

## **FACTSHEETS** *GovTech Exhibits*

### **MyInfo**

MyInfo is a personal data platform that removes the need for citizens to fill in government forms repeatedly when transacting with the digital services of different participating government agencies. This means that you only need to provide your data once, instead of doing so for every transaction. Besides saving time, MyInfo's consent-based design grants you the freedom to decide if, and when to use it.

Soon, you won't need to provide physical supporting documents to complete transactions! Currently, 17 government e-Services are MyInfo-enabled. By 2018, most relevant government e-Services that require SingPass authentication will also be on board.

### **myResponder**

Did you know your smartphone can save lives? With the myResponder app, the 995 dispatchers can geolocate you if you encounter a medical emergency, improving the time to response. There are over 2300 cases of cardiac arrest annually and every minute without CPR results in a drop of survival by 10%!

If you have a GPS-enabled smartphone, you can sign up through SingPass to volunteer to receive alerts if you are within close proximity of a potential cardiac arrest patient. You will be notified by the myResponder app of the cardiac arrest patient's location and the nearest automated external defibrillators (AED). You can also notify medical dispatchers of your ability to respond to bridge the window period before the emergency medical services arrive on scene. A bit of hardware, software and a lot of heartware is what we need to make our communities safer from cardiac arrest!

### **Data.gov.sg**

Data.gov.sg is the Singapore government's open data portal. It provides hundreds of up-to-date, machine-readable datasets for public use, covering topics from Singapore's economic statistics to facts and figures about transport.

The general public can make sense of the data on the platform at a glance, through interactive charts and maps. There is also a new data blog, where we attempt to answer questions, such as the speed of 4G mobile broadband in your area, and when you ought to visit the gym. Data.gov.sg also provides APIs for app developers to experiment with and create new innovative solutions.

### **[tech.gov.sg](http://tech.gov.sg)**

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## NParks' Smart Parks Technology

The National Parks Board (NParks) is adopting smart technology to remotely monitor and control our lighting systems so as to enhance the safety and park going experience for visitors while improving the efficiency of our energy use.

Features that come with the smart lighting technology include:

- **Map-based visualisation** of the lamps, and their current condition status
- **More efficient maintenance of mass street lamps in our parks** with real-time alerts and diagnostic information
- **Analytics** to make data-driven decisions for optimal light intensity levels
- **Central remote management** from a single dashboard

## Smart Parks & Greenery Management

**Smart field tool** – The latest technology to monitor the health of trees and turf maintenance in our green spaces.

**Applications and dashboard** – Work processes for park facilities and greenery management are enhanced with an integrated platform.

**Integrated mobile app** – The public is provided with informative guides and enhanced way-finding features.

**Smart sensors, facilities and services** – Deployment of smart signs and sensors which display useful information such as weather updates, available Wi-Fi services, and events for park-goers to enjoy.

**Smart surveillance for flora and fauna** – A geo-locator is used to monitor and study wildlife activity.

## Beeline

Imagine helping private bus companies decide where and when to launch bus services to transport you from your doorstep to your workplace! Beeline is an experimental and demand-driven approach to improve public transit in Singapore, empowering commuters in suggesting bus routes and making seat bookings on these bus services.

Conversely, the data and analytics provided by commuters and other relevant information sources, can be used to enhance or develop new bus routes. Beeline was developed through a partnership between the Land Transport Authority and GovTech.

## OneService

Want to give feedback on a municipal issue but don't know which agency to go to?

The *OneService App* allows residents to report municipal issues. Simply **Spot, Shoot, Send**, and it will be directed to the correct agency to solve it.

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Visit the *OneService Portal* to know more about your neighbourhood. Its key feature “My Neighbourhood” provides residents access to a range of aggregated municipal information provided by Government agencies and Town councils.

## **Project Dengzi**

Affectionately referred to as Project 凳子 (Chinese for ‘stool’), this project was initiated by the alumni and AEP teachers of Nanyang Girls’ High School who wanted to add value to these old school stools. The creation of art around the school stools is also a way to encourage an appreciation of the artistic practice in Singapore.

Since Nanyang Girls’ High School’s 1:1 Computing programme piloted in 2011, the school has been exploring every possibility in transforming instructional practices to bring about new dimensions to the ways students learn.

Art and technology have become more intertwined than ever before, be it through new ways of mixing different types of media or allowing more human interaction. Project 凳子 features a contemporary art exhibition using augmented reality. The exhibition features new possibilities and implications with the use of Blippar, an augmented reality (AR) application that runs on many iOS and Android devices. The use of AR has taken the digital curation of artwork to a whole new level.

## **Smart Walking Stick**

Our Emerging Technology team at GovTech Hive are constantly working on projects to improve the lives of our people. Some of our inventions include the Smart Walking Stick. Family members and care-givers can get notifications on the whereabouts of their elderly through GPS and other sensors. In the event of a fall, caregivers will be alerted via a mobile app. The device is also equipped with several features such as a flash light and radio. With its modular electronic components, users can even integrate it into umbrellas as well.

## **Autonomous Wheelchair**

Another development by the Emerging Technology team, the autonomous wheelchair is designed for the elderly in mind, and is equipped with ultrasonic sensors to detect obstacles, localise and navigate on its own. It is programmed to move to and fro from pre-defined locations and has the capability to avoid obstacles and people. The chair also reduces the need for caregivers to ferry the elderly from place to place within a vicinity as well as improve the mobility of users.

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Some specifications of the wheelchair include:

1. SLAM Technique (Simultaneous Localisation and Mapping)
2. 10m Lidar which scans 180 degrees to the front of the chair at 2400 revolutions per minute (rpm)
3. 3 ultra-sonic sensors on each side (left, right and back) to detect obstacles
4. An internal compass for orientation
5. Wheel odometers to calculate the speed of the chair

## Healthy365

The Healthy 365 mobile app is a key technology platform for the Health Promotion Board's (HPB) National Steps Challenge™ to encourage individuals to be more active and attain more steps every day.

Singaporeans can tap on Healthy 365 to take charge of their health by monitoring their weight, calorie intake and output, daily steps count and calculate corresponding calories burned. The app has a database of over 1,000 local food and drinks under the diet tracking journal. Users watching their weight can also automatically adjust the calories requirements based on their Body Mass Index and age.

By leveraging location based services, Healthy 365 allows users to conveniently locate nearby events, workshops and programmes on healthy living and healthier dining partner outlets. Users can also join nearby physical activity events and facilities such as Sundays at the Park, fitness corners, and walking trails.

## Courts of the Future

### *Future Courts, Future Ready*

The Courts of the Future is a suite of initiatives that range from promoting self-help solutions for litigants and lawyers to enhancing the efficiency and effectiveness of the Judiciary systems through data analytics and Artificial Intelligence.

The IT Roadmap for the Courts of the Future was developed by the Singapore Judiciary (Supreme Court, State Courts and Family Justice Courts) together with GovTech. The agencies embarked on a strategic “future ready” study to identify technology opportunities to better anticipate and meet the future needs of Court Users with an emphasis on accessibility, quality and timeliness.

The Integrated Criminal Case Filing and Management System (ICMS) has transformed the criminal justice landscape from a paper-based process to an electronic one. A multi-agency project led by State Courts, ICMS interlinks all stakeholders in the criminal justice landscape into one integrated criminal justice eco-system.

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ICMS enables accurate and timely information exchange, facilitating greater accessibility and effectiveness for stakeholders through the seamless electronic transfer of case data. ICMS is a manifestation of State Courts' commitment to provide an effective and accessible system of justice, inspiring public trust and confidence.

Apart from the defence counsel, other stakeholders include the Singapore Police Force, the Attorney-General's Chambers, the Singapore Prisons Service, all 30 law enforcement agencies, three Warrant Enforcement Units, the Institute of Mental Health, the Health Sciences Authority and the Probation Services Branch of the Ministry of Social and Family Development.

The Integrated Electronic Litigation System (eLitigation System) leverages on content management systems and e-form technology to offer law firms and court users a single access point for case commencement and management throughout the litigation process. The online filing process is streamlined to be more efficient and cost effective, and lawyers can do their filing anywhere, anytime.

With the auto-acceptance of certain documents and auto-scheduling of hearings, work is now intelligently distributed to the various Court departments.

First launched in 2013, eLitigation has continued to adopt new technologies and add features to create a seamless and collaborative environment for the judiciary and the legal community.

## HealthHub

HealthHub provides a common consumer health platform which aims to increase health literacy, boost healthy living, management across the general population as well as disease prevention. Besides helping the public navigate the healthcare system, HealthHub empowers them in managing their own health and wellness, and of those they care for.

### Key Benefits

- *Simplified Access to Healthcare Information*  
General health and wellness content on HealthHub takes into account the Singapore lifestyle and local healthcare trends. The content ranges from topics that include chronic diseases, mental wellbeing, nutrition and physical activity.
- *Exclusive Deals*  
HealthHub features exclusive deals with various healthcare, wellness, recreation, fitness as well as F&B establishments with healthier options.

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- *Secure Access to Personal Health Records*  
Access to personal health records is secure and convenient on HealthHub via SingPass. Users can access information such as lab test results, screening records and future medical appointments on the portal and app.
- *Interactive Learning Platform*  
The Quiz Time feature on HealthHub provides users with interesting bite-sized health information on-the-go.

### **National Trade Platform**

The National Trade Platform (NTP) is a trade and logistics IT ecosystem connecting businesses, community systems and platforms, and government systems. It aims to be a one-stop trade information management platform for the trade and logistics industry, as well as adjacent sectors such as the trade finance industry. Supporting efforts in digitisation, the NTP will enable businesses to share and re-use secure data and documents among their business partners and the government.

The NTP can also help businesses to streamline processes, reduce inefficiencies of manual trade document exchange, and tap on the potential of data analytics to draw insights from their trade data.

### **MOM Digital Services**

The Ministry of Manpower began development of a new Work Pass Integrated system (WINS) for Foreign Domestic Worker (FDW) in 2013. The system would allow FDW employers and agents to interact with MOM on all matters relating to FDW permits.

With a human-centred design approach coupled with an agile methodology, key improvements to the WINS system were:

1. *First Impression Counts!*  
The new system has a clean and minimalistic look, guiding the customer every step of the way. This helps to assure the customers that they are “doing it right”.
2. *Humanising our Communications*  
Besides conveying facts to our customers, the communications has to be done using a tone of voice that is clear, helpful, “human” and firm.
3. *Hide the Complexity from Customers*  
We hid as much complexity from the customers where possible and only display information when they need it.

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## Digital Experience Design Sandbox

GovTech Hive's Digital Experience Design (DXD) Sandbox helps government agencies adopt a more citizen-centric, data-driven and design-based approach in their digital endeavours. Centred on User Experience Design, the UX team collaborates with agencies to conduct user research, usability testing and consultancy.

DXD Sandbox features a focus group room, observation rooms as well as a usability lab, whose hallmark is its *eye-tracking equipment*. The user's eye movement is tracked, recorded and then analysed. By analysing the gaze plot, one can tell how long a user focused on a particular spot based on the size of the dot, while the lines illustrate the movement of the eye. The heat map also reveal which areas the users focused on.

Placing the focus on our users in the design process allows us to better understand their needs and pain points in order to transform and enhance their user experience.

Projects that have benefitted from DXD Sandbox include:

- MyInfo Portal
- CorpPass Portal
- IRAS MyTax Portal
- MTI Business Grants Portal
- REACH National Day Rally Site
- SCDF myResponder App
- MSO OneService App and Portal

## Pulse of the Economy

Currently, agencies rely on traditional indicators, such as GDP, to monitor and measure economic health. With *Pulse of the Economy*, agencies can tap on new data sources that are frequently updated to get a 'live' sense of the economy.

For example:

- Electricity consumption of industrial plants can indicate how much goods are being produced
- The number of people tapping-out with their EZ-Link at industrial areas during morning peak hours can indicate how many people are working there

Agencies can use this timely information to monitor health of different industries, and identify growth opportunities or trigger interventions for those that need help.

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## Virtual Singapore

Virtual Singapore brings about an enabling infrastructure to host a common and integrated 3D city model of Singapore. The main goal is to simulate the complexities and challenges faced by Singapore in the areas of resource management, disaster management, management of diseases, pollution management, pre-emptive provision of public services and urban planning.

Virtual Singapore will have the following four major capabilities:

1. Planning and Decision Making
2. Virtual Experimentation of Infrastructure Build-up
3. Test-bedding of Pre-emptive Service Provision
4. Research and Development platform

Government agencies can also make available legacy, static and dynamic or real-time data to allow public agencies, research institutes and subsequently even commercial entities to perform multi-perspective studies and integrated analyses across the different domains (e.g. urban planning supported by environmental models).

Virtual Singapore Programme is co-led by GovTech, the National Research Foundation and the Singapore Land Authority.

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