**BOARD of SUPERVISORS** 



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#### MEMORANDUM

- TO: Adam Thongsavat, Liaison to the Board of Supervisors, Office of the Mayor Carmen Chu, City Administrator, Office of the City Administrator Michael Makstman, Chief Information Officer, Department of Technology Sailaja Kurella, Acting Purchaser and Director, Office of Contract Administration
- FROM: Monique Crayton, Assistant Clerk, Government Audit and Oversight Committee, Board of Supervisors
- DATE: June 30, 2025

#### SUBJECT: Civil Grand Jury Report Received

The Board of Supervisors' Government Audit and Oversight Committee is in receipt of the San Francisco Civil Grand Jury (CGJ) report released June 10, 2025, entitled: "Techs in the City - Government's Opportunity to Seize the AI Moment."

Pursuant to California Penal Code Sections 933 and 933.05, the departments must:

Respond to the report within 60 days of receipt, or no later than August 9, 2025 For each finding the Department response shall:

- 1) agree with the finding; or
- 2) disagree with it, wholly or partially, and explain why.

As to each recommendation the Department shall report that:

- 1) the recommendation has been implemented, with a summary explanation; or
- 2) the recommendation has not been implemented but will be within a set timeframe as provided; or
- 3) the recommendation requires further analysis. The officer or agency head must define what additional study is needed. The Grand Jury expects a progress report within six months; or
- 4) the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

Government Audit and Oversight Committee Board of Supervisors Civil Grand Jury Report "Techs in the City - Government's Opportunity to Seize the Al Moment" Board File No. 250647 Page 2

The Civil Grand Jury Report identified the following City Departments to submit responses:

- Office of the Mayor
- Office of the City Administrator
- Department of Technology
- Office of Contract Administration

When submitting responses to the Civil Grand Jury, please forward a copy to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102 or email at: <u>monique.crayton@sfgov.org</u>.

cc: Feng Han, Office of Chair Fielder Sophie Hayward, Office of the City Administrator Vivian Po, Office of the City Administrator Angela Yip, Office of the City Administrator Karen Hong Yee, Department of Technology Rachel Cukierman, Office of Contract Administration Brad Russi, Office of the City Attorney Alisa Somera, Office of the Clerk of the Board Nicolas Menard, Office of the Budget and Legislative Analyst Amanda Guma, Office of the Budget and Legislative Analyst Dan Goncher, Office of the Budget and Legislative Analyst

# **Techs in the City**

## Government's Opportunity to Seize the Al Moment

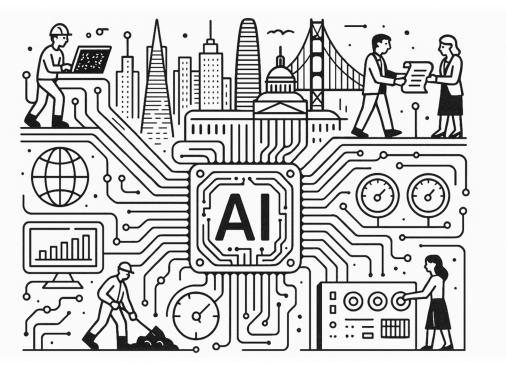


Illustration by ChatGPT40. Prompt: "An intricate line-art diagram of a city government as an Al-enabled machine. San Francisco's skyline subtly emerges from circuit pathways. Small human figures—city workers, policy makers, technologists—are placed like components in a system: some debug code, others pass laws as data packets, others tweak dials. Clean, clever, and layered with meaning."

June 10, 2025



#### CITY AND COUNTY OF SAN FRANCISCO

2024–2025 CIVIL GRAND JURY

#### About the San Francisco Civil Grand Jury

The San Francisco Civil Grand Jury ("the Jury") is a government oversight panel of volunteers who serve for one year. Each Jury determines which San Francisco government entities or officials it will investigate. Private citizens may also submit written complaints to the Jury, for investigation at the Jury's discretion. The Jury cannot investigate disputes between private parties, criminal activity, or activities outside its jurisdiction, which is the City and County of San Francisco.

In reports made available to the public, the Jury documents findings and recommendations based on its investigations. Reports do not identify individuals by name, and disclosure of information about anyone interviewed by the Jury is prohibited.

The San Francisco Civil Grand Jury consists of 19 city residents impaneled by a Superior Court Judge. By state law, a person is eligible for Civil Grand Jury service if he or she is a U.S. citizen, 18 years of age or older, of ordinary intelligence and good character, and has a working knowledge of the English language.

#### 2024-2025 Civil Grand Jurors

Michael Carboy Foreperson Jonathan E Cowperthwait Foreperson Pro Tempore Katherine Blumberg Jill Center Phyllis Deets Phoebe Douglass Quang Duong

- Stan Feinsod Bart Fisher Samuel Fleischmann Juliette Kruse Jorlyn Le Garrec Judy Nadel
- Connor Owens Cameron Parker Lucy Saldaña Barbara Savitz Nykol'e Taylor Nicholas Weininger

### Summary

Our society is entering a new phase of digital transformation. Artificial intelligence (AI) stands to dramatically alter the ways humans interact with technology. It already significantly aids workers by automating tasks like translation, transcription, scheduling, and drafting communications. It can, with increasing sophistication, conduct research and generate software code, delivering work product to humans for review in seconds. AI tools can interpret images or sensor data for patterns and detail not discernible to humans, and they are improving at a dramatic pace. During our investigation, new AI models have begun to regularly exceed expert levels of human intelligence.

Now is the time for public and private entities to be planning for the next era of technology. Just as San Francisco's private sector is the center of AI innovation, its government should be a model for innovation and an exemplar for how AI can make city workers more productive, and city services better.

The Civil Grand Jury undertook an investigation to understand the city's roadmap for identifying and implementing applications for AI. We discovered a lot of talent and enthusiasm inside government. Many leaders are eager to modernize and explore new technology, whether through AI or other applications. However, this energy is stymied by impractical and burdensome technology governance, confusing procurement processes, and a false sense that there is low risk in adopting a slow approach.

#### Key Problems the Jury Identified

 Missed Opportunities: Even though San Francisco is an AI epicenter, its local government is not taking full advantage of partnerships and forums, nor widely promoting training to upskill its workforce. In one instance, the city took six months to evaluate a zero dollar contract that would allow city workers to benefit from free AI education. So far, the city's approach has been oriented more toward risk management than enthusiastic exploration.

- **Fragmentation**: People are smarter when working together, but technology personnel and procurement are not governed by a unified organization or strategy today. This will present a significant challenge to devising and implementing a roadmap for AI.
- Ineffective Governance: The Committee on Information Technology (COIT) is supposed to steer and align IT strategy across government. In practice, it has limited power and struggles to enforce policies or coordinate citywide tech investments, again making it difficult to create a uniform strategy and execute it across government.

#### Recommendations from the Jury:

- **Stronger Leadership from the Top**: The mayor can reset the tone by championing an Alcurious culture that seeks opportunities to improve city services and technology.
- Stronger Partnerships: The city should leverage local talent including universities and tech companies as well as civic groups like the GovAl Coalition — to drive innovation in municipal Al use.
- Consolidated Governance: Centralizing critical IT and procurement functions within the Department of Technology (DT) will reduce duplication, lower costs, and create centers of excellence where AI expertise can flourish across the city.
- Rethink the Committee on Information Technology (COIT): COIT isn't working as a governance body. It should be discontinued or, at least, re-imagined.
- Smart Standards, Not Just Paperwork: The city's Al inventory law, with its 22-question compliance checklist, is well-intentioned but confusing. Officials should refine the requirements to simplify and improve clarity.

Please see the <u>Findings and Recommendations</u> section for full details.

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## Background

"Artificial Intelligence' means an engineered or machine-based system that varies in its level of autonomy and that can, for explicit or implicit objectives, infer from the input it receives how to generate outputs that can influence physical or virtual environments."

- San Francisco Administrative Code, Section 22J.2.

"By 2005 or so, it will become clear that the internet's impact on the economy has been no greater than the fax machine's."

- Paul Krugman, Nobel Price-winning economist, 1998

*"Improving government's capacity starts with correcting these glaring imbalances between watching and doing... between stop energy and go energy."* 

- Author and technologist Jennifer Pahlka<sup>1</sup>

Government can be a digital innovator. After all, the US federal government created the internet and, with it, the modern digital economy. Yet today the public sector is considered a technological laggard. Complaining about the DMV and the post office is as American as apple pie, as is speculating about what went wrong to make government so inefficient. San Francisco's government suffers from the same reputation, despite sitting at the center of the most innovative technological ecosystem on Earth.

<sup>&</sup>lt;sup>1</sup> Jennifer Pahlka. The Digitalist Papers. "<u>AI Meets the Cascade of Rigidity</u>"

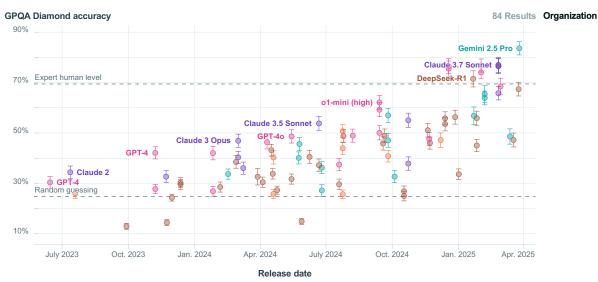
#### **Defining Artificial Intelligence**

Al has in many ways been around for decades. "Algorithms," "machine learning," and "neural networks" — these technologies are notable for a special ability to process complex information, provide actionable insight and inform decision-making.

Since 2023, the pace of AI's advancement has accelerated. This rapid improvement is due to advances in "generative AI" through the deployment of "large language models" (LLMs) that use statistical relationships to generate responses to user queries. These models are rapidly improving in intelligence even as the cost of their use declines. Humans interact with these models by inserting natural language prompts into text fields, similar to how one would message a friend or colleague. It is uniquely accessible, which has encouraged widespread exploration and adoption.

The 2024-2025 Civil Grand Jury began its work in July 2024. At the time, no LLM had exceeded expert intelligence on the GPQA Diamond science proficiency assessment, a 448-question test written by domain experts in biology, physics and chemistry.<sup>2</sup> In less than a year, models have progressed to the point of nearly acing this assessment.

<sup>&</sup>lt;sup>2</sup> Arxiv.org. <u>GPQA: A Graduate-Level Google-Proof Q&A Benchmark</u>



#### Al performance on a set of Ph.D.-level science questions

Figure 1: AI Benchmarking. More recent models have begun to exceed expert human intelligence on measures of science proficiency<sup>3</sup>

For this report, we will use the definition of AI written into San Francisco's Administrative Code (quoted at the opening of this section). We think this is a good working definition that is specific enough to capture the nature of artificial intelligence without being overly prescriptive. Plus, it's the one the government already uses.

#### **Al's Current Capabilities**

There's a lot of promise on the horizon, but the technology – properly used – is already enormously beneficial to workers and exceeds human capability across several capacities. Below is a sample of practical current use cases.

<sup>&</sup>lt;sup>3</sup> Epoch AI. <u>AI Benchmarking Hub</u>.

Use Case	What It Does	Potential Uses for City Workers
1. Chat-based Research Assistants	Uses AI to answer questions, provide reading material, and summarize complex documents quickly.	A city official can ask a research assistant to collect and summarize data on similar transportation projects in other cities, along with citations to confirm accuracy.
2. Automated Document Summaries	Scans large reports or policy documents and creates concise summaries.	A public agency can quickly get an overview of lengthy proposals or legislative documents, highlighting the main actions and requirements for human interpretation.
3. Drafting & Editing Documents	Generates first drafts of emails, letters, or reports based on prompts; suggests grammar improvements.	A manager in a city department can draft community announcements or meeting follow-up emails, then finalize them with personal expertise.
4. Transcription & Notetaking	Records and transcribes meetings, generating key takeaways and action items.	During a meeting, AI can handle notetaking, letting city staff fully participate in discussions without worrying about missing details.
5. Language Translation & Accessibility	Translates content between languages; converts written content to audio or other accessible formats.	A multilingual notice for city residents can be translated into multiple languages so non-English speakers stay informed or converted to audio for individuals with visual impairments.
7. Intelligent Scheduling & Resource Allocation	Analyzes calendars, bookings, and availability to optimize schedules and resource use.	A community center can automatically schedule events and reserve rooms without double booking, making coordination easier for staff.
8. Predictive Analytics for Planning & Operations	Forecasts needs or potential issues using data on traffic, weather, resources, and more.	City planners can predict which roads are likely to experience traffic surges, adjusting traffic signals or planning lane expansions in advance.
9. Traffic & Incident Management	Analyzes real-time sensor/camera data to detect accidents or bottlenecks and suggest solutions.	Al-driven traffic light systems can adjust in real time to ease congestion and prioritize emergency vehicles.
10. Image Recognition for Inspections & Monitoring	Identifies objects or patterns in photos/videos; detects issues like graffiti or illegal dumping.	City inspectors can take photos of streets and AI flags potholes or broken signs, speeding up repair requests.
11. Data Extraction from Forms & PDFs	Automates the collection of data from scanned documents into usable databases.	When residents submit permit applications on paper, AI can extract the essential details so staff can process them more quickly.

Use Case	What It Does	Potential Uses for City Workers
12. Quick Prototyping & Design Tools	Generates layouts or visual concepts based on parameters; accelerates early-stage design.	Urban planners can quickly mockup new park designs or streetscape improvements, refining concepts with human creativity.
13. Personal Task Management & Reminders	Keeps track of deadlines, emails, and calendars, suggesting optimal times for tasks.	A social worker managing multiple cases can receive reminders for upcoming client check-ins, ensuring all tasks are completed on time.
15. Sentiment Analysis & Public Feedback	Scans social media, emails, and surveys to gauge public sentiment and feedback.	The mayor's office can quickly see public opinions about a new park, detecting overall satisfaction levels or concerns and responding proactively.

#### **Potential Perils**

There are several concerns around emerging AI technology, particularly with respect to LLMs, that deserve acknowledgement.

- **Bias**: AI models are trained on data generated by humans and have been shown to mimic the biases embedded in human-generated content. This underscores the need for appropriate layers of human review and the risk of simply outsourcing work to AI.
- Hallucinations: Models have been shown to "hallucinate," making inaccurate statements while expressing a high degree of confidence. It is important to train workers to independently confirm outputs and to prompt models in ways that minimize hallucinating.
- **Plagiarism:** LLMs might respond to prompts with near-verbatim quotes from source material. Again, this underscores the importance of users referencing source material.
- **Privacy**: Many language model services use user data to train their models. Workers who feed sensitive data into the models to complete a task effectively put that data into the public domain. This underscores the importance of the city offering education and providing services with enterprise-grade security.

- Energy: AI models are energy-intensive, particularly during training. Data centers currently account for 1-2% of global electricity consumption. Fortunately, there have been strides in power efficiency. In its base case, the International Energy Agency expects data center demand growth to contribute less than 10% of total electricity demand growth through 2030.<sup>4</sup> Still, that is a large increase, and accommodating this demand sustainably is an important challenge for governments at all levels.
- Worker Displacement: AI is likely to change the ways humans use technology and the division of labor between humans and software. Exactly how this will play out remains unclear. Many of the concerns expressed above underscore the importance of keeping a "human in the loop" to continue to provide oversight of these powerful tools, rather than simply outsourcing work to them.

#### This is Not the Fax Machine

There are varying predictions about exactly how transformational AI will be. But big technological changes have been underestimated before. Paul Krugman won a Nobel Prize in Economics, yet (in)famously postulated in 1998 that the internet would be as economically impactful as the fax machine. At the time, there were plenty of good reasons to think he could be right.

Two important conclusions of this report are:

- The balance of evidence suggests that AI will vastly increase the capabilities of city workers and the quality of services government can deliver.
- Doing nothing is expensive. Failing to invest will erode citizen trust and degrade service quality. These are real costs.

<sup>&</sup>lt;sup>4</sup> International Energy Agency. "World Energy Outlook 2024".

Private actors are betting on AI with their dollars. Investment in computers and peripherals has been accelerating over the past year and grew at a 27.7% annualized rate in Q3 2024<sup>5</sup>. Spending on data centers and computing equipment from Taiwan, where most semiconductors are produced, are at record highs as technology companies invest in scaling and deploying AI (Figure 2). In a recent blog post, Microsoft called AI a "golden opportunity" and indicated it plans to spend \$80 billion on AI-enabled data centers in 2025 alone<sup>6</sup>.

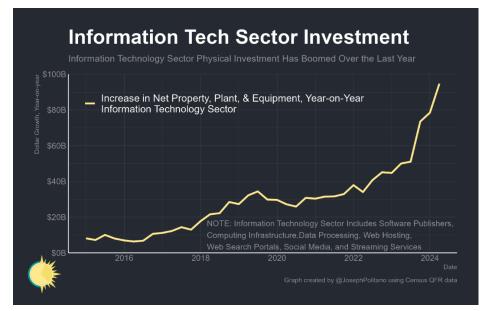


Figure 2: IT infrastructure investment such as data centers and equipment are surging to meet demand<sup>7</sup>

Evidence suggests the public is embracing AI at least as enthusiastically as it embraced the internet and the PC. A National Bureau of Economic Research working paper examined national household survey results in late 2024 for two population surveys. It found that about 40% of the population uses generative AI, and about 27% use it in their work environments (Figure 3).<sup>8</sup>

 <sup>&</sup>lt;sup>5</sup> Federal Reserve Economic Data. "<u>Real gross private domestic investment: Fixed investment:</u> <u>Nonresidential: Equipment: Information processing equipment: Computers and peripheral equipment</u>"
 <sup>6</sup> Microsoft. "<u>The Golden Opportunity for American Al</u>"

<sup>&</sup>lt;sup>7</sup> Joseph Politano. Apricitas Economics. "<u>The Al Investment Boom</u>"

<sup>&</sup>lt;sup>8</sup> NBER. "<u>The Rapid Adoption of Generative AI</u>". February 2025 revision.

To put this in context, researchers plotted this uptake against years since inception and compared it to the adoption curves of computers and the internet (Figure 4). Generative AI is running well ahead. It remains to be seen whether the adoption curve continues to outpace prior technologies and how much adoption will be for work versus personal use. What seems clear is that the next wave of technological transformation is unfolding and is coming at least as fast as the PC and the internet.

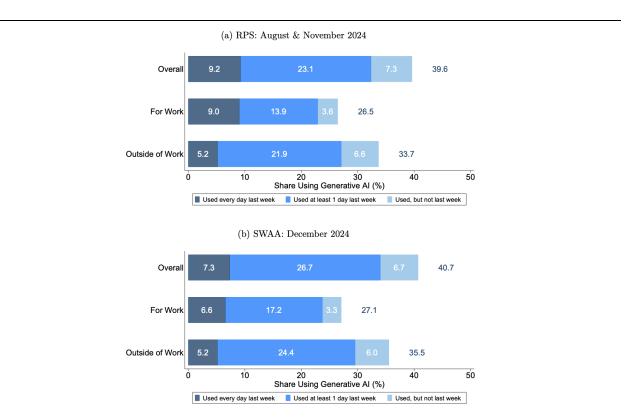


Figure 3: Survey data from the Real-Time Population Survey (RPS) and Survey of Working Arrangements and Attitudes (SWAA)<sup>8</sup>

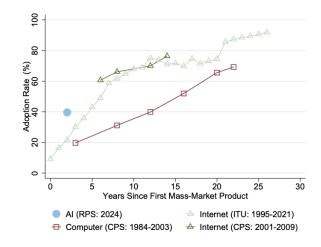


Figure 4: Adoption curve of AI vs the computer and internet shows that AI is well ahead<sup>8</sup>

#### The Bay Area Al Boom

If AI represents a seismic shift, the quake is emanating from San Francisco. Former Mayor London Breed was eager to heap praise on San Francisco as a center of AI during the 2023 Asian Pacific Economic Cooperation (APEC) Summit.

*"San Francisco is the AI Capital of the World and we are proud to show the visiting international community of leaders what is happening right here in this city."*<sup>9</sup> – Former mayor London Breed

Head due west from City Hall across Van Ness Avenue, and you will find yourself in Hayes Valley, which earned the moniker "Cerebral Valley" after it became known for its concentration of hacker houses and startups working on new AI projects.<sup>10</sup> OpenAI (maker of ChatGPT), Anthropic (maker of Claude), Perplexity, Scale AI, and numerous other leaders in generative AI are all headquartered in San Francisco. Google, a Bay Area company, pioneered the LLM

<sup>&</sup>lt;sup>9</sup> SF.gov. "San Francisco's Leadership as AI Capital of the World on Display at APEC"

<sup>&</sup>lt;sup>10</sup> SF Standard. "What is 'Cerebral Valley'? San Francisco's nerdiest new neighborhood"

architecture that underpins generative AI.<sup>11</sup> Nvidia and AMD, two leaders in chipmaking for data centers and AI training, are both headquartered south of San Francisco.



An advertisement for Anthropic's Claude model at San Francisco International Airport (photo by SF Civil Grand Juror)

#### Peer Governments Recognize AI as an Opportunity

San Francisco is also nominally a member of a broader coalition of governments and agencies called the GovAl Coalition (GovAl).<sup>12</sup> GovAl was brought into being by the City of San Jose, which serves as the presiding member of its board. The board also has representatives from Long Beach, San Antonio, San Diego, St. Paul (MN), Bellevue (WA), the Colorado Department of Revenue, and the Tri-County Metropolitan Transportation District of Oregon (TriMet). Several Bay Area agencies and jurisdictions are also members, including the Port of Oakland, City of Oakland, City of Alameda, County of Alameda, County of Marin, County of Solano, City of Santa Clara, County of Santa Clara, and more.

GovAI is an important forum for public officials from around the country to share ideas and perspectives. It also has resources and templates for establishing policies, communicating

<sup>&</sup>lt;sup>11</sup> Arxiv.org. <u>"Attention is All You Need"</u>

<sup>&</sup>lt;sup>12</sup> City of San Jose. <u>Government Al Coalition</u>

use cases, negotiating vendor agreements, measuring performance, and searching for generative AI tools.<sup>13</sup> As we discuss below, San Francisco could be a more active participant in this organization.

Given how new this technology is, many cities are just starting to implement policies and initiatives. The results of these initiatives will be interesting to observe over the coming years. However, several peer jurisdictions are already ahead of San Francisco.

- San Jose has published a detailed set of guidelines and "getting started" instructions for AI-curious employees, including instructions on how to create dedicated accounts for work, opting out of data collection, etc.<sup>14</sup>
- Boston's AI guidelines provide a link to introductory training from InnovateUS. This organization also offered free AI education to San Francisco city employees but was delayed for more than six months as the contract sat with the board of supervisors.
   Boston's guidelines also provide a form link for city workers to provide direct feedback on generative AI use.<sup>15</sup>
- The New York City Office of Technology & Innovation has published a detailed action plan which calls for AI education in the city, use case identification (including through the development of proprietary tools) and streamlined procurement with implementation timelines.<sup>16</sup>
- The City of Denver organized and hosted an AI summit in September 2024 to connect practitioners and researchers.<sup>17</sup>

<sup>&</sup>lt;sup>13</sup> San Jose GovAl Coalition. <u>Templates & Resources</u>

<sup>&</sup>lt;sup>14</sup> City of San Jose. "<u>Generative Al Guidelines</u>"

<sup>&</sup>lt;sup>15</sup> City of Boston. "<u>Guidelines for Using Generative AI</u>"

<sup>&</sup>lt;sup>16</sup> New York City. "<u>Artificial Intelligence Action Plan</u>"

<sup>&</sup>lt;sup>17</sup> Denver <u>Al Summit</u>

 Boise's city government has created an AI community of practice and an ambassador program for city workers to share knowledge and best practices from their use of AI tools.<sup>18</sup>

As we discuss below, some of these ideas are on the agenda for San Francisco. We look forward to seeing them put into practice.

#### San Francisco Technology Policy & Governance

Interviewees typically used the euphemism "federated" when describing to the Jury how technology is organized in San Francisco government. This means departments have wide latitude to govern their IT affairs and often employ dedicated IT staff rather than utilizing DT staff for their IT services. Across this array of IT arrangements sits COIT, which has representation from across the city and is meant to support technology alignment.

#### **City Departments**

Individual city departments are often independent when it comes to IT operations, procurement, and system implementation. Departments maintain dedicated IT staff who do not report to the department of technology (DT), which is headed by the chief information officer (CIO). Technology procurement policies require certain purchases to go through the CIO and cybersecurity reviews, but these are late in the purchase process, limited in scope, and lacking veto authority.

#### **City Administrator's Office**

DT itself is housed within the office of city administrator. However, digital services, which also oversees DataSF, is within the city administrator's office—but outside of DT. Digital services is

<sup>&</sup>lt;sup>18</sup> City of Boise. <u>Al in Government</u>

a key organization in managing the city's website and designing technology that sits between departments and between citizens accessing public services. Its purview would more naturally fit within DT rather than alongside it.

In late 2024, DT hired a Director of Emerging Technologies. This newly created role will focus on AI governance in the city, and reports to the CIO. This Director is also hiring two additional staff in 2025.

#### **Committee on Information Technology (COIT)**

The Committee on Information Technology (COIT) was created by ordinance in 2010 by adding Section 22A.3 of the Administrative Code.<sup>19</sup> The mayor, city administrator and the CIO sit on the body as permanent members, along with the president of the board of supervisors and a few other city leaders. There are also five rotating two-year seats reserved for various department heads. Leaders can and sometimes do appoint subordinates to represent them by proxy at meetings. COIT was a result of city findings (which were also written into the Administrative Code) that Information Communication Technology (ICT) advances rapidly and that coordination and sharing of ICT has cost and efficiency benefits.

<sup>&</sup>lt;sup>19</sup> San Francisco Administrative Code. <u>Sec. 22A.3. Committee on Information Technology</u>

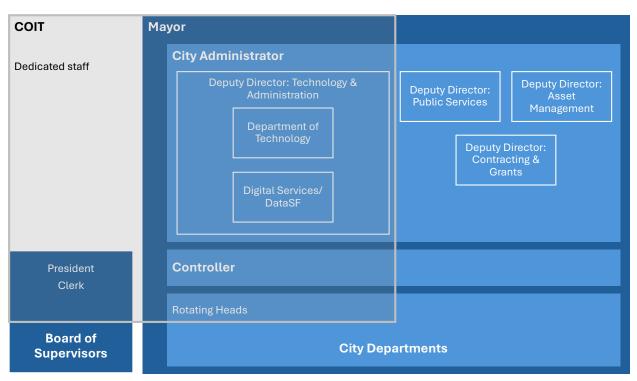


Figure 5: Key organizations involved in technology governance and their relationships to COIT. Graphic by Civil Grand Jury.

COIT has adopted policies to support and align technology in San Francisco.<sup>20</sup> It also manages a surveillance technology inventory and produces an annual budget recommendation for funding technology initiatives. COIT also produces a five-year ICT plan on a rolling basis that outlines the important goals, initiatives and recommendations of COIT for San Francisco ICT. In the most recent ICT plan published in 2024, "artificial intelligence" appears exactly twice once in reference to a digital queuing initiative at the Permit Center, and again as a general reference to potential automation of enterprise systems.<sup>21</sup> The latest draft of the next ICT plan mentions "artificial intelligence" merely to acknowledge its existence and state the city is taking a "measured and proactive approach," as well as noting the onboarding of the emerging technologies director.

<sup>&</sup>lt;sup>20</sup> SF.Gov. <u>COIT policy page</u>

<sup>&</sup>lt;sup>21</sup> FY2024-28 ICT Plan

As we discuss further below, the Civil Grand Jury agrees with the findings that led to the creation of COIT but finds that COIT has been ineffective.

#### The Mayor's Office

The mayor, as the city's chief executive, is ultimately responsible for the actions and inactions of the city administrator, DT, and most of the departments in the city. As mentioned above, the mayor is also a permanent member of COIT and has an Office of Innovation, whose mission reads:

*Our mission is to empower City Departments by introducing new approaches, resources, and inclusive technology for Citywide priorities. We work with City Departments, Community Partners, and residents to drive impact on some of the City's biggest challenges.*<sup>22</sup>

For the past several years, the office has primarily been funded by a grant from Bloomberg Philanthropies.<sup>23</sup> It has two primary initiatives:

- 1. The "i-team," which focuses on facilitating cross-departmental collaboration to solve city problems.
- 2. Civic Bridge, which facilitates public/private partnerships that bring private sector resources to bear on improving city functions.

Bloomberg Philanthropies is a generous organization and has even advanced its own Al initiatives to improve city government. However, we assume that it will not fund the Office of Innovation forever. In late 2024, the former leader of the office, Stephen Sherrill, was appointed to the board of supervisors, and was replaced by Florence Simon. A new mayor and new

<sup>&</sup>lt;sup>22</sup> SF.gov. <u>Mayor's Office of Innovation - About</u>

<sup>&</sup>lt;sup>23</sup> SF Legistar. Ordinance 216-21. <u>City and County of San Francisco - File #: 211126</u>

leadership offer this office new opportunities to play a constructive role in implementing an AI strategy.

#### **Smart Cities Initiatives**

SFMTA is one of the largest city departments, with its own technology division operating independently from the city's IT apparatus. It is one of several "enterprise departments" like the airport or public utilities commission, which have dedicated revenue sources and operate with a high degree of autonomy. In 2018, SFMTA pursued a Connected Corridor Pilot.<sup>24</sup> The project included installing street sensors that provide real-time indicators for dynamically adjusting traffic signals for better road use efficiency and safety; for instance, allowing pedestrians more time to cross an intersection or to stop traffic ahead of emergency vehicles' pass-through. While the project's potential was promising, SFMTA produced no final report since the project's conclusion in 2022 and has no plans to follow up. Broadly, SFMTA continues to implement camera systems to detect speeding and other traffic violations, with automated ticketing.

Since 2018, there has been rapid improvement in the ability of sensors and software supporting them to gather and interpret complex street-level data. In a recent survey by Bloomberg Philanthropies of 100 mayors and city staff around the world, the most enthusiasm for deploying AI was around traffic and transportation, followed by infrastructure.<sup>25</sup> In 2023, Google began partnering with several cities on Project Greenlight, which leverages AI to optimize traffic lights to improve congestion and lower emissions.<sup>26</sup>

<sup>&</sup>lt;sup>24</sup> SFMTA. <u>Smarter Traffic Signals Prioritize Transit and People</u>

<sup>&</sup>lt;sup>25</sup> Bloomberg Philanthropies. "State of Cities: Generative AI in Local Governments"

<sup>&</sup>lt;sup>26</sup> Geekwire. "<u>Google's 'Project Green Light' uses AI to improve traffic flow, cut emissions in Seattle and elsewhere</u>"

San Francisco is a member of the Vision Zero network and is nominally committed to creating a city where there are zero fatalities from traffic incidents. It's a bold goal, but the city is not meeting it by embracing all technological solutions on offer.

#### Al in San Francisco Government: Loading... Please Wait

#### **AI Working Group and Generative AI Guidelines**

In late 2023, San Francisco published basic guidelines around the use of generative AI that are available on its website, along with a brief animated video explaining the guidelines.<sup>27</sup> These guidelines were produced by a working group that included the CIO, deputy city administrator, the chief digital officer, and other city leaders. The guidelines outline potential positive use cases for generative AI, as well as prohibitions and caveats.

#### The Director of Emerging Technologies

In late 2024, DT created a new role: director of emerging technologies. As described on SF.gov, the purpose of this role is to lead the implementation of artificial intelligence and other emerging technologies across the city's 50+ departments and develop standards. This role is timely given the acceleration of generative AI and because the board of supervisors is imposing on DT a number of new compliance requirements around AI, as we discuss below.

#### **Al Inventory Legislation**

On December 10, 2024, the board of supervisors passed legislation adding Chapter 22J to the Administrative Code. Former Mayor London Breed signed the legislation on December 19, 2024. This legislation gives DT six months to begin publishing an inventory of all AI-enabled technology that city departments are using (with limited exceptions), and the inventory is to be

<sup>&</sup>lt;sup>27</sup> SF.gov. <u>San Francisco Generative AI Guidelines</u>

completed within a year. Departments are to furnish their inventory to DT, including answering 22 questions regarding how the technology was developed, potential biases, potential employment impacts to human workers and other risks (See <u>Appendix</u> for full list of questions). COIT, at the direction of the CIO, can modify the information requested.<sup>28</sup>

The legislation acknowledges that the inventory is necessary because the "decentralized" nature of technology in San Francisco results in many departments procuring technology – some of which may be AI-enabled — without direct knowledge of the CIO or DT. The legislation acknowledges that AI can be deployed in positive ways, but the 22 questions suggest a stance of wariness and concern around AI. Some questions are easier to answer than others. One particularly open-ended query asks, "how the information or decisions generated by the technology could impact the public's rights, opportunities, or access to critical resources or services." Not all AI technology will be subject to the questionnaire. Exceptions include "AI technology solely used to improve internal administrative processes that does not affect rights, staffing decisions, or make substantive changes affecting Department decisions, rights, or services." Again, this is rather open-ended. We expect much will be learned in the implementation of this ordinance and worry that confusion around its requirements will chill the pursuit of helpful AI-enabled technology. City workers may feel that requirements are too vague to respond confidently or need to invest significant time conducting due diligence on requirements with deputy city attorneys.

#### **ChatGPT Pilot**

In February 2025, San Francisco concluded a six-month pilot in which an unlimited number of ChatGPT licenses were available for city employees. During the pilot, more than 2,000 city staff participated. OpenAI, the maker of ChatGPT, also hosted eight training sessions that attracted more than 3,000 attendees. The city also maintains a GenAI User Group on Microsoft Teams,

<sup>&</sup>lt;sup>28</sup> SF Legistar. Ordinance 288-24. City and County of San Francisco - File #: 241022

which has more than 3,300 members. In a survey of 554 participants in the pilot, 70% of respondents reported saving up to 5 hours a week by using ChatGPT, and 17% of respondents reported saving more than 5 hours. Five hours of savings implies a 12.5% productivity boost for city workers — an enormous gain relative to cost and brief amount of time of the trial.

DT has found sufficient funding for 250 ChatGPT Enterprise licenses that will be allocated to departments. DT will also procure 300 licenses for Microsoft Copilot, which offers generative AI productivity tools that integrate directly with Outlook, Word, Excel and other Microsoft applications. The Jury understands this will soon be tested on a 5-month trial basis.

The ChatGPT pilot was a bright spot in the city's efforts to encourage AI exploration, and we hope the city finds ways to grow access and education to LLMs on a permanent basis.

## Analysis

In recent years, the U.S. government at all levels has made significant but incomplete progress catching up to the expectations and ways of working of the internet era. Nowhere near done with its first digital transformation, though, it has now been jolted rudely into the age of AI. Government's reaction so far has looked a lot like its reaction to past paradigm shifts: words, hundreds of thousands of them, describing emerging (and hotly contested) dos and don'ts to guide this transition. —Jennifer Pahlka, "AI Meets the Cascade of Rigidity"<sup>29</sup>

There's a lot of cynicism regarding public sector efficiency. One thing government often seems to do well is get in its own way. This is not because government workers are ill-intentioned. Faced with competing interests and the weight of responsibility for making high-impact decisions, bureaucracy tends to throw up procedural guardrails. These are meant to ensure things are done well but often result in nothing being done at all. The author and technologist Jennifer Pahlka has termed this tendency the "Cascade of Rigidity," and has written about the danger of this cascade running up against AI in government.<sup>28</sup> San Francisco needs to avoid this trap.

#### Capitalizing On the AI Opportunity

#### The Mayor's Constructive Role Centering Technology Transformation

In November 2024, then Mayor-elect Lurie announced that Sam Altman, CEO of OpenAI, was joining his transition team.<sup>30</sup> This was a high-profile pick and seemed targeted to signal fresh

<sup>&</sup>lt;sup>29</sup> The Digitalist Papers. "<u>AI Meets the Cascade of Rigidity</u>"

<sup>&</sup>lt;sup>30</sup> SF Standard. "Sam Altman tapped for Lurie's transition team"

energy and renewed partnership with hometown innovators. It remains to be seen how Altman's involvement will translate into policy. Mayor Lurie has a substantial opportunity to craft a culture that embraces technological change, emphasize the importance of innovation, and use the power of his office to unify IT governance and engage stakeholders within and outside of government.

As part of this, the mayor could direct DT to produce a proper AI strategy and roadmap for implementing AI across government. By clearly articulating goals for AI implementation and committing to specific targets and use cases, the city can have a north star to orient its approach and accountability for achieving its aims. We discuss below some current avenues of exploration, and encourage the mayor, DT, and other leaders to critically evaluate what the city is doing and how AI can improve it.

Mandating organizational alignment across departments and fostering a culture of innovation are uniquely within the mayor's purview as the city's top executive. We recognize this is a real challenge. To paraphrase a common management saying: "Culture tends to eat policy." If the culture of the city is defensive toward technology, no policy will be successful. Change need not be dramatic or disruptive: devoting energy to small successive wins can have a large cumulative impact.

Fortunately, Mayor Lurie has some tailwinds. As the mayor of the city at the center of Al innovation, he is connected to leaders in this space who could offer perspectives to his departments on how to adapt and harness this technology. Mayor Lurie has assumed his role in a moment when the quality and usefulness of generative AI is improving rapidly, and when many San Franciscans are looking for fresh perspectives and a change in mindset in government.

Two things in particular are working against the mayor. One is the fiscal outlook, which will force hard decisions across government. On this front, the Jury hopes that this report convincingly argues that technology spending that empowers workers yields positive returns.

Also, a reorganization of personnel that creates more centers of excellence will unlock cost savings over the long term by increasing the productivity of the workforce. The other obstacle the mayor will be forced to overcome is anxiety about the potential for AI to displace workers or degrade their economic power. These types of concerns have been present since the Industrial Revolution; however, they should not be dismissed out of hand. They should be soberly considered while recognizing that, on the whole, technology makes workers and society better, more productive and wealthier.

#### The Office of Innovation

The Office of Innovation could be one vehicle through which the mayor helps level up technology and find novel uses for AI. This is primarily done through the work of the "i-team," which focuses on a few priority areas a year through cross-departmental collaboration, and the Civic Bridge program, which partners with the private sector and universities to do 16-week sprints to solve city problems. Civic Bridge could be constructive in building connective tissue between the San Francisco AI community and city government.

The office is primarily funded today by a \$3.4 million grant from Bloomberg Philanthropies, with matching funds from the city. The Jury learned this grant is due to expire in 2025 and has been mostly utilized. As discussed in the <u>Background</u> section, the Jury believes both the relationship with Bloomberg Philanthropies as well as the general mission of the office make it well suited for advancing AI in the city.

The Office of Innovation has an individual in charge of partnerships, along with five other individuals, all overseen by the department's director. The position was previously held by Stephen Sherrill, who was appointed to the board of supervisors in December 2024. Recent leadership change, a new mayoral administration, and the eventual end of the Bloomberg Philanthropies grant present a unique moment to reflect on what the future holds for this office.

Deploying AI across the city will require an interdepartmental and interdisciplinary approach. The office of innovation, in partnership with the emerging technologies director, could benefit from building relationships with the incredible AI talent in the Bay Area. The office of innovation could play a constructive role in building these civic bridges, if the mayor empowers it with the resources and mandate to do so.

#### GovAl

The GovAI coalition represents another opportunity for mayoral leadership. San Francisco is already a member of the coalition. It should be a leader. There should also be more overt engagement from the mayor himself and departmental leaders such as the CIO and the director of emerging technologies. There is no explicit ambassador to this coalition today, but the city would benefit from having one or more people dedicated to engaging with the coalition and its partners and reporting periodically on learnings.

#### Code Words: Chapter 22J

San Francisco has drafted some basic guidelines around the use of generative AI, emphasizing its positive and negative aspects and offering guidance on use cases. Those guidelines, released in December 2023, should be revisited and updated given the rapid pace of improvement in model intelligence and their increasing capabilities, such as the ability to do deep research and produce comprehensive reports, and vast improvements in reasoning capability.

Hiring a director of emerging technologies suggests the city understands that dedicating fulltime resources toward focusing on AI and other emerging technology is needed. It's not a foregone conclusion that this role will be impactful, though. Because of recently passed legislation (Ordinance 288-24), one of the things the emerging technologies director will be doing for the next 12 months is compiling an AI inventory. This legislation added 22 questions as part of Chapter 22J of the Administrative Code that need to be answered by vendors and departments who procure this technology. The questions are meant to document potential biases, potential employment impacts to human workers and other risks. There are already various reviews that technology procurement requires related to surveillance and cybersecurity. This is another procurement hurdle.

What the city has undertaken so far amounts to lists of dos and don'ts and added paperwork. This is not to say that an inventory of AI is unjustified. Given how decentralized technology governance and procurement is in the city, it is a worthy exercise for DT to get its arms around what is being used. It is worth asking the right questions to ensure the technology the city uses is safe and effective. The point is that process without empowerment is not a recipe for success. If the emerging technologies director becomes a full-time job for writing policies and reviewing questionnaires, it will be a missed opportunity. If departments shun anything labeled AI to avoid a lengthier and more complicated procurement, it could be a major loss for the city. Given the open-ended nature of some of the language in the legislation, this is a real risk. For that reason, the Jury believes that the recent AI Inventory ordinance should be viewed as a starting point for a more refined approach to cataloging and buying AI technology. Over time, the CIO and emerging technologies director should work with COIT or a successor body to make refinements.

#### InnovateUS Contract: Six Months of Waiting

The board of supervisors, despite its record of legislative action on audits and procurement requirements for AI, delayed by nearly six months the adoption of a cost-free opportunity to explore AI upskilling with city employees. InnovateUS is an organization that is focused on digital education for public sector professionals. An MOU with San Francisco would allow the city to enter a zero-dollar contract for up to 2 years so that InnovateUS can conduct regular workshops for city employees on digital, data, innovation and AI skills. In exchange, the city and InnovateUS would collaborate on confidential data sharing around program efficacy and uptake.<sup>31</sup> This MOU sat with the Budget and Finance Committee from September 2024 until March 2025. On March 20, it was passed out of committee and was approved by the board of supervisors on April 8.<sup>32</sup> We hope it is just the beginning of a dedicated program of education offered to city employees to help them become more proficient in using AI.

#### Putting it in Perspective: Potential Applications of AI

Any technology should be vetted by capable people before being bought and used. Luckily, the city has lots of capable technologists and personnel who can make these decisions and who are passionate about improving government. One approach is to empower them and encourage them. The other is to give into the cascade of rigidity. There are numerous avenues of exploration the city could pursue. Below is a brief survey of opportunities to improve service level with the public.

#### Transit

Transit is an area where there has been longstanding interest and investment in using automation and technology, including emerging AI solutions. New York<sup>33</sup>, Sacramento<sup>34</sup>, and Barcelona<sup>35</sup> transit agencies have piloted using AI to record parking violations in designated transit areas. They have turned to Hayden AI, which is based here in San Francisco. SFMTA has been using bus cameras to enforce transit lane violations for several years. Al-enhancement can potentially improve accuracy, increase speed to issuing citations, and broaden the types of violations recorded through automation. Technology should play a major role in helping the city advance its ambitious Vision Zero initiative.

<sup>&</sup>lt;sup>31</sup> SF Legistar. "<u>Memorandum of Understanding (MOU)</u>"

<sup>&</sup>lt;sup>32</sup> SF Legistar. City and County of San Francisco - File #: 240934

<sup>&</sup>lt;sup>33</sup> Hayden AI. <u>Hayden AI Completes First Phase of New York MTA Automated Bus Lane Enforcement</u> <u>System Expansion</u>

<sup>&</sup>lt;sup>34</sup> Hayden AI. <u>SacRT Partners with City of Sacramento to Launch Bus Stop Enforcement Program to</u> <u>Enhance Rider Safety and Accessibility</u>

<sup>&</sup>lt;sup>35</sup> Hayden AI. <u>Barcelona launches automated bus lane and bus stop enforcement pilot with Hayden AI</u>

#### Permitting

Permitting is an important topic for Mayor Lurie, who launched a new "PermitSF" initiative to improve processing times.<sup>36</sup> Better technology should be on the table, including AI-enabled tools. While COIT's 2024-28 ICT plan highlights the Permit Center as an area where AI has played a role, we believe that is overstated. The Permit Center implemented an innovative SMS-based queuing system called QLess. It seems to have been successful as a tool to efficiently route people with real time insight into their queue position and is a great example of a good IT implementation. But it is not an example of an innovative application of emerging technology.

One interesting example is the city of Honolulu, which partnered with CivCheck<sup>37</sup>, a Cambridgebased AI company, to use generative AI technology to speed up the permit pipeline. AI first assists citizens with writing and editing their permit applications to increase their chances of getting approval and then scans submitted applications to highlight issues of focus for staff in a matter of seconds. In the pilot, plan review time decreased by 70%.

#### **Mental Health**

San Francisco can also potentially leverage AI to enhance mental health screening for individuals experiencing homelessness. AI-powered tools can analyze data from various sources about an individual to assist time-constrained mental health professionals<sup>38</sup>, and AI algorithms can identify individuals for in-person clinical evaluations based on the severity of their needs, ensuring that those requiring urgent care receive timely attention. AI chatbots have been shown to help increase the number of patients referred for mental-health services through England's National Health Service (NHS), particularly among underrepresented groups

<sup>&</sup>lt;sup>36</sup> SF.gov. <u>Mayor Lurie Launches Permit Reform Effort With Focus on Housing and Small Business</u>

<sup>&</sup>lt;sup>37</sup> CivCheck. Pilot Case Study: City and County of Honolulu

<sup>&</sup>lt;sup>38</sup> National Library of Medicine. "Artificial intelligence in positive mental health: a narrative review"

who are less likely to seek help.<sup>39</sup> In San Francisco, the Mayor's Office of Innovation is working on a program dubbed the All Street Integrated Database (ASTRID), which aims to break down data silos and unify information across departments about the status of individuals receiving support services. Emerging technology applications could play an important role in this and similar efforts to collect and analyze data across emergency response and supportive services.

These examples are by no means exhaustive but rather are illustrative of the roles emerging technology can play in solving challenging problems in San Francisco.

#### Decentralization: The Pendulum Has Swung Too Far

Technology in the city would benefit greatly from more collaboration and unification. It would enable decision-making, oversight, and resource allocation based on a common ICT strategy, and it would bring people together who can share ideas and experience to maximize the total of knowledge in an IT organization. A lot of people in the city are looking for solutions. They can't find them if talent and expertise are scattered far and wide.

This report advocates pivoting away from the idea that technology should be "federated." It's the type of change that requires a mandate from the mayor in the absence of legislation. The mayor should use his authority to reorganize and/or promote coordination among departments to unite IT resources under DT, and compel department leaders to develop and implement technology roadmaps through, not around, DT.

Across the Jury's interviews, sentiment was universal that too much administration has been devolved to individual departments. One salient consequence in the current budgetary environment is that devolution results in duplicative hiring that silos resources and bloats

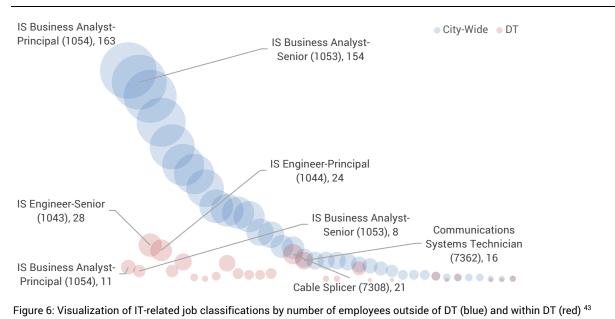
<sup>&</sup>lt;sup>39</sup> National Library of Medicine. "<u>Revolutionizing healthcare: the role of artificial intelligence in clinical practice</u>"

cost. In 2020, the controller's office studied the fiscal impacts of creating a new department of sanitation and streets by peeling off resources from the department of public works. The conclusion was that decoupling shared administrative services would result in a 10-25% increase in staffing by having to rehire administrative roles for the new department.<sup>40</sup> The end result would be more overhead for handling the same volume of contracting, information technology and other services. This type of duplication is the status quo with IT today.

## Most Technology Workers are Outside of DT

One might imagine that most IT workers are employed by DT. In fact, it's a small minority. To illustrate the state of fragmentation, the Jury reviewed SF OpenBook data published by the city.<sup>41</sup> The Jury cross-referenced job classifications in DT against all city employee data. This resulted in a sample of 204 DT employees across 36 job classifications. Citywide, there were 1,436 employees in these roles, giving DT about a 14.2% share of technology employment (Figure 6). Only for a select number of positions such as communications systems technician and cable splicer can it be said that the roles are truly centralized in DT. Having an IT force of more than 1,400 people would be an enormous amount of manpower in any large organization. The Jury questions whether the city needs this many to conduct its business. But staffing dedicated IT in 50 individual departments places a high floor on how lean the city can run.

 <sup>&</sup>lt;sup>40</sup> Office of the Controller. <u>Memo RE: File 200510 – Charter amendment to create a Public Works</u> <u>Commission and to create the Sanitation and Streets Department and Sanitation and Streets</u> <u>Commission</u>
 <sup>41</sup> SF Open Book



San Francisco's government is large and diverse. Numerous departments perform varied functions, and departments differ in their level of technical need. So-called "enterprise departments" — entities like the airport, public utilities commission, SFMTA — are highly specialized with large workforces and dedicated pockets of revenue. Some of their IT needs may be specific to their operation, but certainly not all. It is hard to imagine that San Francisco can maintain operational and strategic alignment across its technology workforce if less than 15% report through DT. The Jury acknowledges that reorganization may entail short term friction as employees settle into new organizational structures. It is incumbent on DT and department leaders to execute a reorganization with minimal disruption to service level.

## Technology Purchasing: Everyone's Buying

To understand how things work today, the Jury examined procurement data from the city's "technology marketplace," which has various vendors from which departments can make purchases. A plurality of these purchases originates with DT, but many come from other departments across the city. The marketplace is managed by the office of contract administration, and DT has limited ability to influence how departments use it. It's emblematic of the "federated" organization of technology. This is not just true for the marketplace and extends to other avenues for technology purchasing and contracting within the federated system of the city.

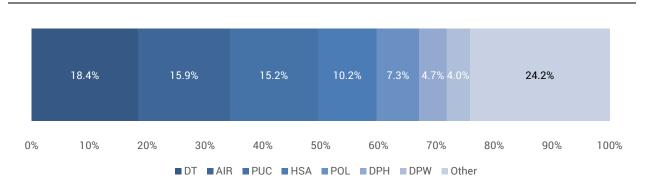


Figure 7: Purchase orders through the Technology Marketplace demonstrate fragmentation (data provided by OCA)

In most organizations, it would be viewed as poor governance to have various departments buying whatever technology they want. Consolidating purchasing has obvious cost benefits by giving buyers more leverage over a smaller group of preferred partners. Additionally, centralizing purchasing helps ensure that systems are properly integrated and software is compatible. In the evolving budget and technology landscape, these are more important than ever.

An example of a locale that has gone a different way is Seattle. The city's AI policy mandates that any tool that uses AI should go through the IT procurement process and be approved for use by IT.<sup>42</sup> The city's IT department can also revoke access to technology it deems non-compliant. In this way, AI gets a guiding hand to ensure a central organization of technologists are scoping, purchasing, and implementing effectively and efficiently.

## Focus on Centers of Excellence

As the city considers allocating scarce dollars to investing in next-generation technology and preparedness, it would benefit from pooling the collective knowledge of the people doing the

<sup>&</sup>lt;sup>42</sup> Seattle.gov. "Generative Artificial Intelligence Policy"

buying and managing. DT hosts voluntary forums for department procurement leads, and the Jury's understanding is that these are generally well attended. But there are no formal administrative requirements and structures that connect technology administration and procurement across the city. The city needs to create connectivity and incentives that allow expertise to flow across personnel and departments as new technology and opportunities emerge. That means it needs to reallocate people so that technology workers are pooled together in an IT organization.

Bringing people together can benefit financial capital as well as human capital. First, workers are more productive when they can learn from each other and lean on each other for guidance and best practices. Being siloed in different departments makes this learning and sharing harder. Also, it's too late if DT reviews a technology at the purchasing stage. DT should be involved in the initial stages to help departments identify and scope, assess vendors, and implement, leveraging past experience to find the best solution. Additionally, unification can be accretive to attracting and retaining talent. Being part of a small IT team in a small city department is much less appealing than being part of an IT talent pool touching a range of projects. There is more opportunity for professional growth and innovation, which makes it easier to attract better candidates.

## **Decentralization Poses Risks for Effective AI Implementation**

The implications of decentralization for AI and other emerging technology are serious. The technology is evolving rapidly. Individual departments and DT are just starting to understand potential use cases and identify potential technology vendors. There are few obvious choices and no identified long-term market leaders. As technology improves, applications and use cases will evolve and proliferate. Odds of success will be much greater with the city's technologists steering the ship and rowing in the same direction. The current structure appears to exist more by accident than by design and is optimized for departments to go around DT.

Furthermore, AI has a unique ability to produce and interact with vast amounts of data. This is both an opportunity and a major pitfall for government. On the one hand, you can imagine a world where AI agents can interpret and synthesize data across a city government in ways that were never possible or were previously prohibitively costly and time consuming. A grimmer possibility is that government that isn't fully architected for data security opts for barriers out of an abundance of caution that undermines the usefulness of data. Investing time and resources today with an eye to making San Francisco government AI-ready will pay long-term dividends. Ultimately, the city's ability to make timely, coordinated, thoughtful decisions around technology based on shared knowledge and experience will be key to its success in navigating the next technological revolution.

## **COIT is Not Cut Out for Governance**

Chapter 22A of the Administrative Code addresses ICT in San Francisco government. It was added by ordinance in 2010. The section begins with a set of findings which are strikingly consistent with the findings of this report. Noting, among other things, that

- "City Departments independently acquire uncoordinated and duplicative ICT technologies that are more appropriately acquired as part of a coordinated effort for maximum cost effectiveness and use"
- "The sharing of ICT technologies among agencies is often the most cost-effective method of providing the highest quality and most timely governmental services that would otherwise be cost prohibitive"
- A "uniform policy and coordinated system" is needed. 43

COIT is one of the governance mechanisms established to manage ICT planning. COIT is an admirable attempt to bring representatives from the city administrator (including DT), various departments, and the board of supervisors together to rule by committee. One person who

<sup>&</sup>lt;sup>43</sup> San Francisco Administrative Code. <u>Sec. 22A.1. Findings</u>

does not sit on COIT by right is the new emerging technologies director. If COIT continues to exist, we believe the Administrative Code should be revised to give this role a permanent seat. Broadly, COIT should be organized around subject matter expertise, not departmental representation per se.

## **Few Carrots and No Sticks**

COIT is a legislature that doesn't legislate and an executive without enforcement authority. The ICT plans produced by COIT offer a strategic and financial roadmap. COIT has also adopted policies around privacy, risk, data management, and digital accessibility and inclusion. These policies and reports have value and the individuals working for and with COIT have done an admirable job drafting them to help steer technology in San Francisco.

What is less clear is whether COIT has proper enforcement authority, and to a lesser extent, proper membership, to steer technology governance. The mayor and board of supervisors receive recommendations but are under no obligation to implement them. Section 22A.3 of the Administrative Code specifies that COIT is to approve recommendations and monitor compliance with relevant ICT policies but doesn't say anything about *how* COIT is to do that and doesn't endow COIT with any power to do so. Individual departments can work through COIT to produce budget requests. COIT has a beneficial role in signal boosting priorities through its funding recommendations, but departments can go their own way if they choose to work around COIT or simply don't believe the available budget dollars are worth the effort of pursuing.

Some of the current aspects of COIT and potential ways to improve them are listed below.

COIT Today	A Better Way
<ul> <li>Deliberative</li> <li>Many members, including technologists but also department heads and members of the board of supervisors</li> </ul>	<ul> <li>Clearer lines of authority with executive function</li> <li>Required comment and explicit approval from city technologists, including the new emerging technologies director</li> </ul>
<ul> <li>Works with departments to compile budget requests</li> <li>Voluntary departmental participation</li> <li>Funding distributed to and managed by departments</li> </ul>	<ul> <li>Material requests <i>require</i> approval</li> <li>Greater stake in implementation and ongoing management, not just funding</li> </ul>

COIT and its various subcommittees are primarily staffed by members from DT and the city administrator's office, plus a few full-time resources at COIT. Imagine a different governance structure incorporating some or all of the below:

- The ICT plan (or a successor plan) and budget recommendations are the direct responsibility of the CIO.
- All requests of a certain size or nature must be originated with and approved by DT, which is tasked with evaluating recommendations, performing cost/benefit analyses, and ensuring alignment with the city's technology roadmap.
- In exchange for authority and deference, technologists at DT are responsible for ensuring technology policy is implemented effectively and efficiently and are held to an accountability standard if they fall short.

The above would be more consistent with the traditional role of a CIO. It would also require a rethink of the city's technology organizational structure outside of COIT, as discussed earlier in this section. The above scenario empowers leaders to make executive decisions; however, with this power comes responsibility for ensuring success and responsibility for failure. The

tradeoff is that there would be less equal footing from various departments and the board of supervisors in technology governance. Their engagement would be with technology leaders who are responsible for ensuring the quality of techs in the city.

The conclusion of the Jury is that there is a reasonable case for eliminating COIT entirely. In its place, an advisory body and forums for leaders to interact and agree on policy can be established under DT. The ICT plan can be replaced by a new Technology State of the Union, which the CIO will be responsible for producing and delivering to the mayor and board of supervisors. The end goal should be an agile governance that imbues technologists with the authority to steer technology investments, so they succeed or fail on their own merits. Praise and blame will fall on them.

Short of eliminating COIT, the body should be reformed to have more governing authority and more well-rounded representation. The emerging technologies director should get a permanent seat so they can help steer the city's AI strategy. In this scenario, there is also an important agenda and culture-setting role for the mayor. The mayor should mandate that departments work through COIT or DT for all major technology initiatives. In the 2022 ICT Plan, COIT recommended that departments submit a digital transformation roadmap to the committee alongside budget requests.<sup>44</sup> Like other recommendations, it isn't binding. If COIT continues to exist, the mayor should mandate that most or all city departments make the most of it by delivering detailed roadmaps and reporting on them periodically. Failure to meet a roadmap's milestones should have budgetary or human resource consequences.

<sup>&</sup>lt;sup>44</sup> SF Legistar. ICT Plan 2022-26

# **Findings and Recommendations**

The Jury made the following findings and recommendations;

# Finding 1

Concerns over the potential risks of AI have led to an overly cautious approach toward emerging technology. The city risks missing opportunities to harness new technology to improve governance and delivery of services to citizens.

## **Recommendations**

## **Recommendation 1.1**

By September 30, 2025, the mayor should direct DT to produce a comprehensive AI strategy – to be published by June 30, 2026 – outlining near- and long-term implementation targets for incorporating AI into city systems and services. The strategy should include guidance on infrastructure, data sharing, ethics, pilot programs and performance evaluation, training and human resource needs.

## **Recommendation 1.2**

By December 31, 2025, the city administrator and DT should produce a report examining the current data governance and data architecture of the city, identifying areas of concern or lack of readiness for compatibility with the future implementation of generative AI applications such as Microsoft Copilot or other similar applications that would be able to utilize access to internal city data to find information, produce insights and make inferences.

### **Recommendation 1.3**

By December 31, 2025, DT should put forward a plan outlining i) the forecasted demand for Microsoft Copilot, ChatGPT, or other generative AI licenses for city workers and ii) potential sustainable financing sources, including requests from the general fund, to be submitted in the next budget cycle.

### **Recommendation 1.4**

As part of completing the legislatively mandated AI inventory per Chapter 22J (due January 19, 2026), DT should work with departments to produce public reporting on the city's website with agreed upon key performance indicators (KPIs) for piloted AI technology identified in the AI inventory, as well as establish a cost/benefit framework based on identified KPIs. Software pilots should have productivity measurements, and hardware pilots should be measured against status quo metrics for problems they seek to address.

#### **Recommendation 1.5**

By December 31, 2025, DT should establish a program to identify AI champions in city government departments, "train the trainer" programs, and broader education opportunities for city employees. This could be managed by city employees or in partnership with local higher education institutions or private sector organizations.

#### **Recommendation 1.6**

By September 30, 2025, the CIO should designate the emerging technologies director as the formal ambassador from SF to the GovAI coalition and should appoint other representatives to the coalition at their discretion. They should work to attend all formal gatherings of the coalition and report periodically on findings from their involvement in the coalition that could improve AI implementation in San Francisco's government.

# Finding 2

Governance of technology in the city is hindered because of a federated management structure across departments. Such hindrance has slowed or impaired the ability of the city to efficiently identify, pilot, test, and deploy emerging technologies.

## **Recommendations**

## **Recommendation 2.1**

By December 31, 2025, the mayor and city administrator should adopt a plan for unifying more technology-related organizations within DT, including digital services and other technology functions under the city administrator.

## **Recommendation 2.2**

By December 31, 2025, the mayor's office should undertake a review of current IT headcount in departments outside of the city administrator and adopt a plan for unifying IT resourcing within DT, including but not limited to relocating IT job classifications to DT and reallocating departmental assignment of IT resources.

### **Recommendation 2.3**

The mayor should mandate that departmental CIOs and other IT leaders be required to meet with DT leadership in a regular structured forum, hosted and organized by DT, to collaborate with DT leadership on IT initiatives, roadmaps and other matters. These meetings should begin by September 30, 2025.

## Finding 3

Procurement of technology in the city is hindered because of a federated management structure across departments. This hinders the ability to find and implement useful, scalable AI and emerging technology solutions, and presents risks to enforcing quality, standardization, privacy and interoperability.

## **Recommendations**

## **Recommendation 3.1**

By June 30, 2026, the mayor and CIO should jointly conduct a detailed review and adopt new procurement guidelines for city department technology purchasing such that technology that meets certain criteria (cost, strategic relevance, overall risk level) should be prioritized, purchased and implemented through DT in accordance with the ICT plan, as affirmed by DT. The CIO and emerging technologies director should have the ability to definitively reject purchases deemed incompatible with ICT policy or vendor strategy, and/or propose alternative purchases that are better aligned with ICT strategy. Purchase orders with vendors deemed not compatible with ICT objectives should be cancelled.

### **Recommendation 3.2**

By June 30, 2026, the emerging technologies director, in partnership with the CIO and OCA, should complete a review and update of policies and resources to facilitate procurement of emerging technology that meets city standards and objectives. This may include drafting new vendor standards for AI-related technology procurement (addressing model training, privacy, etc.), template vendor contracts specific to AI technology, and the negotiation of enterprise agreements with AI vendors who meet city ICT standards.

## **Recommendation 3.3**

As part of completing the legislatively mandated AI inventory (due January 19, 2026), DT should provide procurement recommendations specifying whether identified technologies should continue to be purchased, and/or moved to a different vendor.

## **Recommendation 3.4**

By September 30, 2025, the mayor should issue guidance to all departments mandating both that i) departmental procurement leads should be required to attend a regular forum with DT to discuss technology procurement goals and initiatives, and ii) DT host such forums on a regular (monthly, quarterly, semiannual) basis.

### **Recommendation 3.5**

By June 30, 2026, the emerging technologies director and CIO should submit a formal report to COIT (or a successor body) recommending updates to the 22 AI inventory questions outlined in recent legislation, with the aim of streamlining the inventory process.

## Finding 4

The Committee on Information Technology (COIT) is comprised mostly of non-technical leaders and has insufficient authority and influence over departments' technology plans. As a result, it is falling short of its objective to streamline ICT policy and roadmapping in San Francisco, which threatens current and emerging technology initiatives alike.

## **Recommendations**

## **Recommendation 4.1**

By June 30, 2026, the city should enact an ordinance amending the Administrative Code to eliminate COIT and centralize a replacement advisory body under DT. This ordinance could be enacted through the customary legislative process established in the Charter. In the alternative, by December 31, 2025, the mayor and the board of supervisors should each recommend to the Commission Streamlining Task Force (established by Proposition E, November 2024) that it include COIT in an ordinance the Task Force would introduce to eliminate certain commissions.

### **Recommendation 4.2**

By December 31, 2025, the mayor should mandate that all departments produce a technology roadmap in a form and substance to be agreed with DT, which would include departmental technology initiatives as well as automation goals and potential applications for AI and emerging technology. Roadmaps that contain milestones and deadlines for major initiatives should be submitted to DT and refreshed on an annual basis.

## **Recommendation 4.3**

By December 31, 2025, the city should pass an ordinance amending the Administrative Code to create a permanent seat on COIT for the emerging technologies director, pending its action related to Recommendation 4.1.

# **Required and Requested Responses**

Pursuant to California Penal Code §933, the Jury requires responses to the findings and recommendations shown in Table 2 within 60 calendar days (for the mayor's office) or 90 calendar days (for the board of supervisors).

Respondent	Findings	Recommendations
Mayor	Finding 1,	1.1
	Finding 2,	2.1, 2.2, 2.3
	Finding 3,	3.1, 3.4
	Finding 4	4.1, 4.2, 4.3
Board of supervisors	Finding 4	4.1, 4.3

## Table 2: Required responses

The Jury requests responses to the findings and recommendations shown in *Table 3* within 60 calendar days.

# Table 3: Requested responses

Respondent	Findings	Recommendations
City administrator	Finding 1, Finding 2	1.2 2.1
Department of technology	Finding 1, Finding 2, Finding 3	1.2, 1.3, 1.4, 1.5, 1.6 2.3 3.1, 3.2, 3.3, 3.5
Office of contract administration	Finding 3	3.2

# Methodology

To prepare this report, the Jury conducted personal interviews, reviewed reports and data from city offices, read third-party research and reporting, and consulted relevant legal statutes.

The Jury interviewed 16 individuals in San Francisco government and peer cities whose work touches on IT and civic technology. The Jury reviewed and analyzed data published by the city through SF OpenBook, procurement data from OCA, legislation, past ICT reports, and meeting minutes of COIT and the Budget and Performance Subcommittee. The Jury also reviewed relevant presentations, data and other internal communications provided by city employees.

The Jury reviewed published policies and guidelines from the cities of San Francisco, Boston, San Jose, Seattle, New York, Boise, Denver and other peer cities.

Research published by the National Bureau of Economic Research, SPUR, EpochAI and the International Energy Agency was also used.

Finally, the Jury utilized ChatGPT and Perplexity in its search for relevant data and analysis and to compile research for review by jurors, for ideation in framing, organizing and explaining certain concepts in the report, and for generating the cover art for this report.

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# Appendix

# Section 22J.3 AI Questionnaire<sup>45</sup>

(b) **Department Head.** The Department Head shall disclose and submit to the CIO for inclusion on the Inventory the AI technologies the Department has procured, borrowed, or received as a gift, with or without the exchange of money or compensation, and for each technology shall disclose the following information:

- (1) Name of the technology and vendor;
- (2) A brief description of the technology's purpose and function;
- (3) The intended use of the technology;
- (4) The context or domain in which the technology is intended to be used;
- (5) The data used to train the technology;
- (6) An explanation of how the technology works;
- (7) The data generated by the technology;
- (8) A description of what the technology is optimizing for, and its accuracy, preferably with numerical performance metrics;
- (9) Conditions necessary for the technology to perform optimally;
- (10) Conditions under which the technology's performance would decrease in accuracy;

<sup>&</sup>lt;sup>45</sup> San Francisco Administrative Code. Chapter 22J.

- (11) Whether testing has been performed to identify any bias in the technology such as bias based on race, gender, etc., and the results of those tests;
- (12) A description of how and where people report bias, inaccuracies, or poor performance of the technology;
- (13) A description of the conditions or circumstances under which the technology has been tested;
- (14) A description of adverse incident monitoring and communication procedures;
- (15) A description of the level of human oversight associated with the technology;
- (16) A description of whether the data collected will or can be used for training of proprietary vendor or third-party systems;
- (17) The individuals and communities that will interact with the technology;
- (18) How the information or decisions generated by the technology could impact the public's rights, opportunities, or access to critical resources or services;
- (19) How people with diverse abilities will interact with the user interface of the technology and whether the system integrates and interacts with commonly used assistive technologies;
- (20) Whether the technology is expected to replace any jobs currently being performed by human beings or could impact the employment and/or working conditions of City workers;
- (21) Why it is important for the City to use the technology; and
- (22) Potential risks of the technology and steps that would be taken to mitigate these risks.