



San Francisco Office of the City Administrator

Human Centered Design and Innovation

Public Safety and Neighborhood Services Committee

Board of Supervisors

May 13, 2021

Question 3.

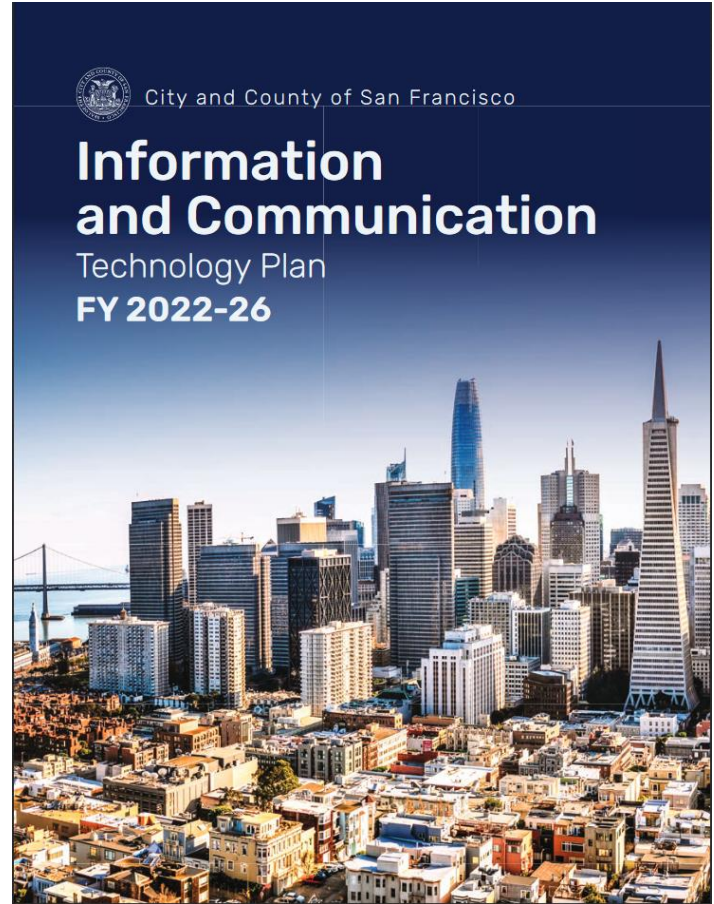
The City has a 5YR Information and Communication Technology Plan + Digital Equity Playbook.

What are the goals of the plan and what is the status of the implementation of this plan?

FY 2022-26 ICT Plan

The purpose of the five-year Information and Communication Technology (ICT) Plan is:

- **Financial Document:** Identify upcoming technology investments and set appropriate allocation levels.
- **Strategic Plan:** Organize City operations towards citywide goals.



Program Strategies

The FY 2022-26 ICT Plan includes strategies for:

- Digital Equity
- Digital Services
- Innovation
- Network and Data Centers
- Cybersecurity
- Technology Procurement

Technology Assessments

In the development of the ICT Plan, COIT staff conducts the following citywide analysis:

- **Financial:** 1) Overall technology budget and staffing trends and 2) Department's anticipated technology projects in next five years.
- **CIO/CFO Survey:** Comprehensive survey on accomplishments and opportunities. Topics include Innovation, Digital Services, Data & Analytics, Cybersecurity, Data Storage, Network, Procurement, Hiring.
- **Employee/Resident Survey:** Identify opportunities and feedback.
- **New - Service Inventory:** Digital capacity of all resident facing services.

Key Findings

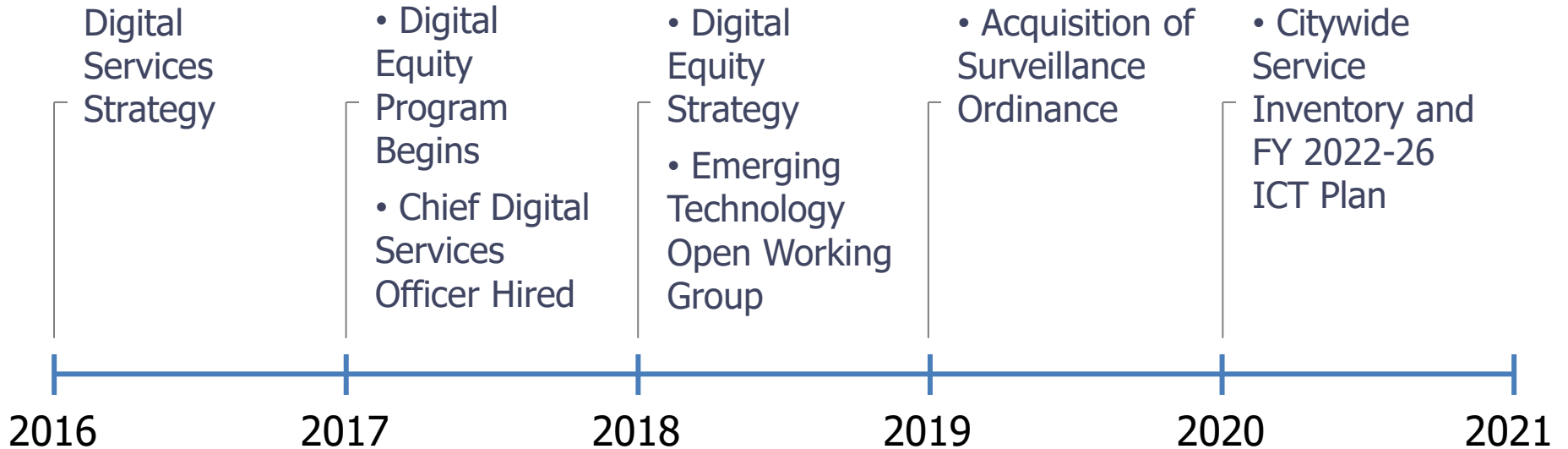
- Out of 967 resident facing services, only 194 are mobile accessible and designed to be used by people with disabilities or other barriers.
 - Only 42 services designed to be seamless across the City, rather than reflect department silos.
- The City & County of San Francisco has 200+ websites.
- 55% of users are on a mobile device.
- For City sites migrating to sf.gov, reading levels start at 11th grade.
- The top three technology problems reported by departments are consistently:
 - Legacy Systems & IT Infrastructure;
 - Hiring;
 - Procurement.

FY 2022-26 ICT Plan Goals

Vision: Government services that are universally accessible in times of crisis and beyond

- **Goal 1:** Online and Accessible Services Residents Can Use
- **Goal 2:** City Operations that are Efficient and Cost-Effective
- **Goal 3:** IT Infrastructure You Can Trust

COIT Strategy Timeline



What's Next?

Service Transformation: Facilitate adoption of innovation technical to improve services across all departments.

- User Research & Testing
- Prototyping
- Agile Training
- Iterative Development Cycles

Organizational Changes: Central agencies to provide standards and consistency across the City.

- Platforms
- Shared Services
- Standard Practices
- Rules & Regulations

Question 1.

What is your Department's role in the design and implementation of City services?

Technology Leadership

Today's Hearing:

- COIT
- Digital Services
- Office of Civic Innovation
- Department of Technology

Other Leaders:

- Mayor's Office of Housing and Community Development Digital Equity Manager
- DataSF
- Controller
- Department Leadership

Committee on Information Technology



Matthias Jaime
Director



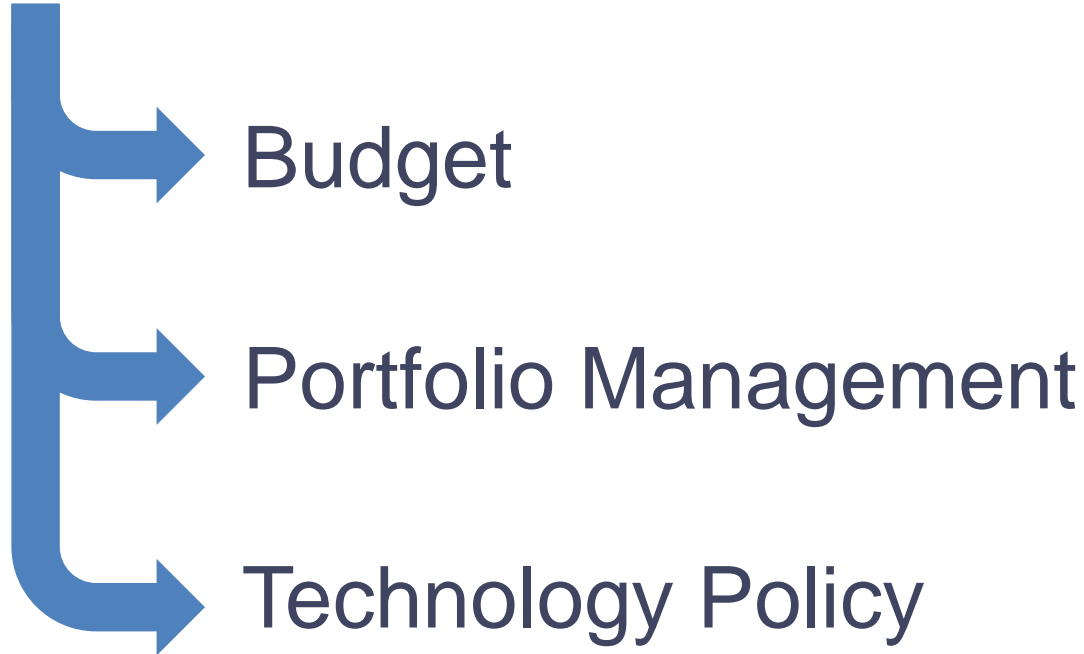
Emma Fernandez
Policy Analyst



Julia Chrusciel
Privacy Analyst

Committee on Information Technology

ICT Plan



DEPT	TITLE	DESCRIPTION	KPI
DHR	Hiring Modernization Project	Modernize and digitize the City's hiring process.	Reduce overall time-to-hire from estimated average of 118 days.
DEM	Automated Fire Station Dispatching	Text to voice capability for 911 Fire/EMS dispatches.	By July 2020, 90% of dispatch interval of emergency response will be reduced from 3.5 to 2.0 minutes.
TTX	Commercial Real Estate Database	Match each building space to occupant information from existing record.	Increase commercial tax revenue of \$100,000 for the properties in the commercial real estate database within six months of the database going live in FY 2018-19.

Question 2.

Technology changes very rapidly.
How often are we assessing our digital infrastructure
and making necessary updates and changes?



6 Key Elements of Digital Infrastructure

The City continually assesses City Digital Infrastructure based on business drivers such as:

- Service Delivery for Residents
- Improved Business Process & Capability
- Cybersecurity
- Cost
- Risk (resiliency, redundancy, DR)
- Value – ROI and Total Cost of Ownership



Results

- **Access**
 - › Implement Identity and Access Management
- **Tools and Technologies**
 - › Next Generation Network delivers performance, capacity, and cost savings
 - › Voice Over IP (VoIP) supports a mobile workforce
 - › Hybrid Data Center provides on-premise and choice of 3 commercial cloud providers
 - › Legacy mainframe retirement saves \$2M/yr
 - › 800 Mhz Radio Communications expands public safety and city operations
 - › Upgraded and modernized business systems enable CON, ASR, TTX, DPH (Epic), DEM (911)



Results

- **Data**
 - › DataSF Team and Depts create Data Analytics, Models and Dashboards to improve decision support and transparency
- **Resourcing Models**
 - › Leveraging DT Enterprise License Agreements saves \$3.7M
 - › Shared Services & Enterprise systems increases ROI of City tech investments
- **Skills**
 - › On-demand Teams training created remote workers overnight
- **Rights & Equity**
 - › Virtual Meetings expand attendance and provide disability access
 - › Fiber to Housing Initiative delivers Internet Service to Close the Digital Divide



Question 4a.

- How is user feedback on customer service experience solicited?
- What is being done to ensure that feedback is being solicited from communities with limited access to technology or communities that are currently not accessing these services?
- Feedback from communities who have language barriers?

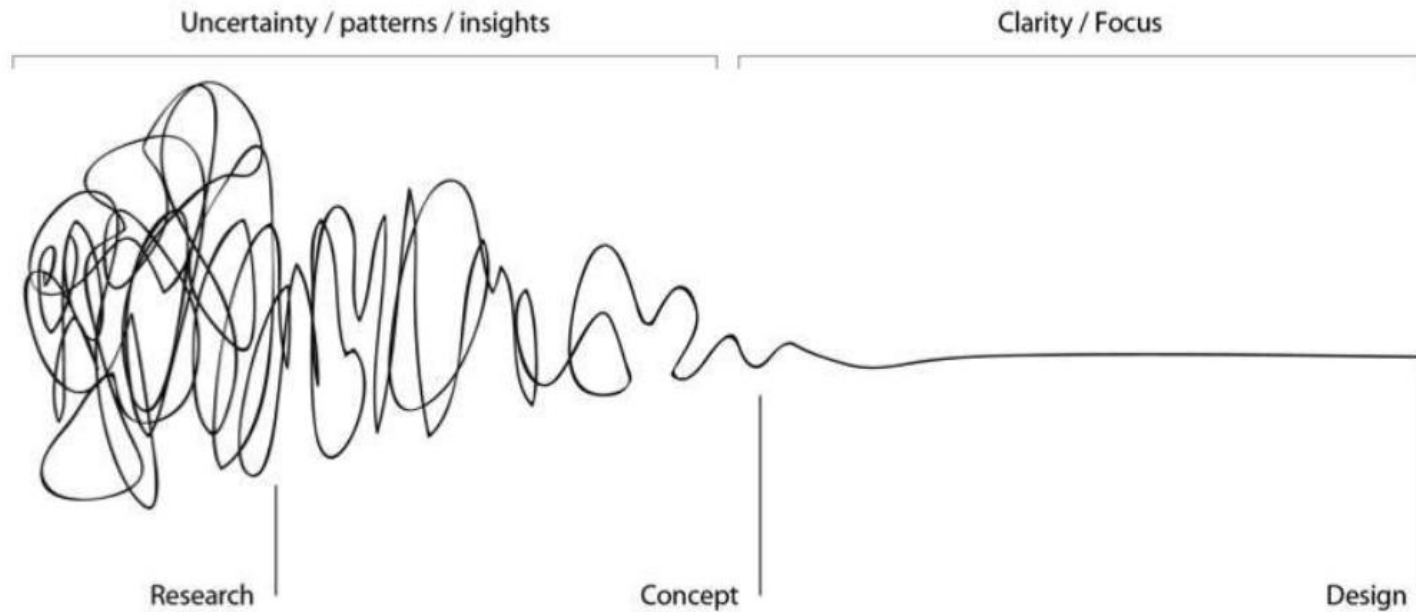
Digital Services uses human centered design methods to improve city services

About Digital Services

Report to the City Administrator and work on Citywide projects including permitting, housing, and Covid-19 response.

Focus on helping San Franciscans can get things done with the City online

We start with humans - technology is secondary!



The Squiggle by Damien Newman, Central Inc.

San Franciscans are at the heart of sf.gov

Secure .gov domain is harder to imitate

Accessible for residents with disabilities

5th Grade reading level standard

Human translated for vital information

Mobile-first - San Franciscans use a range of devices to access the internet

Affordable for residents who experience 'data-poverty'

Feedback and research with residents are core to our work.

We get feedback in 4 ways.

We get direct feedback and data on sf.gov

Analytics on each page and with each service

'Was this helpful?' on each page

Free text feedback block on each page

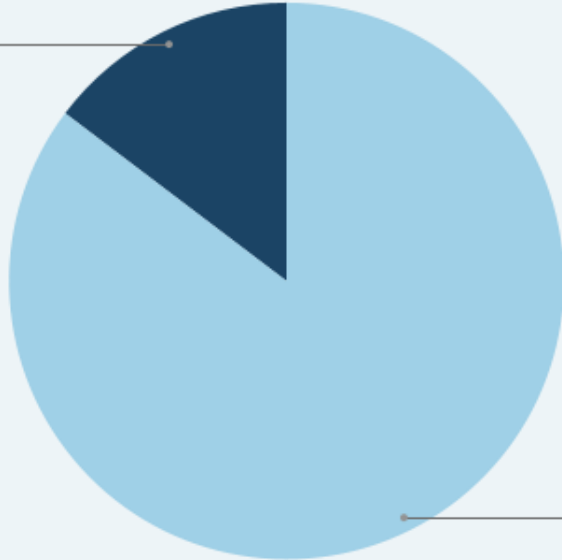
Was this page helpful?

Yes

No

Percent who found SF.gov pages helpful

No
14.7%



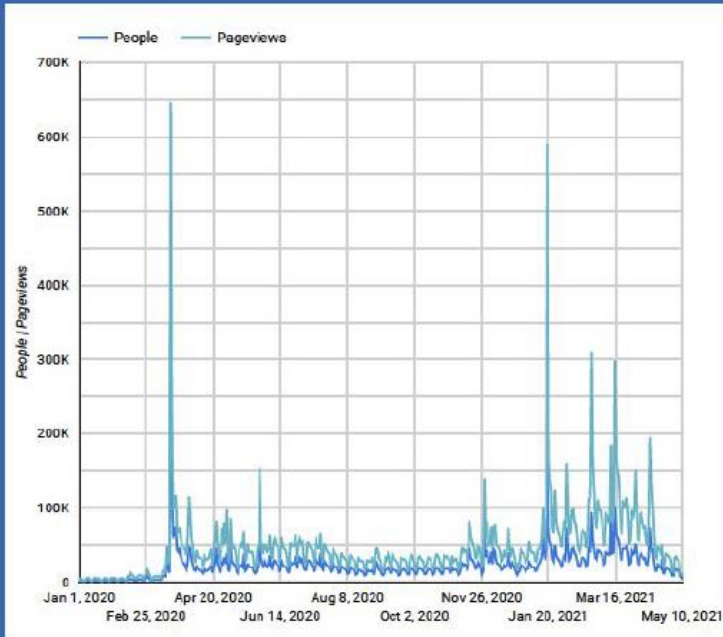
Yes
85.3%

5200
responses/month

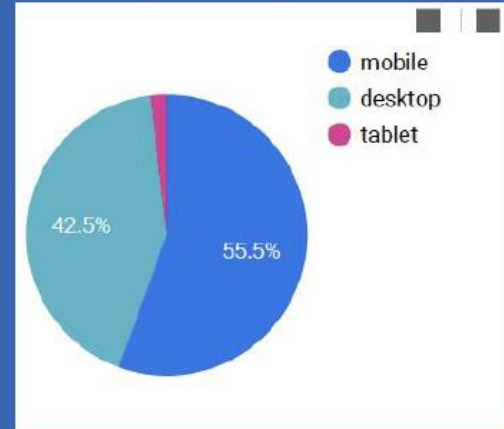
Jan 1, 2020 - May 10, 2021

Page

People and Pageviews



Devices Used to Access the Site



Note: Spikes start with the Mayor announcing shelter-in-place. Dates are from the start of the year.

People*: # of unique tracking cookies through a web browser (Chrome, Firefox, Explorer, etc.) that visits the website.

Pageviews: # of unique tracking cookies. If someone goes to a different page and then returns to the original page or refreshes the original page then an additional pageview is counted.

We listen to San Franciscans

Dedicated researcher on staff with our Service Design team

Bilingual designers on staff and use of interpreters

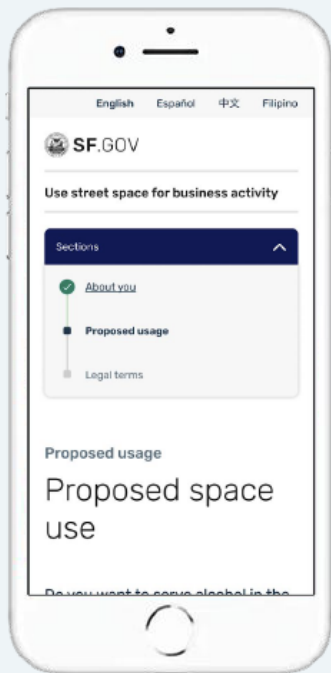
Pre-pandemic intercepts at the main library

Focused research with specific groups (ex: housing seekers)

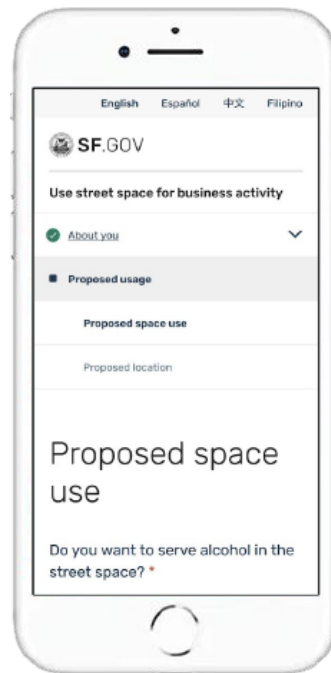
In-language interviews

Both detailed usability testing **and** qualitative design research

Navigating forms on a phone



"What isn't clear is even though there's 3 sections, what if section 2 has a lot of questions, then you wouldn't know."



"It's helpful to see this breakdown."

Pandemic Early Days & Weeks

Shared Spaces Temporary

Permanent

1. TRIAGE

2. GENERATE INCOME

3. SHARE: INFO, RESOURCES

4. ASSESS VALUE

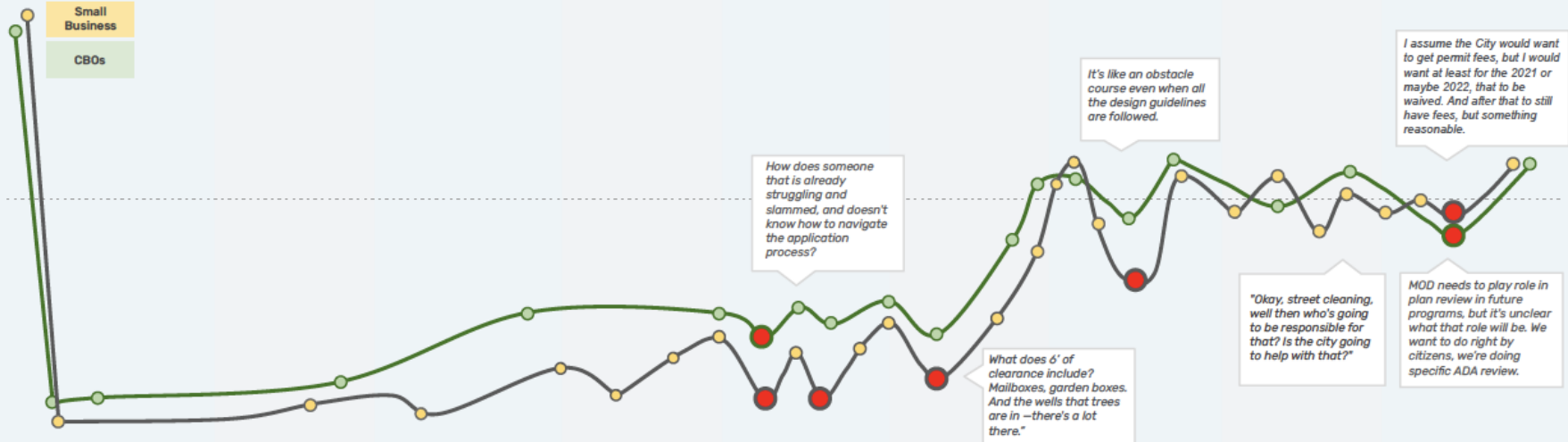
5. APPLY

6. BUILD

7. MANAGE

NEW NORMAL

8. EXTEND



NEEDS & CHALLENGES

<p>Prioritize Resources</p> <p>Communicate with & assess needs of staff</p>	<p>Reach out to known resources <i>ex. other businesses, local CBOs</i></p>	<p>Not everyone feels comfortable or has access to immediate circles and CBOs for support</p>	<p>Struggles to figure out how much to invest in parklets without knowing how long they can or will last.</p>	<p><u>Digital Inequity</u></p> <p><u>No status updates</u></p> <p><u>Submits incorrect specs</u></p> <p>Mistrust of City: reluctant to provide information</p>	<p><u>Guidelines: Difficult to understand</u></p> <p><u>Guidelines don't factor in dynamic environment</u></p> <p><u>No way to follow up with City</u></p>	<p>Keep up w/ code changes</p> <p><u>Compliance/Inspections: arbitrary, redundant, unknown</u></p> <p>Managing dynamic enviro.</p> <p>Unexpected safety issues</p>	<p>Greater adaptability</p> <p>Even more self-reliance</p>	<p><u>Fee structure & timelines</u></p> <p><u>Integrated inspection process</u></p> <p><u>ADA input mitigate compliance and potential litigation issues</u></p>
<p>Communicate with & assess needs of small businesses</p>	<p>Find and distribute funds across neighborhood.</p> <p>"Master" new skill</p>	<p>Trusted "Go To" source for information. Quickly create digital channels to funnel information</p> <p>Rely on connections with City agencies</p>		<p><u>Frontline workers for program: comms, fill out applications, interpreters.</u></p>	<p><u>Expected guideline expertise – not provided with support</u></p>	<p><u>No path for for compliance issues.</u></p> <p>Currently, Point person/intermediary</p>	<p>Expanded role helping business adapt their business models</p> <p>Increased pro-active comms with other CBOs and community</p>	<p><u>Unclear how program integrates with existing curb processes. Ex. cleaning, deliveries, festivals</u></p>

We partner with community based organizations and other community groups

Residents can sign up to be in our research pool through CBOs

We pay CBOs to help us recruit participants, including:

- Community Living Campaign
- Chinatown Community Development Center
- Women's Building
- SF Black Led Organizing Coalition (SF Bloc)
- Samoan Community Development Center

Outreach & Recruitment Process

1. Build Awareness



2. Join Research Pool



3. Invite to Research Session



4. Schedule Session



5. Conduct Research Session



6. Compensate



Who we talked to



Participants at The Women's Building



Participants at CCDC

(Chinatown Community Development Center)

We partner with others in the City

Mayor's Office on Disability

Office of Civic Engagement and Immigrant Affairs

Office of Trans Initiatives

Office of Racial Equity

311

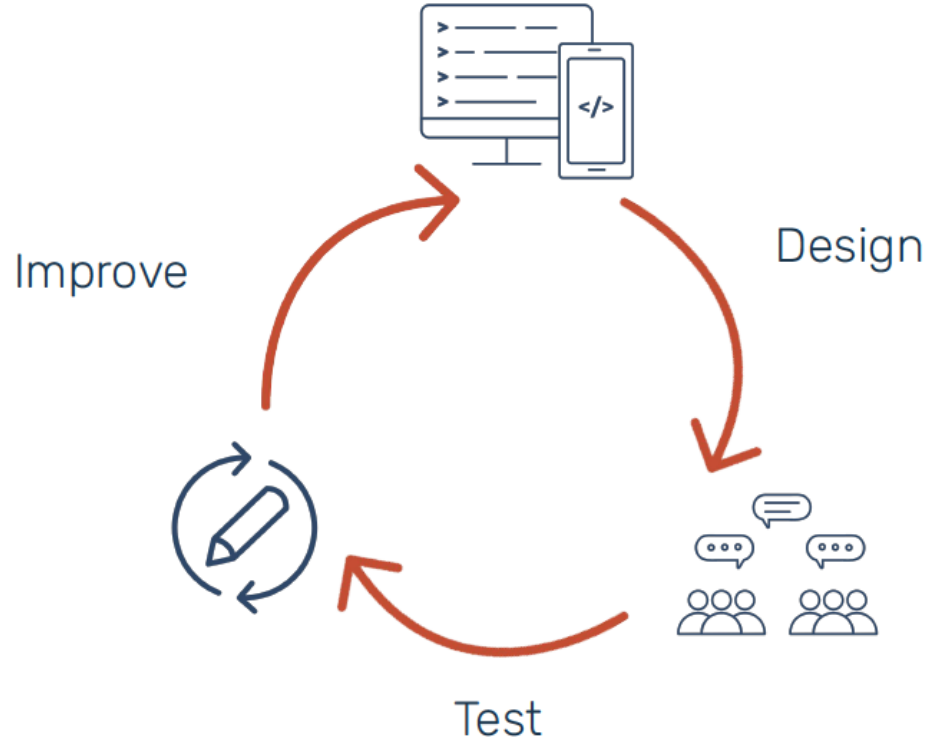
Department-specific subject matter experts

Question 4b.

How are we measuring successes and failures of old systems and new systems that we're implementing?

We map the current state and measure improvements

We use Agile software development practices



Working on the whole service

What San Franciscans want to get done spans many systems, departments and processes. All of these make the 'customer experience'.



Website

Business process, back end systems, department structures

Policy

Customer Experience

Question 5.

We used to have a Chief Innovation Officer who led the Office of Civic Innovation.

What was the scope of that role and why don't we have a Chief Innovation Officer anymore?



**SAN FRANCISCO
OFFICE OF
CIVIC INNOVATION**





Our Mission

We empower City Departments by introducing new approaches, resources, and inclusive technology for Citywide priorities.

Office of Civic Innovation



Amardeep 'Dee' Prasad
Director



Jane Lim
Innovation Strategist



Mathew Larson
Innovation Strategist

What We Do

We are Problem Solvers.

We help solve urgent and important citywide challenges through collaborative, human-centered design focused **public-private partnerships**:

Civic Bridge (pro-bono consulting)

16 weeks with partners working 20% pro-bono

Opportunity Cycle: 2 cohorts per year

Startup in Residence (technology piloting & prototyping)

16 weeks with a challenge-based procurement

Opportunity Cycle: As Needed

We are Enablers.

We offer training, support and resources to prototype and pilot new ideas through our partnerships and internal expertise as human centered design facilitators.

We are Conveners.

We host several events to showcase our work and share best practices via our **Learning Labs, Demo Days and Innovation Showcases**. We also created and convene the internal **SF Gov Innovators Learning Network**.

We are Motivators.

We have built **two nationally recognized models (and blueprints)** for our public-private partnership programs: Civic Bridge and STIR.

We are Integrators.

We help to sustain and connect the broader SF City innovation ecosystem – ex. *Service Inventory Project + COIT, Civic Bridge + Digital Services, DataSF and CON and Technology Piloting (STIR) + DT*

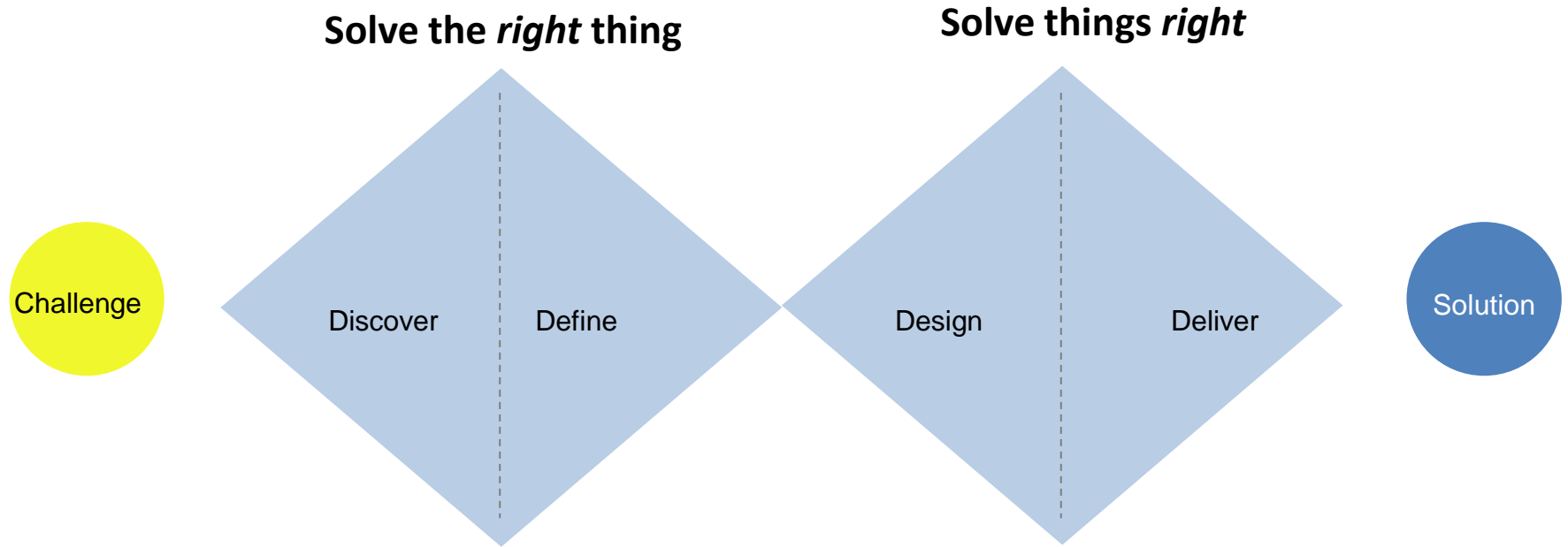


Since its launch in 2015, Civic Bridge has

- partnered **with 29 City Departments**
- recruited over **26 private sector partners**
- produced over **55 pro bono projects**

More than **37,000 hours** have been volunteered — adding up to **\$5.48+ million** in pro bono contributions of new ideas and impactful deliverables for San Franciscans

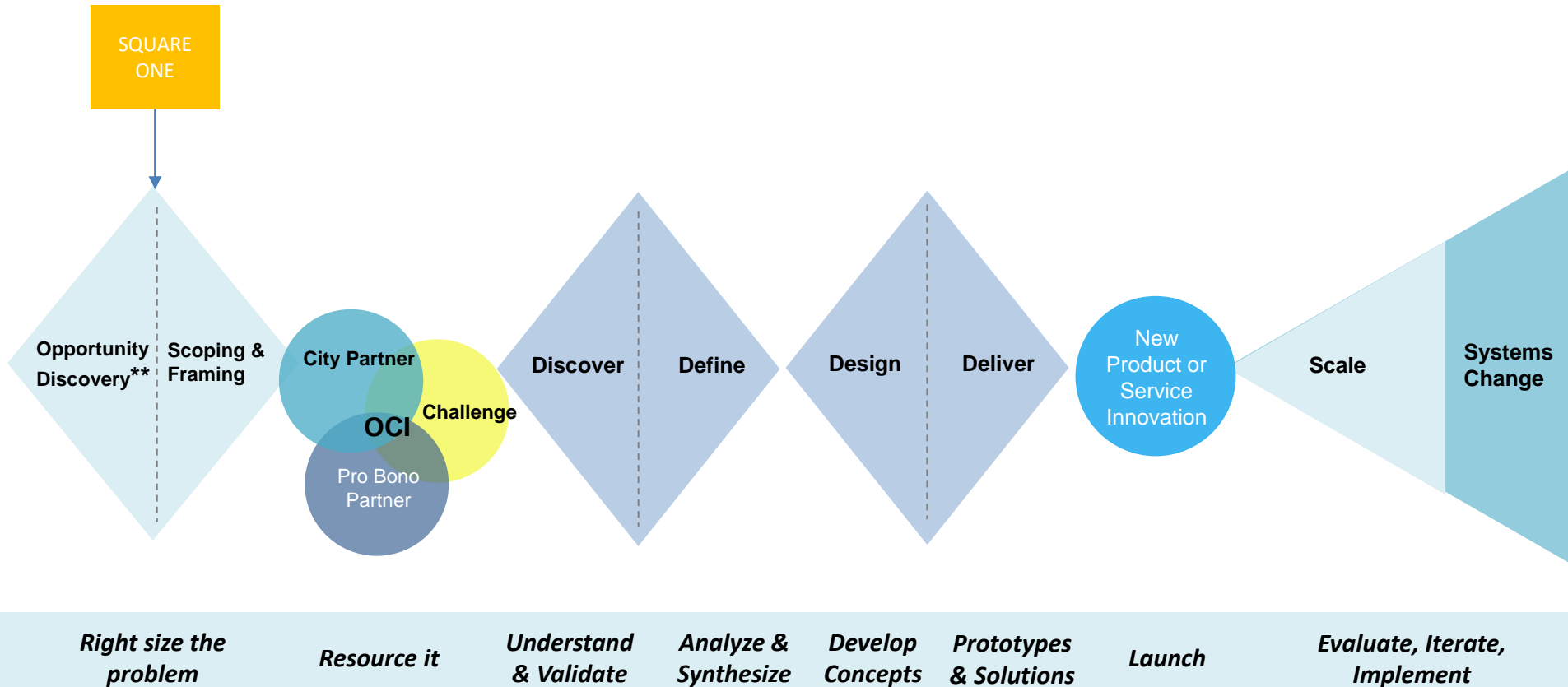
Civic Innovation + Design Thinking



Thank you!

Appendix: Additional Office of Civic Innovation Case Studies

Office of Civic Innovation Theory of Change Framework



IMPACT AREA: PUBLIC SAFETY & EMERGENCY MANAGEMNET

2017

2018

2019

2021

Improving 911 Dispatcher staffing, hiring, training and educational materials
2017, DEM + Civic Consulting

Educating the public on essential communication channels 2017, DEM and 311 + HBS Community Partners

Creating SFPD's Strategic Plan 2017, SFPD + PwC

Designing a Service Pilot for the DPH Street Medicine Team
2018, DPH Whole Person Care + fuseproject

Designing a new process for filing and processing a police complaint
2018, Department of Police Accountability + Slalom

Piloted a new machine learning technology to improve the routing of 311 Calls STIR 2018, 311 + Zen City



Real-time language identification of 911 calls
STIR 2019, DEM + GovIQ

Testing Usability and updating content for website of Opioid addiction program
2019, DPH + Blue Shield

Improving access to city services for Transgender and Non-confirming Communities 2021, Office of Transgender Initiative (OTI) + Adobe

SFPD Strategic Plan 2.0 2021, SFPD + Accenture



IMPACT AREA: AFFORDABLE HOUSING & TENANT RIGHTS

2015

Launching a digital service to search and apply for affordable housing (DAHLIA)

2015 MOCHD + Google.org



2017

Piloted a new technology that enables staff to analyze sites for future affordable housing development

2017, MOCHD + Penciler



2018

Redesign the Right to Counsel Service for a Timely Legal Response for Evictions

2018, MOCHD + Civic Consulting Alliance

2019

Designing affordable housing eligibility requirement training for community development partners

2019, MOCHD + Cloudera

Programming and Conceptual Design for Residential Treatment and Transitional Housing on Treasure Island

2019, TIDA + Gensler

Developing a public information campaign to improve access to San Francisco tenants' right to legal counsel when facing eviction

2019, MOCHD + Adobe

2020

Improving Access to Rent Board Services for Tenants and Landlords

2020, MOCHD + Civic Consulting Alliance



Improving the Housing Permitting Application Process

2020, Multiple Departments + Google.org

Office of Civic Innovation Strategy 2021-2022

Solve Problems: Expand Public-Private Partnership Programs

Align partnerships with citywide priorities
Enroll more City Departments to participate
Expand our Bench of Pro Bono Partners

Enable: Expand Training, Learning Networks and Resources for City Staff

Identify new opportunities for SF Gov Innovators Network (grants)
Create a robust case study repository of Civic Bridge's proven methodologies & successful solutions
Launch Technology and Innovation Academy

Motivate: Launch New Initiatives and Partnership Opportunities

Launch Civic Bridge Academic Track with New University Partners

Convene: Share Success Stories

Continue hosting Learning Labs events & Showcase Events.

Be an Integrator: "If you want to go fast, go by yourself – if you want to go far, go together."
Strengthen cross-department collaborations with city partners (COIT, CON, DataSF, Digital Services, DT)

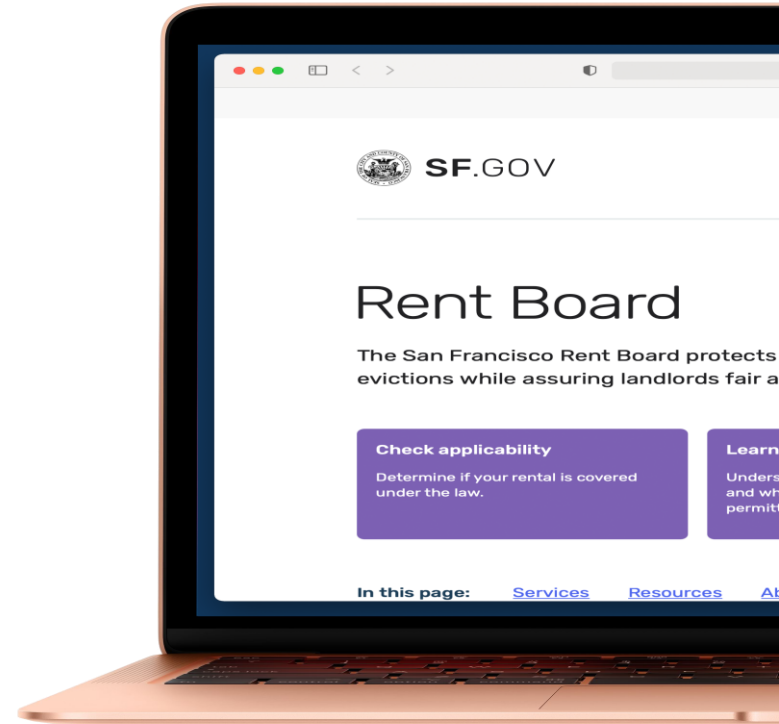
Tenants' Rights in Plain Language

A Civic Bridge project // San Francisco Rent Board + Civic Consulting Alliance

THE NEED: Over the years, City rent ordinances have grown complex and challenging to understand for renters and landlords alike. San Francisco's Rent Board protects tenants from unjust evictions and excessive rent increases while assuring landlords fair and adequate revenue. Clear information has always been a key piece of helping individuals understand their rights, and the Rent Board had some ideas for improvement.

THE DESIGN: The Rent Board teamed up with Civic Consulting Alliance on a Civic Bridge project and applied the Pareto principle (eighty percent of consequences come from 20 percent of causes) to the Rent Board's website and call volume data to see what issues rose above as major areas of confusion. The team then dug into common false assumptions and frequently asked questions to curate a collection of helpful content that sorted and addressed each topic more clearly.

THE OUTCOME: A website laying the legalese out in clear language where residents can easily understand and exercise their rights — making Rent Board ordinances and services more accessible to everyone



Helping Residents Live Better Lives

A Civic Bridge project // Treasure Island Treasure Island Development Authority + Gensler

THE NEED: Transitional housing advocates sought to replace HealthRIGHT 360 facilities and collocate them with a new affordable housing development to better support underserved residents and treat substance use disorders. The Treasure Island site presented a unique opportunity to support people at all stages of life with the dignity to live and heal. These facilities could provide a hopeful future that embraces the diversity in San Francisco and advance the City's residential treatment facilities.

THE DESIGN: Informed by virtual tours, interviews, research and help from the City and the non-profit One Treasure Island, Gensler created four possible building designs to house and meet the programmatic needs of these transitional housing advocates.

THE OUTCOME:

- Design plans for various facilities featuring:
 - Integrated living and treatment
 - Inclusive designs for residents
 - Units that provide a sense of ownership and togetherness — with space for community living and support
 - Maximized number of units without overcrowding
 - Opportunities for residents to connect with the outdoors via beautiful, green courtyards



A One-Stop for Affordable Housing Applications

A Civic Bridge project // Mayor's Office of Housing and Community Development + Google

THE NEED: Many barriers have made it difficult to finding affordable housing in San Francisco. With no centralized, digital listing for affordable housing in the City, each property owner or developer maintained its own listings and paper-based application processes were common, as well as manually conducted lotteries, sowing confusion and distrust among prospective applicants.

THE DESIGN: The City partnered with a team of Google employees to conduct user research, design sprints, wire framing and develop stakeholder buy-in for a centralized application portal. Google employees contributed their skills in user experience, design, software development and project management to deliver a product.

THE OUTCOME: An online system with everything residents need to find and apply for subsidized affordable housing.

