



# **FIVE TACTICS** FOR THE **CO-CREATED SMART CITY**



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# **FIVE TACTICS** FOR THE **CO-CREATED SMART CITY**

People are what make a city smart. Technology helps collect, store and process information. It can improve the efficiency and effectiveness of processes, operations, and policies, benefitting the community. In this document are five tactics for the best of collaborative engagement to shape public-facing tech investments. Resulting technologies are more innovative, sustainable and contribute to improved trust and stronger communities.

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City of Charlotte & The John S. and James L. Knight Foundation

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## Dedication

In memory of Darryl Gaston. A community leader, friend, neighbor, Charlotte native, organizer, advocate, barber, and pastor. He saw and called out excellence in all partners working in the North End. He provided resources to his neighbors and advocated for a fair system. He centered his work on the impact to neighbors. He was present in the work. He held elected officials and civil servants accountable in their work.

And to all the city staff, funders, partners, and community members who led the North End Smart District kick-start projects.

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## Background and context for this document:

In the fall of 2016, the city embarked on the North End Smart District (NESD) kick-start projects. In 2017-18, five projects were implemented to build trust and stronger community through a focus on 1) meeting city goals through data and analytics, 2) bringing in private and nonprofit partners, 3) meeting community goals as outlined in recent plans and engagement, and 4) identifying projects that could be implemented in a short timeframe. This work was funded by a Partner for Place grant by the Urban Sustainability Director's Network, the Knight Foundation, and OrthoCarolina for a total of \$150,000. The results were:

- Stronger relationships between the community (both recognized neighborhood leaders and other influential residents) and the city.
- Improved trust in both directions between the city and residents as well as a stronger system of accountability with improved communications and a shared vision.
- Reinforced recognition of resident leadership and power by private partners and media with the city acknowledging and connecting residents' voices.
- A dedicated space for community-led events and digital equity-focused events at Camp North End, a central location for surrounding neighborhoods.
- Seventy percent of the older single-family home stock received basic weatherization and energy saving measures by the local energy utility company, 45 homes were identified for critical home repair services by the city, and 32 households participated in energy saving lessons and were provided tools including city-provided home internet for a year.
- Improved city-led community engagement practices across multiple departments resulting in improved participation and broader feedback by the community in shaping city policies, programs and investments.
- A proof of concept for a coordinated and holistic approach to service delivery and capital investments that is now known as the Corridors of Opportunity program.

This set a foundation for projects and collaborations that were to come in this community. Those projects have included:

- Private partner-led weekly farmers market during warmer months that supports the use of Food and Nutrition Services benefits and doubles EBT bucks up to \$20.
- Private and nonprofit partners continuing to reach out to and collaborate with North End Community Coalition of neighborhoods around a variety of projects including healthcare, financial literacy, legal aid, and digital equity.
- The creation of the North Graham / North Tryon Corridor of Opportunity for coordinated outreach and advocacy around investments for the next 5-10 years.
- A city-led summer youth camp working with local nonprofit and small, woman-owned business to provide an introduction and mentorships to youth from the North End and West End around augmented reality, mobile app and game development, and other smart city technologies.

This document taps into the lessons learned and reapplied over the following years and sets a reference to help guide Charlotte's smart city investment practice. It was created also to support the Knight Foundation as it looks to scale the successes from Charlotte's approach to smart city investments in other areas by other organizations. This document focuses on actions that feed up into tactics to accomplish goals that establish a co-created smart city.

# Below are the five tactics shared in this document to establish a co-created smart city:



Define the need and provide the service



Discover and amplify others' strengths, roles



Focus the communication, outreach and engagement



Make participation a real choice



Build opportunities for expanded co-creation

## Each tactic shares:

**The desired outcome**, activities and measures. If you're a checklist and outline person, download the five tactics checklists.

**Worksheets.** If you learn through trying it on your own with a little guidance, fill out the worksheets. These are linked in the tactic section but packaged separately and found in the appendix.

**Case Studies.** If you learn through exploring patterns in the work, download the case studies. If you're one to learn by exploring how the tactic played out in your work and would like to share it with others, [submit a case study](#). The first case study from Charlotte, North Carolina, is briefly summarized in each tactic but more details around each case study can be found packaged in the appendix.

## Use these tactics when:

- Exploring a new technology that is either public facing or collects and uses data from the public. Examples include:
  - Digital kiosks that also collect, or potentially collect, passerby data.
  - Mobile applications that provide information or services.
  - Energy-saving transportation technologies in or near private residences.
  - Pedestrian and site user counters or behavior observations.

- Digital resources for a community.
- Building out or scaling up community-led kick-start/pilot projects that relate back to data and digital tools.
- Building broad support, sustainability and community buy in for tech investments.
- Creating a model of practice for an institution that invests in or brokers opportunities for public-facing technology.

## What to expect from using these tactics:

- Increased participation in digital services and resources.
- Better fit of technology and data collected to actual needs, efficiency in communications, energy, management, administration, and data storage.
- Technology and digitization efforts that reduce rather than increase the digital divide and its impact on society.
- Shared goals and project ownership among stakeholders.
- Increased trust in the public of partners proposing smart city projects.
- Accountability of partners proposing smart city projects to the public.

## Tactic 1.

# Define the Need and Provide the Service

**The desired outcome:** The community that will be impacted by the larger technology or digital investment has tangible, near-term, positive results.

**Timeframe:** 6-18 months

**Case Study 1.A summary:** The City of Charlotte wanted to create a tech-friendly context in the North End to bring investment to the community. Through grant funding, collaborative city staff, and strong community leadership, one of the five innovative projects implemented in 12 months was the Smart Home Kick-Start. This project lowered residents' energy costs and gave residents digital tools, training and connections that lasted beyond the project.

## Activities:

### Starting Point, the first 6 months

- Define the ecosystem around the problem to be addressed, behavior changes, values, and challenges.\*
- Pull in the relevant data for the topic and ecosystem. (Census, quality of life outcomes, investment history, recent public engagement feedback, etc.)
- Host meetings with community leaders to share the concept of the technology and desired impact and get input on community priorities and concerns.
- Work to understand realities of impacted population, build empathy among team.\*\*
- Compare community priorities, data, and existing city programs and initiatives to map out connections and highlight gaps for possible near-term wins for the project.
- Identify digital connection needs including internet, devices, training, support, design for end user experience, and other near-term collaborative solutions and include these in the scope of project.\*\*\*
- Refine the project and its approach; share with stakeholders to evaluate impacts.
- Communicate expectations for the project, its timeline, and what happens after the project launches including any limitations around sustainability with all stakeholders.

### Project Launch, at project launch or transition that scales up a pilot

- Invite all participants and stakeholders; celebrate with food and festivities; spotlight participants, features, data, and wins; provide opportunity for future engagement.

### Measures of Success Checklist:

- Internal consensus on draft of projects to move forward by Week 6.
- First meeting(s) with external stakeholders within first 2 months.
- 10 or more impacted stakeholders' participation at 2 or more events by Month 4.
- Open debates and troubleshooting projects with participants by Month 5.
- Public launch of projects or their development by Month 9.
- After the first 12 months, at least 5 participating community members reach out to project leaders and project leaders to them for continued collaborations.
- Data collected from project includes community impact and it builds more support.

### Worksheets:

[\\*1.1 Topic of Influence & Ecosystem Exercise](#)

[\\*\\*1.2 Persona & Interviews Exercise](#)

[\\*\\*1.3 Experience Mapping Exercise](#)

## Tactic 2.

# Discover And Amplify Others' Strengths, Roles

**The desired outcome:** The ecosystem around the community is resilient to changes and able to support the community, technology, and digital investments in the long term.

**Timeframe:** 3 months, then continuously through life project and beyond

**Case Study 2.A summary:** The North End Smart District's (NESD) mission was made sustainable through the North End Community Coalition. Ongoing work around digital inclusion investments continued because the community was recognized as full partners.

## Activities:

- Explore the context around the population the technology or digital investment is intended to serve, identify others who support or influence them.
- Where information is available on the goals of these organizations, identify shared objectives, complimentary roles, and ways for the project to support their work.
- Reach out to these groups for one-on-one conversations to share about the proposed project, its draft goals and scope, and exemplify the intent to find ways to be collaborative by creating initial opportunities for feedback and accountability.\*
- Make these conversations inviting, meeting the groups where they are and where they will flourish and feel comfortable and have a sense of belonging.
- Trust the feedback from the groups closest to the population intended to serve and respect parameters given and apply them moving forward.
- Learn how the community leaders talk about and define the community, echo the terms of respect and value inherent to the community.
- Recognize the systems and external forces that harmed the community's reputation and do not repeat or reinforce them in the process of this project.
- Create spaces for the residents to change a project through feedback and increase the value of those feedback opportunities to grow both relationships and the community's power to make meaningful decisions in their community.\*
- Publicly recognize the leadership and work that came before led by these groups.
- Support the creation of new connections that result in broader skillsets, relationships, and balanced perspectives in the community, reinforce existing strengths including hiring vendors from the community for supplementary efforts.
- Show up for the community's other initiatives and demonstrate support by sharing skills and connections that benefit projects outside of the smart city project.
- Direct journalists, conference organizers to resident leaders to spotlight their role.

## Measures of Success Checklist:

- Initial collaborative outreach results in those individuals and groups inviting others with influence to participate and a growing network involved in the project by Month 3.
- Communication is flowing, individuals are navigating disagreements, and uncovering paths to move forward in both relationships and projects.
- Key mission statements of the project are adopted and repeated by Month 6.
- People invited to speak or get interviewed coming out of the work are not just professional project team but also residents and other partner agencies by Month 9.

## Worksheet:

[\\*2.1 Setting Up a Responsive Framework and Right-Sizing the Challenge Exercise](#)



## Tactic 3.

# Focus The Communication, Outreach And Engagement

**The desired outcome:** The community that will be impacted by the larger technology or digital investment is both aware of the work and feel that the professional project team has been respectful of their processes, preferences, time, energy, and expertise.

**Timeframe:** 3 months, then continuously through the life of the project

**Case Study 3.A summary:** Prior to the NESD kick-start projects, public engagement on city processes and projects was poorly measured. This made it difficult to determine the interventions needed to capture a variety of perspectives. The NESD projects provided a way to start measuring participation and testing out best practices for engagement.

## Activities:

### Goals and Metrics

- Explore general participation trends of community the project is intended to serve; aggregate voter participation by census blocks can be indicative of institutional trust; explore population data; also have conversations with others who have engaged the community; use this dataset to create equitable participation goals.\*
- Incorporate participation goals in the engagement spectrum, from informing to co-creation, recognizing that co-creation can be a heavy lift on participants.\*\*
- Examine and remove barriers for groups who have demonstrated low participation.\*\*\*
- Be clear to participants on any data used from past feedback, from the technology, and current engagement on how it is used and security; give opt-out options for tech.
- All project partners should be committed and accountable for delivering on promised outcomes and clear where flexibility and grace will be needed from participants.

### Message and Events

- Use direct and open communication for expectations, process requirements and navigation, program parameters, and application of feedback.
- Consider the local meaning of words and the power of language that is influenced by the community's history with systems and institutions.

- Hire community leaders as consultants to shape the project messaging, timing, content, and outreach methods that reach their community.
- Coordinate communication between partners and use multiple methods.
- For events, consider the impact of time of day, day of week, cultural events, length of meeting, and location on participation and identify ways to solve for barriers.
- Hire local vendors and creatives which can bring in participation from their audience.

### Measures of Success Checklist:

- Participants reflect different perspectives and relationships to the project by Month 9.
- Participants volunteer to participate in other similar projects beyond this one.

### Worksheets:

[\\*3.1 Broad Participation Representation Goal Setting Exercise](#)

[\\*\\*3.2 Engagement Spectrum Participation Goal Setting Exercise](#)

[\\*\\*\\*3.3 Removing Barriers to Participation Exercise](#)

## Tactic 4.

# Make Participation A Real Choice

**The desired outcome:** The community and individual residents have clear and easy to choose opt-out opportunities from proposed technologies that are not a good fit for them.

**Timeframe:** 3-6 months, then continuously throughout the life of the project

**Case Study 4.A summary:** Halfway through the NESD kick-start projects, a university group approached the city for access to the community on a new technology planned for communities like their own. The city provided guidance to the group to make the information accessible and expectations for collaboration. When the community ultimately decided to decline participation on the project, the city respected their position.

## Activities:

### Foundational Information

- Work with the community to outline the concerns around technology, data collection and use, and digital tool accessibility.
- Be transparent and thorough about the project, features, and process to avoid misrepresentation, loss of participation, and further distrust.
- Identify segments of the community that may have been burdened by past experimental approaches or negative impacts of institutions' practices, create this as personas and interview impact populations for insight (Worksheet 1.2).
- Consider how new technology or digital investments may play out through a user journey for these personas (Worksheet 1.3).
- Identify ways and intervention points where a person or community could opt out of participation.\*
- Identify back up processes to continue services or maintain relationships when new technologies fail or are unreliable.

### Opt-Out Context

- Right-size a technology to collect and use the minimal amount of data to be viable for service delivery.\*\*
- Communicate impact of opt-out if any.
- Provide alternative ways to get service or information when possible.
- Create process for accepting and using feedback for improvements provided by end users of the technology as an alternative to the opt-out.

### Measures of success checklist:

- Desired level of data collection is still met on projects that are visible, transparent, and offer opt-out options among populations with historically lower participation.
- The community continues to participate in projects around data and technology.

### Worksheets:

[\\*4.1 Intervention Point Practice Exercise](#)

[\\*\\*4.2 Right-Sizing Technology to Data Strategy Exercise](#)

## Tactic 5.

# Build Opportunities For Expanded Co-Creation

**The desired outcome:** The community impacted by the investment has the tools, data, relationships, and experience to create their own innovative and collaborative projects.

**Timeframe:** 6 months, continuous opportunities beyond the life of the project

**Case Study 5.A summary:** The North End Smart District effort started with four predefined kick-start projects that resulted from data on disparate outcomes, partners at the table, and opportunities to achieve known community priorities. The investment also budgeted for one undefined project to be determined by working with the community. An open invitation, group agreements, a design thinking approach, deadlines, and a list of “what else” from the community helped a group of residents come together to shape, test out, and adjust a project from scratch. This resulted in shared learnings and more residents empowered to build out future projects that would meet community goals.

## Activities:

### Create The Environment

- Create the space, framework, and requirements for a prototype and invite community who gravitate to the topic.\*
- Invite a diversity of partners that reflect the possible roles and perspectives to shape the project, keep the invitation open, add invitations to ensure balance is maintained.
- Budget time for staff to take the heavy lift on production and project coordination, set and communicate expectations for what realistically can be done by volunteers.
- Create space and time, let people learn on their own but use guidance of the design thinking process and current location in the process to maintain focus and expectations.
- Develop group agreements while discussing common challenges and wrong assumptions, particularly around data collection and providing services.\*\*
- Create continued opportunity, encourage participation from people who have not yet been involved while maintaining relationships with existing participants.

### Collaboration

- Get to know people personally and replace assumptions with knowledge, encourage networking and relationship building through the process.

### Measures of success checklist:

- Project features reflect community inputs and learnings by Month 5.
- Testing of project impacts and possible outcomes occur by Month 6.
- The community leads and advocates for data and technology projects that incorporate learnings and participants from prototype experience.
- Organizations, not just individuals, adopt these collaborative and inclusive practices.

### Worksheets:

[\\*5.1 Design Thinking Framework Application](#)

[\\*\\*5.2 Rules of Engagement/ Group Agreements Exercise](#)



# Appendix, Worksheets:

## Co-Created Smart Cities Tactic Exercises

Each tactic has 1-3 accompanying worksheets that provide practice exercises and templates. These were referenced in the tactic action checklists for more context. These worksheets can be used in a digital whiteboard or printed in large format for use with sticky notes.

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# 1.1

## Topic of Influence & Ecosystem Exercise

This exercise was developed as part of the Define the Need and Provide the Service Tactic.

This worksheet is set up to help you unpack what you are trying to do, why you are doing it, and test if either additional context is needed and where additional resources may be required to engage the community. This worksheet should be used with 1.2 and 1.3 to help develop ideas for near term community benefits. Complete this worksheet as project team.

**1** Describe the desired behavior of residents / the community as it relates to the proposed technology:

**2** What is the data behind the need for this behavior? What is the purpose behind solving this problem? Define successful outcomes of this behavior change:

**3** What might be causing the current behaviors? What is the history behind this data? What context may need to be considered?

**4** Are there similar projects or efforts in the community that produce possible partnerships, synergy, or lessons learned?

**5** How does the behavior change benefit the community from their perspective?

**6** Which of the causes of current behavior does the technology address? If none, which of them may need to be addressed to make this project successful?

**7** Steps to long term goals (Start with a medium time frame and work to the near term, then zoom back out to long term):

**SUCCESS IN 5 YEARS LOOKS LIKE \_\_\_\_\_, INDICATING MOVEMENT TOWARDS THE BIG VISION.**  
(Fill in the blank)

**WHAT NEEDS TO BE DONE IN NEXT 12 MONTHS**

**HALF WAY MARK (2.5 YEARS) ACCOMPLISHMENTS NEEDED**

**DESIRED OUTCOMES OF THE WORK IN 10-20 YEARS**

**8** Evaluate next 12 months of work by impact and effort:

IMPACT	(high impact, low effort) <b>DO NOW PROJECTS</b>	(high impact, high effort) <b>WORK TOWARDS PROJECTS</b>
	(low impact, low effort) IDEAS FOR PARTNERS WITH OTHER FOCUS	(low impact, high effort) IDEAS FOR PARTNERS WITH OTHER FOCUS

EFFORT

# 1.2

## Persona & Interviews Exercise

This exercise was developed as part of the Define the Need and Provide the Service Tactic.

The goal of this worksheet is to better understand the individuals this project is aimed to serve and walk a mile in their shoes. Learning stories from people with other experiences and perspectives is a good foundation for this exercise. This two-part exercise is intended to use some of the population data and context discovered in Worksheet 1.1 to build some understanding of others and influence an approach that builds connection between the project team and people served. Referenced in Tactic 5. Each project team member should complete this individually and compare.

### PART 1. PERSONA (30 minutes)

1a

Start with the common population data of the intended beneficiaries of the proposed project (skip to 1b Action if citywide) and craft a fictional character - giving them a race/ethnicity, age, family status, job(s), income amount, and brief history.

3

Staying in character, what are your community habits, role in the community, and your relationships?

5

What are your motivations, the things that drive you to participate or to do things outside of your usual routine?

1b

If the beneficiaries of the proposed project are community/city wide, use the Digital Equity Act's covered populations to frame an understanding of those most often left out of the benefits of digital and tech solutions. Covered populations include, seniors over 60, residents re-entering society from incarceration or substance abuse, ethnic and racial minorities, households under the 150% of the federal poverty line, residents living in rural or non urbanized areas, individuals with a language barrier or English learners, people living with disabilities, people with low literacy levels, veterans, and youth. Apply local data on these populations and craft a fictional character as outlined in Actin 1a.

6

What are the barriers you are facing to use or benefit from the proposed technology?

2

Put yourself in the shoes of this fictional character. What is your overall state of mind?

4

Continuing, what are your experiences in the community and what feelings do you have about it?

7

Still in character, what might you think, say, or do in the instance when you come across this proposed technology if implemented without interventions?

### PART 2. INTERVIEWS (30 minutes)

1

Have a conversation with an individual within the intended beneficiary population. (Repeat this exercise as needed). Give a brief overview of the project and how their perspective helps. Start the conversation by learning more about them. Note their name and project connection:

2

Identify pain points they experience related to this project and what problem it addresses (source of annoyance, problems, or opportunities to improve).

3

Identify things that bring them joy, motivation, validation, or other things to build on that could relate back to the proposed project.

4

Note questions they have, things they are unsure about as it relates to the proposed project or the topic.

5

Note ideas they have (actions or possible solutions they identify) that could be related back to the proposed project.

# 1.3

## Experience Mapping Exercise

This exercise was developed as part of the Define the Need and Provide the Service Tactic.

This worksheet is intended to tie together Worksheets 1.1 and 1.2 to understand what it might take to achieve desired end results in the community and what interventions may be needed. It also helps inform the messaging that should be used for reaching the broader community. Referenced in Tactic 5. Complete this worksheet as a team.

1

Outline 1-5 actors in this project (e.g. residents, community based organization, tech company project lead, city's program staff, etc.):

2

For each actor, list their first action or event they experience that leads to their current behaviors as they relate to the proposed project.

3

Using the answers on Worksheet 1.1, describe the community behaviors that lead to better outcomes and demonstrates success of the project.

4

Outline 3-15 key sequential actions each actor takes, events, or interactions they have to get to the desired community behavior (use the answer from 2 as the first step, and in the outlined box on the right, use the answer from 3). Use the insights from Worksheet 1.2 to highlight pain points and opportunities between the desired community behavior and the typical starting point of activities.

START

END

5

Revisit the problem the technology is intended to solve. Is this problem felt by the community? Describe the positive impacts that will be experienced within 1 to 3 years through the implementation of the proposed technology.

6

What digital inclusion investments are needed to connect intended beneficiaries with the proposed technology investment based on the steps shared in question 4 above? How can these investments be rolled out to benefit residents within the first 12 months?

7

Who are the partners and what are the programs that are doing related work that should be consulted and collaborated with in the process?

# 2.1

## Setting Up a Responsive Framework and Right-Sizing the Challenge Exercise

This exercise was developed as part of the Discover and Amplify Others' Strengths, Roles Tactic.

This worksheet helps identify where relationships need to be diversified or strengthened. It also breaks down key activities to do that work. This work can be done by the project leader or as a team.

1

Who have you been working with and talking to the most that fills the following roles:  
**a.** resident/intended community member beneficiary. **b.** intermediary organization that is trusted in this community. **c.** local government staff that intersect with the work to deploy the tech. **d.** technical experts who change the product or process. **e.** Are there any others you are working with on this project? What is their role?

2

Of the individuals listed in Action 1, who plays the part of: **a.** challenger or skeptic? **b.** encourager helping build broader support? **c.** informative expert? **d.** dreamer and visionary of a better world?

3

It is useful to include all these roles and relationship dynamics in the work ahead. Strong, healthy, and sustainable relationships between individuals demonstrate all of these dynamics. What is missing in either the roles or dynamics and who might be someone you can tap to fill the gap?

4

In thinking of the individuals/groups you list for Action 3 (who could complete the spectrum of relationship dynamics) identify their mission and motivations. How might this project help them meet their goals?

5

What are 1-3 simple things in your project that have flexibility or where decisions were made arbitrarily. (Examples include project boundaries, project names, community description). Craft those into questions to check with the individuals with whom you are trying to build a relationship with as to what they would change and learn from the exchange.

6

Meet with these individuals and have the conversation in a location where they have control and are comfortable. What did you learn? What changed about the project? If the individuals feel agency, they will continue to be involved when asked.

7

Continue to create opportunities for feedback and demonstrate the influence of the feedback in getting changes they request. What are ways you can recognize and thank the individuals in front of people that matter to you both for advancing the work?

8

Map out areas of feedback and influence that residents of the community could make from most simple to most complex. Start with the most simple to learn about each other and continue to demonstrate they have been heard as you move to more complex.

SIMPLE

COMPLEX



# 3.1

## Broad Participation Representation Goal Setting Exercise

This exercise was developed as part of the Focus the Communication, Outreach and Engagement Tactic.

This worksheet is intended to help set measurable goals for participation representation to be communicated before, during, and after the engagement for this proposed project. Completion of Worksheet 1.2 prior to this will help kick off the work. Worksheets 3.2 and 3.3 build upon this worksheet. This work can be done by the project leader or as a team.

1

What community will be impacted by the proposed technology or digital investment? This goes beyond intended beneficiaries and might be a specific geography or population group. If the investment is intended to be used or deployed more universally, the community data on those most impacted by the digital divide should serve as a starting point. To understand the community better and how they may be impacted revisit Worksheet 1.2 and Worksheet 1.1 Activity 3.

2

What have been the trends of engagement, adoption, and participation of this community in the past? This information could be found by talking with people who have engaged this group, looking at engagement data, looking at overall use/adoption data of past tools and activities meant to serve that community. What is the information around participation rates? This will serve as a baseline.

3

What comparison data is available to understand what are acceptable or expected participation numbers? This might be found by looking at well-performing communities' data. Or this might look like exploring vendor's data on comparisons from other places on the use of the investment in other places. If none exist, explore with other decision makers on what is a defensible rate or number that show success within the limits of time and other resources.

4

Run these numbers by residents and community groups directly serving the impacted community to ground truth the participation goals. Where are their concerns about the goals being too high or too low? What specific issues have been brought up? What are easy changes? Where might more dialog be needed and with whom?

5

What is needed to engage the community and achieve the goals? Are there elements that you had not thought of before digging deeper into the numbers, stories about participation, and talking with residents and the community groups about the participation goals?

6

For each community segment identified where engagement is needed, note the current participation rates and the goal participation rates in this project. From the conversation had with residents and community groups, start to outline where the groups are in terms of awareness and what level of participation may be needed to improve adoption/use of the investment.

# 3.2

## Engagement Spectrum Participation Goal Setting Exercise

This exercise was developed as part of the Focus the Communication, Outreach and Engagement Tactic.

The intent of this worksheet is to build depth to participation goals set in Worksheet 3.1, understanding that not all individuals will participate to the same degree but all should benefit by from any amount of time the spend learning about or engaging around the proposed project. This work can be done by the project leader or as a team.

### Pre-read:

The International Association for Public Participation (IAP2) developed a Spectrum of Public Participation that outlines the public's role on impacting decisions. This information can be found on their website and it links participation goals with the promise to the public.

There are two realities to keep in mind when considering this spectrum of engagement. One is that each level builds upon the one before it (e.g. you can't have reach opportunities for involvement without good communication and information and the effort to reach out and consult). The second is that not every member of the target population will reach the most intensive level of engagement and individuals may not start at the same time or level in the engagement but open communication and clear information is foundational to all.

1

Copy the answers from Worksheet 3.1 Action 6 here. How informed is this community about the context and specifics of this project? What are there challenges in communicating the information? They could include a vocabulary that is not shared. It could be a lack of intersection of being where people are with the information. Get specific.

2

Craft at least one S.M.A.R.T (specific, motivating, attainable, relevant, and trackable) goal for getting information to the impacted community about the proposed technology or digital investment.

3a

Who has provided feedback on the project to date? What segments of the community impacted are not yet represented in the act of providing feedback? What are some S.M.A.R.T. goals for how and what feedback you get in your public participation efforts that expand representation?

3b

If it is difficult to determine what segments of the population have given feedback to see how it relates back to broad participation goals, it is likely due to the fact that socio-economic and demographic data have not been collected with the opportunities to provide feedback. If this is the case, it is time to engage both community groups and project decision makers on this need. Crafting an optional set of questions with precursor information on why the questions are being asked and ensuring none of the answers collected are tied to personal identifying information is key. It is helpful to ask the questions in a way it can be compared to your population data sets (this may be census based or not). Note these questions (and possible answers) here:

4

As the community becomes more informed, more trusting that their feedback has been integrated into the project, there are ideally opportunities for some engaged community members to grow in their role as partners. What are some desired outcomes for both the community and project team that might be accomplished through collaborations on the project?

5

What does success look like for the original project team and impacted community's perspective for each level of the engagement spectrum?

AWARENESS	FEEDBACK	COLLABORATE	PARTNERSHIP
Project Team:	Project Team:	Project Team:	Project Team:
Community:	Community:	Community:	Community:

## 3.3

# Removing Barriers to Participation Exercise

This exercise was developed as part of the Focus the Communication, Outreach and Engagement Tactic.

This worksheet unpacks some of the challenges identified in Worksheet 3.1 as well as Worksheets 1.1-3 and starts to build up pathways to more relevant and impactful solutions made achievable by improved communications and enhanced partnerships. This work can be done by the project leader or as a team.

### Pre-read:

While there may be some easy, quick solutions identified to improve the impact of the proposed solution, participation and adoption of new tools require addressing deep-rooted challenges in order to have the desired impact. To build community participation there are three key activities needed: 1) provide clear direction and reasoning on what is needed, 2) tap into personal motivations, and 3) make it easy for people to get to the end result.

This work is rooted in behavior science. Psychologist Jonathan Haidt, these three activities are needed to create behavior changes. They are illustrated in an easy-to-consume format by researching "The Elephant, The Rider and the Path" videos online.

1

Review Worksheets 1.1, 1.2, 1.3, and 3.1 and list any barriers to participation that the impacted community may face, particularly those who have demonstrated low-participation in the past:

2

Review Worksheet 1.3 Action 4. What community steps need more information to understand the context and needs to promote participation?

3

Review Worksheet 1.3 Action 4. Were there any steps the community / residents would have take that were unclear in this exercise? These may be prime for getting feedback from the community or those serving them directly. List those steps here and the associated question. How might you get answers to these questions?

4

Of the steps and questions listed to the left in Action 3, what questions are the most straight forward? Are there others you can simplify? Explore the accessibility of these questions and what the words may mean to others without the experience of this team.

5

Whose feedback do you need for the final questions of Action 4. When and how might you solicit this feedback in a way that taps into where people are and the values and motivations they have? Reflect on what you learned in Worksheet 1.2. Get feedback on your answers here from the diverse and rich relationships developed with Worksheet 2.1.

6

Of the steps and questions listed above in Action 3, what items go beyond a casual interaction or take more time to explore or inform? These are items to consider as opportunities for collaboration. Which of these are the most essential to answer for the project to be successful? Who and how might you engage to answer these questions?

7

What is the composition of roles, perspectives, and experiences needed for the priority areas for collaboration listed to the left in Action 6? What pathway can lead to this composition and what messaging and motivation is needed to get there? How do you make it easy for everyone needed to participate?

8

Convenience streamlines partnerships. List ways you can diversify your partnerships out of new conveniences you identify, create, or nurture by changes you can implement or facilitate. Start this work with new partnerships that will catalyze achievement on project and community's goals.

# 4.1

## Intervention Point Practice Exercise

This exercise was developed as part of the Make Participation a Real Choice Tactic.

This worksheet is advanced and will require in depth conversations with technology vendors and partners. It is also more successful when the community where the technology is proposed is already engaged and has a relationship with those looking to implement or allow the implementation of the technology.

1

Have detailed conversations with technology partners on their existing tools they will use to accomplish what they have said they would bring to the table. What qualifiers, eligibility criteria, or other assumptions are at play? Discuss with them the impact of these assumptions of the work with community partners.

2

What are the assumptions that remain from Action 1 after discussing the impact? These are typically the things the project partner cannot change. What might be the range of responses to these assumptions be from the community impacted by the proposed project? Make a plan for sharing this information to optimize transparency.

3

What are the concerns and boundaries expressed by the impacted community around technologies, data collection and use, and tool accessibility? This may be around accountability system, the data collected, who else has access to the data, how the data collection actually serves the community, etc.

4

Map out the activity and flow of information / data that result in the intended benefit to the community. What detailed questions might people have about the movement, storage, and access to this type of data?

5

What are the ways and points where residents can opt out of being a part of the data in the map in Action 4? What is the impact of their opting out at those points on the benefit to them and the community around them? What are their alternatives to still benefit if any?

6

Draft a communication strategy on when, where, and how community members could find out about the technology and the data about them that is used and how they can opt out and what is the impact. Also provide list ways a person could find out more or optimize the benefit of the technology.

## 4.2

# Right Sizing Technology to Data Strategy Exercise

This exercise was developed as part of the Make Participation a Real Choice Tactic.

This worksheet is advanced and requires a deep dive into smart city technologies and data governance, policies, and emerging practice. It is recommended to work closely with data experts to find out what is possible. Technology vendors are also very useful to have in these conversations. This worksheet is intended to start important conversations around tradeoffs, resiliency, and set clear communications and realistic expectations with the public.

### Pre-read:

Often there is an approach of “if we can, we should” around data collection resulting in more data collected than is actually needed, leading not only to data storage, bandwidth demands having physical world implications as well as costs, but it also can lead to security, management, transparency, and even legal issues.

In our big-data world sometimes less is more and not surprisingly we need to start with understanding our end goal and appropriate timing and process to get what we need out of the data.

Smart city technologies have five key components to consider: 1) What does it measure, sense, or produce around information? 2) How it is powered? 3) What intelligence is intended to process the data into useful outcomes? 4) How and where is data stored? 5) How is the information communicated? Vendors may focus on one popular product, but the best option is to tailor it to the local constraints and goals.

Other selection factors includes 1) Who else needs this data/who is it shared with? 2) How will the device be maintained? 3) What type of security exists to protect the data? 4) What is the cost? 5) What are the options around protecting people's privacy?

1

What data do you need? How often do you need to pull or measure the data? What will the data do? Where can you measure / collect this data? Does this data already exist and what are the implications of using that data over collecting it with a new technology or source?

2

What technology / meters / sensors are available that collect the level, quality, frequency needed without undue cost of location, power, communications, storage, or maintenance? Note that cameras and microphones are technologies that produce the most most data and they are also what the public is most sensitive to having in public space. If there is an alternative source of data that does not cause people to feel spied upon, followed, or potentially unsafe, it might be a better fit.

3

How reliable and accurate is the data given constraints found in how the technology is powered, the process of applying intelligence to the data, how the data is stored or communicated? Where might failures, disruptions, inaccuracy occur and how might this impact trust of the investment or organization making the investment?

4

Who can see this data? In what format? Who else could benefit from this data and how can we make the most of it for the community's good? With whom do conversations need to be held and who needs to agree to share this information for what purposes? Invite them to debate the trade offs and come to consensus for the larger good and taking on responsibility to share it with others. How often can and should these decisions be reviewed in your community?

5

How might you communicate the privacy, security, accessibility, and impact of the data to be collected and used with this new investment? Where do you communicate it? How do you build in the communication for opting out of participation on the data?

# 5.1

## Design Thinking Framework Application

This exercise was developed as part of the Build Opportunities for Expanded Co-Creation Tactic.

The goal of this worksheet is to initiate a process that strengthens collaboration, introduces tools, expands data sets and relationships, and builds familiarity of a new process for the community to build their own projects beyond the life of the initial project. This worksheet should be completed by the project team working with the community.

### Pre-read:

Design thinking is an adaptable process to develop solutions that work. It is based on the understanding there are diverse experiences and expertise that woven together can create a solution that works for the variety of end users of the product.

The process typically begins with some high level and sometimes ill-defined goals but collaboration brings questions, information, testing, and iterations that improve and sharpen the focus of desired outcomes. It is a combination of communication, research, production, and relationships that yield a product people come together around. It has been applied beyond traditional design fields to general problem solving, found in tech as the agile methodology.

There are many resources for learning this approach. One popular application is the Design Sprint. A process for developing digital and tech solutions using design thinking in a abbreviated format. Pilots and prototypes are key to learning and communicating.

1

Discovery is the stage of gathering information. While this work may have been done ahead of initiating this project, it should be revisited working with the community. List project goals, parameters, and targets on sticky notes. This information is gathered from funders, investors, and experts including the community. This is a key time to ask questions, gather additional data, explore what others do, and the the community and project team develop a fuller understanding of the challenge to be addressed.

2

The analysis stage evaluates discovered assets and gaps of Activity 1 and their impact on achieving set goals. At this stage decisions are being made around priorities, approach and areas for further exploration into ideas for solutions. Working together across community and project team, list the impact of the assets and gaps pulling from the information of Activity 1. What themes are emerging that are priorities, ways to approach the work and ideas for solving challenges? How do any of these connect with findings from Workshop 2.1 Activities 5-8?

3

Conceptual design is the stage where initial ideas explored and has three sub-steps. The first sub-step is to connect the dots and coming up with a few variations of how it could work. Each person should work individual to come up with 2-6 ideas. These ideas should be easily communicated in an elevator pitch or simple sketch on a post it note. The post it notes should be read as they are put up and grouped if similar. Everyone will be given 3 sticker dots to vote on their favorite ideas to move forward. The top voted idea(s) should have a small group of up to 6 individuals to go to the next sub step. The group will storyboard or map a series of steps to examine the interaction of the end user with the designed solution. Once that feels right to the team, a more tangible mock up of the solution is created as the last sub-step. This might be a series of images, a physical or digital model, or a pilot to explore as a proof of concept. Describe the mock(s) up for your project(s) here:

4

Map out what you want to learn with the mock up/ pilot/ proof of concept. What assumptions were made about amount of effort, time, resources, end user steps and impact? Outline a timeline for developing iterations for rapid learning and improving. The discovery and analysis stage will be revisited with new learnings as well as moving through the conceptual design and its sub-stages as much as needed until there is confidence in the solution to warrant a larger investment to scale up and achieve desired results. Track each mock up and key learnings at each stage below:

5

Implementation, evaluation, scaling up and closing out. Implementation is achieved with the necessary buy in and support are achieved through the process to build it out. Consistent evaluation is key to also identify opportunities to scale up and when to close out a project. Use the space below to outline metrics that would indicate the need for both scenarios.

Scale Up:

Close Out:

## 5.2

# Rules of Engagement/ Group Agreement Exercise

This exercise was developed as part of the Build Opportunities for Expanded Co-Creation Tactic.

This worksheet provides guidance to set the tone for collaborative work sessions with the community and other stakeholders. It is intended to set the group up for ongoing relationships outside and beyond the scope of this project. This worksheet should be completed by the project team working with the community.

### Pre-read:

Group agreements set the tone and expectations for collaborative conversations and work. This set of agreements are developed by the people working together as to how they want to work together. They serve as guidance and reminders for the moments when collaboration feels more challenging.

Typically the conversation begins with common group agreements. These are then modified and added on to by the group to build a sense of ownership of how they will keep the work moving forward.

1

Collaborative and creative spaces are most successful when all participants join with a growth mindset. “We are all participants, experts, and learners” is a phrase that starts to capture this. How else might you frame and nurture this concept with the group?

2

These spaces and conversations also do best when everyone feels able to speak up, share their knowledge and ideas, and be heard. When everyone joins with a different personality, culture, and comfort level, how might you facilitate this ability to gain from everyone’s voice being heard?

3

This work will also be in need of energy and new approaches, ideas, and thinking. How will you bring that into the space and make it infectious so that others are bravely sharing their “out there” ideas? How can the tone stay positive? How can you get your most practical skeptics to use “Yes, and ...” rather than “But...” to facilitate a expansive mindset when it is needed to bring change?

4

Rabbit holes, wild goose chases, and cans of worms are idioms that describe what could easily happen in collaborative and creative working sessions. How can you help keep the group’s focus, energy, and attention on the challenge you are trying to address?

5

Occasionally, particularly when a group is composed of people unfamiliar with working with each other or the groups or roles of people in the room, there is an underlying fear or distrust. How might you encourage participants to defer judgment while encouraging them to be brave enough to ask clarifying questions while the helping other participants grow in accountability to the goals of the work?

6

What else should be considered to make this group optimize their time together to achieve goals? Make space for participants to add to the list of group agreements.

# Appendix, Case Studies:

## Co-Created Smart City Tactics at Work

**This section includes examples of each co-creation smart city tactic used in real projects.** It is common for these example projects to potentially fit multiple tactics. A single tactic is selected per project to take a tangible applied learning approach. This section began with Charlotte's North End Smart District (NESD) to share initial inspiration. Following the thread of co-creation, feedback was enlisted, and the number one idea was to enable other cities to share their own co-creation stories on this theme. A second version of this document is intended to come out in early 2025 and will include case studies from other cities. To submit your own case studies, [please complete this form](#) by November 30, 2024. The City of Charlotte will also add more recent examples to the second version.

### **CASE STUDIES 1. Define the Need and Provide the Service**

[A. Charlotte: NESD Smart Homes Kick-Start](#)

### **CASE STUDIES 2. Discover and Amplify Others' Strengths, Roles**

[A. Charlotte: NESD Tech Charlotte Kick-Start](#)

### **CASE STUDIES 3. Focus the Communication, Outreach and Engagement**

[A. Charlotte: NESD Community Engagement Kick-Start](#)

### **CASE STUDIES 4. Make Participation a Real Choice**

[A. Charlotte: NESD Behavior Pattern Artificial Intelligence Community Testing Request](#)

### **CASE STUDIES 5. Build Opportunities for Expanded Co-Creation**

[A. Charlotte: NESD Build Your Own Kick-Start](#)

#### **Each case study is one page long and includes:**

The project name, location, lead agency name, whether a project was a technology or an initiative around a project, primary effort of the technology or initiative, smart city service category, smart city impact type, data collection method and use type, equitable outcome, scale, project stage, project status, date started, date completed, total spent/cost/budget, funding source, contact(s), partner types, brief description (what, why, how), key metrics on outcomes, and partners.

Descriptions touch on the vision, project activities, data, and longer-term outcomes.



## Tactic 1. Define the Need and Provide the Service

### CASE STUDY 1.A. NESD SMART HOMES KICK-START

<p><b>Location:</b> The North End, Charlotte, NC, USA</p>	<p>In 2011, the North End was coined the “Applied Innovation Corridor” to leverage public-private investments and attract the tech and innovation sector. The North End had not seen much investment between the 1960s to 2010s.</p> <p>To demonstrate a path toward this goal, the city explored local data on topics around climate change, digital inclusion and community engagement, which revealed households had a higher energy burden.</p> <p>Working with the Office of Sustainability, the Urban Design Center, Duke Energy, and the North End Community Coalition a 9-month preparation and 12-month implementation and measure program was established. This Smart Home kick-start project leveraged Duke Energy’s basic weatherization program to set important groundwork in 70% of the older single-family household stock. Forty-five homes were identified in the process to qualify for the city’s Safe Home program for critical repairs. The city, community leaders, and local utility company then worked together to better understand root causes, leverage connections, refine project goals, and set a course of action. Education and digital tool access were identified as resident needs to reduce energy use and costs in the long term.</p> <p>Hosting a couple of demonstration meetings for residents to learn about the project, 32 households elected to participate in the program and received a smart home device bundle (through Amazon and Intel) and ongoing community training and friendly competitions on cost-savings measures through RETI. Devices included an Alexa echo dot hub, a smart thermostat, smart light bulbs, smart power strips, and smart switches. Residents completed monthly surveys and Duke Energy shared energy use data with UNC-Charlotte to evaluate impact.</p>
<p><b>Lead Agency:</b> Urban Design Center &amp; Office of Sustainability City of Charlotte</p>	
<p><b>Project Type:</b> Technology &amp; Initiative</p>	
<p><b>Project Sub Type:</b> Digital Access of Civic Tech</p>	
<p><b>Service Category:</b> Energy Efficiency</p>	
<p><b>Smart City Impact Type:</b> Policy or Practice Update</p>	
<p><b>Technology/Data Type:</b> Meter &amp; User Survey</p>	
<p><b>Equitable Outcome:</b> Maintain Affordability</p>	
<p><b>Scale:</b> Up to 40 Households</p>	
<p><b>Project Stage/Status:</b> Closed Out/Complete</p>	
<p><b>Date Started:</b> March 30, 2017</p>	
<p><b>Date Completed:</b> March 31, 2019</p>	
<p><b>City Spent:</b> \$14,081.27</p>	
<p><b>Funding Source:</b> Grant, Philanthropic</p>	
<p><b>Contact(s):</b> Rachel Stark, PLA City of Charlotte <a href="#">LinkedIn</a></p>	<p><b>Key Metrics on Outcomes:</b></p> <ul style="list-style-type: none"> <li>• 3% energy cost savings, savings that were reported to have helped residents with other costs such as groceries, home improvement, medicine, and debt relief.</li> <li>• Self-reported stronger community relationships.</li> <li>• City approach to climate change solutions for residences.</li> </ul>
<p><b>Partner Types:</b> Community, Government Departments, Local Companies, Local NPOs, Universities/Academia</p>	<p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• City of Charlotte, Urban Sustainability Directors Network – Partners for Places, Knight Foundation, North End Community Coalition, UNC-Charlotte, Residents of the North End, Duke Energy, Amazon, Intel, RETI.</li> </ul>

## Tactic 2. Discover and Amplify Others' Strengths, Roles

### CASE STUDY 2.A. NESD TECH CHARLOTTE KICK-START

<p><b>Location:</b> The North End, Charlotte, NC, USA</p>	<p>The North End Smart District kick-start projects were all time and budget bound to less than two years. Knowing both that limitation and the ongoing support the community would need beyond the projects, the city was intentional in building the community's capacity. This meant facilitating direct relationship among the community leaders, partner companies and philanthropic groups. It meant leaning on the long-term direction the community leaders wanted to go.</p> <p>The initial concept was to establish a community computer lab as the district lacked its own library branch. The North End Community Coalition (NECC) was already established to provide connections and classes to support known community needs, but it lacked a designated and centralized space for residents of the eight neighborhoods to meet. The shared end goal was to have a designated space for NECC that would include providing digital resources (digital literacy training and borrowable tablets and hotspots).</p> <p>This was accomplished through the NEST, located at Camp North End. NECC received subsequent funding through the Knight Foundation and other partners to continue to grow its digital resource and other programming work. Groups such as Atrium Health, Lowe's Home Improvement, AvidXchange, and the Center for Digital Equity continue to work directly with NECC to better serve the local population and support the NECC's work.</p>
<p><b>Lead Agency:</b> Mayor's Youth Employment Program &amp; Community Engagement City of Charlotte</p>	
<p><b>Project Type:</b> Technology &amp; Initiative</p>	
<p><b>Project Sub Type:</b> Digital Access of Civic Tech</p>	
<p><b>Service Category:</b> Information</p>	
<p><b>Smart City Impact Type:</b> Policy or Practice Update</p>	
<p><b>Technology/Data Type:</b> User Survey &amp; Enrollment or Election by End User</p>	
<p><b>Equitable Outcome:</b> Content Creation or Controlling Own Story</p>	
<p><b>Scale:</b> District</p>	
<p><b>Project Stage/Status:</b> Maintaining/Management</p>	
<p><b>Date Started:</b> July, 2017</p>	
<p><b>Date Completed:</b> July, 2018</p>	
<p><b>City Spent:</b> \$39,600</p>	
<p><b>Funding Source:</b> Grant, Philanthropic</p>	
<p><b>Contact(s):</b> Rachel Stark, PLA City of Charlotte <a href="#">LinkedIn</a></p>	<p><b>Key Metrics on Outcomes:</b></p> <ul style="list-style-type: none"> <li>• First 3 meetings with from 2 residents to 8 and then to 20 to build up influence network and community connections.</li> <li>• 31 residents complete basic computer skills training course and take home a laptop.</li> <li>• Over 100 households connected to internet for 12 months.</li> <li>• 56 youth connected to tech field, internships, and jobs.</li> <li>• 1 centralized community space (still in use in 2023).</li> <li>• At least 4 resident leaders representing and speaking at out-of-town conferences.</li> </ul>
<p><b>Partner Types:</b> Community, Government Departments, Local Companies, Local NPOs</p>	<p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• City of Charlotte, Urban Sustainability Directors Network – Partners for Places, Knight Foundation, OrthoCarolina, North End Community Coalition, UNC-Charlotte, Gokötta, Camp North End, Hygge, Google Fiber, Road to Hire, Digi. Bridge, Woodforest Bank, E2D, BLKTECHCLT, Girls Who Code, Center for Digital Equity (formerly Digital Charlotte), Sol Nation, Applesauce Group.</li> </ul>

## Tactic 3. Focus the Communication, Outreach and Engagement

### CASE STUDY 3.A. NESD COMMUNITY ENGAGEMENT KICK-START

<p><b>Location:</b> The North End, Charlotte, NC, USA</p>	<p>Rezoning community meetings, town halls, and capital project public engagements had limited and inconsistent data on community participation. Residents often said “community” feedback was not coming from residents in the impacted neighborhood and that they were not made aware of proposed changes. Additionally, there are community tensions in neighborhoods that were seeing new single-family or townhome housing stock, demographic, and economic changes.</p> <p>By starting with the established and recognized resident leaders and asking them to invite other influential residents from their neighborhoods, we were able to respect, recognize and connect the community. These advisors shaped the message, outreach methods, participation data collection and use, identified and removed barriers to participation, and identified hyper-local vendors to support the project.</p> <p>We leveraged a traditional townhall and a partner program kick-off to introduce the project and approach. We also used Duke’s door-to-door work to identify residents who wanted to be contacted about city events and activities. We hosted three community wide events, 1) a kick-off that featured <a href="#">a video of the project vision</a> created by the neighborhood leaders, 2) a midway check-in, both with dinner, demo, and project input session, and 3) a family-friendly celebration with food, music, dinner, and giveaways.</p>
<p><b>Lead Agency:</b> Urban Design Center, City Manager’s Office, &amp; Office of Sustainability City of Charlotte</p>	
<p><b>Project Type:</b> Initiative</p>	
<p><b>Project Sub Type:</b> Planning &amp; Engagement of a Smart City Tech</p>	
<p><b>Service Category:</b> Information</p>	
<p><b>Smart City Impact Type:</b> Policy or Practice Update &amp; Information Accessibility</p>	
<p><b>Technology/Data Type:</b> User Survey &amp; Enrollment or Election by End User</p>	
<p><b>Equitable Outcome:</b> Content Creation or Controlling Own Story</p>	
<p><b>Scale:</b> District</p>	
<p><b>Project Stage/Status:</b> Closed Out/Complete</p>	
<p><b>Date Started:</b> November, 2016</p>	
<p><b>Date Completed:</b> August, 2018</p>	
<p><b>City Spent:</b> \$81,000</p>	
<p><b>Funding Source:</b> Grant, Philanthropic</p>	
<p><b>Contact(s):</b> Rachel Stark, PLA City of Charlotte <a href="#">LinkedIn</a></p>	<p><b>Key Metrics on Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Over 300 contacts for outreach about NESD activities (10% of households, up from 2%).</li> <li>• 5 community-wide events held with approximately 100 residents in attendance each time.</li> <li>• Approximately 60 residents involved in shaping the 5 kick-start projects consistently for a year.</li> <li>• Guidance and tools for community engagement for other city staff covering everything from data to event planning.</li> <li>• At least 10 residents volunteered their time to support similar initiatives who had not volunteered in the past.</li> </ul>
<p><b>Partner Types:</b> Community, Government Departments, Local Companies, Local NPOs</p>	<p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• City of Charlotte, Urban Sustainability Directors Network – Partners for Places, Knight Foundation, North End Community Coalition, Gokötta, Residents of the North End, Camp North End, Duke Energy, Hygge, The Bulb, Chef Jeff, Applesauce Group, Austin Caine Photography, Druid Hills Academy, CN Jenkins Memorial Presbyterian Church, Mecklenburg County Park &amp; Recreation, Our Lady of Consolation, St. Luke Missionary Baptist Church.</li> </ul>

## Tactic 4. Make Participation a Real Choice

### CASE STUDY 4.A. NESD BEHAVIOR PATTERN AI COMMUNITY TESTING REQUEST

<p><b>Location:</b> The North End, Charlotte, NC, USA</p>	<p>Researchers from a local university computer science department were required by a National Science Foundation grant application process to engage local residents in their tech development process. They reached out to the city’s project team to ask for the team’s support and help connecting to the NESD residents and community leaders.</p> <p>The city participated in several meetings to learn about the project, share public participation best practice, lessons learned around smart city projects in the community, and refine the project messaging to be more easily consumed to get feedback from community leaders.</p> <p>Community leaders and influencers were invited to the initial meeting with UNC-Charlotte with the city hosting. They were encouraged to provide open, honest feedback as they had been giving in the sessions with the city to shape the NESD project. Direct questions, criticisms, requests for more information, and parameters were outlined in that call. The city was prepared to support the community leader’s decision and direction fully. The result was that the researchers incorporated the parameters in their project approach and applied it to their work with other communities. The project was rejected for the North End area by the community leaders when the final direction of the project did not align with the community’s goals or address their concerns around behavior-based AI could still result in a disparate outcomes of enforcement.</p>
<p><b>Lead Agency:</b> Geography &amp; Computer Science Departments, UNC-Charlotte</p>	
<p><b>Project Type:</b> Technology</p>	
<p><b>Project Sub Type:</b> Real Time or On Demand Data Collection &amp; Use</p>	
<p><b>Service Category:</b> Safety &amp; Security</p>	
<p><b>Smart City Impact Type:</b> Operations</p>	
<p><b>Technology/Data Type:</b> Video Camera, AI, Alert Notification</p>	
<p><b>Equitable Outcome:</b> Shaping Data Parameters</p>	
<p><b>Scale:</b> District</p>	
<p><b>Project Stage/Status:</b> Closed Out/Complete</p>	
<p><b>Date Started:</b> Late 2017</p>	
<p><b>Date Completed:</b> Spring 2018</p>	
<p><b>Cost:</b> N/A</p>	
<p><b>Funding Source:</b> Grant, Philanthropic</p>	
<p><b>Contact(s):</b> Rachel Stark, PLA City of Charlotte <a href="#">LinkedIn</a></p>	<p><b>Key Metrics on Outcomes:</b></p> <ul style="list-style-type: none"> <li>• UNC-Charlotte researchers were awarded the \$1.9 million grant by NSF.</li> <li>• The parameters of testing the technology only in campus or settings were invited by the community were heard and shared in public communications.</li> <li>• The technology development and testing did not take place in the North End, respecting the community’s decision which the city fully supported.</li> </ul>
<p><b>Partner Types:</b> Community, Government Departments, Local Companies, Local NPOs, Universities/Academia</p>	<p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• City of Charlotte, North End Community Coalition, UNC-Charlotte.</li> </ul>

## Tactic 5. Build Opportunities for Expanded Co-Creation

### CASE STUDY 5.A. NESD BUILD YOUR OWN KICK-START

<p><b>Location:</b> The North End, Charlotte, NC, USA</p>	<p>The Build Your Own Kick-Start project leveraged design thinking methods to create a community-led project. The impact of the work is improved knowledge, stronger relationships, and larger toolbox to meet goals.</p> <p>Flexibility of funders allowed the city to repurpose one of the five budgeted areas to shift from micro-transit to a “from scratch” project shaped by residents. This created the ability to act on concerns and ideas that typically get listed as a “parking lot” item. Residents were heard, as remarked upon in <a href="#">this project recap video</a>, leaders learned more about the challenges firsthand, and influential residents were connected to the tools, data, and people that could support these projects.</p> <p>At the NESD kickoff meeting, residents were given the opportunity to list what they would like to see in the community and given the opportunity to work individually and in small groups to come up with smart city project ideas. Interested parties were invited to create a design team for this kick-start that met monthly. The first four meetings looked at available data related to community goals gathered in the kickoff, voted on priorities, and developed messaging and the top ideas to bring back to the broader community for the midway check in. The focus after that meeting was to develop the strategy to achieve the winning goal to get fresh food access to the community. The project started as a more traditional farmers market and after three months, shifted to six months of a mobile food market that would go into each neighborhood.</p>
<p><b>Lead Agency:</b> Urban Design Center City of Charlotte</p>	
<p><b>Project Type:</b> Initiative</p>	
<p><b>Project Sub Type:</b> Planning &amp; Engagement of a Smart City Tech</p>	
<p><b>Service Category:</b> Health</p>	
<p><b>Smart City Impact Type:</b> Policy or Practice Update</p>	
<p><b>Technology/Data Type:</b> User Survey &amp; Enrollment or Election by End User</p>	
<p><b>Equitable Outcome:</b> New or Improved Service</p>	
<p><b>Scale:</b> District</p>	
<p><b>Project Stage/Status:</b> Closed Out/Complete</p>	
<p><b>Date Started:</b> July, 2017</p>	
<p><b>Date Completed:</b> November, 2018</p>	
<p><b>City Spent:</b> \$9,867</p>	
<p><b>Funding Source:</b> Grant, Philanthropic</p>	
<p><b>Contact(s):</b> Rachel Stark, PLA City of Charlotte <a href="#">LinkedIn</a></p>	<p><b>Key Metrics on Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Pivoting the approach to provide fresh food access resulted in a 700% increase in number of people served.</li> <li>• Over 4 projects (out of a list of 100 identified by residents) were implemented (a permanent farmers market that accepts and doubles EBT bucks, a senior prom for elderly community members to connect, traffic calming devices in the Lockwood neighborhood, and an embedded community healthcare provider and resource connector).</li> <li>• Neighborhood leaders were connected to additional training around design sprints to support their facilitation and project design and testing goals.</li> <li>• Group agreements were used in other city initiatives.</li> </ul>
<p><b>Partner Types:</b> Community, Government Departments, Local Companies, Local NPOs, Universities/Academia</p>	<p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• City of Charlotte, Urban Sustainability Directors Network – Partners for Places, Knight Foundation, North End Community Coalition, UNC-Charlotte, Gokötta, Residents of the North End, Camp North End, The Bulb, Friendship Trays, Lazy Heron Farms, Mecklenburg County Park &amp; Recreation.</li> </ul>



## NOTES

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