

BITS & BYTES

HARNESSING THE POWER
OF DIGITALISATION.

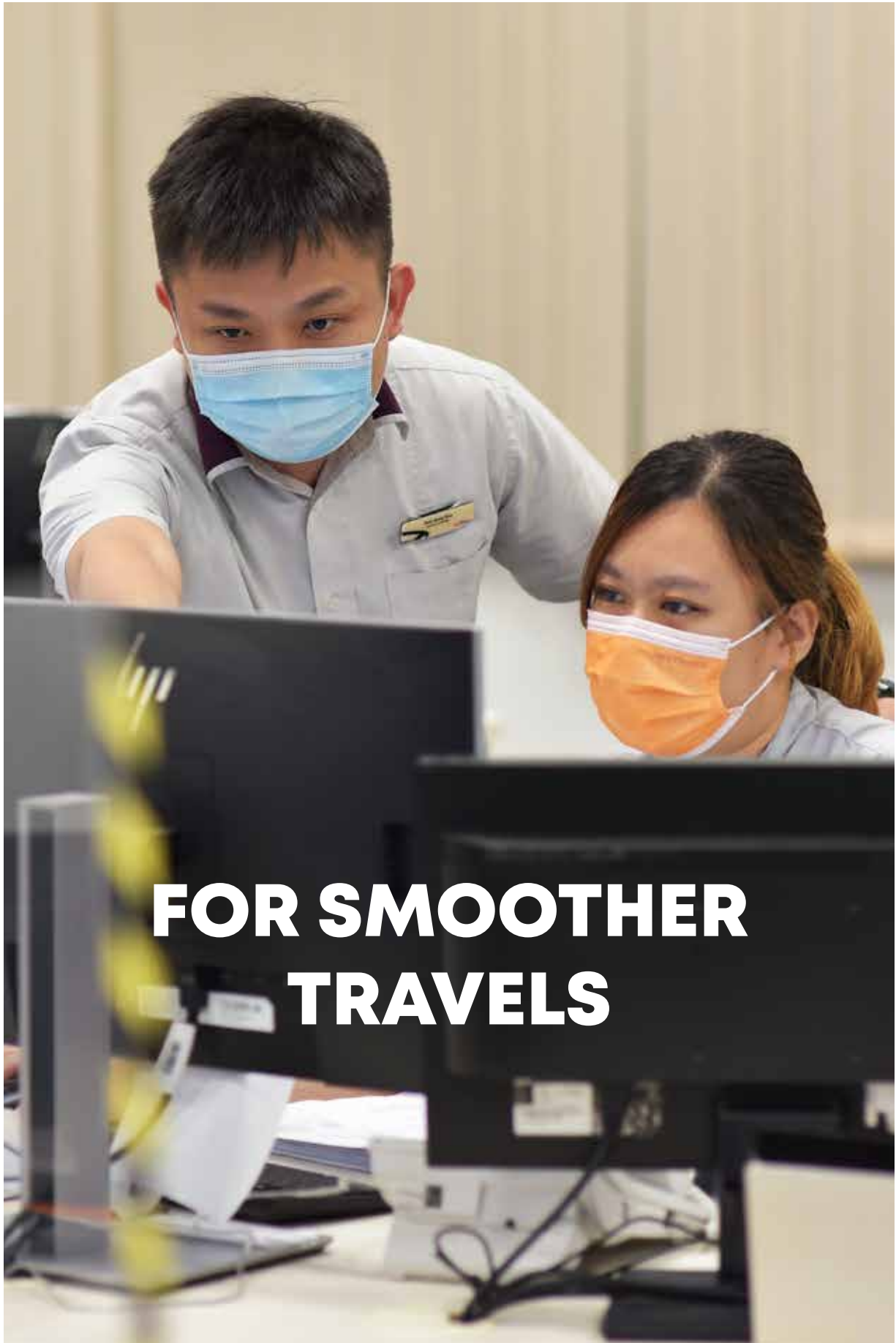
A photograph of a person's hand holding a smartphone, with a blurred background of a public transit station. The text is overlaid on the right side of the image.

**TO KEEP
COMMUTERS
BETTER
INFORMED**

**DIGITALISATION HAS
POSITIVELY CHANGED
THE WAY WE WORK
TO ULTIMATELY BENEFIT
OUR COMMUTERS**

MANAGING PERFORMANCE





**FOR SMOOTHER
TRAVELS**



ENHANCING RELIABILITY

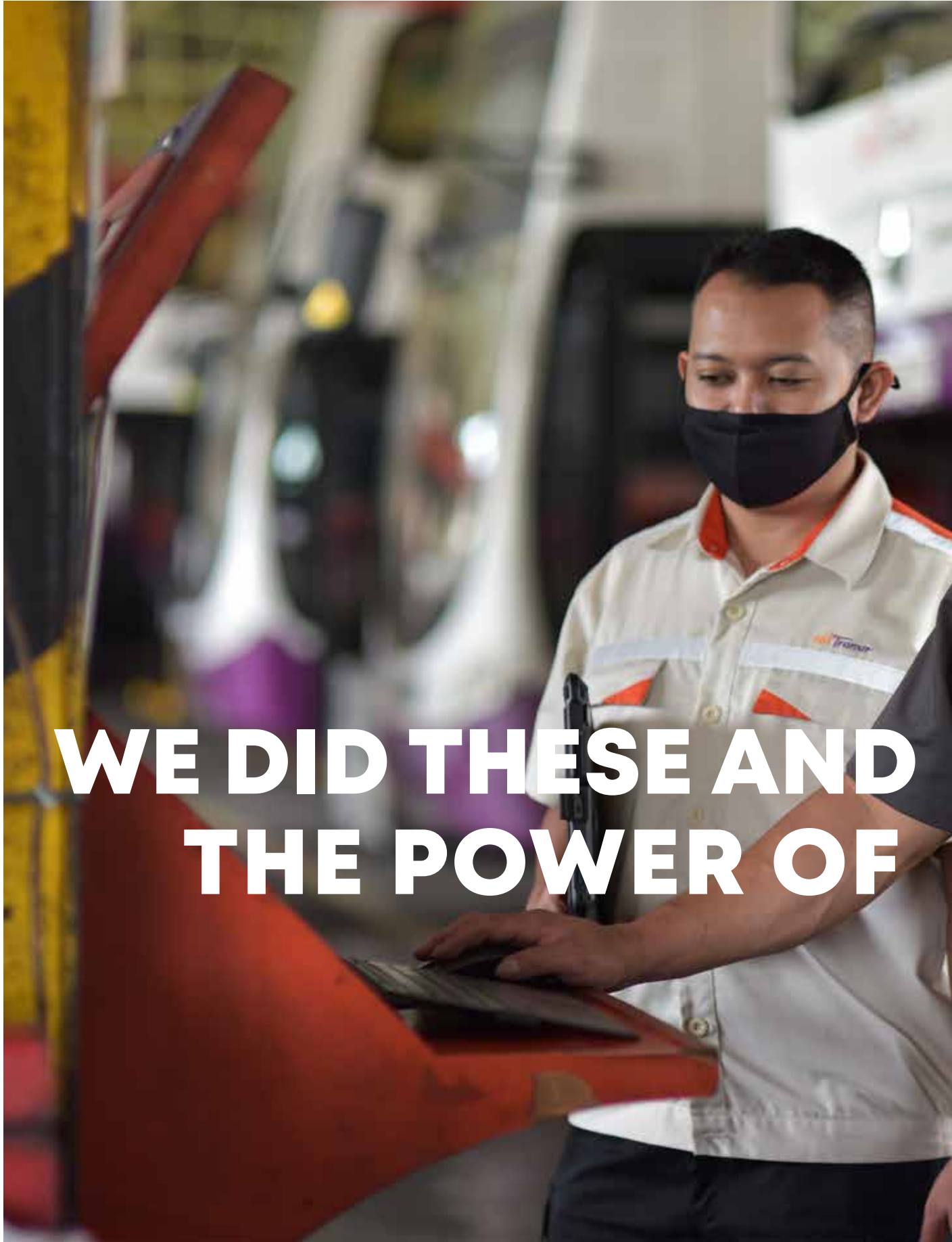


**DELIVERING
GREATER
EFFICIENCY**

WORKING FROM HOME



OR ON THE GO



**WE DID THESE AND
THE POWER OF**



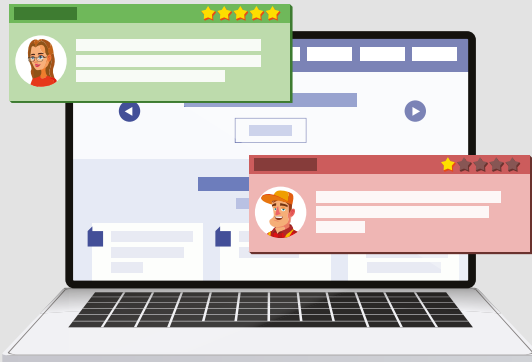
MORE THROUGH DIGITALISATION

BITS & BYTES

Realising the Power of Digitalisation

At SBS Transit, we embrace technology and innovation not as a concept – but as a way of life. As a Company, we have never been averse to change. From the vehicles that we use to transport the millions of commuters every day, to the systems and processes that we have introduced to improve efficiency and productivity, we have always embraced technological innovations.

COMMUTER EXPERIENCE

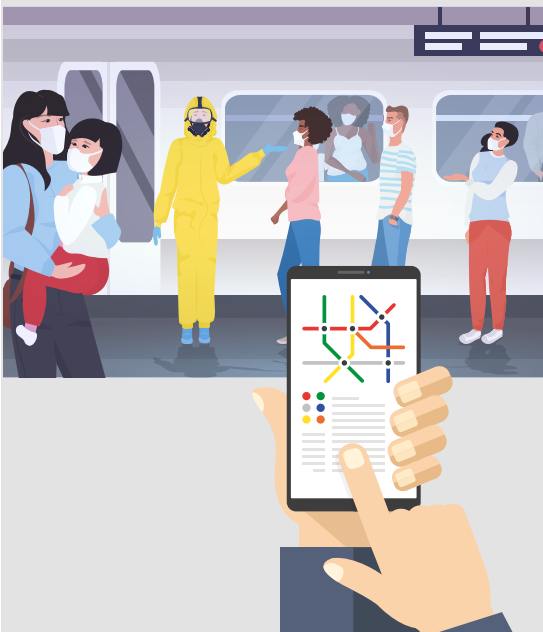


Our commuters are at the heart of what we do. This is why we constantly strive to enhance our commuters' experience by providing comprehensive information and making each journey more pleasant, safe and reliable. We also make it a point to increase our accessibility to enable them to share their feedback conveniently and for us to be able to respond more promptly. And we will continue to work hard to do more.



CONNECTING COMMUTERS TO TRAVEL SOLUTIONS

Our mobile app, SBS Transit, provides real-time information on our bus and train services to put commuters in control of their journeys. From journey planning to route information, next bus arrival timings to route diversions, station maps to MRT system maps, we have designed our app to be the travel companion for both bus and rail commuters. And we continue to enhance or add new features to make the app more user-friendly for our commuters.



PROVIDING SAFER AND MORE COMFORTABLE TRAVEL EXPERIENCE

Collaborating with Thales, a French multinational company, we are employing new digital technologies to deliver a safer and more comfortable passenger journey for our MRT commuters. For a start, a solution is in the works to detect crowdedness at stations and in trains using video analytics besides other technologies. This will provide heightened situational awareness for our staff to ease congestion more efficiently. It will also be able to detect suspicious persons or unattended baggage and even identify those who need mobility assistance. It is scheduled to be tested on the North East Line's Woodleigh Station in the first half of 2021.

BITS & BYTES

ENSURING SAFETY AND SECURITY AGAINST TRACK INTRUSION



We have embarked on a trial using video analytics to trigger alerts when intrusions are detected on the viaducts and tracks of our above ground Sengkang Light Rail Transit System. This is essential for the safety and security of commuters.

ENHANCING BUS RELIABILITY

To improve bus reliability for our commuters, we have invested in a new monitoring system that uses data analytics to pinpoint problem areas so that we can undertake intervention efforts. To-date, we have achieved an improvement of up to 20% in our performance.

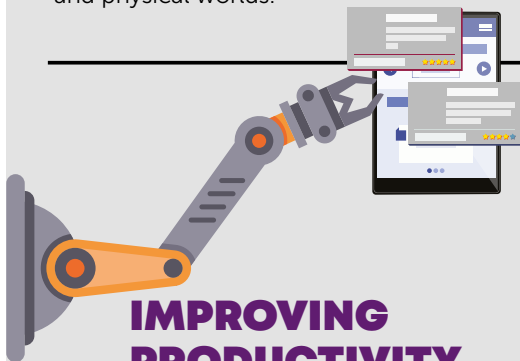


ENGAGING COMMUTERS ONLINE

During the pandemic, we went online to chat with some of our commuters who are visually or physically handicapped, and their caregivers. Over these sessions, we gained helpful insights into their travelling experiences that helped us look at new ways to be even more inclusive in how we deliver our services. We will continue to conduct more of these sessions regularly.

LISTENING TO THE VOICE OF THE CUSTOMER

With the wide spread use of QR codes during the pandemic, we made use of this technology to offer another new and convenient platform for commuters to provide feedback about our trains and MRT stations. This brings the list of our feedback channels to seven, making us more accessible to our commuters in both the digital and physical worlds.



IMPROVING PRODUCTIVITY IN FEEDBACK MANAGEMENT

With regards to our commuters' feedback, we have embarked on a journey that uses robotic process automation to perform routine administrative tasks such as registering, classifying and sending the feedback for investigation to the relevant departments. This not only optimises the use of manpower at the customer relations centre but also results in a faster rate of response to our commuters' feedback. This system is being developed and expected to be implemented in 2021.

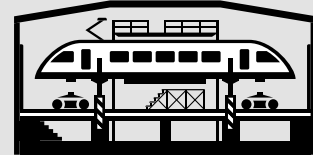
OPERATIONS & MAINTENANCE

A plethora of activities have been undertaken to enable us to deliver our bus and train services smoothly to meet the expectations of our commuters. Employing technology has enabled us to monitor our systems and operational performances efficiently and allows for intervention measures to be taken to deliver reliable outcomes. We are also constantly exploring new technologies for greater operational excellence and efficiency.



ROUND-THE-CLOCK EFFECTIVE CONTROL OF RAIL OPERATIONS AND FACILITIES

On the NEL, the Integrated Supervisory Control System (ISCS) is a key system which effectively manages the control of stations, trains, tunnels and depot. To ensure it continues to operate smoothly, we introduced a system to automatically monitor the ISCS servers' performance in keeping to its threshold setting. This ensures the servers do not function at sub-optimal levels, thereby enabling us to control train operations effectively.



DATA ANALYTICS FOR FLOOD CONTROL

Even in the DTL's tunnel, we use data analytics to monitor the duration of operation of the sump pumps every day. If the pumps are found to be operating excessively, the maintenance team will be alerted to check on the proper functioning of the valves that are used to control the discharge of water and take corrective actions if required. This ensures the availability of the pumps to prevent flooding in the train tunnel which would affect train services.

CENTRE OF EXCELLENCE FOR DATA ANALYTICS

To optimise the use of data analytics, we have set up a Centre of Excellence with the Digital Office of ComfortDelGro, our parent company. This will help further develop our capabilities in this area which will strengthen our management of train operations. This Centre will also drive key projects in the rail division to pre-empt system failures as we work at enhancing the reliability of our train services.

BITS & BYTES



Our Bus Captains (BCs) are also not forgotten in our journey towards digitalisation. Using the iSafe system, we are able to monitor the driving behaviour of our BCs in providing safe and comfortable rides for our commuters. Harnessing technology as an independent assessor, the system collates data from two of our landmark systems – SAGE, a telematics system that monitors the smoothness and comfort of bus rides and Mobileye, an advanced driver assistance system that alerts the BC to potential collisions – to effectively present an independent assessment of the BCs' driving competency. Supervisors are, in turn, able to monitor the BCs' performance and undertake the necessary coaching and supervision.

IMPROVING BUS CAPTAINS' DRIVING COMPETENCY

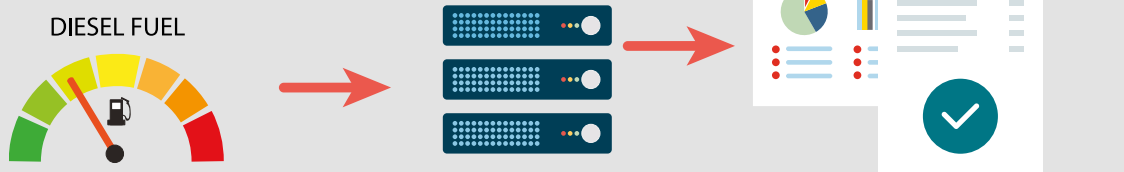
“FIND MY BUS” WITHOUT ANY HASSLE

BCs are now able to easily locate their buses in the depots when they report for work early each morning to start their driving duties. With “Find My Bus”, we have removed the hassle and frustration associated with this daily task. All that is required is for the BC to scan a QR code and key in the bus registration number on the system to know the location when the bus is parked after being cleaned the night before.



AUTOMATIC TRACKING OF DIESEL CONSUMPTION

We have eliminated the need for manual entries in tracking the volume of diesel being used in our operations. With the Diesel Management System, it sends the data to a central server where reports are efficiently generated for management's review.



GOING PAPERLESS WITH TABLETS IN THE WORKSHOPS

For efficiency, our technicians are issued tablets when performing their daily maintenance activities at our bus depots. These devices are installed with the Bus Mobile Maintenance System application which contains online maintenance checklists for the assigned tasks. Work instructions, drawings, electrical schematics, and other relevant information are also readily available on the tablets. Access to the bus manufacturers' online portals also provide our technicians with quick access to detailed bus maintenance information. Besides work efficiency, the system also enables our workshops to go paperless.



STREAMLINING DEFECT REPORTING SYSTEMS

We have also made it easier for our employees to highlight defects in our systems, devices or infrastructure using Dr Rail on the mobile application, iLink, or the web-based Rail Corrective Maintenance System. Both systems are integrated to share the same database so that rectification works for all defects are monitored centrally for timely completion. Reports are readily generated to provide a status of the rectification works in progress to ensure nothing is missed out.

SUSTAINABILITY

Technology also plays a role in our journey towards sustainability.

E-SERVICES FOR BUS CAPTAINS ON THE GO

Recognising that they are always on the move, we introduced e-services for our 6,200-odd BCs, enabling them to use their handphones to carry out a host of administrative functions such as checking on work rosters and payslips, applying leave and reporting incidents and bus defects wherever they are. BCs can also access their individual driving competency scores generated from iSafe to find out about their driving behaviour. Using a mobile application, iLink, our BCs are given the flexibility to perform these functions at their convenience as well as stay in touch with the Company through news, safety alerts and advisories.



BITS & BYTES

DIGITALISING WORK PROCESSES

We changed our work processes and work flows in our bus and rail workshops by going digital which has enhanced productivity. This is a green effort that not only saves time in filing but space to store the documents.

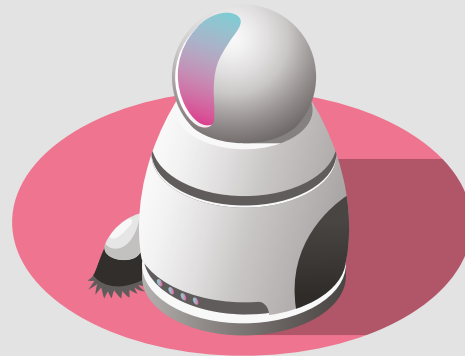


ONLINE TRAINING FOR SKILLS DEVELOPMENT

E-learning modules continued to be rolled out but at an accelerated pace and with more areas of focus added. Training on technical skills such as security and cybersecurity awareness as well as the softer skills in commuter care and managing anger were provided. A learning application was also introduced for employees to receive training using their handphones; making access to learning new skills and knowledge convenient.

STAFF ENGAGEMENT

With the pandemic, we took the digital route to stay in touch with our people. We produced videos to inform, persuade and galvanise our workforce to keep morale high.



AUTOMATED CLEANING

We also worked with our contractor to deploy a cleaning robot to our canteen at the Ulu Pandan Bus Depot. It is constantly on the move, sweeping and mopping to keep the premises clean at all times.