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# Smart Touchless Government: towards the new *hybrid* society

What's next for governments post-Covid-19?



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# Foreword

Confronted with the demands of Covid-19, governments everywhere have moved (or are in the process of moving) large parts of their public services online. Look, for instance, at the transformation taking place in France and Germany where by 2022, *all* public services - national and regional - should be 100% accessible online for citizens and businesses.

One benefit of this is that citizens need no longer physically present themselves at a government office to access a service. And this trend towards *e-government* is not going to reverse after the pandemic; nor should it stop there. As well as finding the new balance between the 'old' physical and the 'new' online worlds in our evolving *hybrid society*, public administrations now need to advance towards 'Smart' and 'Touchless' Government. So, what does that mean?

As the digital transformation of public services continues, governments' ability to interact responsively and seamlessly with citizens online, and to hold and use massive amounts of data in a secure and innovative way, is critical. Data has huge power when it is joined up and underpinned by citizens' trust in government - not only to deliver more efficient services but to act faster and to detect, anticipate and pre-empt needs and events in fast-changing times.

When governments have control over their national sovereign data in the cloud and apply new technologies such as artificial intelligence (AI), automation and blockchain to trigger timely actions and generate new insights, they can not only do things more efficiently, they can do things differently and provide effective leadership in an age of serious global challenges and disruption.

At the start of 2021, there is no turning back: transformation will be ongoing. In this context, governments have a critical opportunity over the next decade to do things *differently* and *remotely*, to deliver *Smart Touchless Government* in what have become unprecedented times. This paper is the third in a series exploring the *new hybrid* society; it examines more closely the steps that need to be taken as the world begins the process of recovery once the pandemic is under control.

# New challenges, new pressures

Governments are, of course, profoundly impacted in the long term by the pandemic. Early in the crisis, public bodies were suddenly charged with rapidly spending billions to support communities while needing to safeguard a sustainable future for society and the planet. This period in history is about leadership not only out of the pandemic, but away from old paradigms and towards investment in major structural change.

It's clear that public sector leaders face challenges and opportunities in four key areas:

1. The massive shift online and the new blend of the physical and digital world in daily life, in other words the new *hybrid society*
2. Today's new leadership demands including huge public spending to rescue economies, the urgency of climate change, and the growing wealth, race and gender gaps
3. Constant waves of new technologies that make innovation possible.
4. With the shift to digital, there are now huge data lakes and massive access to data. The question is what are governments going to do with it?

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## Structural changes

Public services and societal structures must operate in a way that is not only faster and cheaper, even more importantly, there is a demand that they be better. So, as governments invest billions in their Restructuring Plans, there is the opportunity and the imperative that these create a more sustainable and balanced society. Most Recovery Plans include two ambitions: to be green and to be digital. New technologies and data have a major role to play in achieving these twin ambitions in the years to come.

In this context, besides already being a landmark in our history, the pandemic can also be seen as a catalyst for transformation. You maybe even can call it a *perfect storm* for the creation of Smart and Touchless Government. For widescale transformation to take place, three important things need to happen:

- Wide consensus that governments must fully embrace new digital technologies to transform, with the trust and confidence of citizens

- The right balance for people and services between physical and virtual as our new hybrid society takes shape
- Governments' access to ever-increasing massive computing power, plus enough storage capacity in the cloud for all national sovereign data to be processed, digested and protected in a resilient way and within national borders.

So, what is '*Smart Touchless Government*' really about? To understand that, we must track back to the origins of modern public services.

# Social contract

The citizen/state relationship is based on the 'social contract' where governments provide physical security and the rule of law, including the protection of property and recording of what belongs to whom. In return, citizens abide by laws while public bodies maintain extensive records of transactions, permits, birth and deaths and so on. The necessary result is large bureaucracies, often called red tape, which historically relied on piles of paper to register, update and validate records.

Over hundreds of years, these bureaucracies got used to designing and implementing their activities in silos and expecting citizens to behave accordingly. So, to interact with local or central government, citizens had to contact different departments separately, keep discrete records and update multiple agencies with the same information multiple times. Similarly, waiting in queues or on the phone within strict office hours was part of the package.

Now, with digital transformation, and as all those records are turned into massive volumes of data, the key shift for government now is to leverage all that technology and data to deliver better outcomes.

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# Transcending the silos

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One of the barriers to transformation is that when governments started to digitalize over the course of the last two decades, this was done individually by department, creating siloed data stores. Even today, many public services come in silos - especially when more than one agency is involved. Data is rarely shared or integrated and there are gaps and inefficiencies that affect governments and citizens alike.

This is not only inconvenient, it has more serious implications. More vulnerable families, for instance, often have to engage separately with the different services they might need, such as, social services, health services and the police. This means that there is no holistic view of an individual's or family's needs because complete information is not shared between services. As a result, only the symptoms of crime or a citizen's vulnerability can be tackled, not the root causes.

Let's take child protection as an example. In families, there are often signs of child vulnerability that are picked up individually by the school, the police, the social worker, even the fire or justice department, but the full picture is missing.

Examples exist of a multi-agency hub to share data about vulnerable citizens between the police, the local health board and social services. This has been groundbreaking in a few ways. By cooperating to share data, the partner agencies established for the first time commonly agreed indicators of vulnerability. And by cleaning and matching data to create an accurate single view of each citizen, multi-agency teams can identify vulnerable citizens faster, reach them with better-targeted support - and even prevent citizens becoming vulnerable in the first place.

# A change in culture

Clearly, different governments are at different stages of digital maturity.

This kind of data sharing requires not only the move to more flexible and agile technology; it also needs a change in culture and mindset for public sector workers to collaborate. Traditionally, government agencies and internal departments may be accustomed to protecting information, either because they don't know the rules of collaboration or can't see the benefit of doing so. Equally, legislation can be a real blocker; but this too is changing. The South Australia Government, for instance, passed its Public Sector Data Sharing Act 2016 to promote, enable and regulate data sharing across government, even when other legislation may prohibit it.

In terms of government decision-making at local and national level, the public sector has already embraced digital meetings, consultations and debates and – almost overnight – decisions made in this way can be permitted and approved by law, without physical attendance or signature in pen.

Clearly, different governments are at different stages of digital maturity depending on their particular circumstances. But if governments can deliver digital services that are faster, cheaper and better, there are win-wins. By collaborating and digitally transforming, governments can better target precious resources to reach the margins and get support to the people who need it most.



# Building trust

Moreover, those platforms must remain sovereign: the data must stay within borders.

Of course, transformation depends on robust governance of citizen data, respect for the rules of privacy and shared benefits. In the way that Estonia has been pioneering, encouraging citizens to share their data with their government is based on trust and also on the fact that there is benefit for them in doing so; citizens can ask themselves the crucial question: "what's in it for me?". In healthcare, for example, when patients' lives are in medical hands, they quickly give consent to sharing their records if it benefits their recovery.

With the requirement for governments to leverage vast volumes of data across organizational and geographic boundaries,

there needs to be a move to shared government platforms where data can be 'owned' by both the citizen and the government. This requires the resilient and massive computing power and data storage that are available in the cloud. It also demands that data is used in a way that is transparent, secure, sovereign and has the trust and consent of citizens. In other words, data must be controlled, owned, stored, secured, accessed and used in accordance with governments' rule of law, privacy regulations and ethical framework. Moreover, those platforms must remain sovereign: the data must stay within borders.

# Paradigm shift

There are two underlying assumptions about government that have existed over time: firstly, the assumption that regulations and processes that citizens use must be designed around a government's internal organizational structures; and secondly, that government bureaucracy is required to gather information from people that then needs to be validated.

As we have explored in this paper, the move online should not merely be about digitizing existing bureaucracy or red tape. The capabilities of digital technologies turn both these assumptions on their head and make it possible to radically redesign services (with citizens at the heart) and revolutionize the way data is captured, analyzed and validated.

Enabled by cloud - together with new technologies such as AI, chatbots and blockchain - comes a paradigm shift.

While the backbone of government has for centuries been the keeping of records through paper registration and validation process, now these processes can be much more easily automated and virtualized in the cloud. Instead of paper or online forms, why not use bots and blockchain to hold digital permits and records, so that government is no longer the 'keeper' of all these records, but instead the official 'verifier' of a single digital version of the truth?



# Getting smart online

In the post-Covid-19 era, online services will become more important than ever. We are evolving fast to a new normal that requires close integration of the physical and digital world. The challenge now is to find a new balance between the two.

For a start, we need a seamless user interface for the citizen to communicate with its government and vice versa. The use of digital technologies helps build that 'smart' personalized user experience, a way of working we are already familiar with in the private sector – so when can there be a similar experience from the public sector?

First, as a citizen I like to be 'recognized' by my government. While that might sound simple, it's often the case that to identify ourselves online as citizens to our administration requires us to re-submit our name, address, date/place of birth, male/female and so on. In other words, my government treats me every time we engage as if I am a complete unknown citizen, a complete stranger.

In contrast, wouldn't it be brilliant if I log in and the welcome page from my government greeted me with "Welcome back, Mr/s. Citizen, let's start where we left off last time" and while we are at it, "Since you last logged in, we've noticed you had a recent salary increase and as a result your tax scale will increase over the rest of the year, meaning we will have to tax for another 10 euros per month; do you want to proceed?".

Some countries are already experimenting this way; others are restricted by privacy regulations. And although often data is already exchanged on matters of national security without asking consent (by police, intelligence), asking the citizen for consent to share their data in order to receive more relevant, proactive and customized public services may not yet have been explored. While a positive response from citizens may come as a surprise in the context of public administration, in daily life on social media or online shopping, as individuals we give consent all day long to receive convenient and personalized services.

# New citizen experiences

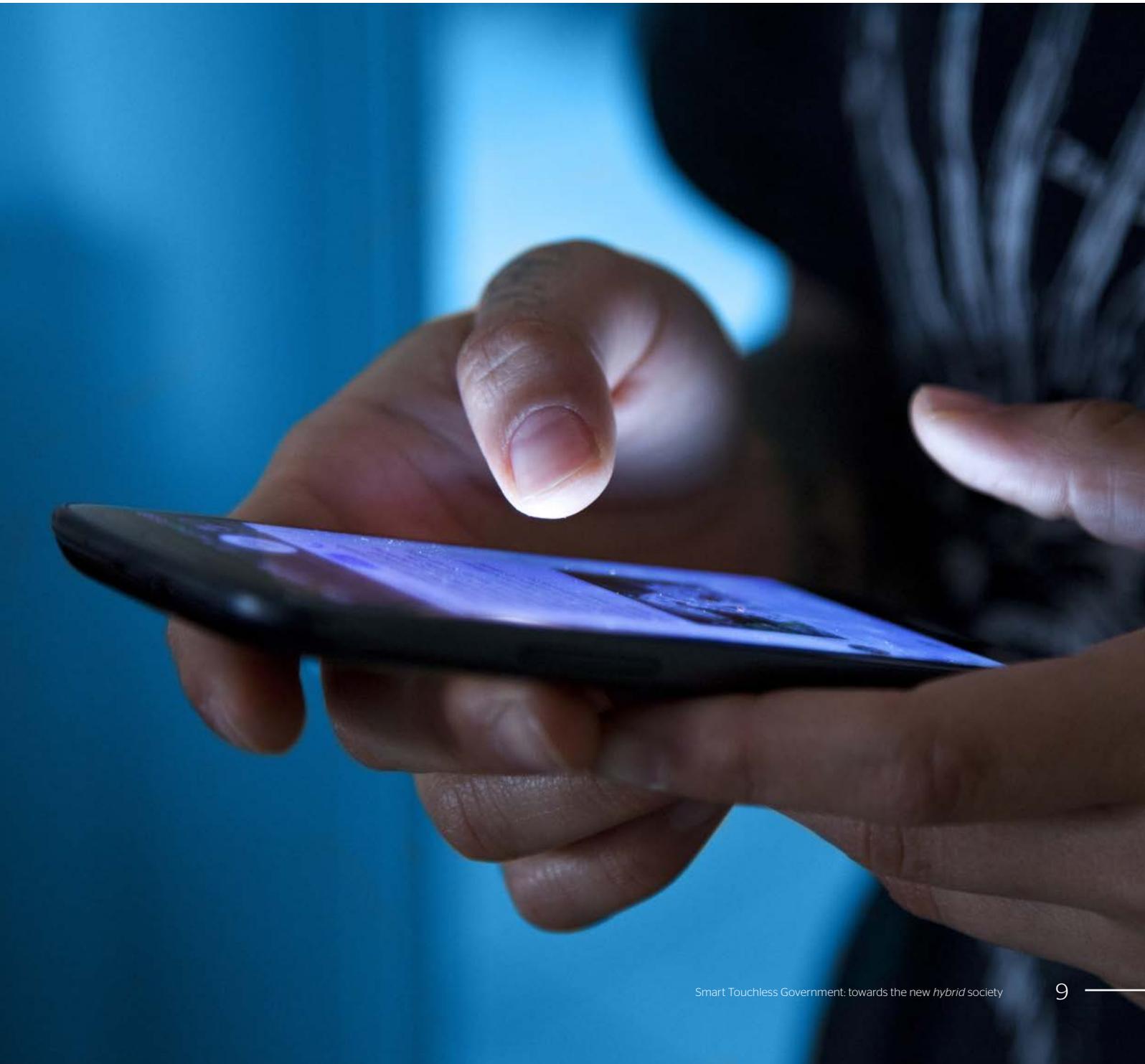
Let's look at seven examples of applying new technologies based on shared data to deliver *Smart and Touchless Government*. Moving online goes beyond the obvious benefits of tele-working from home or a smart digital workplace. The real innovation and transformation happens when 'moving online' means that data is connected to other data in a smart way, delivering outcomes by working better, faster, cheaper, and differently.

- **Paying taxes.** We have seen that verification and validation of a citizen's status is one of the core functions of government, such as digitally calculating tax returns based on income, married status, number of children and so on. All these parameters must be filled in precisely by the citizen and every time there is a change, it must be registered to avoid a fine or other serious consequences. In future, however, a blend of bots, AI and blockchain will automatically alert you that your allowance has been calculated, in a timely and proactive way and customized to your individual needs.
- **Supporting new parents.** On a citizen discovering that they're three months pregnant, wouldn't it be brilliant if, after being congratulated online by their government, they receive a message suggesting times for an appointment with their doctor, links to the nearest daycare facilities, details of pregnancy yoga courses (for both parents), a note to let them know about adjustments to their tax code, details of the child benefit payments and so on?
- **Getting back into employment.** Imagine, in the unfortunate case of being selected for redundancy, you need to find a new job. Wouldn't it be really easy if your employer automatically notified the relevant government employment department, the employment department automatically cascaded information to all other relevant government agencies (unemployment benefits, pensions, housing and so on), who each calculated the effects on you and your family? From there, you'd get digital notifications, with links to trigger processing and payments to your bank account. What's more, the employment agency is triggered to arrange a meeting with you to assess your situation and devise a personalized action plan for re-employment. Analytics match your digital profile with job vacancies and training courses across multiple media (social media, job sites) and give you links to social networks to explore a career change. You get automatic notifications of new opportunities to arrange job interviews and retraining. You find a new job and go online to notify government. You get a digital 'job start' pack, including details of training you need for your new job and travel details and real-time updates on how best to reach your new workplace. The effects on your benefits and tax position are reversed across all government departments.
- **Digital identity.** Not only to administer the (paper) passport itself (even that may evaporate over time), but also to establish if someone is over 18 in case they want to buy a bottle of liquor at a store. In the blockchain, their identity can be stored as a single point of truth, and only a QR-code is required, resulting (if the person is indeed old enough) in a green approval. The same could happen for getting proof of being vaccinated post-pandemic, as some airlines are already requiring before boarding a plane. In these examples, the government acts as the digital 'verifier' (as defined in the blockchain) and no longer the physical 'keeper' of these records.
- **Preventing fraud.** Smart Government also alerts to prevent fraud taking place. With algorithms in data lakes, abuse of benefit allowances, tax evasion and so on can be detected in a timely and cost-efficient way. As it is still early days, administrations are being challenged in court over the legitimacy of this technology. However, most court decisions claim that the method used (data lakes combined with AI) is legal by itself; the contention is around the unclear 'black box' algorithm. The importance of consistent, transparently designed algorithms and data ethics is therefore key to Smart and Touchless Government.

- **Managing permits.** Applying for a driver's license renewal, getting a permit to place a new dormer on your roof, applying for a visa, requesting information on a social benefit application, even applying for divorce, can all be relatively simple processes handled by bots. As long as the legal and administrative steps are clear, the data can lead, via chatbots, to a simple and fast solution without any calling for physical attendance of a civil servant.

These examples are what *Smart and Touchless Government* is all about, using data to deliver faster and cheaper services, and to identify and anticipate needs in a way that makes life better for citizens - at key life events, but also for timely actions against pandemics. Even in law, we see bots replacing lawyers and AI composing legal verdicts. What is essential is data connecting data, intelligence from (transparent and verifiable) algorithms, and the elimination of the need for physical interactions between people.

The real innovation and transformation happens when 'moving online' means that data is connected to other data in a smart way.



# The black swan

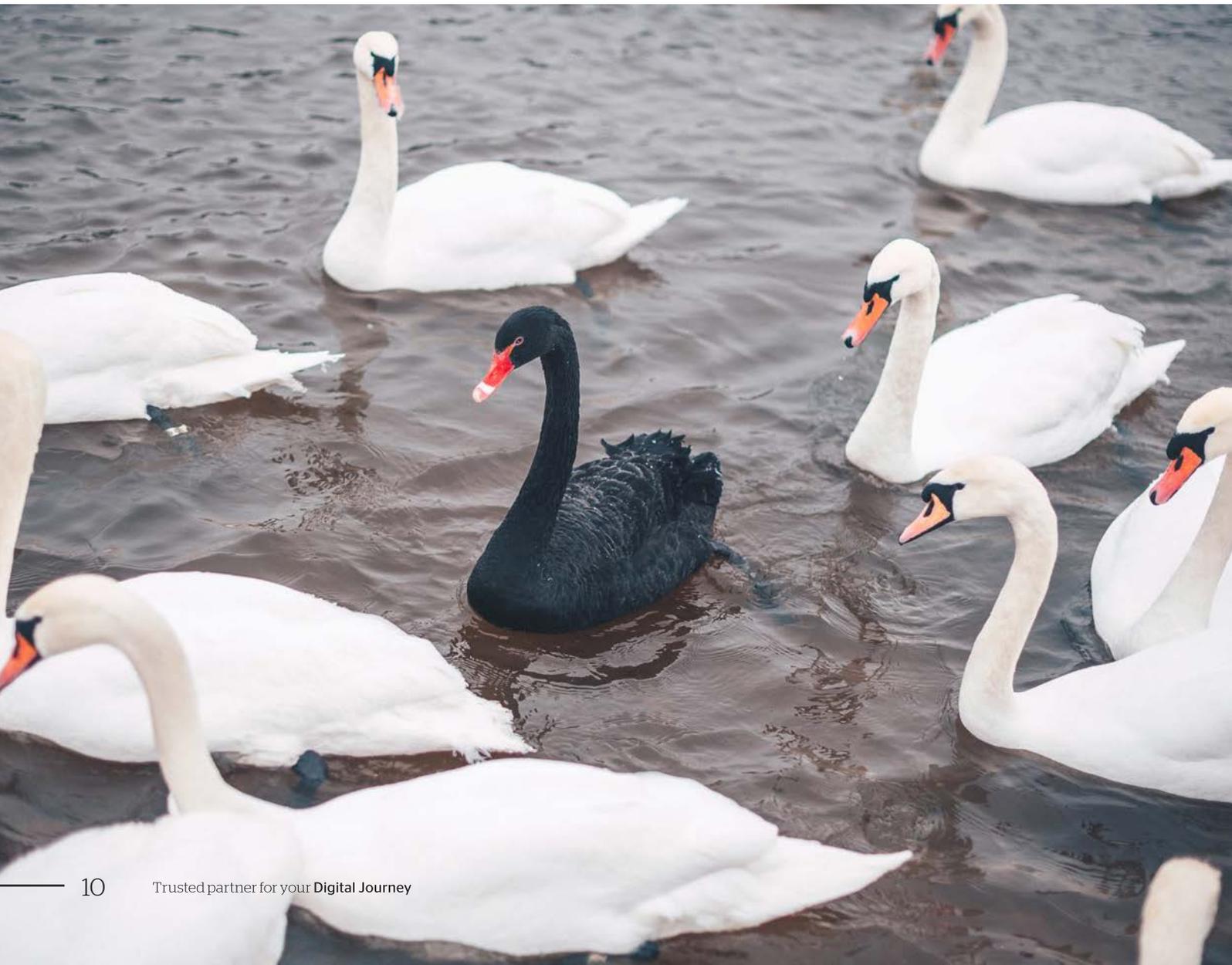
Of course, radical transformation does not happen overnight; yet let's have another look at the pace and scale of change that happened in 2020. Many people shifted from five days working in the office to every day working at home. As recovery from the pandemic unfolds, many might recalibrate to, say, two or three days working from home. This could reflect the new balance that will emerge in the *hybrid society* of tomorrow.

To conclude, let's look at the phenomenon of the *black swan*. People tend to qualify swans as white birds: for a long time, they were presumed to be white only, as no-one had ever seen them in any other color. A 'black swan' was a common term in 16<sup>th</sup> century London to describe the impossible. When Dutch explorer Willem de Vlamingh discovered Australia in 1697, he also discovered black swans and the term metamorphosed to denote that a perceived impossibility might later be proven true (*"The Black Swan"* by Nassim N. Taleb, 2017).

Governments and public bodies have often viewed IT as a well-controlled stack of hardware and software homed in their basement, ring-fenced, secured and controlled, often in a costly way, by a large team of civil servants. That is what we still often see in public administrations around the world - what we might call the white swan.

However, with pressure to accelerate and widen digital transformation across the public sector, it no longer makes sense to keep all IT in the old-fashioned way that means it's too inflexible, costly or slow to keep pace. In other words, other options must be explored; following the arrival of FinTech and HealthTech, the black swan of PubTech is on the horizon.

The pandemic has underlined how important it is for the public sector to innovate and lead in the evolution of a balanced, sustainable and *hybrid society*. Governments in the 21<sup>st</sup> century are public bodies with critical national sovereign data that they can orchestrate, secure and use in powerful ways to deliver Smart and Touchless Government that's ready for the challenges and opportunities of the *roaring twenties* decade to come.



# About the author



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Kay advises governments, universities and other public bodies all over the world on their digital strategy and transformation. He is a digital visionary, responsible for developing new themes and strategies in the public space. Having worked with public service leaders in Europe, Australia, the US, the Middle East and Asia, Kay advises his clients on their digital agenda and emerging trends and technologies, and benchmarks best practice between countries as they emerge from covid-19 into a new normal in which digital enablers must play a key role. With his extensive international network across the various continents on the globe, Kay has knowledge and stories to share about how governments and other leading public institutions have navigated their journey to becoming e-states. He advises on setting the national sovereign digital agenda, digital transformation in public sector, platform adoption, hybrid cloud orchestration, security, scalability, resilience, data protection and data sovereignty. Kay's career includes 15 years in senior management positions within the Government of the Kingdom of the Netherlands. He joined Atos in 2007 as Executive Account Director for Government & (Higher) Education in the Netherlands. Kay has a Masters degree in International Law (LLM) and a BA in Cultural Anthropology & Non-Western Sociology from the University of Leiden.

# About Atos

Atos is a global leader in digital transformation with 110,000 employees and annual revenue of € 12 billion. European number one in cybersecurity, cloud and high performance computing, the group provides tailored end-to-end solutions for all industries in 73 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos operates under the brands Atos and AtosSyntel. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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