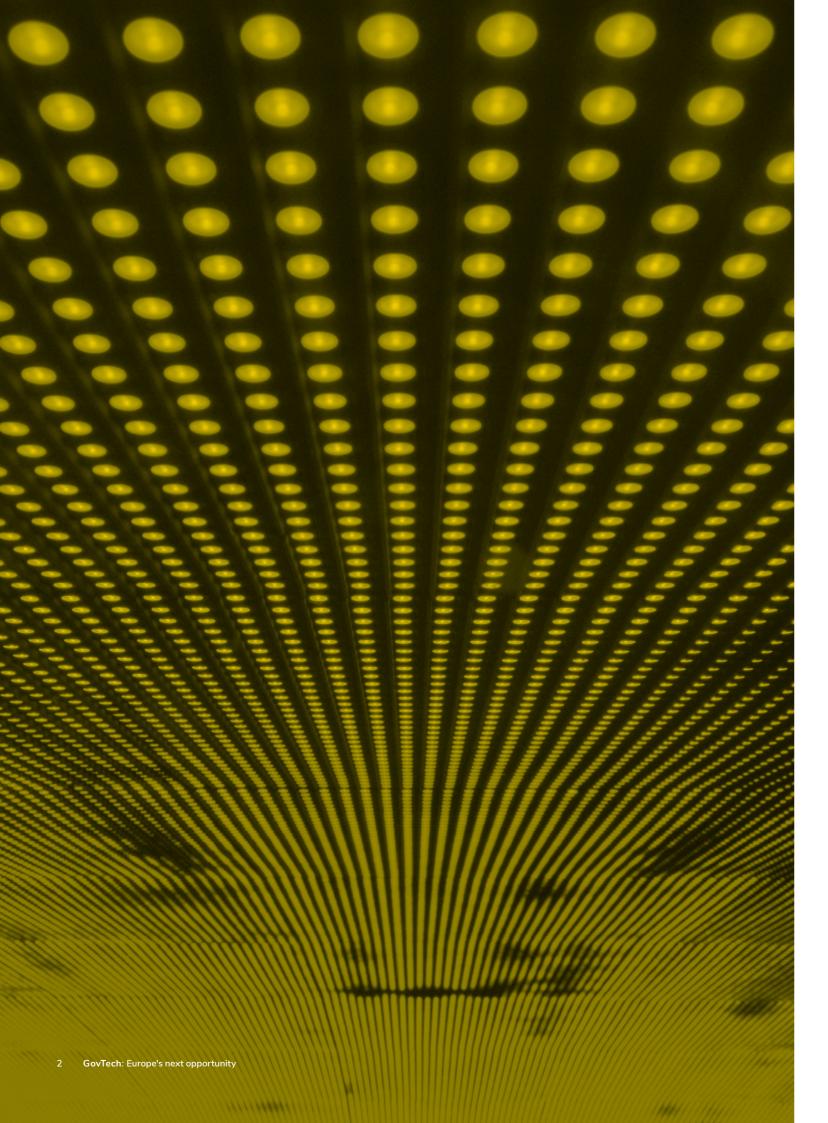
# **GOVTECH** Europe's next opportunity

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## ACROSS THE WORLD, **THE MODERN STATE IS UNDERGOING AN EXTRAORDINARY TRANSFORMATION**

A new wave of technology is changing the way our countries – and local and federal governments as well as arms-length agencies - collect taxes, deliver services, distribute welfare, maintain security and much more. In time, and perhaps a surprisingly short time, the whole way the state engages with its citizens will be different. Driving this change is the rise of GovTech, new technologies applied to public services and specifically designed for government purposes.

The phenomenon is global with US\$400 billion spent on government technologies worldwide, and a growing part of spending in the GovTech space dedicated to more advanced technologies. GovTech spending in Europe alone stands at €22 billion (\$25 billion).1

For example: Denmark's NemKonto, a citizen's account for payments to and from government, has transformed how the Danish government interacts with its citizens. Its e-Identification scheme, NemID, gives every citizen a secure means of personal identification online. In the five years since its launch, more than 95 per cent of the Danish population has used this service.

Over the same period, Estonia has succeeded in establishing one of the most sophisticated e-government infrastructures in the world, with almost all of its public services available to citizens through its blockchain-enabled identification system.

Increasingly, entrepreneurial startups and scale-ups are driving these kinds of transformations. These younger, smaller companies are able to offer greater levels of agility, creativity and innovation than traditional incumbent suppliers. PUBLIC's database includes 2,000 startups in Europe alone, who are seeking to disrupt the traditional models for delivering public services. The majority can be found in the technology powerhouses of the UK, France and Germany, but many have also emerged in Benelux, Scandinavia, the Baltics and Eastern Europe.

### FACTORS **DRIVING TRANSFORMATION:**

#### **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

### **Financial Considerations**

Continued budgetary pressures force public bodies to rethink, often from the ground up, how to best deliver public services

#### **Accessible Tech**

Falling technology prices allow smaller companies to deliver cloud-based, mobile-first services that are as robust and secure as the solutions that were previously the preserve of large corporates<sup>2</sup>

### **Government Engagement**

Active policies by national and supranational governments are increasing government engagement with startups and subject matter experts (SMEs)

### Younger Demographics

Demographic shifts inside public administrations are bringing younger and more tech-savvy officials into departments

#### **Renewed Options**

Long-term contracts for legacy ICT systems are expiring

### **DEALING WITH GOVERNMENT TAKES STRATEGIC PATIENCE**

Today, it is easier than ever to order a pizza, hail a taxi, stream a movie and chat with friends on the other side of the world.

Dealing with government, however, can be far from easy. As consumer goods and services become smarter, more efficient and more tailored to the individual, citizens will begin to expect the same standards from their governments.

What Airbnb or Google have in common is their features are designed with users in mind, and their platforms are continually updated to be more seamless, efficient and engaging.

Accenture research shows that 75 per cent of citizens globally say government needs to tackle complex issues by collaborating with them, and 60 per cent would themselves take an active role in personalising services.<sup>3</sup>

The opportunity for government to use technology to better serve citizens is therefore staggering. With a European market of nearly 25 billions euros - and poised to grow - GovTech could become one of the most important digital sectors of this region's economy and, perhaps most importantly, create new and better public services.



of governments report positive gains from the use of intelligent technologies \*

\*Accenture research

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# AS A FAIRLY NASCENT MARKET, A COMMON DEFINITION FOR GOVTECH IS STILL EMERGING

However, a useful way of thinking about GovTech is to see it as cutting-edge technology solutions developed by various players – notably startups, but also medium and large enterprises, nonprofits and others-that are transforming public services.

In France, a number of state-owned startups have had success in improving services. 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.

The real power of GovTech lies in the sector's ability to help governments to govern and innovate more effectively. This includes opportunities such as new channels for engaging and communicating with citizens, which is specifically the CivTech space, and platforms that facilitate improved service delivery, and ongoing experimentation with emerging technologies, from machine learning to distributed ledgers.

The types of technologies at the forefront of the GovTech market are varied and far-reaching. Blockchain's potential benefits of improved transparency, data quality and compliance mean governments are increasingly piloting use cases across the public sector. Sensor technology and trackers, part of the Internet of Things, are giving birth to smarter cities around the world. The number of devices installed by consumers, companies and governments is expected to hit 40 billion by 2023.<sup>4</sup> And the potential use of AI and machine learning in the public sector has created a lot of excitement, even if the adoption of these technologies is still early and limited.



The different domains relevant to GovTech are outlined below, which match closely with the core functions of central and local governments:

# IT IS IMPERATIVE TO **CONSIDER HOW EUROPE CAN BUILD ON ITS MOMENTUM TO SEIZE THIS OPPORTUNITY**

The future is bright for GovTech, not least illustrated by the rising numbers and valuations of GovTech venture capital deals and the growing number of startups focused on public services across Europe. But the reality is that China and the US, given their size and level of ambition, could easily come to dominate the market by bringing a very different approach to the nature of public services.

In recent years, the European Union (EU) has driven immense progress in part, through the EU eGovernment Action Plan 2016–2020 and lately, the Tallinn Declaration, which have set out to reform policy frameworks and encourage change across all EU member states.

There are notable examples of success: new digital services, such as Marchés Publics simplifiés and La Bonne Boîte in France, or others services that allow income taxes to now be done solely online. London's Datastore is a free and open data-sharing portal where anyone can access data relating to the capital and build services. In Helsinki, the city maintains a co-creation platform and co-organises hackathons and open data competitions to help design services.

But there remain significant barriers to integrating technology into core government functions in Europe.<sup>5</sup> Many countries still lag behind.

### **BARRIERS TO PROGRESS**

Barriers to bringing new technology into the public sector, especially by startups, are far-reaching. Excessive controls on spending and cumbersome and old-fashioned procurement processes lead to delays that inhibit the adoption of new technologies. A recent study found the length of payment cycles (between 30 and 60 days to receive payment in most European economies),<sup>6</sup> and process complexity were the most often mentioned barriers by startups.<sup>7</sup>

Legacy IT infrastructure systems also pose a challenge for new innovators. Departments are too often locked into fixed, long-term contracts with now obsolete technology systems, excluding commercial partnerships with new software providers.

### 59%

of agencies in Europe have trouble finding people with the right skills to support innovation.<sup>9</sup>

These systems are expensive (with some agencies spending 90 per cent of their budgets on legacy IT),<sup>8</sup> but also pose an integration challenge for new entrants.

Finally, there are still challenges when it comes to competencies and culture in the public sector. There is a significant digital skills gap, with recent Accenture research finding that 59 per cent of agencies in Europe have trouble finding people with the right skills to support innovation.9 Government agencies are also often riskaverse and do not reward or incentivise initiative. This is not to say that there has not been enormous progress. As detailed above, many governments have fully embraced a culture of 'digital by default' when it comes to public service design and delivery. Indeed, often these efforts are led by dedicated departments for technology, data and innovation, such as Government Digital Service in the UK, DINSIC and DITP in France, or Digitaliseringsstyrelsen in Denmark.

## **OVERCOMING BARRIERS TO BETTER ADOPTION OF NEW TECHNOLOGIES IN** THE PUBLIC SECTOR WILL **REQUIRE A BOLD NEW AGENDA FOR INVESTING IN INNOVATION BROADLY, AND GOVTECH SPECIFICALLY.**

Tackling the challenges requires big ideas and renewed vigour; and progress against specific goals and objectives must also be carefully measured. Introducing a scorecard system to which leaders are held accountable and countries ranked similar to the Lisbon Scorecard X: The Road to 2020 - is one way to encourage commitment and accountability.<sup>5</sup>

The GovTech Summit has been convened

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LE SOMMET DES GOVTECH THE GOVTECH SUMMIT **PARIS 2018** 



### **Concrete actions that can improve GovTech** adoption in each challenge area:

ACTION 1

### **REGULATION AND PROCUREMENT**

At a highlevel, improving supply-side competitiveness means that it simply has to be easier to conduct cross-border business within the EU, including procuring services and transporting goods. As such, it's important that leaders seek to complete development of the EU single market in all industries.

Another regulatory opportunity has to do with the exploding market of RegTech, which uses technology solutions to improve regulatory processes. Regulators may realise countless benefits from investment in RegTech, articulated in a recent report from Accenture, as ranging from improving monitoring and compliance, to closing the gap between intention and implementation, to increasing internal process efficiency.<sup>10</sup>

The last regulatory lever focuses on tackling some of the major structural and legal barriers imposed by existing procurement systems. It's important to remember the sheer magnitude of public procurement. In most high-income economies, the purchase of goods and services accounts for a third of total public spending.11 It is therefore crucial to simplify and streamline the length of the procurement cycle, as well as lower transaction costs (especially for SMEs) in order to be inclusive. In addition, favourable policies for startups and IT spend set aside for smaller players can make the environment more hospitable. As an example, the Australian government will be extending the amount of IT spend set aside for smaller players from 30 per cent to 40 per cent over the next year, with the increase currently worth around AU\$650 million.12

### INFRASTRUCTURE AND ECOSYSTEM

Creating a pro-GovTech infrastructure goes beyond the immediate issue of dismantling legacy IT solutions to fundamentally transitioning to Government as a Platform (GaaP) models for service delivery.

Broadly, GaaP models are those that facilitate collaboration, connect people and providers and coordinate groundbreaking public service delivery models of the future. Indeed, GaaP is the foundation that allows government and non-governmental organisations to deliver next-generation public services. In transitioning public services to GaaP models, it will be important to encourage collaboration: entrepreneurs, investors and officials from all countries, regions and cities across Europe should seek to innovate together.

Becoming a hub of excellence for one or more startup sub-sectors is proven as an effective strategy to build a country's startup ecosystem.13



At the same time, states need to not only look at the ecosystem and technologies as a whole, but also pay attention to and invest in specific startup sub-sectors (e.g., Al, blockchain, AgTech). Becoming a hub of excellence for one or more startup subsectors is proven as an effective strategy to build a country's startup ecosystem.13

Dedicating funds and initiatives to attract foreign talent and successful GovTech startups and players is essential to kickstart, but also sustain, the GovTech ecosystem. This includes dedicating funds like the US GovTech Fund to provide financing (including venture capital) to startups at every stage of the maturity cycle.

### ACTION 3

### **COMPETENCIES AND CULTURE**

Public services of the future mean that governments must effectively attract, hire, train and retain a workforce with must-have digital competencies.

An ecosystem characterised by deep technologies requires high levels of education. Startup Genome data shows that Al founders and teams are among the most educated, with nearly 63 per cent of them having a graduate degree, and governments should plan to allocate public dollars to meet this need. Support for university programmes and favourable immigration policies can also help to build a skilled workforce. Governments will need to remove structural barriers such as lengthy hiring processes, outdated workforce models and lacklustre incentives to win the talent wars.

Further, understanding how the nature of training is changing in an era of exponential technology will be crucial to skilling up the workforce. New Accenture research reveals a gap between skill-building and the rate of technological progress that is far reaching: G20 economies could lose up to US\$11.5 trillion in cumulative GDP growth in the next 10 years. The call to action for governments is to really understand how learning systems need to support the coming revolution in skills demand, and to use experiential techniques to close this gap.<sup>14</sup> Finally, governments can encourage an innovation-oriented and entrepreneurial culture by creating new structures, like incubators and accelerators, to support novel approaches to problem-solving and product and service design. Creating incentives that foster experimentation and reward entrepreneurial activities will promote a culture more inclined to innovation and that is not afraid to 'fail fast'.

Nothing short of a bold new agenda among European leaders is needed to ensure this new wave of GovTech entrepreneurs has the structural support, platforms, networks and support to fully thrive and succeed. Regional collaboration will be absolutely essential to devise a set of commitments and an accountability structure that will forge a new path towards smart, technology-driven governments of the future. After all, the stakes – improving the quality of services and supporting EU competitiveness on the world stage – could not be higher.

63%

of AI teams and founders have a graduate degree.

## THE KEY FOR THE FUTURE SUCCESS OF THIS NEW MARKET IS TO GROW AND SUSTAIN A GENUINELY COLLABORATIVE GOVTECH ECOSYSTEM

Public problems can be challenging, technical, bureaucratic and process-driven. Innovators and public sector officials will need to collaborate and solve these problems together.

There have been many different efforts to draw together principles that officials ought to follow to promote better, digitised services, including the GDS Principles and the OneTeamGov Principles.

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To drive genuine change in government, we recommend that decision-makers and officials bear the following principles in mind:



### PRINCIPLE 1 **Be Bold**





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### **PRINCIPLE 3 Change Systems as** Well as Technology

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### **PRINCIPLE 4** Start with Users, **but Do Not Forget Operators**

### **PRINCIPLE 5** Small can be Beautiful

Governments are facing new and unprecedented challenges. To meet these challenges, they need to support new thinking and boldly try what either hasn't been tried before or what hasn't been tried in a particular context before.

Success does not follow a straight line. Public services that are truly flexible, useful and effective can only be built by governments thinking (and acting) more like startups; that is, testing products out, and being prepared to adapt and pivot away from them quickly.

Technology is not a silver bullet for all public sector problems. The most effective implementations of new technologies are supporting systemic changes. Look at the underlying business model and any required changes, not just what technology can do to help.

Effective public services are built with users in mind. What do people actually want and need? But equally, well-functioning services must also be effective for operators. Technologies and applications should make government officials' lives easier, not more difficult.

Working with startups has risks, and governments are right to be cautious. However, the risk of working with startups has been reduced thanks to the advent of cloud technologies and the introduction of privacy rules and cyber security standards that apply to both small and large companies.

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### **Build Infrastructure**, but Let the Market **Build Features**

**PRINCIPLE 6** 



### **PRINCIPLE 7 Interoperability** is Not Just for Flow. but Also Stock



**PRINCIPLE 8 Open is Better Than Closed** 



**PRINCIPLE 9** Work Internationally

Governments have a major role to play in developing new technologies. Given their size, budgets and strategic importance, it is logical for governments to build the underlying digital and data infrastructures to support new tech products. However, for products on top of this, governments should leave innovation to the market: let private companies build features that integrate with centralised infrastructure.

Systems need to be able to speak to each other to ensure data (for instance, patient records between health organisations) can safely and securely be shared. There is a tendency to insist on interoperability for new systems, but to let old systems remain siloed. That cannot work.

Open standards are good for everyone. They drive greater transparency and accountability in government, but also empower innovators to use public information to transform public services. Any technology used or built for the public sector should be built in accordance with open data standards.

One of the great strengths of GovTech is its international replicability. The challenges governments and cities face are usually fairly generic, and so solutions that work in one place will often work in others. Governments should prepare to work with international innovators to solve local challenges.

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In turn, those seeking to offer new technology solutions to the public sector should have their own set of principles in mind, including:

| PRINCIPLE 1 | Start with the<br>Problem, Not<br>the Technology             | Governments are not interested in tech<br>for tech's sake. The key to successful<br>engagement with governments is to offer<br>solutions to real public sector challenges.<br>Technology should always be an enabler,<br>and not an end in itself.   | PRINCIPLE 5 | Be Patient,<br>be Optimistic  |
|-------------|--|--|-------------|---|
| PRINCIPLE 2 | Release Solutions<br>Early and Often                         | Government as a Platform (GaaP) means<br>constantly updating and upgrading public<br>services. To succeed within this framework,<br>startups have to be prepared to regularly<br>release new iterations of their product.  | PRINCIPLE 6 | Inspire and be<br>Inspired by the<br>Opportunity to<br>Change Society |
| PRINCIPLE 3 | Validate Your<br>Solutions Wherever<br>Possible              | The best way for a startup to de-risk its<br>solution for governments is to build up<br>a track record of working with credible<br>partners. This does not always have to be<br>governments: the key is to validate solutions<br>in similar contexts, and at a similar scale.  | PRINCIPLE 7 | Take Security<br>and Privacy<br>Very Seriously                        |
| PRINCIPLE 4 | Prioritise the Change<br>Agents, Not What<br>Needs to Change | The public sector is filled with people who<br>want to solve public problems and make<br>governments more effective. It is crucial<br>to identify and engage with change<br>agents who share a company's vision.<br>Having internal champions is an extremely<br>successful strategy for breaking into<br>these markets. | PRINCIPLE 8 | Build Only What<br>is Needed and<br>Scale from There                  |
|             |  |  | PRINCIPLE 9 | Be Sensitive<br>to Context  |

#### Working with the public sector can be frustrating and time-consuming. The rewards, however, can be enormous. To succeed, startups must be patient through the long and complex sales cycles, but optimistic that there will be a regular, reliable customer at the end of it.

#### The upside to working with government is not only financial. To sustain long-term relationships with the public sector, startups must genuinely share the same passion for changing society, and making people's lives better.

#### Governments simply cannot afford to take half measures when it comes to the security and privacy of software products. Robust cybersecurity and data privacy infrastructure must be at the core of any successful GovTech product.

#### Products do not need to be overly complicated or all-encompassing: it is more important that they solve one specific, clearly defined policy challenge. Startups should begin with what is needed to meet clearly defined policy challenges, before adding more features once they have been validated.

#### Public utility is different from private benefit. As in any market, you have to know your customer, and speak their language. Solutions that deliver genuine public utility will win over buyers in public sector markets.

**Technology startups and** governments are very different types of organisations, and working together is not always easy. However, if buyers and sellers operate according to these principles, it is much more likely that new technologies will fulfil their promise of delivering faster, better and cheaper public services for everyone.

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The GovTech Summit is the largest ever gathering of officials, ministers and entrepreneurs focused exclusively on how new technology can transform public services. Supported by President Emmanuel Macron, Paris Mayor Anne Hidalgo and the European Commission, the GovTech Summit will gather leaders, ministers and innovators from across Europe.

It will seek to reimagine services that place citizens at the centre of public delivery, where public servants have an array of technology-enabled resources and information at their fingertips, and can use new, dynamic ways of delivering better, more efficient, more citizen-focused services.

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Created by Daniel Korski and Alexander de Carvalho, PUBLIC is a venture firm that helps startups transform public services, providing capital, networks, insight and support. With offices in London, Paris and Berlin, PUBLIC is Europe's first GovTech accelerator and investor. The PUBLIC team combines a deep experience of government, startups, technology and finance, to help startups succeed in the public sector.

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