www.govtech.dka.global

GovTech / E-governance Global Industry Landscape Overview 2019

Teaser

DEEP KNOWLEDGE ANALIYTICS
GOVTECH DIVISION

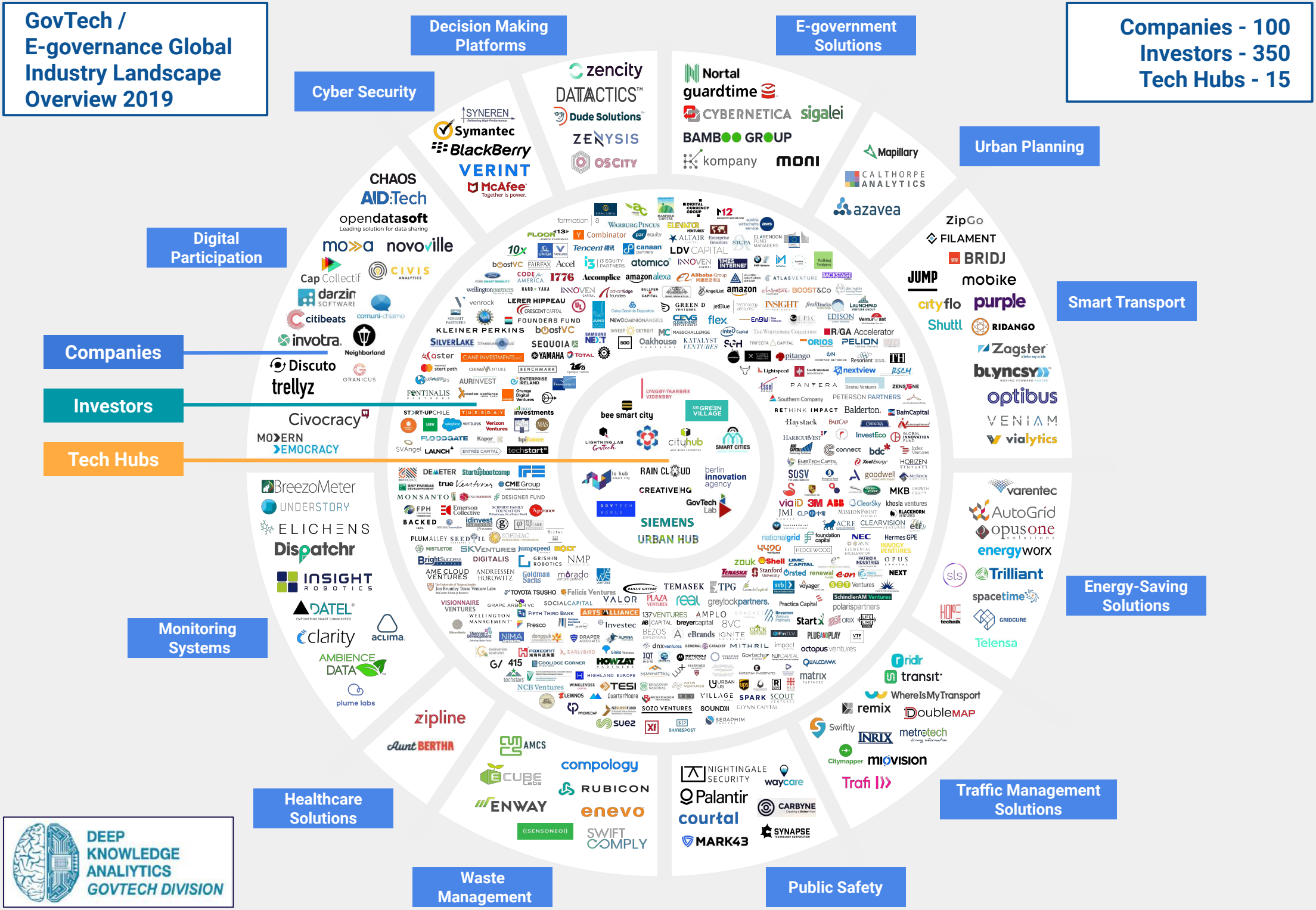
GovTech / E-governance Global Industry Landscape Overview 2019

Table of Contents

Introduction	16
GovTech / E-Governance Industry Overview	23
Artificial Intelligence and Blockchain in GovTech	33
GovTech Use Cases and Practical Implementations	43
30 Country Analysis: Various Experience in GovTech Development	70
Longevity as a New Government Strategy	145
GovTech 2020-2022 Predictions	155
Conclusions	158
Disclaimer	160

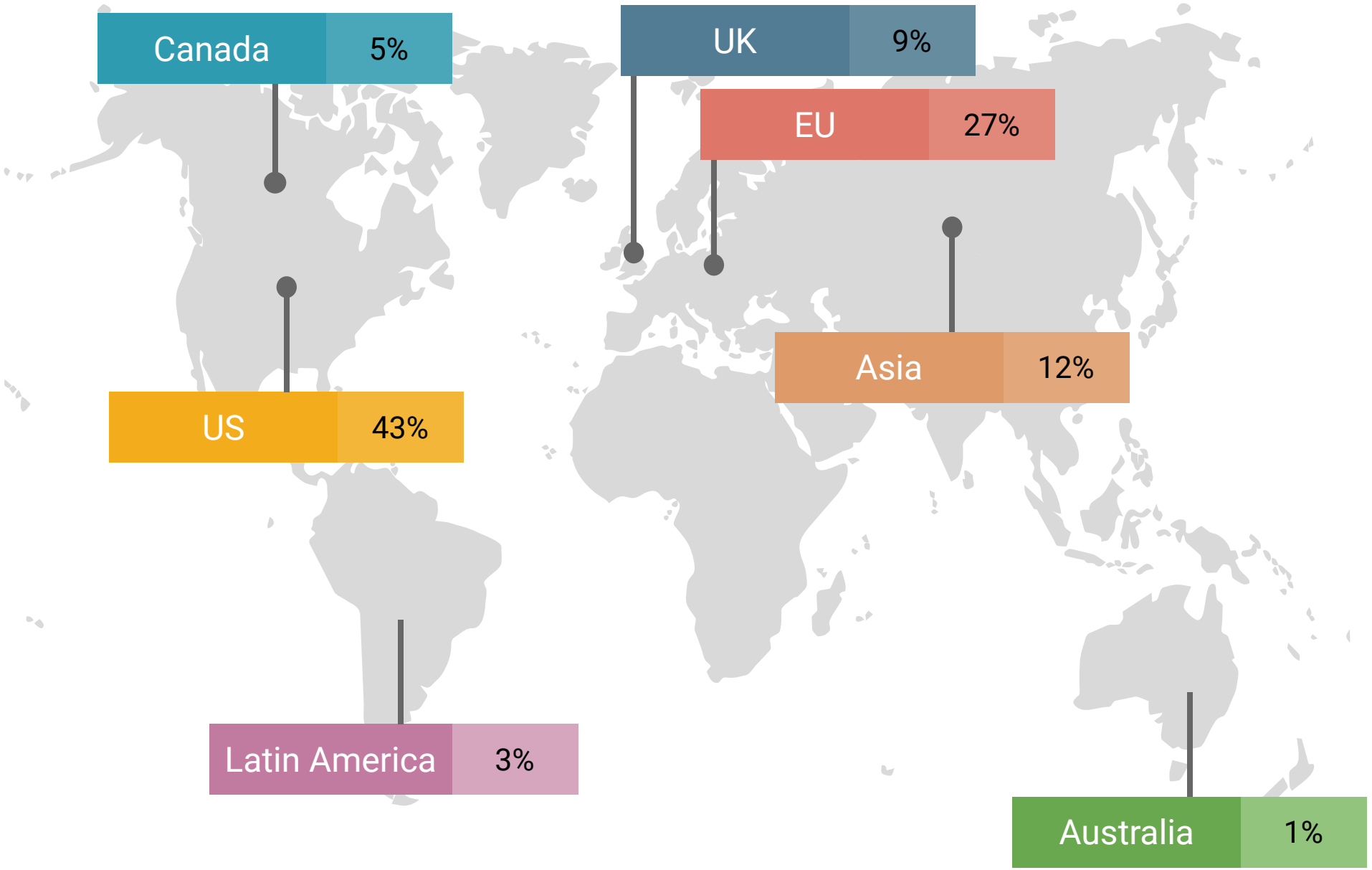
GovTech / E-governance Global Industry Landscape Overview 2019

Companies - 100
Investors - 350
Tech Hubs - 15



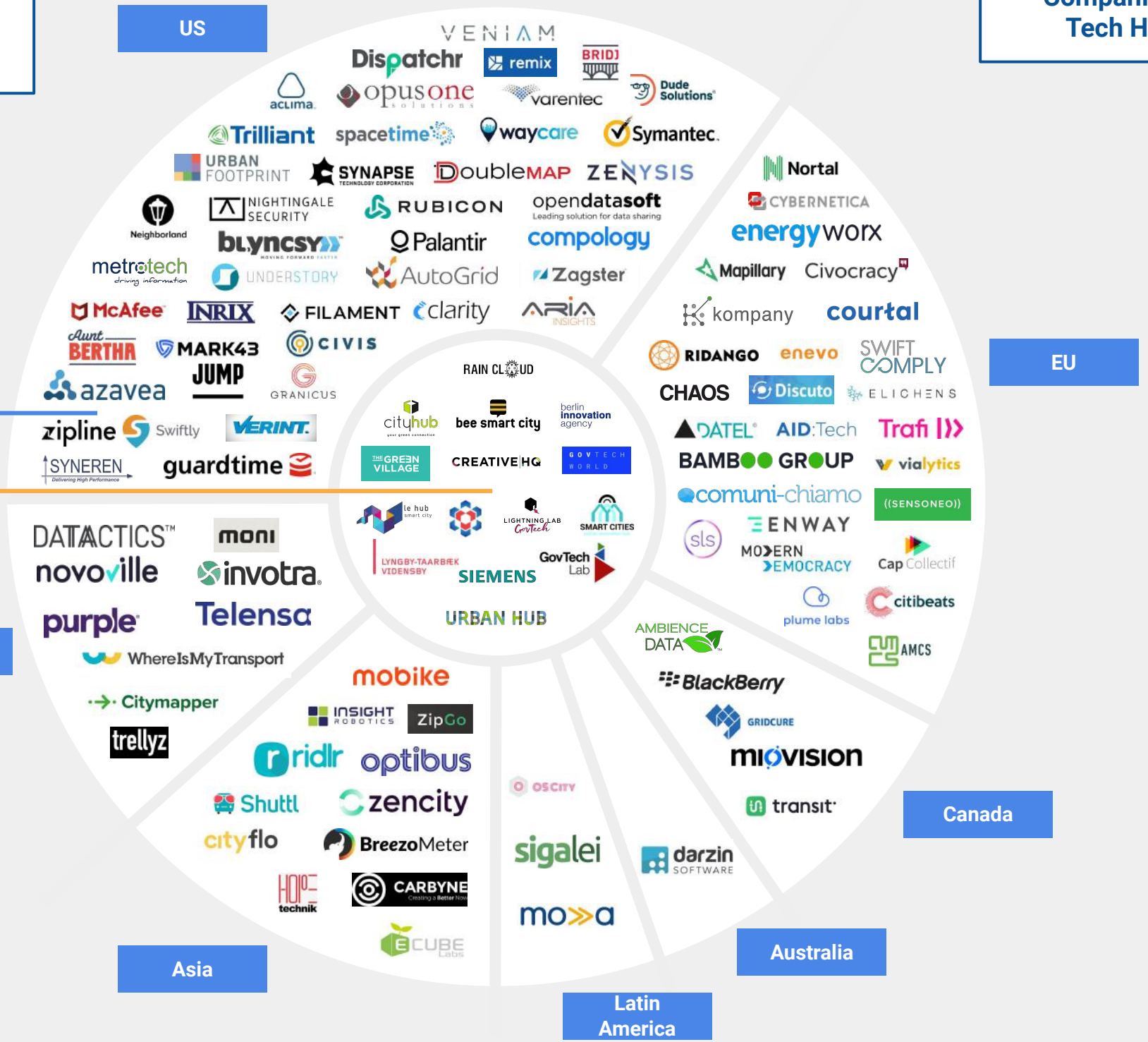
DEEP KNOWLEDGE ANALYTICS
GOVTECH DIVISION

100 GovTech Companies Distribution by Region



GovTech / E-governance Global Industry Landscape Overview 2019

Companies - 100
Tech Hubs - 15



DEEP KNOWLEDGE ANALYTICS
GOVTECH DIVISION

100 - Companies

Digital Participation

AID:Tech, moxa, Discuto, darzin SOFTWARE, Neighborland, CIVIS ANALYTICS, MODERN DEMOCRACY, CHAOS, opendatasoft Leading solution for data sharing, citibeats, Cap Collectif, comuni-chiamo, novoville, trellyz, GRANICUS, invotra, Civocracy

Cyber Security

BlackBerry, SYNEREN Delivering High Performance, McAfee Together is power., Symantec, VERINT

Decision making platforms

zencity, OSCITY, DATACTICS™, Dude Solutions™, ZENYSIS

Urban Planning

Mapillary, azavea, CALTHORPE ANALYTICS

Public Safety

waycare, CARBYNE Creating a Better Now, Palantir, ARIA INSIGHTS, NIGHTINGALE SECURITY, MARK43, SYNAPSE TECHNOLOGY CORPORATION, courtal

Waste Management

ENWAY, enevo, SWIFT COMPLY, AMCS, ECUBE Labs, ((SENSONEO)), compology, RUBICON

GovTech / E-governance Global Industry Landscape Overview 2019

Traffic Management Solutions

MIOVISION, Trafi, WhereIsMyTransport, ridlr, INRIX, Swiftly, transit, metrotech driving information, DoubleMAP, Citymapper, remix

E-Gov Solutions

CYBERNETICA, guardtime, BAMBOO GROUP, kompany, Nortal, sigalei, moni

Monitoring Systems

BreezoMeter, UNDERSTORY, Dispatchr, ELICHENS, DATEL EMPOWERING SMART COMMUNITIES, clarity, AMBIENCE DATA, plume labs, INSIGHT ROBOTICS, aclima

Smart Transport

cityflo, RIDANGO, mobike, Shuttl, vialytics, ZipGo, purple, optibus, BRIDJ, FILAMENT, blyncsy MOVING FORWARD FASTER, JUMP, VENIAM, Zagster a better way to bike

Energy-Saving Solutions

energyworx, spacetime, opusone solutions, Trilliant, GRIDCURE, AutoGrid, Telensa, sls, varentec, HOPE technik

DEEP KNOWLEDGE ANALYTICS GOVTECH DIVISION

350 - Investors

Monitoring Systems

Digital Participation

Healthcare Solutions

E-government Solutions

Decision Making Platforms

Waste Management

Energy-Saving Solutions

GovTech / E-governance Global Industry Landscape Overview 2019

Public Safety

Urban Planning

Traffic Management Solutions

Smart Transport

DEEP KNOWLEDGE ANALYTICS
GOVTECH DIVISION

Top 100 GovTech Companies

1. Aclima
2. AID:Tech
3. Ambience Data
4. AMCS Group
5. Aria Insights
6. Aunt Bertha
7. AutoGrid Systems
8. Azavea
9. Bamboo Group
10. BlackBerry
11. Blyncsy
12. Breezometer
13. Bridj
14. Calthorpe Analytics
15. Cap Collectif
16. Carbyne
17. CHAOS
18. Citibeats
19. Cityflo
20. CityMapper
21. Civis Analytics
22. Civocracy
23. Clarity Movement
24. Compology
25. Comuni-Chiamo
26. Courtal
27. Cybernetica
28. Darzin Software
29. Datactics
30. Datel
31. Discuto
32. Dispatchr
33. DoubleMap
34. Dude Solutions
35. Ecube Labs
36. eLichens
37. Energyworx
38. Enevo
39. Enway
40. Filament
41. Granicus
42. Gridcure
43. Guardtime
44. Hopetechnik
45. Inrix
46. Insight Robotics
47. Invotra Ltd
48. kompany
49. Mapillary
50. Mark 43
51. McAfee
52. Metrotech
53. Miovision
54. Mobike
55. Modern Democracy
56. MONI
57. Movva
58. Neighborland
59. Nightingale security
60. Nortal
61. Novoville
62. OpenDataSoft
63. Optibus
64. Opus One Solutions
65. OS City
66. Palantir
67. Plume Labs
68. Purple WiFi
69. Remix
70. Ridango
71. Ridlr
72. Rubicon Global
73. Sensoneo
74. Shuttl
75. Sigalei
76. Smart load solutions
77. Social Bicycles
78. Space-Time Insight
79. SwiftComply
80. Swiftly
81. Symantec
82. Synapse Technology
83. Syneren Technologies Corporation
84. Telensa
85. Trafi
86. Transit App
87. trellyz
88. Trilliant
89. Understory
90. Varentec
91. Veniam
92. Verint
93. vialytics
94. Way care
95. WhereIsMyTransport
96. Zagster
97. Zencity
98. Zenysis
99. ZipGo
100. Zipline

Introduction

This landscape report aims to demonstrate the variety of GovTech solutions existing worldwide. It focuses on factors driving the ongoing transformation of a state, main sectors to be changed, barriers to this process, and ways to overcome them. It also provides information on the main types of technologies used by GovTech including blockchain, AI and machine learning, IoT, robotic automation, and geospatial data analysis, with emphasis on the best examples of their implementation on various levels of public management. The report aims to answer the following questions:

- What are the key drivers of GovTech transformation in developed and developing countries?
- How can a state, business and citizens benefit from GovTech adoption?
- What has to be done to develop a healthy ecosystem for efficient collaboration between government and GovTech firms?

The report reviews 100 GovTech companies based in different regions and 350 investors in GovTech industry. 15 GovTech and Smart City tech hubs, 30 journalists and 40 influencers are also presented in the report. We have also investigated the achievements in GovTech adoption in 30 countries worldwide focusing primarily on the developing countries that, due to the circumstances, could not or could only partially embark on a course of public administration automation. This report is our first attempt to analyse GovTech industry and increase the level of expertise on the topic at the DKA.

GovTech and a Modern State

Advanced technology has penetrated everyday life changing the way people communicate, study, work, shop and rest. New mobile services such as online banking, social networks, Uber, etc., have become a necessity no one can avoid using. With this revolution encompassing all regions and populations around the world, it could not but affect interaction between modern governments and citizens.

The ongoing rise of Govtech brings a more functional state that matches today's level of technology development and, most importantly, the demands of technologically-savvy citizens. Accenture research shows that 75 percent of citizens globally say government needs to tackle complex issues by collaborating with them, and 60 percent would themselves take an active role in personalising services. Modern state emulates communication tools used by the modern companies in their communication with clients. In other words, a state wants to be more close to its customers. State transformation can be explained by:

1. **Public Expectations.** Citizens have rising expectations as they have grown accustomed to a different kind of user experience and functionality from using consumer-focused apps like Spotify, Uber and Google.
2. **Technologies.** Falling technology prices allow smaller companies to deliver cloud-based, mobilefirst services that are as robust and secure as the solutions that were previously the preserve of large corporates.
3. **Government Engagement.** Active policies by national and supranational governments are increasing government engagement with startups and subject matter experts (SMEs).

The power of GovTech lies in its ability to help governments to govern and innovate more effectively. This includes opportunities such as new channels for engaging and communicating with citizens (CivTech), and platforms that facilitate improved service delivery, and ongoing experimentation with emerging technologies.

The list of potential customers for GovTech solutions is also vast, and includes national and supranational governments, federal, state and local governments, cities and regions, state departments and ministries, specialised public agencies and regulatory bodies and arguably also schools, universities, hospitals, care homes, police forces and law courts.

Source: Accenture

What GovTech includes?

E-Government

- Digital Participation
- Decision Making Platforms
- Electronic Identity
- Electronic Voting
- G2G Systems
- G2B Services (e-tax, e-banking)

Smart City

- Monitoring Systems & Disaster Management
- Energy-Saving Solutions
- Urban Planning
- Waste Management
- Smart Transport
- Traffic Management Solutions

CrimeTech

- Smart Recognition and Identification
- Cyber Security
- e-Courts
- Civil Defence
- Crime Analysis Platforms
- Anti-money Laundering

Other

- AgTech (Agriculture)
- Longevity Technologies
- e-HealthCare Solutions
- Electronic School
- Various Sensors and IoT Technologies
- Sport and Ent

15 GovTech and Smart City Hubs

Bee Smart City

Berlin Innovation Agency

City Hub

Creative HQ

Gov Tech World

GovTech Lab

Hub Smart City

Lightning Lab GovTech

Lyngby-Taarbæk City of Knowledge

Rain Clouds Westminster

Siemens

Smart Cities Innovation Hub

Smart CIty Hub

The Green Village project

Urban Hub

40 GovTech Influencers

Alyssa Broomby, Digital Transformation Agency

Amit Narayan, Autogrid

Andrea Leadsom, Department for Business, Energy & Industrial Strategy

Andy Beale, UK´s Cabinet Office

Anna-Maija Karjalainen, Public Sector ICT Ministry of Finance

Arturo Herrera Gutiérrez, Ministry of Finance and Public Credit

Danilo Astori, Ministry of Economy and Finances

Eduard Müller, Federal Ministry of Finance

Erki Lipre, Ridango

Francis Suarez, City of Miami

Hon Kris Faafoi, Ministry for Government Digital Services

Huiyi Lee, Facebook

Ibrahim Baylan, Ministry of Enterprise and Innovation

Ilya Rekhter, DoubleMap

Jackson Mthembu, Department of Communication and Information System

Jacqueline Poh, Government of Singapore

Jason Hare, Jason M. Hare Associates INC.

Jimmy Martin, AMCS Group

John Chen, BlackBerry

Jonathan Simkin, Swiftly

Joshua Wong, Opus One Solutions

Julia Glidden, Microsoft

Konstantin Noskov, Ministry of Digital Development, Communications and Mass Media

Konstantin Shulgan, The Ministry of Communications and Informatization

Lena Goh, Singapore GovTech Agency

Luis Felipe Salin Monteiro, National Secretary of Information and Communication

Martin Basila, Sensoneo

Mathias Cormann, Department of Finance

Mike Sarasti, City of Miami

Mohamed Maleeh Jamal, Ministry of Communication, Science and Technology

Mongi Marzouk, The Ministry of Communication Technologies

Nadhim Zahawi, Department for Business, Energy & Industrial Strategy

Rikke Hougaard Zeberg, The Ministry of Finance Agency for Digitisation

Robert Shurtleff, IBM

Sascha Haselmayer, Citymart

Seamus Kraft, Article One

Spiros Margaris, Wefox Group

Tan Kok Yam, The Smart Nation and Digital Government Office

Ursula Owusu, Ministry of Communications

Yogida Sawmynaden, Ministry of Technology, Communication and Innovation

30 GovTech Journalists

Alice Lipowicz, My Beautiful Darkened World

Alison Holt, BBC

Anne Lochoff, UNDP

Ben Heather, HSJ

Bryan Glick, ComputerWeekly

Caroline Donnelly, ComputerWeekly

David Bicknell, Campaign4Change

Derek du Preez, diginomica

Edward Qualtrough, CIO

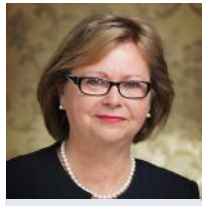
Gary Flood, Think.Digital Partners

Hanna Crouch, Digital Health

Heather Jameson, The MJ

Jacqueline Poh, GovTech Singapore

Jane Dudman, The Guardian



Judy Foote, govhouse.nl.ca

Karen Hunter, Karen Hunter Show

Lis Evenstad, Computer Weekly

Mariana Mazzucato, MARIANA MAZZUCATO

Martin Veitch, IDG Connect

Mark Chillingworth, IDG Connect

Mark Say, UKAuthority

Megan Eskey, Reloquence

Noelle Knell, government technology

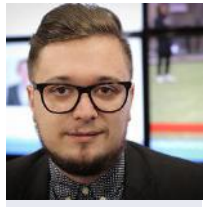
Nick Golding, LGC

Oscar Williams, NS Tech

Owen Hughes, Digital Health

Patricia Williams, Pfurmans@Work Technologies

Rosemary Bennett, The Times



Tom Wright, CRN channelweb.co.uk

Warwick Mansell, Education Uncovered

10 GovTech Conferences

GovInsider Live

GovTech 2019

GovTech Pioneers

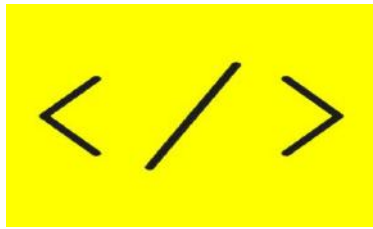
Horasis Global Meeting

Indonesia OpenGov Leadership Forum 2020

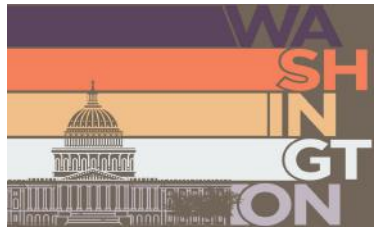
New York City Technology Forum 2019

re:public 2019

Thailand OpenGov Leadership Forum 2019



The Govtech Summit



Washington Digital Government Summit

GovTech Definition

Although GovTech gains traction globally, there is still no scientific definition for this industry. This term includes various industries such as Smart City, E-Gov, CrimeTech, etc. The main goal of the GovTech strategy is to change the relationship between people and the government at two levels. The first task is to share decision-making and city management with citizens. which is being introduced into the philosophy of Government to Citizen (G2C) management. The second task is to transform citizens into partners in every aspect of what is happening in the country.

The closest related term is E-government which refers to utilization of Information and Communication Technologies in order to transform relations with citizens, businesses, and other actors. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth and/or cost reductions.

According to PwC, GovTech relies on three pillars:

1. It's about new and better ways to enable citizens to engage in their communities and receive the public services they need.
2. It's fuelled by new technologies, joining up data and services in a mobile and connected world.
3. It's created by entrepreneurs, innovators and small businesses – often people who have worked in government and the public sector and who can see exciting new ways of delivering public services.

Apart government efficiency, another sector GovTech is designed to boost is accountability. As some experts declare, one of the main functions of GovTech lies in deepening the quality of democracy thus possibly restoring long-lost trust in government institutions. This could be achieved by developing voting technology, providing access to the records of government meetings, bringing the ways of effectively using Internet as a communication medium for public debate, etc.

All in all, GovTech itself constitutes a driver of change inducing governments to reimagine themselves, their functions, and relationships with citizens ensuring sustainable future.

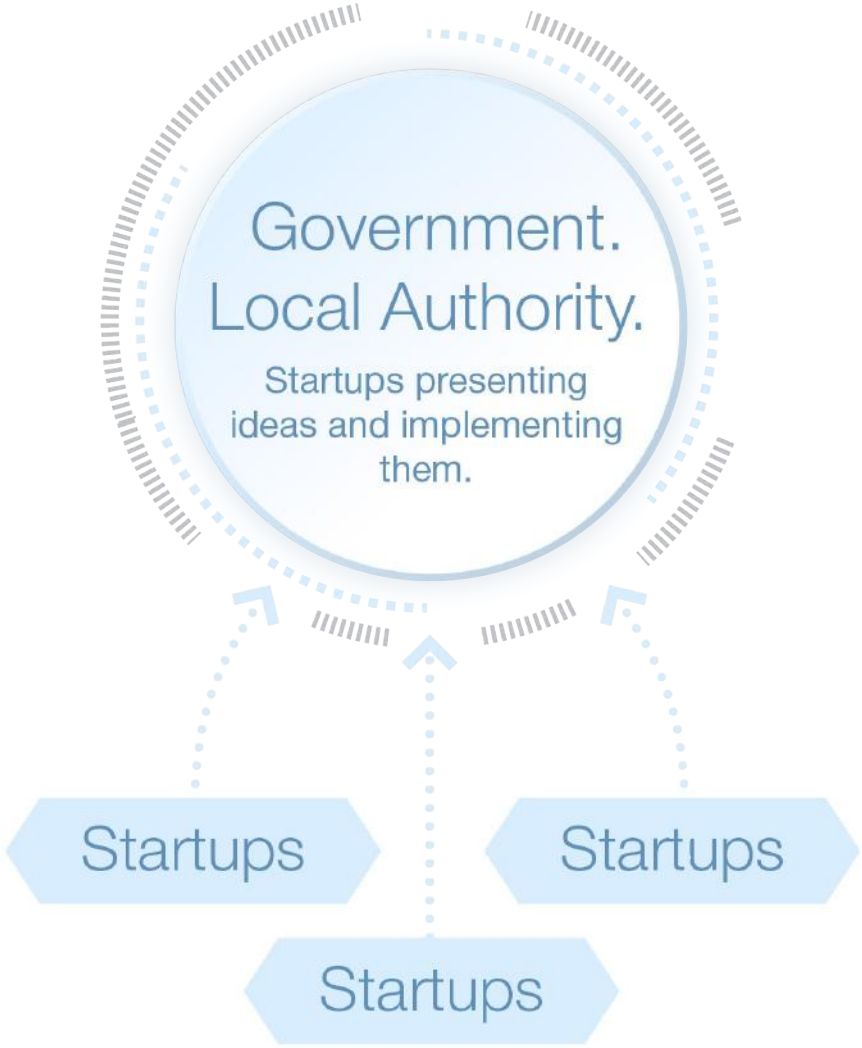
Source: hightech.fm | PwC | United Nations

GovTech Companies and Governments: Two Models for E-Gov Development

Two models of cooperation can explain the character of relationship between GovTech startups and the governments.

In the first, open, model, GovTech startups are invited to contribute their technologies and ideas, to propose initiatives and implement them. As PwC states, GovTech is "created by entrepreneurs, innovators and small and medium sized enterprises (SMEs) – often people who have worked in public services and can see exciting new ways of delivering improved outcomes and more efficient public services." This model is designed to develop connections between two parties in order "to explore new ways of bringing small businesses and technology driven innovation to public leaders and policy makers." The best examples of this approach are US, UK, and some of the EU countries.

Experts widely support the idea that GovTech is a local phenomenon. Universalism is not acceptable, as technological solutions fully depend on political context, population size and diversity, stability, etc. Indeed, companies acting in accordance with the first model, are predominantly local, operating under the local law.



Source: GOVTECH PwC

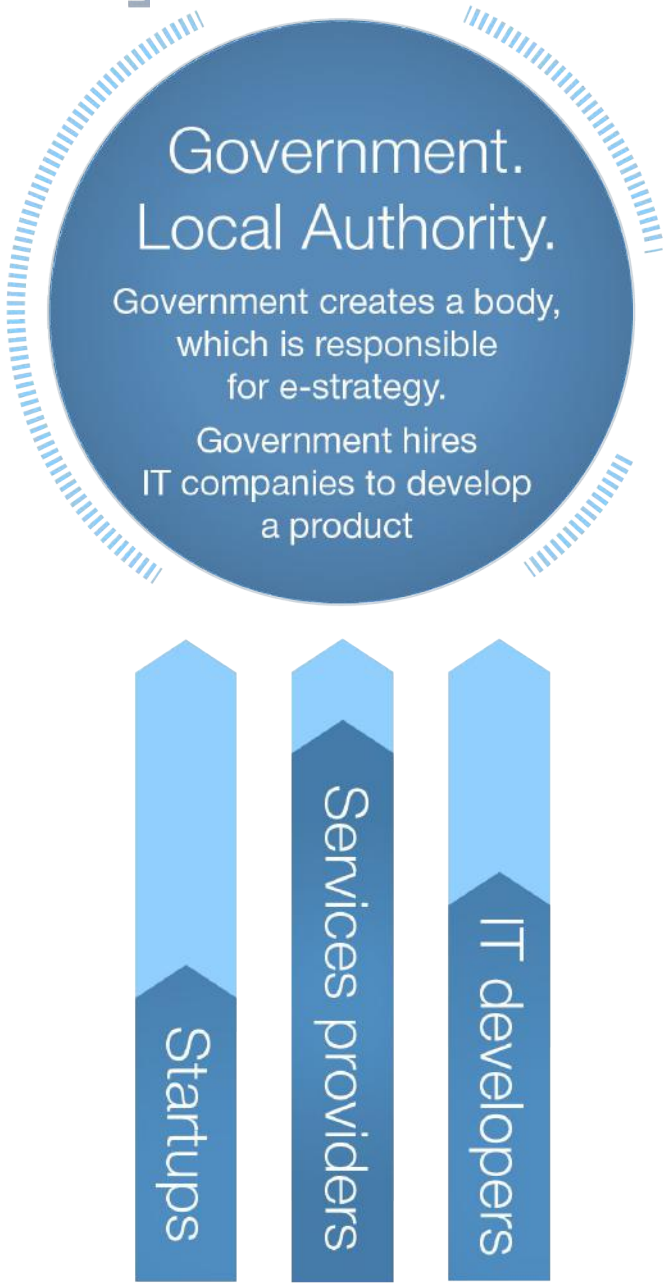
GovTech Companies and Governments: Two Models for E-Gov Development

The second model, closed (or traditional), is described by PwC as follows: “Traditionally government and public sector systems have been built in-house or by large IT companies. Data has been stored, and software developed, on proprietary platforms and very few are designed to share data or talk to each other.“

The typical example of this is Smart Nation and Digital Government Office in Singapore, which unites the CEOs and experts in government body with the purpose of transforming the public services delivery. Initiated in May 2017 under the Prime Minister’s Office, SNDGO established digitalisation as a core agenda for the Singapore Government and underscored its importance as a pillar in driving public service transformation efforts. Over the course of the year, GovTech has continued to make progress in implementing Strategic National Projects, delivering citizen-centric services and building technology capabilities in government agencies.

In other words, under this model the government agency develops and implements all the services. The same can be observed in Estonia where government had developed services, while IT corporations and startups had developed the tools.

Both open and closed models pursue building public-private partnerships under which government orders unique solution/product for its specific needs.



Source: GOVTECH PwC

E-Participation: Tool for Public Engagement

According to the United Nations 2018 E-Government Survey, e-government has been rapidly growing since the first UN attempt to access the state of the industry in 2001. The percentage of countries with high level of e-government development is reaching 58%, although digital divide is still significant due to high cost of Internet access, e-illiteracy, and bad connectivity in poor countries. This growth brought improvement in public services, citizen engagement, and transparency and accountability of authorities at the local level.

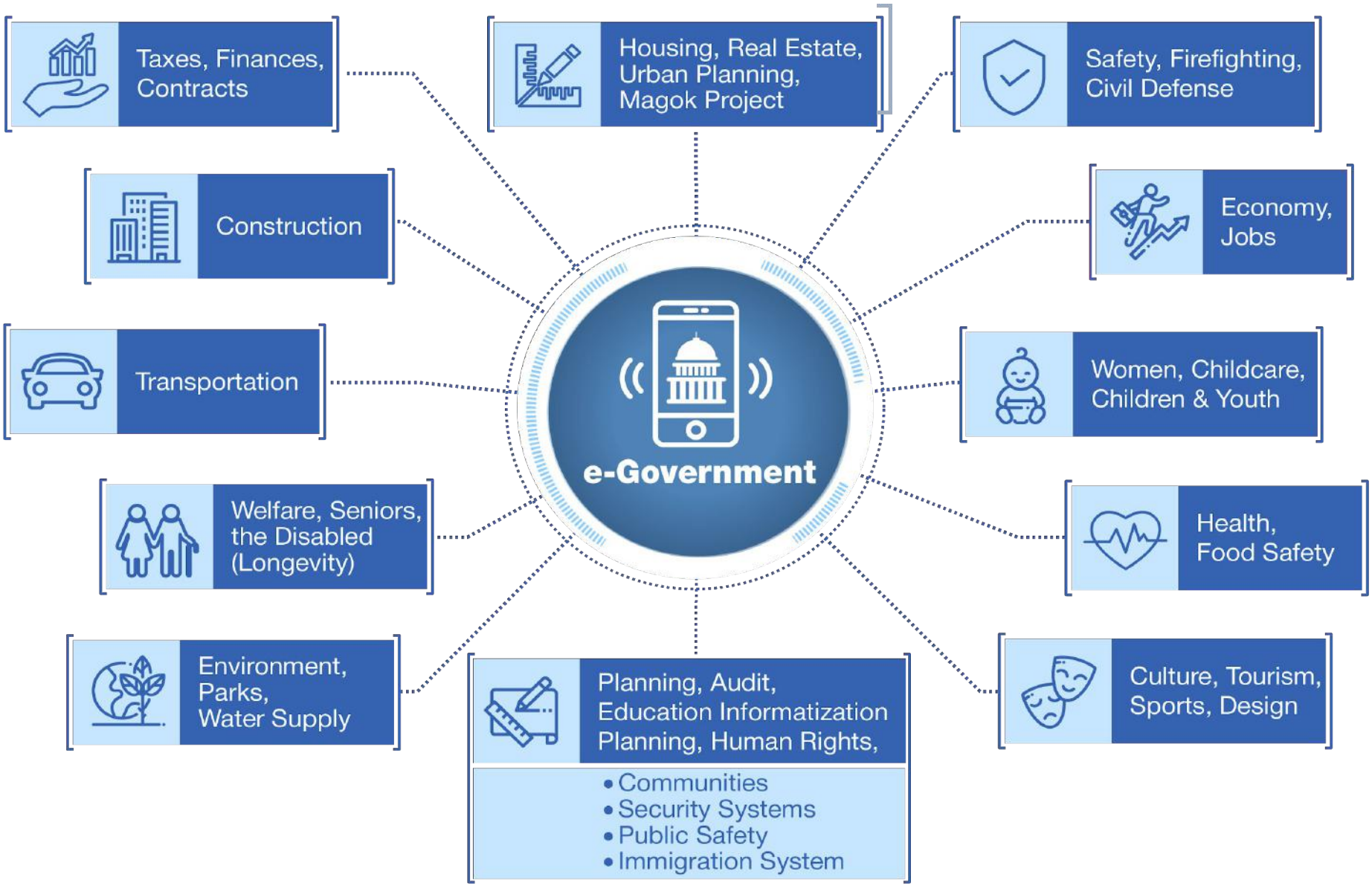
In the reality of ongoing government digitalization, the key instrument for interaction between government and citizens is e-participation defined "as the process of engaging citizens through ICTs in policy, decision-making, and service design and delivery so as to make it participatory, inclusive, and deliberative" (United Nations, 2013). According to UN 2018 Survey, the number of governments encouraging citizens to contribute their ideas and provide feedback is growing, with Denmark, Finland, and Republic of Korea being absolute leaders in e-participation, followed by the Netherlands, Australia, Japan, New Zealand, Spain, UK, and US.

- The first level is **e-information**. Governments provide people with online information through ICT channels to help them make informed choices. E-information allows participation to be evidence-based and fully relevant.
- The second level of e-participation is **e-consultation**. Designing new services and crafting new policies is preceded by consulting the people in order to better respond to public expectations. If people feel that their voice is heard through e-consultation, this could increase utilization of other e-government services. Thus e-participation can serve as a catalyst towards greater e-inclusion.
- The third, and the most tricky, level of the e-participation is **e-decision-making**. It refers to such approach to the decision-making processes in which people can provide their own inputs and make a difference. For example, this can be done through direct e-voting via secure systems.

Initiatives through which different countries implement e-participation, vary. In Denmark, for instance, e-participation is a part of Digital Strategy for 2016-2020. Japan has the "Idea Box" Initiative, which is interactive website opened to gather ideas from people and discuss e-governance issues.

Source: United Nations E-Government Survey 2018

The Kaleidoscope of E-Government



Source: United Nations E-Government Survey 2018

3 Levels of E-participation

E-information

Governments are providing people with information through ICT channels to help them make more informed choices at the next stage of consultation. E-information is critical because without access to publicly held information, participation cannot be evidence-based, fully relevant, or significant.

E-consultation

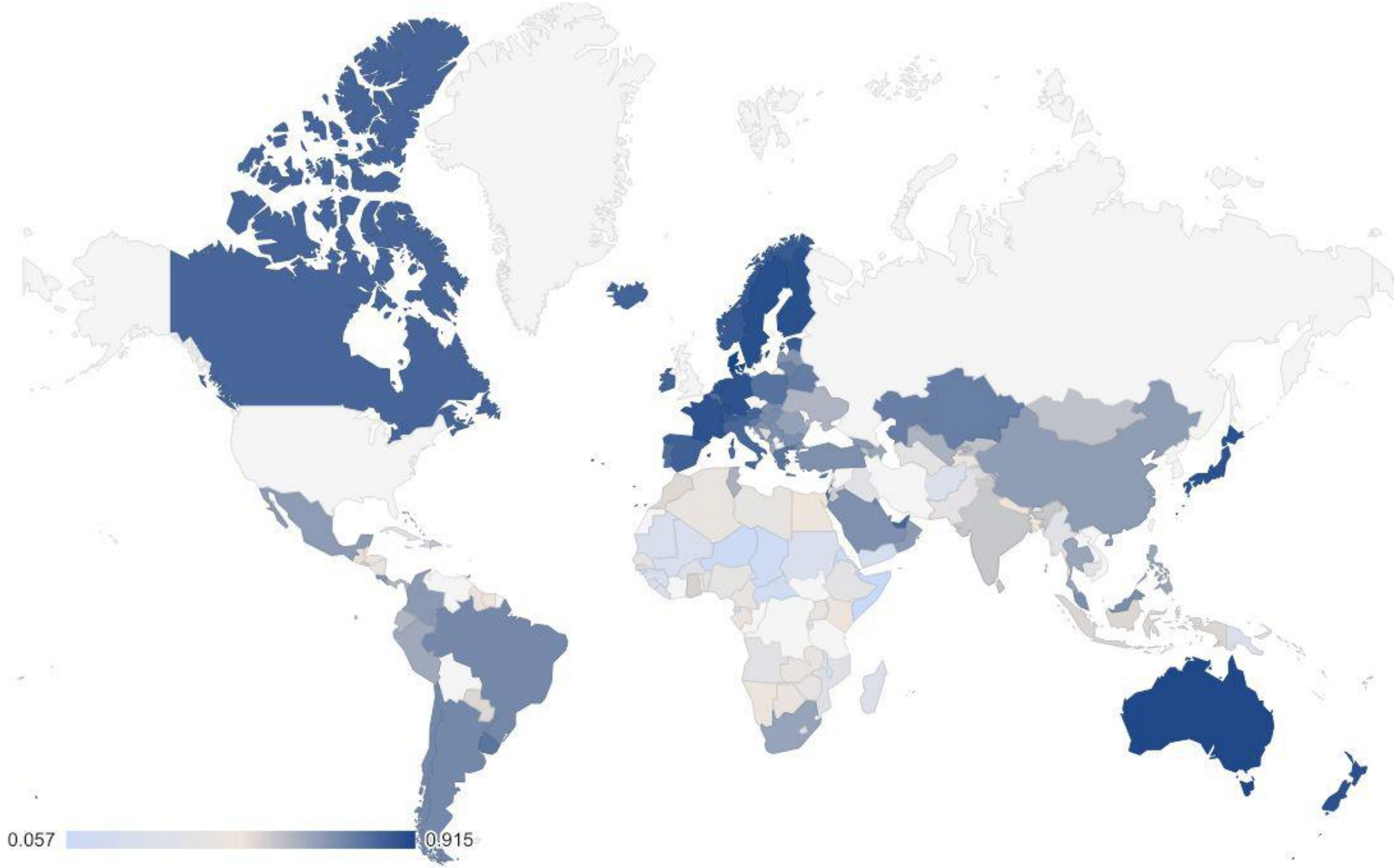
E-consultation means consulting the people, it's part of the process of crafting new policies, designing new services or projects. Consultation need not mean that the government is obligated to use the inputs received. Rather, it has the ability to leverage the information obtained to better respond to public sentiments on a particular subject.

E-decision-making

E-decision-making refers to a process in which people provide their own inputs into decision-making processes. Two examples are: direct e-voting via secure systems and identifying preferred (popular) options and proposals by rating them through social media's functions.

Source: United Nations E-Government Survey 2018

E-Government Development Index 2018



Source: United Nations E-Government Survey 2018

AI-Augmented Government

Now AI has a great space for action in case of the global technological advancement. Cognitive technologies are already having a profound impact on government work, with more dramatic effects to come. AI-based applications could potentially reduce backlogs, cut costs, overcome resource constraints, free workers from mundane tasks, improve the accuracy of projections, inject intelligence into scores of processes and systems, and handle many other tasks humans can't easily do on our own, such as predicting fraudulent transactions, identifying criminal suspects via facial recognition, and sifting millions of documents in real time for the most relevant content.

AI presents governments with new choices about how to get work done, with some work fully automated, some divided among people and machines, and some performed by people but enhanced by machines.

Government areas in which AI can be used:

- **Health care**. Replacing human customer care executive is chatbots that are faster and intelligent to provide appropriate help to both healthcare professionals and patients. The UK launched medical bot that communicates with patients and answers basic question. It helps doctors to save time by avoiding talking to patients who actually do not need the medical care.
- **Transportation**. Singapore uses AI for the support of intelligent transportation system to avoid traffic jams and other issues that helps to do work without unnecessary time expenditures. Pittsburg employs intelligent streetlights to promote energy saving and secure the cut of travel times by 25 percent and idling times by 40 percent.
- **Law enforcement**. The city of Chicago is attempting to prevent violent crimes before they happen. The city's predictive analytics unit runs spatial algorithms on 911 call data to identify where and when violent crimes or robberies are most likely to happen.
- **Defense and national security**. The United Kingdom's Institute for Strategic Dialogue has developed a natural-language-based solution to monitor the internet for signs of radicalization. Of the total sample of 42,000 individuals identified online, nearly 800 were found to indicate signs of extremism.

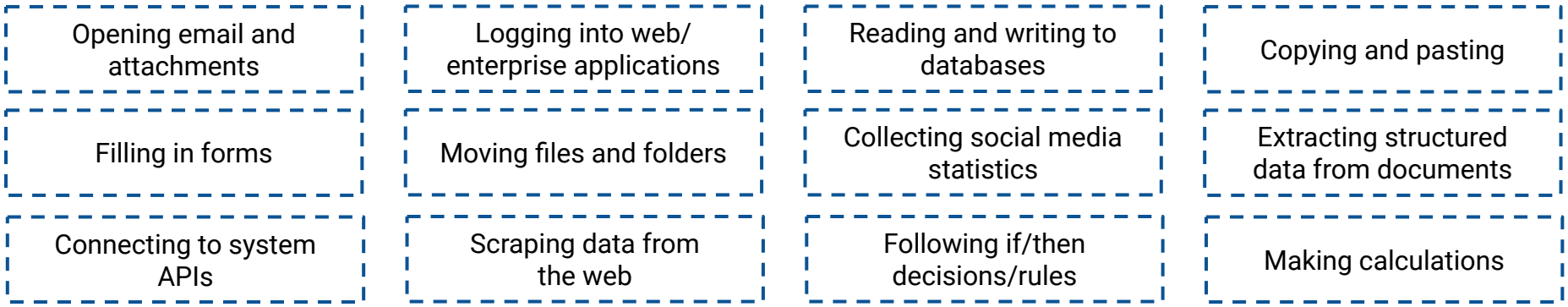
Sources: Deloitte | Deloitte

Cognitive Technologies in Public Sector

Decades ago, many sci-fi masterpieces were created and showed us a mystified world of science and technology. In recent years, technology has moved from science fiction into real life: AI programs can play games, recognize faces and speech, learn, and make informed decisions.

New technology means new opportunities for state services. For instance, robotic process automation (RPA) represents an excellent near-term opportunity for the government. RPA involves software, often called "bots," that automate the kinds of tasks you would usually do on your own, mimicking the steps we would take to complete various digital tasks—filling out forms or purchase orders, cutting and pasting information from one spreadsheet to another, accessing multiple databases—accurately and rapidly. It's relatively easy to realize significant productivity gains with bots without a fundamental process redesign.

Key functions replaced by bots



Innovations also change health security methods. The Southern Nevada Health District (SNHD) oversees public health matters in Clark County. In 2014, SNHD randomly selected establishments for inspection. To improve its effectiveness, the health department has turned to AI applications. The department uses data from Twitter: an app employs geotagging and natural language processing to identify Twitter users reporting food poisoning and flag the restaurants they visited, generating a list of eateries for investigation. As a result, burden-era of inefficiency and dull paper-work is going to the past. AI, robots, and machines change our world gradually.

Sources: Deloitte | Southern Nevada Health District

How GovTech Use Blockchain

The main benefits of applying blockchain technology in governments

The decrease in economic costs, time and complexity in inter-governmental and public-private information exchanges.

Reduction of bureaucracy and corruption, induced by the use of distributed ledgers and programmable smart contracts.

Improvement in automation, transparency, and accountability of information in governmental registries.

The increasing trust of citizens and companies in governmental processes and recordkeeping that are no longer under the sole control of the government.

The digital government focuses on the provision of user-centric, agile and innovative public services. These service delivery models should leverage digital technologies and governmental and citizen information assets. This implies improved public services in information registration and exchange processes.

Blockchain in education

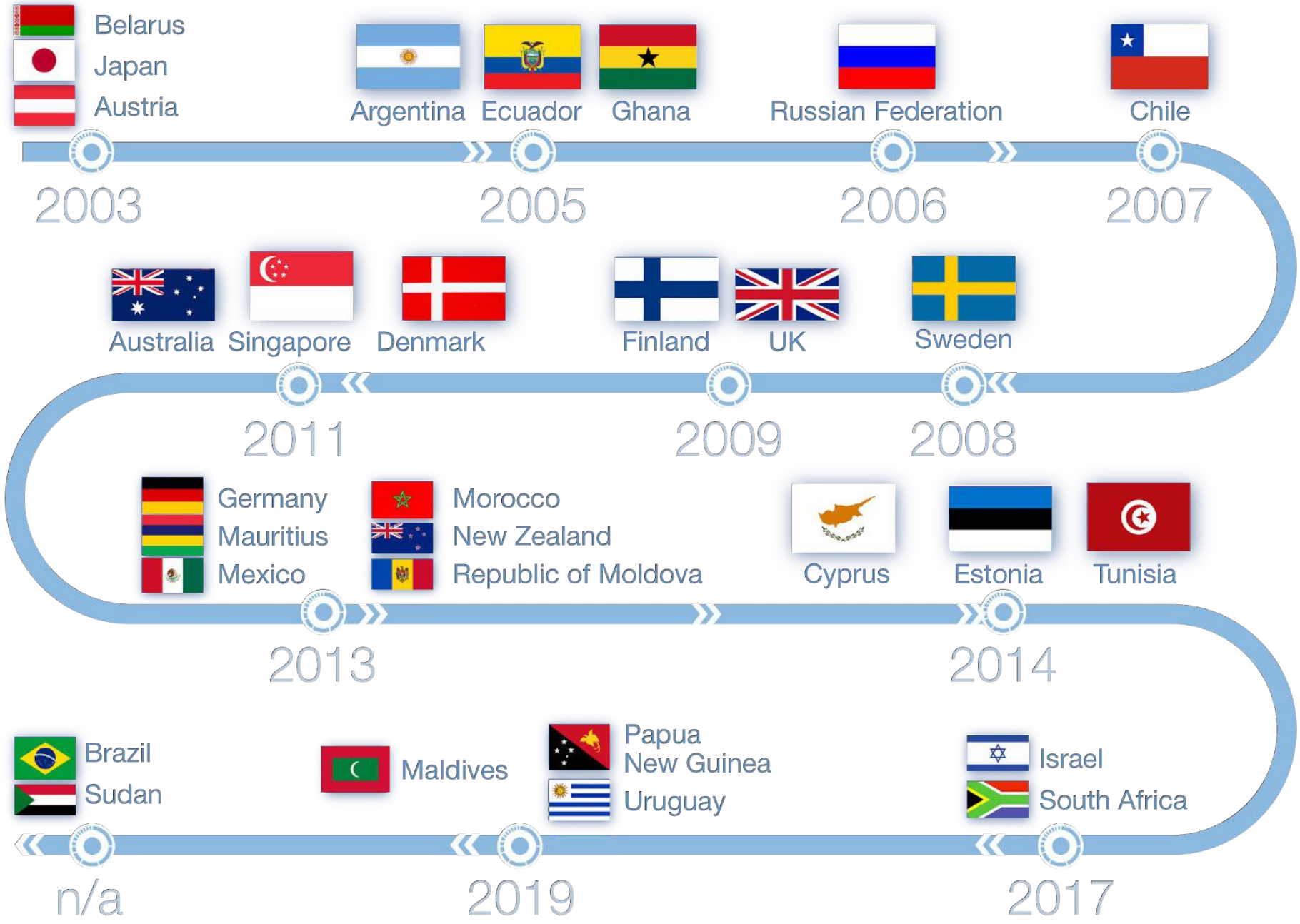
Singapore is using blockchain to create secure digital diplomas and academic certificates Employers will able to quickly and easily verify these digital certificates when graduates apply for jobs, instead of requesting physical copies. It cuts administrative work and assures authenticity. Dubai is using blockchain to support an online learning platform for anyone where students can shape their own courses and choose non-traditional learning methods.

Blockchain in real estate

Some countries have already begun trials for blockchain-enabled land registries. Sweden's land-ownership authority conducted its first property transaction on the blockchain last year after two years of testing. And the New South Wales Land Registry Services recently developed a blockchain proof-of-concept to replace its largely paper-based property purchasing process.

Sources: GovInsider | European Commission

GovTech Strategies Adoption History



GovTech 2020-2022 predictions

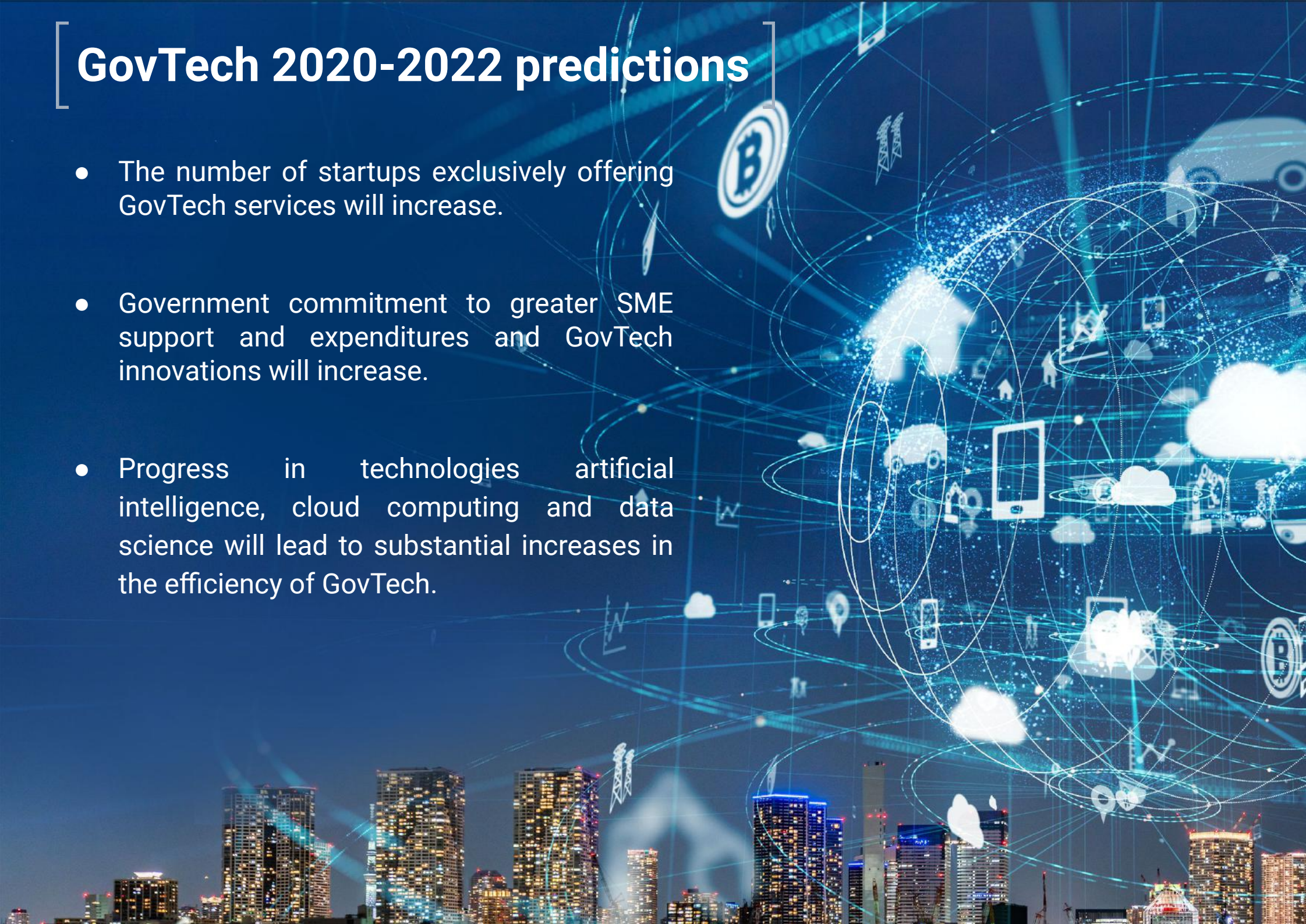
- The development of centralized electronic public services, automation of public administration and quick registration of business, etc.

- Rising expectations by citizens as well as demographic shifts inside public administrations will increase the velocity of e-government introduction and adoption of G2C, G2B and G2G services.

- The number of Asian GovTech startups will increase dramatically and achieve prominence on the international level. Tensions between US and China will bring Chinese GovTech companies into new markets.

GovTech 2020-2022 predictions

- The number of startups exclusively offering GovTech services will increase.
- Government commitment to greater SME support and expenditures and GovTech innovations will increase.
- Progress in technologies artificial intelligence, cloud computing and data science will lead to substantial increases in the efficiency of GovTech.

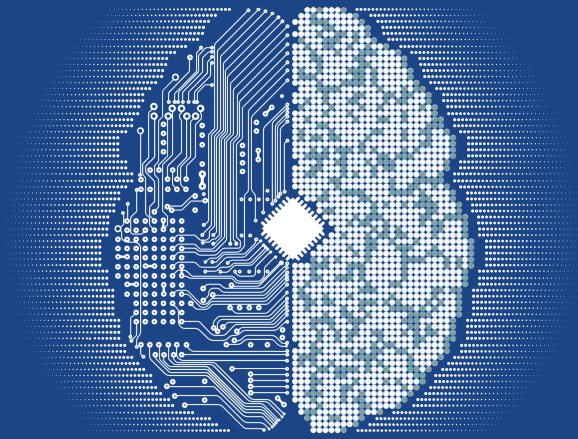


Conclusions

“GovTech / E-governance Global Industry Landscape Overview 2019” is 160 page report, which provides a broad analysis of the trajectory of the GovTech industry by focusing on factors driving the ongoing transformation of the state, main sectors to be changed, barriers to continued progress and ways to overcome them. The report reviews 100 GovTech companies based in different regions and 350 investors in GovTech industry. 15 GovTech and Smart City tech hubs, 30 journalists and 40 influencers are also presented in the report.

- **GovTech / E-Governance Industry.** The chapter describes two models of cooperation can explain the character of relationship between GovTech startups and the governments. Both models pursue building public-private partnerships under which government orders unique solution/product for its specific needs.
- **Artificial Intelligence and Blockchain in GovTech.** AI and Blockchain, which is given with special attention, became extra important tools in GovTech, which are defending the Governmental Technologies development in nearest future. This chapter presented how AI and Blockchain are connected with the GovTech, the reason why those two technologies will shape the GovTech industry in the nearest future.
- **GovTech Use Cases and Practical Implementations.** The chapter presents the use cases of the most prominent or useful startups in the industry.
- **30 Country Analysis: Various Experience in GovTech Development.** In the frame of the report, it was decided to analyze and present the main results achieved in GovTech development and implementation by 30 Governments. 30 countries from 5 geographical regions were chosen to show main trends and ways to introduce e-government, Smart City and CrimeTech technologies in various directions of governance and public management.
- **Longevity as New Government Strategy.** Advances in biomedicine with the potential to increase Healthy Longevity, and a rapid global population aging, which threatens to impose a massive economic burden are two opposite megatrends. Both trends are quite important for the economy of many countries, and the possible solutions are closely connected to the GovTech solutions Governments can adopt.

DEEP
KNOWLEDGE
ANALYTICS



Link to the Report: www.govtech.dka.global/GovTech-Landscape-Overview-2019

E-mail: info@govtech.dka.global | **Website: www.govtech.dka.global**