<u>Northeast Ohio Flight Information Exchange (NEOFIX):</u>
A Public-Private Partnership To Develop Drone Infrastructure For Economic Development, Public Safety And New Resident Services

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<u>Tuesday September 20, 2022</u>

Public Safety & Justice Affairs Committee
Michael J. Gallagher, Chair
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HIGH POINTS

1. We consider the NEOFIX project as critical public infrastructure benefiting the residents and commercial users in the County.
2. We cast the NEOFIX as a public private partnership, where public sector first in resources will be amplified well beyond a dollar-for-dollar return.
3. Funds will be used for stakeholder and public outreach, setting up the ground and airspace to support drone operations, to set up sensors for awareness, and integrate drones and drone operations into a common platform.
4. The funding sustainability model is devised to stimulate private sector actors who will join as they view the public sector funding as the validating commitment to the industry by local authorities.
5. The NEOFIX puts the County and its airspace within the leading the communities in the nation.
6. NEOFIX will provide public safety in Cuyahoga County with a Common Operating Picture of drone operations, supporting safe operations and counter-UAS

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HIGH POINTS

6. This early work will focus on an audience and user community of 6,500 public safety, emergency preparedness officials and professionals. We will also work to engage the health care and community services stakeholders.

7. This basic public digital infrastructure enables commercial services that serve resident safety (such as medical and health) but also directly enables public safety (police, fire, emergency management) operations, such as Drone as a First Responder

8. Shared public-private infrastructure will lower cost of public safety drone as a first responder operations

9. The latter work will create the conditions for dense business activity engaged in the research and development, manufacture, assembly, repair and maintenance, use in cargo and trade, but also education and training of pilots, public policy   development locally but also in the FAA's policies for   localities.

10. We've established a web presence for the initiative in   anticipation of the allocation of the ARPA funds.

11. https://bw-centers-tech-partnerships.org/

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I. What will the money be used for?   (1)

- Drones are a $3Bn drone industry <u>forecasted to grow to over $10Bn in the next five years.</u>
- Experiencing dramatic increases in drone traffic – millions of flights per year nationally and likely thousands in Cuyahoga County already
- A safer airspace saves lives and supports public safety; more clarity grows drone operations resulting in more services and more jobs
- New services include medical and package delivery services, remote cargo and freight, and high-end blue-collar jobs (pilots, operations, maintenance, manufacturing) paying $30,000 - $135,000 annually
- New services and jobs require and operating environment that can attract serious national players - **the #1 factor holding back growth is lack of clarity in ground rules and infrastructure.**
- Cuyahoga County can attract the national commercial players to create new services and jobs

I. What will the money be used for? Slide 2

- Inexpensive public digital infrastructure provides commercial industry with clarity on rules and conditions for operations **(mapping, integration, and design of the groundspace for drone operations, including new sensors for drone awareness)**
- Sustainable model leverages existing infrastructure investments to keep costs low – this keeps user fees low and provides a base for private investment **(leverage existing county dispatch, weather, and environmental sensors)**
- Key is to keep costs low and provide services that support commercial operations **(focused on keeping base sustainment costs low)**
- Local and national stakeholder support signals that Cuyahoga County is "enabled" and will attract investment from national drone industry players **(integrating with drone manufacturers and suppliers will enable better public safety visibility and new public safety and resident services)**
- Phased project enables a proven aviation sustainability model
- Industry needs shared public digital infrastructure to get to commercially viable operating costs – and is willing to contribute to a commercially viable model

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I. What will the money be used for? (Slide 3)

- State and local government and public safety agencies post information for each other and drone operators **which keep the airspace open, secure, and safe**
- **Informs drone operators** of ground rules and conditions, local issues and events, public safety incidents, hazards, and sensitive and critical infrastructure **providing clarity and safety**
- **Relies on a stakeholder engagement and data governance process** to ensure consensus for configuration of the groundspace, digital services, and integration of new drone services
- Relies on a proven model that accelerates services, industry, and jobs while minimizing cost and risk

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County Funding Stops

Phase I: 2 Years

Phase II: 2 Years

Phase III: Ongoing

Development and Initiation
Year 1
- Establish NEOFIX: 90 days
- Establish Governance: 90 days
- Outreach to stakeholders: 120 days
- Onboarding national stakeholders: 90-120 days
- Loading data and zoning assets to provide navigation to drones: ongoing
- **County Contribution: $225,000**

Critical Mass and Transition
Year 2
- Deploy initial resident services (medical and package)
- Extend data services, including sensor integration
- Sponsorships
- **County Contribution: $225,000**
- **Stakeholder Contribution: $150,000**

Year 3
- Extend resident services, data, and Stakeholder Partners
- **County Contribution: $0**
- **Stakeholder Contribution: $250,000**

Sustainment and Growth
Beyond Year 3
- Ongoing local and public safety outreach
- Ongoing infrastructure and data development
- Ongoing systems integration work
- Funding mechanisms
  - Industry User Fees
  - Integration Work
  - Workshops / Governance Support
  - Federally Funded Integration work
- **Stakeholder Contribution: $300-$500,000**

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III. Impact   (slide 2)

WHY CUYAHOGA COUNTY?

- **Existing aerospace industry** can support and benefit from growth of drone industry
- **Diverse metropolitan area** creates an ideal collaboration environment for services
- **Leader in health sciences** supports developing new medical drone services
- **Major airport**
- **Shared border**
- One of the **busiest airspaces** in the nation
- **NASA GLENN Research Center**

BENEFITS FOR CUYAHOGA COUNTY

- **Immediate onboarding** of 3-5 providers and other industry players
- **Infrastructure investment** (weather and environmental, sensors, telecomms) that is financially sustainable
- **Infrastructure tracks directly to industry** needs, grows services and jobs
- Rapid development of **new medical and resident delivery services** (ARPA benefits)
- **High end blue collar pilot and operations personnel jobs** to deliver services

WHY NOW?
Industry is looking for real, functional infrastructure now and looking for communities that are serious – not high-dollar research projects. A national coalition is happening.

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III. Impact   (slide 2)

PUBLIC SAFETY BENEFITS FOR CUYAHOGA COUNTY?

- **Integrated system** allows for more overall visibility and awareness of drones, creating a safer airspace in the county
- **Integrate public data** supports a <u>common operating picture</u> that public safety can leverage – both to support public safety operations AND to identify potential bad actors for counter-UAS
- **Base digital infrastructure** accelerates use of drones for public safety (Drone as a First Responder) while lowering the costs of these operations

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Impact   (slide 3)

Future Services and Opportunities

- 1 Year: Deliver medicine and diagnostic tests to underserved communities
  - Working poor frequently can't access medical services
  - Drones provide a solution to this for certain types of services
  - The technical and regulatory framework to deliver medical services by drone exists **today**
  - With Cleveland Clinic, Metro, and University Hospitals, all you need is the base infrastructure and you will be providing services in 2023
  - Leverage existing underused real estate
- 2 Years: Use freight drones to deliver large international freight across Lake Erie between Port of Cleveland and Canada – reduce the Friendship and Rainbow Bridge freight bottlenecks
  - Technology is largely ready (Alaska working toward operations this year)
  - Supports manufacturing
  - Easy to do given geographies and infrastructure
  - Leverage the port
  - Straightforward safety case given geography

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Stakeholders and Partners

Local Partners	National Partners
Baldwin Wallace University, Aerozone, North Cost Drone Alliance (NORCODA), Tamarack Aerial Services. Reaching out to Cleveland Hopkins International Airport; Cuyahoga County Port Authority, Metroparks, County office of Sustainability, Mayors and Managers Association, Cleveland State's Center for Emergency Preparedness.	DRONERESPONDERS, ATA, Aloft, OneSky, Crown Castle, Intellisense, DroneUp, Raytheon, Collins, Echodyne, Fortem, TruWeather, Wing
Provide local outreach, governance and data to support industry investment and stand up of new resident services and jobs	Invest in local infrastructure (sensors, communications, and facilities), education (pilot, maintenance, and operations personnel), and development of new services (medical and package delivery)
Creates a strong backbone for growth	Investment capital is seeking communities that are ready

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