Funding & Business Model Tutorial for Sustainable Smart Cities Programs

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Civic Solutions Reverse Pitch 2019

Funding & Business Model Tutorial

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Austin CityUp: Funding Committee Report

"Smart City" Projects

Financial Returns
- Crowd funding
- Foundations - Federal Grants
- Private Capital

Environmental Returns
- Contracting (incl. PPP)
- Revenue Sharing

Social Returns
- Bonds/City Finance
- Investing Impact

Social Returns
- Investing Impact

"Smart City" Funding Models
- Yes
- Yes
- Yes
- Yes
- Maybe
- Maybe
- Yes

Environmental Returns
- Maybe
- Yes

Financial Returns
- Yes
- Yes
The "Triple Bottom Line"

Projects should consider these areas in their Business Model, and look for education opportunities on the concepts.

Concept originated by John Elkington from SustainAbility:

http://www.economist.com/node/14301663

Focus on more than just financial returns; the key is to make social and environmental returns quantifiable, and therefore comparable. The concepts have been incorporated into a set of reporting standards, known as the Global Reporting Initiative (https://www.globalreporting.org).

Financial Returns  Environmental Returns  Social Returns
The Business Model Canvas

A well-known template to provide initial market research on a potential offering. Composed of 9 different areas.

Projects should provide a completed Canvas, which helps determine a project's actual viability. If you can't fill this out, you probably haven't thought about the Business Model enough.
The Austin CityUP Funding Template

Part 1 – Characterization

What problem are we trying to solve? What is envisaged to be a solution and what would the solution scale? How is it funded? (see slides on models of funding)

Part 2 – Features & Functions (Short Term & Long Term)

What features & functionality you need in the solution? Prioritize into three levels. What would be considered for provisional & final acceptance?

Part 3 – Sustainability & Enhancements

Would such a system interact with other systems? Would policy & procedure need to be updated? What are the business & operational performance factors? Would the solution scale?
Funding

**Tax Increment Reinvestment Zone (TIRZ)**

**LoanSTAR** (Texas Comptroller)

**Cisco Global Infrastructure Fund**

Provide initial capital funding for replacement, which is paid back through the annual energy savings (with return for private capital).

**Example: Enhanced Street Lights**

*San Diego:* Replace 3,500 lights, $4.7M annual energy savings, from $4.7M to $2.8M, builds last more than half a century, 40% less energy.

*El Paso:* Replace 18,000 lights, $1.6M annual savings.

*Houston:* 164,000 lights, $2.7M annual energy savings.

**Additional Data Monetization Opportunity**

Sensors with WiFi hubs, diagnostic reporting:
- Moisture, pollutants, seismic activity, CO2, etc.

Video data from integrated camera.

**San Diego: Enhanced Street Lights**

*Example: Enhanced Street Lights*
Example: Public Kiosk Platform

300 Interactive digital stations along the Philadelphia area rail system, run by the Southeastern Pennsylvania Transportation Authority (SEPTA).

Provides either general or targeted information and free Wi-Fi for visitors and local residents.

The advertising revenue funds the deployment and services provided by the kiosk.

Cities not expected to pay for kiosks; ad revenue funds the business.
Example: Social Impact Investing

Healthy Grocery Stores

Low Income Areas are underserved for Food Deserts

Californio Freshworks Fund distributed $58M for 1,900 jobs and >$100M in economic impact

Case Study: FreshWorks Fund distributed $58M for 1,900 jobs and >$100M in economic impact

Addressed underserved areas with significant improvements in healthy eating incentive programs

Challenges & Lessons Learned

An excellent analysis of the challenges Freshworks encountered, despite the achievements.
Example: Parking Space Management

The City outsources its parking management to private partners, who leverage capital investors to install in-ground sensors in the parking spots or nearby cameras. The City shares in the parking revenue, but doesn't need to raise capital for deployment. Software handles payments as well as reporting, analytics, and traffic flow optimization.

Our solutions

Streetline

Smart Parking Solutions
Texas NICUSA, LLC

Private technology handles financial transaction processing and web-site support, returning a portion of the revenue back to the government entities.

Participating entities:

- NICUSA (NASDAQ: EGOV) family of companies, since its launch in 2000, Texas.gov has
  processed more than $47.9 billion in financial transactions and collected more than $2.3 billion on behalf of
  state and local governments. Texas NICUSA builds, operates, maintains, and markets Texas.gov and is
  a collaboration between the State and Texas.gov.

About Texas.gov

Texas.gov is the official website of the state of Texas (www.texas.gov) and is a collaborative public/private
partnership managed by the Department of Information Resources (DIR).

Public-Private Partnership

Example: Vehicle Inspection & Registration
Example: Fire Inspection Risk Analyses
Every week these are big companies making for introductions to startups.

**Business Development**

**Fundraising**

**Accelerate**

Other Examples

Private and NGO Funding

**Organizations:**
- Capital Factory
- Mission Capital
- TechStars
- Social Good Fund
- Notley Ventures
- City of Austin Digital Accelerator
- City of Austin Office of Innovation

**Programs:**
- Techstars Social Good Fund
- Mission Capital
- Capital Factory

**Organizations:**
- Private
- Social
- Impact
- Grants
- Federal
Social Impact Investing

JP Morgan, Morgan Stanley, Deloitte, Deutsche Bank, and Goldman Sachs, have all established impact investing portfolios in recent years.
City of Austin Finance Links

https://www.austintexas.gov/financeonline/finance/index.cfm

http://austintexas.gov/department/financial-services

http://austintexas.gov/department/capital-planning

Maybe

x.cfm

https://austincouncilorientation.bloomfire.com/
Contracting, Procurement & P3s


Maybe

Social Impact Investing

Contracting, Procurement & P3s
Global City Teams Challenge
Smart and Connected Health
Big Data Research
"Spokes" that extend the Big Data Regional Innovation Hubs
Cyber-Physical Systems
Partnerships for Innovation: Building Innovation Capacity
US Ignite Program

NSF is announcing over $60 million in new smart cities-related grants in FY16 and planned new investments in FY17.

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DOT
https://www.transportation.gov/grants

HUD

NIH
https://grants.nih.gov/grants/origin.htm

Federal Grants

Yes

DOE is announcing new coalitions to build cleaner, smarter communities, and more than $15 million in new and planned funding.
Foundations

Rockefeller: https://www.rockefellerfoundation.org/initiatives/innovative-finance/

Ford: https://www.fordfoundation.org/grants/

Living Cities: https://www.livingcities.org/work/capital-innovation/

Kresge: https://www.kresge.org/opportunities/

Calvert: http://www.calvertfoundation.org/

MacArthur: https://www.macfound.org/info/grantseekers/

Kaufman: https://www.kauffman.org/grants/

Knight: https://www.knightfoundation.org/grants?

MacArthur: https://www.macfound.org/info/grantseekers/

Kresge: https://www.kresge.org/opportunities/

Kaufman: https://www.kauffman.org/grants/

Bloomberg: https://www.bloomberg.org/

Yes Foundations - Federal Grants

Yes Foundations - Federal Grants

Yes Foundations - Federal Grants
Crowdfunding

Yes

https://www.governing.com/templates/gov.print.article?id=368108931


http://hks-siblab.org/