

# The Town's Connected Community Framework

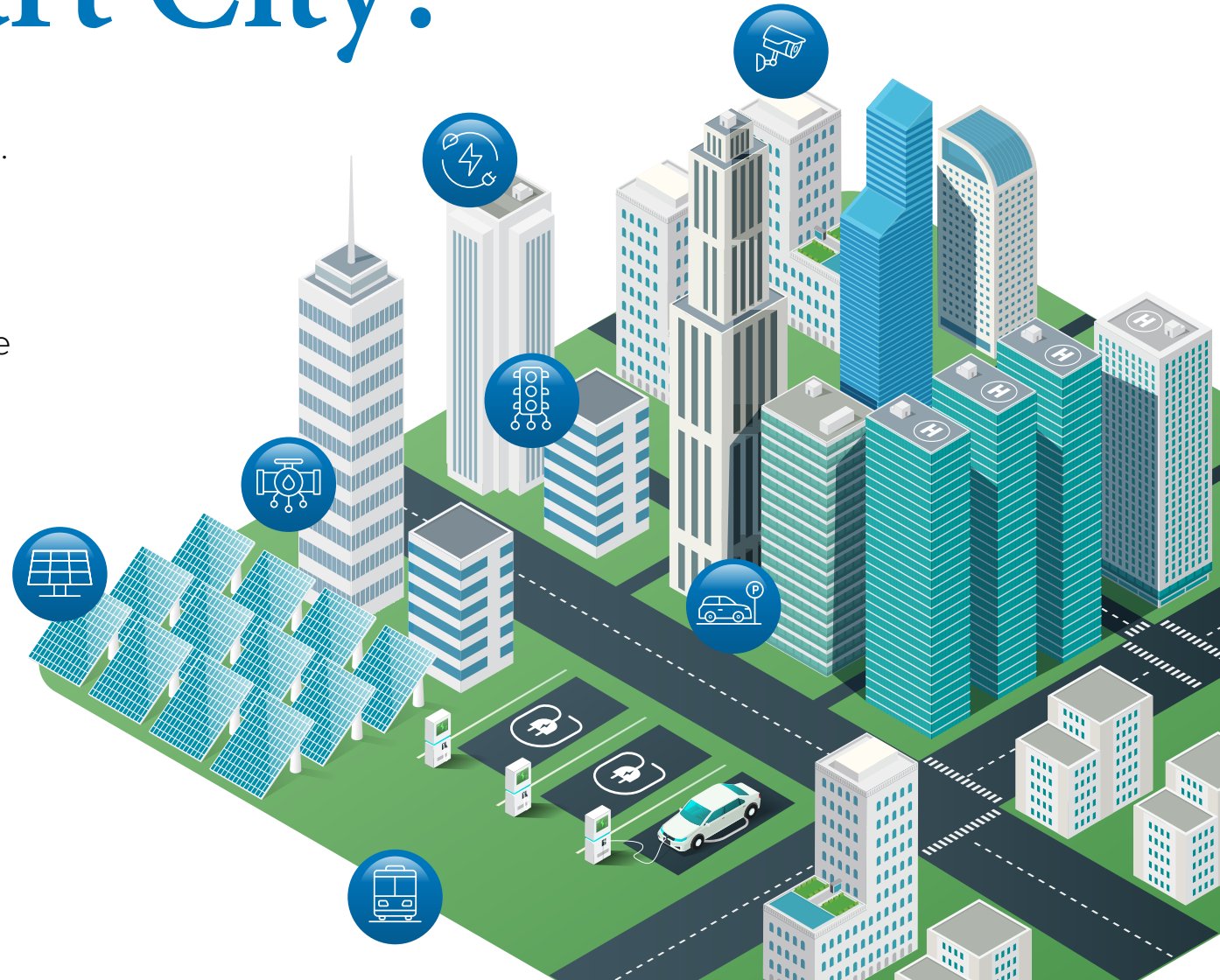


# What is a Smart City?

Smart Cities catalyze digital transformation to meet environmental, financial, and social needs' of residents. Emerging technologies like AI, IoT, advanced security, extended reality, and automation are driving this transformation. Smart Cities use data as an asset to support organizational learning and uncover actionable insights for better decision-making.



*Click or scan the QR code to see how we define a Smart City!*



# Smart Morrisville: How We Got Here

## Message from Town Officials

The Town Council aims to leverage data and technology to make Morrisville operate more efficiently. While the Town recognizes that its financial capacity may not support the deployment of every beneficial technology, it remains committed to sustainable growth. Embracing innovation, the Town continues to enhance services for residents through the strategic use of connected technologies.





# Message from the CIO

Smart Morrisville is committed to incorporating innovation into all aspects of government service delivery. By utilizing advanced technologies, we strive to create a more efficient, effective, and responsive government. Our strategy is centered around data-driven decision-making, ensuring that policies and services are based on accurate and current information. This approach enhances the quality of our services and promotes transparency and accountability, providing residents with easy access to information that guides our actions.

Furthermore, Smart Morrisville prioritizes the community perspective. We acknowledge the evolving needs and expectations of our residents and businesses, and we endeavor to meet these demands through continuous engagement and collaboration. By fostering a culture of openness and inclusivity, we ensure that all voices are considered in our decision-making processes. The use of emerging technologies, such as smart infrastructure and digital platforms, enables us to provide more personalized and accessible services, creating a more connected and empowered community.





# Recognizing Success: 5 Years Later

Since launching the Smart Morrisville program in 2019, the Town has:

- ▶ Completed a consolidated Town plan that established the foundation for **technology adoption**.
- ▶ Earned recognition for **innovation** in public service delivery and smart city implementation.
- ▶ Routinely gathered feedback through multiple avenues of **community engagement**, identifying community priorities: traffic congestion, public safety, transparency, operational excellence, and quality of life enhancements.
- ▶ Established and **engaged with resident advisory committee** to identify challenges and priorities, gather feedback on initiatives, and communicate innovation program impacts.
- ▶ Completed 13 initiatives with over **350,000 interactions**, deployed **118 sensors** improving operational efficiencies and resident quality of life, released **100,000 records** that have been accessed over 650,000 times.

2020

- ▶ IDC Smart City North American Awards (SCNAA) (Smart Water Winner)

2021

- ▶ Smart Cities Council Global Readiness Challenge Winner
- ▶ RTCC Cleantech Innovation Award Winner

2022

- ▶ IDC SCNAA Smart Water Winner
- ▶ IDC SCNAA Smart Buildings Finalist

2023

- ▶ 2-Time Smart50 Award Winners – Connected Parks & Morrisville Central
- ▶ GovTech – Best of North Carolina – Innovation & Leadership Winner
- ▶ IDC Best in Future Connectedness Winner

2024

- ▶ IDC SCNAA Smart Water Finalist
- ▶ CIO100 Award



# Future Vision

## Committed leadership in sustainability and innovation

Morrisville is committed to becoming a leader in sustainable, community-driven, and technology-enabled innovation, with the goal of enhancing the quality of life for all residents and improving operational efficiencies. By leveraging emerging technologies and fostering a collaborative environment, the program aims to create a more connected and efficient community.

This approach not only addresses current challenges but also anticipates future needs, ensuring that Morrisville remains a vibrant and thriving place to live.





## Future Vision: At the heart of Morrisville's Smart City

At the heart of Morrisville's Smart City journey is the Town's mission to connect its diverse community through innovative programs and services. The Town's core values of dedication, integrity, courtesy, and innovation serve as guiding principles in this effort.

Dedication ensures that the Town's efforts are unwavering and focused on the well-being of its residents. Integrity fosters trust and transparency in all actions and decisions. Courtesy promotes a respectful and inclusive community, while innovation drives continuous improvement and adaptation to new challenges. Together, these values create a strong foundation for Morrisville's vision of a connected, sustainable, and forward-thinking community.



To use technology and data to improve operational efficiencies and positively impact resident quality of life, while aligning with the Town's strategic goals.



Sustainable, community-driven, technology-enabled innovation to enhance the quality of life in Morrisville today, and in the future.

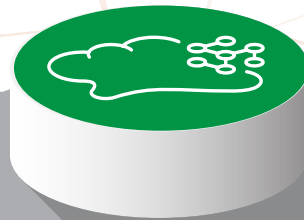
# Morrisville's Innovation Pillars

Smart city innovation is accelerating rapidly, with emerging technologies and evolving approaches reshaping how municipalities deliver services and engage residents.

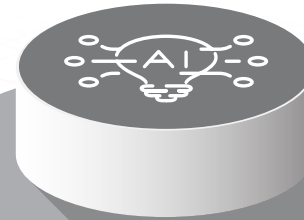
Community  
Collaboration



Digital  
Experience



Enterprise  
Intelligence



Innovation  
Alliance





# Smart Morrisville Strategies



## Community Collaboration

**Engaging residents directly in creating and implementing innovative technology solutions.** This strategy prioritizes inclusive participation through resident feedback platforms, co-creation workshops, and community-focused projects. This approach ensures that technology serves and meets the needs of the community while fostering digital literacy and trust.



## Digital Experience

**Creating intuitive, responsive, and personalized digital interactions for residents.** This strategy emphasizes AI-powered services, comprehensive dashboards, open data platforms, and mobile applications that simplify resident engagement with town services.



## Enterprise Intelligence

**Using data analytics, AI, and intelligent infrastructure to transform town operations.** This strategy focuses on collecting, analyzing, and applying data to improve decision-making across all departments. Smart sensors, predictive modeling, and real-time monitoring enhance service efficiency and resource management.



## Innovation Alliance

**Developing partnerships with local technology providers, universities, and organizations to build a thriving innovation ecosystem.** This strategy focuses on collaborative initiatives that leverage external expertise and resources to accelerate innovation while supporting local economic growth and technology adoption.

# Trends Impacting Urban Innovation

Smart city innovation is accelerating rapidly; emerging technologies and evolving approaches will reshape how municipalities deliver services and engage with residents. The following market trends represent critical developments that may align with Morrisville's four innovation pillars — Community Collaboration, Digital Experience, Enterprise Intelligence, and Innovation Alliance.



## **AI-Powered Municipal Operations**

Artificial intelligence is transitioning from experimental pilots to core municipal infrastructure. Cities are deploying AI for predictive maintenance, automated service delivery, and real-time decision-making across departments.



## **Community-Centric Technology Deployment**

The smart city paradigm is shifting from technology-first to community-first approaches. Cities are prioritizing resident engagement, digital access, and participatory design processes in technology deployments.



## **Integrated Security and Resilience Frameworks**

Cybersecurity is becoming fundamental to smart city infrastructure, with cities implementing comprehensive frameworks to protect critical systems. This includes securing 911 systems, implementing intrusion-resistant technologies, and building resilient networks that can withstand both cyber and physical threats.



## **Mobility-as-a-Service Evolution**

Transportation is evolving beyond traditional models toward integrated, multimodal systems. This includes autonomous vehicle integration, electrification of public fleets, smart parking systems, and data-driven traffic management that optimizes flow in real-time.





### Public-Private Innovation Ecosystems

Cities are increasingly leveraging partnerships with universities, private sector, and regional alliances to accelerate innovation while sharing costs and risks. These collaborative models enable pilot programs, technology testing, and scaled deployment that individual municipalities couldn't achieve alone.



### Edge Computing and 5G Integration

Advanced connectivity infrastructure is enabling real-time processing and immediate response capabilities. Cities are deploying private wireless networks, 5G-enabled smart lighting, and edge computing systems that support everything from environmental monitoring to augmented reality citizen services.



### Environmental Intelligence and Climate Adaptation

Cities are implementing comprehensive environmental monitoring systems that integrate air quality sensors, flood management, heat island detection, and climate resilience planning. These systems provide real-time data for both immediate response and long-term planning.



### Immersive Citizen Engagement

Virtual and augmented reality technologies are creating new channels for citizen participation, from virtual town halls to immersive planning sessions, and are proving to be particularly effective for engaging younger demographics and providing accessible participation options.



### Interoperable Data Platforms

Cities are moving toward unified data platforms that integrate information across departments and systems. This enables comprehensive analytics, reduces silos, and supports data-driven policy making while maintaining privacy and security standards.



### Workforce Digital Transformation

Municipal operations are being reimagined through digital tools that enhance employee productivity, automate routine tasks, and enable remote service delivery. This includes AI-powered workflow management, digital identity systems, and tools that help staff focus on high-value community interaction.



These forward-looking trends illustrate that successful smart cities balance technological sophistication with community needs while building collaborative ecosystems that extend beyond municipal boundaries. Morrisville's strategic framework positions the town to capitalize on these developments while maintaining focus on the community.





**As the next chapter of our Smart Morrisville program begins, it is essential to reflect on the journey we have embarked upon and the promising future that lies ahead.** Our vision of creating a connected community, one that prioritizes people and the environment, is not just a goal but a commitment to enhancing the quality of life for our residents.

The Smart Morrisville plan builds on the foundation laid by the Connect Morrisville Strategic Plan, embracing the Town's strategic goals and enhancing them with innovative smart city strategies.

Our efforts to improve operational efficiencies, enrich the quality of life through enhanced services, and foster a sense of community are just the beginning. The collaboration between various departments and the active involvement of our residents will be crucial in achieving these goals.

As we move forward, let us remain committed to our vision, continuously seeking ways to innovate and improve. Together, we can make Morrisville a model of innovative excellence, where technology serves the community, creating a sustainable and prosperous future for all.







**Morrisville**  
Live connected. Live well.



Learn more about Morrisville's innovation journey

[Click Here](#)