internet of things**. The more smart devices and sharing platforms there are, the more data is generated about consumer's preferences and habits. But what does this mean for cities? Smart cities are employing the same technology to connect their disparate utility, infrastructure, and public service grids, generating real-time aggregate data. This, in turn, can help cities manage their programs and services more effectively and gauge their impact immediately. The city of the future is an interconnected one, where devices communicate with one another in a constant stream of data that provides real-time information to the public and to the municipality.

the automated so that when Department of Public Works when the bulbs need to be changed.

FIRE DETECTION
Sensors monitor conditions in public parks and wooded areas that might be prone to fire. Sensors can also detect fires in buildings and initiate a call to the fire department in an emergency.

ENERGY MONITORING
Power plants can be monitored for safety and city officials can be informed of any influx in radiation levels.

SOLAR PANELS
Solar panels can be monitored to determine how much energy they are providing and whether they need maintenance.

SMART LOGISTICS/FREIGHT
Platooning trucks carry freight efficiently from the port to their final destination. Smart inventory systems inform operators about when freight is moved between different locations.

VEHICLE FLEET COMMUNICATION
Public transit and city fleet vehicles communicate with their home agency when it is time for maintenance or replacement.

DRONES
Drones can be used for law enforcement and firefighting, as rural ambulances, for infrastructure inspections, and for environmental monitoring. Commercial uses include precision farming, aerial photography, and in the near future, package delivery.

SURVEILLANCE CAMERAS
Cameras ensure security by monitoring activity in areas that are not frequented by public safety officers. Areas that are not open to public access can be monitored to keep unauthorized personnel out.

BODY CAMERAS
Public safety officers can wear body cameras that capture footage of interactions between themselves and city residents to ensure safety for both parties.

WEARABLE DETECTION
Cities can build in smartphone and wearable detection sensors so that people can be an active part of the internet ecosystem, communicating with the city, and with each other.

BROADBAND INFRASTRUCTURE
A reliable internet ecosystem is the glue that holds the internet of things together.

HOW?

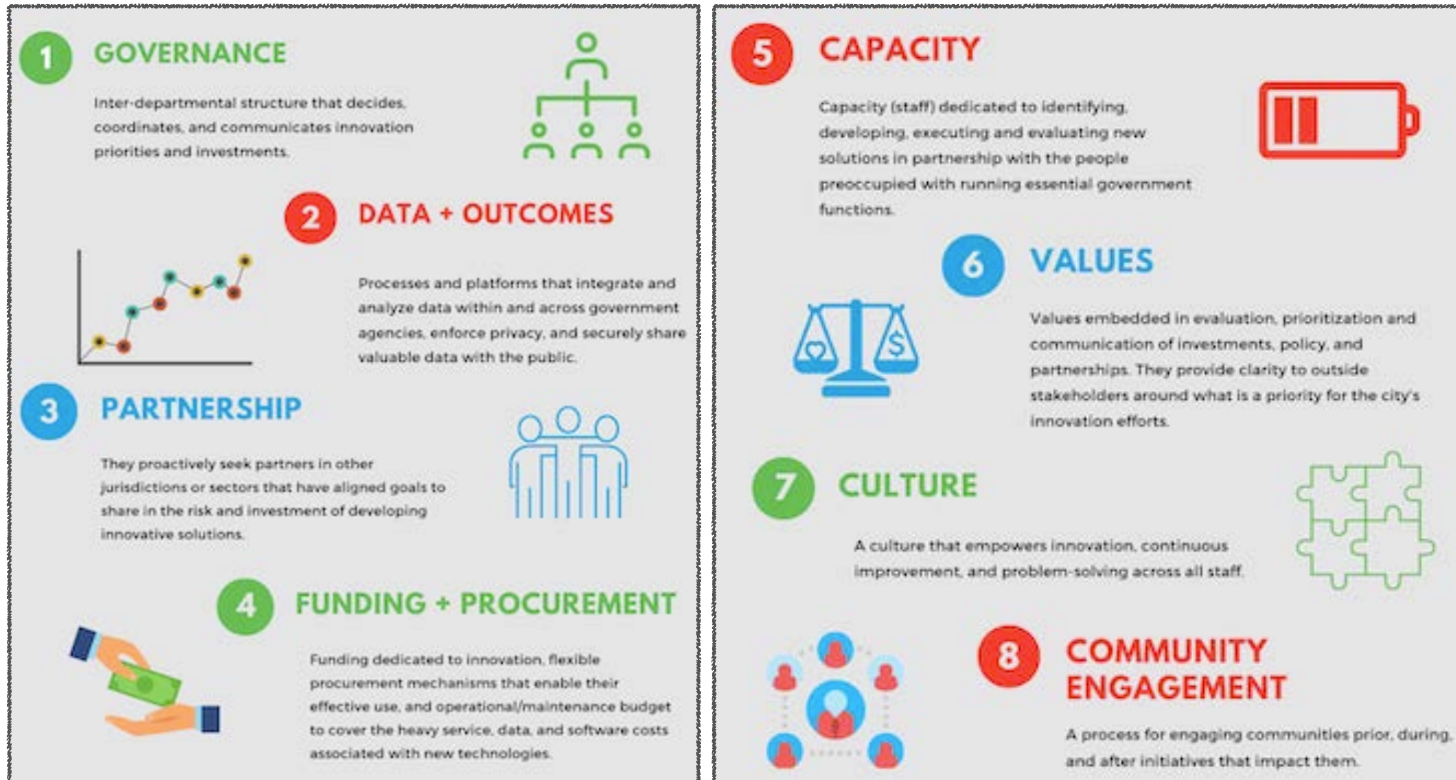Through our work, we've learned a lot about what makes government smart

It is the means, or the process, by which they determine the right solution

What processes are commonly shared across smart governments?

What structures make up that process?

ELEMENTS OF SMART GOVERNMENT

1 GOVERNANCE

Inter-departmental structure that decides, coordinates, and communicates innovation priorities and investments.

2 DATA + OUTCOMES

Processes and platforms that integrate and analyze data within and across government agencies, enforce privacy, and securely share valuable data with the public.

3 PARTNERSHIP

They proactively seek partners in other jurisdictions or sectors that have aligned goals to share in the risk and investment of developing innovative solutions.

4 FUNDING + PROCUREMENT

Funding dedicated to innovation, flexible procurement mechanisms that enable their effective use, and operational/maintenance budget to cover the heavy service, data, and software costs associated with new technologies.

5 CAPACITY

Capacity (staff) dedicated to identifying, developing, executing and evaluating new solutions in partnership with the people preoccupied with running essential government functions.

6 VALUES

Values embedded in evaluation, prioritization and communication of investments, policy, and partnerships. They provide clarity to outside stakeholders around what is a priority for the city's innovation efforts.

7 CULTURE

A culture that empowers innovation, continuous improvement, and problem-solving across all staff.

8 COMMUNITY ENGAGEMENT

A process for engaging communities prior, during, and after initiatives that impact them.

CONSIDERATIONS

1. Not a comprehensive list

2. Not all or nothing

3. No particular order or priority

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Ryan Trujillo
Director of Support Services
City of Colorado Springs

Seth Hoffmann
City Manager
City of Lone Tree

THANK YOU