



NORTH TEXAS
Innovation Alliance

Where Regional Physical and Digital Infrastructure Meets

Where Does AI Fit? Balancing uncertainty with progress

SAME 2024, February 9, 2024

How the World Used to Think of DFW....



How we see DFW today



42 FORTUNE 1000
Company HQs

2nd

Highest Number of
Technology Job Postings
Nationally [2021]

267

People Move to the
Region Every Day



#6 Most Innovative in the
World

2ThinkNow Innovative Cities Index 2021



Fastest Growing
Large City in the
Country

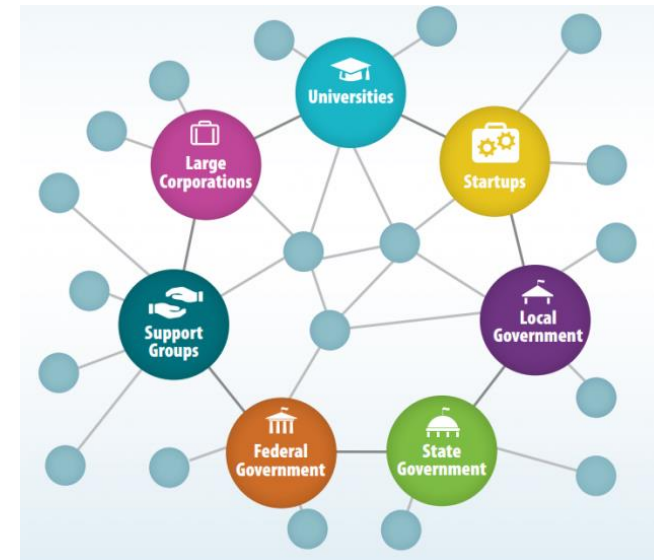


#10th Most Resilient
City in the World

*Savills Resilient Cities Index
2022*



The Critical Nature of the Innovation Lifecycle



Integrated Research Drives Progress



UTD awarded \$30 million from DoD to establish energy storage systems campus



Texoma Semiconductor Tech Hub Designated by US EDA
Texoma Semiconductor Tech Hub will foster a consolidated semiconductor innovation ecosystem with supply chain resilience.



Dallas selected as one of three national hubs for new medical innovation federal agency



Department of Commerce Invests \$8.8 Million to Grow Biotechnology Workforce in North Central Texas Through American Rescue Plan Good Jobs Challenge



Center for Electric, Connected and Autonomous Technologies for Mobility (eCAT)

Funded by National Science Foundation's Industry-University Cooperative Research Centers Program





INNOVATION REQUIRES NEW
THINKING, NEW TOOLS &
INTENTIONAL RISK-TAKING

What are Successful Cities Doing?



Common Threads & Best Practices

- All have dedicated internal teams and external support organizations
- All have defined innovation corridors, zones or facilities
- Majority are driven by public leadership and investment: local [PTC kicked off by EDA grant and \$8m local infrastructure investment, SA by establishment of internal team and SmartSA zones and sandboxes]; state or Federal [Columbus, kicked off by USDOT]; Austin [initially driven by University-driven initiatives with supplements by local, federal and coalition-driven investments]
- Creating a culture of risk-tolerance for innovation investments and elected leadership 'grandstanding' to establish profile, and back-up commitment with action
- Stronger ties and support of startup ecosystem from a programmatic and testing environment
- Strong, symbiotic relationships between public, industry, real estate and academia



Key Takeaways

Innovation attracts Innovation

Collaboration > Competition

Human-centered Approach

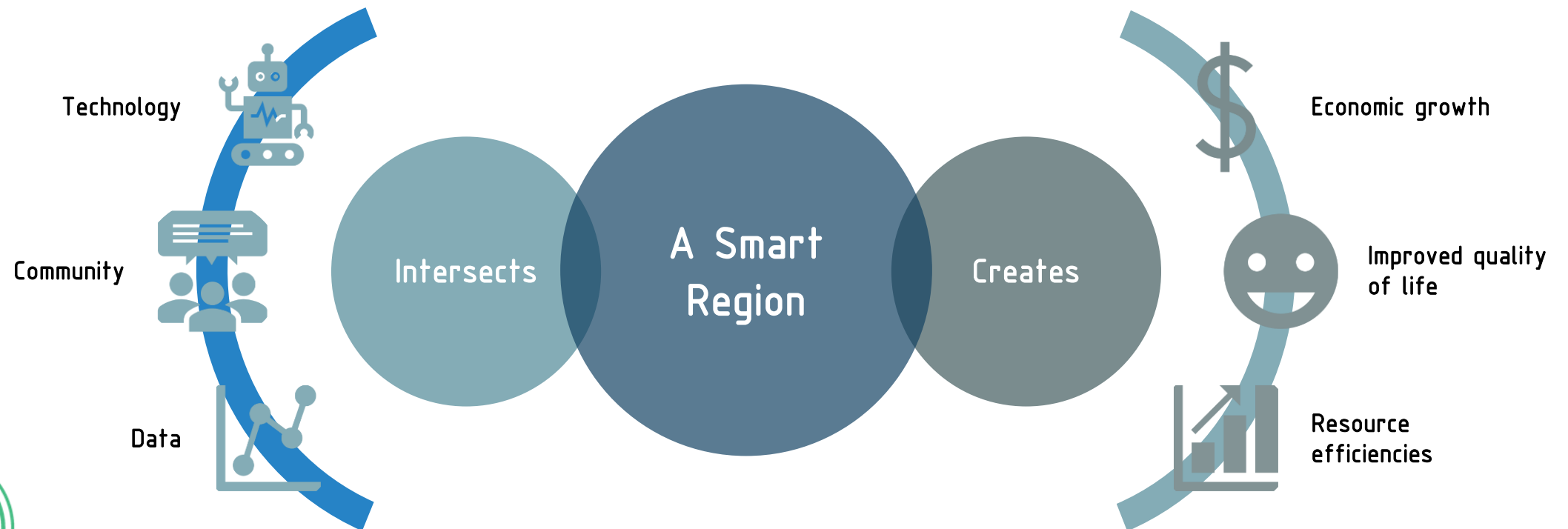
Public Sector Leads Private Investment

Ability to Drive Policy



NTXIA

Envisioning Smart Cities & Smart Regions



About the Dallas Innovation Alliance

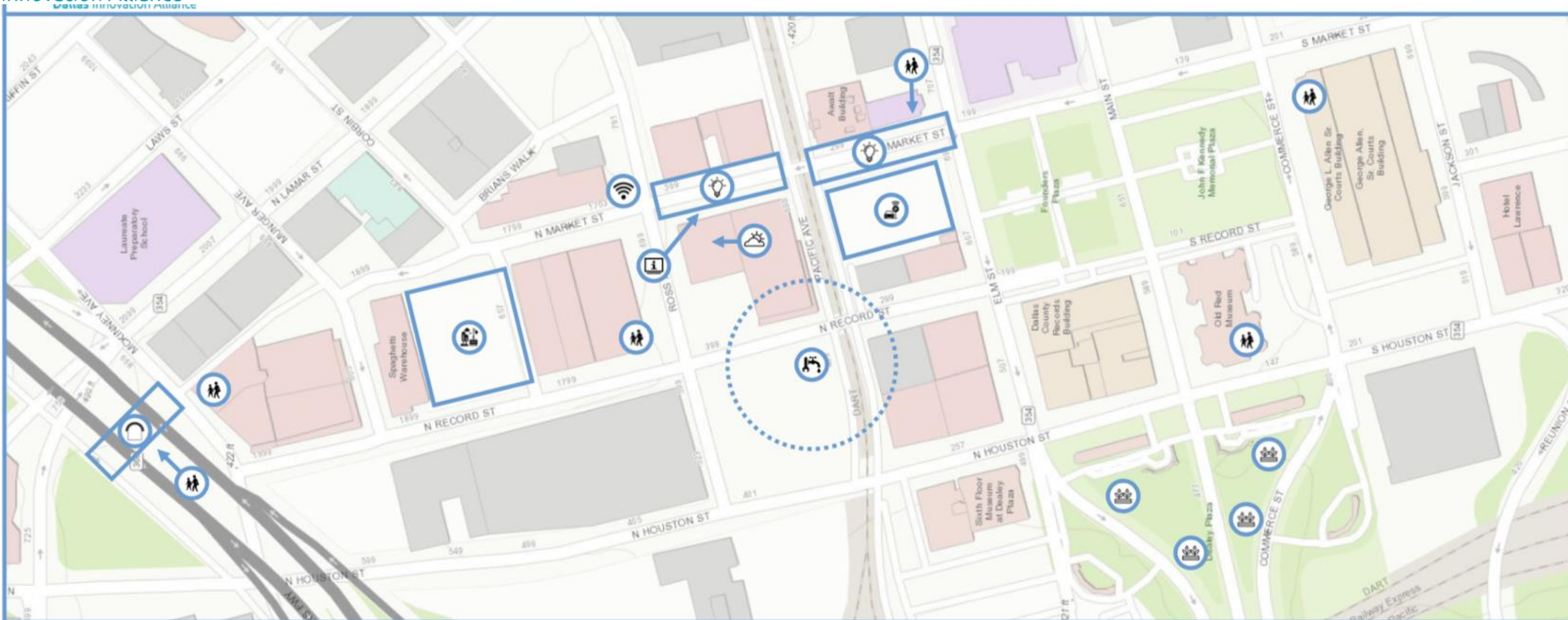
Founding Mission: Support the City of Dallas in the design and execution of a multi-phased smart city strategy

Collaboration: DIA has over 30 partner organizations and has worked with over 20 city departments. We have working relationships with 70 cities around the world.

Results: Dallas has the fastest-to-market smart cities initiative in the country.



Smart Cities Living Lab: The West End



- | | | |
|---|---|---|
|  Pedestrian counters |  Wi-Fi Access Point (provided by the City of Dallas) |  Intelligent LED streetlights |
|  Programmable LED arch lighting |  Interactive digital kiosk |  Smart irrigation and water management |
|  West End Square smart park (coming soon!) |  Environmental sensor array |  Advanced water metering and leak detection (AMI)
<small>*located throughout living lab</small> |
| |  Smart parking lot | |

Reimagining Highways and Parking Lots

Dallas Alley Reimagined + West End Square Park



In Reverse...From Parking Lot to Paradise

West End Square Smart Park

Before...





NTXIA

THE NORTH TEXAS REGION

Why the Consortium Approach Works



2015

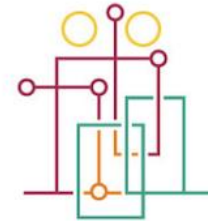
Fastest to-market Smart Cities Initiative in the US



NORTH TEXAS
Innovation Alliance

2020

Largest Regional Alliance in the US



NATIONAL SMART COALITIONS
PARTNERSHIP

2021

*Region of Regions Model
Covering Seven States &
150+ Cities*

A freestanding, independent nonprofit allows for:

- Flexibility and speed-to-market
- Convening of best-minds
- Execute pilots quickly prior to formal procurement, under the guidance of public sector partners

Our Mission

To create the most connected, smart, and resilient region in the country.



NTXIA

Current Members



National Partners



Lead Partners



Pivotal Partners



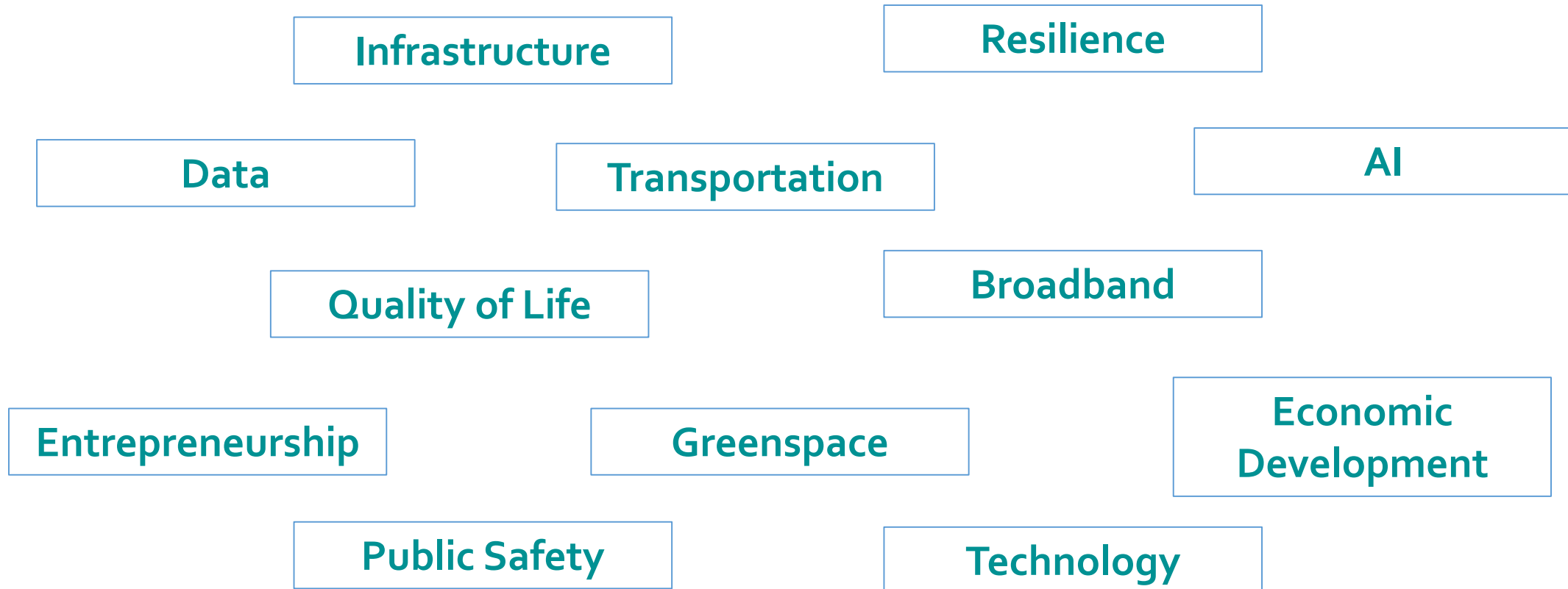
Partners



NTXIA
Membership:
Nearly 50 Public,
Private,
Academic & Civic
Organizations

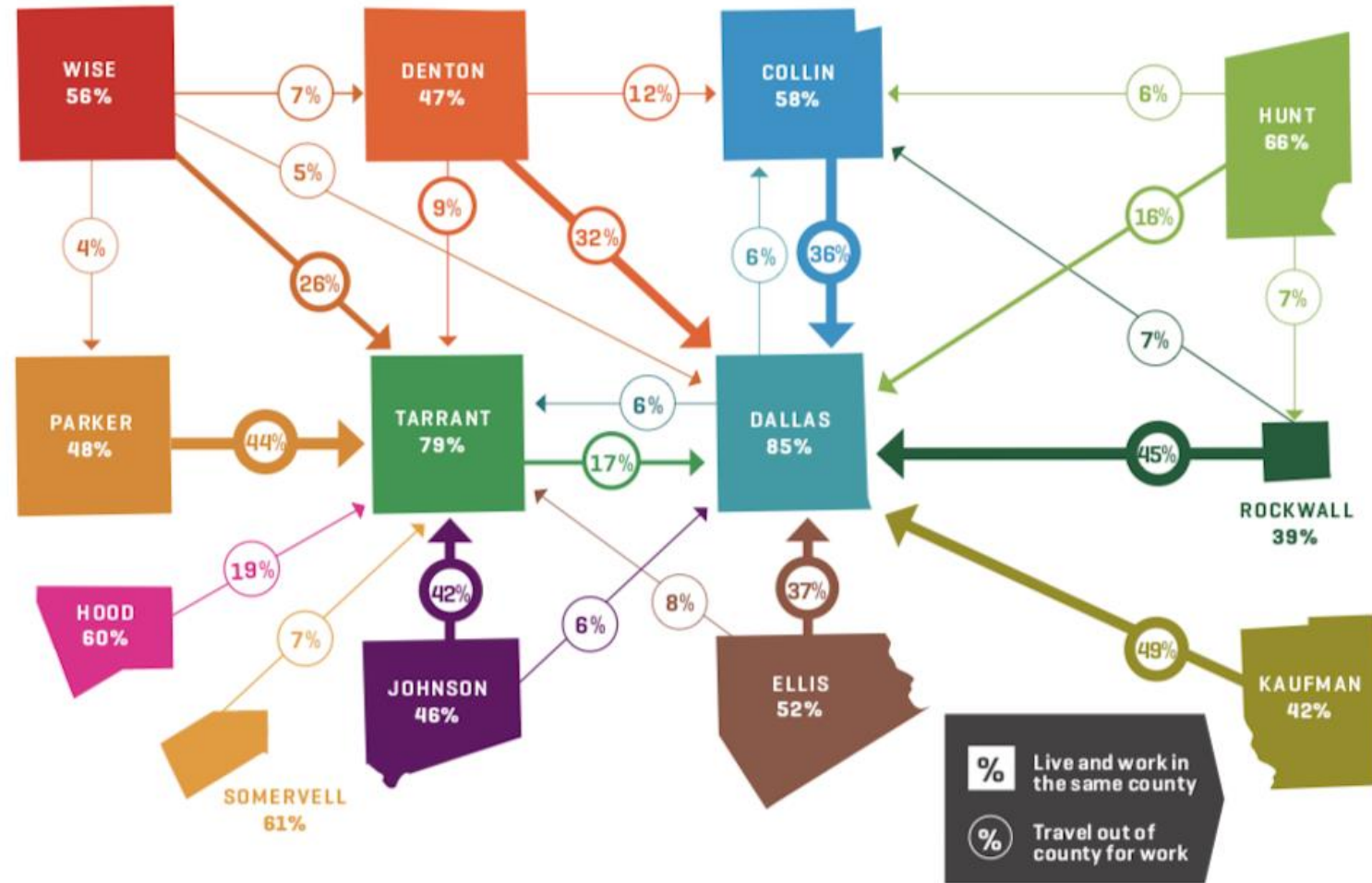
Smart NTX: Building the Vision

- What is the North Star – are connections made early and often?
- How can a lens of innovation and 'one investment -> many outcomes' become part of DNA?
- What does success look like?



Do You Know Where You Are? Does it Matter?

More than 30% of North Texans Cross County Lines Daily



Why a Regional Approach is Critical



Blurring Geographic Boundaries



Aging Infrastructure



Extreme Weather Events & Health Crises



Workforce Pipeline and Upskilling



Population Inflow



Technology Implementation & Challenges

What we Already Know

The game has changed, and will continue to do so...rapidly



AI can be part of fulfilling expectations

Step 1: Policy, Training, Communications

- Internal: Staff efficiencies through Generative AI
- Internal: Asset Management
- Expediting permitting and inspections
- Digital Twins for infrastructure, traffic and resilience program design



Procurement just isn't that sexy.

 Kodiak Rating Community [Follow](#)
Sep 27, 2017 · 5 min read



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Government
Innovation
Isn't Always
Flashy...



...But it Builds the Foundation for



THE JETSONS



SHIFTS IN PROJECT PLANNING APPROACH

Five most expensive words in home improvement:

“While we are at it”



Five cheapest words in city project planning:

“While we are at it”



Where 'Walls in' and 'Walls out' Meet



POWER & PROTECT THE FUTURE

NEXT-GEN RESILIENCE HUB & REGIONAL MICROGRID NETWORK DEVELOPMENT



Less:

- Emissions
- Fuel
- Time
- Traffic



FREIGHTPRIORITY ECODRIVE APP

The Freightpriority Ecodrive app provides real-time advisory information to any mobile device. The driver will know when the traffic signal will change, as well as the recommended travel speed, to arrive at the traffic signal when it is ready to turn green.



SMART PRIORITY SYSTEM

The Smart Priority system uses GPS location data from a truck's existing AVL system or from the Freightpriority Ecodrive app to provide added green time, as needed, to allow the truck to safely proceed through the traffic signal.

The use of Freightpriority Ecodrive limits the need to change the existing signal timing plan through interventions like added green time.



CALL FOR INNOVATION DRONE & ROBOTICS DEMO DAY

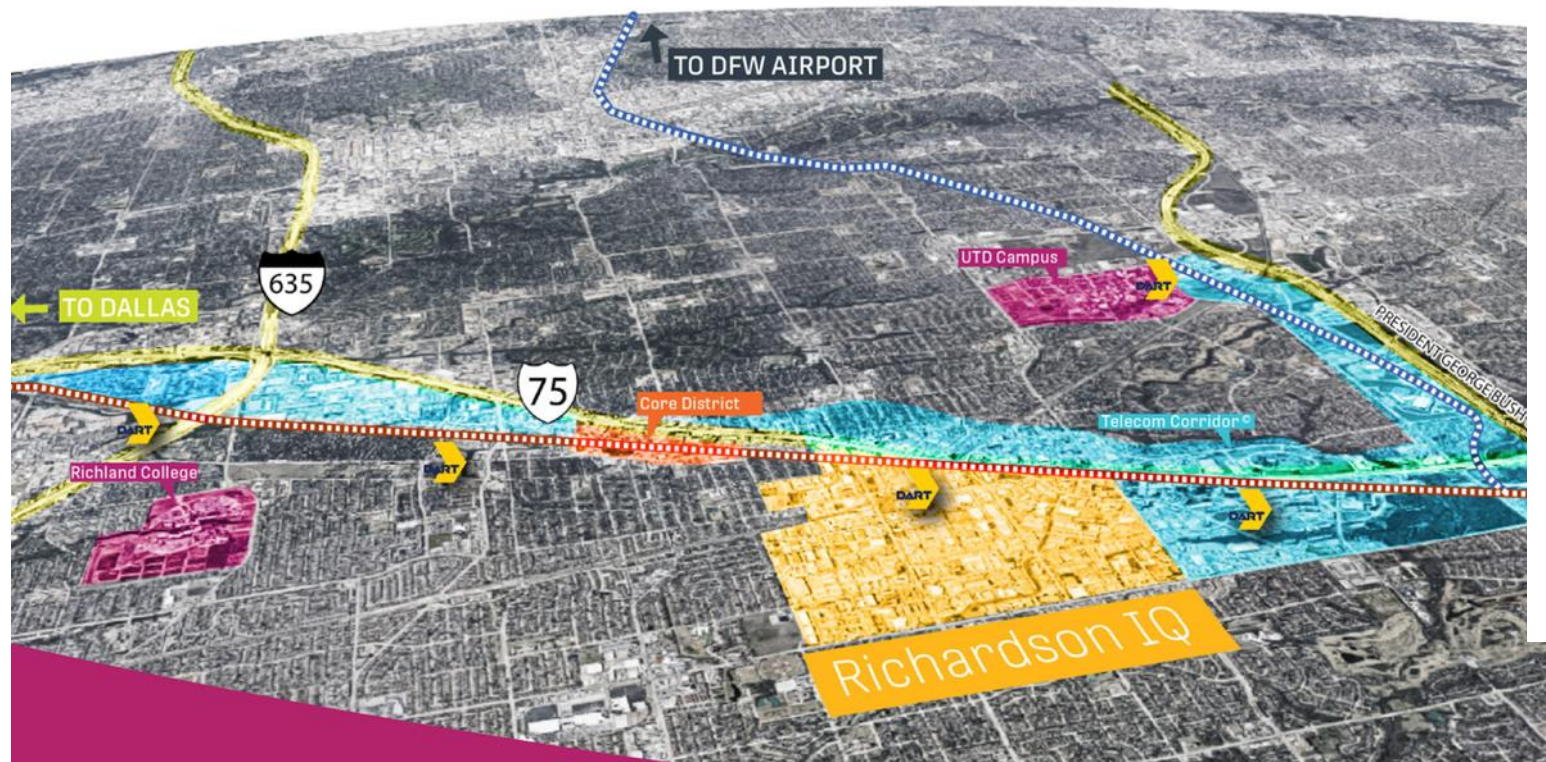


Call for Innovation & Demo Day:

- 90+ Companies of Interest
- 10 Selected from Region, US and EU
- 7 County departments
- 65+ Attendees
- 6 additional public agencies across municipality, regional planning, public safety and transportation
- 4 higher-education institutions
- Economic development organizations
- Local, Industry, and National Media Coverage

[Video](#)

P3 INNOVATION DISTRICT DEVELOPMENTS: RICHARDSON IQ



- ▶ Center for Applied AI & Machine Learning
- ▶ Center for Applied AI with UT Dallas Expertise
- ▶ Center for Imaging and Surgical Innovation
- ▶ Center for Smart Mobility
- ▶ IQ Design
- ▶ Multi-Scale Integrated Intelligent Interactive Sensing



NTXIA

Innovative Mobility Solutions for Equity

Digital and Literal



Grocery Connect is making food deserts a thing of the past.

At each of our community service centers, a helpful concierge can help:

- ✓ Show you how to order your groceries via the Kroger online platform
- ✓ Support you throughout the ordering process
- ✓ Assist you in applying for SNAP eligibility to increase your purchasing power
- ✓ Liaison with our partner Kroger for situations that need special support
- ✓ Introduce you to the regular Kroger drivers who will walk you through each order to guarantee accuracy and your complete satisfaction



Internet Access & Training Partnership



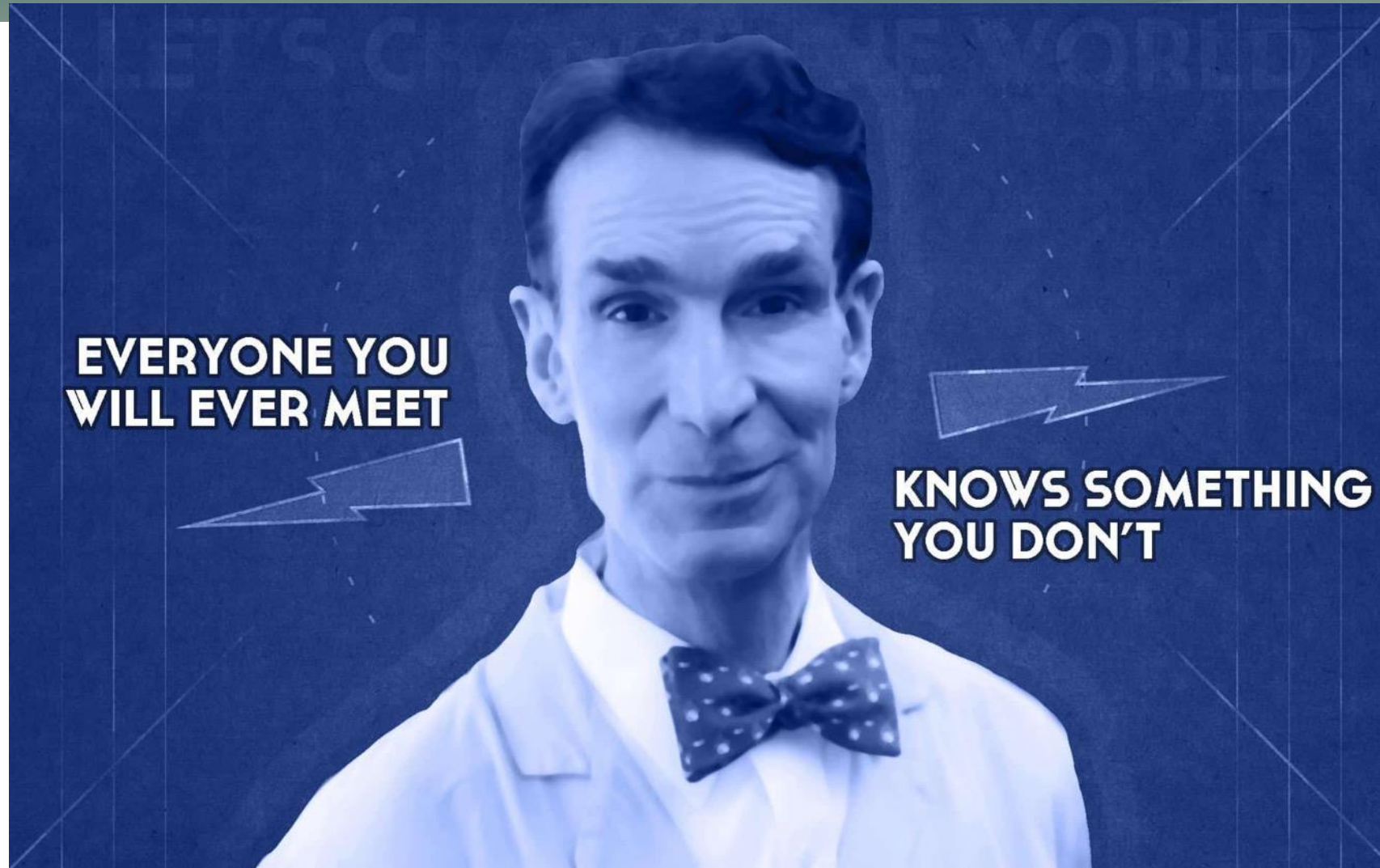
Innovating for the Global Stage



Dallas' World Cup 2026 Tech Roundtable Takes the Long View, With a Smart City Focus

"The goal of the group is to thread 'big idea' innovation projects that will have long-range impacts beyond the global spotlight."

And Remember along the way...





Executive Leadership



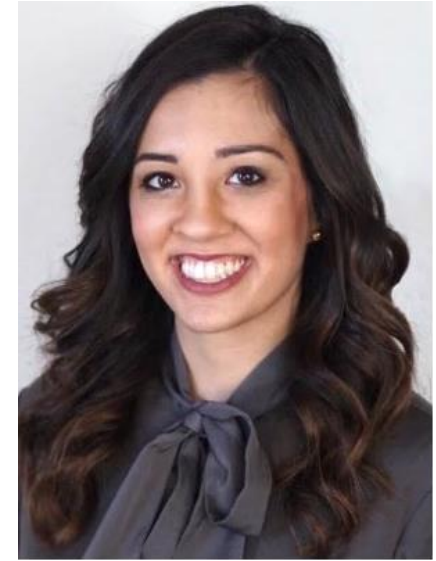
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