

Report

CITY AND COUNTY OF SAN FRANCISCO EMERGING TECHNOLOGY OPEN WORKING GROUP Session #3, August 17, 2018, 2p-4p



September 9, 2018





EXECUTIVE SUMMARY

CRITICAL PROBLEMS

Following the first 2 sessions in July, Staff identified problems; the problems were grouped by CCSF staff into "Tracks" or themes. At the August 17 session, attendees selected the following problems as the most critical in need of solutions when it comes to how San Francisco manages emerging technology. After indicating which problems were most critical, participants brainstormed potential solutions; the solutions themes, where identified, are included below.

Track 1: Community Engagement & City Priorities

- Companies need help with community engagement in our neighborhoods
 - Solution themes: communication and outreach; City/County of SF acts as conduit between citizens and tech companies.
- It is unclear how technology fits in with the vision for the City.
- Technology is not being used to solve real problems.
 - Solution themes for the above 2 problems: permits tied to technology's positive effect on problems; citizen input on permitting; assess community needs and allocate CCSF budget to technology that addresses needs.
- Local government and businesses do not understand resident needs or priorities.

Track 2: Collaboration and Partnerships

- Local government doesn't use other levers of change to work with businesses.
- Technology companies are not accountable for their actions.
 - o Solution themes: mechanism or requirements for collaboration; impact fees.
- Companies do not reach out to government before deploying.
 - o Solution themes: Create requirements for "before" implementation; partner with public before implement; designate pilot or sandbox spaces.
- Companies and local government do not always trust one another.
 - O Solution themes: Focus on partnerships; government understand technology better; incentives.

Track 3: Agile Permitting and Accountability

- Regulation is not responsive to changing needs and is often reactive.
 - O Solution themes: Centralize government departments related to emerging technology; A nimble process that can be tested and adapted; use technology to document, follow process, see results and for transparency.
- Government rules are hard to navigate. It is hard to know what you are supposed to do.

Track 4: Equitable Benefits

- Automation and the Gig Economy is disproportionately hurting workers from underserved communities.
 - O Solution themes: require favorable worker environments; favor local companies (within SF city limits).
- Emerging technologies only benefit certain types of people, expanding social and digital divides.
 - Solution themes: requirements that 'protect' labor/workforce and diversity of income/race; CCSF requires or connects to diverse individuals so companies can hire them; AI; ensure permitting measures impact on equity; universal access.
- Technology is underutilized in improving equity.
- Is hard to anticipate the equity impacts of new technologies.

Track 5: Accessibility and Safety

Emerging technologies can negatively impact and reduce accessibility.







- O Solution themes: accessibility first; infrastructure for light-weight motor-driven transportation; PR campaign.
- There is no process to identify accessibility gaps for new products or services.
 - O Solution themes: before approval, require outreach to disability groups for feedback to design;
- Public safety is not a priority for new technologies.

Track 6: Data Sharing and Privacy

- Technology companies do not want to share data.
 - O Solution themes: Incentivize data sharing; monetize public resources used to gather data; anonymize.
- There is no standard process to share data between local governments and companies.
 - O Solution themes: establish standards / requirements for data sharing; local government is the source of data.
- Privacy is not protected.

Track 7: Forecasting

- There is no formal structure to talking about the future of technology.
- Legislation does not sufficiently consider future impact.
- Local government struggles to anticipate the impacts of new technologies.
 - O Solution themes for the above 3 problems: bring in best practices from other cities/countries; cross-sector council; identify problems needed to solve and collectively identify who and how to solve with technology; identify and frame the future by working with technology companies' futurists.
- Government only learns about new technology through sales pitches.
- Local government does not talk to experts about emerging technologies.
- Lessons learned about the value and risks of new technologies are not shared.







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EMERGING TECHNOLOGY WORKING GROUP OVERVIEW

VISION

A City that uses technology to put people first and enhance our public spaces.

PROJECT OBJECTIVES

- Engage the community and technology experts in the policy making process
- Develop **recommendations on a regulatory and permitting proces**s that addresses use cases on land, in the air and water, in building and underground
- Develop a nimble and responsive **governance framework** that City Departments can use with emerging technology companies to partner with the city

PROJECT JOURNEY & PROCESS



RESEARCH PHASE. Objective: Staff advisory team begins work with comparative analysis on other city's approaches to emerging technology. Also will conduct interviews with experts to get perspective on problems and solutions.



LISTENING PHASE. Objectives: Gather information from the public on most important issues, identify problems for focus of the remainder of the project.

July 9 & July 23

This Report



NEEDS IDENTIFICATION Objectives: Identify the major values and problems we need to address August



SOLUTIONS DEFINITION. Objectives: Define what solutions must / not do and identify possible solutions to problems identified in previous phases.

September



SOLUTIONS IDENTIFICATION. Objectives: Define what solutions must / not do and identify possible solutions to problems identified in previous phases.

October - November





DETAILED SESSION NOTES

Session Agenda

- I. Welcome
- II. Introductions (see attendee list in Appendix)
- III. Overview of Working Group
- IV. City / County of San Francisco Directions & Decisions To-Date
- V. Participant Input Facilitated Exercises
- VI. Next Steps, Upcoming Meetings

EXPECTATIONS & OUTCOMES

- Allow participants to weigh-in on the prioritization of problems—which are most critical for policy recommendations to address.
- Formulate a preliminary list of potential solutions or interventions to guide recommendations.
- Further define the ultimate, transformational outcomes of new policies and practices.

IMPACT OF EMERGING TECHNOLOGY

Session participants were invited to respond to the question, "Using an emoji, what impact has emerging technology had on your or the constituents you're here representing?" via an online / text poll. 52 total responses were recorded at the August 17, 2018 session. Responses were reflected in an emoji cloud:

Emoji Cloud



Emoji Count

Generally, the emojis sent via the text poll can be summarized as follows:

Word	Frequency
~Positive	30
~Neutral	10
~Negative	6







EMERGING TECHNOLOGY GARDEN

- Vision: Democratic control of technology and infrastructure supporting it.
- Disproportionate City Employee participation in Comm Listening (etc.) sessions [bad data...] Maybe needs to only be virtual?
- Vision: first, do no harm...equity, equity!

POTENTIAL SOLUTIONS

Following Working Group Sessions #1 and #2 in July, City/County of San Francisco staff synthesized citizen input on guiding principles, problems and potential benefits and created 7 "tracks" on which policy recommendations should focus:

Track 1: Community Engagement & City Priorities

Track 2: Collaboration & Partnerships

Track 3: Agile Permitting & Accountability

Track 4: Equitable Benefits

Track 5: Accessibility & Safety

Track 6: Data Sharing & Privacy

Track 7: Forecasting

At the August 17 session, participants were asked to first 'vote' for problems they considered to be important to address in the policy recommendations—these votes are represented in the "Count" columns below. The content in the "Proposed Interventions" and "Transformational Outcomes" columns are the result of small group breakout sessions where participants brainstormed and discussed the potential interventions (solutions) to group-selected problems and what would be different as a result of those solutions (Transformational Outcomes). In many cases, the Transformational Outcomes were not aligned with a single set of Interventions, rather with all of the Interventions addressing each problem. Where the Interventions columns are blank, it is because the small groups did not address those problems.







Track 1: Community Engagement & City Priorities

<u>Driving Question:</u> How might we set goals for San Francisco in a way that involves everyone including residents, community groups, and businesses?

Companies need help with community engagement in our neighborhoods.	18	discuss what they use the service for and what they would like to use it for Resources needed for more relationship building – across sectors, across departments "tribes" and communities Help identify community leaders representatives Experiment through fast development Do they engage at all? Organizations to do so exist City can help company relay to community why	 "Mygge" (coziness) feeling within local neighborhood community Engage community with technology advancement Active community engagement defining their own issues Shifts in funding to demonstrate a commitment to goals Cooperative engagement/problem solving with government corporations and community Collaboration is out front. Emerging Tech services/helps. No negative impacts Consistent voice/message that communicated efficiently/clearly to all community groups Companies understand and help solve community problems Private investing for city goals because corporations with have stable business environment. City goals are more efficient Quicker solutions at lower cost with less time Companies have better understanding of their impact on communities
City goals and priorities are not communicated in a way we can interact with or respond to.	9	 Clear prioritization because some priorities conflict Community point / engage with residential and merchant community groups via meetings, social media community Signature, people on the ground technology Community point person to act as a liaison between residents and community groups Reps from neighborhood and companies should met and quickly work towards closing the gap in a focused and systematic way. City to share their interactions with residents Press should be more involved Actionable goals / metrics Problem solve break downs into smaller solvable chunks Communicate goals in an actionable way for companies Liaison that is computer literate and able to communicate the city's vision 	







technology fits in with the vision for the City the vision for the conduct outreach City needs to help Does the city have goals and priorities? Communicate early and consistently. Build in equity analysis before giving out permits that involve impacted communities in selecting metrics, evaluating data Let community weigh into decision making Participatory budgeting Austin voting on bike share company Release more info and data on the needs and vision from the end user Define objective and follow through and close the loop! The city decides technology and access is important a percentage of the \$500 million it spends a year should be set aside for equality. Include user in permitting /RFP process Need: Needs analysis, prioritization, impact analysis, identity critical success factor Assess community needs Aligning vision with budget and clear KPIs to measure progress (Open Data) Local government and businesses do not understand resident needs or priorities. Local government does not identify problems that technology can solve. The City lacks a vision		1		
the vision for the City Technology is not being used to solve real problems. Companies required to conduct outreach City needs to help Does the city have goals and priorities? Communicate early and consistently. Build in equity analysis before giving out permits that involve impacted communities in selecting metrics, evaluating data Let community weigh into decision making Participatory budgeting Austin voting on bike share company Release more info and data on the needs and vision from the end user Define objective and follow through and close the loop! The city decided public art was important and put a percentage of construction cost is set aside for art. If city decides technology and access is important a percentage of the \$500 million it spends a year should be set aside for equality. Include user in permitting /RFP process Need: Needs analysis, prioritization, impact analysis, identity critical success factor Assess community needs Aligning vision with budget and clear KPIs to measure progress (Open Data) Aligning vision with budget and clear KPIs to measure progress (Open Data) Local government does not identify problems that technology can solve. The City lacks a vision	It is unclear how	12	community groups and businesses. City should actively look for ways to collaborate with companies on goals Repository of "responses" to community challenges Create a repository of community concerns Prioritize permits to companies that are solving	
Local government and businesses do not understand resident needs or priorities. Local government does not identify problems 5 that technology can solve. The City lacks a vision	the vision for the City Technology is not being used to solve real problems.		that build in equity components Companies required to conduct outreach City needs to help Does the city have goals and priorities? Communicate early and consistently. Build in equity analysis before giving out permits that involve impacted communities in selecting metrics, evaluating data Let community weigh into decision making Participatory budgeting Austin voting on bike share company Release more info and data on the needs and vision from the end user Define objective and follow through and close the loop! The city decided public art was important and put a percentage of construction cost is set aside for art. If city decides technology and access is important a percentage of the \$500 million it spends a year should be set aside for equality. Include user in permitting /RFP process Need: Needs analysis, prioritization, impact analysis, identity critical success factor Assess community needs Aligning vision with budget and clear KPIs to	
not identify problems 5 that technology can solve. The City lacks a vision	Local government and businesses do not understand resident needs or priorities.	11		
	Local government does not identify problems that technology can solve.	5		
	The City lacks a vision and goals.	4		

Track 2: Collaboration and Partnerships

<u>Driving Question:</u> How might the City work with the community and emerging technology companies to solve common problems?







Local government doesn't use other levers of change to work with businesses.	10		Enforcement with teeth – beyond threats
Companies do not give back to community without incentives.	8	 Think about bridging language / communication gap between CBOs and tech (What are out shared goals and how are they expressed?) Forums, common space to share Provide resources for tech to build out social impact teams Finical /ROI incentive for companies of optics help Rethink B corp./ benefit corporation incentives Strong 3-way negotiation – City to community (Role) "Not partner / incentivize" Community benefit before permit. 	 Tech used as vehicle for improving quality of life for all Local government educated the public before launching new regulations Code of ethics for doing business in San Francisco Companies are accountable to their users – they don't pass the buck Tech can be used by CBOs to advance their missions ethically Public education campaign internal (within city) education campaign
Local government isn't always clear on what is or is not allowed, nor the logic behind certain regulations.	7	 Clear about the social benefits = a stronger vision statement that is the basis of each regulation More communication between city departments Collaboratively (with tech, communities, etc.) create a guiding document that serves to clarify existing regulations and or change create new More collaborative forums before first regulations are announced Put resources into understanding what is emerging and set up a test ground 	 Better enforcement and cover costs Industry regulator task force Projects and people can refer to a clear social benefits framework when projects/inactive cure put in place. City officials will be seen by communities as effectively managing the tech impacts on the neighborhoods.
Technology companies are not accountable for their actions.	21	 City should maximize standardized impact fees, apply universally Sensible regulations and enforcement How can we foster shared accountability in tech/digital space? How can tech companies share in the social consequences of innovation can San Francisco create a digital common? Establish a democracy managed public bank for collaboration Socialize control of collaboration points and platforms Structure the resources to favor innovation on publicly owned platforms Companies are trying to move fast and iterate, can be hard to do with more accountability. Mechanisms for collaboration, communication, sharing. 	
Companies do not reach out to government before deploying	15	 "Before" should be an iterative loop: Before, during, after Before! Like the process for building permits – environmental impact studies City recommends top contracts who are ready to partner Companies hire "social – minded" workers Private space and helpful "government IVDS" Pilots: sandboxes, incubators 	







		Partner before "disrupt"
Companies and local government do not always trust one another.	12	 Partner > Don't start with mandates Understanding by government of what tech is. Know where to go Informal collaboration Have incentives to bring companies to table
Local government does not collaborate with other cities/jurisdictions on policy/pilots.	5	
Local government does not use methods to learn about new innovations and new technologies to inform its regulations.	5	
Local government relies too heavily on permits and regulations.	2	
Local government does not always help solve problems.	2	
Regulations can stifle innovation.	1	
The city ignores companies that follow the rules and works with those that break them.	1	
There is no process to collaborate or to develop partnerships.	1	

Track 3: Agile Permitting and Accountability

<u>Driving Question:</u> How might the City better provide a consistent transparent, structured and swift governance and permitting process for emerging technologies?

Regulation is only recovering the cost for administration, and not the impact costs of using public infrastructures.	8	 Change the state and federal regulations to allow cities to recover costs 	 Place to have early consulting, identify potential pitfalls. Clear steps to success.
Regulation is not responsive to changing	19	 One point of contact office of emerging technology (Should not be political – i.e. not in the mayor's office) 	







needs and is often reactive.		 Pilots Include all affected departments Central groups to coordinate Interactive test Be nimble Create general framework add amendments as needed. Interim process while pilot being developed. Limit duration of studies RE: Proposed regulations Use technology to: Document, allow input, follow progress, deliver results (suck as Jira) with equality and front/backend Transparent process 	
The City lacks a standard process to respond to feedback and initiate regulatory rule/process changes.	4	 City to look internally to remove roadblocks when trying to solve issues (i.e. legislation / code/ permitting) Pilot permit for small scale testing – fill gap where permit not available Guidelines for pilots. i.e. small-scale development Regular city interactive process Early assessment similar to FDA 	 Clear path for emerging technologies to test in San Francisco.
Government rules are hard to navigate. It is hard to know what you are supposed to do.	10		
Local regulations are too broad and punish entire industries rather than individual bad actors.	9		
Regulations seem punitive rather than tools to achieve a city vision.	8		
No single entity can answer questions about a City codes related to permitting.	8		
City resources are limited to enforcement rules.	7		
Government rule making is too slow.	6		







Track 4: Equitable Benefits

<u>Driving Question:</u> How might we encourage new technologies that benefit all communities, especially low-income and underserved communities?

Automation and the Gig Economy is disproportionately hurting workers from underserved communities.	19	 Favor local-owned vs. global investors City should educate business models that distribute industry profiles very widely There permitting, impact fees Distribute profits to underserved communities Jobs must provide livable compensation (not just wages) Get the workers classified as employees From future of work commission App-based sharecropping puts expenses on workers and \$\$\$ to bosses/investors Worked training tax credit/apprenticeships City should prioritize contracts with worker co-ops San Francisco public bank as venture capital Money and attention flow to entitled class, while older technologies like next bus needs fixing – no \$\$ for that Tax of socialize the pilots Place emphasis on individuals who live in the City (rather than day time commuters) More public spaces / less commercial space. Make sure companies have hiring quotas from underserved communities like it was done in 	• • • • • •	Poverty reduction Homelessness reduction Eliminate desperation, improved dignity Reduction in income inequality Improved quality of life Improved city revenue More people involved in economy More economic inclusion of social inclusion
Emerging technologies only benefit certain types of people, expanding social and digital divides.	24	 cannabis. Ensure that companies have labor harmony and workers have the right to freedom of association. A' la Payroll tax deal, require companies to spend a lot of \$ on staff to reach marginalized Cities must negotiate for communities not "partner & incentivize Regular companies to have an ethics office who represents people/community in decision Make sure low-income people of color benefits from economic opportunities with tech. Partner with workforce development organizations. Contract with diversely owned businesses. Gig economy public works platform providing flexible barrier-free employment opportunities to low income individuals. Make VC investors accountable as well as companies Maximize real jobs / Minimize "gig" economy Al + equal access Proven that algorithms and Al can be racist and sexist, observed with facial recognition tech, 		Good jobs Transparent Access Improved healthy outcomes (Inc. activity etc.) City governments is responsive to communities vs. private companies. Solution/tech tailored to neighborhood need/demographic







because algorithms lean to replicate human biases

- Need to design AI to counteract these biases to make sure all people regardless of race, gender, income, location have equal access to tech.
- Equity impact assess and analysis
 - Don't hurry permitting
 - First understand impacts
 - O What is the need and impact?
 - Scooter chargers create traffic contradicts claims that it's a green innovation
- Involve communication. Access to all
 - Make a good checklist of risks that tech developments must provide response for how to address.
 - Limit and more comprehensive permitting and regulations
 - Develop platform to discuss the ramifications of emerging technologies before development. Platform could be committee of body of governance
 - Monitor impact of automation on jobs and help workers transition into a new economy.
 - Government/communities platform to identify issues the community faces. Also allows communities to share services that effectively tackle at least some of the issues. Gives insight to companies that will help them provide services the community needs.
 - Conduct an equity analysis as part of the permitting process.
 - Involve community in metric selection and evolution of equity analysis.
 - Understand the ways underserved populations can and want to be involved in planning efforts. What is of most value to them?
 - Ensure that the tech needs of underserved populations are top of mind in all planning efforts.
- Not citywide "neighborhood choice"
- Equitable sometimes means "not in this community"
- Create a citywide fiber network providing free and low-cost access
- Services do need alternative forms of booking and payment, but all levels of government also need to bring vulnerable populations into finical and tech mainstream (access to balancing, free high-speed Wi-Fi, break up internet monopolies to reduce costs and improve quality)
- Expand free phone and data services
- Must be universal access at home.







Technology is underutilized in improving equity.	20	
Emerging technologies present new risk and dangers, especially to vulnerable populations.	14	
Is hard to anticipate the equity impacts of new technologies.	10	
Protections are limited for vulnerable populations.	8	







Track 5: Accessibility and Safety

<u>Driving Question:</u> How might we make sure emerging technologies are safe and accessible to all San Francisco residents, especially those with disabilities?

Emerging technologies can negatively impact and reduce accessibility	21	 Regulating accessibility approach: City government needs to account for negative impacts such as taking up parking spaces and loading zones when issuing permits. All regulations for both permitting and distribution should take an "accessibility first" perspective. Each of these tech firms should be required to vet with MOD before operating. Prioritize accessible parking / loading / curb access Prohibit motorized vehicles from sidewalks (except mobility aids ⑤) Prevent scooters and electronic bikes and robots from sidewalks Provide more infrastructure (light-weight: bike/scooter corral to heavy-weight: protected/accessible bike lanes) to make parking and use safer for everyone. Remove parking (except blue zones) and replace with bike lakes, and other shared use spaces. Build multi-modal pathways (or expand bike lane uses) to reduce friction while decreasing automobile use PR Campaign Keep sidewalks for people PR campaign Design Prioritize – creating and preserving – access and shared space – identify gaps in existing access to public space and leverage new tech to address these
It is hard to share the needs of disabled community members with technology companies.	3	 Developers should be forced to navigate city in walker, wheelchair, etc. Official venues for local governments and companies to provide feedback Consider access in all parts of design,
There is no process to identify accessibility gaps for new products or services.	12	development, and implement actin and regulation Business license application/renewal should include requirement to outreach to disability advocate groups Have stakeholder meetings with the companies and disability community at all stages of product development.







New product does not account for the impact on disabled people.	16	 Stakeholder meetings and best practices Have stakeholder meetings with the companies and disability community at all stages of product development. Companies and local government agencies both need more best practices to share and lift up. Can the City put out requests for solutions to the ?? and make an extra effort to reach marginalized people? PR campaign Keep sidewalks for people Collaborative design solutions (e.g. expand sidewalks? Turn some streets into thoroughfare and others into walk/bike/scooter zones. Dialogs with folks with hidden disabilities Develop accessibility review/checklist for new tech Support participatory and co-design process protect people's right throughout design, development implementation.
The disabled community is excluded from new technologies.	8	
No voice for workers and organizations that serve the disabled community.	6	
How do we prioritize who/what gets priority in the public right of way?	2	
Public safety is not a priority for new technologies.	11	







Track 6: Data Sharing and Privacy

<u>Driving Question:</u> How might the city encourage data sharing practices that promote a data driven city while also respecting individual privacy?

		 More incentives for private sector to share: forbid the denervation of revenues with data. Incentivize data sharing and timely sharing Anonymous data do unable to tell which company FG's from Promote benefits of data sharing to the transportation/housing/business/public space 	 Policy making defined by public and private sources accurate and wholistic data form. Public/private representation leads to higher trust Greater trust in use of data from public Government has means to keep data confidential
Technology companies do not want to share data.	22	 system. Incentivize data sharing and timely sharing Have an oversight committee including tech companies and government officials. Make data sharing reciprocal – city shares data and companies share data. Standardize process for anonymized sharing for companies don't worry about data misuse and breach. Require data sharing in the permit process – you play by the rules or you can operate Since private sector benefits (\$) from data, monetize the public resources used to generate it Clear rules across industry to level the field 	
Existing rules limit the ability for local government to keep data confidential.	8	 Community oversite that reviews data to "certify" privacy and represents the entire community. Set up a non-profit or academic partnership that can receive data from the city. Update equipment Identify existing successful templates and examples for third party orgs sharing data with the public sector (SFMTA and Cabs) Currently cited in law "Privacy first Make people tech literate Decouple identification from services (Single auth) Strip individual identity info – don't ask it unless absolutely needed only store where that info is needed Make the commercial exemption clear No tracking or logging Acc data on individuals must be opted out by default. 	 Less exploitation More access to data, results, better regulations Less ID fraud More accountability in protecting data More process>more bottlenecks Clear rules on sealing records Greater equality because people feel safe offering data Flexibility in what needs to be shared. Rules or policies that protect public but not hurt commerce.
There is no standard process to share date between local governments and companies.	20	 3rd party data standards – including levels of aggregation and platforms State/committee including local private/public sector to create regulations that include standards 	 Friendly, non-antagonistic relationship Clear rule and standards More competition in the market. More data when people feel safer to provide it. Good security practices Representative data







		 Local government creates data sharing body with trust from the stakeholders. Build process with private sector so companies know what is coming so they are able to plan. More open and transparent standards. Clear retention standards that are understood Clear understanding of balancing between privacy and transparency.
Local government has no resources to receive or analyze data.	6	
Local government does not use data to make decisions.	7	
Data and new products are not interoperable.	2	
Users and workers do not share in the profits of the data they generate.	1	
Privacy is not protected.	12	







Track 7: Forecasting

<u>Driving Question:</u> How might the City anticipate the next generation of technologies and business models?

brings both sides to the table. 21 Cross-over where tech companies and government workers do exchanges (work) Legislation does not sufficiently consider future impact. What do other global cities do? EG. China, India, Middle East – Looking to other countries to learn what new tech is coming. Trade groups and publications as a source of insight on the future. Develop a set of indicators to track. Have representation from each department				
brings both sides to the table. 21				
Legislation does not sufficiently consider future impact. 4	There is no formal structure to talking about the future of technology.	21	 brings both sides to the table. Cross-over where tech companies and government workers do exchanges 	
Trade groups and publications as a source of insight on the future. Develop a set of indicators to track. Have representation from each department Problem/solution – driven approach. Identification of gnarty problems to solve and identify the difficult types of entities that can help solve the problem Build a highly democratic public bank – source of highly transparent insight Rules/legislation need to be open and relevant to new business models Develop policy outlines and scale/development them as new techs become more and more relevant. Listen to existing industries to hear what is bubbling up. It should be easier to try out ideas. Employ / buy consulting from futurists – engage with futurists at tech companies. Employ / buy consulting from futurists – engage with futurists at tech companies. Create an 'Office of the Future' – a group/ team tasked with thinking about the future of the city holistically (not mayor's office – too temporary) Data Sources: Universities, CABs, VCs, Other Cities, Demographics Wait for industries to develop where to develop with rown standards – We don't have to lead in everything! Develop a funnel based on factors like impact based on planned investment time EG. Water (Long) vs. Transport (Medium) vs. Food (Short) Government only learns about new technologies are rapidly changing. Local government does not talk to experts about emerging technologies. Technologies are rapidly changing. Lessons learned about the value and risks of new experts about emerging technologies are rapidly changing. Lessons learned about the value and risks of new experts about emerging technologies are not shared.	Legislation does not sufficiently consider future impact.	19	 Activities that allow opportunities for tech companies to engage EG. Bids, ideation What do other global cities do? EG. China, India, Middle East – Looking to 	
learns about new technology through sales pitches. Local government does not talk to experts about emerging technologies. Technologies are rapidly changing. Lessons learned about the value and risks of new technologies are not shared.	Local government struggles to anticipate the impacts of new technologies.	17	 Trade groups and publications as a source of insight on the future. Develop a set of indicators to track. Have representation from each department Problem/solution – driven approach. Identification of gnarly problems to solve and identify the difficult types of entities that can help solve the problem Build a highly democratic public bank – source of highly transparent insight Rules/legislation need to be open and relevant to new business models Develop policy outlines and scale/development them as new techs become more and more relevant. Listen to existing industries to hear what is bubbling up. It should be easier to try out ideas. Employ / buy consulting from futurists – engage with futurists at tech companies. Engage with academic institutions (grad students are cheap!) 5-10 year near future designers to develop visions of future scenarios Create an 'Office of the Future' – a group / team tasked with thinking about the future of the city holistically (not mayor's office – too temporary) Data Sources: Universities, CABs, VCs, Other Cities, Demographics Wait for industries to develop their own standards – We don't have to lead in everything! Develop a funnel based on factors like impact based on planned investment time EG. Water (Long) vs. Transport (Medium) vs. Food 	
does not talk to experts about 12 emerging technologies. Technologies are rapidly changing. Lessons learned about the value and risks of new 10 technologies are not shared.	Government only learns about new technology through sales pitches.	10		
Technologies are rapidly changing. Lessons learned about the value and risks of new 10 technologies are not shared.	Local government does not talk to experts about emerging technologies.	12		
about the value and risks of new 10 technologies are not shared.	Technologies are rapidly changing.	3		
20	Lessons learned about the value and risks of new technologies are not shared.	10		
				20







PARTICIPANT SESSION FEEDBACK

Following the small group breakouts, we asked, "Did anyone get a new perspective, or learn something new from the exercises today?" A few of the session participants provided the following responses:

"I really appreciated having conversations with people from 20 different places and it seemed like a lot of shared goals from all of those places."

"It is very encouraging to me to find that my views are not completely unique and other people share those views."

"I like to hear the different perspectives from the private sector folks, and the government folks, and the non-profit folks, and all of the other folks that were here, and see that everyone is coming at this from different angles."







APPENDIX

AUGUST **17 S**ESSION **A**TTENDEES

Attended?	Name	Organization	Registered Lobbyist?
X	Marlo Sandler	Bird	
X	Walter Rosenkranz	Car2go	
x	Fran Taylor	Ccpuede	
X	Kyle Merson	Chariot	
X	Maurice Bizzarri	Community	
X	Laurie Sanchez	Community tech network	
X	Anya Deepak	Dept of environment	
X	Sadie Harmon	Elder care alliance	
X	Gregory Stock	Firefly	
X	Hana Creger	Greenlining	
X	William Franklin	Health right 360	
x	Fiona Hinze	Independent living resource center	
X	Scott Mauvais	Microsoft	Yes
X	Preston Rhea	Monkeybrains	
X	Susan Ma	Oewd	
X	Vas Kiniris	Sf cdma	
X	Susan Poor	Sf tech council	
	Lulu Feliciano	Sfmta	
X	Rodrigo Davies	Strava	
X	Doug Bloch	Team jc 7	Yes
X	Franco Arieta	Zipcar	
X	Stuart Coltrell	Zipcar	
x	Anil Dewan		
X	Darryl Yip		
X	Erin McAuliff		
X	James R Anderson		
X	Jay Owens		
X	JOSH TOVAR		
X	Lulu Feliciano		
X	Marie Jobling		
X	Vignesh Ganapathy		
X	Zach Berke		







Χ	Zachary Drucker		
Χ	Charles Rathbone	Luxor Cab	
X	Rick Hall	Cultural action network	
Χ	Marsha Jabari	Tech council	
X	Kathy DeLuca	Walk sf	
X	Brian Roberts	DT	
Х	Chris Sweis	Yellow taxi sf	
Х	Galen Alexander	Riff city strat	
Х	Luis cuadre	Marble	Yes
Х	Cody merrill	Socialwise	
Х	Paul Chasan	Planning	
Х	Nick nikiema	Supervisor yee	

