

THE RISE OF TECHPLOMACY IN THE BAY AREA

Tereza Horejsova
Pavlina Ittelson
Jovan Kurbalija

In partnership with:

diplo
www.diplomacy.edu



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Consulate General of Switzerland in San Francisco

swissnex
san francisco



Geneva Internet Platform



Impressum

The Rise of TechPlomacy in the Bay Area

Published by DiploFoundation (April, 2018)

E-mail: diplo@diplomacy.edu

Website: www.diplomacy.edu

Authors: Tereza Horejsova, Pavlina Ittelson, Jovan Kurbalija

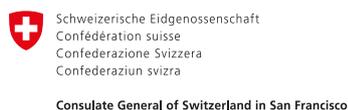
Editing: Mary Murphy

Layout, design and illustrations: Diplo's CreativeLab



Except where otherwise noted, this work is licensed under <http://creativecommons.org/licenses/by-nc-nd/3.0/>

In partnership with:



Geneva Internet Platform

TABLE OF CONTENTS

04 EXECUTIVE SUMMARY

05 INTRODUCTION

12 METHODOLOGY

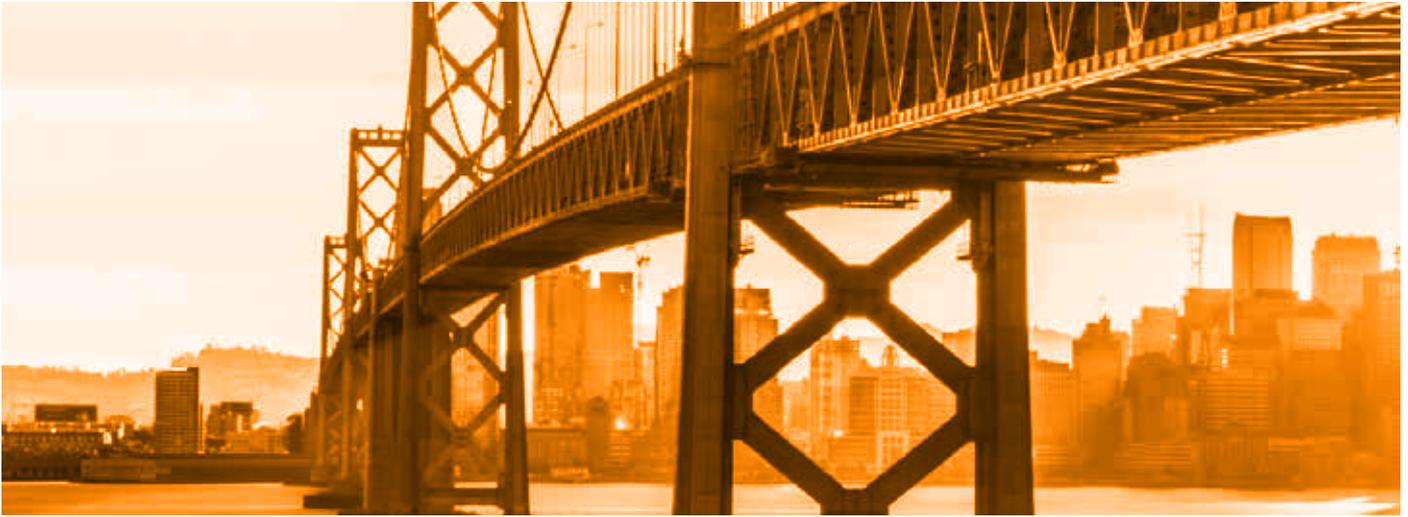
12 HOW COUNTRIES INTERACT WITH THE INTERNET INDUSTRY IN THE BAY AREA

13 MODELS OF INTERACTION

27 MAIN CHALLENGES IN DEALING WITH THE BAY AREA TECH SECTOR

31 BAY AREA AND OTHER HUBS

33 NEXT STEPS



EXECUTIVE SUMMARY

Many digital roads lead to the Bay Area. Whether it is the fast technological advancements fueled by innovation, or the issues that stem from these developments, what happens in the Bay Area's digital ecosystem profoundly impacts the modern world. The relatively small geographical radius brings together a high concentration of tech companies. Economically, some of these companies are more powerful than several countries put together.

Tech diplomacy is becoming a necessity for countries worldwide. Countries need to capture the nexus between technology innovation and economic developments. To be effectively present in the Bay Area, countries need to use innovative diplomatic approaches.

This report discusses how tech diplomacy can be developed, and more specifically, how countries approach the Bay Area tech industry. For instance, attracting investment and creating links between the Bay Area and tech sectors in other countries are among the most common tech diplomacy activities.

The report provides an analysis of the main models of interaction and representation, including:

- Tech Ambassadors and their Offices

- Consulates General through traditional diplomatic approaches
- Consulates General and Innovation Centers
- Investment Promotion Agencies
- Honorary Consuls
- Embassies in Washington, DC

While the Bay Area plays a vital role, there are other global hubs in which governments interact with the tech sector. This is most evident in the field of policy-making. For instance, activities related to security are more often conducted in Washington, DC, Brussels, Beijing, and other hubs. Geneva, which is home to many international organisations, typically hosts discussions related to human rights, international trade, health, and other areas which link technological developments to the humanitarian field.

With an eye on the policy developments in other hubs, the report provides practical suggestions for countries that plan to develop their tech diplomacy representation in the Bay Area.

It marks a first step in researching and informing this emerging and innovative type of diplomacy. For future events, discussions, and resources, visit www.diplomacy.edu/bayarea

Tech/digital/online/net/cyber/e- diplomacy?

Tech is the latest ingredient in the prefix soup, already flavored with cyber, digital, online, net, and e-, all used to describe an impact of the Internet on diplomacy. Typically, they have been used interchangeably, but are now carving their own domains. Today, cyber is used when dealing with security matters. E- is still the preferred prefix for business. Historically, digital was used in the development sector (digital divide), but since the introduction of the EU's Digital Single Market approach, digital has moved into the commercial sector (digital commerce). In this report, tech diplomacy is used to describe the interaction between governments and tech companies.



INTRODUCTION

Countries and the tech industry can both benefit from a functional dialogue. Countries worldwide can get a reliable communication infrastructure. The tech industry can develop a sustainable business model. Gradually, a new digital social contract among governments, business, and users can emerge.

The growing influence of the Bay Area on the world's economy, on the lives of citizens worldwide, on society as a whole, and on technological advancement is indisputable. Innovation, fake news, content filtering, and privacy are among the issues that have come into global public focus. They feature strongly in societal and political debates worldwide, from conversations within families and local communities to discussions in parliaments and international organizations.

The more informed, inclusive, and transparent these debates are, the more robust the digital social contract among governments, businesses, and users will be. Countries and the tech industry can

both benefit from a functional dialogue. Countries worldwide can get a reliable communication infrastructure. The tech industry can develop a sustainable business model. Gradually, a new digital social contract among governments, business, and users can emerge.

Governments and industry communicate on different levels and in different settings. The Internet industry participates in this global debate on Internet governance in hearings, in media debates, and, increasingly, in courts worldwide. This report focuses on how traditional diplomatic mechanisms are being used as a channel for interaction between governments and the Internet industry.

How the Internet industry and countries interact

1. Official level

Very intensive contacts are being made in capitals worldwide. The Internet industry communicates with national governments. It includes exchanges on economy/innovation (investment and business), justice (access to data), security, etc. Facebook, Google, and other Internet companies are asked to address hearings in parliaments worldwide. The Internet industry is also involved in court cases. For example, Uber is involved in close to 100 court cases worldwide. Some of the court judgments, including those of the Court of Justice of the European Union (such as the case on the right to be forgotten) have shaped digital policy in a substantive way.

2. Informal level

Governments and Internet industry representatives have always interacted to exchange information, address issues, and network on an informal level. Complementing official talks, such interaction helps ease communication on an official level, exploring certain agendas in advance and clarifying various standpoints in preparation for official talks.

3. Academic level

The Internet industry has grown out of academic research, in particular in the Bay Area. With the Internet industry moving into artificial intelligence (AI) and fundamental research, an interplay with the academic sector is becoming even more important. Thus, this nexus between academia and business both in the Bay Area and globally will become increasingly important.

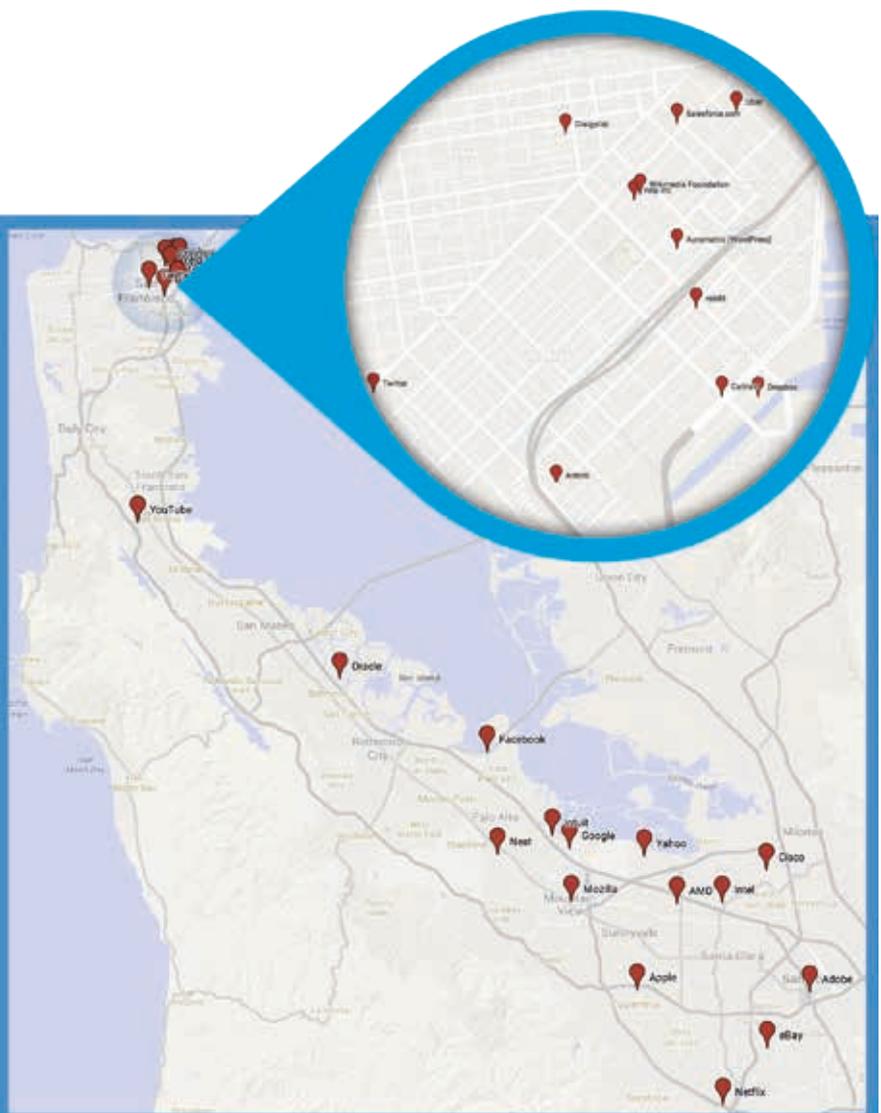
4. International level

After the World Summit of the Information Society (WSIS) which was held in 2003-2005, the Internet industry became gradually involved in activities of international organizations. This process has accelerated over the last few years with their involvement in the Internet Governance Forum (IGF), the WSIS Forum, and activities with a potentially direct impact on the Internet industry (the World Trade Organization (WTO) - digital commerce, United Nations (UN) Human Rights Council - privacy, International Telecommunication Union (ITU) - standardization, etc.). Participation of the Internet industry in meetings of international organizations is shaped by two, sometimes contradictory, processes. On the one hand, the Internet industry has been reluctant about potential regulatory activities of the UN and other international organizations. On the other hand, the Internet industry needs the global legitimacy the UN provides, especially with increasing pressure from the global public regarding data protection and security on the Internet.

Geography of the tech industry in the Bay Area

In this report, Bay Area refers to the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Sonoma, and Solano. It includes not only the first wave of the Internet industry which has grown in Silicon Valley, but also new - mainly platform - companies based in San Francisco (Twitter, Uber, etc.).

Since the reference to Silicon Valley is often used to describe the tech sector, it is used interchangeably with the Bay Area in this report.



Sooner or later, policy follows technology

It is difficult to find a human activity which is not affected by technological developments emanating from the Bay Area. For instance:

- The field of AI¹ has seen significant advances over the past few years, in areas such as autonomous vehicles, smart buildings, medical robots, communications, and intelligent education systems. For example, several

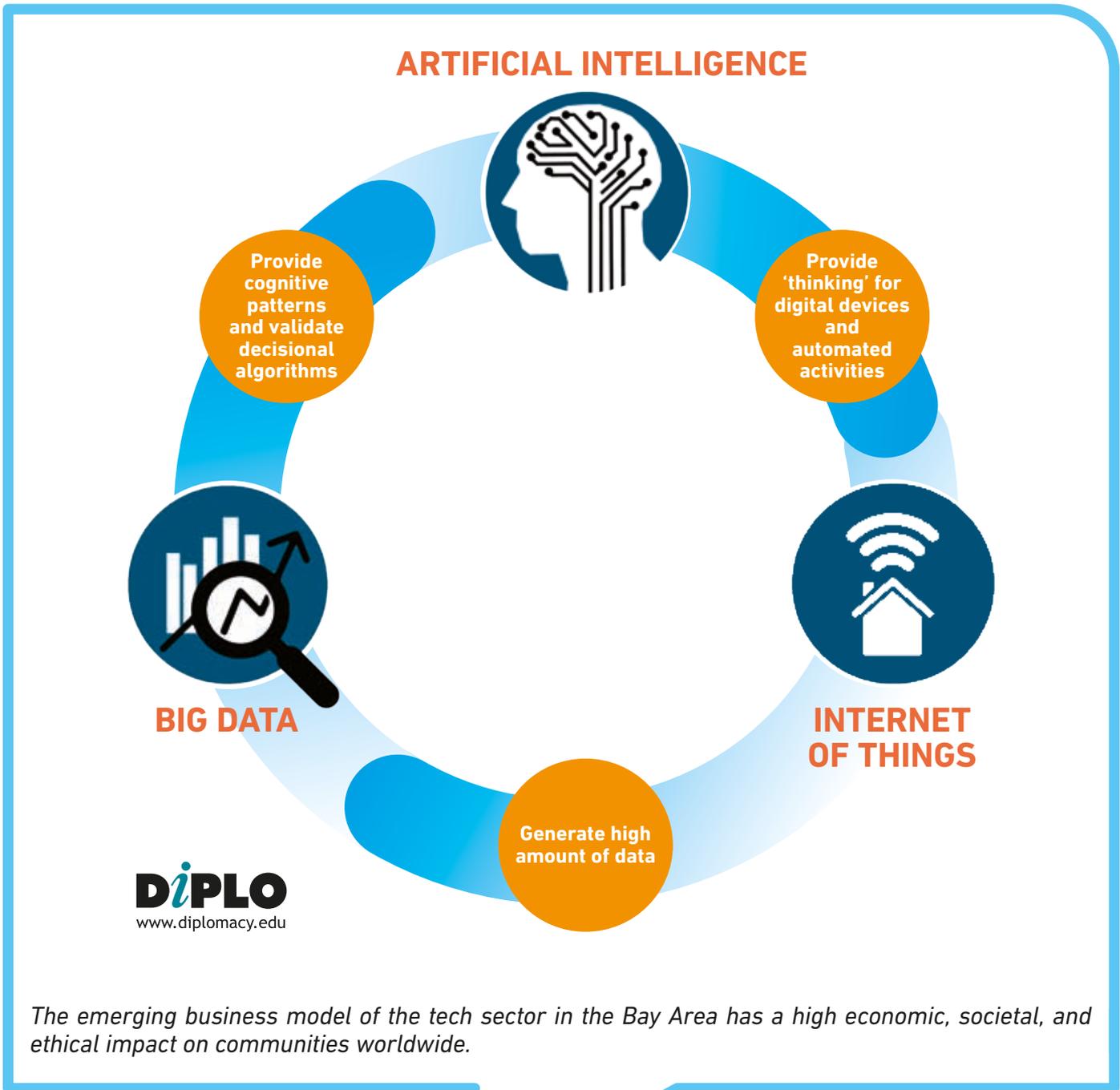
companies are working toward enabling self-driving cars and developing new automatic translation tools; and researchers are proposing AI-based technologies for various purposes, such as detecting abusive domain names (i.e. cybersquatting) at the time of registration. These developments raise questions that will require a policy reaction and possibly regulation. And, as a point of interest, many leading AI companies have their base in the Bay Area.



- Deep-learning-based AI raises many questions about handling citizens' data. The fact that computers outperform people in many areas, brings core dilemmas about the future of work. Again, a significant number of companies working on AI are based in California,² although advancements in research and development in countries like China are progressing rapidly as well.³
- Internet of Things (IoT)⁴ developments are changing our lives but also bringing some concerns that need a policy response. The IoT includes a wide range of Internet-connected

devices, from highly digitalized cars, home appliances (e.g. fridges), and smart watches, to digitized clothes or wearables that can monitor health. IoT devices are often connected in wide-systems, typically described as 'smart houses' or 'smart cities.' Such devices generate enormous amount of data and create new contexts in which these data are used. The IoT triggers a multitude of policy issues, from standardization to protection of privacy.

- Online extremism as well as the emergence of fake news have recently become topics of



The emerging business model of the tech sector in the Bay Area has a high economic, societal, and ethical impact on communities worldwide.

paramount interest to governments, raising questions about freedom of speech and censorship or violent extremism online.

- User data requests is another issue very close to governments and law enforcement. Companies such as Facebook, Twitter, and Google have seen an increase in the number of requests from governments for user data. In the first half of 2017, the three companies received over 350,000 individual requests. The maps below show the countries from where these requests originated.

- User data for citizens worldwide is stored in the cloud operated by Silicon Valley based companies.⁵
- The ride-sharing application Uber has seen a rapid expansion in the past three years. This has been accompanied by a wave of legal controversies, including court cases, rulings by regulatory authorities, and decisions by other administrative bodies. Most issues associated with the sharing economy are related to the fact that the sharing economy's business model is still not clearly regulated.⁶

Requests for removal of the content

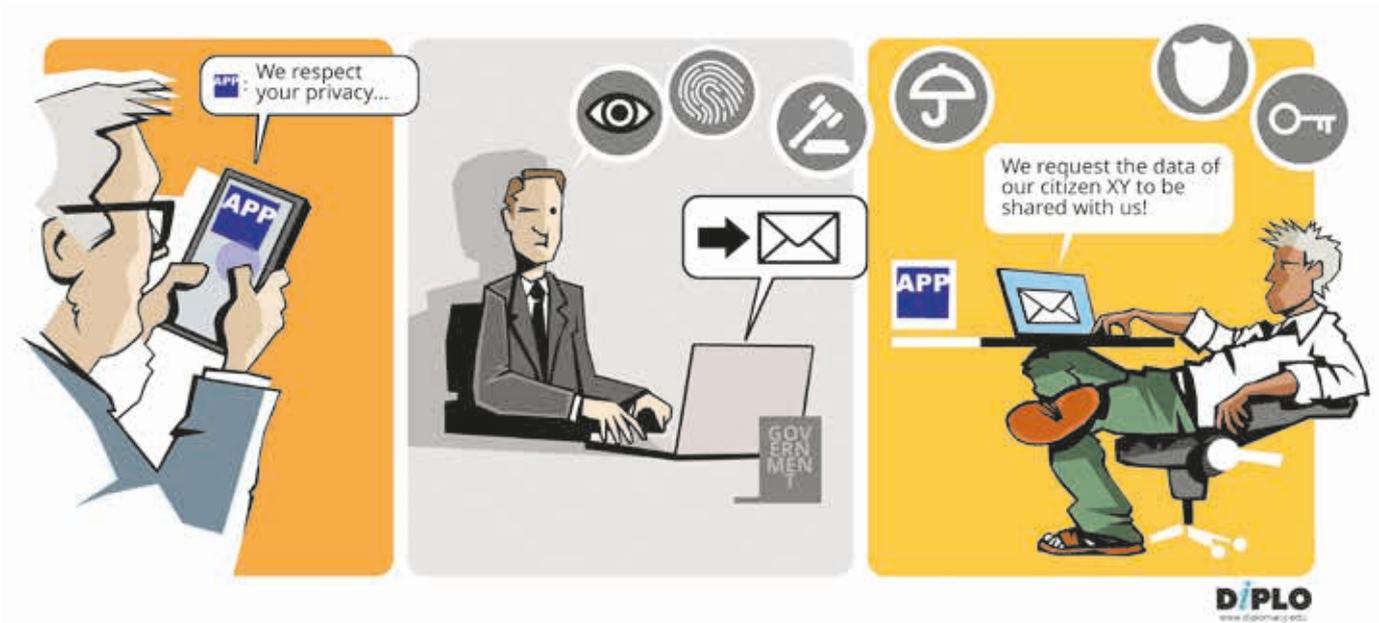


A total of 114 169 requests to remove content by 78 countries were submitted to Facebook, Google, and Twitter in the first half of 2017.

Requests for information about Internet users



A total of 179 180 requests requests for information about Internet users were submitted to Facebook, Google, and Twitter by 110 countries in the first half of 2017.

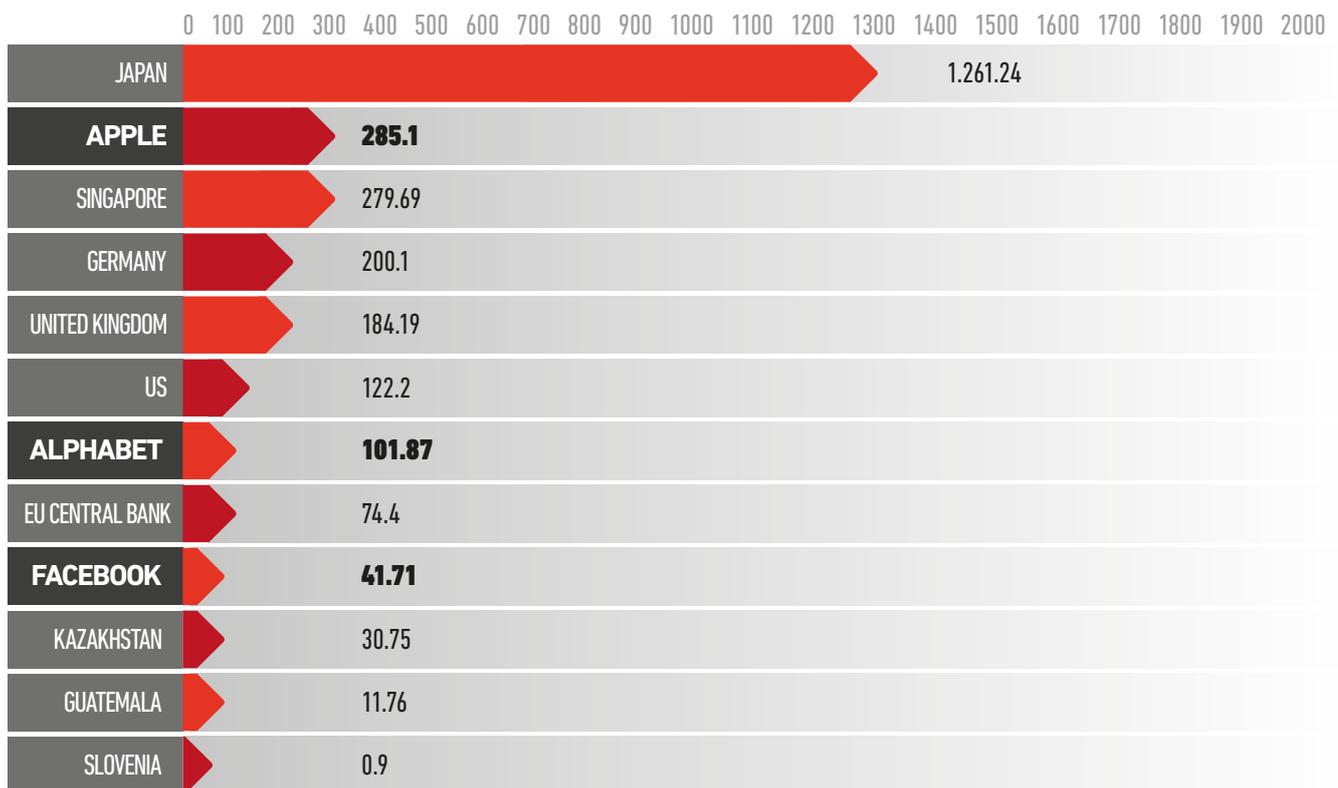


The digital developments listed make countries' presence in the Bay Area essential. One rather small geographical area has an outsized influence, comparable to that of an independent state. Some of the big tech companies outweigh

countries when it comes to economic power.⁷ The cash reserves of Silicon Valley companies – as an important economic indicator – are comparable to the cash reserves of countries worldwide.

COMPARISON BETWEEN SILICON VALLEY COMPANIES AND COUNTRIES, IN CASH RESERVES

Cash Reserves in Billion Dollars



Source: 2017 data from IMF on Country Cash Reserves, Investor Relations portals for companies

Tech diplomacy and security controversies

The more the tech industry becomes a strategic asset, the more it will be affected by national security considerations. This trend will inevitably impact tech diplomacy in the Bay Area. Recently, access to the tech industry was indicated by the US authorities as one of the reasons for closing the Russian general consulate in San Francisco.⁸

Tech diplomacy has multiple aims. Countries are trying to gain a competitive advantage for their businesses and economies while protecting the rights of their citizens. Technology is becoming synonymous with security issues, which are essential and traditionally crucial to states.

By having representation in the Bay Area, countries try to achieve multiple aims. Security is gaining relevance in areas such as anti-terrorism and protection of electoral processes. With the growing relevance of data, countries will

focus more and more on protecting the privacy of their citizens.

Via the Bay Area, tech diplomacy is well-placed not only to follow the current developments but also to anticipate future ones and to remain up-to-date in the fast-evolving digital sector.

Tech diplomacy is not a one-way process. Tech companies themselves also need to nurture their relationships with governments whose decisions can have profound consequences for their business models.

Science diplomacy

The Bay Area digital ecosystem has an important scientific component, hosting a few leading universities that have been important in supporting digital growth. Today, major Internet companies support scientific research in the field of AI, such as the Partnership on AI,⁹ a project founded by Amazon, Apple, DeepMind, Facebook, Google, IBM, and Microsoft to conduct research on AI and to tackle its scientific and societal impacts. In other research fields, such as biotechnology, pharma companies like Johnson & Johnson (JNJ Innovation Labs), Genetech Inc. (subsidiary of Roche Group), and Merck (Merck research labs) are settling in the Bay Area.

Science diplomacy has generally been the main vehicle for governments to foster scientific cooperation. Some elements of science diplomacy are integrated in governmental activities in the Bay Area. Even in cases where the country representatives are not involved in the science agenda, the Bay Area has such a strong presence that the science agenda has become part of the diplomatic agenda for this specific region.¹⁰ With the growing relevance of science for the growth of the digital industry, we can also expect the growing relevance of science diplomacy in the Bay Area.

METHODOLOGY

The premise of this report is that for more efficient cooperation between governments and Internet companies in the Bay Area, as well as for capitalizing on economic opportunities arising from close interactions between them, an understanding of developments on the ground is essential. We explored how this cooperation unfolds practically. We found that while some countries are successfully represented in the Bay Area, other countries - for various reasons - are not. This report maps the main types of this unconventional diplomatic representation, shows the main characteristics of each identified model, and provides examples and outlines strategic considerations for those countries that are contemplating implementing similar models.

We focused on G20 countries and countries following a specific approach to their representation in the Bay Area, while taking into account the geographical position of the selected countries to achieve a balanced sample. In addition, we included a sample of innovation centers, business chambers, and branches of international

organizations in the Bay Area. While the mapping exercise is not exhaustive, it provides a general overview of the various types of representation in existence.

We sent out requests for interviews in October 2017, and through February 2018 we interviewed the respondents either in person or on the phone. Interviews were complemented by desk research.

We expected to map the level of interactions between governments and companies and how this contributes to policy shaping. As the interviews progressed, however, it became clear that although many countries have a presence in the Bay Area, this presence is often limited to economic, investment-driven diplomacy. Our premise naturally shifted as, contrary to our expectations, policy decisions relating to developments in the Bay Area were in most cases taken elsewhere (e.g. Washington DC, Brussels) with limited coordination with the economic teams on the ground.

HOW COUNTRIES INTERACT WITH THE TECH SECTOR IN THE BAY AREA

The Bay Area is a very vibrant, dynamic, and saturated environment. The variety and scope of the issues influenced by developments in this area attract local and state governments, businesses and capital, civil society, scientific and research institutions, as well as international organizations. Many of these have set up branches or headquarters in the Bay Area. This report concentrates on how the Bay Area is tackled from a diplomatic point of view and how states approach the Bay Area tech sector.

In the course of our research, all the countries approached – regardless of whether they are represented in the Bay Area – recognize the importance of interacting with the Bay Area tech sector for their future development. While some countries take the investment promotion approach, the trend is shifting toward formulating the relevant country's domestic policies based on developments in the tech industry. Denmark and Japan have specifically acknowledged in the interviews that the formulation of future domestic policies is based on developments in the Bay Area in order to ensure the competitiveness and stability of their countries.

Another trend which came to light in the course of our research and interviews is the increased specialization in the field of diplomacy mimicking specializations in the tech sector. In some cases, countries choose to specialize in one or two areas – such as renewable energy, AI, or cybersecurity – to gain an advantage. In other instances, the tech industry and the speed of development forces the diplomats working with the Bay Area tech sector to adjust and specialize to keep track of advancements.

We first noticed this the private sector, where the business innovation centers have started to specialize (e.g. on environmental issues, on AI and its impacts, on IoT). This trend is now moving into country representation, international bodies present in the Bay Area, and other tech hubs. It is clearly reflected in the set-up and mode of operation of the World Economic Forum (WEF) Center for the Fourth Industrial Revolution, which divided its policy framework and governance agenda into nine areas of focus to mirror the development areas in the tech sphere.

MODELS OF INTERACTION

What are the basic models of representation of countries present in the Bay Area and how do they interact with the local Internet industry? We give examples from specific countries to illustrate specific approaches. These countries and their diplomatic representations vary in each of the models and differ among themselves. The basic models described include representation through:

- A dedicated tech diplomat (e.g. Denmark)
- Consular representation (e.g. Germany, India, Greece)
- Consular representation and an innovation center (e.g. Austria, Switzerland, the Netherlands)
- A state investment promotion agency (e.g. Czech Republic)
- Honorary Consul (e.g. Hungary, Finland)
- A separate branch of government
- Embassy in Washington, DC (e.g. Tunisia, Turkey, Nigeria)



Dedicated Tech Ambassador

The newest model of diplomatic representation in the Bay Area is the Office of the Tech Ambassador introduced by Denmark in 2017. Harnessing media attention, the world's first Tech Ambassador is a career diplomat and a fully accredited ambassador of Denmark with a global representation based in Silicon Valley, Copenhagen, and Beijing. Unlike traditional diplomats, their mandate is global, covering a wide range of issues – including foreign and security policy; development policy; cyber, export, and investment promotion; humanitarian policy; etc., while also serving as the eyes and ears of the entire Danish government keeping them up to date with technological developments, innovation, and their impact on policy.

In order to understand this particular model, currently unique to Denmark, it is useful to consider the context of Denmark's foreign representation

in general. Denmark - recognizing that the rapid developments in digital and technological areas have a direct impact on the future of public policy, security, and global governance - has designated digitalization and technological development as a strategic priority in Danish foreign policy. They call this technological diplomacy - or **TechPlomacy** in short. The Danish TechPlomacy experiment is the result of a deliberate innovation process effort within the Ministry of Foreign Affairs, where a group of officials were asked to come up with ideas for the future of diplomacy, including ways of dealing with technological advancement and disruptions, and to adequately prepare Denmark for the future.

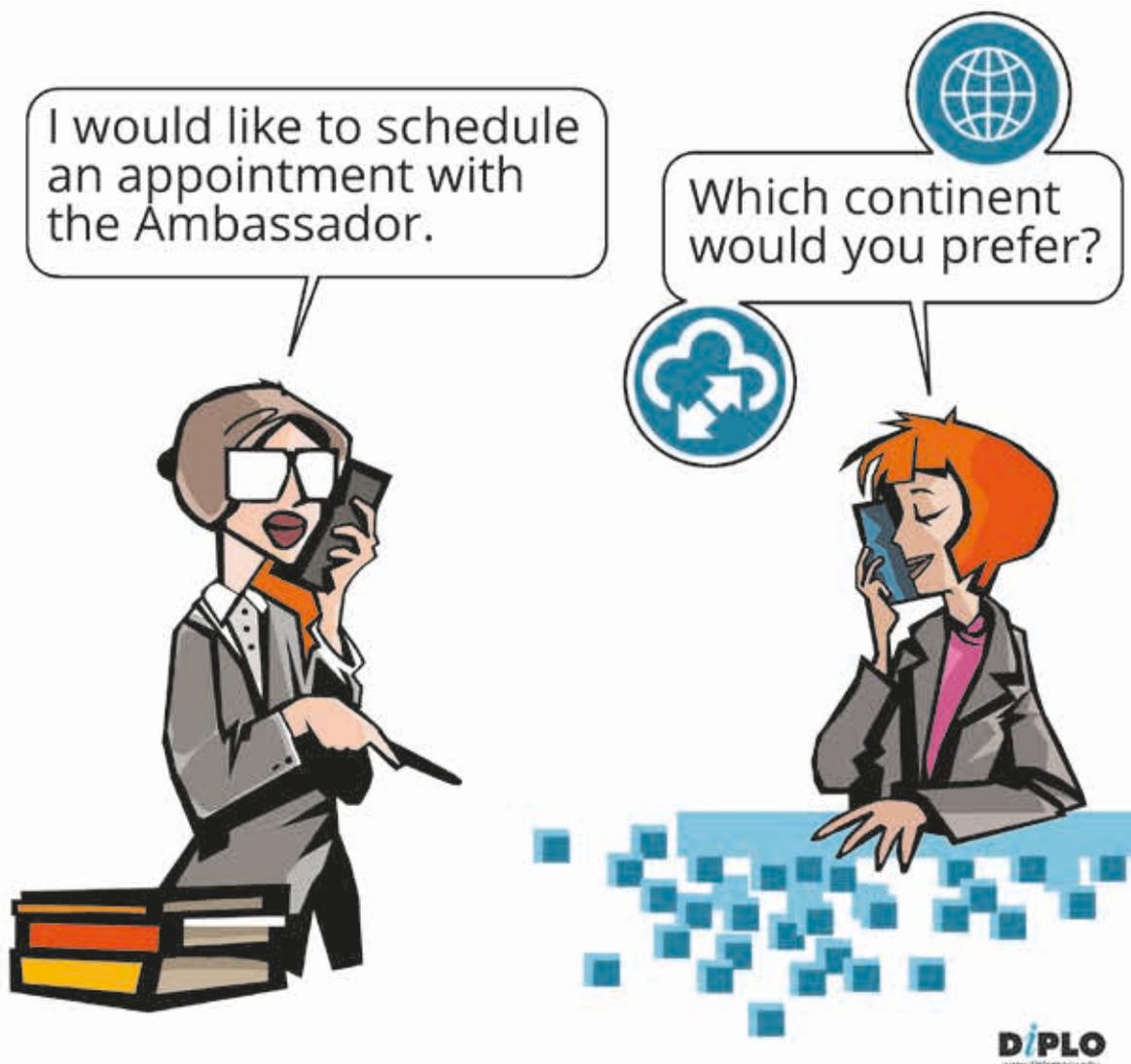
The Office of the Tech Ambassador was created to supplement and reinforce rather than replace existing bilateral embassies, multilateral missions, and Denmark's seven innovation centers around

the world. The Office is staffed by a mix of career diplomats, secondments from Danish ministries, and professionals with diverse backgrounds from big tech companies, media, UN agencies, universities and research centers, and start-ups.

When speaking about the global mandate, even though the Office of the Tech Ambassador is based in Silicon Valley, Copenhagen, and Beijing, the diplomatic efforts are not geographically limited to these offices. The ambassador and their team work closely with other Danish embassies to engage strategically with the global tech sector and to create foreign policy value also outside the digital sphere. By taking active and ambitious steps in setting a global agenda in the area of technology and governance, Denmark is also becoming a more valuable partner in other bilateral areas. The Office also engages with international bodies such as the United Nations (UN), the North Atlantic Treaty Organization (NATO), the Organisation for Economic Co-operation and Development (OECD), and WEF. The European

Union (EU) plays a particularly important role given its lead in setting norms and regulations in the digital area. The Tech Ambassador therefore travels to Brussels on a regular basis.

The Danish Tech Ambassador has a two-fold agenda that aims to bridge foreign and domestic policy. First, the ambassador plays a proactive agenda-setting role internationally on digitalization and technology in line with Denmark's values and interests; and secondly, the ambassador brings home insights and knowledge on tech trends to Danish ministries and decision makers to assist the digitalisation of the Danish society. In helping to shape domestic policy responses, the Office of the Tech Ambassador works with all Danish ministries. This is underpinned by the fact that the Office is staffed with officials from the Danish Ministry of Industry, Business, and Financial Affairs, and the Danish Ministry of Higher Education and Science, which helps to anchor and operationalize the essential 'whole of government' approach.



In addition to its agenda-setting and network-building role, the Office of the Tech Ambassador also facilitates a number of specific projects and partnerships at the intersection between tech and foreign policy. Examples include a collaboration between IBM and the Danish Refugee Council on an open source big data model for humanitarian crises, a high-level international cybersecurity conferences held in Denmark¹¹ and a new partnership with WEF on agile governance in IoT and energy. The Office of the Tech Ambassador also supports the Danish government's initiative on data ethics.

Although dubbed a foreign policy experiment both by the Danes themselves and others, this holistic multistakeholder approach might be just the recipe for a creative initiative which is not limited to the traditional trade and investment agenda, but takes on wider questions, for example regarding governance, digital foreign policy, and the ethics of digital policy.

The key for the success of the Danish TechPlomacy approach will depend on the support of the

whole of government and other actors. It has to be operational enough to achieve good coordination but also wide enough to leave enough space for government departments and other actors to work on their separate international initiatives.

Other countries are also considering appointing a Tech Ambassador or are trying to approach the Internet industry via new diplomatic endeavors. France has recently appointed its first Ambassador for Cyberdiplomacy and the Digital Economy, explicitly mandated to conduct a direct dialogue with major American digital platforms.¹²

Creating the Office of the Tech Ambassador with a global mandate requires a long-term commitment by the country, including significant financial support. It also must allow the Tech Ambassador to have flexibility in negotiations. Appointing a Tech Ambassador and creating the Office at this scale may therefore be very difficult to attain for countries with limited financial means dedicated to this purpose or for large and/or heavily bureaucratic countries.



Consular representation

There are currently 70 consulates and honorary consulates in San Francisco. Consular representation is also provided from Los Angeles, where 113 countries have consulates.

Consular representation in the Bay Area predates the Internet era, when consulates performed their traditional function of serving nationals and diaspora, as well as promoting their economic, cultural, and political agendas on the West Coast. Digital developments were followed by consulates expanding their activities to the tech sector.

The organization and function of consulates vary. In addition to core consular functions, many consulates have sections that cover a scientific tech agenda from different angles. Most of them cover the Bay Area agenda via economic sections with the main focus on attracting investment.

Other countries with consulates have established a section purely dedicated to technology and science development in order to advance investments in this area from and to their country, as well as to follow tech developments in areas important for their countries.

Many consulates experiment beyond what is usually the practice of more conventional bilateral agendas i.e., serving consulates by transforming their tech and science sections into innovation centers. They establish innovation networks with branches in various global tech hubs, including San Francisco, or work via innovation centers founded by other ministries from their country.

Countries with an advanced domestic tech industry deal with the Bay Area tech sector as well, but have a different approach. Usually, this includes promoting investments in the Bay Area tech sector and easing access to the area for their domestic companies. These include China, India, and South Korea.

Another example is **Germany**, a country with a strong presence in the Bay Area, where hundreds of German firms have been established for decades. There is a sizeable German expatriate community working as STEM talent, an innovation center – the German Accelerator Tech,

individual representation of the federal states, and business associations, such as GABA and GACC.¹³ Germany has a tech and science section at the consulate dedicated solely to tech development and networking with the Internet industry. This section works on harvesting tech developments in the Bay Area and introducing them in Germany, as well as introducing the country to local Internet companies.

This country set-up is specific, since the German Accelerator Tech,¹⁴ founded to help startups succeed in the Bay Area through the Ministry for Economic Affairs and Energy, is privately run and unattached to the consulate. In addition, because German law leaves science and research in hands of individual federal states, these states have their own representation in the area – and around the world – trying to attract investment to their specific region, such as Invest in Bavaria,¹⁵ Baden-Württemberg International,¹⁶ and NRW Invest Germany.¹⁷

The consulate and its tech and science section therefore cooperate with many German state entities and businesses within the Bay Area region, in addition to promoting trade and investment in Germany with the Internet companies. **Italy** also has a strong presence in the Bay Area, currently operating through a consulate. Functioning as a traditional consulate, the Consul General is the main force in establishing relationships with the Bay Area tech sector, with efforts aimed at supporting small and medium-sized Italian tech enterprises. This is undertaken by easing access for Italian companies to venture capital in the Bay Area, conditioning the startups to the Bay Area business environment, and establishing a network of scientists and researchers in the area.

The Italian consulate in San Francisco cooperates with two private enterprise innovation centers in the Bay Area; the Enel Innovation Hub¹⁸ and the Luxottica Innovation Hub – as well as with Mind the Bridge and Business Association Italy America (BAIA).¹⁹ On the domestic side, it also cooperates closely, among others, with the Agency for Digitalization of Italy (*Agenzia per l'Italia Digitale*) to accelerate Italy's need for digitalization.

A different approach is taken by the Consulate General of **Mexico** in San Francisco. Having a close relationship with the Bay Area due to geographic proximity and historic ties, Mexico has a strong economic presence in the area. It has set up a specific section at its consulate dealing with the agenda of the Internet industry. Unlike Germany and Italy, Mexico's priority is to attract Internet businesses. Backed by government initiatives such as the National Digital Strategy, and investing in building its own Silicon Valley in Guadalajara and the whole Jalisco state, Mexico is betting on its new tech visa program to ease the way for entrepreneurs in the tech industry to enter the country, attracted by lower costs of labor and living, geographical closeness to the USA, and a rapidly growing economy.²⁰ Like Germany and Italy, however, Mexico is following

the traditional diplomatic route of focusing on investment to and from Mexico, and supporting startups, working together with ProMexico and Mexican diaspora in the area.

Greece is another country dealing with the Internet industry via its consulate in a traditional way. It has one official in the consulate dealing with the Internet industry as a part of the trade agenda, promoting Greek non-tech investment and commercial goods in the Bay Area. Unlike other countries, this effort is relatively new and relies on the large Greek-American diaspora in the Bay Area for its networking. With a group of 2000 Silicon Valley Greeks and Greek Americans,²¹ it is a valuable source of contacts. Greece does not currently have plans to expand its presence in the area.

Representation in the Bay Area driven by an investment approach

The so-called investment approach to the Bay Area tech sector is undertaken by countries with very well developed domestic tech industries. The governments of these countries – such as China, South Korea, and India – have made advancement in the digital sphere their priority and

are putting long-term efforts and resources into achieving and keeping their prime positions in world tech developments. They are represented in the Bay Area through a traditional consulate, where the emphasis is on enabling investments to and from their countries.

The so-called investment approach to the Bay Area tech sector is undertaken by countries with very well developed domestic tech industries.

India

India's Consulate General in San Francisco can rely on the tech diaspora in linking digital developments in the Bay Area to India. Since dealing with the Y2K25 problem, many Indian software specialists have become prominent players in the Bay Area tech sector, taking leading executive roles at Google, Microsoft, and Adobe.²²

The tech diaspora has played an important role in developing cooperation between the Bay

Area tech sector and the fast-growing digital industry in India. The major Internet companies have development centers in Bangalore, Hyderabad, Pune, and other tech centers in India.

A future development will be increasingly determined by the growing relevance of the Indian market for the tech industry.

Early Silicon Valley experiences, 1986–1989

Ambassador Kishan S Rana, former representative of India to San Francisco

'Looking back to my three San Francisco years (1986–1989), several strands marked our first connections with Silicon Valley. First, young Indian engineers working in IT companies made us aware of opportunities for marketing India's emerging software expertise. They also acted as internal evangelists within their companies.

Second, we worked with them in the establishment of the first lobby group, the Silicon Valley Indian Professionals Association (SIPA), led by a dynamic Prakash Chandra. They guided us towards new business opportunities. Indirectly, SIPA became a precursor to the globally renowned TiE (The Indus Entrepreneurs). Third, in September 1987, we held the first series of Software India Conferences in Sunnyvale, Seattle, Los Angeles, Dallas, Chicago, and Washington DC, bringing together nascent Indian enterprises, including Infosys, TCS, and Wipro, with potential US partners. That helped launch India's software industry on a global trajectory.'

China

China, as a rising digital power, has a wide presence in the Bay Area including the Chinese consulate, accelerators and incubators, corporate innovation centers, etc. In recent years, China's main focus has been on investment – either through mergers and acquisitions, or equity investments.²³

Trying to gain an edge on the latest tech advances, Chinese companies and venture capitalists invest to gain access to the latest developments and to advance their tech sector.²⁴ Investments have increased, and in addition, educational and academic exchanges between Chinese and American universities in the Bay Area are thriving.

South Korea

Another example of a country with a well-developed tech industry is South Korea, considered by many to be at the forefront of technological development. The involvement in the Bay Area

is through a consulate and, like China, is heavily concentrated on specific investments in order to complement developments back home.

Innovation centers

Some countries have formalized their efforts to engage with the Bay Area tech sector by establishing an innovation center. In this report, we looked at the innovation centers founded by ministries to advance their country’s digital and tech agenda, and those which act as accelerators and incubators (both for startups from the home country and to attract digital and tech companies to their respective countries).

There are two types of innovation centers that countries establish – the first is a branch of the consulate (with varying levels of independence), and the second is an innovation center separate from the consulate, which can work for one

country or more. Since the establishment of an innovation center at the consulate is a long-term commitment by countries in terms of personnel, finance, and involvement in the area, this model is usually used by countries which already have a large presence of private enterprises in the Bay Area.

Some innovation centers in the Bay Area are part of a worldwide network of a country’s tech centers, such as NETVA of France, swissnex of Switzerland, or the Holland Innovation Network of the Netherlands. Innovation centers in the Bay Area are mostly established by the governments of European countries.

Some countries have formalized their efforts to engage with the Bay Area tech sector by establishing an innovation center

Austria/Open Austria

Open Austria was established in San Francisco in October 2016 via cooperation between the Austrian consulate and Advantage Austria, a vehicle for international business advancement of the Austrian Trade Chamber. While it is formally part of the consulate, Open Austria functions as an innovation center.

Open Austria was specifically tailored to the Bay Area ecosystem based on background research conducted by Advantage Austria. Its main purpose is to network with companies, researchers, and political entities; promote Austrian interests and start-ups; and hold pitching events.

An interesting aspect of this model is a strong focus on bringing innovation from the Bay Area to the business sector, the academic community, and public institutions in Austria.

This consulate/innovation center model is a prime example of how the Bay Area tech sector has influenced the practice of traditional diplomacy – shifting the focus of this diplomatic post to innovation and the trade agenda, as well as to harvesting the latest tech developments in order to advance digitalization in the home country.

Adapting to the local – less formal – environment, and to the ecosystem of the Bay Area, can be seen as the model for future diplomacy where diplomats adapt to the region and ecosystem their work takes them to.

Switzerland/swissnex San Francisco

The swissnex model serves as an inspiration for many countries with innovation centers. Of its five offices around the world (two in the USA), swissnex San Francisco remains the flagship hub.

The swissnex network’s mission and its basic funding come from the Swiss State Secretariat for Education, Research, and Innovation (SERI) and reflects the federal government’s strategic priorities for the internationalization of education, research, and innovation. On the ground, in turn, swissnex offices take the legal form of an Annex of the Swiss Consulate General; administrative needs are managed in collaboration with the Federal Department of Foreign Affairs.

Though the Swiss Ambassador to the USA in Washington DC is consulted regarding goal setting and review, the CEO of swissnex San Francisco reports directly to SERI in Bern. Similarly, the Ambassador may be consulted in the hiring process, but the final hiring decision rests with SERI.

Beyond the appointment of the CEO, on the ground, swissnex builds on lean management structures; is independent in its choice of activities, content focus, and IT systems; and determines local hiring needs.

The growth of the team and its activities is purely a function of its ability to raise funds from private and public institutions, typically under a fee-for-service model. The swissnex CEOs and their teams are directly responsible for acquiring partner organizations. The acquisition of second- and third-party money offers swissnex the necessary flexibility to react to the dynamic Bay Area environment and initiate innovative activities. While SERI’s basic fund remains the same, the swissnex locations can adapt their capacity and offers according to the demands of the stakeholders. Unlike other countries, Switzerland does not have

nor does it intend to have a specialized diplomat for the Bay Area.

During the interviews undertaken in preparation for this report, it emerged that swissnex is an innovation center model that has inspired other countries (Italy, Hungary, Austria, etc.). Entrepreneurial exchange programs organized by France and Germany were also inspired by swissnex.

While sharing certain attributes with the model of the Denmark’s Office of the Tech Ambassador – such as a widely defined agenda with the possibility to think outside the box, a mix of tech professionals and diplomatic abilities, and a bottom-up culture and collaborative model – swissnex has adapted to the Bay Area environment very well and speaks the same language as the local tech industry.

In addition to offering soft-landing services for Swiss startups and supporting Swiss companies in their innovation strategy, swissnex’s scope of work includes fostering academic and educational exchanges, and the conception and support of projects at the intersection of art and technology. At its Pier 17 offices, it further offers a work and prototyping space for up to 40 Swiss partner institutions. Adapting to the local – less formal – environment, and to the ecosystem of the Bay Area, can be seen as the model for future diplomacy where diplomats adapt to the region and ecosystem their work takes them to.

The Swiss Business Hub, as the Swiss government investment promotion agency and part of the Consulate General in San Francisco, focuses on advancing Swiss investment, and of attracting investment to Switzerland. It also offers a range of services for specialized businesses investing in the Bay Area, in collaboration with swissnex where needed.

The Netherlands/Holland Innovation Network San Francisco

The Netherlands is another country with a very successful interaction with the Bay Area tech sector.²⁵ Well positioned in the field of attracting investment – being one of the most digitalized countries in the world, with a government dedicated to the digital agenda and having a favorable environment for investment – the Netherlands operates in the Bay Area through a consulate and a branch of the Holland Innovation Network, which is part of the Dutch Ministry of Economic Affairs.

The Netherlands has set up a string of offices in 50 countries around the world through the Holland Innovation Network, one of which is in San Francisco. The offices have attachés dedicated to specific agendas. The Holland Innovation Network is part of the Consulate General of the Netherlands with three attachés involved – the economic attaché, the investment attaché, and the innovation attaché, that latter guided by the lead innovation attaché in Washington DC. The work of the attachés is structured – the innovation attaché is responsible for the pre-commercial

activities; after that, the economic/investment attaché takes over for the commercial/investment part of the interaction.

The scope of work includes promoting Dutch startups, enhancing scientific cooperation, and organizing visits by entrepreneurs and representatives to the Bay Area. Like other successful countries, the Netherlands has tailored its approach to the Bay Area tech sector by, for example, specifically aiming at mid-sized companies in the Bay Area, because incoming Dutch companies are simply not big enough for the Big 5 (Amazon, Apple, Facebook, Google, and Twitter). It also customizes networking connections to the specific needs of a particular startup.

A similar approach to that taken by the Netherlands is taken by Spain, with its Spain Tech Center (founded by the Spanish Ministry of Economy, Industry, and Competition, together with the Ministry of Energy, Tourism, and Digital Agenda), and Portugal, with its West-to-West Center (under the Portuguese Ministry of Economy).

Consulates functioning hand-in-hand with an investment promotion agency

Investment features highly in most tech diplomacy activities in the Bay Area. Some countries, such as the Czech Republic, have a branch of a state investment agency focusing on the digital developments in the Bay Area.

The office of the CzechInvest in San Francisco has two main functions: to attract investment to the Czech Republic and to assist Czech startups in the Bay Area via the Czech Accelerator program (assistance with soft landing, networking, etc.). CzechInvest also assists established Czech businesses in the area with contacts for their development and financing. Formally speaking, the Czech Republic covers the Bay

Area via a Consulate General in Los Angeles, which approaches the Bay Area tech sector via CzechInvest on an ad hoc and informal basis.

This model is aimed at promoting and building up the country's businesses in the Bay Area and successfully attracting Bay Area tech sector investment to the country. Due to the limited scope of this operation, however, cooperation with other countries in the Bay Area is vital for this model, for example the Czech Republic cooperates with other Central European countries, as well as with EIT Digital, the European digital innovation and entrepreneurial education organization.



Honorary Consuls

One of the ways that a country with limited resources or perhaps just starting out in the Bay Area could proceed is through an honorary consul,²⁶ i.e., by appointing a well-connected and established individual in the Bay Area to advance its agenda. Two honorary consuls were explicitly mentioned in the mapping interview process as very active and impactful in the Bay Area – those of Hungary and Finland.

Hungary relies heavily on the activities of its honorary consul in San Francisco. The honorary consul is an attorney active in business circles in the Bay Area, who supports the on-the-ground activities of the Hungarian consulate in Los Angeles, which has a tech and science section, and the American-Hungarian Chamber of Commerce.

When it comes to honorary consuls, their long-standing presence and established networks are priceless. The position is taken voluntarily by individuals with a genuine interest in advancing their country's agenda.

There are disadvantages to this model as well, being that the honorary consuls cannot commit all their time to this work, they are not trained diplomats, and they usually have to cover representation expenses from their own resources.

This model, however, is an easy way for countries considering establishing a presence in the Bay Area to engage their diaspora.



Separate branch of government in the Bay Area Japan/NEDO

The Japanese presence in the Bay Area has deep historic and demographic ties. Japan has its consulate in San Francisco, and is involved in the innovation landscape through a variety of governmental and business ties, such as the California Governor's Office of Business and Economic Development and the Shorenstein Asia-Pacific Research Center at Stanford University.

Another piece of the puzzle, however, is a branch of NEDO – the New Energy and Industrial Technology Development Organization in Silicon Valley. NEDO is a governmental agency and one of the largest public research and development management organizations in Japan. Founded by the Japanese government and the Ministry of Economy, Trade, and Industry in 1980, it set up the NEDO Silicon Valley office in 2010.

The NEDO Silicon Valley office works on US-Japan collaboration projects, technical contacts and consultations on research and development, and public relations activities. It is fully funded by its headquarters in Japan. The office aims to promote technologies from Japanese corporations and startups while taking advantage of the strong longstanding network of Japanese businesses in the Bay Area.

This includes technology demonstration projects in collaboration with local government and programs for Japanese startups, especially in the fields of AI, biotechnology, robotics, and the IoT. The NEDO Silicon Valley office also assists Japan's Ministry of Economy, Trade, and Industry in digital policy-making.

Embassies in DC

Embassies in DC cover the Bay Area for many countries that do not have a consulate or other form of official representation in the Bay Area. This could be for various reasons, including simple ones, such as financial constraints.

Embassies in DC cover the Bay Area for many countries that do not have a consulate or other form of official representation in the Bay Area. This could be for various reasons, including simple ones, such as financial constraints. Although currently not present on the ground, every country interviewed or researched has acknowledged the significance of the Bay Area for their economic and technological developments and plans to establish a presence in this area to further their agendas.

As can be seen in the example of **Tunisia**, although there is no formal structure for dealing with the Bay Area tech sector, and interaction with it is undertaken through the Economic Department of the Embassy, there are initiatives to advance Tunisia in this sector.

One of the initiatives is the US-Tunisia Joint Economic Commission,²⁷ where one of the objectives of the ICT sector is to appoint a key Tunisian representative in the Bay Area. The other is Smart Tunisia,²⁸ a public private partnership between the state and private enterprises to attract the Bay Area tech sector to Tunisia, in order to boost its economy and its labor market. Smart Tunisia has an ambassador in the Bay Area to promote this program.

The Tunisian Embassy in the USA is working on further promoting Tunisia and facilitating trade and investment relationships; however, it is slowed by the high level of bureaucracy, budget

restrictions, the need to improve the investment climate, and the necessity to improve the technical infrastructure.

Another example of a country with no consulate in the Bay Area is **Turkey**. At the moment, as a temporary measure, all interaction with the Bay Area tech sector is covered by the Economic Department at the Turkish Embassy in Washington DC. Although Turkey already has a consulate in Los Angeles, its agenda does not include dealing with the Bay Area tech sector. There are, however, plans to open a consulate in San Francisco.

Facilitating investment in Turkey is the main goal, as well as increasing exports and cooperation. The Economic department at the embassy follows Turkish startups, and provides help and support if required. Most of the startup promotion, however, is done through the technical universities – such as the Istanbul Technical University.

Another country that covers the Bay Area from an embassy in Washington DC is **Nigeria**. Following the agenda of attracting investment, the Nigerian Embassy in the USA is approaching the Bay Area through its diaspora on informal terms and cooperates closely with Silicon Valley – Nigerian Economic Development Inc. (SV-NED)²⁹ – a private sector incubator and accelerator which promotes Nigeria in order to establish economic ties with the Internet industry.³⁰

International cooperation in the Bay Area

Not only are individual countries racing to establish a presence in the Bay Area, international organizations are also working to gain a foothold.

Organizations ranging from the WEF to the Nordic Innovation House have opened their doors to tap in to the latest in technological advances, while moving their agendas forward.

In addition, many international organizations, such as the UN, the Association of Southeast Asian

Nations (ASEAN), OECD, and the International Labour Organization (ILO) routinely hold policy discussions and events in collaboration with the Bay Area tech sector. An example of an international organization present in the area is the UNICEF Office of Innovation, which looks at forming partnerships around new technologies (such as drones, blockchain technology, and 3D printing) to identify how such technology can grow and scale profitably and inclusively, and how they can make a positive impact on children's lives.³¹



WEF/Center for the Fourth Industrial Revolution

WEF opened its Center for the Fourth Industrial Revolution³² in San Francisco in March 2017, as its fourth office after Geneva, New York, and Beijing. The San Francisco center follows WEF's approach of bringing together business leaders, top academics, government officials, international organizations, civil society, and on-the-rise technologists to initiate conversations, fund their research, and get stakeholders to act on the outcomes of such conversations.

The Center's specificity is fostering policy developments for emerging technologies by involving the tech industry, academia, and governments. The WEF Center also supports the presence of countries who do not have a representation in the Bay Area, such as the Kingdom of Bahrain, Rwanda, and United Arab Emirates, as well as others such as Denmark, Japan, and the United Kingdom.

Governments that join the San Francisco Center commit to piloting policy tools in their jurisdictions. In addition to this commitment, fellows, similar to diplomatic postings, are appointed by

governments to work on specific teams within the Center.³³

The following technological areas are covered by the WEF Center: AI and machine learning, IoT and connected devices, blockchain, autonomous and urban mobility, drones, precision medicine, digital trade and cross border data flows, and the environmental impacts of new technologies. In each of these areas, stakeholders create teams to address the policy needs of the specific framework.

As one example of the partnership facilitated by the WEF Center, Rwanda has developed new national policies and stimulated its commercial drone industry,³⁴ as well as enabled the world's largest drone delivery of blood supplies to rural areas in the country.³⁵

The concept of the WEF Center in San Francisco has gained traction globally with India (Mumbai), Japan, and the United Arab Emirates announcing plans to open their own Centers for the Fourth Industrial Revolution.³⁶

The European Union

With about half of the investment in the Bay Area originating from EU countries, and the fact that 26 of the 28 EU member states are represented in the Bay Area in some form or other,³⁷ the presence of the EU in this area seems natural. Currently, there is no European Commission representation in the Bay Area, although some European organizations and institutions have set up there.³⁸

Several countries have expressed a wish for stronger representation of the EU in the Bay Area. The prevailing opinion was that the EU is missing out on not having access to the business resources, the latest tech developments, and recent policy initiatives in the Bay Area. When the actual role of the EU in the Bay Area was addressed, the promotion of the EU image and of the accessible – both culturally and economically – common market was seen as the main

EU/EIT Digital

The San Francisco office of the European Institute of Innovation and Technology (EIT), a leading European organization in digital innovation and entrepreneurial education, has come across in research as the basis for informal meetings of state representatives from European member states.

The cooperation between the EU member states and EIT Digital in the Bay Area started in 2014, when government representatives of those states with innovation centers met. The initial incentive was to create a network and pool financial resources for common projects. This

Nordic Innovation House

With a strong presence in the Bay Area, four Nordic countries – via consulates and individual innovation centers founded by their respective governments – Norway (Innovation Norway), Sweden (Vinnova), Denmark (Innovation Centre Denmark), and Finland (Team Finland) came together in 2014 – joined by Iceland (with no consulate or innovation center in the Bay Area) – to create the Nordic Innovation House (NIH). The initiative arose from previous cooperation between these countries through the Nordic Council of Ministers – the official body for

advantage for the states themselves. The EU member states represented in the Bay Area are in competition with each other in many areas, such as investment, gaining tech advantage, or accessing networks.

EU representation could work well for portraying a unified image of EU member states, and attracting US investment to the EU in possible transnational projects. EU member states would also benefit from an EU presence by having the possibility of addressing their relevant policy needs instead of reaching out to Washington DC or Brussels.

In addition, EU representation in the Bay Area could function as a base for member states not represented in the Bay Area or for smaller EU member states with limited resources.

initiative has grown to include 120 people who meet to exchange information, coordinate and organize events, and promote visibility. In a way, EIT Digital has for now taken over the role as the creator of the EU image in the Bay Area.

The scope of EIT Digital's work – in addition to its institutionally intended scope – includes diverse cooperation with innovation centers on an ongoing or an ad hoc basis (such as CzechInvest and Open Austria), organizing the EU Innovation Day, working with honorary consuls in setting up internship programs (Hungary), and much more.

intergovernmental cooperation in the Nordic countries,³⁹ and previous cooperation in the Bay Area on specific issues (e.g. clean energy). Another reason for the Nordic countries to come together is the perception by others that these countries have a common background, the good reputation of Nordic technology, and member countries facing the same challenges in scaling abroad.

Once the NIH was established, cooperation between the countries included additional areas

common to all member states, such as health, research, commerce, smart societies, and clean-tech.

All NIH partners are national, working as a cooperative, and receiving their mandates from their respective governments. They all follow the same common interest – triggering sustainable growth. All five member states meet eight times a year to discuss where their most current interest lies. The discussion also includes the delivery of this specific interest. There is always an initiative from one country, and the others decide whether to be involved. If three or more countries want to pursue the initiative, it is considered an NIH project. If only two countries want take part, it is considered a collaboration project. The NIH prepares a yearly report for governments

and businesses, deciding on one message a year (such as the need for diversity or competitiveness) based on current activities.

The NIH is one of the success stories of cooperation between countries represented in the Bay Area, and has now expanded to New York as well.⁴⁰

This is an example of how small countries can efficiently cooperate on a specific agenda. Needless to say, the cooperation of the Nordic countries in various low politics areas (that is, areas which are not critical to the survival of the state) has a long-standing tradition and is institutionalized. Nordic cooperation could be a useful way for small and/or developing countries to ensure their presence in the Bay Area.

V4+1

The Central European countries of the Visegrád Group⁴¹ – the Czech Republic, Hungary, Poland, and Slovakia – work in the Bay Area with Open Austria in order to promote investments from the Bay Area tech sector to and from their region. Since the countries of the Visegrád Group do not

have a strong representation in the Bay Area, Open Austria takes on a leading role in this partnership. The countries cooperate on, for example, the selection of startups to be introduced to the industry in the Bay Area, as well as jointly organizing pitching sessions and events.

Other regions

There are also regional groupings which are not formally present in the Bay Area – such as ASEAN or the Pacific Alliance – but influence the interaction between countries represented in the Bay Area.

Should a country want to establish a presence in the Bay Area, it is advisable to explore their regional groupings as an entryway to this ecosystem.

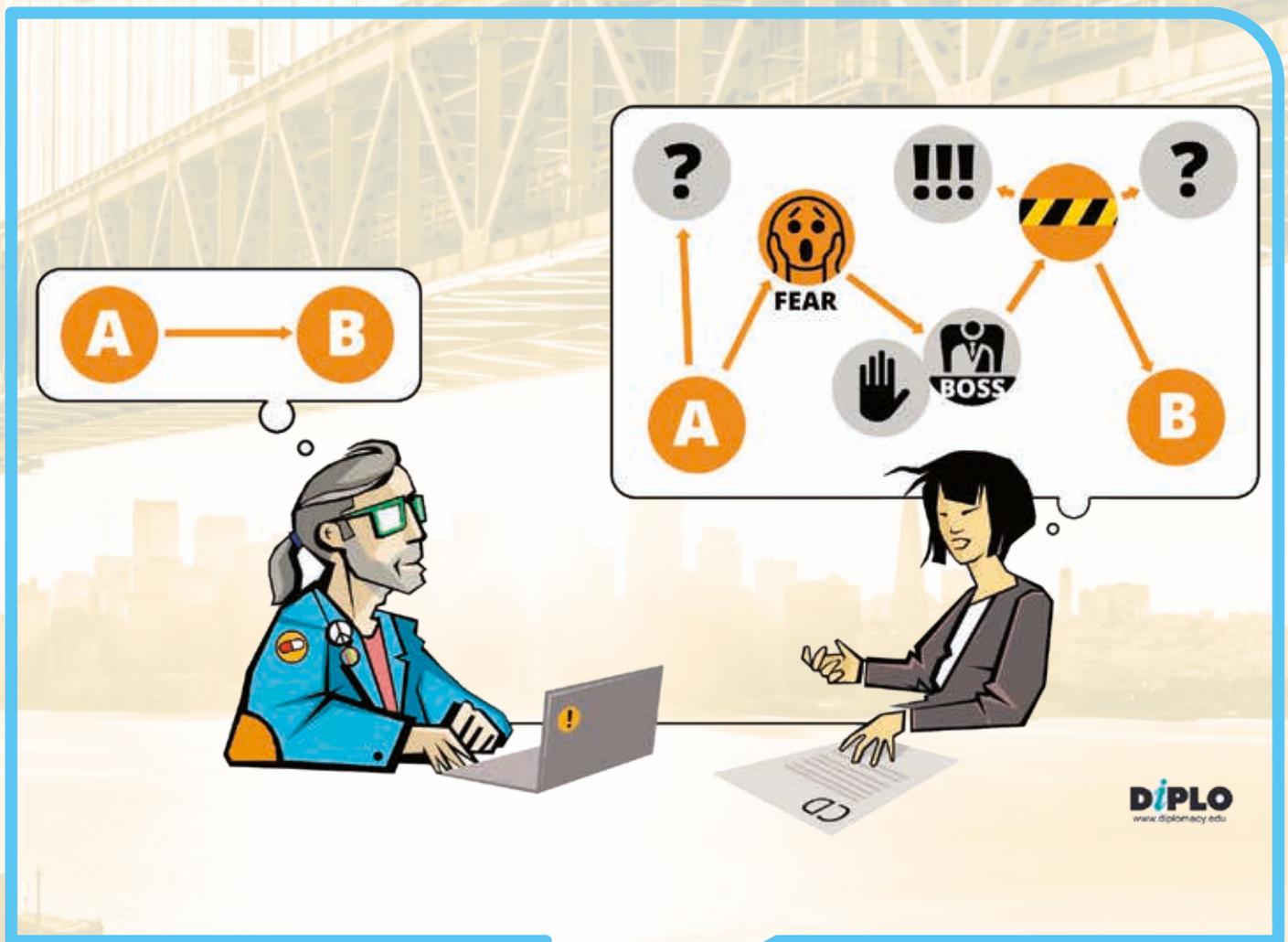


MAIN CHALLENGES IN DEALING WITH THE BAY AREA TECH SECTOR

Bridging different professional cultures

The challenge of bridging different professional cultures was echoed in every interview we conducted in the preparation of this report. The Bay Area ecosystem has its own fast pace, informal atmosphere, and impressive possibilities. To be successful, incoming people and businesses need to adapt to this atmosphere. On the

business side, this means coaching businesses entering this ecosystem in dealing with the pace and the scale of the challenges presented, as well as the advanced level of tech development in the Bay Area. The most important qualities highlighted were a strong individual message and image, flexibility, and open-mindedness.



Nation states dealing with companies

The cultural differences of the Bay Area also have an effect on how representatives of states deal with the Internet industry. In addition to less formal environments, communication, and attire, representatives have to adapt - to a certain extent - to the culture of the Internet companies. The circle of networks, which is influenced by the breadth of subjects being negotiated, tends to be wider and less deep than what is typical among diplomatic communities.

While states have a set of rules - internally set through government structure and externally through protocol - on how and whom to approach for negotiations, how the negotiations are conducted, etc., in the case of the Internet companies, this does not apply. The companies change and rearrange their staff, add or withdraw responsibilities to positions thus creating an unstable negotiation network for those who are trying to approach them.



Personnel qualifications

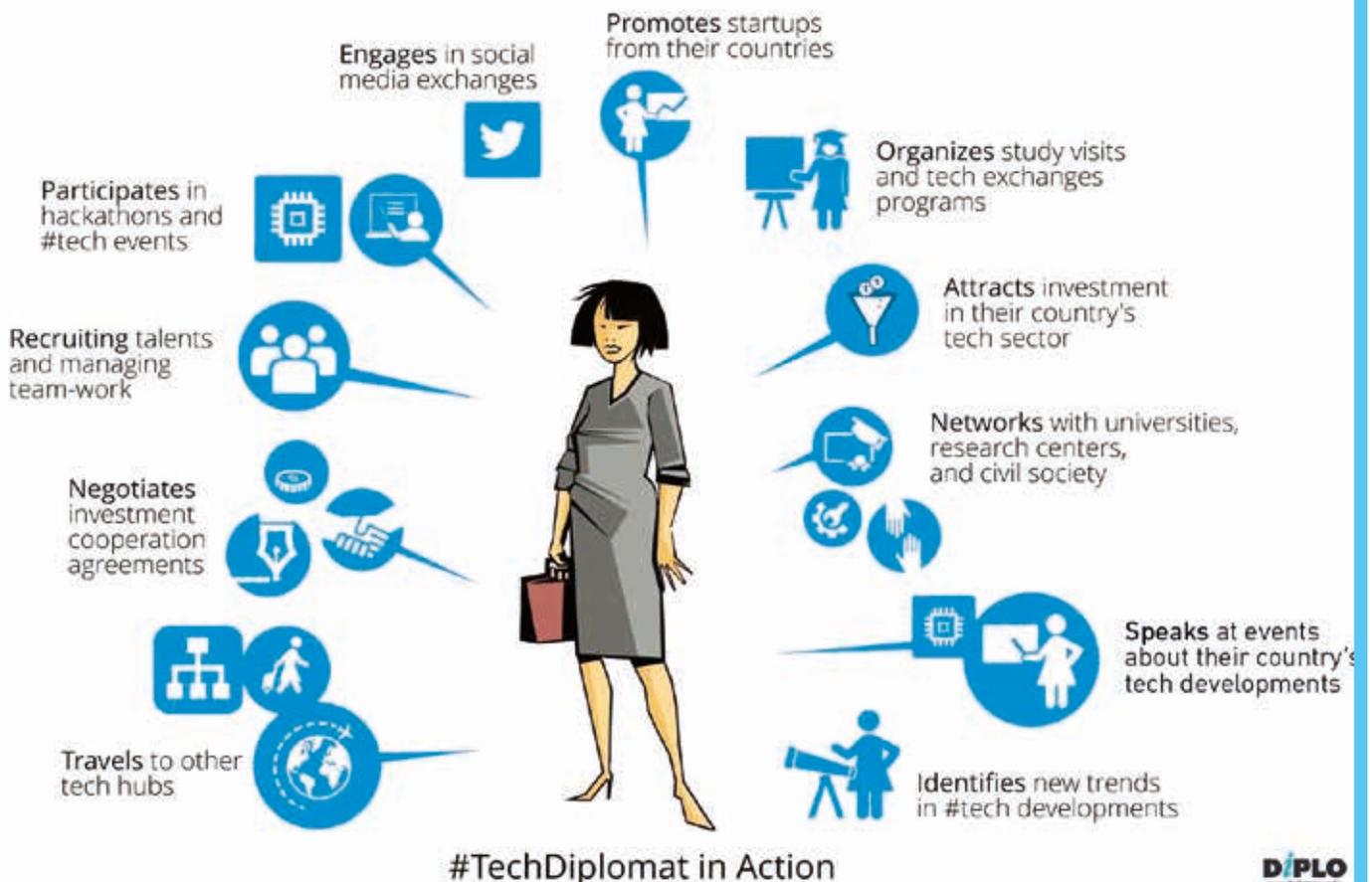
The work of diplomats with the Internet industry in the Bay Area requires not only the scope of knowledge from a foreign affairs perspective, but also an understanding of the tech side of the industry. Some countries solve this problem by

training their diplomats in tech areas, such as cybersecurity, IoT, data, or AI. As seen in the model examples, combining diplomats with specialized tech staff to address this challenge works well, too.

Profile of a Tech Diplomat

A tech diplomat is first and foremost a diplomat. Tech layers are added to the basic set of skills owned by a traditional diplomat. A tech phase is no different from previous phases in history when diplomacy had to adjust to various innovations from foot messengers and pigeons delivering messages to telegraph, telephone, and radio communication. Diplomacy has evolved in the interplay between continuation and change. Continuation exists in the core functions of diplomacy, i.e., representation and negotiation, while change is triggered by new, tech-driven tools for conducting diplomacy.

A tech diplomat needs to adapt to changes while retaining the function of their distant predecessor who realized that it was better to talk to 'others' than to fight with them. It is work in progress, where we invite diplomatic and tech communities and other interested parties to contribute with their reflections at www.diplomacy.edu/bayarea



Maintaining a continuous presence

As seen in the example of the honorary consuls, a steady presence of a country representative in the Bay Area is a great advantage.

While the diplomatic corps works on a rotational basis, the contacts within the Internet industry are geographically fixed. This causes a challenge when consulate personnel leave or a position at the consulate is unoccupied. There is

only a limited opportunity to transfer the established network to their successors. As seen in the example of the honorary consuls, a steady presence of a country representative in the Bay Area is a great advantage.

Legal challenges

Many countries in the interviews have indicated legal entry challenges for the businesses they would like to introduce to the Internet industry. These include legal challenges within the country

of origin - such as setting up a foreign branch, securing financing, and negotiating a high level of bureaucracy, as well as the legal environment in the USA, especially acquiring visas.

Communication with home

The digital field is in flux and developing in many countries. Bay Area representation faces challenges in finding the right interlocutors in home countries. In particular, it is noticeable when it comes to government departments in charge of

digital developments. Silos at national level are then in some cases reflected in the communication in the Bay Area (investment, science, policy, education culture, etc.).

BAY AREA AND OTHER HUBS

Geneva, where technology meets humanity

The tech industry is under increasing public pressure to ensure that their growth does not harm societal interest, whether it is job creation, paying taxes, data protection, or the fight against terrorism or fake news. The growth of AI opens a new set of ethical issues.

More than 50% of global digital policy issues are addressed in International Geneva. Many of them are of direct relevance for the tech industry and digital developments for countries worldwide. The International Telecommunication Union (ITU) deals with telecommunication infrastructure, including spectrum allocation. The International Labour Organization (ILO), which is about to celebrate its 100th anniversary, is focusing on the future of work, in particular, the impact of digitalisation and automation on jobs.

The World Health Organization (WHO) addresses issues such as the protection of health data and the health impact of digital dependence and extensive online gaming. Protection and sharing

of digital innovation is the focus of the work of World Intellectual Property Organization (WIPO). The UN Human Rights Council deals with privacy and freedom of expression online.

A new set of issues on the regulation of autonomous vehicles is high on the agenda of the International Road Transportation Union (IRU) and the UN Economic Commission of Europe. The International Organization for Standardization (ISO) sets standards affecting various aspect of digitalization of modern society ranging from security to management. The World Trade Organization (WTO) is addressing a wide range of issues related to digital and trade. The list goes on.

Given the centrality of Geneva for digital policy, there is an increasing presence of digital actors from governments, tech companies, and civil society. Links between the Bay Area and Geneva Lake areas will be particularly important for future digital developments.

Bay Area



Geneva Lake Area





For more information about Geneva-based organisations active in digital policy, visit: www.giplatform.org/actors

Main digital policy hubs

Washington, DC has been essential for shaping digital policy. Most of the early Internet growth was influenced by the US government's approach of being close enough to support Internet developments and far enough away to let it develop. Currently, the Internet is at another turning point and digital policy is the focus. Congress has been asking Facebook and other tech executives to address policy issues. Government agencies are investigating privacy issues and monopoly practices.

Brussels, the European Union's headquarters, is relevant for the tech sector due to the importance of EU policies on data protection, taxation,

and anti-monopoly rulings, among others. The General Data Protection Regulation (GDPR), which will enter into force on 25 May 2018, will have a considerable impact on the tech sector worldwide.

Beijing, as the capital of China, is host to institutions that manage the biggest Internet community worldwide, consisting of 772 million Internet users. China is also emerging as a leader in the field of artificial intelligence and quantum computing. On a global level, China has a particularly active role in developing e-commerce policy rules and initiatives.

NEXT STEPS

Countries cannot ignore what happens in the Bay Area. Countries with efficient representation in the Bay Area have more chance of keeping up with technological developments and ensuring that their domestic policies adequately reflect our constantly changing world.

With the advances of AI, the evolution of the gig economy, and the growing threat from cyber-attacks, now more than ever before countries need to be at the nexus of technology innovation. Technology is becoming synonymous with issues of security, protection of human rights of citizens, ensuring the stability of the future development of the individual countries by staying on the forefront of the technological advancement, and anticipating its policy implications.

Whether countries choose a dedicated tech diplomat like that of Denmark or opt for consular representation and an innovation center, as Austria, Switzerland, and the Netherlands have done, there are many options available, as evidenced by this report.

Efficient representation in the Bay Area is key to efficient policy-making. From our research, we have drawn 10 key steps to ensure such representation:

1. Make your case to convince the capital why developments in the Bay Area matter for digital development and policy-making.
2. Join efforts with countries from your region and other partners in long-term partnerships or cooperation around specific events.
3. Coordinate your activities closely with other government departments, businesses, and academia from your country. The multidisciplinary nature of Bay Area activities requires a multidisciplinary approach to investment, security, academic cooperation and other activities.

4. Engage your diaspora. In the diverse Bay Area community, you are likely to find your compatriots among programmers, researchers, and business people.

5. Be ready to be unconventional and go beyond the comfort zone of traditional diplomacy. Capitalize on the richness of the Bay Area ecosystem involving not only tech companies but also leading universities, think-tanks, and non-governmental organizations (NGOs). Ideally, your team would involve a mix of diplomats and people closer to the start-up culture.

6. Be ready to experiment and bring some innovative thinking to your diplomatic activities. The novelty and creativity of an idea matters in this ecosystem more than the economic strength or population of the country. Some smaller countries have managed to gain attention through their unique and tailored approach.

7. Follow developments in other tech diplomacy hubs: Geneva, Washington, DC, Beijing, and Brussels. Since tech policy issues are cross-cutting, the relevance of other hubs has increased.

8. Build on what structures you have available; do not start building on a green field. Good enough may work. Creating a perfect structure will take time and create the risk of lost opportunities.

9. Keep digital policy considerations always on your radar while engaging with the tech industry. You, as a governmental representative, will be increasingly important for the tech industry which tries to address numerous policy challenges.

10. Ensure that you have the necessary human and financial resources. Tech diplomacy needs specific talents that can bridge the two sectors. It also takes time to develop a network and presence in the tech circles.

- ¹ For more information and updates on AI, explore the issue at the GIP Digital Watch observatory, available at <https://dig.watch/trends/artificial-intelligence> [accessed 1 April 2018].
- ² Research Briefs (2017) AI 100: The artificial intelligence startups redefining industries. Available at <https://www.cbinsights.com/research/artificial-intelligence-top-startups/> [accessed April 3, 2018]. <https://www.signifyd.com/blog/2017/05/30/sanjose-becoming-hub-artificial-intelligence-firms/> [accessed 2 April 2018].
- ³ The Economist (2017). Why China's AI push is worrying. Available at <https://www.economist.com/news/leaders/21725561-state-controlled-corporations-are-developing-powerful-artificial-intelligence-why-chinas-ai-push> [accessed April 1, 2018].
- ⁴ For more information and updates on the IoT, explore the issue at the GIP Digital Watch observatory, available at <https://dig.watch/issues/internet-things-iot> [accessed April 1, 2018].
- ⁵ Darrow B (2017) Amazon still leads cloud rankings, but competition is coming on strong. Available at <http://fortune.com/2017/06/15/gartner-cloud-rankings/> [accessed April 1, 2018].
- ⁶ For mapping Uber judgments and developments in a number of countries, explore more at the GIP Digital Watch observatory, available at <https://dig.watch/trends/uber> [accessed April 1, 2018].
- ⁷ Khanna P (2016) These 25 companies are more powerful than many countries. Available at <http://foreignpolicy.com/2016/03/15/these-25-companies-are-more-powerful-than-many-countries-multinational-corporate-wealth-power/> [accessed April 1, 2018].
- ⁸ Landler M and Harris G (2017) In retaliation, US orders Russia to close the consulate in San Francisco. 31 August 2017. New York Times. Available at <https://www.nytimes.com/2017/08/31/us/politics/russia-consulate-close-retaliation.html> [accessed 8 April 2018]. Dorfmann Z (2017) The Secret History of the Russian Consulate in San Francisco. 14 December 2017. Foreign Policy. Available at <http://foreignpolicy.com/2017/12/14/the-secret-history-of-the-russian-consulate-in-san-francisco-putin-trump-spies-moscow/> [accessed 8 April 2018].
- ⁹ Partnership AI (n.d.) Website. Available at <https://www.partnershiponai.org/partners/> [accessed April 1, 2018].
- ¹⁰ This is the case of the Netherlands, for example. As universities did not have science exchange programs with universities in the Bay Area, the Dutch consulate and the Holland Innovation Network took on academic and science research exchange programs.
- ¹¹ For example, the 6th International Conference of Security, Privacy and Trust Management (SPTM 2018) <http://csit2018.org/sptm/index.html>, Infosecurity Denmark <https://www.infosecurity.dk/>, and the Copenhagen Cybercrime conference <https://bit.ly/2EfzSJM>
- ¹² France Diplomatie (2017) Digital affairs: appointment of an ambassador. Available at <https://www.diplomatie.gouv.fr/en/french-foreign-policy/digital-diplomacy/events/article/digital-affairs-appointment-of-an-ambassador-22-11-17> [accessed April 2, 2018].
- ¹³ Bay Area Council (2014) Europe and the Bay Area. Available at <http://www.bayareaeconomy.org/report/europe-and-the-bayarea/> [accessed April 2, 2018].
- ¹⁴ German Accelerator Tech (n.d.) Website. Available at <https://germanaccelerator.tech/> [accessed April 2, 2018].
- ¹⁵ Invest in Bavaria (n.d.) Website. Available at <https://www.invest-in-bavaria.com/en/how-we-can-help/about-us.html> [accessed April 2, 2018].
- ¹⁶ Baden-Württemberg International (n.d.) Website. Available at <http://www.bw-i.de/en/start-page.html> [accessed April 2, 2018].
- ¹⁷ NRW Invest (n.d.) Website. Available at <https://www.nrwinvest.com/en/about-us/foreign-representative-offices/> [accessed April 2, 2018].
- ¹⁸ Enel (n.d.) Website. Available at <https://startup.enel.com/en/innovation-hub/san-francisco.html>
- ¹⁹ <http://www.baia-network.org/> [accessed April 2, 2018].
- ²⁰ Mexico one of the largest growth economies in the world. World Bank (2017) Mexico. Available at <http://www.worldbank.org/en/country/mexico/overview> [accessed April 2, 2018].
- ²¹ LinkedIn (n.d.) Silicon Valley Greeks and Greekamericans. Available at <https://www.linkedin.com/groups/3834108/profile> [accessed April 2, 2018].
- ²² Gibbs S (2014) The most powerful Indian technologists in Silicon Valley. Available at <https://www.theguardian.com/technology/2014/apr/11/powerful-indians-silicon-valley> [accessed April 2, 2018].

- ²³ Hanemann T (2017) Chinese direct investment in California. Available at https://asiasociety.org/sites/default/files/inline-files/web_Chinese%20Direct%20Investment%20in%20California_2017%20update.pdf [accessed April 2, 2018].
- ²⁴ Randolph S (2017) Chinese innovation. Available at <http://www.bayareaeconomy.org/files/pdf/ChineseInnovation-Nov2017Web.pdf> [accessed April 2, 2018].
- ²⁵ The Netherlands (n.d.) Innovation and startups. Available at <http://nlintheusa.com/netherlands-innovation-startups-disruption/> [accessed April 2, 2018].
- ²⁶ Honorary consuls are not professional diplomats; they work on a voluntary basis with limited authorization to act on behalf of their native country. They usually do not enjoy diplomatic immunities and privileges. They have the honor of serving their country and they are usually selected/appointed on merit. There are currently 33 honorary consuls in the Bay Area.
- ²⁷ Novelli C (2016) US-Tunisia Joint Economic Commission. Available at <https://2009-2017.state.gov/e/rls/rmk/256940.htm> [accessed April 2, 2018].
- ²⁸ 28 Smart Tunisia (n.d.) Tunisia among the most competitive hubs in EMEA. Available at <http://www.smarttunisia.tn/> [accessed April 2, 2018].
- ²⁹ SV-NED (n.d.) Website. Available at <https://www.svned.com/about-1/> [accessed April 2, 2018].
- ³⁰ Wanderlay J (2017) Connecting Nigeria to the Valley. Available at <http://svlinks.org/connecting-nigeria-valley/> [accessed April 2, 2018].
- ³¹ <https://www.unicef.org/innovation/>
- ³² WEF (n.d.) Center for the Fourth Industrial Revolution. Available at <https://www.weforum.org/center-for-the-fourth-industrialrevolution> [accessed April 2, 2018].
- ³³ Russo A (2018) Global network of centers to lead tech policy for Fourth Industrial Revolution. Available at <https://www.weforum.org/press/2018/01/global-network-of-centers-to-lead-tech-policy-for-fourth-industrial-revolution/> [accessed April 2, 2018].
- ³⁴ Captain S (2018) How the World Economic Forum is tackling the dangers of big tech. Available at <https://www.fastcompany.com/40518077/how-wef-tackles-dangers-of-big-tech> [accessed April 2, 2018].
- ³⁵ Peters E (2016) The World' first large-scale drone delivery will be in Rwanda. Available at <https://www.fastcompany.com/3058610/the-worlds-first-large-scale-drone-delivery-system-will-be-in-rwanda> [accessed April 2, 2018].
- ³⁶ The Economic Times (2018) World Economic Forum Reliance Industries to set up Center for Fourth Industrial Revolution. Available at <https://economictimes.indiatimes.com/industry/energy/oil-gas/world-economic-forum-reliance-industries-to-set-up-center-for-fourth-industrial-revolution/articleshow/62624142.cms> [accessed April 2, 2018].
- ³⁷ Randolph S and Gross T (2014) Europe and the Bay Area. Available at <http://www.bayareaeconomy.org/report/europe-andthe-bay-area/> [accessed April 2, 2018].
- ³⁸ Such as ENRICH (n.d.) Website. Available at <https://near-us.eu/> [accessed April 2, 2018].
- ³⁹ Nordic Co-operation (n.d.) Website. Available at <http://www.norden.org/en/nordic-council-of-ministers> [accessed April 2, 2018].
- ⁴⁰ Christian W (2017) A Nordic Innovation House i opening in Manhattan. Available at <http://nordic.businessinsider.com/nordicinnovation-house-in-new-york-green-lighted-2017-2/> [accessed April 2, 2018].
- ⁴¹ Visegrád Group (n.d.) Website. Available at <http://www.visegradgroup.eu/> [accessed April 2, 2018].

DiploFoundation is a non-profit organization dedicated to making diplomacy and international governance more inclusive and effective. In particular, Diplo is working to:

- Increase the power of small and developing states to participate meaningfully in international affairs.
- Increase international accountability and inclusivity.
- Increase the legitimacy of international policy-making.
- Improve global governance and international policy development.

Diplo's main activities

Capacity development: Diplo's capacity development support begins with individuals, but through the activities of these individuals, our impact reaches into the larger systems of which they and their organizations are a part. Our approach includes online training, policy research, policy immersion, and the development of communities of practice, combined in various ways, as appropriate to each policy context. Capacity development topics include Internet governance, e-diplomacy, public diplomacy, humanitarian diplomacy, and global health diplomacy.

Events: To deal with pressing issues in global governance, our events bring together people from different perspectives, including diplomats, business professionals, and members of civil society. We work to make our events more accessible through e-tools that support remote participation. Our events often evolve into training activities, publications, or online interaction.

Courses: We offer postgraduate-level academic courses and training workshops on a variety of diplomacy-related topics for diplomats, civil servants, staff of international organizations and NGOs, and students of International Relations. Combining a highly developed learning methodology with our unique online learning platform, our courses are flexible, personal, interactive, and community-building. Courses are delivered online, face-to-face, and in a blended format.

Research: We build on traditional policy research methods through Internet-based techniques, including crowdsourcing, trend analysis, and collaborative research. Topics include diplomacy, Internet governance, and online learning.

Publications: Our publications range from the examination of contemporary developments in diplomacy to new analyses of its traditional aspects. Many of our publications are available online as well as in print format and some have been translated into several languages.

Diplo was established in 2002 by the governments of Malta and Switzerland and has offices in Msida, Malta; Geneva, Switzerland; and Belgrade, Serbia. Diplo has had consultative status with the UN ECOSOC since 2006.

For more information about Diplo, visit <https://www.diplomacy.edu>

The Swiss Federal Department of Foreign Affairs (EDA) and the Federal Office of Communications (OFCOM) initiated the **Geneva Internet Platform (GIP)**, which fulfils the mission of an observatory, a capacity-building center (online and in situ), and a center for discussion. The GIP is an initiative supported by the Swiss authorities and operated by DiploFoundation.

The GIP's activities are implemented based on three pillars:

- A physical platform in Geneva
- An online platform and observatory
- An innovation lab

The GIP's special focus is on assisting small and developing countries to meaningfully participate in Internet governance processes. The support is tailored to the needs of these actors, including training, awareness building, consultations, and briefings.

For more information on the GIP's activities, visit www.giplatform.org

DigitalWatch

The **GIP Digital Watch** provides practitioners of Internet governance and digital policy with a tool allowing them to stay up-to-date with current information on Internet policy issues, participants, and ongoing developments. It relies on materials, knowledge management expertise, and networks developed by DiploFoundation over the past 20 years.

Three pillars form part of the *GIP Digital Watch* initiative:

- The *GIP Digital Watch* **observatory** provides a neutral one-stop shop for live developments, overviews and explanatory texts, events, resources, and other content related to Internet governance and digital policy.
- The *GIP Digital Watch* **newsletter**, a monthly newsletter, includes a round-up of developments, interviews with prominent experts, and articles on various digital policy areas.
- Monthly GIP **briefings** on Internet governance in Geneva and online take place on the last Tuesday of every month. As of 2016, local hubs are being established worldwide to encourage sustainable discussions in local communities, and share regional perspectives during the monthly briefings.

For more information on the *GIP Digital Watch*, visit <https://dig.watch>

