



INNOVATION DISTRICT:

Where innovation is realized

Presentation to Development Services Committee – July 12, 2021

Refreshing the vision: our process

To clarify how MiX aligns with real-world innovation industry needs, Urban Strategies Inc. interviewed over 30 key sector leaders from:

- ICT/semi-conductors
- Green tech
- Med tech
- Agricultural innovation
- Provincial economic development
- Incubator / accelerators
- Construction innovation
- Automotive
- Academia
- Film
- Employment land real estate

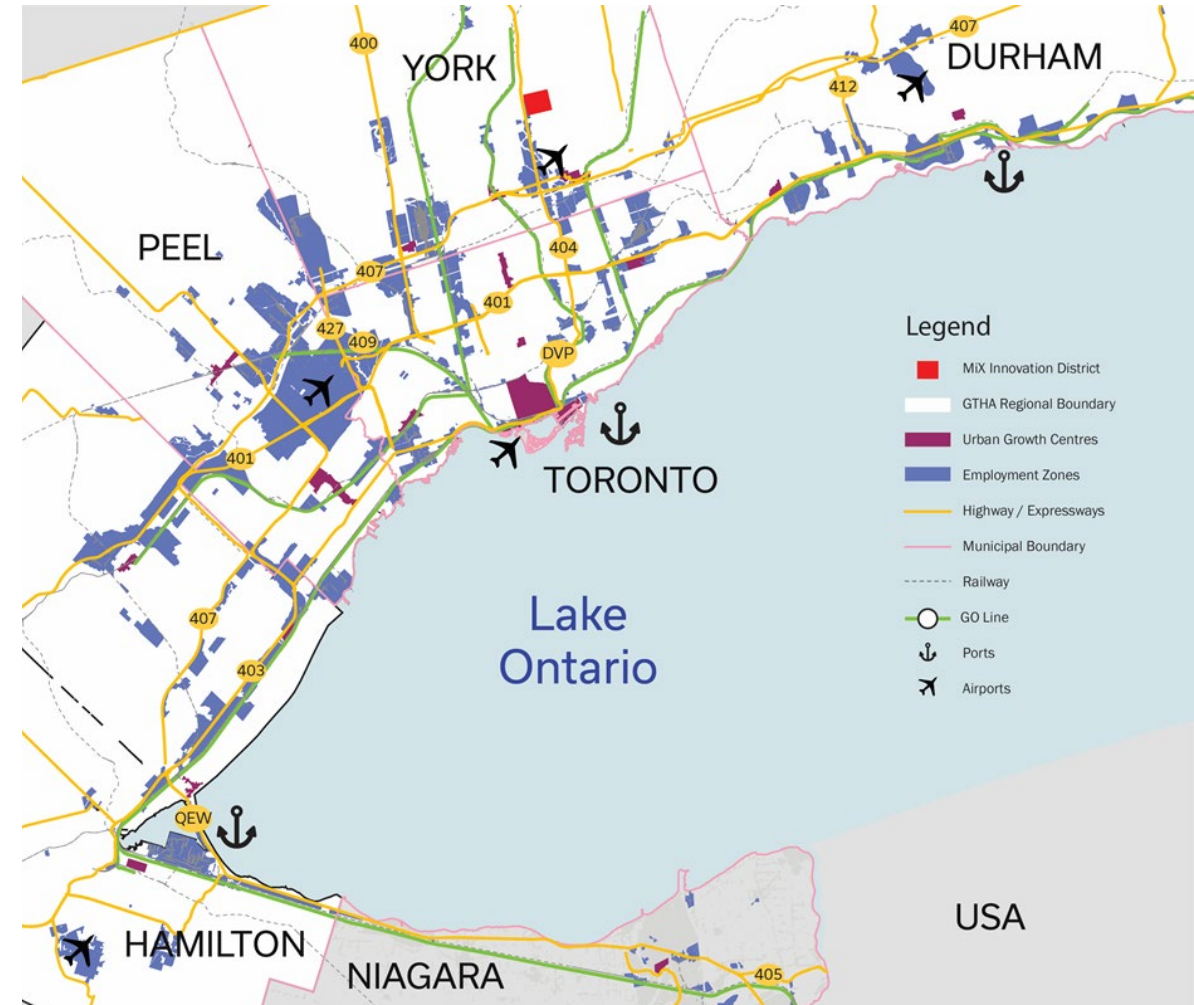


An aerial photograph of a suburban neighborhood, showing a grid of streets, residential lots with houses, and some larger commercial or industrial buildings. The entire image is overlaid with a semi-transparent red color. The text is centered in the upper half of the image.

**WHAT DOES THE INNOVATION
INDUSTRY THINK ABOUT THE
OPPORTUNITY?**

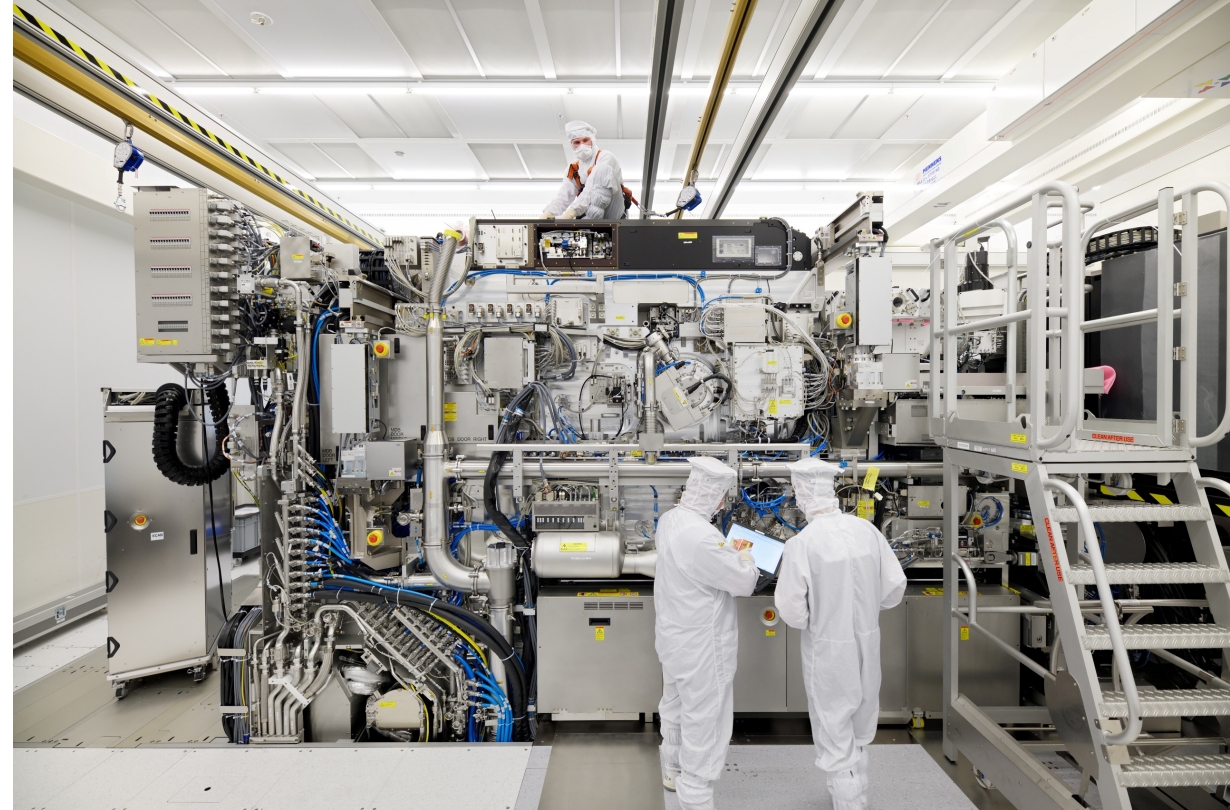
MiX can leverage Markham's sterling reputation

- Supportive City leaders and good place to do business
- Economic development prioritization
- Focus on innovation and technology
- Growing population and economic opportunities in the GTHA
- High quality of living



MiX should create a critical mass of innovation

- Build upon long-standing Markham foundations in tech (i.e. ICT, automotive, green and medical)
- Don't wait for the perfect anchor – early innovation activity will bring more activity
- High-quality, flexible spaces for collaboration and partnership can attract tech innovators



Source: Brookings

Seize the opportunity to reshore and strengthen domestic supply chains

- Create a balanced ecosystem with opportunities for small, medium and large players
- Enable innovators to build fast and test domestically
- Strengthen domestic supply chains by supporting made-in-Ontario businesses
- Accommodate near- and re-shoring of manufacturing



Source: General Motors / Jeffrey Sauger

Create a district that “screams innovation”

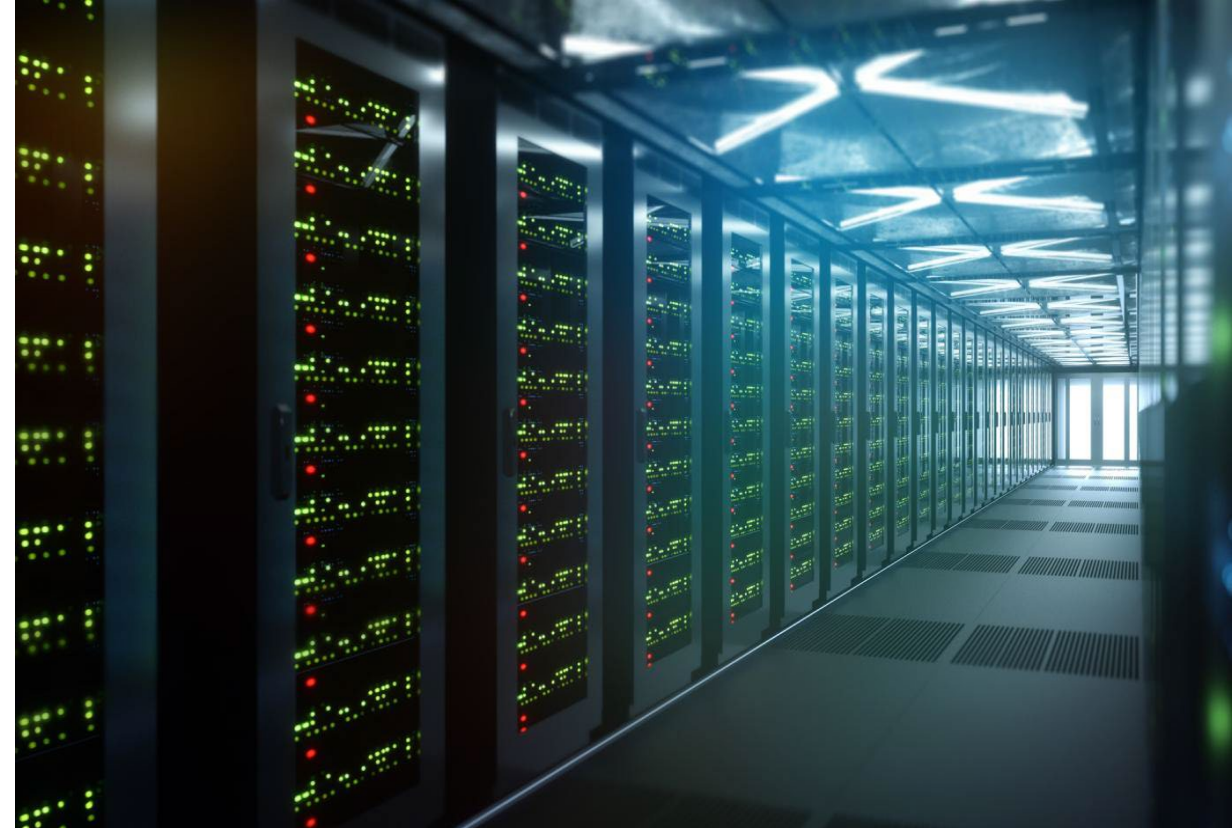
- A sense of place is critical:
 - Sector leaders will prioritize district brand over individual brand presence – facilities must be modern and signal commitment to leading-edge innovation
- MiX should create connections:
 - An interconnected campus
 - Spaces for formal and informal gathering and collaboration



Source: Stantec / Jesse Milns

Invest in innovation infrastructure

- Leading-edge infrastructure can attract users and drive on-site innovation
- Reliable power and digital connectivity (5G and next-gen) are essential
- Sector experts imagine shared infrastructure that will advance testing and innovation, i.e. shared testing facilities, data centre, and a “campus-as-lab”



Source: Data Center Knowledge

Provide excellent access

- The 404 + 19th Ave interchange will be a vital link for some manufacturers (i.e. automotive, pre-fab construction)
- Transit is not critical on Day 1, but will be important for large employers, post-secondary partnerships and talent
- Location may require innovative mobility solutions (i.e. shuttles, new flexible transit solutions, etc.)



Source: Flickr (SounderBruce)

Demonstrate commitment to sustainability

- Attract impact-focused firms through innovative sustainable infrastructure (e.g. district and green energy)
- The existing greenway system is an asset – it supports a sustainable brand, creates an active recreation amenity and integrates MiX with surrounding communities
- “Walk the talk” City-wide



Source: Industryous Photography

Leverage academic and regulatory partnerships

- Sector leaders see post-secondary schools as vital partners providing a talent pipeline for all needs
- MiX can create a hub for post-secondary collaboration and partnerships
 - Physical spaces only needed once conditions are right
- Active presence or sectoral links to industry regulatory bodies can speed innovation and attract users



Source: York University / YSpace



WHAT IS THE REFRESHED VISION?

The MiX Context

- Record low industrial vacancies = growing interest in employment sites on edge of GTHA urban areas
- Significant industry interest in near shoring, reshoring and diversifying supply chains
- The pandemic may soften the agglomeration magnetism of downtown Toronto and create more opportunities in Markham for small and large facilities
- MiX is unique: there is no similar employment site with substantial public ownership
- MiX can support a diverse array of users with different spatial needs
- Sector experts are excited about the potential

MiX will not be Downtown Toronto or Markham Centre.

MiX will not be a typical industrial park or a mixed-use community.

MiX will be the place in the region where innovation happens at scale and with critical mass – *an innovation ecosystem where IP is developed and high value products are manufactured.*

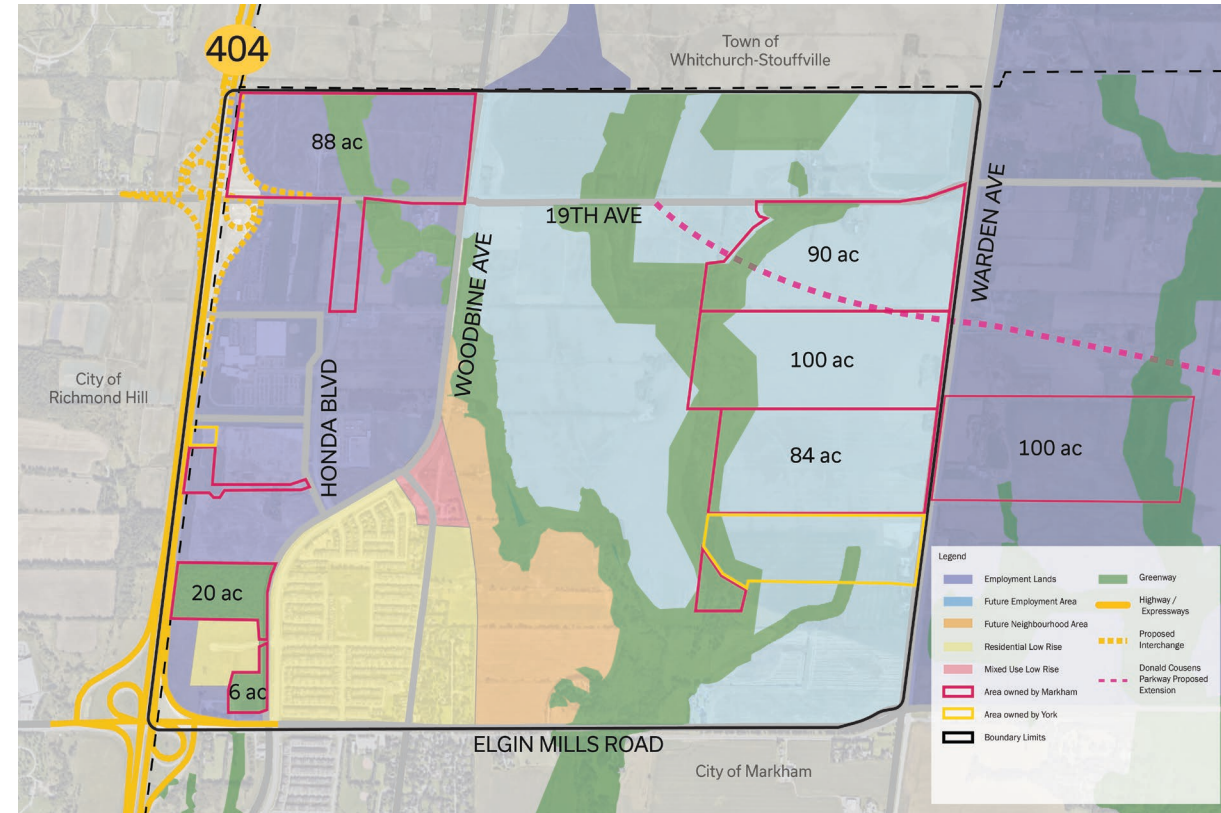
The Mix Vision

- The site that attracts, connects, and grows diverse and synergistic industries and users
 - A logical place in GTHA for tech, energy, auto, and creative industries to intersect and innovate
- The district that strengthens domestic supply chains
- The hub that connects research, training and industry
- The living laboratory to develop Canadian IP and build physical products
- The place where sustainability is the foundation

**Ontario's first
innovation cluster
that connects
knowledge +
production sectors**

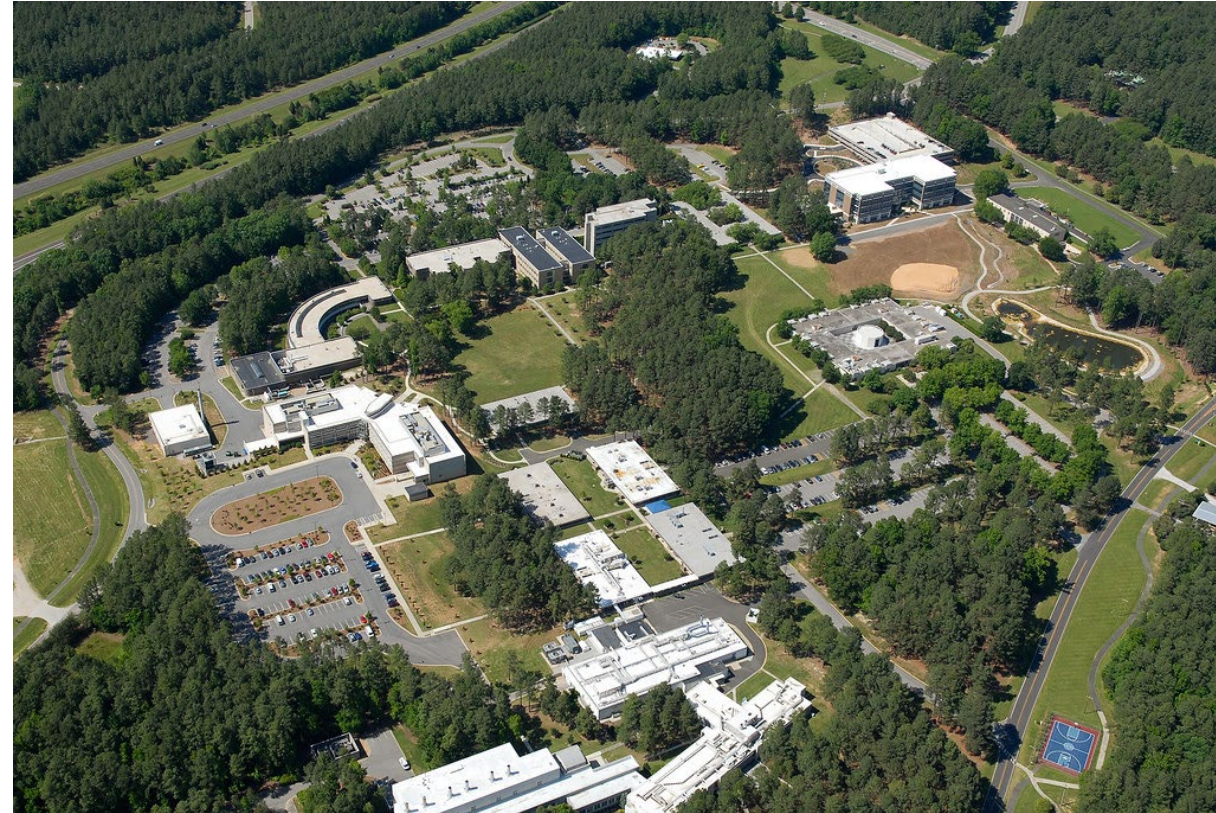
Leverage the size of MiX and high demand for employment land

- High demand indicates importance of preserving and expanding employment lands
- Provide a range of parcels for small and large facilities, some with and without highway frontage
- City-owned lands were a wise investment – they should be strategically leveraged to catalyze development
- Embrace opportunity to expand size of MiX to lands east of Warden



Only permit uses that preserve integrity of the ambition

- Uses should be limited to those that support MiX innovation and employment functions
- Maintain discipline in dissuading low-value uses such as logistics
- Large format retail, residential, and other sensitive uses diminish potential competitive value of employment lands and should not be permitted



Source: Flickr (RTI International)



HOW SHOULD MARKHAM GET STARTED?

Set a cohesive ambition – and stick to it

- The overall ambition is key to attracting innovators
- Investors must see a long-term innovation commitment at the MiX
- Users must have space to grow and create “halo effect”
- Early moves need not be perfect, but must set the stage for other investments



Source: Fan Song / uOttawa

Make it clear that MiX is market ready

- Quickly develop a clear, concise opportunity book
- Meet with leading, employment land real estate experts
- Communicate value of prioritizing employment land uses
- Leverage wider networks to get the word out – take advantage of opportunities to promote MiX

“ Transformative technologies, innovation spaces, and entrepreneurship with international talent are driving local economies. ”

2019 ONLINE

Markham Mayor Frank Scarpitti

MARKHAM INNOVATES

Global technology leaders and innovators choose Markham

AMD Markham Plays Pivotal Role in Next Generation Computing

This year, AMD celebrates 50 years of technology innovation and leadership. In 2006, AMD acquired Markham-based ATI Technologies and kept its R&D and head office in Markham. AMD has since flourished, growing to 2000-plus workforce in Canada for leading-edge semiconductors design and development.

Driven by a culture of innovation, teamwork, and creativity, AMD's Markham workforce is well-positioned to win at every level against global competitors for the best technology in the market thanks to ongoing support from the City of Markham and continued focus on developing the next generation of Canadian engineering talent.

Software and hardware architects, business managers, engineers and other professionals comprising AMD Markham's deep talent pool developed truly revolutionary products. Recently, the team provided expertise in designing and productizing Ryzen™ processors, Radeon™ graphics, and EPYC™ processors. These products are at the heart of laptops, desktops, workstations, servers and game consoles-enabling high-performance computing, “big data” analytics, artificial intelligence (AI) and machine learning (ML) to electronic gaming, virtual reality (VR)/augmented reality (AR) systems and more.

Driving the latest AMD Radeon graphics products is a new graphics architecture codenamed “Vega” - AMD Markham team played a pivotal role in bringing Vega to market. This architecture is deployed in our consumer graphics products, AMD Radeon™ RX Vega processors, and in Radeon Instinct™ MI60 - a fast training accelerator for machine intelligence and deep learning.

“The unique AMD Markham culture plays a key role in the company's business success and includes giving back to the Markham community - from technology showcases to volunteer hours,” said Andrej Zdravkovic, Corp. VP, Software and AMD Canada Site Lead. “The company works with Canadian universities on projects to provide advanced technology degree students with work term opportunities and mentorship in advanced design classes.”

AMD invests millions of dollars in AMD Canada and in industry consortiums bringing together necessary technologies enabling the next wave of high performance and immersive computing. These investments aid in continued development for a wide variety of fields-autonomous vehicles, VR and AR, ML, and AI to name a few-while continuing to power ubiquitous computing that is central in the lives of Canadians.

www.amd.com



From left to right: Kevin O'Neil, Corp. VP, Legal and AMD Managing Director; Andrej Zdravkovic, Corp.VP, Software and AMD Canada Site Lead; and Markham Mayor Frank Scarpitti, at AMD Canada open house event



www.business.markham.ca

Develop a strategy to bring land on-line

- Make sure servicing is brought up to property line
- Determine the protocols for negotiating with developers or tenants
- Review whether Donald Cousens Parkway extension remains a priority
- Advocate for the 404/19th Ave interchange
- Consider creating a municipal development corporation



Source: Provincial Construction (Niagara Falls) Ltd

Consult with landowners on a shared ambition

- Share the vision and identify collective objectives, opportunities, marketing and development strategies
- Consider creating official land owners entity or framework (BIA, CIP, other) to:
 - Create consistent marketing face
 - Enable shared investment/costs
 - Focus public investments
 - Access funding opportunities



Source: Shutterstock/G-Stock Studio

Take early steps to signal innovation

- Attract visible, early/interim uses that set the tone with low investment (i.e. solar, greenhouse/agriculture)
- Encourage site users to contribute towards the overall sense of place and excitement
- Leverage each sale or lease for potential catalytic functions (i.e. facilities others can “plug into”)



Source: First Solar

KEY TAKEAWAYS

- GTHA demand for employment land is very strong - large scale lands are increasingly rare and desirable. MiX is a unique site.
- The vision for MiX is viewed favourably by target innovation sectors – some immediate, short term interest and widespread long term interest.
- MiX's size and regional location create the opportunity for Ontario's first innovation cluster with all scales of manufacturing and knowledge sectors in the same place.
- To create a unique innovative employment area, the vision must not be diluted – no big box retail, no residential, no sensitive uses.
- Markham needs to develop a marketing and land disposition approach that differentiates the MiX opportunity and takes advantage of the market.
- The vision requires getting started with high standards, not getting it perfect.