## SMARTER SERVICES FOR RESIDENTS, WITH RESIDENTS

1. MSO continues to make municipal services more convenient, efficient and effective for residents.

- 2. We are bringing our partners closer to tackle cross-cutting issues.
  - Together with agencies such as LTA, HDB, PUB and NParks, we have worked out guiding principles and escalation protocols for the planning, development and maintenance of connectivity-related infrastructure.
  - We launched the Local Infrastructure Projects (LIP) scheme in 2018 to fund small-scale local infrastructure on State Land. The scheme has helped address local infrastructure needs which are jointly evaluated by MSO and agencies in a timely manner. A total of 7 projects has been approved to-date (see <u>Annex</u> <u>A</u> for an example of a completed project).

#### Smart Services for a Smart Nation

3. As part of the Smart Nation movement, we want to create new possibilities and overcome existing limitations in our municipal services for residents.

#### Supporting more service and productivity improvements

4. The **Municipal Services Productivity Fund** was introduced in 2017 to support government agencies to provide better services to residents in a more efficient manner.

- An example of a funded project that has benefitted residents greatly is Parking.sg (jointly developed by GovTech, HDB and URA), launched in Oct 2017. Besides making it more convenient to pay for parking, Parking.sg has resulted in savings for motorists.
- Nearly 1 in 2 parking sessions are ended early, with more than \$3.3M saved by motorists for unused time so far.
- The initiative will also result in savings for agencies involved, such as in coupon printing and in the longer term, in manpower for administration and enforcement.

5. We have extended the fund by setting aside \$25M over 5 years, to support more projects to be implemented from 2019, prioritising those that benefit more residents. 2 new projects supported under the extended fund are:

- Drones for early detection of maintenance issues (SLA)
- A trial deployment of compactor litter bins (NEA) (see <u>Annex B</u> for details of these projects).

In total, we have awarded \$5.2M for 6 projects since the establishment of the fund, and we expect to reap around 5 times that in productivity gains over their implementation period.

#### More efficient and effective responses to residents' issues

6. We have implemented case routing using Artificial Intelligence (AI). This enables about 1,500 cases per month to be routed automatically to the right agency, freeing up officers to focus their efforts on the more complex issues that residents face.

7. To minimise inconveniences to residents, we are better coordinating agencies' infrastructure works through an Infrastructure Works Dashboard. The dashboard enables agencies to better coordinate their proposed and on-going infrastructure projects such as road, public housing, sewerage and parks development projects (see <u>Annex C</u> for more details).

### Enabling residents to do more with the OneService (OS) App to meet diverse needs

8. In 2018, we started transforming the OS App into a one-stop community platform to report, inform, engage and transact, and introduced a new user interface together with the "Find Parking" and "Start Parking" modules. This year, we will progressively introduce new features to make it more convenient for residents to perform simple transactions and be engaged on matters in their neighbourhood.

9. We will beta test a facilities booking module which residents can book and pay for neighbourhood facilities such as public spaces and barbeque pits through the OS App. The OS App will also send out alerts to residents on happenings in their neighbourhood affecting them such as road works or hawker centre closures. For motorists, they can obtain paperless Electronic Parking Systems (EPS) receipts for HDB and URA car parks via the OS App which can be useful for tracking expenditure or claims.

- 10. Take-up of the OS App has been strong.
  - There are now 157,000 users who have reported 288,000 cases since its introduction in 2015, of which one-third of registrations and half of these cases were received in 2018 alone.
  - Today, about 1 in 5 municipal feedback received by government agencies are reported through the OS App, up from 1 in 10 in Dec 2016.

## Doing It Together

11. Beyond the use of technological innovations, we need an engaged community where residents partner one another as well as the Government to build a better living environment for all. Such partnerships bring about a greater sense of ownership for residents. We are better able to tackle issues in the community when we work together, as there are diverse ideas, deeper knowledge and stronger networks to tap on.

### Supporting partnerships for municipal needs in the community

12. We want to better support our government agencies to actively collaborate with grassroots organisations, Community Development Councils (CDCs), Institutes of Higher Learning (IHLs) and the public to harness ideas, co-create and pilot solutions for municipal needs within the local community. For example, we organised the OneService Innovation Challenge and Love Your Living Environment Youth Challenge (see <u>Annex D</u> for details) in 2018 with our partners. Through these initiatives, agencies were able to gather many ideas to better deliver services or tackle common municipal issues, and are working with teams involved to pilot and take these ideas forward.

#### Making it easier for residents to help one another

13. Residents can also more easily help one another through the HelpBuddy app pilot. The beta trial was launched in April 2018, with simple activities set by agencies for the community to take part in. Residents can also put up activities such as sharing simple tools and equipment, or helping to find missing pet dogs (see <u>Annex E</u>). If the pilot is successful, these activities will be incorporated as a new "Engage" module in the OS App.

• • • • •

Municipal Services Office 6 Mar 2019

## Annex A

#### Example of Project Funded by the Local Infrastructure Projects (LIP) Scheme

#### Footpath and lightings under the Sengkang West vehicular bridge

In March 2018, PUB received feedback from a resident to build a proper footpath with lighting under the Sengkang West Vehicular Bridge. It consulted MSO and other agencies to jointly evaluate the request under the LIP scheme as the infrastructure would enhance the safety and security of residents in the area. Following the completion of the footpath and lighting, residents had provided positive feedback on how agencies worked together in a timely manner to enhance the living environment.



# Projects Funded by the Municipal Services Productivity Fund (MSPF) in 2019

# 1. Drones for early detection of facade maintenance issues (2019 – 2023)

Agency	SLA		
involved &	<ul> <li>To be interviewed – Vincent Aw, Head, Systems and Support/Land Management</li> </ul>		
project officers <u>for</u> <u>interview</u>	• To be interviewed – Tan Chun Hong, Senior Executive, Systems and Support/Land Management		
Project description	<ul> <li>Comprises series of drone flights and a web-based system (<u>Smart Unmanned Aerial Vehicle Enhanced, or SUAVE system</u>).</li> <li>Drones are piloted to detect potential maintenance issues such as cracks, debris, water ponding and plant growth on State properties, especially at height and areas challenging to access for manual inspection.</li> <li>System not only provides images of building premises, facades and roofs, but also automatically identifies defects using a machine learning algorithm, so that any defect can be quickly acted upon.</li> <li>Between Mar to Jun 2018, drones have been deployed to 35 properties, including areas such as 28 and 30 Parry Avenue, 42–58 Veerasamy Road and Chip Bee Gardens.</li> </ul>		
Benefits	<ul> <li>Early resolution of maintenance issues so that they do not deteriorate into issues of greater concern.</li> <li>Reduce cost and time to conduct building inspections.</li> </ul>		
Expected Productivity	Inspections by drones are cheaper and faster		
Savings	<ul> <li>Drones can be deployed at 60% of the cost required for the conventional physical inspection using boom lifts.</li> </ul>		
	<ul> <li>Officers are expected to spend only 12.5% of the time required in conventional inspections, as inspections by drones are quicker than conventional methods and potential maintenance issues are automatically identified via the machine learning algorithm.</li> </ul>		







# 2. Trial deployment of compactor litter bins in selected areas (2019 – 2020)

Agency involved	NEA
Project description	<ul> <li>Trial the effectiveness of compaction in reducing the frequency of bin clearing in selected areas.</li> <li>A compactor litter bin is able to collect rubbish up to 5 times the volume of a regular bin, is solar-powered and is equipped with smart fill sensors to monitor utilisation of the bin</li> <li>Improves resource efficiency as waste is collected only when bins are full.</li> </ul>
Benefits	<ul> <li>Minimise risk of litter overflowing from bins in public areas.</li> <li>Resources can be re-deployed to improve cleaning and refuse removal in other areas with more cleaning demands.</li> </ul>
Expected Productivity Savings	<ul> <li>Less time spent on unnecessary waste collection</li> <li>Overall reduction in frequency of waste collection from daily to twice a week, and possibly once a week for locations where bins are under-utilised.</li> </ul>
Photo	Sample of compactor bin (bin depicted may not be the same type deployed when NEA's trial commences)



#### Infrastructure Works Dashboard (IWD)

The IWD is a new whole-of-government information and coordination tool that supports the coordination of proposed and on-going infrastructure projects, to minimise inconveniences and dis-amenities to residents.

Agencies can use the IWD to view one another's projects and leverage its tools to de-conflict or optimise overlapping works. By facilitating stronger coordination (e.g. optimising construction schedules), the IWD helps to minimise inconveniences and disamenities (e.g. construction noise, dust pollution or traffic obstructions) that may arise from the works.





## Annex D

### Love Your Living Environment Youth Challenge

MSO and the South West Community Development Council (CDC) co-organised the inaugural "Love Your Living Environment" Youth Challenge in August 2018. The Youth Challenge aims to support youths aged between 17 and 35 in piloting ideas to improve the shared living environment. The challenge is supported by AVA, HDB, Jurong-Clementi Town Council (JRTC), and NEA.

<ul> <li>70 youths across 15 teams participated in an ideation session on 25 August 2018, to brainstorm and pitch project ideas that address specific municipal and environmental issues in the South West district.</li> <li>Topics included cleanliness and pests, animal and bird issues, as well as cluttered common corridors.</li> </ul>	<ul> <li>5 teams were awarded funding of up to \$10,000 each and supported by mentors from MSO's partners for the implementation of their ideas.</li> <li>A group of students from the National University of Singapore (NUS) designed PollBins to enable members of the public to express their opinions through binning their litter. In doing so, they hoped to influence people to be more mindful about their waste disposal habits. They have since worked with NEA and West Mall to successfully test out the idea in Bukit Batok.</li> </ul>

## Activities in HelpBuddy App Pilot

Examples of activities that can be put up by residents:

< Share Item	< Find Lost Dog
What item do you require? (e.g. Hammer, Drill, Spanner)	Name : Mocha Breed: Toy Poodle Sex : Male
When to borrow? Select date to collect/receive item from lender	Age: 3 years old Microchip Number: 702018180089190 Identifying Features: black collar with I
Time to borrow?	I saw your dog Your dog is with me
Provide a description for use	I deposited your dog to the animal shelter/AVA
(e.g to fix my door)	
200 chars left Photo similar to item (Optional)	Add Photo Add Photo Add Photo Add Photo When and where did you see the dog?
Add Photo	Location: Tap here to select location
	Nearby Landmarks: Other Comments:
	(e.g curiy ears)
Submit	Submit
Residents can use the app to borrow simple tools and equipment from their neighbours	Residents can help to find missing pet dogs for the owners. Typically, the dog owners would put up posters at bus stops or notice boards, and/or notifications on social media to seek help.

Residents may also participate in simple activities set by agencies. For example, they can share their memories of heritage sites in Singapore with the National Heritage Board (NHB), or help to check the working condition of NEA gravitraps in public housing estates.