Tactical Data Engagement

City of Madison Pilot

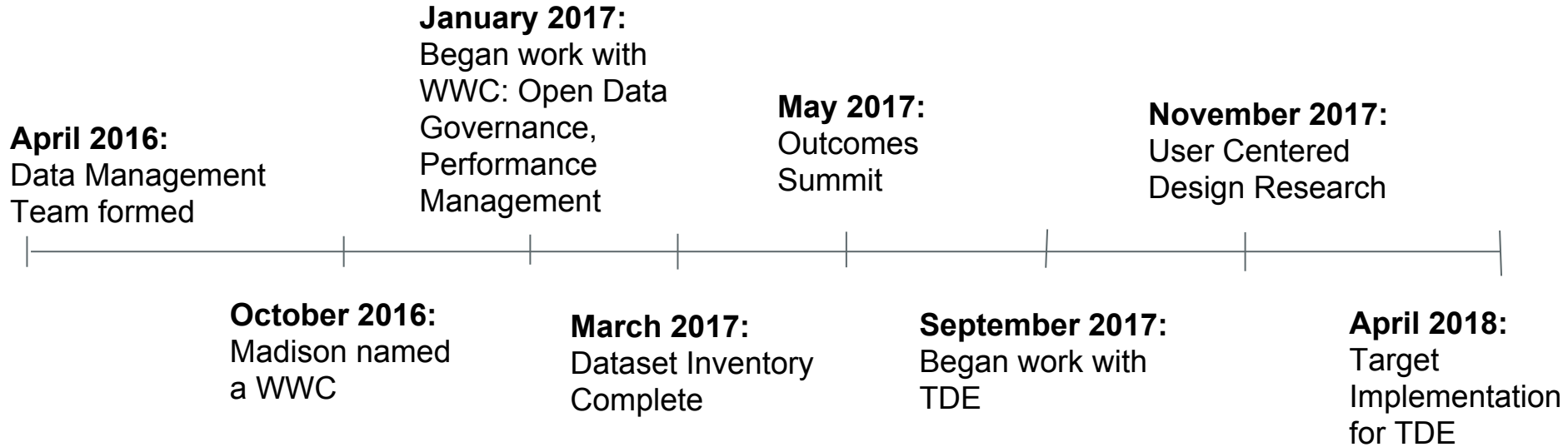# What is Tactical Data Engagement (TDE)?

Four step process designed to help cities go beyond open data policy and even open data portals, to facilitate opportunities for the community use of open data to improve residents' lives.

Find → Refine → Design → Implement

Why Open Data?

- Fundamental component of government transparency
- Enhances understanding of government decision-making
- Expands knowledge of government services and transactions
- Improves access to government processes and decision makers
- Facilitates non-government actors' ability to participate in government decision making
- **Supports non-government actors' ability to utilize empirical approaches to community problem solving**

Timeline Overview

April 2016:
Data Management
Team formed

October 2016:
Madison named
a WWC

January 2017:
Began work with
WWC: Open Data
Governance,
Performance
Management

March 2017:
Dataset Inventory
Complete

May 2017:
Outcomes
Summit

September 2017:
Began work with
TDE

November 2017:
User Centered
Design Research

April 2018:
Target
Implementation
for TDE

Madison's Open Data History

2012
Open Data Ordinance Passed

136
Datasets Published

832
Primary Datasets Inventoried

What Works Cities

"Leading cities across America are using data and evidence to improve results for their residents. What Works Cities helps cities build on the work they're doing—to go further with what they've got. "

Sunlight Foundation

The Sunlight Foundation is a national, nonpartisan, nonprofit organization that uses the tools of civic tech, open data, policy analysis and journalism to make our government more accountable to all.

Open Data Accomplishments through WWC

Establish a data governance team, processes, and resources to involve departmental decision makers in foundational and guiding decisions:
- Developed a comprehensive data implementation guide that outlines Madison internal guidance on key issues related to data inventorying, prioritization and release.
- Identified, collected, and reviewed metrics related to the success of the open data program.

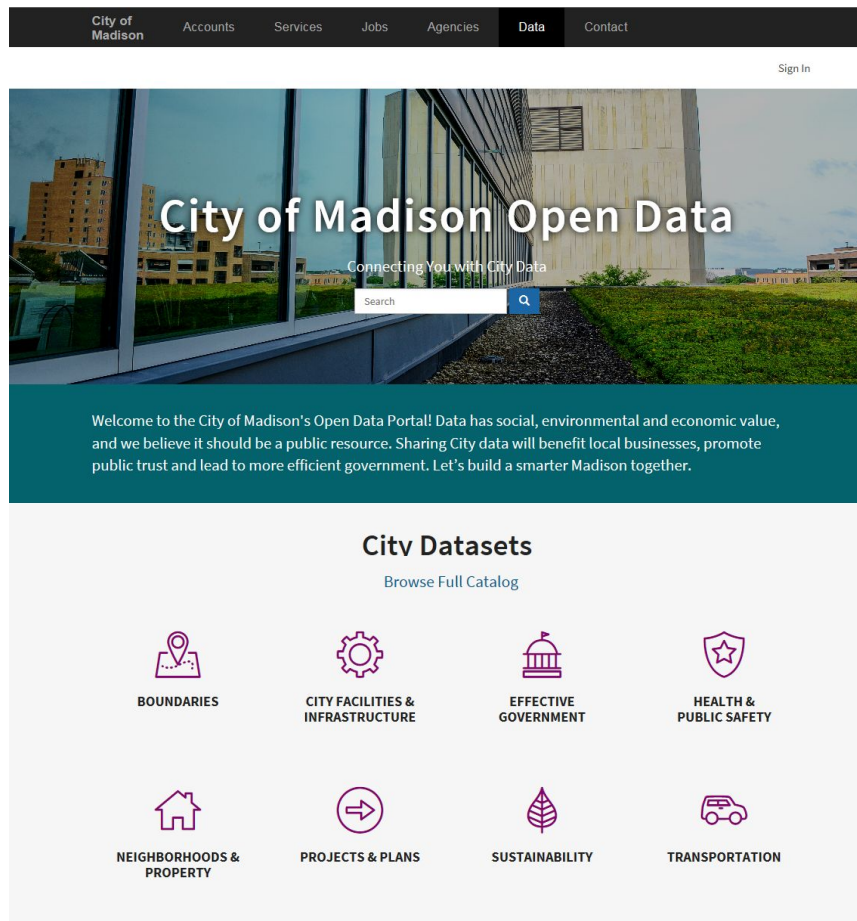Begin a comprehensive inventory of city's data resources:
- Completed comprehensive inventory of city data across departments and in coordination with data management workgroup.
- Used the inventory to inform performance analytics planning in coordination with Guidance Teams to develop citywide outcomes and indicators.

Review Open Data ordinance:
- Collaboratively reviewed the city's open data ordinance to provide recommendations for updates, based on best practices in municipal open data policy and Sunlight Foundation's open data policy guidelines.
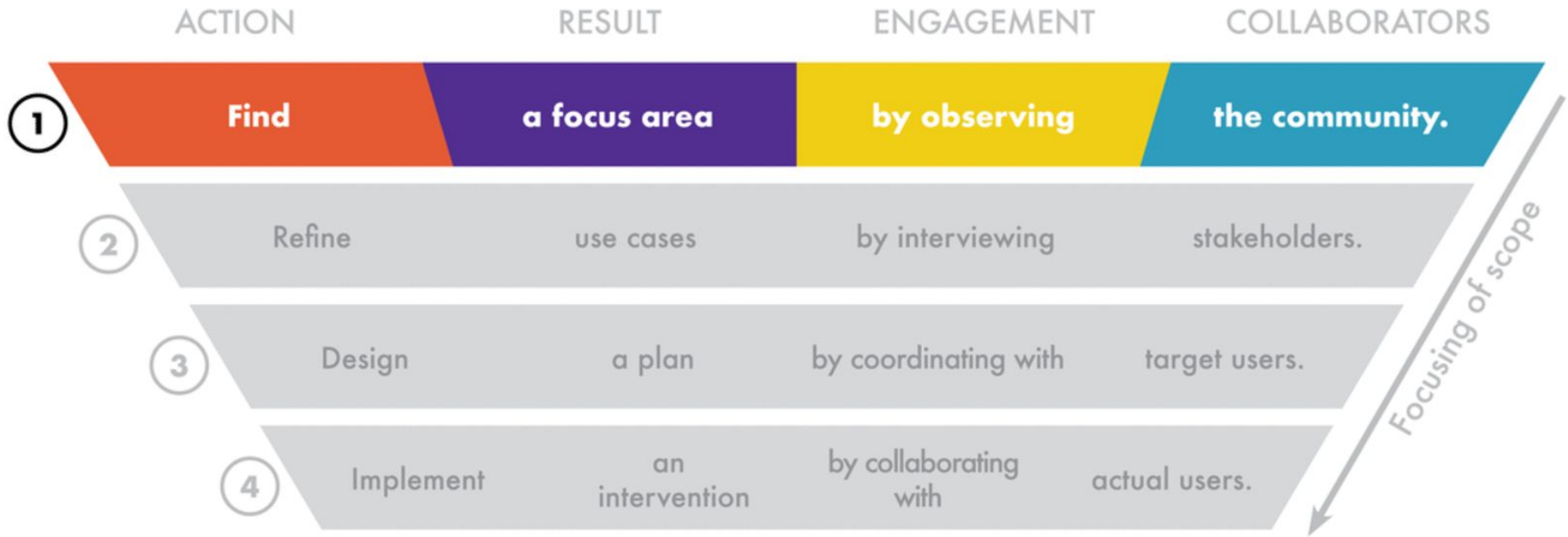
Relaunch Open Data Platform

- Out of the WWC engagement, the City started looking into relaunching the open data portal
- Go live September 2017
- www.cityofmadison.com/data
- ESRI Based Platform, which is familiar to existing staff who will publish to the portal
- Datasets are searchable based on a set of categories

Tactical Data: Making Open Data Impactful

Tactical Data Engagement Overview

	ACTION	RESULT	ENGAGEMENT	COLLABORATORS
1	Find	a focus area	by observing	the community.
2	Refine	use cases	by interviewing	stakeholders.
3	Design	a plan	by coordinating with	target users.
4	Implement	an intervention	by collaborating with	actual users.

Focusing of scope

Step 1: Find Phase

October 2017

Find Phase: Select a Tactic

Imagine Madison
People Powered Planning

Roadmap to Outcomes

- *Tactic Selected*: Observe popular meetings and public channels in September 2017
- *What we did*: The Data Management Workgroup and Sunlight Foundation reviewed Imagine Madison Phase 2 Community Feedback summaries and Roadmaps to Outcomes
- *Output*: Identified topics for the public to vote on

Find Phase: Survey the Public

- Topics included in the Survey:
  - Complete Neighborhoods
  - Economic Supports
  - Green Infrastructure
  - Public Safety
- October 2017 Survey Outreach:
  - Neighborhood Associations
  - Community Based Organizations
  - Alders
  - University

"We want to hear from you on how data is put to use! Help us to identify focus areas as we build our data."

Find Phase: Select Focus Area

- 93 respondents resulted in selecting the focus area of

  Complete Neighborhoods

"Since residents had asked Madison to prioritize complete neighborhoods – and internal conversations had highlighted opportunities to improve data practice around the City's efforts to address neighborhood well-being – choosing complete neighborhoods as a focus area aligned both internal and external stakeholders." -Sunlight Foundation

Step 2: Refine Phase

November 2017

Reboot

REBOOT Toward a 21st Century Social Contract

Reboot is a social impact firm dedicated to inclusive development and accountable governance. Reboot is a national leader on creating data "user personas" for social impact.

Refine Phase: User Centered Design Training

- In November 2017, Reboot trained Sunlight Foundation and City staff on User Centered Design

- The intent was to create a replicable process that City staff could use again in the future

Refine Phase: Research Overview

- The user centered design research sprint was intended to surface and understand current and potential data users working on issues related to access to services and community spaces, transportation, and housing, and their:
    - Perceptions of open data
    - Usage and access habits related to open data
    - Perceptions and knowledge of Madison's Open Data initiative
    - Needs related to using City of Madison open data to answer key questions and solve problems

Refine Phase: Interview Stakeholders

- Interviewees included community organizers, working data-driven professionals, business owners, civil servants, and individual problem-solvers.
- The goal in interviewing these stakeholders was to listen to their stories and understand how they received, used, or shared neighborhood-related information in Madison.
- 36 respondents participated in semi-structured, open-ended conversations generally one hour in length

Refine Phase: Interview Details

USER INTERVIEWS
36
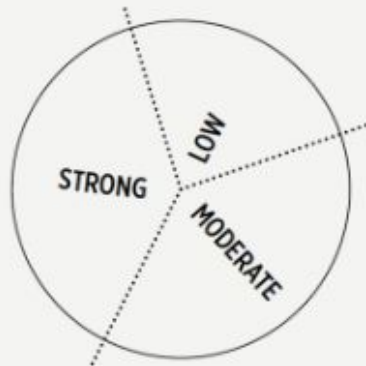
KEY INFORMANT INTERVIEWS
3

INTERCEPTS
5*

OPEN DATA EXPERIENCE

STRONG · LOW · MODERATE

MALE RESPONDENTS
54%

FEMALE RESPONDENTS
46%

INTERVIEW DURATION
60 minutes

DAYS IN MADISON
13

USER GROUPS

INDIVIDUALS PROBLEM-SOLVING	16%
COMMUNITIES ORGANIZING	16%
PROFESSIONALS INVESTIGATING	41%
BUSINESSES OPERATING	5%
CIVIL SERVANTS SERVING	22%

Refine Phase: Design Synthesis

High direct impact
on neighborhoods

Use information
in role

Use data
in role

Low direct impact
on neighborhoods
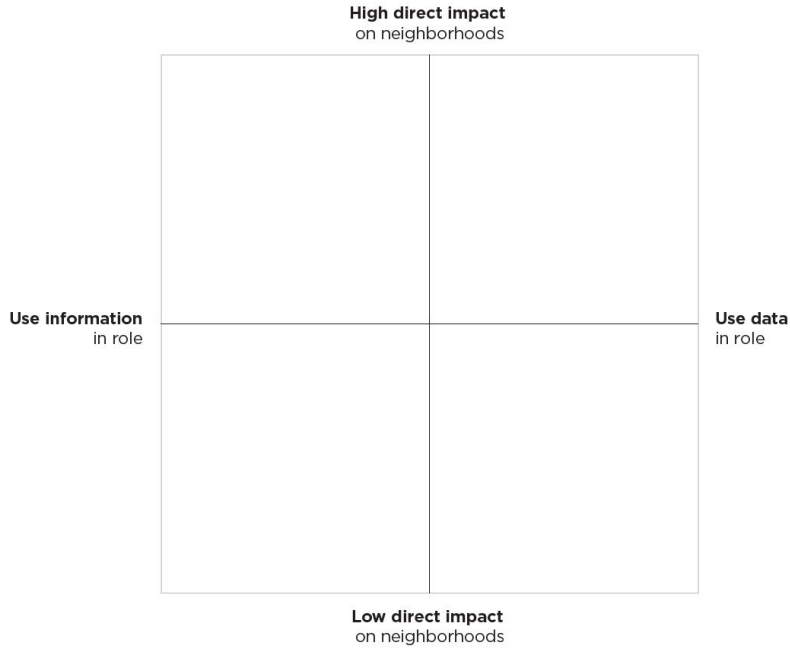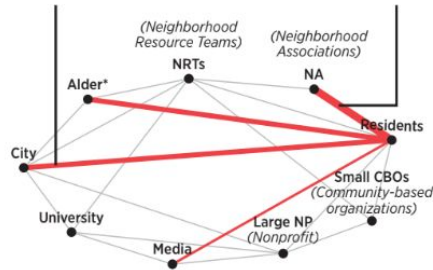
Step 3: Design Phase

January 2018

Design Phase: Understanding Madison's Data Users

Understanding visual elements

Connections between actors are noted with a line.

Thickness of the line indicates the strength of the connection.

(Neighborhood Resource Teams)
NRTs

(Neighborhood Associations)
NA

Alder*

Residents

City

Small CBOs
(Community-based organizations)

University

Media

Large NP
(Nonprofit)

Shading indicates if a user is able to use a data type.
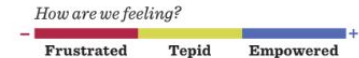
RAW   SPATIAL

INDICATORS   ANECDOTES

The data icon designates the use of data. Color of the icon signifies the type of data being used.

Data Input
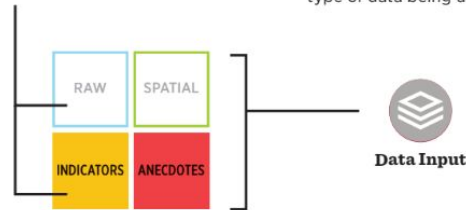
Difficulties experienced by users are denoted as pain points.

Pain Point

The color of the timeline represents a user's morale.

How are we feeling?

Frustrated   **Tepid**   **Empowered**

Design Phase: Who are Madison's Data Users?

Meet Madison's Open Data Users

THE **Community Activist**
Robert, 62

THE **Large Nonprofit Project Manager**
Anna, 47

THE **Small CBO Director**
Barbara, 41

THE **Connector**
Sylvia, 39

THE **Disseminator**
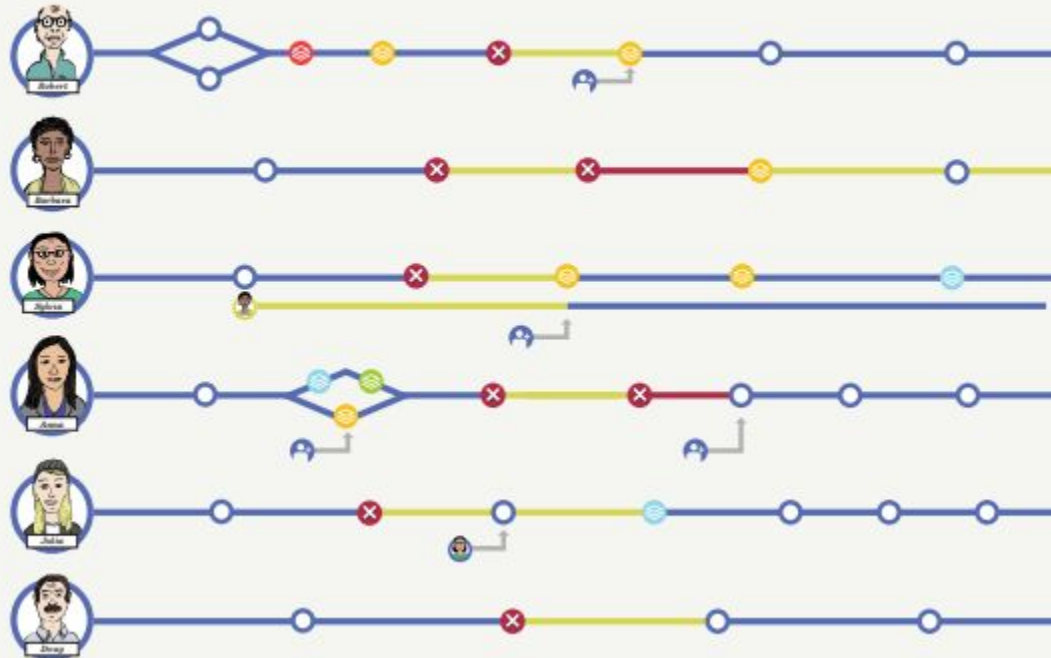Julia, 27

THE **City Staffer**
Doug, 43

Design Phase: User Journeys

Data Journeys

To further understand each of these personas, the research team mapped each persona's "data journey," highlighting how users interacts with data in their work.

The complete data journeys can be found here.

Design Phase: Opportunities and Challenges

Opportunities:

- Support Madison's Equity Agenda
- Advance complete neighborhoods for all Madison's residents
- Madison nonprofits and CBOs may not always have capacity, skills, resources, or experience to use data, or to use it more effectively
- Providing support to these organizations to use data can help them to serve their clients more efficiently, influence policy, and support efforts to secure funding

Challenges:

- Supply Side
  - Inconsistent standardization
  - Lack of metadata and appropriate data documentation
  - Lack of publicly designated point of contact for each dataset
- Demand Side
  - Lack of time, resources, capacity and experience for neighborhood development organizations to effectively use open data
  - Insufficient networks within city data owners to access data and/or metadata to make the city's open data usable
  - Insufficient networks with the connectors who can help access data and provide the necessary skills to acquire, analyse, and act on data

Design Phase: Summary of Key Findings

How Residents Acquire Information

Observations:

- Skilled data users know how to find the data they need
- Successful data users have the time and resources necessary to acquire data
- Academics, large nonprofits, and motivated community members are more likely to use data to inform action
- Awareness about Madison's open data portal is low, particularly among less skilled data users

Strategies to engage:

- Facilitate access to city and other data sources relevant to neighborhood development organizations
- Increase value and relevance of city data to neighborhood development organizations
- Increase user confidence in city data

Design Phase: Summary of Key Findings ctd.

How Residents Analyze Information

Observations:

- Successful data users either have or can access the technical expertise to analyze data
- Successful data users know who is responsible for collecting and maintaining data for the city, and are able to reach out to them for clarification

Strategies to engage:

- Establish points of contact for city data sources so that people know who to contact about data
- Enhance interpretability of city data
- Connect low capacity CBOs to technical expertise

Design Phase: Summary of Key Findings ctd.

How Residents Act on Information

Observations:

- Successful data users have access to data at the granularity they need it
- Successful data users utilize multiple sources of data to improve their analysis and make their arguments more compelling
- Successful data users, in addition to their technical skills acquiring and analyzing data, are also strong communicators

Strategies to engage:

- Publish more indicator data, catered to CBO needs
- Highlight successful data to action use cases

Step 4: Implement Phase

April 2018

Implement Phase: Create a Data Toolkit

- The data toolkit will support applicants to the Office of Juvenile Justice and Delinquency Prevention Safe and Thriving Communities Grant.
- We're piloting this approach to potentially replicate in future funding processes assisting CBOs to leverage open data in the RFP process.

MADISON'S NORTHSIDE: A SAFE AND THRIVING COMMUNITY

Working to prevent and interrupt youth violence and victimization on Madison's Northside, while engaging in restorative work for young people who have been involved in and affected by violence.

Questions?

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