



Emerging Technology Working Group Recommendations

City & County of San Francisco

Objective: The final Open Working Group meeting is designed to get reactions to initial policy recommendations for Emerging Technologies. Participants will be asked to react and help refine recommendations.

Recommendation #1: Collaboration Playbook

Problem: Because there is pressure to deploy and rules can be hard to navigate, Companies often deploy their products in the public right of way without communicating with the City or understanding the rules and regulations. There is limited trusted communication and transparency between companies and government.

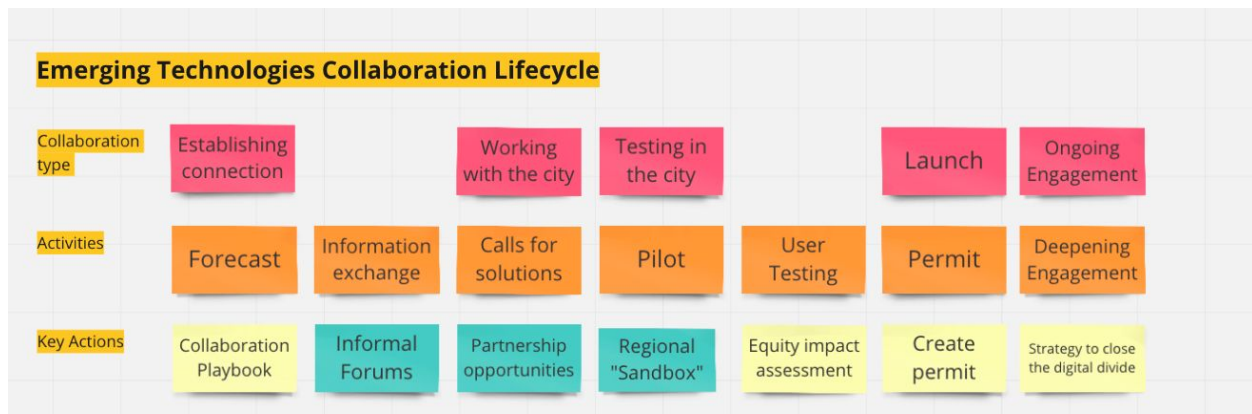
Recommendation: The Collaboration Playbook outlines expectations for both companies and the City government to achieve a more collaborative environment for product launches in San Francisco.

1. Identify a point person
2. Reach out to the City
3. Engage the community
4. Build your product for a diverse set of users
5. Explore what regulations might apply to you
6. Share information to solve problems
7. Identify opportunities for technology to support City goals

Recommendation #2: Collaboration Lifecycle

Problem: To anticipate the impact and benefits emerging technologies may have in San Francisco, we need greater awareness that they are coming!

Recommendation: A series of structured collaborations are needed with companies, community, and City staff to help San Francisco build relationships and better anticipate what's coming next. The figure below identifies key collaboration points.



Recommendation #3: Emerging Technology “Front Door”

Problem: There is no single place within the City to discuss collaboration around new emerging technologies. Further, there is no single place to help navigate the permitting process or to answer questions.

Recommendation: An Emerging Technology Front Door should be created to help anticipate upcoming technologies and help navigate the permitting process. Specifically, their responsibilities include:

- Focus on the needs of residents, tourists, and small business
 - Emphasis on equity, accessibility, data ethics, cybersecurity, and privacy
- Have strong technology credentials
 - Understands the technology community
 - Policy expertise
 - Prototyping and piloting experience
 - Conduct impartial impact analysis for residents & technical areas
- Have strong permitting relationships
 - Legislative expertise
 - Manage a “predictable & certain” permitting process
 - Authority to resolve internal conflict

Recommendation #4: Permitting Evaluation

Problem: The impact of emerging technologies in public spaces can be hard to define, and often present new issues that not accounted for in existing laws. New rules are needed to protect San Francisco residents.

Recommendation: Before launching a product to all of San Francisco, emerging technology products should be closely evaluated and tested for the following issues: impact on public spaces, equity, accessibility, data ethics, and security and privacy.

The idea is to develop a set of checklists and questions to 1) determine whether or not to approve a pilot for an emerging technology, and 2) if a pilot is approved, to inform the criteria for evaluating the pilot.

Help us think through the questions we should be asking to evaluate these products, keeping in mind the evaluations will need to be done on a case-by-case basis.

Public Spaces Checklist

1. Does the new technology satisfy all local and federal codes?
2. Does the new technology meet the minimum ADA clearances requirements ie. 6’ clear path of travel in commercial corridors?
3. Does the new technology meet minimum vertical clearance requirements as required by local codes?

4. How does the new technology benefit the public?
5. Does the business model intend to monetize the public right-of-way?
6. What are the proposed days and hours of operation? Will there be an elevated noise levels during operation during both day and night hours? If so, what are the decibel levels?
7. Will the new technology be mobile, stationary or a combination of both? Where does the technology intend to operate ie sidewalks, parking strip, bike lanes, vehicular lanes of traffic?
8. Thinking long term if the pilot is successful, who will ultimately be responsible for upkeep and maintenance. Who will assume liability? Is the business model sustainable long-term? Will checks and balance be established?

Equity Checklist

- 1) Who will have access to the product? Who won't?
- 2) Does your product directly address an identified inequity? If yes, which one(s) and how?
- 3) How might your product improve equity indicators? For which communities?
- 4) How might your product worsen inequity? What are your mitigation strategies?
- 5) Does the product rely on algorithm that rely on historical data that may contain biases? What mitigation techniques are in place?
- 6) Have you consulted with underserved communities on your product's design or strategy?
- 7) Describe how your plan for evaluating your product's impact on equity after launch.

Accessibility Checklist

1. Is the product intended to be used in the public right-of-way?
2. On the basis of safety and access, how will the following communities be impacted by the deployment of the product in public spaces?
 - Blind or low vision
 - Chronic health (e.g. autoimmune, neurological)
 - Cognitive (e.g. intellectual disabilities, learning disabilities, autism spectrum)
 - Deaf or hard of hearing
 - Mental health or psychological disability
 - Mobility disabilities (e.g. wheelchair, walker, cane)
3. When others are using the product, how will people with sensory disabilities detect the product?
4. What accountability mechanisms are in place when issues may occur?
5. Has the product been tested to be physically accessible (504 compliance)?
6. Has the web based interface been tested to be 508 compliant?

7. Has any voluntary product analysis testing been conducted?
8. How may disabled communities benefit from the availability of this product? How?
9. What mechanisms are in place for disabled communities to provide feedback on design on an ongoing basis?

Data Ethics Checklist

1. Are the terms of service in plain language? In multiple languages?
2. Does the company explain to users in plain language the type of data collected, collection methods, and how data will be used?
3. Do users have the ability to see what information the company has on them?
4. What surveillance technologies does the product use?
5. Is there an option to use the service but “opt out” of providing personal information?
6. Will personal information be sold as a commodity?
7. Does the product use an algorithm that is based on historical datasets with potential biases in it?

Security & Privacy Checklist

1. What kind of data will be stored, processed, or accessed?
2. What is the data retention policy for each type of data collected?
3. Will sensitive data be stored, processed or accessed by a third party?
4. What is done with data collected that is not directly related to the business?
5. Does the company follow any industry security standards? Which one?
6. Can independent verification be provided to show security standards are in practice?
7. Will the product be connected to City infrastructure? (e.g. network, streetlights, power grid)
8. Does the company have an incident response plan?
9. What is the contingency plan for a data breach?
10. What happens to data if the company is bought, sold, or shut down?