



#SmartNationIB

Towards the Next Bound of Digital Government

24 May 2023 | 9.30am – 12.30pm
Suntec City Convention Centre

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Chief Executive
Government Technology Agency



SG Tech Stack

Smart City

Sustainability

We have made good progress in our Smart Nation journey

Digital Infrastructure

1st

Global rankings for tech infrastructure (2022)¹

99%

Singapore households with internet access

164%

Mobile penetration rate²

160k

Individuals trained in AI, IOT, & Cloud Engineering (since 2016)³

Digital Government

1st in Asia

IMD Smart City Index (2023)

3rd

UN E-Participation Index (2022)

99%

Govt transactions completed digitally end-to-end (2022)

98%

Govt services that offer e-payment option (2022)

Digital Services

84%

Citizen satisfaction with Govt services (2022) (Up from 73% in 2016)

79%

Business satisfaction with Govt services (2022) (Up from 64% in 2016)

300m

PayNow transactions (2022) (individual & corporate)

5m

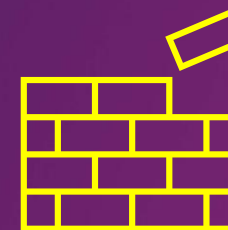
Singpass users (4.2m on mobile app)

1. Based on 2022 IMD World Competitiveness Report
2. Based on IMDA stats on telecom services for 2022 Jul-Nov
3. Trained with IMDA's TechSkills Accelerator (TeSA) initiative

Procurement Opportunities in FY23

\$3.3 bil of ICT spending in FY23 to sustain momentum

- Citizen/Business-Centric Digital Services
- Enterprise SaaS for CRM & Service Management
- Applications maintenance & support services



FY23

Application Development (\$2.0b)

Infrastructure (\$1.3b)



- End-user devices refresh
- Hosting support services
- Cybersecurity services

3 Themes



**Application
Development**



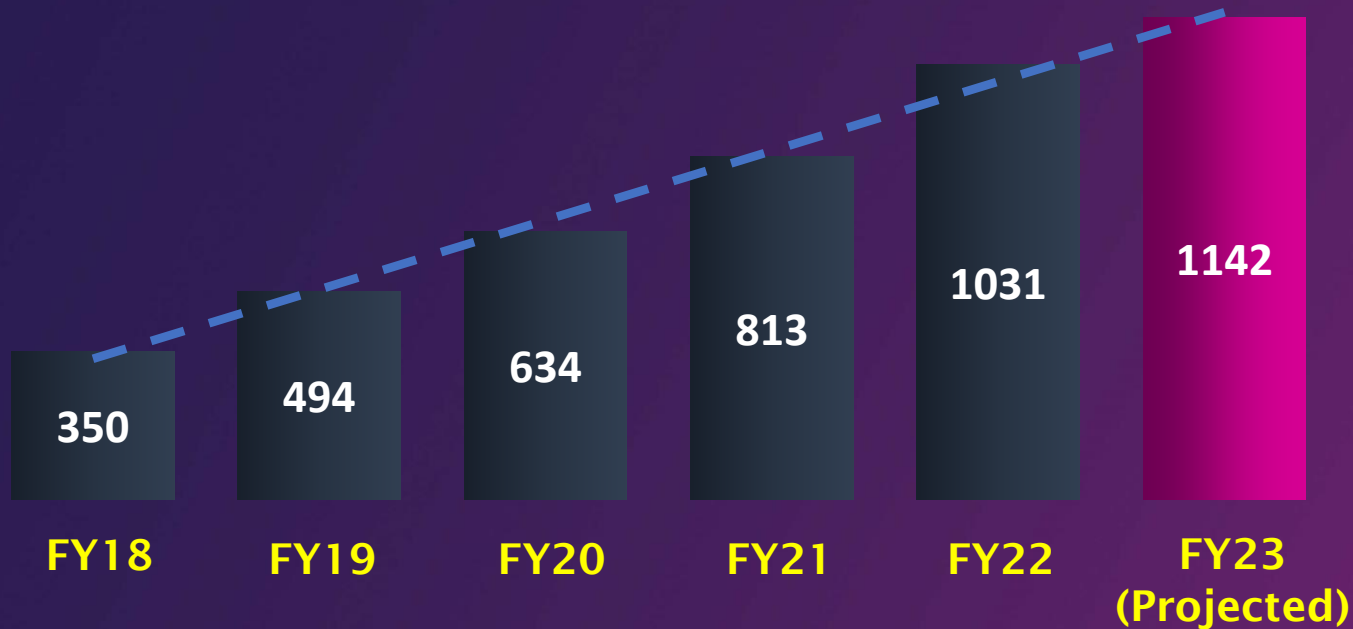
Sustainability



Smart Cities

Cloud-First

No. of Systems on Govt Commercial Cloud (GCC)



Total govt spending on GCC

~\$400mil

FY18 - FY22

Average cost savings on GCC

30-40%

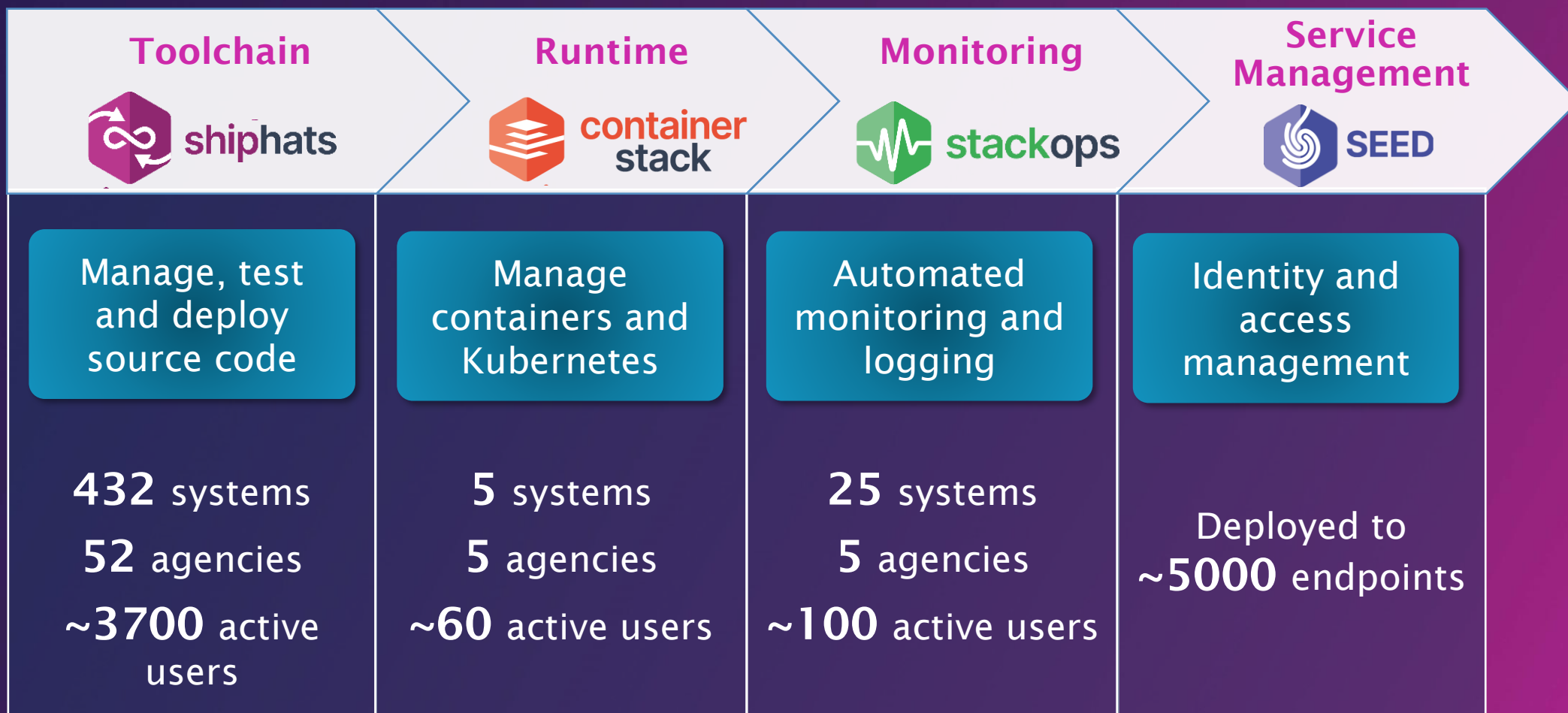
vs on-premise applications

Speed in deploying IT Changes

3-14x

vs on-premise applications

Build on SG Tech Stack

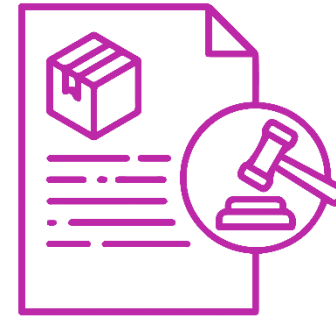
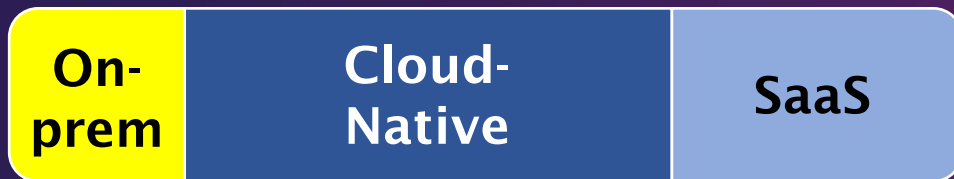


Use More SaaS

Current Applications Portfolio



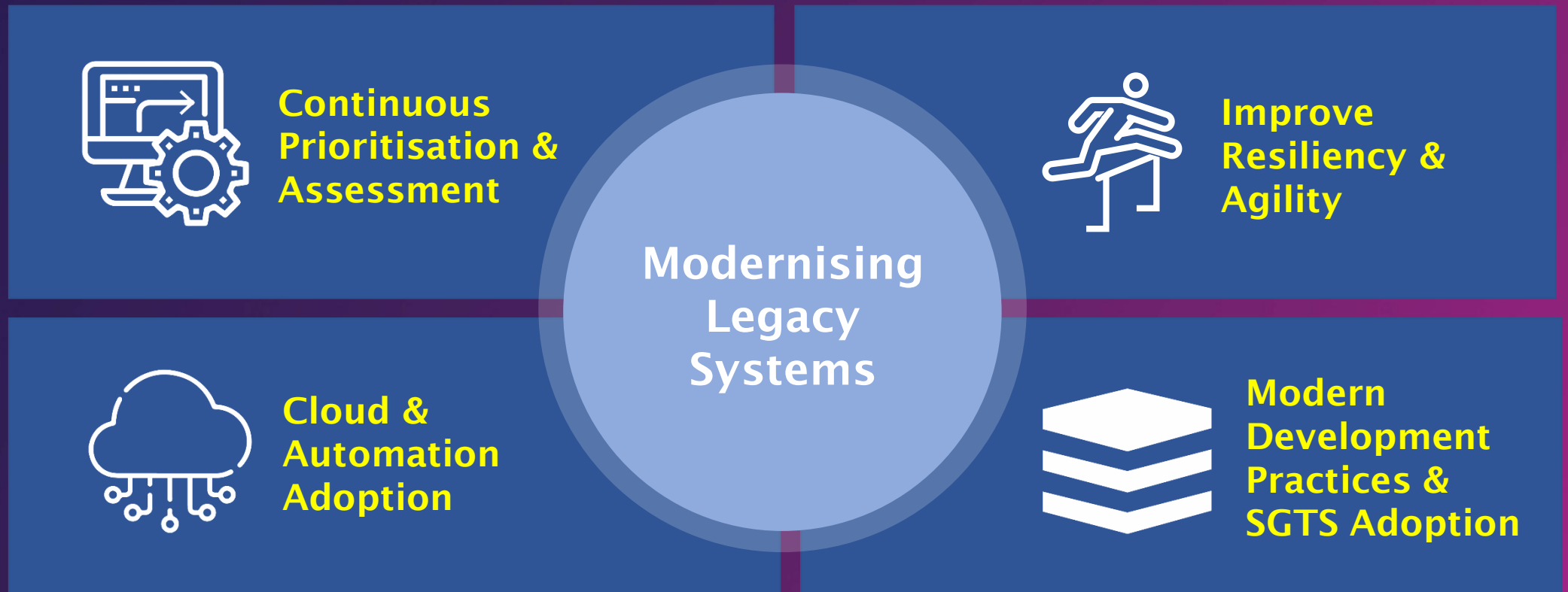
Future Applications Portfolio



Enterprise SaaS Bulk Tender

- Low-Code Application Platform
- Business Centric Platform
 - Customer Relationship Management
 - Case Management
 - Service Management

Modernise Legacy Systems



Co-develop with Industry

27

partners in co-development bulk tenders



3 Themes



**Application
Development**



Sustainability



Smart Cities

Sustainability – A Key National Agenda



- Reduce 2030 emissions to 60 MtCO₂e, and achieve **net zero emissions around 2050**
- Green 80% of buildings (by Gross Floor Area) by 2030
- Reduce peak land transport emissions by 80% by or around mid-century
- Reduce amount of waste to landfill by 20% by 2026 and 30% by 2030
- At least 20% of schools carbon neutral by 2030



- Peak public sector's carbon emissions around 2025, and achieve **net zero emissions around 2045**
- Improve **Energy Utilisation & Water Efficiency** by 10% by 2030 from average of 2018 to 2020 levels
 - Government data centres will achieve the Green Mark Platinum standard by 2025
- Reduce **Waste Disposal** by 30% by 2030 from 2022 levels

Digital x Sustainability

1

Enabling a Green ICT Sector in Govt

(Adopting sustainable practices across the digital value chain)

2

ICT for Green to support Sustainability in Govt

(Leveraging ICT to enable sustainable outcomes)

Green ICT Sector for Government

GREEN SUPPLY CHAIN

- **5%** of tender evaluation points for relevant tenders *starting with ICT Hardware*
- Exploring relevant standards for DCs, Cloud, Network Services, Software Vendors

GREEN HARDWARE & EQUIPMENT

- **Extension of product life** with replacement in parts and device reuse
- OEMs will be increasingly expected to provide device reuse and recycling options

GREEN HOSTING

- **Accelerate cloud adoption**
- **Consolidate DCs** across WOG
- Partner CSPs to increase access to cloud carbon emissions data

GREEN SOFTWARE ENGINEERING & DATA

- **Pilot Green S/W** measurement and techniques
- Optimise code reuse, data storage, and increase containerisation of applications

3 Themes



**Application
Development**



Sustainability



Smart Cities

Opportunities in Smart Cities



**Smart Estate
& Living**



**Smart
Mobility**



**Smart
Environment**



**Smart Planning
& Operations**



**Better Lived
Experience**

**Greater
Sustainability**

**Higher
Productivity**

From Pilot to Scale

Open Digital
Platform



JTC Summit
(2022)

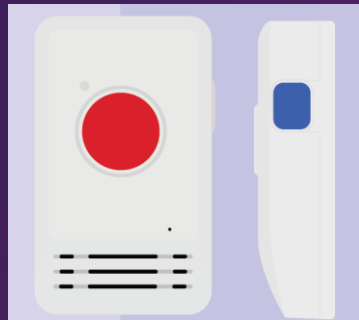


Woodlands North Coast
(2023)



Punggol Digital District
(2024)

Smart Health
& Assisted
Living



Personal Alert Button



Government Assisted
Living Ecosystem

The journey to build
SNDG will continue...

We look forward to
partnering with you!



Thank You



SG Tech Stack

Smart City

Sustainability