

Respondent

< 33 Anonymous >

59:46
Time to complete

1. Country name *

Singapore

Contact information

2. Your name *

Chan Cheow Hoe

3. Title *

Government Chief Digital Technology Officer

4. Organization *

Smart Nation and Digital Government Office

5. Email *

Chan_cheow_hoe@tech.gov.sg

6. Please select whichever applies *

- I am authorized and fully knowledgeable to respond to this questionnaire.
- A group of government agencies responded to the questionnaire collectively.
- I am authorized but I did not have the full information to respond to this questionnaire
- I mostly provided my own opinion/assessment rather than official information.
- Other

A. Institutional / Organizational Framework

7. What is the official e-government portal at the national level? If more than one exists, please list all. *

Note: E-government and digital government are used interchangeably in this Questionnaire.

www.gov.sg www.smartnation.gov.sg www.tech.gov.sg www.life.gov.sg

8. Please provide link(s) for portal(s) providing following services/features:

- E-services or similar *

www.life.gov.sg

9. Please provide link(s) for portal(s) providing following services/features:

- E-participation or similar *

www.reach.gov.sg

10. Please provide link(s) for portal(s) providing following services/features:
- Open government data

www.data.gov.sg , www.singstat.gov.sg , www.datamall.lta.gov.sg

11. Please provide link(s) for portal(s) providing following services/features:
- Public procurement

www.gebiz.gov.sg, www.mof.gov.sg/policies/government-procurement, www.vendors.gov.sg

12. Please provide link(s) for portal(s) providing following services/features:
- Others (if any)

www.developer.gov.sg (a portal to provide information on Government developed products, policies and communities), www.gobusiness.gov.sg

13. Please provide name and link of the government agency/department/ministry at the national level in charge of e-government. If more than one exists, please list all. *

Government Technology Agency of Singapore / www.tech.gov.sg Smart Nation and Digital Government Office / www.smartnation.gov.sg

14. Does your country have a Chief Information Officer (CIO) or equivalent to manage its national e-government strategies/programmes? *

Yes

No

Contact information of national Chief Information Officer (CIO) or equivalent

15. Name *

Chan Cheow Hoe

16. Title *

Government Chief Digital Technology Officer

17. Organization *

Smart Nation and Digital Government Office

18. Email *

Chan_Cheow_Hoe@tech.gov.sg

Multiple and/or networked CIOs or equivalent across Government Ministries

19. Are there multiple and/or networked CIOs or equivalent positions across Government agencies/departments/ministries? *

Yes

No

20. Please provide link and detail on above, including coordination/integration between national and sub-national levels on e-government development.

The Government Technology Agency (GovTech)'s mandate is to develop technology for the Government and works closely with the Smart Nation and Digital Government Office (SNDGO) which leads policy and governance matters. Both agencies form the Smart Nation and Digital Government Group (SNDGG) which reports directly to the Prime Minister's Office (PMO) through an inter-ministerial committee chaired by the Deputy Prime Minister Teo Chee Hean together with four other ministers. Singapore has approximately 100 government agencies at the national level. There are no sub-national level agencies. IT functions for 60% of government agencies is run by the Government Technology Agency through seconded staff. CIOs from all agencies report to the Government Chief Digital Technology Officer (GCDTO). To ensure coordination:

- (National level) Digital Government Blueprint: This is Singapore's national digital government plan from 2018 and builds on foundations laid by previous e-Government masterplans. It explains how we will strengthen integration between policy, operations and technology to support the Government's mission to better serve stakeholders. This blueprint is improved upon iteratively as technology evolves and needs change. Two years after its launch, the blueprint was updated in Dec 2020 as the Government introduced new policies and initiatives in response to COVID-19's impact and to signal the future direction and the steps that agencies need to undertake to progress towards digital organisations. The blueprint can be found at <https://www.tech.gov.sg/digital-government-blueprint/>
- (National level) Platform approach through Strategic National Projects : To enable efficiency and cost savings, SNDGG identifies possible areas which require whole of government coordination. These projects of national importance across WOG are approved by Cabinet and thereafter identified as Strategic National Projects (SNPs). SNPs enables GovTech to encourage adoption across agencies to reap its benefits. Singapore has 8 SNPs including the National Digital Identity, Smart Nation and Sensor Platform etc. More information on the SNPs can be found in the link below. <https://www.smartnation.gov.sg/what-is-smart-nation/initiatives/Strategic-National-Projects>
- (Agency level) Coordinated Digitalisation efforts through Ministry Family Digitalisation Plans (MFDP) : To drive digitalisation at the agencies, we identify representatives – Chief Digital Strategy Officers (CDSOs) at the Under-Secretary level. CDSOs plan and submit their digitalisation plans for the upcoming 2-3 years. Centrally SNDGG reviews the plans and identifies common projects to reduce duplication and achieve higher efficiency across Government. These projects are coordinated and supported centrally through meetings, resources and capability building efforts. CDSOs are paired with Chief Information Officers (CIOs) who support them from a technical perspective.
- (Agency level) Meeting : bi-monthly to update and seek feedback from CIOs for Whole of Government (WOG) efforts and policies

Sectoral agencies/departments/ministries

Please provide names and URLs of the government agencies/departments/ministries at the national level in charge of the following

21. Planning/development *

1. Ministry of National Development / <https://www.mnd.gov.sg/> 2. Building and Construction Authority / <https://www1.bca.gov.sg/> 3. Council for Estate Agencies / <https://www.cea.gov.sg/> 4. Housing Development Board / <https://www.hdb.gov.sg/cs/infoweb/homepage> 5. National Parks Board / <https://www.nparks.gov.sg/> 6. Urban Redevelopment Authority / <https://www.ura.gov.sg/Corporate> 7. Municipal Services Office / <https://www.mnd.gov.sg/mso> 8. Centre for Liveable Cities <https://www.clc.gov.sg/> 9. Board of Architects / <https://www.boa.gov.sg/> 10. Professional Engineers Board / <https://www.peb.gov.sg/> 11. Strata Titles Board / <https://www.stratatb.gov.sg/>

22. Education *

1. Ministry of Education / <https://www.moe.gov.sg/> 2. SkillsFuture / <https://www.skillsfuture.gov.sg/>

23. Health *

1. Ministry of Health / <https://www.moh.gov.sg/> 2. Health Promotion Board / <https://www.hpb.gov.sg/>

24. Social Welfare (social inclusion, social protection, etc.) *

1. Ministry of Social and Family Development / <https://www.msf.gov.sg/Pages/default.aspx> 2. Early Childhood Development Agency / <https://www.msf.gov.sg/about-MSF/our-organisation/Statutory-Boards-and-Councils/Agencies-under-MSF/Pages/Early-Childhood-and-Development-Agency.aspx> National Council on Problem Gambling / <https://www.msf.gov.sg/about-MSF/our-organisation/Statutory-Boards-and-Councils/Councils-under-MSF/Pages/National-Council-on-Problem-Gambling.aspx> 3. Families for Life / <https://familiesforlife.sg/Pages/default.aspx> 4. National Council of Social Services / <https://www.ncss.gov.sg/>

25. Employment and Labour *

1. Ministry of Manpower / <https://www.mom.gov.sg/> Central Provident Fund Board / <https://www.cpf.gov.sg/Members/> 2. Singapore Labour Foundation 3. Workforce Singapore / <https://www.ssg-wsg.gov.sg/>

26. Environment *

1. Ministry of Sustainability and the Environment / <https://www.mse.gov.sg/> 2. Public Utilities Board / <https://www.pub.gov.sg/> 3. National Environment Agency / <https://www.nea.gov.sg/> 4. Singapore Food Agency / <https://www.sfa.gov.sg/>

27. Justice *

1. Ministry of Law / <https://www.mlaw.gov.sg/> 2. State Courts / <https://www.statecourts.gov.sg/cws/Pages/default.aspx> 3. Attorney-General's Chamber / <https://www.agc.gov.sg/>

28. Economy/finance *

1. Ministry of Finance / <https://www.mof.gov.sg/> 2. Accounting and Corporate Regulatory Authority / <https://www.acra.gov.sg/> 3. Inland Revenue Authority of Singapore / <https://www.iras.gov.sg/irashome/default.aspx> 4. Tote Board / <https://www.toteboard.gov.sg/> 5. Singapore Accountancy Commission / <http://www.sac.gov.sg/>

29. Industry/trade *

1. Ministry of Trade and Industry / <https://www.mti.gov.sg/> 2. Agency for Science, Technology and Research / <https://www.a-star.edu.sg/> 3. Economic Development Board / <https://www.edb.gov.sg/> 4. Enterprise Singapore / <https://www.enterprisesg.gov.sg/> 5. Jurong Town Corporation / <https://www.jtc.gov.sg/> 6. Singapore Tourism Board / <https://www.stb.gov.sg/content/stb/en.html> 7. Competition and Consumer Commission of Singapore <https://www.cccs.gov.sg/> 8. Energy Market Authority / <https://www.ema.gov.sg/index.aspx> 9. Hotels Licensing Board / <https://www.hlb.gov.sg/> 10. Sentosa Development Corporation <https://isomer-sentosa-staging.netlify.app/>

B. COVID-19 Response and Recovery

30. Is there a specific national portal or a dedicated section addressing the COVID-19 pandemic? *

Yes

No

Other

COVID-19 response

31. Please provide link(s) and more information about the specific national portal or dedicated section addressing the COVID-19 pandemic? *

National Portal www.gov.sg/covid-19 The www.gov.sg portal is the official online communication platform and repository of the Singapore Government, providing Singaporeans with the latest policy announcements and news in Singapore. This includes updates on the spread of COVID-19 in Singapore and the measures the Singapore government has taken to curb the spread including border restrictions, crowd management measures and vaccination efforts. Members of the public can access the Gov.sg COVID-19 website for articles, videos and resources on how they can protect themselves from the virus. Daily updates about the latest cases and clarifications of misinformation through Factually, are also available. As of May 2021, there are close to 2 million subscribers to the gov.sg notification service. Ministry of Health <https://www.moh.gov.sg/covid-19> The above link summarises the COVID-19 situation in Singapore. It provides information on; - Total number of active and discharged COVID-19 cases in Singapore - Daily number of cases in Singapore (Locally transmitted and imported) - Vaccination (Total number of vaccines administered and vaccination centres) - Total number of test swabs for COVID-19 - Symptoms of COVID-19 - Contact tracing applications for COVID-19 Singapore Government Developer Portal - Digital Solutions <https://www.developer.tech.gov.sg/technologies/digital-solutions-to-address-covid-19/overview.html> EU The above link provides information on the technology behind the creation of digital solutions Singapore has employed during the pandemic. These include digital solution to prevent the spread of COVID-19 (HealthCerts, SafeEntry, TraceTogether), crowd management and distribution (COVID-19 ChatBots, GoWhere Suite, Space Out, SPOT, SPOTON, SupplyAlly, Vigilant Gantry) and support the community (GoBusiness COVID Portal). It also highlights how we have leveraged on existing capabilities, platforms and policies to develop a suite of digital solutions to tackle the pandemic. <https://www.developer.tech.gov.sg/technologies/digital-solutions-to-address-covid-19/gowhere-suite> Gowhere suite provides citizens with helpful information and resources regarding the pandemic. Some of the services under Gowhere (<https://www.gowhere.gov.sg>) include • Token Go Where (<https://www.token.gowhere.gov.sg>) and Maskgowhere (<https://www.tech.gov.sg/media/technes/maskgowhere>) which directs citizens to the

locations for collection of their TraceTogether token and government issued masks; • Supportgowhere (<https://supportgowhere.life.gov.sg/>) which compiles all government support schemes into a single site; • Flugowhere (<https://flu.gowhere.gov.sg/>) which provides information on clinic opening hours and swab testing; and • Postergowhere (<https://poster.gowhere.gov.sg>) which is a poster generator tool that creates standardized multilingual posters on the mask distribution exercise. • Additionally, VoteQgowhere was also a service launched during the General Elections held in July 2020. It provided voters with information on the number of people currently queuing to vote. <https://www.smartnation.gov.sg/whats-new/combating-covid-19-with-technology> The Smart Nation website collates Singapore's technology driven response to the pandemic which covers contact tracing, informational websites, public health solutions and social and economic support.

32. Is there any specific budget allocated for new initiative/measure(s) of e-government in response to the COVID-19 pandemic and/or in supporting recovery? *

Yes

No

33. Please provide link and detail.

Information on Budget: <https://www.gov.sg/features/budget2020> The government had released 3 support packages/budgets in 2020 worth \$188 Billion (40% of GDP) in response to the pandemic and in supporting recovery. Key areas of the budgets are highlighted below:

1. Unity Budget 2020: The government allocated SGD\$8.3 billion (US\$6.26 billion) to transform and grow businesses including providing grants to encourage innovation and retraining as well as funds for start-ups. Find out more at https://www.mof.gov.sg/docs/librariesprovider3/budget2020/statements/fy2020_budget_statement.pdf
2. Resilience & Solidarity Budget 2020: The government allocated \$48 billion to support Singaporeans and businesses to emerge stronger from the pandemic through public health and safe re-opening measures, support for workers and businesses in specific sectors like the aviation sector, transport, arts and sports. Find out more at https://www.mof.gov.sg/docs/librariesprovider3/budget2020/statements/fy2020_supplementary_budget_s
3. Fortitude Budget 2020: The government allocated an additional \$33 billion to re-open the Singapore economy, recover and emerge stronger by creating jobs and building skills for workers, boost transformation for enterprises and strengthen resilience in the community. Find out more at https://www.mof.gov.sg/docs/librariesprovider3/budget2020/statements/fy2020_fortitude_budget_statem

Links to initiatives for segments of population (e.g. workers, seniors, youths, self-employed, businesses) <https://www.wsg.gov.sg/SGUnitedTraineeships-Trainees.html>, <https://www.skillsfuture.gov.sg/midcareerpathways> <https://www.skillsfuture.gov.sg/sgunitedskills> <https://www.mom.gov.sg/newsroom/press-releases/2020/0526-sgunited-jobs-and-skills-package>

<https://www.straitstimes.com/singapore/budget-2021-target-to-support-hiring-of-200000-locals-this-year-under-sg-united-jobs-and>; <https://www.skillsfuture.gov.sg/credit>, <https://www.mom.gov.sg/-/media/mom/documents/budget2020/factsheet-senior-worker-support-package.pdf?la=en&hash=CD89AED2087E895CB5457202F10F1DEF>, <https://www.straitstimes.com/singapore/singapore-budget-2020-70-per-cent-of-local-students-from-higher-learning-institutions-to>, website <https://www.mof.gov.sg/schemes/businesses>, <https://www.straitstimes.com/politics/covid-19-self-employed-relief-scheme-to-include-those-with-some-employment-income-higher>

Key digital government initiatives to support the Budgets: 1. COVID-19 Support Grant (CSG) and COVID-19 Recovery Grant application portals were launched in May 2020 and January 2021 respectively, allowing members of the public to apply for grants online. More than 98,000 applications have been approved on the CSG portal. ii. SupportGoWhere (<https://www.supportgowhere.life.gov.sg>) is a LifeSG initiative where users only need to answer a simple questionnaire to find out which assistance programmes they are eligible for, including the initiatives announced at Budget 2021. Since April 2020, this portal has seen 2.5 million visits. iii. The GoBusiness Licensing portal (<https://www.licence1.business.gov.sg>) has helped more than 1,700 food services companies apply for business licences in a simpler, cheaper and faster manner. In August 2020, the GoBusiness GovAssist e-Adviser was launched to help businesses navigate the available government assistance schemes. In April 2021, an e-Service navigator will be launched to provide businesses with easy access to over 300 business-related e-services available in Singapore. iv. Additional measures included emergency procurement. Goods and services needed to fight the Covid-19 pandemic can be obtained by government agencies without calling for a tender. An emergency procurement procedure allows them to directly contract with suppliers who have the necessary expertise and resources. (<https://www.straitstimes.com/politics/parliament-government-can-obtain-necessary-goods-and-services-for-fighting-covid-19-without>

34. Is there a specific post-COVID-19 digital strategy for recovery and allocation of public resources (e.g for digital transformation, digital inclusion)? *

Yes

No

35. Please provide link and detail.

3-pronged strategy to grow Singapore's digital economy
<https://www.straitstimes.com/tech/tech-news/3-pronged-strategy-to-grow-digital-economy-for-a-post-pandemic-future-s-iswaran> The government has highlighted a 3-pronged strategy to grow Singapore's digital economy. The strategy includes laying strong foundations for the digital economy by investing in digital infrastructure, developing international governance frameworks for looser flows of information and protecting against the opening of a digital divide by strengthening the digital capabilities of our businesses and citizens. We are emphasising on the use of cloud across the public sector while properly considering security considerations. Migration to cloud has allowed us to rapidly launch and expand government services, including the support of COVID-19 response, and boost our

adaptability to the growing needs of citizens during the pandemic. It also aligns with the GreenGov.SG initiative and decreases the carbon footprint of Government's ICT infrastructure. At this point, 37% of suitable public service systems have been migrated to the cloud and we aim to migrate 70% of all public service systems to cloud by 2023. Factsheet here. In May 2021, The Digital Academy was launched. The Digital Academy allows public officers to sharpen or gain new skills, and further enhance their digital skills, by providing courses in multiple formats. It presents modules that are specifically aligned with the Government's systems and operating environment. The Digital Academy aims to craft 95 training programs and train more than 60,000 public officers by the end of March 2022. In the third quarter of 2021, a new citizen panel will be established. The panel will formalise the process of gathering feedback from citizens who face challenges in navigating digital services, such as the elderly and disabled. The panel will comprise of representatives from the community, such as those from social service agencies, and will aim to better involve Singaporeans in nation building efforts. Feedback on the use of ICT in Singapore will be gathered from the participants, to ensure that they are inclusive and satisfactory for all citizens. We will forge stronger partnerships with the private sector to facilitate the codevelopment of Smart Nation products. SGFinDex was developed by SNDGG and the Monetary Authority of Singapore (MAS) in collaboration with the Association of Banks in Singapore (ABS) and seven participating banks. It is the world's first digital infrastructure that uses a national digital identity and centrally managed consent system to enable individuals to access their financial information held across different government agencies and financial institutions. Users can access this information through the MyMoneySense portal or through the banks' mobile apps. To date, SGFinDex has enabled more than 120,000 users to access their financial information held across different government agencies and participating banks seamlessly and securely, with over 160,000 linked bank accounts and 360,000 data retrievals. We plan to set up similar data sharing initiatives in other sectors, to enable both the Government and businesses to develop better services and make Singapore more competitive and innovative.

C. Legal Framework

36. Is there any legislation, law or regulation on access to information such as Freedom of Information Act? *

Yes

No

37. If yes, please provide link and detail.

38. Is there any legislation, law or regulation on data privacy and/or protection? *

Yes

No

39. If yes, please provide link and detail.

Personal Data Protection Act

<https://sso.agc.gov.sg/Act/PDPA2012><https://sso.agc.gov.sg/Act/PDPA2012> The Personal Data Protection Act is a law that governs the collection, use and disclosure of personal data by all private organisations. The Act has come into full effect on 2nd July 2014 and has been updated recently with new amendments that takes effect on 2 November 2020. The ten obligations that private organisations have to follow are as follows: • Consent Obligation • Purpose Limitation Obligation • Notification Obligation • Access and Correction Obligation • Accuracy Obligation • Protection Obligation • Retention Limitation Obligation • Transfer Limitation Obligation • Data Breach Notification Obligation • Accountability Obligation
Public Sector Governance Act The PDPA does not apply to public sector agencies, which are governed under the Public Sector (Governance) Act ("PSGA") (<https://sso.agc.gov.sg/Act/PSGA2018>) The PSGA promotes a homogenous governance framework across public sector agencies in Singapore and to support a whole of government approach to service delivery in the Singapore public sector. The PSGA sets out the 7 purposes for which public agencies are able to share identifiable personal data with each other; it does not overcome confidentiality obligations set out in written law or contracts. The PSGA also includes strict accountability measures – public officers who knowingly or recklessly disclose data without authorisation, or misuses data for a gain or to cause harm, or re-identifies anonymised data without authorisation, may be found guilty of a criminal offence and liable to a fine of up to S\$5,000 or imprisonment up to 2 years.

40. Is there any legislation, law or regulation on cybersecurity or similar? *

Yes

No

41. If yes, please provide link and detail.

Cybersecurity Act <https://www.csa.gov.sg/legislation/cybersecurity-act> The Cybersecurity Act provides a framework to Critical Information Infrastructure (CII) owners on their obligations to proactively protect their data and networks from cyber attacks. The defined CII sectors are energy, water, banking and finance, healthcare, transport (land, maritime, and aviation), info-

communications, media, security and emergency services, and government. Organizations in the CII sectors are required to take the following measures: • Prevent, manage and respond to cyber security threats and incidents; • Protect Critical Information Infrastructures (CII); and • Share CII information with the Cyber Security Agency of Singapore (CSA) in the event of a cyber-attack. Instruction Manual for ICT & Smart Systems (SS) Management (IM8) <https://www.developer.tech.gov.sg/guidelines/standards-and-best-practices/im8> The IM8 seeks to provide guidance to Agencies as they adopt ICT & Smart Systems (ICT&SS) to enable their digital transformation and uplift ICT&SS capabilities across the Government. This includes helping Agencies to better understand the security requirements for ICT&SS, in order to better manage the cybersecurity risk posed to their systems and minimise the Government risk exposure. The IM8 aims to deliver fit-for-purpose, secure, and cost-effective solutions/ services that covers the following: • Governance of ICT & SS through the setting of policy mandates and provision of standards and guidelines to support policy implementation; • Use of technology and best-in-class practices across Government Agencies while ensuring tiered risk mitigation, for the Government to be “digital-to-the-core”; and • Use of data across Government Agencies from the acquisition, fusion, access & distribution, exploitation to protection of data to achieve a Government that is “data-driven to the core”.

42. Is there any legislation, law or regulation on digital identity? *

Yes

No

43. If yes, please provide link and detail.

Electronic Transactions Act <https://www.imda.gov.sg/regulations-and-licensing-listing/electronic-transactions-act-and-regulations> The Electronic Transactions Act (ETA) is a law that addresses issues around e-commerce and info-technology. It provides a legal framework that touches nearly all digital services such as e-commerce, electronic records, electronic contracts, signatures, etc. It does not mandate the use of electronic signatures or transactions, and facilitates their use where parties choose to transact electronically. In March 2021, the ETA was amended to ensure that Singapore’s legal and regulatory infrastructure keeps pace with international trade law and the latest technological developments so that Singapore remains globally competitive.

44. Is there any legislation, law or regulation on digital signature? *

Yes

No

45. If yes, please provide link and detail.

Electronic Transactions Act <https://www.imda.gov.sg/regulations-and-licensing-listing/electronic-transactions-act-and-regulations> The Electronic Transactions Act (ETA) is a law that addresses issues around e-commerce and info-technology. It provides a legal framework that touches nearly all digital services such as e-commerce, electronic records, electronic contracts, signatures, etc. It does not mandate the use of electronic signatures or transactions, and facilitates their use where parties choose to transact electronically. In March 2021, the ETA was amended to ensure that Singapore's legal and regulatory infrastructure keeps pace with international trade law and the latest technological developments so that Singapore remains globally competitive.

46. Is there any legislation, law or regulation on e-procurement? *

Yes

No

47. If yes, please provide link and detail.

Government Procurement Act <https://sso.agc.gov.sg/SL/GPA1997-S269-2014?DocDate=20140404> The Government Procurement Act and its subsidiary legislation namely Government Procurement Regulations 2014, Government Procurement (Application) Order and the Government Procurement (Challenge Proceedings) Regulations govern the Singapore government procurement regime. The Government Electronic Business (GeBIZ) portal is the Government's one-stop e-procurement portal specified in the subsidiary legislation where procurement opportunities can be found and where suppliers can search for Singapore Government procurement opportunities, download tender documents, submit their bids online and receive purchase orders from the Government. In addition, suppliers are required to submit electronic invoices to Singapore Government agencies to bill for goods and services delivered via the Vendors@Gov internet portal/mobile application, or via InvoiceNow which is the nationwide e-invoicing network that Singapore has introduced in 2020 that is based on the Pan-European Public Procurement Online (PEPPOL) standard. Vendors@Gov is a one-stop portal that also allows suppliers to maintain their payment details and monitor e-invoice statuses. More information on the Singapore government's procurement practices can be found here: <https://www.mof.gov.sg/policies/government-procurement> Innovative procurement practices QuickBuy@SGov (formerly "online mail") The Ministry of Finance and GovTech are partnering businesses to co-create a solution which facilitates public officers to make smaller value purchases on commercial digital platforms without having to claim reimbursement, enhancing speed and convenience. We are currently piloting this with Eezee and Shopee, and will be onboarding more e-commerce platforms progressively in the coming months. This solution not only helps us save processing time, it also incentivises vendors to digitalise and bring their businesses online. Today, the public

service spends more than \$60 million annually on small value items such as pantry supplies, stationery and small electrical appliances. A fully automated e-commerce model will lighten the processing workload on our corporate staff. Audit controls will be automated and monitoring done in the background. This will save our public officers more than 100,000 man-days a year, freeing up their time to focus on delivering better services to the public.

48. Is there any legislation, law or regulation on digitally publishing government expenditure? *

Note: This is related to SDG Indicator 16.6.1

Yes

No

49. If yes, please provide link and detail.

Singapore does not have an existing legal framework regarding digitally publishing government expenditure. Nonetheless, information regarding government expenditure are made available electronically via data.gov.sg or www.mof.gov.sg/singaporebudget/revenue-and-expenditure

50. Is there any legislation, law or regulation on data sharing/exchange/interoperability across government agencies? *

Yes

No

51. If yes, please provide link and detail.

Public Sector Governance Act <https://sso.agc.gov.sg/Act/PSGA2018> Where a data sharing direction is given to a Singapore public sector agency — • the Singapore public sector agency and every officer of that agency; and • where the Singapore public sector agency is a public body, the members of the public body, are authorised to share the information under the control of the Singapore public sector agency with another Singapore public sector agency to the extent permitted by the data sharing direction despite any obligation as to confidentiality under the common law. (2) However, subsection (1) does not override any obligation as to confidentiality because of legal privilege or contract. (3) To avoid doubt, this Act is not intended to prevent or discourage the sharing of information by Singapore public

sector agencies as permitted or required by or under any Act or other law (apart from this Act). If — • an individual discloses, or the individual's conduct causes disclosure of, information under the control of a Singapore public sector agency to another person (whether or not a Singapore public sector agency); • the disclosure is not authorised by any data sharing direction given to the Singapore public sector agency; and • the individual is a relevant public official of the Singapore public sector agency at the time of the disclosure, the individual shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000 or to imprisonment for a term not exceeding 2 years or to both.

52. Is there any legislation, law or regulation on open government data? *

Yes

No

53. If yes, please provide link and detail.

The Singapore Government does not have regulations on open government data but regularly releases datasets for public dissemination via data.gov.sg. Data.gov.sg is the Singapore government's one-stop portal for open government data. It was launched in 2011 and includes publicly available data sets from 70 public agencies. The aims of Singapore's open government data platform include the following: 1. Providing a one stop access to the government's publicly available data 2. Communicating government data and analysis through visualisations and articles 3. Creating value by catalysing application development 4. Facilitating analysis and research Singapore's open government data platform is also guided by the following data-sharing principles: 1. Data shall be made easily accessible 2. Data shall be made available for co-creation 3. Data shall be released in a timely manner 4. Data shall be shared in a machine-readable format 5. Data shall be as raw as possible Singapore also has an Open Data License which aims to promote and enable easy reuse of public sector data to create value for the community and businesses. Singapore has signed Digital Economy Agreements with Australia (SADEA) and Chile and New Zealand (DEPA) that refer to our agreements on Open Government Data. In both agreements, Singapore has recognized that facilitating public access to and use of government information may foster economic and social development, competitiveness and innovation. Singapore has also agreed to endeavour to cooperate to identify ways in which it can expand access to and use of open government data to enhance and generate business and research opportunities.

54. Is there any legislation, law or regulation on the use of new/emerging technologies such as artificial intelligence (AI), robotics, blockchains, 5G and Internet of Things (IoT)? *

Yes

No

55. If yes, please provide link(s) and detail(s).

Model AI Governance Framework <https://www.pdpc.gov.sg/Help-and-Resources/2020/01/Model-AI-Governance-Framework> While there is no formal legislation governing the use of AI, Singapore believes that a trusted ecosystem is key – one where organisations can benefit from tech innovations while consumers are confident to adopt and use AI. Singapore believes that its balanced approach towards AI ethics and governance can facilitate innovation, safeguard consumer interests and serve as a common global reference point. The Personal Data Protection Commission released the second edition of the Model Framework on 21 January 2020 after seeking consultations and feedback from the private sector and stakeholders. The Model Framework provides detailed and readily implementable guidance to private sector organisations to address key ethical and governance issues when deploying AI solutions. By explaining how AI systems work, building good data accountability practices, and creating open and transparent communication, the Model Framework aims to promote public understanding and trust in technologies.

D. Strategy and Implementation

56. Is there a national e-government strategy or equivalent? *

Yes

No

Please provide information where relevant:

57. How long is the period/cycle of the national e-government strategy or equivalent? *

Two-year

Three-year

Five-year

Ten-year

Other

58. Is the national e-government strategy guided by or aligned with the national development strategy? *

Yes

No

59. Please provide link and detail.

Digital Government Blueprint <https://www.smartnation.gov.sg/why-Smart-Nation/pillars-of-smart-nation>, <https://www.smartnation.gov.sg/why-Smart-Nation/sndgg> The Digital Government Blueprint builds on the foundations laid by previous e-Government masterplans. It is a statement of the Government's intent and ambition to better leverage data and harness new technologies, and to drive broader efforts to build a digital economy and digital society, in support of Smart Nation. The vision is to create a Government that is "Digital to the Core, and Serves with Heart". Harnessing digital technology will allow the Government to build stakeholder-centric services - better designed policies, services and infrastructure - that cater to the needs of people and businesses. For the public service, this means becoming a digitally-confident workforce which is supported by a digitally-enabled workplace and digital tools. Driving Singapore's Smart Nation efforts is the Smart Nation and Digital Government Group (SNDGG), under the Prime Minister's Office, was formed in 2017 and comprise of the Smart Nation and Digital Government Office (SNDGO) and GovTech The purpose of the SNDGG is to drive digital transformation for the public service, to strengthen Government ICT infrastructure and improve public service delivery by building up digital capabilities within Government, including in areas such as data science and IoT, to continue to deliver excellent public service to the citizens. For greater coherence across the Government, SNDGG prioritizes and brings together engineering resources across Government to work on large, complex but high-impact digital technology projects. Two years after the launch of the Digital Government Blueprint in 2018, the Government has introduced new policies and initiatives. COVID-19 has also reaffirmed our emphasis on capability building, and compelled different parts of the Government to accelerate the use of data and of technology to offer digital services that minimise physical contact, and to use technology and digital tools to keep us safe. The DGB has been updated to accurately reflect the current plans and to push for more ambitious goals to pursue deeper and more extensive digitalisation within the Government. New examples are included to better explain the latest efforts and benefits of Digital Government. The refresh is in line with the approach to improve the blueprint iteratively. The key changes made to the DGB include: 1. Elaboration on the DGB vision of "Digital to the core" and "Serves with heart". A "digital to the core" framework has been developed to describe how the Government is developing and measuring itself towards this vision. There is a greater emphasis on "Serves with heart" to explain how the use of digital technologies is to help the Government achieve its main

purpose of serving citizens better and building trust. 2. Updated DGB strategies that stresses greater importance on user centricity and co-creation, improving how we work as digital organisations and harnessing new technology including Artificial Intelligence. 3. New and updated KPIs. • New KPI: at least 70% of eligible Government systems to be on commercial cloud by 2023 • Update existing KPI: Time required to fuse and share core data for cross-agency projects to be no more than 7 working days

1. The future direction for Digital Government, as at 2020 and in light of COVID-19. A new section has been added to signal the future direction and the steps that agencies need to undertake to progress towards being digital organisations, which requires deeper changes in organisational policy, structure, and culture. Key Highlights of the Progress of DGB KPIs as for 2020 85% of citizens and 76% of businesses reported that they are "very" or "extremely" satisfied (at least 5 on a 6-point scale) with Government digital services, against the DGB target of 75%-80%. • To date, 94% of transactions (by volume) are completed digitally from end-to-end

60. Is the national e-government strategy guided by or aligned with the Sustainable Development Goals (SDGs)? *

Yes

No

61. Please provide link and detail.

<https://sustainabledevelopment.un.org/memberstates/singapore> Singapore supports the 2030 Agenda for Sustainable Development (2030 Agenda). As a small country with limited land and no natural resources, we understand well the challenges of sustainable development. Our policies have always been designed with long-term sustainability in mind, and are broadly in-line with the SDGs. An Inter-Ministry Committee on the Sustainable Development Goals (IMC-SDGs) was established in 2013 to monitor progress on SDG implementation and facilitate Whole-of-Government coordination on Singapore's sustainable development efforts. The IMC-SDGs ensures a coherent Whole-of-Nation, bottom-up approach to develop creative, sustainable solutions. Through consultation and collaboration with multiple stakeholders, including the private sector and civil society, we are able to secure greater buy-in and commitment to action by all segments of society, and make progress on the SDGs. To review our progress and show our commitment to the 2030 Agenda, Singapore undertook our first Voluntary National Review (VNR) of the SDGs at the 2018 High-Level Political Forum (HLPF) in New York in July 2018. Our VNR was an opportunity to take stock of Singapore's progress on sustainable development, to learn from other countries' experiences, and to explore cooperation with other countries, international organisations and key stakeholders. We are currently considering a suitable date for our next VNR, and in the meantime, are building on the outcomes of our first VNR including through following up on the feedback received from our 2018 VNR and enhancing our stakeholder engagement strategy with key constituencies such as civil society, the private sector, and academia. We also continue to participate actively in regional and international efforts on the SDGs, including by sharing our sustainable development experiences with fellow developing countries under the Singapore Cooperation Programme,

our flagship technical assistance programme. In February 2020, we launched the Singapore Green Plan 2030 (<https://www.greenplan.gov.sg>), a Whole-of-Nation, cross-sectoral roadmap charting our efforts to achieve the 2030 Agenda and our net zero emissions aspiration, so as to embark on a green and inclusive recovery post-COVID-19. To facilitate the reporting and monitoring of the progress in our sustainable development, the SingStat Website page on SDGs published by the Singapore Department of Statistics (DOS) provides access to Singapore statistics on SDG targets and indicators under the UN Global Indicator Framework on SDGs. Indicators identified by the ASEAN Statistics Division (ASEANstats) are flagged by the ASEAN logo. More statistics will be added progressively when available at <https://www.singstat.gov.sg/find-data/sdg>.

62. Does the national e-government strategy make specific reference to or is aligned with sub-national/local e-government development strategy? *

Yes

No

63. Please provide link and detail.

This is not applicable to Singapore as we are an island state and we do not have a sub-national/local e-government development strategy.

64. Does the national e-government strategy make specific reference to e-participation, engagement and/or digital inclusion? *

Yes

No

65. Please provide link and detail.

Digital Government Blueprint (updated Dec 2020)
https://www.tech.gov.sg/files/media/corporate-publications/dgb-public-document_30dec20.pdf As part of the Singapore Together movement, the Government will step up engagement efforts to explain digital policies, work together with citizens and businesses to gather feedback, seek new ideas on how we can serve them better, and co-create the solutions and services with them. Facilitating meaningful engagements upstream will help us develop services that are well adopted and trusted by the public. The Smart

Nation Co-creating with Our People Everywhere (SCOPE) has been launched to engage the public during early stages of product development while Tech Kaki focuses on engagement sessions to deep dive into specific products. Citizens are involved in the design of products that will be used by them, with product improvements and redesigns done iteratively to address user feedback and problems identified. To encourage co-creation with the community, the Government has launched the Singapore Government Developer Portal (www.developer.gov.sg), a centralised portal for public sector and industry developers to discover and co-develop using products developed by the Singapore Government. In addition to STACK-X meetups, we conducted the STACK2020 Developer Conference to engage the larger developer community in Singapore. Going forward, we will take greater steps to work more closely with industry and businesses to solve public sector challenges. We believe that as we push ahead, no one should be left behind, in line with the Digital Readiness Blueprint. Services should be user-friendly, accessible and beneficial to different population segments. We will provide extra help to those who need it to adopt our services. To achieve greater digital inclusion, we will pilot select digital services in vernacular languages and see how we could deploy assistive technology in a bigger way. Our pool of Smart Nation Ambassadors (SNAs) increased from 1,600 to 2,750 in 2020. More than 420 SNAs were involved in SNDGO's Emerging Stronger Conversations held as part of the Singapore Together movement. Our SNAs also played an active role in improving digital inclusion, helping to engage more than 80,000 people to educate and help the public with using the TraceTogether digital tools. 2,000 Migrant Worker Digital Ambassadors were trained to teach other migrant workers to use various mobile apps needed for them to resume work safely. • A new citizen panel will be formed, in the third quarter of 2021, to formalise the process of feedback-gathering from those who may have difficulties accessing government digital services, such as the disabled and seniors. The panel is part of the efforts to involve Singaporeans to build a better Singapore together and will include representatives from the community, such as those from social service agencies. Feedback will be gathered from participants on the use of technology and the way our digital services are designed, to ensure that they are inclusive, and that they benefit everyone.

66. Does the national e-government strategy make specific reference to a national data governance framework or similar? *

Yes

No

67. Please provide link and detail.

Singapore's Digital Government Blueprint: <https://www.tech.gov.sg/digital-government-blueprint/> The Singapore government's digital blueprint makes specific references to the Public Sector Governance Act (PSGA) as well as the government's personal data protection laws and policies. The 2018 Digital Government Blueprint states that to support greater data-driven policy making and service delivery, the Singapore government will step up data sharing between agencies. This involves tackling legislative, policy, capability, and technical challenges simultaneously. In 2018, the Singapore government formalised data sharing and

safeguards in the public sector through the Public Sector Governance Act, which provides the legal means in which data can be shared in a safe, responsible and appropriate manner. Agencies will be able to use Government verified data to provide services to citizens without requesting for additional documents and sensitive information online. At the same time, personal data will be protected through a robust set of safeguards, including access control, and will be de-identified when used for analysis and policy design. The updated digital blueprint of 2020 included further references to data protection safeguards after the government conducted a comprehensive review of data security practices across the public sector in 2019. The Public Sector Data Security Review Committee made recommendations across five areas: 1. Enhance technology and processes to effectively protect data against security threats and prevent data compromises 2. Strengthen processes to detect and respond to data incidents swiftly and effectively 3. Improve culture of excellence around sharing and using data securely, and raise public officers' competencies in safeguarding data 4. Enhance frameworks and processes to improve accountability and transparency of the public sector data security regime 5. Introduce and strengthen organisational and governance structures to drive a resilient public sector data security regime that can meet future needs The government's personal data protection policies for the public sector: <https://www.smartnation.gov.sg/why-Smart-Nation/secure-smart-nation/personal-data-protection>

68. Does the national e-government strategy make specific reference to national digital identity? *

Yes

No

69. Please provide link and detail.

National Digital Identity <https://www.smartnation.gov.sg/what-is-smart-nation/initiatives/Strategic-National-Projects/national-digital-identity-ndi> The national e-government strategy makes references to Singapore's National Digital Identity (NDI). As a Smart Nation strategic national project, NDI serves as a digital infrastructure and trust platform that enables Singapore residents and businesses to transact digitally with the Government and private sector in a convenient and secure manner. For Singapore residents, Singpass is one of the products that seeks to value-add and bring convenience to the everyday lives of citizens. The Singpass app serves as a secure digital identity, thereby allowing easy access to government services and private platforms. This includes sharing personal particulars upon consent, identity proofing with a Digital identity card, or creating a bank account. For the private sector, Corppass functions as the business equivalent to Singpass, enabling seamless data flows and interoperability between Government and private sector services. The NDI system, encompassing more than just products for citizens and businesses, offers several APIs (Application Programming Interfaces) for partners and developers to come on board, by integrating NDI digital services and applications such as Myinfo, Verify, Login, etc. In this way, entities can leverage upon these services to catalyse the industry and increase opportunities for government-citizen co-creation.

70. Does the national e-government strategy make specific reference to digital-by-default/digital-by-design/digital-first principle or similar? *

Yes

No

71. Please provide link and detail.

Digital to the Core <https://www.tech.gov.sg/digital-government-blueprint/> The Government Digital Blueprint has a "Digital to the Core" principle. This refers to using data, connectivity and computing decisively to re-engineer business processes, re-architect technology infrastructure and transform services for citizens, businesses and public officers.

72. Does the national e-government strategy make specific reference to data-once-only principle or similar? *

Yes

No

73. Please provide link and detail.

"Tell Us Once" <https://www.tech.gov.sg/media/media-releases/no-more-repetitive-form-filling-after-you-tell-us-once-for-government-services> Once-only principle – Our "Tell Us Once" policy is intended to improve public service delivery and productivity by furnishing Government-verified data of individuals to pre-fill Digital Service forms in online transactions with the Government (which meets the KPI that 100% of digital services will be pre-filled with Government-verified data by 2023). The national e-government strategy makes reference to Myinfo. Authenticated through singpass, Myinfo is a government-developed digital personal data platform, which helps citizens fill in digital forms automatically instead of doing so repeatedly for every transaction. Myinfo beta was launched in January 2016 and has been available to the public since May 2016. <https://www.singpass.gov.sg/myinfobusiness> Online transactions for businesses are given a boost through Myinfo business, which is a service that enables businesses to manage the use of its corporate and applicant's personal data for simpler online transactions. Business users leveraging on Singapore's national digital identity (singpass) can control and consent to share their data securely with

participating businesses for more seamless digital transactions. They can enjoy less form-filling and a reduced need for providing supporting documentation for verifications. Myinfo enables locally registered businesses to digitalise their business operations by requesting for citizens' personal data via secure APIs. With the business owner's consent, Myinfo business supports the retrieval of the following data sets: 1. Entity: entity profile, entity address, previous UENs & Names, appointments, shareholders, capital, financial highlights, grants, licenses, builders & contractors, government contracts 2. Person (retrieved from Myinfo): Personal, contact, income & CPF, education & employment, family, vehicle, property.

74. Does the national e-government strategy make specific reference to the use of new/emerging technologies such as artificial Intelligence (AI), robotics, blockchains, 5G and Internet of Things (IoT)? *

Yes

No

75. Artificial intelligence (AI) - please provide link and detail:

Reference to National AI Strategy launched in November 2019. The government aims to harness AI in supporting the work of the government, including using AI to improve policy analysis and formulation, automating processes to overcome manpower constraints, and providing personalised and anticipatory services. <https://www.tech.gov.sg/digital-government-blueprint/>

76. Robotics - please provide link and detail:

Reference to using robotics for COVID-19 ground operations. Government Technology Agency of Singapore added capabilities to SPOT, a four-legged robot developed by US company, Boston Dynamics, to support ground operations for COVID-19. The robot was enhanced with various functionalities such as remote control, 3D mapping, and people-counting video analytics to help with safe distancing and delivery operations.

77. Blockchains - please provide link and detail:

OpenCerts is a blockchain-based platform that offers an easy and reliable way to issue and validate academic certificates that are tamper-resistant. The platform is built on open source and standards. Educational institutions use OpenCerts to create digital versions of academic

certificates that are issued. <https://www.opencerts.io/> <https://www.tech.gov.sg/digital-government-blueprint/>

78. 5G - please provide link and detail:

79. Internet of Things (IoT) - please provide link and detail:

Reference to developing the SmartNation Sensor Platform to support the deployment of IoT and Smart Systems, and use sensor data for sensemaking, automation and actuation to improve efficiency and introduce intelligence in city operations
<https://www.tech.gov.sg/digital-government-blueprint/>

80. Others - please provide link and detail:

81. Is the national e-government strategy aligned to any regional or global guidelines, recommendations, goals (e.g. United Nations, African Union, European Union, OECD)? *

Yes

No

82. Please provide link and detail.

83. Does the Government use any foresight tools, such as scenario planning, in visioning the future of digital government? *

Yes No

84. Please provide link and detail.

Centre for Strategic Futures <https://www.csf.gov.sg/> On 1 July 2015, Centre for Strategic Futures (CSF) came under the new Strategy Group in the Prime Minister's Office. It was created to focus on whole-of-government strategic planning, coordination and development and to kickstart new capabilities in the Public Service. CSF develops its own suite of foresight tools that go beyond scenario planning called Scenario Planning + (SP+). SP+ focuses on leveraging on a wider range of tools that are more fitting for analysis. SP+ serves six key aims; 1. Defining Focus: We utilise Dave Snowden's Cynefin Framework Problem Definition to categorise problems and find suitable solutions based on the domain they belong to. 2. Environmental Scanning: We utilise tools such as Emerging Issues Analysis. The Emerging Issues Analysis consists of involving leaders from various sectors to identify vital emerging issues in our environment, the potential challenges and opportunities brought by the environment and its nature and pace of change. 3. Sense Making: We utilise the Strengths / Weaknesses / Opportunities / Threats (SWOT) framework to consider issues from four key angles and identify issues that require more attention. We utilise Driving Forces Analysis and Prioritisation to evaluate how prospective trigger events will affect current trends and prioritise them based on their possible impact on stakeholders. For more information on this tool, visit the link below. <https://www.csf.gov.sg/files/media-centre/publications/csf-df-cards.pdf> 4. Developing Possible Futures: We utilise Scenario Planning where possible future scenarios are used to challenge assumptions and trigger thinking about long-term solutions. We also utilise Backcasting which involves defining a desired or feared future and working backwards to create policies or programs that connect our current situation to the future. 5. Designing Strategies: Tools such as War-Gaming, where solutions and possible conflicts are explored in a fictitious game, are utilised to create solutions that take future problems into account. 6. Monitoring: We utilise Early Warning Systems to analyse risks, monitor and warn of potential threats and build a response capable to these threats.

85. Does the Government have any measure in policy experimentation and/or regulatory sandboxes in using digital technologies? *

 Yes No

86. Please provide link and detail.

Key KPIs in Digital Government Blueprint <https://www.tech.gov.sg/digital-government-blueprint/> The Government holds itself to a set of KPIs for Digital Government. The set includes;

- 75% - 80% stakeholder satisfaction by 2023
- 100% End-to-End Digital Options by 2023
- 90% - 100% End-to-End Digital Transactions by 2023
- Digital Capabilities: 20,000 public officers trained in data analytics and data science by 2023
- 30-50 transformative Digital Projects by 2023
- Every Ministry to have at least one AI project for service delivery or policy making by 2023
- 70% of government systems on Commercial Cloud Migration by 2023

Technology Masterplanning The Singapore government has been deepening its technical capabilities through Centre of Excellence (CentEx) for ICT and Smart Systems, where specialist engineering expertise will be grown to support the whole of government. The CentEx will house capability centres such as Data Science and AI, ICT Infrastructure, Application Development, Sensors and IoT, Cybersecurity and Geospatial. The CentEx may expand into new technology capability areas as the need arises, for example, in robotics, VR/AR, digital twins or blockchain. Technology Masterplanning will involve the scanning for, experimenting with, and developing plans to scale up emerging technologies with potentially useful near-term applications for the public sector. Through this, the Centres of Excellence will perform a "tech-push" role, and help the public sector keep abreast of technology developments as well as new and potentially disruptive technologies. Open Government Products (OGP) <https://www.open.gov.sg> OGP is an experimental unit within GovTech. The unit comprises of engineers, designers and product managers who build technology for the public. The role of this unit is to experiment with new technologies and methods, exemplify what a good tech organisation in Government could look like, and to evangelise to the rest of the Government. Since its incorporation in 2019, OGP has developed products like parking.sg which has transformed the way citizens interact with government agencies. Resourcing approaches – Initiation Budget and Central Digitalisation Budget A new resourcing approach was implemented in 2018/19 to enable more agile digitalisation, allowing for nimble initiation of pilots and proof-of-concepts to test hypotheses or assumptions before scaling. This comprises an Initiation Budget to quickly start pilots, and a Central Digitalisation Budget to fund the scaling of successful pilots. Digital Service Standards <https://www.tech.gov.sg/digital-service-standards/> We also have the Digital Service Standards (DSS), which is a set of standards for agencies to implement their digital services to meet the Digital Government Blueprint (DGB) goal of delivering digital services that are easy, seamless and relevant for our citizens and businesses. It is important that DSS is implemented for all our public-facing digital services, so that our citizens, businesses and organisations can use consistently good services across the government. Non-exhaustive list of regulatory sandboxes by Government agencies:

- a. Monetary Authority of Singapore (MAS)'s Regulatory Sandbox <https://www.mas.gov.sg/development/fintech/regulatory-sandbox> The MAS FinTech Regulatory Sandbox enables financial institutions and FinTech players to experiment with innovative financial products or services in a live environment but within a well-defined space and duration. This sandbox includes appropriate safeguards to contain the consequences of failure and maintain the overall safety and soundness of the financial system.
- b. Ministry of Health (MOH) regulatory sandbox for Telemedicine (TM) and Mobile Medicine (MM) In 2018, MOH started a regulatory sandbox for TM and MM to better understand the risks and explore new innovative services by partnering with industry players before transitioning to licensing the TM partners.
- c. Data Regulatory Sandbox by IMDA

E. Digital Inclusion and E-Participation

Note: Vulnerable groups include women, older people, youth, people with disabilities, migrants, minorities and others

87. Is there a national policy/strategy or similar in ensuring digital inclusion and leaving no one behind? *

Yes

No

88. If yes, please provide link and detail.

<https://www.mci.gov.sg/en/portfolios/digital-readiness/digital-readiness-blueprint> The Digital Readiness Blueprint sets out recommendations for building Digital Readiness in Singaporeans at the national level, which are guided by key strategic thrusts such as: 1. Expand and Enhance Digital Access for inclusivity 2. Infuse digital literacy into national consciousness 3. Empower Community and Businesses to drive widespread adoption of technology 4. Promote digital inclusion by design The Digital for Life movement was announced in 2021 to galvanise the public private partnership and the community to help Singaporeans embrace digital as a lifelong pursuit, and to enrich their lives. It will serve as a platform to bring together corporates, community organisations, government agencies as well as individuals, to champion causes, coordinate efforts, and co-create solutions.

89. Is there a national e-participation policy/strategy or similar? *

Yes

No

90. If yes, please provide link and detail.

91. Does the Government provide any specific measure(s) to ensure meaningful connectivity/access to e-government services by women and other vulnerable groups? *

Yes

No

92. If yes, please provide link and detail.

To enable digital participation, citizens need to be equipped with digital access, in the form of Internet connectivity and an Internet-enabled device. The Government is committed to ensuring affordable digital access to enable all Singaporeans to reap the benefits of going digital. Ministry of Communications and Information /Infocomm Media Development Authority subsidises household-level digital connectivity through the following schemes: • The Home Access (HA) programme offers low-income households, including those without school-going children, a 2-year subsidised broadband subscription. • NEU PC Plus provides a subsidised PC bundled with 3 years of free broadband to low-income families with students or persons with disabilities (PWDs).

93. Does the Government provide any specific e-service(s) for women and other vulnerable groups? *

Yes

No

94. If yes, please provide link and detail.

<https://www.msf.gov.sg/policies/Pages/Default.aspx?tabID=1&pgNo=6> The Ministry of Social and Family Development provides links to a suite of services for women, those with disabilities, the needy and troubled families, all in a single website. These include adoption services, applying for childcare leave, divorce etc. <https://www.msf.gov.sg/policies/Women-Celebrating-Women/Pages/default.aspx> The Office for Women's Development (OWD) is the national focal point on gender policy matters and for regional/international cooperation pertaining to women Schemes, Assistance And Resources For Women <https://www.msf.gov.sg/policies/Women-Celebrating-Women/Pages/Schemes-Assistance-and-Resources-for-Women.aspx>

95. Does the Government provide any specific e-participation measure(s) for women and other vulnerable groups? *

Yes

No

96. If yes, please provide link and detail.

The "Conversations on Singapore Women's Development" were launched on 20 September 2020 to kickstart a national effort to understand Singaporeans' aspirations and ideas on how we can further advance our women in Singapore.

97. Does the Government provide any specific measure(s) to build digital literacy/skills for women and other vulnerable groups? *

Yes

No

98. If yes, please provide link and detail.

Seniors <https://www.imda.gov.sg/en/seniorsgodigital/Learn/Guided-Learning/1-On-1-Help?page=1> The Seniors Go Digital programme looks at equipping all seniors with basic digital skills to carry out acts of daily living through digital such as accessing government services, communicating and transacting online. <https://www.imda.gov.sg/programme-listing/Mobile-Access-for-Seniors> The Mobile Access for Seniors (MAS) scheme works in hand in hand with the Seniors Go digital programme to provide subsidised smartphone and mobile plan to lower income seniors who want to go digital but unable to afford. Low-income families <https://www.imda.gov.sg/programme-listing/home-access> <https://www.imda.gov.sg/programme-listing/neu-pc-plus> (see above for content) Broader nation-wide movement targeting all Singaporeans <https://www.imda.gov.sg/digitalforlife> The Digital for Life movement aims to galvanise the community to help Singaporeans embrace digital as a lifelong pursuit, and to enrich their lives. It will serve as a platform to bring together corporates, community organisations, government agencies as well as individuals, to champion causes, coordinate efforts, and co-create solutions.

99. Does the Government use any social media platform(s)? *

Yes

No

100. If yes, please provide link and detail if social media is used for (i) e-information; (ii) e-consultation; and/or (iii) e-decision-making

https://www.instagram.com/parl_sg <https://www.facebook.com/SingaporeParliament/> <https://twitter.com/govsingapore> The government uses social media channels like Facebook, Youtube and Instagram, which allow us to connect with audiences in engaging and interactive ways. These digital channels also provide feedback that give us better insights on our audiences, and improve our communication.

101. Please include any guidelines for government officials/institutions on the use of social media.

Digital First Content Playbook The Ministry of Communications and Information has released a Digital First Content Playbook in April 2021 which consolidates the findings and recommendations of inter-ministry workgroups comprising government communications officers set up to study the following areas: • digital content approaches that resonate better with different target audiences; • the platforms that can reach out to audiences more effectively; and • deep dives on more actionable strategies. The Playbook is part of a broader initiative to look at how government communications can purposefully integrate technology into key areas of work for more effective communications and engagement. The Playbook examines across social media platforms like YouTube and TikTok: • Audience insights • Strategic developments and trends • Recommended content approaches • Test cases • Recommendations for Govt communication

102. Does the Government publish information on how people's voices, including those among women and the vulnerable groups, are included in policy decision-making? *

Yes

No

103. If yes, please provide link (URL) and detail.

REACH www.reach.gov.sg REACH (reaching everyone for active citizenry@home) is the lead agency in facilitating Whole-of-Government efforts to engage and connect with citizens on national and social issues. REACH had its beginnings as the Feedback Unit in 1985 and its role was expanded in 2009 to go beyond gathering public feedback to become the lead agency for engaging and connecting with citizens. The 3 key roles are to: i. Gauge ground sentiments ii. Engage citizens iii. Promote active citizenry An example of recent engagement is with women, through "Conversations on Singapore Women's Development" which was

launched on 20 Sept 2020 to kickstart a national effort to understand Singaporeans' aspirations and ideas on how we can further advance our women in Singapore.
<https://www.reach.gov.sg/participate/e-poll/reach/conversations-on-singapore-womens-development> Further examples of how citizen engagement and feedback have been taken into consideration in policy decision-making: <https://www.reach.gov.sg/read/news-and-press-releases> <https://www.reach.gov.sg/-/media/reach/reach-files/news-and-press-releases/2020/more-than-10000-responses-gathered-in-prebudget-2020-feedback-exercise.ashx>

F. Usage, User Satisfaction and Evaluation

104. Does the Government monitor/collect usage statistics of e-government services? *

Yes

No

105. If yes, please provide link and detail.

WOGAA <https://wogaa.sg/home/index.html#/> The Government has system known as WOGAA (Whole of Government Analytics Application) which monitors the performance of Government websites and digital services in real-time in a convenient and cost-effective way. It brings key information together into a single dashboard for more data-driven decision-making. By providing this as a central service, the government is not only able to reap economies of scale, but can also provide additional cross-agency features such as allowing agencies to perform comparisons across government, sectors and users. Agencies will be able to monitor the performance of their digital services in real-time, identify gaps in digital service delivery and proactively improve their services.

106. Does the Government measure user satisfaction of e-government services? *

Yes

No

107. If yes, please provide link and detail.

Annual e-Government Services Satisfaction Survey <https://www.tech.gov.sg/who-we-are/our-statistics/> The Government carries out an annual e-Government Services Satisfaction Survey to determine the level of adoption and satisfaction that citizens and businesses have with e-Government services. The results are published online and the findings are also shared with public institutions. In the surveys, citizens and businesses are asked to rate their overall satisfaction and their satisfaction with the 4 outcomes outlined in the Digital Government Blueprint - Easy to Use, Seamless, Secure & Reliable and Relevant. The results of the survey are analysed to identify areas of improvements for specific e-government services. The findings are shared with CIOs of the public institutions and reported to senior leaders within the Singapore Government. Targeted initiatives are then put in place to improve the services.

108. Does the Government collect usage and/or user satisfaction data with disaggregation by gender? *

Yes

No

109. If yes, please provide link (URL) and detail.

G. Other information

110. Please provide information about any ongoing global/regional partnership and/or digital cooperation, focusing on e-government and digital technologies (including North-South, South-South, triangular, regional, and international cooperation) *

Digital Government Exchange • GovTech Singapore hosts the Digital Government Exchange (DGX), a closed-door dialogue among a group of Government Chief Information Officers (CIOs) and public sector leaders from leading digital governments and smart cities. Members are from over 10 countries/cities and leading institutions, namely Amsterdam, Australia, Canada, China, Denmark, Estonia, Finland, Israel, Japan, New Zealand, New York, Sweden, the United Kingdom (UK), the United Nations, and the World Bank. The objectives of DGX are to build a community of like-minded digital governments and smart cities that would facilitate mutual learning and sharing and explore areas for future collaboration. Representatives are Government CIO-level. A special DGX webinar that was convened on

Safe Travel on Tuesday 16 March concurred on the importance of working towards mutual recognition and drive inter-operability in this area. DGX participants agreed to form a working group to address this. Since the webinar, Singapore has consolidated member's digital health certificate solutions with the intent to share this report with UN member states via the UN. Members of the working group can be found below. Organisation of Economic Co-operation and Development (OECD) • GovTech attends 7 Thematic Group meetings through our invitation to the Working Party of Senior Digital Government Officials platform at the OECD. The 7 Thematic Group meetings are: Data-drive public sector, Digital Identity, Digital Talent and Skill, Emerging Technologies (AI), Govtech Commissioning, Service Design and Delivery and Impact and Measurement.

111. Please provide any other information related to e-government development in your country. *

CODEX CODEX (Core Operations, Development Environment and eXchange) is a suite of digital solutions that will enable the Government to deliver better digital services to citizens faster and more cost efficiently. It comprises: a. A Government Data Architecture for common data standards and formats that better enables seamless data sharing between agencies; b. A systematic shift of less sensitive Government systems and data onto the commercial cloud, enabling the use of leading-edge cloud tools to develop digital services; and c. A Singapore Government Technology Stack (SGTS) comprising a suite of shared software components and infrastructure to enable more efficient and focused building of digital applications

a. Government Data Architecture to enable data sharing Enabling data sharing across agencies requires simultaneously tackling legislative, policy, capability and technical challenges. Building on the legal safeguards formalised by the Public Sector Governance Act, as well as the comprehensive digitisation of Government records to ensure machine readability, the Government Data Architecture fundamentally redesigns how data is managed within the public sector. It lays the foundation for the shared infrastructure to share data safely and efficiently, to improve crosssector policy analysis and service delivery. Single Sources of Truths (SSOTs) are designated to provide clean, verified and authoritative for core data fields commonly used for policy making and service delivery. Trusted Centres (TCs) 1 are responsible for fusing data from SSOTs and sharing it across whole-of-Government. All public officers will be able to discover and access data needed for their work through Vault and Geospace. These platforms allow officers to browse a meta data-catalogue, securely download sample datasets immediately for exploratory analysis and then request for the full datasets from the TCs. A suite of best-in-class data analytics tools will also be made available in Analytics.Gov to enable rapid development of data and AI models. Security is built into these central platforms to achieve both convenience and compliance.

b. Shifting selected Government systems to commercial cloud Migration to commercial cloud is a way to modernise the Government's ICT systems to reap the benefits of best-in-class commercial solutions. It will lead to cheaper hosting, higher availability and greater ease of continually improving services. We have set ourselves a target of migrating 70% of less sensitive Government systems by 2023. Major systems such as corporate services for Finance and Human Resource will be hosted on the commercial cloud.

c. Tech Stack shared by all Government agencies The Singapore Government Tech Stack (SGTS) is a collection of common digital services and infrastructure available to all Government agencies to build their digital applications. This reduces the time and effort needed to introduce new digital services and improves existing ones, and allows greater interoperability. SGTS will allow

agencies to focus on designing solutions that best meet the citizens' and businesses' needs. The MyInfo initiative was one of the first projects to use the SGTS. The pilot was developed and delivered in four months, instead of what would typically take a year. Other notable digital services that use components of the SGTS include the Business Grants Portal and the LifeSG initiative.

Consent to publish this Questionnaire

112. I/We authorize UN DESA to publish my/our responses as deemed necessary. *

Yes

No

THANK YOU

Thank you for taking time to complete this important questionnaire. We very much appreciate your participation.

Please complete this OPTIONAL Respondent Satisfaction Survey:

<https://forms.office.com/r/yTrKyZCjdT> (<https://forms.office.com/r/yTrKyZCjdT>)

