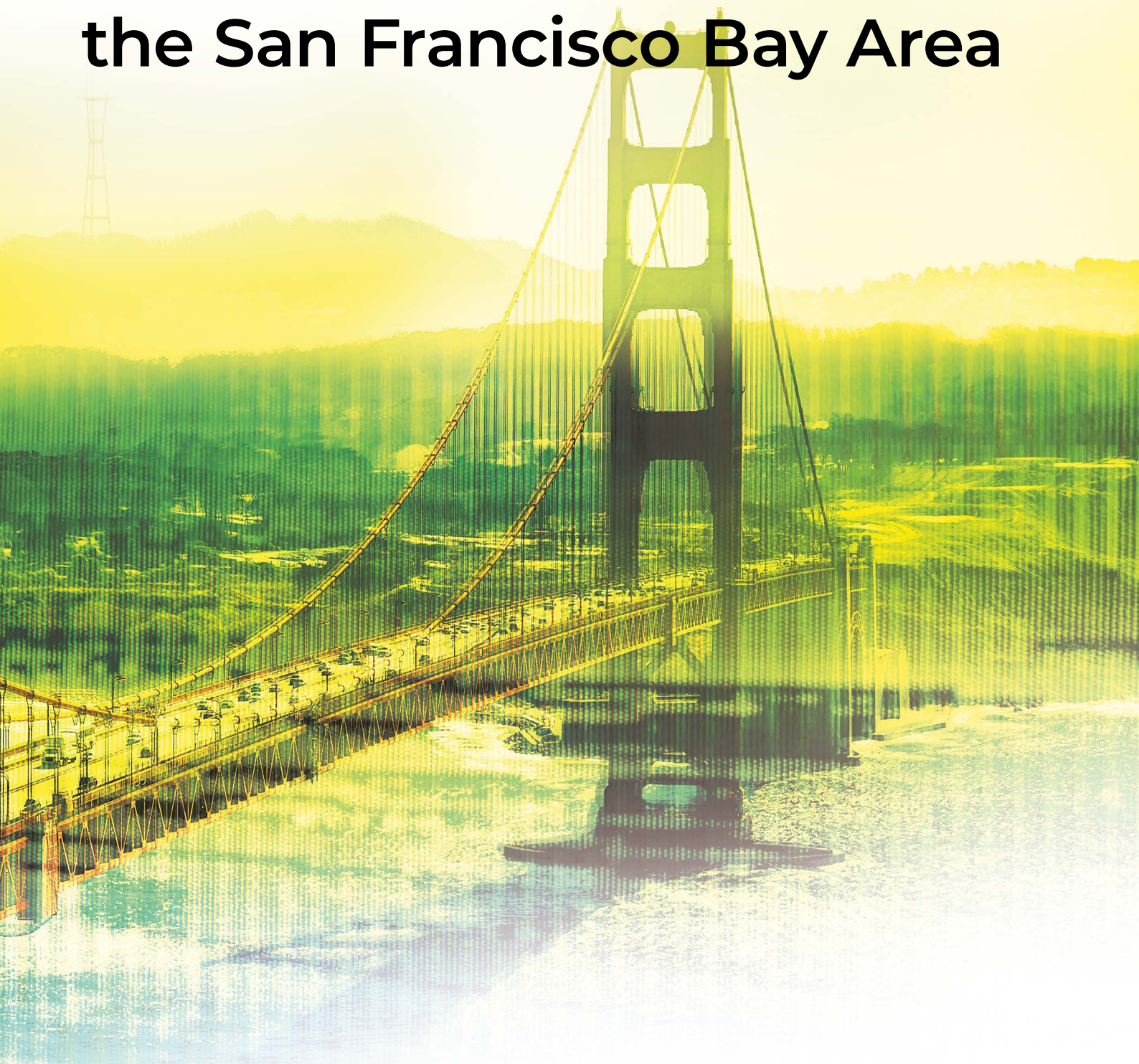


Pavlina Ittelson, Martin Rauchbauer

Tech diplomacy practice in the San Francisco Bay Area



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Tech diplomacy practice in the San Francisco Bay area

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Authors: Pavlina Ittelson, Martin Rauchbauer

Contributors: Kristina Hojstřichová, Jovan Kurbalija

Copy-editing: Maja Bačlič

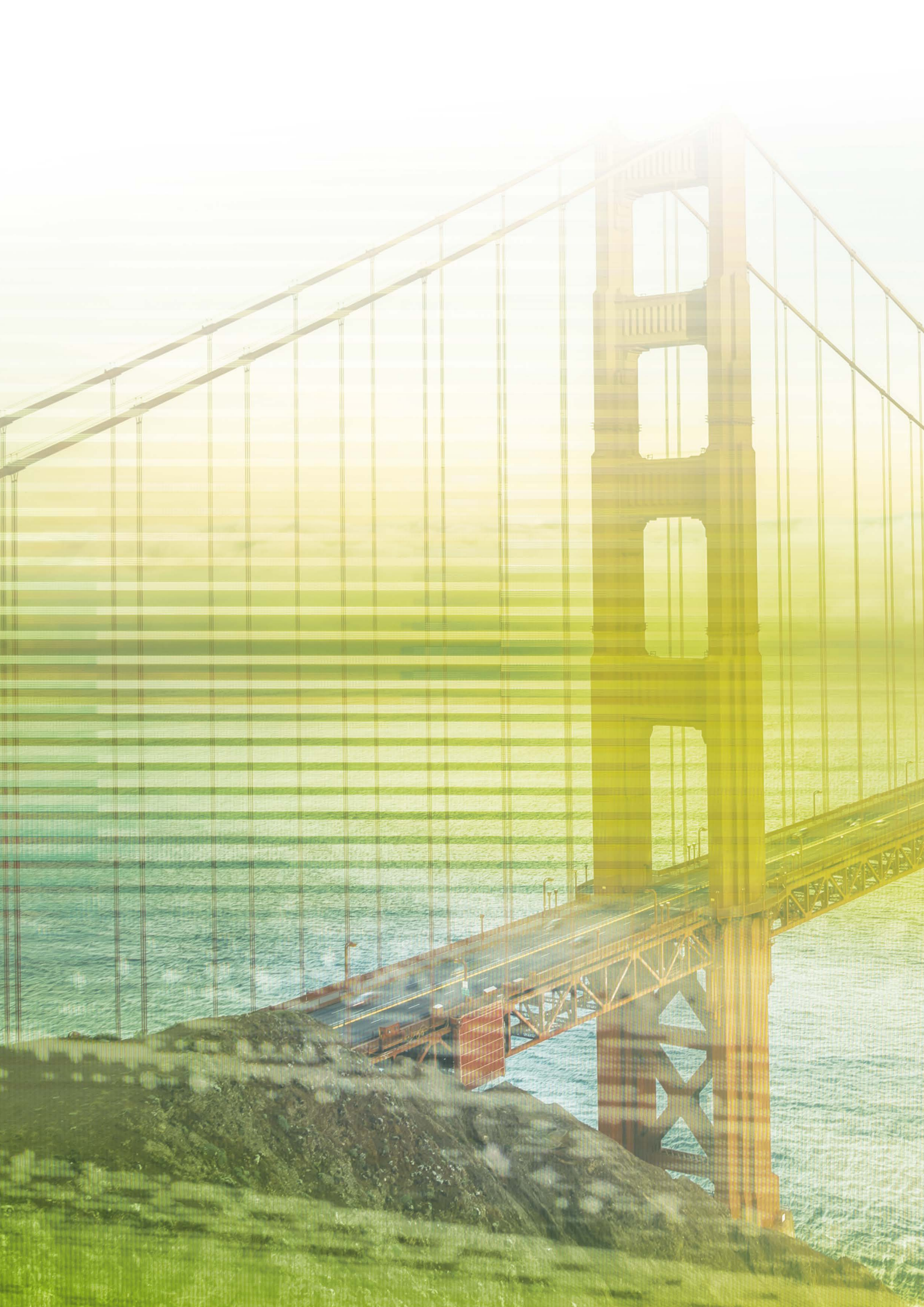
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Executive summary

What happens in the San Francisco Bay Area (Bay Area) profoundly impacts the world, both the digital and real.

Since 2018, when Diplo's first report on the interactions of governments and tech companies in Silicon Valley was released, this rings even more true. Whether talking about shifting work and meetings online, geopolitical tensions, supply chain crisis, or the rise of artificial intelligence (AI), tech companies in the Bay Area have an outsized global impact. Issues regarding security, disinformation, democracy and human rights protections, and the future development of individual countries, are all impacted by the practices of tech companies in the Bay Area.

Countries are increasingly focused on addressing the digital aspects of foreign policy. The latest developments show a rise in digital issues on the policy agenda (both on national and international levels), the creation of new posts of digital and tech diplomats, as well as the adoption of new policies guiding these efforts.

The digital aspects of foreign policy have matured, and conversations between diplomats

and tech companies in the Bay Area have moved from economic and innovation issues to democracy, human rights online, security, fintech, the environment, and much more.

This report focuses on tech diplomacy as part of digital diplomacy, the role of the Bay Area, and the ways in which countries engage in the practice of tech diplomacy in the Bay Area.

The report also maps a selection of local diplomatic representations to illustrate the variety of approaches by different countries, and additionally identifies the main challenges and benefits for both diplomatic representations and tech companies in pursuing the practice of tech diplomacy.

The main premises of the report are that exchanges between diplomatic representations and tech companies in the Bay Area contribute to detecting emerging issues on the diplomatic agenda, as well as open policy dialogue between stakeholders, and allow for informed decision-making for both governments and tech companies. Understanding what is happening on the ground is therefore essential, especially for countries that are exploring the possibility of establishing a dedicated tech diplomacy practice.

1. Introduction

In 2018, Diplo US mapped the interactions between tech companies and diplomats in the San Francisco Bay Area. This updated report maps the interactions five years later, a period that included the COVID-19 pandemic, a shift to online communication, changes in global geopolitics, and the 2021 global supply chain crisis. Tech companies also experienced a great deal of changes: from Elon Musk acquiring Twitter, to the fall of Silicon Valley Bank.

The aim of the mapping remains the same: to provide an overview of the ecosystem and modes of interaction between governments and tech companies in the Bay Area, to foster awareness of local dynamics and better exchanges between stakeholders, and to provide an overview of the ecosystem to those who do not have a local presence.

In 2018, interactions in the Bay Area focused on security, and served as a 'playground for activity'. Current interactions deal with more significant issues, i.e. conversations with tech companies are more likely to turn to geopolitical issues and topics on how to best protect democratic values, regulate security and privacy, and estimate the technological potential of malign actors.

Digital diplomacy and tech diplomacy have matured in the past five years. Countries have adopted or are in the process of adopting digital policies and establishing positions that deal with the digital aspects of the international agenda.

However, definitions of the terms 'digital', 'cyber', and 'tech diplomacy' remain unclear as countries interpret and use them interchangeably. Unfortunately, there is little academic literature on this topic.

Tech companies have expanded their communication channels to governments – both locally and internationally. This has led to greater exchanges between countries and tech companies, and has expanded the range of issues being addressed, which now include disinformation, environmental tech, fintech, and quantum computing.

Today, interactions between tech companies and governments are not confined to certain localities or capitals. The gravity has shifted to online communication and has dispersed to more locations, putting an emphasis on the right channels to address tech diplomacy matters.

Through interviews with 37 tech diplomacy practitioners and their counterparts in tech companies, and extensive desk research, this report aims to shed light on the position of tech diplomacy in the practice of diplomacy, the current models of practice in the Bay Area, and their main challenges and benefits. The report also looks into additional tech diplomacy hubs.

2. Tech diplomacy

Tech diplomacy is an emerging field in the practice of international relations and diplomacy. It fosters dialogue between states and the tech industry, and was spurred by the rise of tech companies and their influence in areas beyond national borders.

There is still no established definition of the term 'tech diplomacy', neither academically nor in practice. Several other related types of diplomacy are widely used and are seemingly competing or overlapping with the term. These include 'e-diplomacy', 'cyber diplomacy', 'science diplomacy', and 'digital diplomacy'. Today, 'tech diplomacy' is a concept used by diplomacy practitioners when they engage with tech companies. It can be geographically and historically linked to the Bay Area, where local diplomatic representations have used the term since 2017 (when Denmark appointed its first global tech ambassador, with an office in San Francisco). Countries also use 'tech diplomacy' to describe their relationships with global tech companies in Silicon Valley, which is still the world's largest innovation ecosystem despite recent developments.

Tech diplomats engage with private companies, think tanks, civil society, and academia in fields that transcend the mere digital. These include frontier technologies such as robotics, blockchain, 3-D printing, augmented and virtual reality, biotechnology, quantum computing, AI, and others.

Tech diplomats in the Bay Area deal with a wide range of subject matter and issues, not only in connection to national agendas, but also global ones such as human rights, the upholding of democratic values, ethics and technology, and the ways future economic and social development can be affected by technology.

An umbrella term

Currently, there is no established definition of 'tech diplomacy'. In practice, each state defines their understanding of the term in their policies, and establishes the scope of interactions of its tech diplomats. The range of these scopes is wide: from tech ambassadors with specific, defined goals, to global tech ambassadors with the ability to independently determine goals.

In academia, 'tech diplomacy' is defined as a section of science diplomacy, digital diplomacy, or economic diplomacy.

Brazil's tech diplomat to San Francisco, Mr Eugenio V. Garcia, defines tech diplomacy as 'the conduct and practice of international relations, dialogue, and negotiations on global digital policy and emerging technological issues among states, the private sector, civil society, and other groups'.¹ In his view, tech diplomacy is an umbrella term, bringing together different practices of diplomacy, ranging from the instrumentalisation of digital technologies such as social media or videoconferencing in diplomatic practices, to topics such as cybersecurity, digital human rights, geopolitics, and global tech regulation.

Diplomacy between governments and tech companies

Many have drawn parallels between science diplomacy and tech diplomacy, considering tech diplomacy a type of science diplomacy.² According to the American Association for the Advancement of Science (AAAS) and the Royal Society, emerging technologies pose several challenges to diplomacy, as they deal with many scientific fields and have diverse applications, some of which are unknown. They have the potential to cause serious national security risks, risks that are constantly evolving, and they are the subject of tensions across nations.³

¹ Garcia, E. V. (2022). What is tech diplomacy? A very short definition. *Beyond the Horizon Blog*. <https://behorizon.org/what-is-tech-diplomacy-a-very-short-definition/#:~:text=as%20depicted%20below.,Technology%20Diplomacy%20is%20the%20conduct%20and%20practice%20of%20international%20relations,civil%20society%2C%20and%20other%20groups>.

² AAAS, & Royal Society. (2010). *New frontiers in science diplomacy: Navigating the changing balance of power*. https://www.aaas.org/sites/default/files/New_Frontiers.pdf

³ Montgomery, K., & Colglazier, E. W. (2022, February 2). Emerging technologies and science diplomacy. *Science and Diplomacy*. <https://www.sciencediplomacy.org/editorial/2022/emerging-technologies-and-science-diplomacy>

Ms Patricia Gruver⁴, co-founder of the Tech Diplomacy Network, draws a parallel to the much older concept of science diplomacy when describing the scope of tech diplomacy: (a) 'diplomacy for tech', (b) 'tech for diplomacy', and (c) 'diplomacy with tech'. In 'diplomacy for tech', traditional science and technology attachés advance international cooperation (e.g. between tech companies, universities, start-ups, etc.) in order to advance technology and innovation.

In 'tech for diplomacy', technological cooperation between two countries or entities (e.g. the EU and the USA) strengthens the ties between the two countries and international relations in general. According to Gruver, the true novelty of tech diplomacy comes into play when governments engage directly with tech companies in order to 'safeguard responsible policies and regulations that support democratic values, human rights, and ensure a safe technological future for all'.

Nation-state vs network state

Ultimately, the rise of tech diplomacy can be attributed to the reaction of democratically elected governments to the growing influence of global tech companies in the international system.

Global tech platforms transcend nation-states in a number of ways: they are often perceived as more powerful in size and scale than some countries and their ascendance has led to a perceived weakening of the nation-state and an encroachment on traditional attributes of national sovereignty. Nation-states and their representatives are often seen as lacking the capacity to understand frontier technologies.

Tech diplomacy is, in this context, seen as an attempt by nation-states to gather intelligence about frontier technologies and to establish contacts with top executives of global tech companies, as well as new forums of dialogue and discussion between diplomats, company representatives, and civil society.

In addition, libertarian techno-utopians in Silicon Valley have described 'diplomacy' and 'diplomatic recognition' in the tech world as 'network states' that are beginning to replace traditional nation-states as the main actors in international relations.

The concept of the 'digital sovereignty' of tech companies is also reflected in academic literature⁵, arguing that sovereign entities exercise power not only through the ability to compel someone to do something, and through classic manifestations of power (regulating society), but also through the power to shape the structures defining how everything shall be done – i.e. defining the frameworks within which people, corporations, and even states relate to each other. According to Mr Luca Belli, a professor at FGV Law School, head of the Center for Technology and Society at FGV, and director of CyberBRICS, these considerations do not apply to states and markets, but also to technology.⁶

3. Tech diplomacy in digital foreign policy

Since 2018, the field of digital foreign policy and diplomacy has evolved considerably. Countries are increasingly implementing digital elements in their policies, defining national digital and digitalisation policies, and in some cases, have created dedicated digital foreign policies. In order to implement them, they create dedicated posts: from the first Danish tech ambassador, to the posts of global digital diplomats, cyber diplomats, and tech envoys, as well as dedicated sections within their ministries of foreign affairs.

Currently, there are various approaches countries are taking, and different ways the agendas, positions, and range of competencies are defined, all of which have an impact on the definition and practice of tech diplomacy. Since 2017, countries have developed:

⁴ Gruver, P. (2022). *Korea-U.S. international exchange and cooperation in tech diplomacy; Tech diplomacy: Tech companies as power brokers in the digital age*. Pacific Council on International Policy. https://static1.squarespace.com/static/5ea8b04facc8f650c10eebb77t/62ba-d653ae91857955934a2c/1656411745984/Tech+Diplomacy+Report_EN_FINAL.pdf

⁵ Strange, S. (1988). *States and markets*. Pinter Publishers.

⁶ Belli, L. (2022). Structural power as a critical element of social media platforms' private sovereignty. In E. Celeste, A. Heldt, & C. Iglesias Keller (Eds.), *Constitutionalising Social Media*. Hart Publishing. <https://lucabelli.net/wp-content/uploads/2021/08/Platforms-Structural-Power-Private-Sovereignty-FINAL.pdf>

	UK (2023)	Switzerland (2020)	Australia (2021)	France (2017)	Netherlands (2019)	Denmark (2021)
No. of words	15,390	23,285	26,394	18,177	10,753	4,051
Cyber	40	66	479	89	25	13
Online	1	16	88	12	28	1
Digital	65	312	86	223	209	37
Virtual	0	6	2	1	0	0
Net	9	1	1	0	0	0
Tech	33	4	40	0	2	77
E-	0	1	10	2	2	0

Table 1 The use of adjectives and prefixes in six digital foreign policy strategies.¹⁴

1. Dedicated digital foreign policy strategy and separate tech diplomacy strategy (**Denmark**)⁷
2. Dedicated digital foreign policy strategies with elements of tech diplomacy (**Australia**⁸, **France**⁹, **the Netherlands**¹⁰, **Switzerland**¹¹, **and the UK**)¹²
3. Foreign policy strategies that include aspects of digitalisation
4. Digital or digitalisation strategies with foreign policy aspects
5. Strategies dedicated to specific topics (cybersecurity, emerging technology, AI)
6. Positions related to digital, cyber, or tech policy without a specific strategy

By analysing the digital foreign policies of the six countries that have a separate dedicated policy from the tech diplomacy perspective, we can see differences in how terminology is used and how they focus on different aspects in their respective policies.

There are substantial **differences in terminology**¹³ when comparing the dedicated digital foreign policy strategies (Table 1). Australia

employs the term 'cyber', while the Danish strategy favours the term 'tech diplomacy'. France, Switzerland, and the Netherlands focus on 'digital'.

This reflects the priorities of the countries' digital policies, with 'digital diplomacy' encompassing all diplomacy that involves digital aspects and digital as a topic on the diplomatic agenda¹⁵, 'cyber diplomacy' emphasising the security aspect, and 'tech diplomacy' focusing on interactions between nation-state representatives and tech companies (on global or local levels).

Digital diplomacy refers to the impact of digital technology on diplomacy in three realms:

- Changing digital geopolitical and geoeconomic **ENVIRONMENT** for diplomatic activities (e.g. sovereignty, power redistribution, interdependence)
- Emerging digital **TOPICS** on the diplomatic agenda (e.g. cybersecurity, e-commerce, privacy protection)
- New **TOOLS** for diplomatic activities (e.g. social media, big data, AI)

⁷ Ministry of Foreign Affairs of Denmark. *Strategy for Denmark's tech diplomacy 2021–2023*. <https://techamb.um.dk/strategy>

⁸ Australian Government. (2021). *Australia's international cyber and critical tech engagement strategy*. <https://www.internationalcyber.tech.gov.au/strategy>

⁹ Ministry for Europe and Foreign Affairs of France. (2017). *France's international digital strategy*. <https://www.diplomatie.gouv.fr/en/french-foreign-policy/digital-diplomacy/france-s-international-digital-strategy/>

¹⁰ Ministry of Foreign Affairs of the Netherlands. (2019). *Digital agenda for foreign trade and development cooperation (BHOS)*. <https://www.government.nl/documents/policy-notes/2019/07/31/digital-agenda-for-foreign-trade-and-development-cooperation-bhos>

¹¹ Swiss Federal Department of Foreign Affairs. (2021). *Digital foreign policy strategy 2021–2024*. https://www.eda.admin.ch/missions/mission-onu-geneve/en/home/news/publications.html/content/publikationen/en/eda/schweizer-aussenpolitik/Digitalaussenpolitik_2021-2024

¹² UK Government. (2023). *The UK's international technology strategy*. <https://www.gov.uk/government/publications/uk-international-technology-strategy/the-uks-international-technology-strategy>

¹³ Kurbalija, J. (2015, April 17). Different prefixes, same meaning: cyber, digital, net, online, virtual, e-. *Diplo Blog*. <https://www.diplomacy.edu/blog/different-prefixes-same-meaning-cyber-digital-net-online-virtual-e>

¹⁴ Adapted from Kurbalija, J., & Höne, K. E. (2021). The era of digital foreign policy: Comprehensive approaches to digitalisation. *Revista Política Internacional*, 130 (July–December). <https://adp.edu.pe/revista>. This table counts the number of occurrences of a particular term or prefix across the whole text corpus.

¹⁵ DiploFoundation. (n.d.). *Digital foreign policy*. <https://www.diplomacy.edu/topics/digital-foreign-policy>

	UK (2023)	Switzerland (2020)	Australia (2021)	France (2017)	Netherlands (2019)	Denmark (2021)
Data and privacy	110	135	54	76	98	7
Artificial intelligence	55	53	10	8	19	1
Security	98	45	185	58	25	13
Human rights	7	39	89	30	16	9
Governance	36	60	35	26	1	3
Development	77	94	112	74	71	31
Science	31	28	9	3	2	0
Economy/economic	53	68	91	59	47	3
Cooperation	20	57	64	25	41	16
Research and education	45	40	62	24	24	5
Health(care)	8	16	7	2	11	3
Sustainable development goals (SDGs)	2	6	5	2	5	0
Tech diplomacy/techplomacy	1	0	4	0	0	25

Table 2 Coverage of specific issues based on the frequency of certain terms.¹⁶

When analysing how the topic and agenda of tech diplomacy are addressed, these policies all include aspects of tech diplomacy. With the exception of the Danish policy, others **do not directly define 'tech diplomacy'**. Rather, tech-diplomacy aspects are dispersed in mentions of strengthening the presence and ties with tech companies in the San Francisco area (Switzerland), the Cyber and Tech Retreat (Australia), support for start-ups and scale-ups (UK), and establishing a start-up liaison officer position in San Francisco (Netherlands), and other aspects.

Therefore, the tech diplomacy agenda is a mosaic of aspects of national policies derived from foreign policy, as well as other policies dealing with digital aspects.

The goals and areas of priority engagement of countries practising tech diplomacy align with the particular aims of the national policies. The emerging key topics of digital foreign policy are digital infrastructure, and digital as a factor in development, cybersecurity, economic prosperity (including e-commerce), and human rights (including the protection of privacy and freedom of expression).¹⁷

Tech diplomacy topics follow the areas outlined above. However, governments usually allow for

In this report, we approach 'tech diplomacy' as a subset of 'digital diplomacy'. It encompasses the practice of diplomacy that engages with the private tech sector on issues related to digital policy and emerging technology, as well as foreign policy or geopolitical concerns on non-digital technologies such as biotech or microchips.

a certain level of freedom for the tech diplomat to define topics to pursue.

This enables the exploration of new topics in emerging technologies, as well as budding topics on the local level, such as quantum and supercomputing, the metaverse, safety and trust, and disinformation.

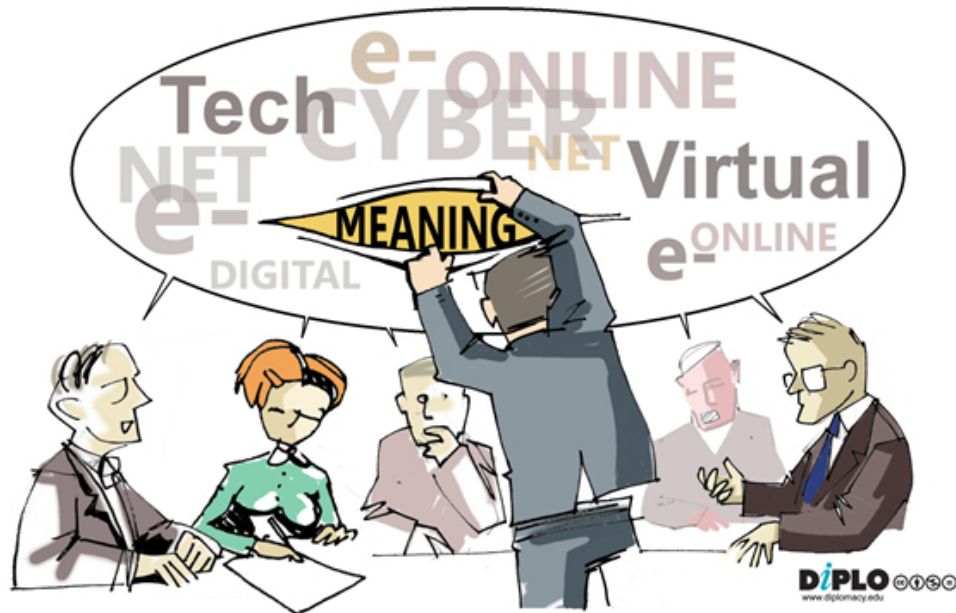
Structure of tech diplomacy representations

In order to implement foreign policy strategies and practise tech diplomacy, countries have created a variety of positions within their respective governments – both in diplomatic representations and in internal government structures.

Diplomatic representations dealing with tech diplomacy vary in name and the context of their

¹⁶ Ibid.

¹⁷ Ibid.



involvement. Tech diplomats may carry the title of ‘ambassador-at-large’, ‘tech ambassador’, ‘tech envoy’, ‘tech attaché’, ‘digital ambassador’, ‘consul for tech and innovation’, or even both ‘general consul’ and ‘tech ambassador’, or ‘general consul’ and ‘tech envoy’. The reason is simple: to signal to tech companies (and others) the weight of engagement in tech diplomacy.

It should be noted, however, that these titles do not strictly adhere to the traditional diplomatic ranks within a nation’s diplomatic representation.

Within their respective government, diplomats adhere to the traditional diplomatic ranks and have the scope of their mandate set anywhere from the global, national, or subnational level. They may be administratively under the ministries of foreign affairs, trade and investment, science and technology, or education.

Within the ministries, there may be one person, a structural hierarchy, or several streams of engagement in tech diplomacy running parallel or intersecting.

Some countries have foregone establishing dedicated positions of tech diplomats in foreign countries and have established positions of experts on digital issues within their existing diplomatic representations (China, USA).¹⁸

As can be inferred from above, the practice of tech diplomacy and its definition varies widely and has not yet reached its maturity.

There are several challenges stemming from such a variety:

- **Positioning of tech diplomacy within the diplomatic agenda:**

While some states see tech diplomacy as a type of traditional diplomacy, others categorise it under science and innovation, trade and investment, or even cultural and academic diplomacy. It is in this way that states signal their priorities for tech diplomacy engagement.

The fact that the agenda of tech diplomats is usually an assortment of different aspects of various national policies makes the practice of tech diplomacy coordination complicated and, as a rule, requires crossing silos within national governments.

This has drawbacks: emerging topics in tech diplomacy, such as environmental tech diplomacy, fintech, or ethical aspects of emerging tech, may not be fully embraced. Additionally, the understanding of the position of a tech diplomat by those

¹⁸ Erzse, A., & Garson, M. (2022). *A leaders’ guide to building a tech-forward foreign policy*. Tony Blair Institute for Global Change. <https://institute.global/policy/leaders-guide-building-tech-forward-foreign-policy>

they are tasked to engage with may not be the same.

In our research, for example, companies did not see trade and investment as part of tech diplomacy, but rather viewed it in a traditional sense of negotiating trade agreements, attracting investment, and promoting local companies abroad.

- **Hierarchy:**

When establishing the new position 'tech diplomat', states need to decide how this new position will fit into traditional diplomatic structures.

This includes decisions on the rank and name of the tech diplomat. Two main issues that were identified are whether having more than one 'ambassador' in a foreign country is acceptable and how to define the positions of global digital ambassadors, ambassadors in individual countries, and local tech consuls in a complementary manner.

- **Scope of engagement:**

With both tech and traditional diplomatic representations in place, the question arises about delineating their competency areas. This is especially visible in cases where a country may have a local consul (tech envoy), a country ambassador, and a global ambassador in place, with all being simultaneously engaged in agendas related to tech diplomacy.

There are also examples where the agenda of diplomats reaches beyond tech diplomacy and goes into cyber diplomacy (security and defence). In these cases, coordination within the government is paramount.

- **Communication with others:**

Diplomatic structures, especially in their new forms, are not easily understood by those who tech diplomats are tasked to engage with. Tech companies have voiced their struggles and confusion in identifying proper contacts within governments to address policy issues or other issues of concern.

Clarity on the structure and competencies, or having only one channel of communication for tech diplomacy, eases communication considerably.

In our research, companies have mentioned that the success of the Danish model of having a global tech ambassador is partly due to having a 'face' and a single point of contact with the Danish government.

On the other hand, the benefits of engaging in tech diplomacy contribute to the stability and development of countries. Specifically, tech diplomacy efforts aim to address a variety of issues, such as:

- Ensuring that democracy and human rights, especially the right to free expression, are observed
- Illegal, harmful, and obstructive content detection and moderation, including disinformation and misinformation
- The role of big tech in the social and economic development of countries, including the welfare of children and the development of new models of business, education, and taxation
- The development of emerging tech in line with human rights and ethics
- Shaping future national policies and models, such as financial, educational, and employment policies, and the digitisation of government services
- Assessing existing and emerging approaches to regulating tech companies and platforms, both to gauge compliance by tech companies, as well as technological solutions to regulatory and policy implementation
- Spurring national innovation, business, and the science environment
- Keeping abreast of the newest developments in technology and innovation
- Strengthening multistakeholder engagement in policy development
- Providing support to businesses and nationals in the local environment

4. USA and the San Francisco Bay Area

Since 2017, the environment of engagement in tech diplomacy in the Bay Area has changed considerably, as the USA has introduced new digital and cyber diplomacy strategies and has implemented administrative structures to pursue them.

Changes in US digital diplomacy

The U.S. State Department has set up the Bureau of Cyberspace and Digital Diplomacy, with an ambassador-at-large at its helm¹⁹, as well as the Office of the Special Envoy for Critical and Emerging Technology, tasked with strengthening tech diplomacy across the State Department, providing a centre of expertise and energy to develop and coordinate critical and emerging technology foreign policy, and engaging ‘foreign partners on emerging technologies that will transform societies, economies, and security—including biotechnology, advanced computing, artificial intelligence, and quantum information technologies’.²⁰

Additionally, the U.S. State Department also created the post ‘special representative for subnational diplomacy’ in the Office of Global Partnerships with the task to engage with governors, mayors, and other local officials in the USA and globally.

The special representative aims to bring the benefits of US foreign policy, such as jobs, investments, innovative solutions, and international experiences to the local and state levels. It supports national security priorities by integrating local ideas into foreign policy, and fostering connections among cities, municipalities, and communities in the USA and abroad.²¹

In the USA’s recent *National Cybersecurity Strategy*²², the focus remains on security and resilience. However, there are aspects that echo the tech diplomacy efforts of the diplomatic representations engaging with US tech companies.

First, the US *National Cybersecurity Strategy* focuses on achieving economic security and prosperity, responsive and rights-respecting democracy, and a vibrant and diverse society.

Secondly, the strategy indicates enhanced responsibility of US tech companies, as it calls for ‘rebalancing the responsibility to defend cyberspace and realigning incentives to favour long-term investments’. The most influential actors in the US digital ecosystem (private or public) ‘should assume a greater share of the burden for mitigating cyber risk. When entities across the public and private sectors face trade-offs between temporary fixes and long-term solutions, they must have the resources, capabilities, and incentives to choose the latter.’

There were many other changes on the US side, from addressing supply chain issues to reshaping conversations on cybersecurity and the environment, to exchanges within the US–EU Trade and Technology Council (TTC), to name just a few. It is clear that the US digital diplomacy engagement and environment are advancing and creating additional pathways of engagement in the practice of tech, cyber, and digital diplomacy.

Another aspect of note is a development in academia is the establishment of Purdue University’s Krach Institute for Tech Diplomacy and its Global Tech Security Commission.²³ The objective of the Krach Institute is to support policymakers in gaining an understanding of critical emerging technologies (5G/6G, AI, energy and climate, hypersonics, rare earth elements, semiconductors, quantum

¹⁹ U.S. Department of State. (n.d.). *Bureau of Cyberspace and Digital Policy*. <https://www.state.gov/bureaus-offices/deputy-secretary-of-state/bureau-of-cyberspace-and-digital-policy/>

²⁰ U.S. Department of State. (2023, January 3). *Establishing the Office of the Special Envoy for Critical and Emerging Technology*. <https://www.state.gov/establishing-the-office-of-the-special-envoy-for-critical-and-emerging-technology/>

²¹ U.S. Department of State. (2023). *The special representative for city and state diplomacy*. <https://www.state.gov/bureaus-offices/under-secretary-for-economic-growth-energy-and-the-environment/the-secretarys-office-of-global-partnerships/the-special-representative-for-subnational-diplomacy/>

²² The White House. (2023, March 1). *National cybersecurity strategy*. <https://www.whitehouse.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf>

²³ Atlantic Council. (n.d.). *The Global Tech Security Commission*. <https://www.atlanticcouncil.org/programs/global-china-hub/the-global-tech-security-commission/>

computing, synthetic biology) in order to make informed laws and policy decisions.

In 2020, UN member states recognised the importance of technology as a fundamental global issue and pledged to improve digital cooperation to be able to maximise the benefits digital technologies can bring, while curtailing risks. Member states agreed that the UN can provide a platform for all stakeholders to participate in such deliberations.²⁴

The UN Office of the Secretary-General's Envoy on Technology works on issues of universal connectivity, digital public goods, digital inclusion, capacity building, human rights, AI, digital trust and security, and digital cooperation.

San Francisco Bay Area ecosystem

The Bay Area remains an important destination for global technology investment and the leading global centre for business, technology, and innovation. It remains high in the interest of regional, national, and supranational governments.

The organisation Mind the Bridge has recorded 63 active government institutions with a presence in the Bay Area, most of them from European countries.²⁵ EU member states are well established here, with 24 out of 27 EU member states having a consulate general or honorary consulate.

The Bay Area has the benefit of longstanding tech diplomacy exchanges, the presence of companies with a global impact and others with a history of innovation and science power, and an ecosystem of mutual cooperation between governments and other stakeholders.

In this report, the Bay Area includes the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Sonoma, and Solano.

The global COVID-19 pandemic has dampened exchanges between governments and companies²⁶, cutting networking opportunities short. As a result, offices have often limited their operations in the Bay Area, or even closed. Many of the conversations between governments and tech companies have moved online, substituting local physical presence, and moving the gravity of the engagement away from local interactions.

Additional challenges to the Bay Area ecosystem, as discovered in our interviews, are a lack of local tech and innovation talent, decreasing innovation potential, insufficient broader discussions on internet policy and governance, and the recent 'end of the big tech boom'. According to Wall Street results, 2022 was the worst year that the tech industry experienced since the financial crisis of 2008, with Apple, Amazon, Alphabet, Microsoft, and Meta losing a combined US\$3.9 trillion in market value.²⁷

The Bay Area is now at a turning point – it will either remain strong in its position globally, or will diminish, changing tech diplomacy models in the future.

San-Francisco-Bay-Area-based companies and organisations

Too often the conversations on tech diplomacy in the Bay Area are framed as an exchange between big tech and countries of the Global North. Such a view does not capture the larger picture.

²⁴ United Nations General Assembly. (2020). *Declaration on the commemoration of the seventy-fifth anniversary of the United Nations (A/RES/75/1)*. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N20/248/80/PDF/N2024880.pdf?OpenElement>

²⁵ Mind the Bridge. (2023). *European innovation economy in Silicon Valley: 2023 report*. <https://storage.googleapis.com/mtb-research.appspot.com/publications/2023-european-innovation-economy-in-silicon-valley/MTB-2023-european-innovation-economy-in-silicon-valley-report.pdf>

²⁶ Bay Area Council Economic Institute. (2022). *Innovation platform: The future of global technology and innovation collaboration in the San Francisco/Silicon Valley Bay Area*. <http://www.bayareaeconomy.org/files/pdf/GlobalInnovationReport-Web101.pdf>

²⁷ Mickle, T., Weise, K., & Grant, N. (2023, February 2). Tech's biggest companies discover austerity, to the relief of investors. *The New York Times*. <https://www.nytimes.com/2023/02/02/technology/big-tech-earnings-austerity.html>

'Big tech' is a dynamic term for technology companies that have gained a large social impact and market-dominant position through the proliferation of their platforms and services. These companies base their business models on collecting huge amounts of data for later use and dissemination. Companies such as Facebook and Amazon are good examples.²⁸

Big tech companies in the Bay Area (Alphabet (Google), Amazon, Apple, Meta (Facebook)) have developed corporate structures to engage with governments – on the national (US) level, as well as with embassies, capitals, and local diplomatic representations.

These companies are engaging in the tech diplomacy agenda and digital governance, and are starting to have more realistic conversations on the societal norms underpinning the policy discussion. Big tech also has the possibility to adapt quickly to emerging conversations, putting expertise and structures in place. Our interviews showed that people in leading positions in big tech companies had an understanding of the reasons why they should engage in tech diplomacy, as well as the existing gaps that need to be bridged between companies and diplomats.

In addition to big tech, there is an array of companies that have a major impact on the world. Examples include Twitter, Nvidia, Intel, HP, Salesforce, OpenAI, and Zoom. Tech diplomats need not only engage with top revenue companies, but with influential up-and-coming companies.

The Bay Area has a rich venture capital (VC) scene that is often not engaged at the same level as companies providing social media platforms and software. Our interviews showed that the VC firms see tech diplomats as conduits between the tech community and traditional diplomats, enabling them to access national pools of talent, innovation ecosystems, and a way to spur cross-border innovation. However, VC firms and small and middle enterprises struggle with achieving the policy expertise required to engage in wider policy conversations.

Despite robust existing conversations between tech companies and diplomats, tech companies repeatedly mentioned in our interviews several challenges they face in engaging with diplomats, including:

- A lack of understanding of the impact of emerging tech on early-stage policymaking by diplomats
- Having difficulty understanding government structures and finding the right government representative with competency to address a specific issue
- Diplomats' lack of understanding of how policy impacts tech development, its investments, and competitiveness. An example was given on the rapid expansion to the privacy tech sector in the USA after the adoption of the General Data Protection Regulation (GDPR).
- In some cases, local tech diplomats have little say in policy discussions in their capitals and do not have channels to key government officials to impact policy change.
- In some cases, local tech diplomats are seen as 'influencers' to put forward government policy goals instead of engaging in conversations to achieve informed policymaking.
- The definition of the tech diplomacy agenda is unclear for some companies, especially in relation to trade and investment as part of the traditional diplomatic agenda.
- Some companies view governments as a customer for their product first, and are hesitant to engage in a wider policy conversation.
- There is a cultural gap between tech companies, VC firms, and governments, even if they are all from the same country. Additional cultural gaps need to be bridged in the case of foreign representations.

As such, exchanges between tech companies and tech diplomats would benefit from sharing best practices, outreach to inform and educate on the importance of having governmental affairs departments and regulatory strategies within tech companies, as well as ongoing dialogue.

²⁸ Danish Ministry of Foreign Affairs. (2021). *Towards a better social contract with big tech [White paper]*. <https://techamb.um.dk/-/media/country-sites/techamb-en/media/white-paper-engelsk-version-.ashx>

Since 2017, there has been a shift in how companies approach tech diplomacy, especially since the 2022 geopolitical turmoils.

According to our interviewees, large social media platforms are more aware of the impacts of their engagement on democratic values and are now proactively engaging in fighting the spread of disinformation online and actively participating in cybersecurity conversations with governments.

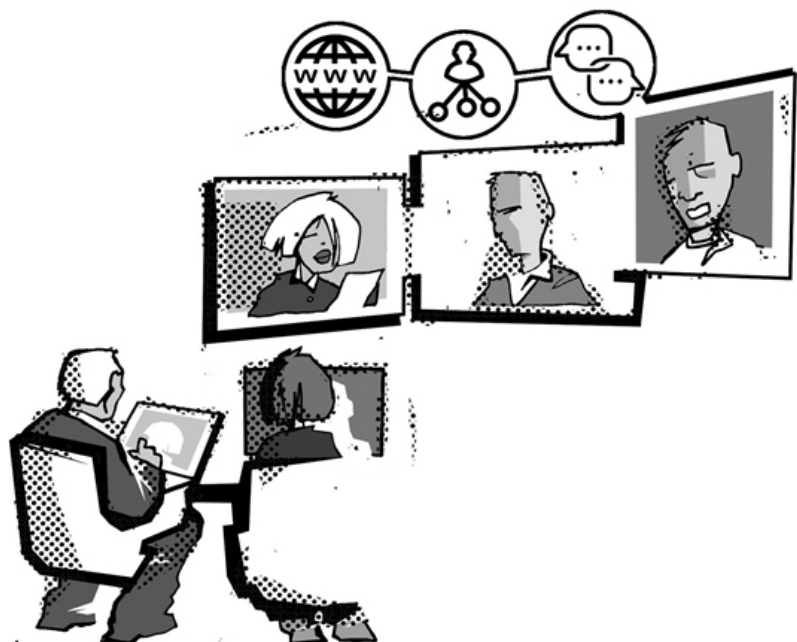
For diplomats, the main challenge is to initiate conversations on current tech diplomacy topics such as AI, quantum computing, fintech, and environmental tech with relevant counterparts at a company. Company structures are hard to read and can change without advance notice.

According to our interviewees, tech diplomats occasionally engage US government contacts, embassies, or capitals to reach the right person within the tech company in the Bay Area. This has resulted in companies having very active engagements not only with tech diplomats locally, but also with the embassies in Washington, D.C. and national capitals.

Note: Microsoft is actively engaged in policy and diplomacy discussions on the global level, with a specialised digital diplomacy department. It has a presence in Washington, D.C., New York, Brussels, and Geneva, and actively works with the UN and other international organisations, especially on cybersecurity issues. It was the most quoted name of a tech company engaged in diplomacy when interviewing diplomats outside the Bay Area. Microsoft, with its headquarters in the Redmond, Washington State, does not engage in the practice of tech diplomacy as mapped in this report.

5. Tech diplomacy interactions in the San Francisco Bay Area

There is an overall agreement between tech companies and tech diplomats in the Bay Area that the conduct of tech diplomacy is crucial in building understanding between governments and tech companies, allowing for holding difficult conversations on the intersection of values, policy, compliance, and technology, as well as development globally.



Since 2018, new topics emerged on the tech diplomatic agenda in the Bay Area that also need to be addressed in policymaking. This includes complex AI conversations on a global level, 5G and geopolitical impacts of its implementation, Web3, cryptocurrency and blockchain, and open internet. With geopolitical tensions, the topic of cybersecurity, and climate and environmental tech are high on the agenda.

Most of the tech diplomacy outposts in the Bay Area are from Europe (43), with Asia-Pacific (14) being the second most represented region. **Low- and middle-income countries, especially from the Global South, are largely underrepresented.** Many countries, such as Senegal, Pakistan, Guatemala, and Chile, are exploring the possibility of establishing their tech diplomacy representation in the area. Others, like India, are looking to build on existing business, academic, and investment ties, expanding to new areas of cooperation.²⁹

In most cases, the countries exploring a tech diplomacy presence in the Bay Area are looking into existing models of representation, from global digital ambassadors and dedicated tech ambassadors, to consulates with tech diplomacy sections.

This report looks at the various models that countries use in the practice of tech diplomacy in the Bay Area. With the introduction of Denmark's Office of the Tech Ambassador in 2017, the model of appointing a global or tech digital ambassador has gradually become more prominent.

Even though this model is not so widespread, in the last couple of years, several countries have appointed tech ambassadors dedicated to dealing with tech and digital agendas. The mandate of these tech ambassadors differs by geographical location: their mandate can be global (Australia, Denmark, France, Switzerland) or local to the Bay Area (UK, Mexico, Brazil, Canada, Switzerland). In the case of global tech (or digital) ambassadors, there are still supporting structures in place to facilitate local engagement. Below are some examples of such engagement.

Denmark

Denmark was the first to introduce tech diplomacy (or 'techplomacy') in 2017, when it became the world's first country to appoint a tech ambassador, making technology and digitalisation one of its critical foreign policy priorities. The Danish tech ambassador represents the Danish government to the tech industry and to governance forums on emerging technologies.

Danish techplomacy is operationalised through the Office of the Danish Tech Ambassador ('Office'). The Danish tech ambassador has a global mandate with three offices in Silicon Valley, Copenhagen, and Beijing. This global mandate allows the tech ambassador to not be geographically limited in their diplomatic mission and endeavours.

Two main elements that are important for the operationalisation of Danish techplomacy:

- The Office advances interests on behalf of the Danish government by engaging in a dialogue with big tech with the aim to influence the direction of technology.
- The Office takes into consideration and acts in accordance with Danish national interests and values to influence the international agenda concerning tech policy issues

While the tech ambassador heads the Office, the Silicon Valley (San Francisco Bay Area) office appointed a deputy tech ambassador, and is staffed with career diplomats advising the tech ambassador on different aspects of emerging technologies. The Office of Danish Tech Ambassador covers different policy issues ranging from cybersecurity and disinformation, countering terrorism online, digital privacy protection, digital taxation, responsible AI, and data ethics.

The Office puts a great emphasis on and actively supports policymaking as related to technology and its impact on human rights in international forums. Denmark, jointly with other countries, largely promoted the implications of emerging technologies on human rights and brought it

²⁹ Bay Area Council Economic Institute. (2023). *Seismic shift: Economic growth and strategic alignment between the Bay Area and India*. <http://www.bayareaeconomy.org/files/pdf/SeismicShift-India2023.pdf>

to the UN Human Rights Council (HRC) agenda in Geneva. In addition, the Office has also assisted the UN High Commissioner for Human Rights (OHCHR) in building dialogue with tech companies in the Bay Area on questions related to human rights risks and online platforms.

The uniqueness of Denmark's approach to techplomacy is reflected in its maturity when it comes to policymaking processes at the national level.

The Office has elaborated two key guiding documents to strategically guide Danish techplomacy:

- The *Strategy for Denmark's Tech Diplomacy 2021-2023*
- The white paper titled *Towards a Better Social Contract With Big Tech*

The *Strategy for Denmark's Tech Diplomacy 2021-2023* is the outcome of Denmark's efforts to elevate technological diplomacy to one of its key foreign policy priorities. The strategy focuses Denmark's efforts 'towards a more just, democratic and safe technological future'.

According to the strategy, Denmark will work to ensure that big tech meets its societal responsibility and upholds its part of the social contract by supporting and enhancing discussions at the global level on challenges concerning data-driven and algorithmic business models.

Denmark will advocate for global digital rules that meet democratic values and human rights, and shape global tech governance. It will also strive for a more precise division of responsibilities between governments and the private sector.

Denmark considers the emergence of big tech and its corporate business models as a challenge for modern society and democracy, and stresses that it therefore needs to be regulated.

In addition, Denmark has established a Tech Advisory Board under the auspices of the Ministry of Foreign Affairs to advise Denmark's techplomacy. The Tech Advisory Board meets annually and is represented by

international experts from relevant companies, research institutions, and non-governmental organisations (NGOs).

Australia

In 2021, Australia adopted *Australia's International Cyber and Critical Tech Engagement Strategy* that is structured along three main areas: values, prosperity, and security. This includes democracy, human rights, ethics of critical technology, and diversity and gender equality.

Australia appointed their global ambassador for cyber affairs and critical technology with a portfolio including the issues of technology and geopolitics.

In the Bay Area, Australia established a consulate general focusing on investment attraction in several key areas, including digitech, cybersecurity, agritech, and clean energy.

Another local outpost is the Australian Trade and Investment Commission (Austrade), the Australian government's trade, investment, and education promotion agency, which provides market research into different industries in the USA, such as advanced materials manufacturing, agritech, cybersecurity, digital technology, resources and energy, renewable energy, defence, fintech, and medtech.

Austrade also manages Landing Pad, a programme that serves as an entry point for Australian start-ups and entrepreneurs to the local ecosystem.³⁰

Australia is an active participant in the diplomatic ecosystem in the Bay Area. In collaboration with Denmark, the Office of Australia's Cyber Ambassador launched a new foreign and security policy initiative called the Cyber and Tech Retreat (see below), which gathers tech and cyber diplomats and other stakeholders to discuss current digital diplomacy issues.

France

Other countries followed Denmark's model

³⁰ Australian Trade and Investment Commission. (n.d.). *Australian landing pads*. Australian Government. <https://www.austrade.gov.au/landingpads/locations/san-francisco>

and appointed a tech ambassador to deal with issues surrounding tech challenges. France nominated its first ambassador for digital affairs in 2018. The ambassador has a global mandate and works closely with the French Ministry of Europe and Foreign Affairs and other ministries on advancing France's positions related to international implications of digital transformation, as well as other issues related to technological innovation.³¹

In addition, the French tech diplomacy team is staffed with 30 diplomats, and the ambassador is advised by three technical advisers from the Ministry of Europe and Foreign Affairs, the National Agency for the Security of Information Systems (ANSSI), and the Ministry of the Economy.

To promote French science and technology to US actors, France established the Office of Science and Technology (OST) at the Embassy in Washington, D.C., with six offices in the consulates in Atlanta, Boston, Chicago, Houston, Los Angeles, and San Francisco. The OST team comprises 24 staff members, including professors, researchers, and scientists who work throughout the USA, bringing together diverse scientific knowledge and skills.

The mission of OST is primarily to publicise and promote French science and technology in the USA, observe the scientific and technological developments of US laboratories and research institutes, strengthen and enhance French-US partnerships by organising different events and meetings, and reinforce and bolster innovation from academic research by accompanying infant French start-ups in their exposure to the US ecosystem.³²

The OST Office in San Francisco is headed by the attaché for science and technology and the deputy attaché for science and technology. They are supported by a logistics manager. The team in San Francisco deals with different topics related to emerging technologies such as AI, blockchain, Web3, robotics, and quantum computing.

Switzerland

Switzerland has adopted its Digital Foreign Policy Strategy for 2021–2024 and defined four areas of priority: digital governance, prosperity and sustainable development, cybersecurity, and digital self-determination. The strategy also aims to 'raise Switzerland's profile in the area of digital governance, further develop its digital foreign policy and position International Geneva as a prime location for discussing digitalisation and technology.'³³ Tech diplomacy is a part of the broader digital foreign policy agenda but is not directly defined.

To implement the Digital Foreign Policy Strategy, Switzerland has appointed their digital ambassador with a global mandate. Within the Swiss Government, this position refers to the head of the Digitalisation Division at the Federal Department of Foreign Affairs (FDFA) State Secretariat in Bern. The division has five full-time staff members dedicated to digital foreign affairs issues. The Division for Digitalisation has also built up a network of 'Digital Knots' with over 30 Swiss diplomatic representations abroad.

In the San Francisco Bay Area, Switzerland has established a Consulate General with a Consul General/Tech Ambassador at its helm. The Swiss tech diplomacy portfolio in the US is shared by its Tech Ambassador in San Francisco and the Embassy in Washington, DC that covers mainly regulatory questions. The FDFA has a top-down structure, and its tech diplomacy practice includes regular exchanges and collaboration between the Embassy, the global digital ambassador, and the tech ambassador.

The representation in San Francisco focuses on emerging tech developments and their impacts on policy-making, dialogue with tech companies on developing rules and institutions, work with international organisations that explore the San Francisco Bay Area, and strengthening the links between San Francisco and Geneva in digital governance discussions.

³¹ Ministry of Europe and Foreign Affairs of France. (n.d.). *Ambassador for digital affairs: 2019 annual report*. https://www.diplomatie.gouv.fr/IMG/pdf/ambassador_for_digital_affairs_-_summary_of_the_2019_annual_report_cle4e6c48.pdf

³² Embassy of France in the United States. (n.d.). *Office for Science and Technology*. <https://france-science.com/en/the-office-of-science-technology/>

³³ Swiss Federal Department of Foreign Affairs (2021). *Digital foreign policy strategy 2021–2024*. https://www.eda.admin.ch/missions/mission-onu-geneve/en/home/news/publications.html/content/publikationen/en/eda/schweizer-aussenpolitik/Digitalaussenpolitik_2021-2024

One of the benefits of the Swiss model is the flexibility of the agenda of the tech ambassador in San Francisco, allowing for the pursuit of new developments to achieve the four priorities of the Digital Foreign Policy Strategy.

The digital diplomacy engagement is complemented by the global Swissnex network with six offices in the innovation hotspots worldwide, such as the San Francisco Bay Area.

Swissnex is an initiative of the State Secretariat for Education, Research and Innovation and is part of the Swiss Confederation's network abroad managed by the FDFA. It is based on a bottom-up collaborative approach, relying on a public-private partnership model of engagement and funding. The Swissnex network is supported by 20 science counsellors based at Swiss embassies in major cities worldwide, focusing on education, research, and innovation. Swissnex regularly hosts events and programs that fall within the realm of science and tech diplomacy.

Austria

Austria operates in the Bay Area through Open Austria. The Open Austria office in San Francisco is also a consulate. It is operated jointly by the Austrian Federal Ministry for European and International Affairs, the Foreign Trade Organization of the Chamber of Commerce, and the Austrian Business Agency.

The Austrian consul is a co-director of Open Austria with the trade commissioner, and carries the title 'Austrian tech envoy'.

Open Austria focuses on tech diplomacy, business and innovation, and investments in Austria. Open Austria works on developing dialogue between tech companies and other stakeholders, promotes human rights in the digital age, as well as digital humanism. In the past, Open Austria was also a key player in the

field of cultural tech diplomacy, and has initiated the European platform The Grid.³⁴

Canada

Canadian engagement in the digital diplomacy agenda is based on the *Global Digital Government Strategy*.³⁵ In the Bay Area, Canada has established a consulate general with a consul general/tech envoy at its helm. The tech diplomacy agenda spans from innovation policy and human rights to content moderation, mitigating online harms, data privacy, the rise of digital authoritarianism, and the future of work.

The Canadian local presence is enhanced by the Canadian Technology Accelerator (CTA)³⁶, which provides support to Canadian firms entering the US market of digital technologies, life sciences, and cleantech.³⁷

Ireland

The Consulate General of Ireland in San Francisco, also called the 'Ireland House' pursues goals set forth in the initiative *Global Ireland: Ireland's Global Footprint to 2025*³⁸ and specifically *Ireland's Strategy for the US and Canada 2019–2025*.³⁹

Ireland is taking a 'whole-of-government approach' in its engagement with the USA and Canada, with the vision for Ireland House to be a whole-of-government platform, both in the physical and digital space.

Headed by the consul general, the main goal of Irish tech diplomacy in the region is promoting Ireland as a destination for companies across a range of sectors, including biotechnology, information and communications technology (ICT), pharmaceuticals, medical technologies, and financial and shared services.

The efforts of the consulate are complemented

³⁴ Blume, C., & Rauchbauer, M. (2022). How to be a digital humanist in international relations: Cultural tech diplomacy challenges Silicon Valley (2021). In: H. Werthner, Prem, E., Lee, E. A., & C. Ghezzi (Eds.), *Perspectives on Digital Humanism*, pp. 101–107. Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-86144-5_15

³⁵ Government of Canada. (n.d.). *Canada's digital government strategy: Canada's digital efforts in the global context*. <https://www.canada.ca/en/government/system/digital-government/digital-government-strategy/global.html>

³⁶ Government of Canada. (n.d.). *Canadian technology accelerator*. <https://www.tradecommissioner.gc.ca/cta-atc/index.aspx?lang=eng>

³⁷ Ibid.

³⁸ Government of Ireland. (n.d.). *Global Ireland: Ireland's global footprint to 2025*. <https://www.gov.ie/en/campaigns/globalireland/#>

³⁹ Government of Ireland. (n.d.). *Global Ireland: Ireland's strategy for the US and Canada 2019–2025*. <https://www.dfa.ie/media/dfa/our-roles/policies/strategies/usandcanada/US-and-Canada-Strategy-Long-Version.pdf>

by Enterprise Ireland, a government organisation responsible for the development and growth of Irish enterprises in world markets and its Access Silicon Valley (ASV) programme, designed to fast-track innovative Irish technology companies targeting Silicon Valley and San Francisco.

As of September 2022, the Irish Consulate in San Francisco hosts the EU office under the lead of the EU's senior envoy for digital to the USA.

Japan

Japan launched its comprehensive government digitalisation programme in 2021, with a *Digitalisation Policy* and the Digital Agency of Japan put in place in 2022.⁴⁰ The focus of the efforts is to increase the effectiveness of the Japanese government with benefits to its citizens.

In the Bay Area, with more than 80 Japanese corporate innovation offices operating in the region, Japan is the country with the largest presence of corporations.⁴¹ They are focused on information gathering, developing business partnerships, and investment.⁴² Japan has a consulate general in the area, focusing on exchanges to increase the number of start-ups in Japan, innovation and emerging tech, and climate change. The work of the consulate general is complemented by the Japanese External Trade Organization (JETRO) and the New Energy and Industrial Technology Development (NEDO) under the auspices of the Japanese Ministry of Economy, Trade and Industry.

Republic of Korea

The attractiveness of the Korean digital ecosystem worldwide contributes to the greater engagement of the Republic of Korea (Korea) in the Bay Area.

Korea strives to intensify its engagement through its Office of Science, ICT and Economic Affairs that falls under its consulate general in San Francisco. The office is led by the science attaché. Besides the ICT and tech agenda, the office also supports Korean companies and start-ups that wish to enter the US market.

United Kingdom

The UK has just released *The UK's International Technology Strategy*⁴³, outlining the way forward in the digital foreign policy agenda.

In terms of tech diplomacy, the policy paper outlines six strategic priorities: technology and data, international partnerships for global leadership, values-based governance and regulation, technology investment and expertise for the developing world, technology to drive the UK economy, and the protection of security interests. The strategy also sets forth the creation of a tech diplomacy network, increasing the number of UK tech envoys, and increasing the tech expertise of UK diplomats.

This new strategy will impact the work of the UK's consul general, who is also designated as His Majesty's Tech Envoy to the United States. Going forward, the priority areas of engagement for the UK are AI, quantum technologies, engineering biology, semiconductors, telecoms, all of which underpinned and enabled by data.

Brazil

Brazil's *Innovation Diplomacy Program*⁴⁴ aims to monitor public policies, raise Brazil's profile in foreign innovation ecosystems, and foster collaboration between Brazilian and foreign technology innovation areas. The Ministry of Foreign Affairs of Brazil set up 55 offices dedicated to technology called Science, Technology, and Innovation Sections (SECTECs), which are part of Brazil's diplomatic representations,

⁴⁰ Digital Agency of Japan. (2022). *Japan's digital policy*. https://www.digital.go.jp/assets/contents/node/basic_page/field_ref_re-sources/0f321c23-517f-439e-9076-5804f0a24b59/6fd24c53/20220519_en_japan_digital_policy_01.pdf

⁴¹ Mind the Bridge. (2022). *Government innovation outposts in Silicon Valley: 2022 report update*. <https://storage.googleapis.com/mtb-research.appspot.com/publications/2022-outposts-government-silicon-valley/MTB-2022-outposts-government-silicon-valley-report.pdf>

⁴² Mind the Bridge. (2020). *Japanese corporate innovation in Silicon Valley: The new report*. <https://mindthebridge.com/japanese-corporate-innovation-in-silicon-valley/>

⁴³ UK Government. (2023). *The UK's international technology strategy*. <https://www.gov.uk/government/publications/uk-international-technology-strategy/the-uks-international-technology-strategy>

⁴⁴ Government of Brazil. (2022). *Innovation diplomacy program*. <https://www.gov.br/mre/en/subjects/science-technology-and-innovation/innovation-diplomacy-program>

embassies, and consulates worldwide. The core mission of SECTECs is to harness cooperation opportunities and Brazilian potential in the field of science, technology, and innovation.⁴⁵ In the Bay Area, Brazil is represented by its consulate general. The role of tech envoy is vested with the deputy consul general.

Norway

Norway adopted its *Digital Transformation and Development Policy* in 2019.⁴⁶ For Norway, the priority areas are environmental technology, security, and human rights. Represented in San Francisco through the consulate general, the Norwegian consul general, chief of mission conducts tech diplomacy in close cooperation with Innovation Norway and Nordic Innovation House.

Sweden

The Swedish Governmental Agency for Innovation Systems (Vinnova) is Sweden's agency helping to boost the country's innovation capacity while contributing to sustainable growth. Working under the Ministry of Enterprise, Energy, and Communications, and acting as the national contact agency for the EU framework programme for research and innovation, Vinnova funds different research and innovation projects, and works on promoting collaboration between companies, universities, research institutes, and the public sector.

In the Bay Area, Vinnova has historically been an outpost of the Swedish government, represented by an honorary consul for the Bay Area. Currently, Sweden is planning to open a consulate general in San Francisco in mid-2023.

European Union

The EU, the newest addition to the Bay Area ecosystem, opened its office in San Francisco in September 2022. Co-located with the

Irish consulate, the EU office's current focus is mainly regulation: from promoting EU standards and technologies, to digital policies, regulations, and governance models. Another line of engagement is helping tech companies navigate through the EU's *Digital Markets Act* and the *Digital Services Act*.⁴⁷ Other areas of work include the EU-US Trade and Technology Council and cooperation with US stakeholders.

Headed by the Senior EU Envoy for Digital to the US Gerard de Graaf, the office works under the authority of the EU Delegation in Washington, D.C., and in coordination with Brussels. The office has a solid base in the Bay Area, with 24 consulates and honorary consulates from Europe, plus an array of corporate presence and trade and bridge organisations.⁴⁸

6. Formal and informal tech diplomacy networking

The Bay Area is a lively hub with organisations and initiatives supporting exchanges between locally posted diplomats and other stakeholders. Below is a selection of such opportunities for exchange.

Cyber and Tech Retreat

Organised by Denmark and in collaboration with the Office of Australia's Cyber Ambassador, the Cyber and Tech Retreat initiative gathers senior government officials from more than 20 countries to discuss cross-cutting policy issues between cybersecurity, foreign policy, and technology. The retreat takes place annually, and brings together governments, tech companies, and academia to discuss current tech and diplomacy issues in a closed setting.

Freedom Online Coalition (FOC)

Established in 2011, this coalition of 36 member states pursues the common goal of internet freedom and human rights online. They are led by the principle that human rights apply online

⁴⁵ Government of Brazil. (2021). *Science, technology and innovation Sections (SECTECs)*. <https://www.gov.br/mre/en/subjects/science-technology-and-innovation/science-technology-and-innovation-sections-sectecs>

⁴⁶ Norwegian Ministry of Foreign Affairs. (n.d.). *Digital transformation and development policy*. https://www.regjeringen.no/contentassets/4250970ee8e845aeb9114143fff45d84/en-gb/pdfs/digital_transformation.pdf

⁴⁷ Birnbaum, E. (2022, October 17). *EU's digital diplomat to Silicon Valley braces for tech lawsuits*. Bloomberg. <https://www.bloomberg.com/news/articles/2022-10-17/eu-s-digital-diplomat-to-silicon-valley-braces-for-tech-lawsuits#xj4y7vzkg>

⁴⁸ Mind the Bridge. (2022). *Government innovation outposts in Silicon Valley: 2022 report update*. <https://storage.googleapis.com/mtb-research.appspot.com/publications/2022-outposts-government-silicon-valley/MTB-2022-outposts-government-silicon-valley-report.pdf>

just as they do offline. The activities of the FOC are coordinated by a chair that rotates annually, with the USA currently serving in that role. The FOC issues common statements to influence norms on an international level, such as submissions to the UNHRC, the *Tallinn Manual* process, on disinformation, AI and human rights, and many more.

Through its Advisory Network and its Freedom Online Conference, the FOC members engage in conversations with other stakeholders. The FOC Silicon Valley Working Group, initiated by Open Austria, brings together members of the FOC with the global technology sector whose products or services potentially impact human rights. In 2023, Canada is leading the FOC working group in Silicon Valley.

Tech Diplomacy Playground Initiative

Open Austria spearheaded and co-leads the Playground initiative, bringing together like-minded diplomats based in Silicon Valley to discuss best tech-diplomacy practices and engage with the private sector. The initiative was launched in 2021⁴⁹ and is now co-led by the Royal Norwegian Consulate General in San Francisco.

Technology Diplomacy Network

The newest initiative, the Tech Diplomacy Network⁵⁰, was launched in February 2023 in San Francisco. It is a joint initiative of the Berggruen Institute, the World Economic Forum (C4IR), the Bay Area Council Economic Institute, and DiploFoundation. It aims to foster collaboration and dialogue between the diplomatic community, civil society, and the tech industry in the Bay Area and beyond.

7. Other hubs of tech diplomacy

Many countries are planning to expand their networks to encompass major hubs of tech diplomacy, innovation, and policy discussions.

In addition to the Bay Area, there are other tech diplomacy hubs on the territory of the USA, such as Houston, Chicago, Boston, and New York. Zooming out to the global level, several cities have profiled themselves as major hubs of tech diplomacy.

Bengaluru, India

Since 2016, Bengaluru has emerged as the world's fastest-growing mature tech ecosystem in the world, and is recognised as having a rich pool of talent, innovation, and technology.

Bengaluru, also known as 'India's Silicon Valley', does not have a strategy in place to create synergies between its tech and innovation system and international presence. However, the Forum for Indian Science Diplomacy launched a diplomacy programme in Bengaluru to boost its engagement in science diplomacy. This hub is a good example of how top-down science diplomacy efforts can foster city-led science and tech diplomacy.

According to the Australian Foreign Affairs Minister Marise Payne⁵¹, Australia is planning to open a consulate general in Bengaluru in 2023 with the aim to foster positive partnership for an open, accessible, and secure technology system. Australia will join the Netherlands, France, Canada, Japan, Germany, Switzerland, and others in pursuing tech diplomacy goals in this location.

Barcelona, Spain

Barcelona was the world's first city to formulate a comprehensive science diplomacy strategy, independent from regional or national government.

In 2018 Barcelona launched the Barcelona Science and Technology Diplomacy Hub, a non-profit public-private partnership, backed by the city council, leading research centres, universities, non-profits, start-ups, and corporations. It now holds a diplomatic circle on tech diplomacy, serving as a platform to engage in periodic visits, encounters,

⁴⁹ Gruver, P. (2022). *Tech diplomacy: Tech companies as power brokers in the digital age*. Pacific Council on International Policy. https://static1.squarespace.com/static/5ea8b04facc8f650c10eebb7/t/62bad653ae91857955934a2c/1656411745984/Tech+Diplomacy+Report_EN_FINAL.pdf

⁵⁰ Tech Diplomacy Network. (2023). <https://www.tech-diplomacy.org/>

⁵¹ *The Times of India*. (2021, November 18). Bengaluru top IT hub, we'll set up consulate: Australian prime minister. http://timesofindia.indiatimes.com/articleshow/87768640.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

and policy briefings between the 100+ diplomatic missions and international organisations serving the city with the purpose of exchanging good practices.

One of the core goals of Barcelona’s science diplomacy strategy is the consolidation of Barcelona as an innovation capital that is ready to meet the sustainable development goals (SDGs) through science and technology. It is a member of the UN Sustainable Development Solutions Network⁵².

Additionally, the OECD Observatory of Public Sector Innovation⁵³ featured it as a best practice for boosting the science–policy nexus.⁵⁴

Beijing, China

Beijing’s Zhongguancun tech and innovation hub, also known as the ‘Chinese Silicon Valley’, does not hide its ambition to become a global tech diplomacy hub.

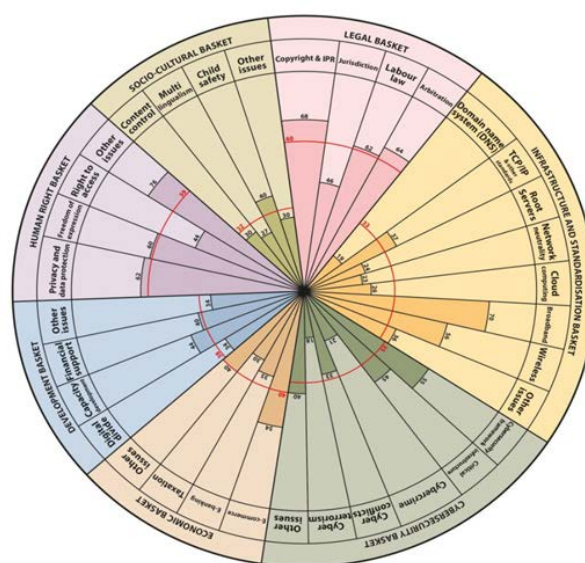
The Chinese big tech companies Alibaba, Tencent, and Huawei have their seats there, and further expansion is planned over the next five years with the support of the government. Expansion is envisioned in the pharmaceutical, integrated circuits, and new energy sectors. With 173 embassies already in place, Beijing is a practical location to tech diplomacy discussions.

Geneva, Switzerland

Geneva is building on its historical reputation as a neutral place for diplomatic negotiations, and is an important platform of Swiss foreign policy through International Geneva. In addition to being home to the UN and more than 40 international organisations, such as the International Telecommunication Union (ITU) and the World Trade Organization (WTO) that are critical forums in discussions on digital policy, there are 180 permanent missions in this city.

Many large tech companies have seats in Geneva. Including Microsoft, Apple, IBM, Oracle, and Salesforce. In addition to the thriving start-up and early financing ecosystem is the high-quality pool of academic research and development talent.

In Diplo’s recent mapping of digital policy actors and internet governance in Geneva, the *Geneva Atlas 2.0*⁵⁵ found that 50% of digital policy discussions currently take place in Geneva.



50% of all digital policy issues are addressed in Geneva



⁵² Sustainable Development Solutions Network. (n.d.). *SDSN member institutions*. <https://www.unsdsn.org/sdsn-members>

⁵³ Observatory of Public Sector Innovation. (2021, September 3). *Barcelona alumni: A digital science-policy nexus connecting international talent to local*. <https://oecd-opsi.org/innovations/barcelona-alumni-a-digital-science-policy-nexus-connecting-international-talent-to-local-challenges/>

⁵⁴ Abdullah, H. (2021). *City-led science diplomacy: Building urban sustainability and resilience at the science-policy interface*. CIDOB. https://www.cidob.org/publicaciones/serie_de_publicacion/notes_internacionales_cidob/258/city_led_science_diplomacy_building_urban_sustainability_and_resilience_at_the_science_policy_interface

⁵⁵ Digital Watch. *About the Geneva digital atlas 2.0*. Geneva Internet Platform. <https://dig.watch/atlas>

8. Conclusion

Foreign digital diplomacy and tech diplomacy agendas have matured, with countries putting strategies in place to pursue their national interests. Tech diplomacy practice has become more structured in terms of policy and administration, and the extent of engagement in tech diplomacy has expanded. In the Bay Area, local diplomatic representations are showing signs of multilateral cooperation.

Companies are more aware of the need to engage in policy discussions on internet governance and in the practice of tech diplomacy. Geopolitical tensions, the supply chain crisis, and the rise of disinformation have boosted the awareness, dedicated resources, and proactive approach to internet governance issues within the companies.

The lack of a uniform terminology regarding digital diplomacy, cyber diplomacy, and tech diplomacy remains. It is still a barrier to effective communication on the aims and objectives of tech diplomacy practice between governments and companies.

Discussions on internet governance policy issues in the Bay Area have evolved,, but have a long way to go to substantially have an impact on the global level. Discussions with global impact are taking place elsewhere: in New York, Geneva, Washington, D.C., and Brussels.

The COVID-19 pandemic has changed the practice of tech diplomacy, lessening the importance of a regional presence. Governments now appoint global digital ambassadors with tech diplomacy agendas, while companies allow for remote work, thus shifting discussions from the Bay Area to virtually anywhere in the world.

Cultural gaps between companies and governments remain. Governments are still often seen as regulators and enforcers by companies, and companies are not yet fully involved in wider policy discussions. Companies have had a hard time deciphering governmental structures, while governments struggle to identify the correct persons to engage with within a company's structure.

The imbalance between the diplomatic representations from the Global North and the Global South remains. Therefore, the tech diplomacy topics addressed in the Bay Area are defined from a Global North perspective. Allowing small and developing countries to use existing structures of engagement in tech diplomacy would widen and enhance the practice of tech diplomacy.

