The Role of Collaboration in City Innovation

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Diverse and Complex Cities Require Inclusive, Data Driven, Sustainable Solutions

URBAN CHALLENGES DEMAND NEW MODELS OF COLLABORATION

MACRO CHALLENGES:

- Economic Development and Job Creation
- New and Aging Infrastructure
- Transportation and Mobility
- Flooding, Heat Waves, & Other Climate-Related Challenges
- Access and Equity
- Health and Safety

LOCAL CONSIDERATIONS:

- Neighborhoods
- Business Districts
- Industrial Zones
- Green Spaces

DIVERSE STAKEHOLDERS:

- Residents
- Local Government
- Corporations
- Start-ups
- Civic and Academic Institutions
- Visitors and Tourists
MAKING SENSE OF CITIES: AN INTEGRATED, SOLUTIONS-FOCUSED APPROACH
Creating Solutions to Complex Challenges Through Collaboration, Innovation, New Capabilities, and Product Development

**PHYSICAL INFRASTRUCTURE:**
Tangible urban spaces where we live, work, and play, including buildings, roads, bridges, utility infrastructure, natural spaces

**URBAN DESIGN:**
Developing and managing dynamic, tech-enabled, public and private spaces to address evolving needs

**PUBLIC & PRIVATE SERVICES:**
Businesses, government, and civic services that meet critical needs and drive vibrant economies

**SENSING NETWORKS:**
Creating new data from the built environment to understand real-time conditions, needs, and opportunities

**DATA & DIGITAL INFRASTRUCTURE:**
Information and foundational IT capabilities, including cloud platforms, operating software, APIs, network services

**ADVANCED ANALYTICS:**
Data sharing, aggregation, storage, and computation to generate new insight and drive operational efficiencies
A COLLABORATIVE MODEL FOR URBAN INNOVATION
City Tech accelerates technology-enabled solutions to make cities happier, healthier, and more productive

1. We tackle public problems and business opportunities that are too big for any single sector or organization to solve alone.

2. We create cross-sector teams that develop scalable, market-ready urban solutions; our proven approach and methodology help City Tech solutions succeed where other collaborations fall short.

3. We focus on industries that shape urban life – current City Tech initiatives include Advanced Mobility, Healthy Cities, and Connected Construction.

4. City Tech was born and raised in Chicago, and every city is a potential partner.
CITY TECH ENGAGES CROSS-SECTOR INDUSTRY & CAPABILITY PARTNERS

Consortium Members are Evolving Across Previous Industry and Capability Boundaries, Opening New Business Opportunity
CORPORATE MEMBERS, PARTNERS, & COLLABORATORS
City Tech’s Ecosystem Combines Broad Capabilities and Deep Expertise To Implement Groundbreaking Urban Solutions

City Tech Consortium Members & Philanthropic Partners

Select Solution Participants & Strategic Partners

![Logos of various organizations]

THE SPRAGUE INSTITUTE
A PROVEN APPROACH TO RESULTS-FOCUSED, HIGH-IMPACT COLLABORATION

Our Solutions Methodology Delivers Innovative, Market-Focused Results

ACCELERATED RESULTS & BUSINESS IMPACT:

- Technology Integration
- Market Validation
- Strategic Partner Development
- Policy & Landscape Assessment
- Public Recognition & Civic Engagement

ADVANCED MOBILITY
HEALTHY CITIES
CONNECTED INFRASTRUCTURE
AND MORE
PREVENTING FLOODING: SMART GREEN INFRASTRUCTURE MONITORING

PILOT TEAM

PROBLEM STATEMENT

Cities are making major investments in green infrastructure (GI) yet have limited ability to:

» Consistently monitor the performance of the investment
» Optimize investments in GI to maximize benefits
» Compare GI investments against traditional grey infrastructure solutions

PILOT

Create and deploy sensors, communications, and cloud analytics supporting GI performance data collection at four urban GI sites in both public and private locations.

Start: June 2015
PREVENTING FLOODING:
SMART GREEN INFRASTRUCTURE MONITORING

SOLUTION

A low cost IoT-based sensing package, allowing GI performance data from multiple sites to be aggregated for individual and collective performance management.

OUTCOMES

✓ A novel, sensing technology to meet the challenges of data collection from decentralized stormwater infrastructure across a city.
✓ New data sources and frequency to enable existing GI maintenance as well as performance feedback to inform future designs.
✓ The ability to collect GI performance data from multiple sites and enable systemwide GI and traditional stormwater infrastructure planning.
✓ New, real-time stormwater storage capacity data to enable future real-time or performance based management systems and contracts.
MANAGING CONGESTION:
NIGHT GAME ALERTS

PILOT TEAM

PROBLEM STATEMENT

Transit systems are often at capacity during daily rush hours or special events, these peaks cause:
» Longer travel times
» Frustrated riders
» Safety concerns

SOLUTION

New tools to communicate directly with riders, providing information and relevant micro incentives to change travel behavior.

OUTCOMES

✔ Over 2,000 participants opted-in to the program over a two week advertising period
✔ 17.5% reduction in transit ridership from opted-in individuals during peak periods
✔ Proof that cost-effective demand management tools can reduce congestion impact, improve transit system management, and rider experience
✔ Blueprint for public/private partnerships to fund ongoing incentive programs
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City Tech drives collaborative, multi-party innovation through 2 critical elements:

1. A carefully curated ecosystem of partners defined to address the challenges of a particular industry

2. Proven process to align the success factors of innovation:
   - Partners’ joint understanding of the problem
   - Their incentives to solve the problem
   - Their unique capacity to co-innovate a solution to the problem, include people, technology and investment
THANK YOU

CITY TECH COLLABORATIVE

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