

Appendix E: Staff Report - Innovation & Emerging Technology in San Francisco

San Francisco is the world's leading center of innovation with a significant impact on world economic activity and culture creation. As home to the top technology and creative workforce in the world, San Francisco sees an increasingly talented workforce being drawn to Bay Area companies. This is shown by the unmatched access to investment capital where the Bay Area received a record 50% of U.S. venture investment per the Venture Capital Journal in the first quarter of 2014!⁴ Combined, these assets have created a strong cluster of tech titans and entrepreneurial startups who are interconnected by strong cultural, professional and social networks.

Innovation in San Francisco does not end with the private sector, however. The City government is always looking for ways to be nimble, improve processes, and bolster engagement with residents in order to make life in San Francisco easy, engaging, and delightful.

As a foundational value, San Francisco is committed to responsible innovation so that all residents benefit. Specific to emerging technologies, the City has taken several steps to ensure innovation is strategic, collaborative, safe, and prioritizes residents' quality of life. To this end, the City has:

- set a clear vision and goals to guide the City,
- developed partnership models to problem-solve with companies, and
- deepened community engagement by providing streamlined opportunities for involvement

This short paper will preview some of the ways the City of San Francisco already is leading the charge around innovation inside the walls of local government.

⁴ Venture Capital Journal; www.fenwick.com/FenwickDocuments/Silicon_Valley_grabs_record_share_of_venture_capital_activity_VCJ_News_Analysis_Private_Markets.pdf; 2014

CLEAR VISION AND GOALS

San Francisco envisions a future for the City that is safe, innovative, livable, and diverse, with streamlined city services that are focused on making life easier and more delightful for residents, visitors, and City employees. The City sees data and technology as playing a major role in achieving this vision and it has developed several strategies that will guide the City into the future.

Throughout the [Emerging Technology Open Working Group](#), however, residents and other stakeholders commented that they were unsure how technology fits into the City's vision and goals. To help address this concern, the highlighted reports below discuss in detail how technology can help advance the City's mission. These reports include Vision Zero, the Emerging Mobility Evaluation Report issued by the County Transportation Administration Authority, and the City's five-year Information and Communication Technology (ICT) Plan.

Vision Zero

In 2014, The City and County of San Francisco adopted Vision Zero as a commitment to build better and safer streets and adopt policy changes that save lives. Previous data analysis has revealed that 70 percent of severe and fatal traffic injuries occur on just 12 percent of City streets, and disproportionately occur in low-income neighborhoods. By adopting a citywide strategy, the City hopes to make safer, more livable streets with the ultimate goal of eliminating traffic fatalities by 2024.

Vision Zero outlines several action items to achieve strategic objectives, including many that rely on emerging technology. For example, one action item includes working with the Department of Motor Vehicles to advance autonomous vehicles with appropriate safety components that prioritize passengers and pedestrians. Another action item encourages transportation network companies (TNCs) like Lyft and Uber to use driver performance tools or processes to measure safety and improve driver and/or company accountability.

Link: <https://visionzerosf.org/>

Emerging Mobility Evaluation Report

In July 2018, San Francisco County Transportation Authority released its [Emerging Mobility Evaluation Report](#) and adopted by the San Francisco Transportation Commission on July 24, 2018. The report measures emerging mobility services and technologies by how well each align with the City's adopted 10 Guiding Principles for Emerging Mobility Services and Technologies.

The Transportation Authority, the SFMTA, community stakeholders and Emerging Mobility service companies collaboratively identified 10 principles that inform the City's approach to emerging mobility services and technologies. These include:

1. Safety	6. Congestion
2. Supports public transport	7. Accountability
3. Equitable access	8. Labor
4. Disabled access	9. Financial impact
5. Sustainability	10. Collaboration

These principles articulate the City's values in public streets, and also serve as evaluation criteria for new and existing services and technologies seeking to deploy in San Francisco.

The Emerging Mobility Evaluation Report examines a variety of emerging mobility service and technology companies and their products or service models including transportation network companies, microtransit companies, bike sharing, and courier network services companies, among others. Using the established criteria, the City has found many benefits and issues present in emerging mobility services. Looking forward, the Emerging Mobility Report makes several recommendations, emphasizing the need for better data sharing between companies and the City as well as more pilots, partnerships, and regulations that protect residents and cover City costs. In addition to the Emerging Mobility Guiding Principles, these recommendations will serve as a guide to how San Francisco approaches emerging mobility services.

Link: www.sfcta.org/emerging-mobility/evaluation

Information and Communication Technology Plan

The Information and Communication Technology (ICT) Plan is a financial and strategic document that anticipates the future of City technology for the next five years. The most recent plan (for years 2018-2022) presents a vision of improved City services through the enabled use of technology so that San Francisco can continue to build a community that is safe, diverse, and welcoming to all.

The ICT plan identifies three strategic goals governing City technology to help guide City investments. The goals are to:

1. Support, Maintain, and Secure Critical Infrastructure
2. Improve Efficiency & Effectiveness of City Operations
3. Increase Access & Transparency to Local Government

Ultimately, how the City uses technology today shapes how and to what extent we can leverage new technologies in the future. In the years to come, San Francisco looks to use new and emerging technologies to better improve life for residents in San Francisco.

Link: <https://sfcoit.org/strategy>

PILOTS AND PUBLIC-PRIVATE PARTNERSHIPS

San Francisco engages regularly with technology companies in order to evaluate potential impacts and ensure smooth implementation of emerging technologies throughout the City and within City government itself. As was frequently discussed in the Emerging Technology Open Working Group, collaboration with technology companies and startups is a critical step towards anticipating new technologies.

The City has several means for engaging, from traditional collaboration models including pilots and permits to more novel and creative processes. The latter include Civic Bridge and Startup in Residence (STIR), which were created by the Mayor's Office of Civic Innovation.

Pilot and permit process

One way the City engages with emerging technology companies is through the pilot and permitting process. The particulars of the process -- including what departments are involved and the application materials required -- is determined by the technology's planned operations and how the company and/or its product will engage with the City's public space. For example, factors like if the product interacts with space on the sidewalk, curb, roadway or some combination will impact which Departments must issue permits.

Departments have different processes for handling pilots and permits. Generally, when a new technology comes to San Francisco, the permitting process begins with the department issuing a time-limited permit (i.e. pilot). Legislation is also frequently created to establish guidelines and the application process. Once the product is reviewed and undergoes a public hearing, a decision is made about what companies can operate in the City. At this point, a pilot can launch.

A recent example of a company going through this process with the San Francisco Municipal Transportation agency is Scoot, an electric moped and scooter share company. Scoot had internal policies that prioritized City collaboration. The company reached out to the City prior to starting service to get legislation passed and receive the correct permit. They also provided a point of contact to the city agencies, which increased accountability and helped lead to a successful moped pilot. Recently, Scoot was also granted a permit to participate in the City's electric scooter pilot.

Link: www.sfpbpublicworks.org/services/permits

Civic Bridge

Inside local government, the City also has several collaborative partnership models to help make government more collaborative, responsive, and inventive. Civic Bridge is a four-year old program housed within San Francisco's [Office of Civic Innovation](#). Civic Bridge is a cohort-based program that recruits private sector professionals to volunteer their time to work on critical City issues.

Recent examples of successful Civic Bridge collaboration include a partnership between the Mayor's Office of Housing and Community Development (MOHCD) and Google with a goal to make it easier to search and apply for affordable housing. A team of four volunteer employees from Google worked alongside MOHCD for sixteen weeks to prototype and scope a project for a new digital public service that would let users search and apply for city-funded housing programs online. The result of the collaboration is the award winning [DAHLLIA San Francisco Housing Portal](#), which won a [Good Government award](#) from the San Francisco Bay Area Planning and Urban Research Association (SPUR). By collaborating with local partners, the City was able to kickstart the creation of a simpler, easy-to-use product with transformative potential.

Link: <https://www.innovation.sfgov.org/civic-bridge>

Startup in Residence

Startup in Residence (STIR), another initiative led by the Office of Civic Innovation, supports City Departments by fostering partnerships with early stage technology companies to solve civic problems. For 16 weeks, startups volunteer their time to work with government partners to get to the root of civic challenges through user-testing, skills-sharing, data analysis, and prototyping a technology product or service.

STIR connected the Family and Children's Services team at San Francisco's Human Services Agency (HSA) with a new startup called Binti. The team at HSA was seeking a mobile friendly, cloud-based software solution for individuals interested in becoming foster parents in San Francisco's foster care system. In addition to digitizing the current paper-based review, assessment and placement process, they wanted to improve their pipeline for potential foster parent candidates beginning with their initial interest through final certification. Finally, staff hoped this new software system would reduce the time social workers spent managing their caseloads and completing tasks required to approve new foster families.

Binti was a new software startup that worked mostly with adoption agencies. After being accepted into the STIR program and shadowing HSA employees for several weeks, Binti created a TurboTax-like software program that made it easy for people to apply to become foster care providers. They also built a public website for HSA and created an internal database for the social workers at HSA to use. This suite of upgrades has increased foster care provider applications by 300 percent, decreased the application approval period by 50 percent, and has saved social workers' time by 20 to 40 percent.

Link: <https://www.innovation.sfgov.org/startup-in-residence-stir>

COMMUNITY ENGAGEMENT AND PERMITTING INNOVATIONS

San Francisco always is looking for new ways to work with the community and create more joyful community spaces. In order to efficiently do so, San Francisco has experimented with different ways to streamline the permitting process so that it is more accessible to the community. The lessons learned from these innovations can be used to improve the traditional permit process and quicken time to deployment for emerging technologies. Examples of permitting innovations include Groundplay SF and the business information portal.

Groundplay

Groundplay is a multi-agency City program that combines various public space initiatives, including the Pavement to Parks and Living Innovation Zones initiatives. Pavement to Parks represents a partnership between the Department of Public Works, the Municipal Transportation Agency, and the Planning Department. The program, which launched in 2010, aims to satisfy the desire for wider sidewalks for people to sit, relax, and enjoy the city around them. The program achieves this by turning one or several metered spaces into miniature parks, called parklets, which can include seating, planting, bicycle parking, and art.

Members of the community -- business owners, local organizations, and nonprofit institutions -- are eligible to apply for a parklet permit. Initially, six parklets were installed in various

neighborhoods, including the Mission, Noe Valley, the Western Addition, and North Beach. The parklets were an immediate success, and the City released two more requests for proposals for parklet permits. As of November 2018, 54 parklets have been approved and another eight are under review.

Groundplay projects have now expanded beyond parklets to include public activation projects that use temporary installations on Market Street, the City's cultural, civic and economic spine. The spirit behind the program is to allow for the creativity of partners outside City government to develop new and insightful ways of addressing community needs and aspirations.

The application process for both of these projects is simple and entirely online. The Groundplay website hosts the [application](#) -- one form that requires items like sponsoring organizations, project descriptions, site plans, and initial design concepts. In addition, the City created an infographic to help applicants understand the project journey from initial proposal to design and permitting to installation. The [Groundplay website](#) also features past and current parklets and other projects for inspiration.

Link: <https://groundplaysf.org/resources/>

Business Information Portal

San Francisco is also engaging with the local business community to help make the business permit process simpler and smoother. The [San Francisco Business Portal](#) provides an interactive journey map to help guide new businesses through the 10 steps of forming a business in the City.

When a new business owner is ready to apply for permits and licenses, he/she can use the "starter kits" on the portal. These kits are organized by business type and allow people to understand easily what they need. For example, the food truck starter kit includes a two page guide that lists all 'to do' items before launching (e.g. make an appointment with a business counselor, register your business with the City, obtain a Manager's Food Safety Certification, etc.). The kit also includes all of the relevant forms a new business owner must fill out to complete these to do's as well as some other potentially relevant information and background materials.

In its next iteration, the Business Portal will offer the ability to apply for permits online. Demonstrated through the City's new [Cannabis service](#), permit applications will be consolidated, and business owners will be able to complete and submit their application without needing to navigate the City's departments.

Link: <https://businessportal.sfgov.org/start/permits-licenses>

CONCLUSION

The City has taken stock of its leadership and innovation around emerging technology and innovation as it prepares to present new recommendations to the Board of Supervisors. These recommendations build on the work of different City departments to set a clear vision and goals, collaborate with the private sector to solve challenges, and streamline city services to better engage with the community. These three items are at the foundation of many of the recommendations the City is pursuing.