Deliver recommendations to the Mayor and City Council to best drive Houston’s tech innovation and entrepreneurship economy.
“Trillions of dollars in economic value is created by the technology sector, with much of that growth driven by startups. Technology creates more jobs than it displaces, and advances such as artificial intelligence will improve living standards in many ways.”

Global Startup Ecosystem Report
Startup Genome Project 2017
THE PROBLEM

Houston’s lack of a robust innovation and entrepreneurship ecosystem is a significant threat to our economy as it is the largest driver of job creation, as well as a critical component in attracting and retaining corporate investment, venture capital and talent.
Companies (%) who have fallen from the Fortune 500 since 1955...only 60 remain!

Corporations (%) who say it’s important to work with startups

#3

88%

2034

82%

Houston’s ranking for density of Fortune 1000 companies

HALF of today’s Fortune 500 will be replaced by 2034!
...WHICH IS WHY THE DATA IS ALARMING!

STARTUP DENSITY

Houston is the only Top 10 Greater Metro to Fall from Top 20 in High-Tech Startup Density (Kauffman)

VENTURE CAPITAL

Houston Ranked 31st in the Nation (and 3rd in Texas) for Venture Capital Investment (NVCA)

TECH JOBS

Houston’s Ranking for Tech Jobs Created fell to 43rd Nationally in 2017 (Forbes)

ENTREPRENEURIAL ECOSYSTEM

Houson Not Ranked as a Top 20 Startup and Entrepreneurial Ecosystem (Startup Genome)
TECH STARTUPS CREATE A HIGH VELOCITY OF HIGH-WAGE JOBS AND ARE CRITICAL TO...

**ATTRACT + RETAIN YOUNG TALENT**  
>7% Population of Educated Millennials in SF, Boston, DC and Austin (4% in Houston)*

**CREATE LOCAL JOBS**  
5:1 Multiplier Effect of New Jobs Created for each New Tech Job

**WIN CORPORATE INVESTMENT**  
Attract Investment in Growth Areas

**INSPIRE A CITY’S IMAGE**  
...& Culture!

*Source: *Accenture / GHP Report

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GE Moves HQ to Boston:  
"Business Goes Where the Talent Flows"  
(Forbes)
How do we position Houston to be a world-leading and admired tech innovation and entrepreneurship economy?
DEVELOPMENT APPROACH

RESEARCH
Best Practice Cities, Models Approaches, Data, Policy, etc.

AUDIT
Visited a Sample of Innovation and Entrepreneurship Assets in Houston

VISITS
Visited Cincinnati and Chicago to Visit with Key Leaders

COLLABORATION
Collaboration with GHP’s Innovation Roundtable & Accenture

EXPERTS
Calls + Visits with Experts; Chair Attended Kauffman Ecosystem Summit

MARCH 2016 - FEB 2017
MARCH 2017
MARCH 2017
ONGOING
APRIL, JUNE 2017

HYPERLINKS EMBEDDED WHERE POSSIBLE
NOTES AVAILABLE FOR REVIEW
FINAL REPORT LINK
In 2012, JB Pritzker along with the support of Mayor Rahm Emanuel and $2.3 million from the State of Illinois, launched 1871, a bold new model to drive its innovation economy. 1871 was launched at the famous Merchandise Mart, centrally located in one of the premiere and most accessible parts of Chicago.
The advent of Chicago’s tech innovation and entrepreneurship community drives material outcomes after launching in 2012, including recognition as a Top 20 Global Ecosystem in 2017 (Startup Genome Report).

CASE STUDY: CHICAGO - RISING FROM THE ASHES!
Organizations Working
To Build + Connect the
Ecosystem

RAW MATERIALS TO
TRANSFORM INTO A
WORLD LEADER

STEM Talent
Base

Diversity + Global
Reach

Capital + Significant
Fortune 1000 Base
Implementation should be Consistent with the City’s Mission, Values and Objectives, including Inclusivity and Diversity Initiatives
COLLABORATION WITH THE GHP & ACCENTURE TO ACTIVATE ALL STAKEHOLDERS

HOUSTON’S INNOVATION STRATEGY SUPPORTED BY ALL OF ITS INNOVATION ASSETS

INNOVATION STRATEGY

Mayor’s Innovation Taskforce

1. Thematic focus areas
2. Anchor high-tech firm
3. Founder visa program
4. Testing ground for innovation
5. Startup ecosystem strategy office
6. Tech & life sciences innovation districts

GHP Innovation Roundtable

7. Create fund-of-funds
8. Activate UHNW & Corp Exec Champions
9. Refresh Houston’s startup image
10. City Gov’t should embrace innovation

Ten Initiatives

Some of Houston’s Innovation Assets
ADVOCATE + CHAMPION
DEVELOP AN INSPIRING INNOVATION DISTRICT
BECOME LEADING TESTING GROUND FOR NEW TECHNOLOGIES
INNOVATE CITY PRACTICES + REDUCE FRICTION TO ACCESS ENTREPRENEURSHIP
SUMMARY

Leading Indicators Suggest the Time to Take Action is NOW!

Organizations and Community Efforts Need Support + Advocacy to Drive Houston Forward

Elements of Best Practice Models Provide Path to Accelerate Ideal Strategies for Our City

Leadership, Support and Collaboration Can Propel Houston to be the City and Economy of the Future Today!

Data is Alarming

Raw Materials for Success

Clear Paths for Action

Transformative Impacts
RECOMMENDATIONS EXPANDED AND SUPPORTING DATA
1. Be engaged and visible advocate for Houston’s tech and entrepreneurship economy
   a. Attend events, judge pitch competitions
   b. Schedule meetings and press briefings at local tech hubs, such as: Station Houston, TMCx and the Houston Technology Center, even if briefings or themes are not tech-related
   c. Tell the stories of Houston’s innovators and startups whenever possible

2. Champion Houston’s tech innovation and entrepreneurship culture as core to Houston’s brand
   a. Champion technology themes, such as robotics, cyber security and industrial internet of things, as covered in the Accenture / GHP report as well as machine learning and artificial intelligence, medical devices and digital health solutions that attract and drive venture capital to the region
   b. Drive inclusion so opportunities are created for all Houstonians
   c. Tell the story of Houston startups and entrepreneurs to shine a brighter spotlight on Houston’s startup and tech community and capabilities
3. Actively connect corporations and their executives, to startup community
   a. Recruit targeted companies to Houston as well as local companies to the Innovation District where those companies are engaged with the startup community
   b. Drive corporate involvement in Fund-of-Funds strategy to attract risk capital to the region
   c. Encourage and drive policy that drives corporate engagement with startup community

4. Attend the 2017 Kauffman Mayors Conference on Entrepreneurship
   a. Reference: Mayors must be policy entrepreneurs

5. Create Mayor’s Technology and Innovation Advisory Group to address:
   a. Data-driven efficiency within Houston
   b. Smart technology experimentation
   c. Broadband connectivity and next-generation infrastructure
   d. A smart cities initiative plan and inclusion practices for City procurement reform

ADVOCATE + CHAMPION (EXPANDED)
1. The Task Force recommends the City should leverage its tools and resources to expedite the development of an innovation district that fosters collisions births new technologies and companies and brings together talent.

2. Connect with entrepreneurship ecosystem experts to better understand best practice policy approaches that would maximize impact. Connect with contacts who can provide more specific policy feedback, such as:
   a. Evan Absher @ Kauffman Foundation
   b. Tom Alexander @ 1871
   c. Ed Egan @ Baker Institute

3. While traditional economic development tools should be evaluated (ie. 380 agreements, tax abatements, expediting online permitting, possible TIRZ increment or P3’s), the Task Force believes that policy should focus on maximizing new job creation from early-stage companies, as this is the segment (tech startups) have a significant impact on net job creation.

4. The roles that both states and cities have played have varied across the country. The City should review how it can provide resources to help overcome capital barriers that would prohibit the advent of a technology innovation and entrepreneurship district.
5. The Innovation District should be a safe and centrally-located center where companies, laboratories, universities and research centers seek to innovate their industries. Corporations must play an active and engaged role to birth the district and help sustain the groups who nurture and foster connections between various beneficiaries.

6. The Houston Innovation District should:
   a. Be able to grow in density so other ecosystem players (corporations, investors, research and academia, service providers, foreign companies, etc.) can participate / locate in the district
   b. Be a focal point of Houston’s culture and entrepreneurial spirit, featuring eateries that celebrate Houston’s diversity
   c. Balance live, work and play; and have easy-access to multi-modal transit options and walkable places
   d. Inclusive - all organizations that want to participate can come to the table to access offerings and opportunities
   e. Ideal location to implement smart city technologies

7. Designate a liaison to drive connectivity between the Innovation District and the Complete Communities initiative, including programming, events and training opportunities

8. Encourage Houston area universities to create environments that foster a creative culture by including entrepreneurship modules within curricula and through linkages with the Houston Innovation District
1. Develop policy, assets and opportunities to drive the research, development, testing and commercialization of highly disruptive technologies themes that can help transform the City’s leading industries
   a. Disruptive technology themes, such as: Robotics, Cyber-security, Industrial Internet of Things, which are mentioned in the Accenture report, as well as Machine Learning and Artificial Intelligence, Digital Health Solutions and Medical Devices

2. Enhance core capabilities in advancing research and development around data science
   a. Drive inclusion of broader innovation community to drive this strategy (i.e. startups, entrepreneurs, corporations, universities and other key stakeholders) to build a world-class capabilities

3. Develop policy that allows the City to become the premium testing ground and research center for emerging technology, such as: drones, autonomous vehicles as well as reimagining manufacturing and logistics industries

CLICK GRAPHIC FOR ARTICLE ON AUTONOMOUS VEHICLES IN PITTSBURGH

TESTING GROUND (EXPANDED)
1. The Houston brand and messaging must reflect its focus on being a world-class tech innovation and entrepreneurship ecosystem. The brand and messaging must be developed from the bottom-up where policy should enable and foster this spirit and culture of innovation.

2. Innovate approach and practices to improve our City’s balance sheet as well as quality of life:
   a. Establish programs where executives are seconded / loaned to the City to lead strategies and initiatives. An example program would be developing and executing a smart city business case, strategy and implementation approach and its integration between the Innovation District and the Complete Communities Initiative.
   b. Develop Innovation Fellows and / or Entrepreneur-in-Residence programs to identify challenges, obstacles and opportunities for the City to solve problems.
   c. Host startup showcases, reverse pitches and hackathons to identify emerging technologies that can help the City of Houston and its residents.
   d. Reduce friction to make it easier and less cumbersome for startups to (a) form; and (b) contract with the City.
OTHER RECOMMENDATIONS (1-6)

1. **Bring Awareness and Support the Advent of a Founder’s Visa Program**: Bring awareness to challenges surrounding work visas to better attract and retain talent that comes to the Houston region from around the world. Leverage best practice models to drive leading founder’s visa program in Houston.

2. **Develop Data Science Institute Center of Excellence**: Help convene the ecosystem around a common vision to develop and gain support for data science programs as well as the advent of a data science institute.

3. **Expand Hire Houston Youth**: Expand the Hire Houston Youth Program to include corporate sponsorship of eligible candidates to attend coding academies as well as internships at early-stage tech companies.

4. **Collaborate with Other Cities**: As tech innovation and entrepreneurship ecosystems continue to launch and evolve, active relationships with other city leaders to share best practices, advances in policy, challenges and opportunities can drive collaboration, healthy competition and win-win scenarios.

5. **Develop Expert Rotation Program and Innovation and Entrepreneurship Education**: Enlist the City’s Director of Education to (1) facilitate innovation expert rotation into schools to inspire young people, increase exposure and knowledge and drive access to potential careers in technology; and (2) facilitate a standardized invention, innovation and entrepreneurship curriculum (with pitch day competitions) across Houston school districts.

6. **Build on our Diversity**: Build upon Houston’s strength of diversity to ensure that practices, procedures, and outcomes related to building an innovation economy are inclusive.
OTHER RECOMMENDATIONS (7-10)

7. **Communicate Progress and Leaders of Technology Themes:** Venture capital is generally attracted to invest in technology and disruptive innovation. Therefore, greater emphasis on emerging technologies and the startups, universities and research centers advancing those technologies is core to attracting new capital to the region, as well as having local capital seek investment opportunities.

8. **Promote Angel Investing and Venture Philanthropy:** While Houston has a strong capital base, currently, more than 99% of capital is attracted to private equity and real estate investments versus actively seeking investment in promising emerging technology companies / early stage ventures. This “hole” in the capital base severely limits promising entrepreneurs to start tech companies in Houston nor consider relocating to the City to grow their businesses.

9. **Implement Policy that Drives Corporate Engagement to Accelerate the Development of Houston’s Startup and Entrepreneurship Ecosystem:** Leverage policy, tools and resources to drive greater corporate support to drive the innovation community. To attract and retain great talent, startups need paths to pilot technologies with potential customers and partners as well as easier paths to sell and contract with larger organizations. Promote inclusivity and help local entrepreneurs who face disproportionate barriers to access capital.

10. **Recruit Technology and Entrepreneurship Conferences to Houston as well as develop and Develop a flagship Conference or Summit:** Houston should support bids and outreach to bring innovation and entrepreneurship conferences and summits to Houston. In addition, develop a flagship conference that celebrates Houston’s culture of innovation. An example of such efforts includes: launching ARTificial Intelligence Week to celebrate Art and Innovation, with a State of Innovation kick-off event featuring the Mayor.
SUMMARY OF KEY STRATEGIES FOR ENABLING ENTREPRENEURIAL ECOSYSTEMS (KAUFFMAN)

- **Favor Incumbents less**: Policies and regulations that favor existing, dominant companies over entrepreneurial ventures constrain competition and create barriers to entry for new firms. Examples of such regulations include assertive enforcement of non-compete laws, excessively restrictive occupational licensing requirements and regulatory complexity that inhibits contracting. Policymakers should avoid such policies and regulations and work to reduce the barriers to business startup.

- **Listen to entrepreneurs**: Rather than developing policies abstractly intended to correct “market failures,” policy makers should listen to what entrepreneurs have to say about their challenges. That input should be used to develop policies that stimulate idea exploration, product development and increased rates of deal flow.

- **Map the ecosystem**: Entrepreneurial supporters should create an inventory or graph that indicates who the participants in the ecosystem are and how they are connected. Ecosystem maps can become valuable tools in developing engagement strategies.

- **Think big, start small, move fast**: This simple rule, long a guiding principle for entrepreneurial ventures, also holds true for successful entrepreneurial ecosystems. The ecosystem should enable the connectivity needed for early success, and then clear the runway for future growth.

- **Avoid artificially segmenting your community or strategies**: Much like the rotting trunk of a fallen tree feeds the growth of new saplings, economic disruption creates entrepreneurial opportunities. Because disruptions are inevitable in economic and social life, architects of entrepreneurial ecosystems should anticipate them and prepare to make the most of the opportunities they create.
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