


UNIVERSITY CAMPUS INFRASTRUCTURE

ANNUAL REPORT 2020



RE-
IMAGINING
THE
FUTURE



LOOKING BACK, MOVING FORWARD

ABOUT US

University Campus Infrastructure (UCI) is a cluster of 8 offices and 2 units helmed by the Senior Vice President (Campus Infrastructure). These offices/units, which can be found in the organizational chart below, work closely to ensure that all campus infrastructure augments the campus experience for the community to live, learn and play.

In the latest phase of development, UCI looks towards building a campus of the future that is Smart, Safe and Sustainable (S3). This encompasses a repertoire of strategies marked by 3 signature programmes: Spatial Intelligence, Reimagining The Campus and a Sustainability and Climate Change Action Plan, which are all primed to strengthen NUS' position as a global leading university.

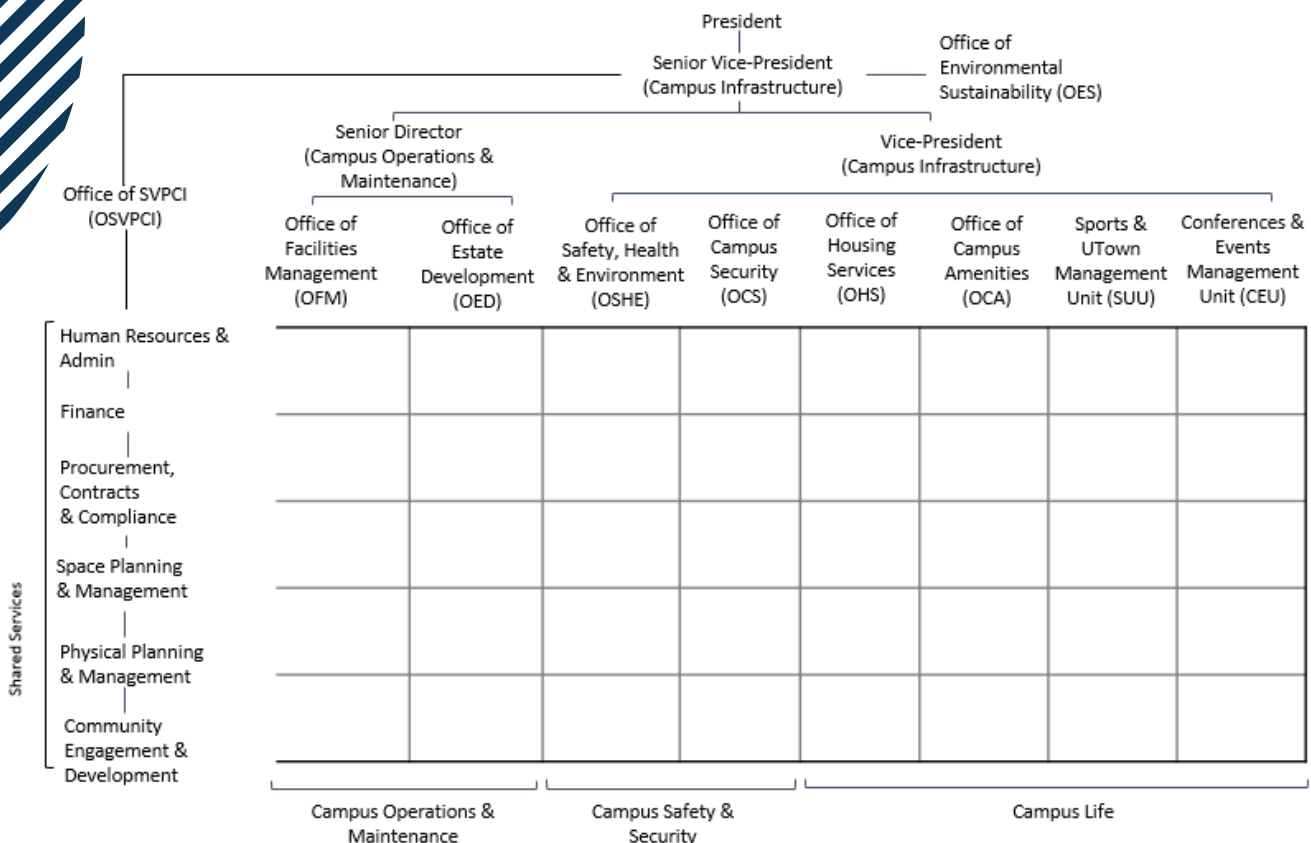
OUR CORE VALUES:

- Respect
- Integrity
- Commitment
- Excellence

OUR MOTTO:

Dream it. Do it.

ORGANIZATIONAL CHART



UCI MANAGEMENT



Prof Yong Kwet Yew
Senior Vice President
(Campus Infrastructure)

Mr Koh Yan Leng
Vice President
(Campus Infrastructure)

Mr Chew Chin Huat
Senior Director
(Campus Operations &
Maintenance)

Dr Peck Thian Guan
Senior Director
(Office of Safety, Health
and Environment)

Mr Sng Jin Soon
Director
(Office of Campus
Amenities)

Mr Keith It
Director
(Office of Campus
Security)

Mr Lincoln Teo
Director
(Office of Estate
Development)

Ms Amy Ho
Director
(Office of Environmental
Sustainability)

Mr Foo Tung Mooi
Director
(Office of Facilities
Management)

Mr Richard Ong
Director
(Office of Housing
Services)

**Mr Rajavarman S/O
Mathichandran**
Head
(Conferences & Events
Management Unit)

Ms Tan Wen Mei
Head
(Sports & UTown
Management Unit)

Ms Geraldine Lee
Head
(Community Engagement
& Development)

Ms Tan Bee Leng
Head
(Finance)

Ms Chia Ser Suan
Head
(Human Resources & Admin)

Mr Ng Chin Fei
Head
(Procurement, Contracts
& Compliance)

Mr Lee Fook Ngian
Head
(Physical Planning &
Management)

Ms Sanny Djohan
Head
(Space Planning &
Management)

Mr Ian Tan
Head
(Resource Management)

FOREWORD



Prof Yong Kwet Yew
Senior Vice President (Campus Infrastructure)

COVID-19 created unprecedented disruptions in the ways we work, live and learn. Unlike other crises, the virus is one that is uniquely complex and unpredictable; which has created enduring shifts in the way we perceive health and safety for the university.

"Reflection, Resilience and Reframing; these are the 3 principles we have remained mindful of as we envision the future of our campuses"

Yet, COVID-19 is a time machine that we will eventually step out of, and we must be prepared for the next "world" we step into. It is only by reimagining this future we are about to step out into, that we can emerge stronger, better, wiser.

Reflection, Resilience and Reframing; these are the 3 principles we have remained mindful of as we envision the future of our campuses, and pave the way towards a sustainable future.

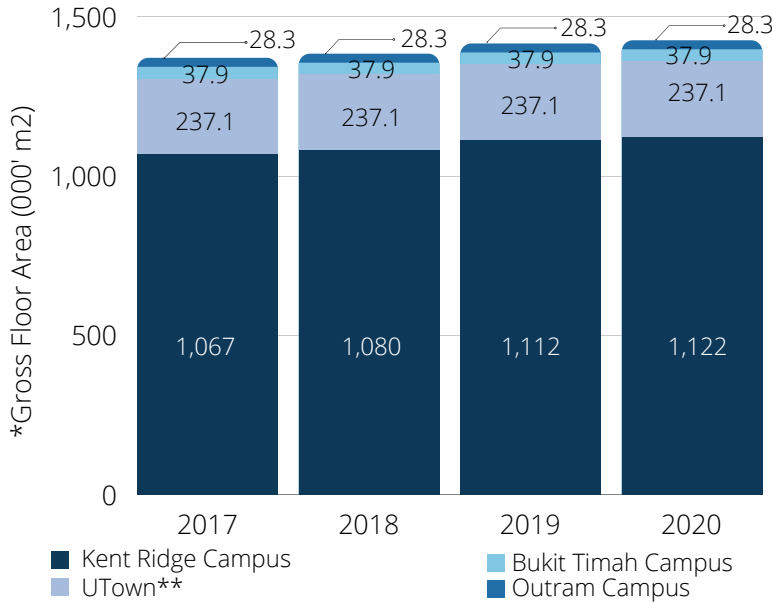
In this report, we start by looking back at the year; first, at the Organizational Excellence (OE) breakthroughs in digitalization by the Innovation Excellence Transformation Unit (iETU), then by reflecting on key initiatives such as keeping the community safe, supporting recovery and quarantine facilities, as well as maintaining operations during the circuit breaker. Each of these initiatives presented its own set of difficulties and challenges - all of which, I am proud to say our staff braved through and emerged triumphant. Beyond these efforts, we have reviewed our practices and refined our S3 programmes. We've identified more opportunities to improve on and scale up our strategies, such as intensifying our tree planting from 8,000 to 10,000 annually, engaging in place-making to enhance walkability through the campus, and setting ambitious goals of achieving a zero waste and carbon neutral campus by 2030.

As we move forward in 2021, we transition towards embedding resilience in our practices, by adopting new ways of working; enabling data optimization, and digital upskilling for all our staff. All the while acknowledging that we should not lose our "human touch", and should continue to engage our community. Last but not least, we tap on the emerging trend of "virtualisation" to facilitate events.

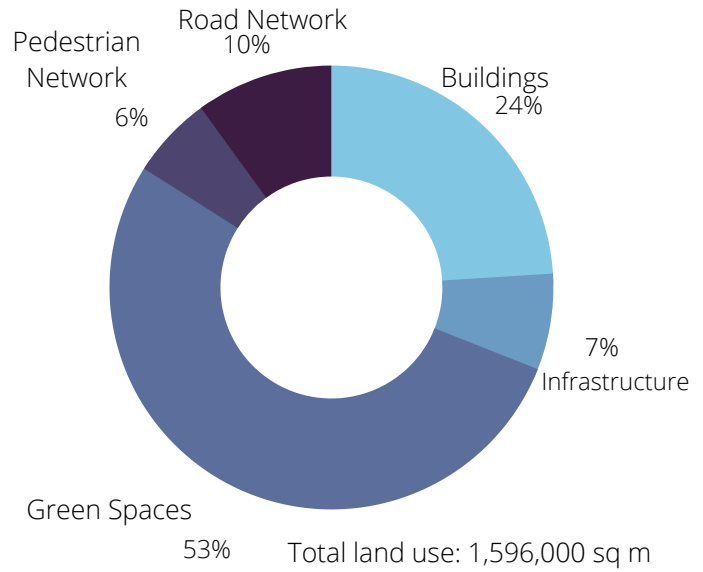
2020 was a year of transformation for the UCI cluster, and this annual report follows our journey through it. While the report itself is not exhaustive, I hope that it provides you with a snapshot of the progress UCI has made, as well as a the hidden heroes behind them.

SPACE & LAND USE OVERVIEW

SPACE USE

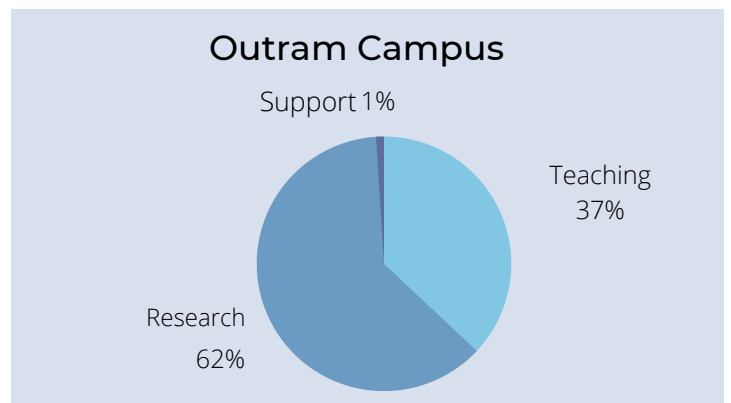
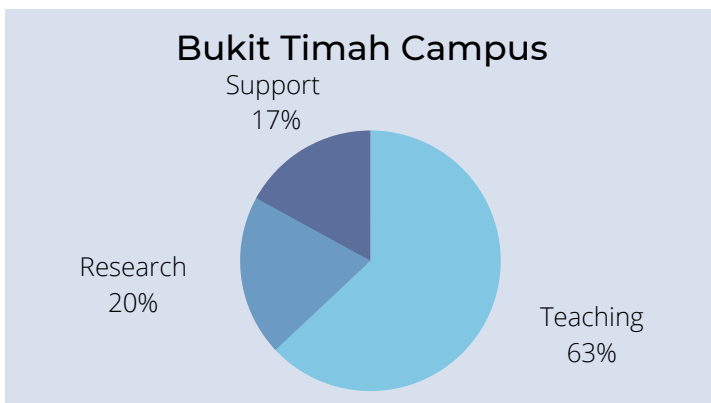
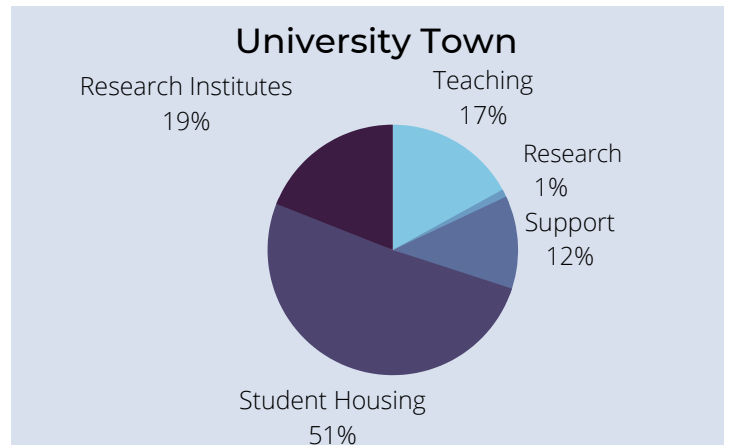
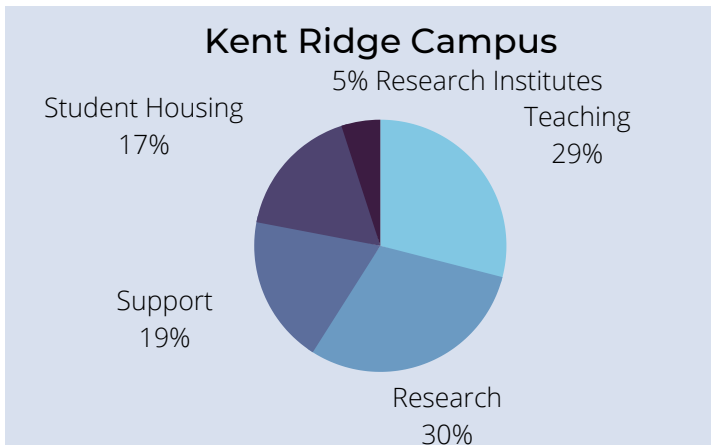


LAND USE



*Gross Floor Area (GFA) is reported as of 31 Dec 2020 (excluding Research Institutes)
 **UTown (including Yale-NUS College)

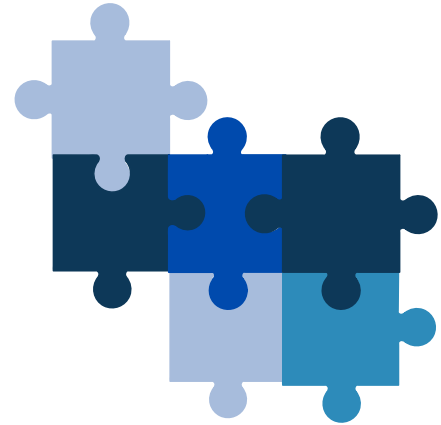
CAMPUS SPACE BREAKDOWN



UCI OE 2020

"The secret of change is to focus all of your energy, not on fighting the old, but on building the new" - Dan Millman

In our OE exercises for 2020, the iETU teams aptly focused on the digitalisation of processes to enable UCI to stay nimble and establish business continuity in challenging circumstances. The breakthroughs from the teams can be found below.



96
UCI colleagues trained
in Business Process
Re-engineering
to date



>900
Man hours saved from
simplification of admin
processes for the Rapid
Response Team



15
iETU
UCI projects



50-70%
Projected time saved
for retrieval of key
project information



9↓
Staff relinquished of Safety &
Health Coordinator duties by
consolidating processes &
functions



100%↓
Reduction of temporary
staff hiring during mass
check in period
(25 to 0)



70%↓
Reduction in time
for CCTV video
retrieval



50%↓
Manpower saving and
improved contractor
performance evaluation
process.

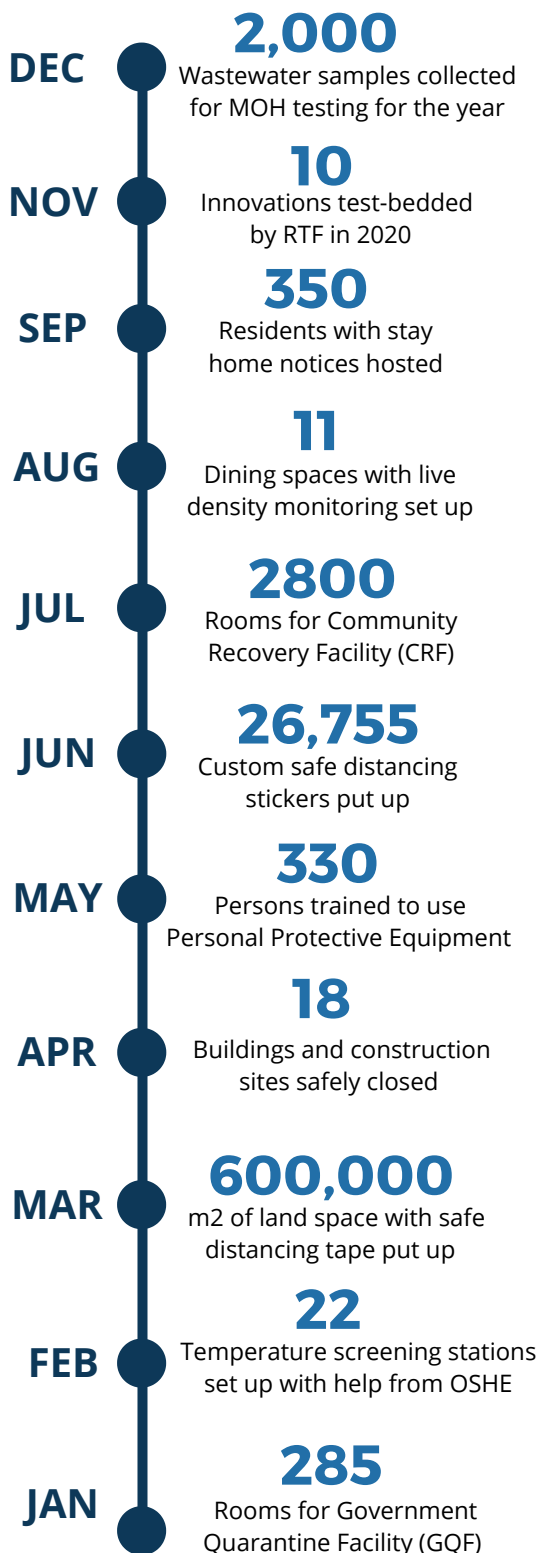


1 HOTLINE
Future reduction from
20 hotlines to 1 for
housing on campus



1
Future integrated
system for UCI
procurement
processes

REFLECTING ON A CHALLENGING YEAR



Year In Review

2020 saw UCI navigating volatility and uncertainty as a cluster. As the pandemic encroached on us, and regulations changed, the cluster swiftly recalibrated operational needs and mobilised resources for deployment. A UCI Crisis and Emergency Management (CEM) Team and Reimagine Task Force (RTF) were established to coordinate efforts and ensure that business continuity plans were adequately applied for the university.

In this segment, we look at some of the key events that pushed us to greater heights, all the while acknowledging that this massive and unprecedented effort would not have been possible without all hands being on deck, and the patience and understanding of our staff to fight this crisis together.

Celebrating Our Hidden Heroes

In May 2020, we launched a new webpage titled Hidden Heroes to celebrate and honour our frontline staff who remain deeply involved in the fight against COVID-19. The page features stories and comments from over 30 staff who share their experiences at work, along with their thoughts on the situation.

The webpage can be accessed here:
<https://uci.nus.edu.sg/hiddenheroes/>

Keeping the Community Safe

It is said that alone, we can do so little; together, we can do so much more. We are, and can only be, as strong as our community is. The health, safety and wellbeing of our community was our highest priority in 2020 and enhanced protective measures were introduced to safeguard the community as they learn, work and play.



Behind the scenes of the PPE training sessions with NUS and Mandarin Oriental (managing agent for NUS CRF) staff conducted by OSHE.



Dr Rajkumar Ramamoorthy (above, left) of OSHE, Uma Thevi and Susan Tan of OCA manning temperature screening stations across different points on campus.

Collation of COVID-19 consumables by Dr Lim Cheh Peng (OSHE).



Yam Guan Shyh, Ravindran S/O Sockalingam, and Mohammad Fazulee of OSHE, and Yeo Boon Teck of OCS behind the COVID-19 and contact tracing hotlines.

*Some pictures in this segment were taken before the circuit breaker.

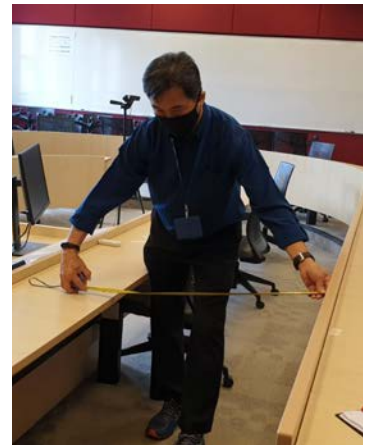
Maintaining Operations Amidst A Pandemic

Thinking on one's feet and being highly proactive became UCI's new modus operandi for campus operations as Singapore implemented the circuit breaker to curb local transmissions and activated strict safe management measures.



"We felt proud to be able to support the University in ensuring that the NUS community remains safe and sound during this unprecedented period. We believe that every action, no matter how small, can go a long way in contributing to everyone's well-being. The pandemic definitely caused anxiety and discomfort to many, and there were times when we encountered rude and unreasonable users. In those times, we always tried our best to first lend a listening ear to try to understand why they reacted this way."

- Raymond Teo (OCA) and Yeo Chin Hoon (OCA) on transport and dining operations



"We really should never be complacent with cleanliness or safeguarding our health. Although some of the tasks can be mundane and tedious, we still see the necessity in doing them. One example is putting up safe distancing stickers - it was really energy-sapping as we had to physically measure the distance and place the stickers one by one, and replace them when they were damaged by wear and tear."

- Wong Hee Hang (OFM) and Muhammad Bin Bathusha Maideen (OFM) on safe distancing and testing of anti-microbial chemicals.



"The safe closing and re-opening of 18 construction sites during the circuit breaker was definitely no easy feat. We had to ensure our contractors carried out proper maintenance, pest control and security at all sites. Subsequently, when these sites were re-opened, additional efforts were required to ensure all workers complied with BCA safe management measures, had undergone swab tests and were COVID-free before returning to work. Whilst it was difficult, we are glad to have played our part to keep our NUS community safe."

- Koh Yong Loo (OED) and Samuel Tan (OED) on building and construction operations



Supporting The Nation's Needs For CRFs and GQFs

It was only the 2nd day of the Lunar New Year (26 January 2020), when NUS began converting the first of our housing facilities to a GQF. Our teams raced against time as they assisted residents in relocating, and commenced cleaning and sterilization of the facilities for those on quarantine, Stay Home Notice (SHN) and Leave of Absence (LOA).



"As the 'nerve centre' for coordination of efforts, our main difficulty was communication; having to liaise with countless departments and government agencies. Instructions, numbers and information were often conflicting and it took much effort and time to ensure accuracy before they could be passed on to ground operations. Yet, seeing the smiles and thanks that our guests gave us after their stay was the most rewarding part of my work here."

- Tan Kim Yen (CEU), on GQFs and CRFs



"Packing and delivering 240 care-packs, breakfasts, and lunches daily was a tall order. We needed to ensure that each meal was packed with food, drink and fruit, and delivered to each resident within 30 minutes of arrival! Thanks to the efforts of the UTown team, volunteers from NUSSU and Office of Student Affairs, we are glad that we managed to overcome the challenges faced. One memorable moment was when a resident wrote to us, expressing his gratitude for the hospitality that he received during his quarantine with us. Even though it was only a short message, it made us feel that all our effort was worthwhile!"

- Roosalind Yeo (OHS) and David Cheong (OHS), on GQFs and CRFs



EMBEDDING RESILIENCE IN OUR PRACTICES



We carry the torch from Isaac Newton, whose year in social isolation during the 1665 plague gave rise to new and innovative findings. Being confined to the 4 walls of our homes provided pockets of time and space to muse, and review many of our existing practices to build stronger, more resilient ways of working. We looked towards tapping on emerging trends and tested them in many instances; such as hybrid (a cross between online and physical) events, and creating digital operations dashboards.



In 2020, OCS completed its transition to fully electric vehicles (EVs) for its patrol fleet. The EVs are eco-friendly, and less costly to maintain. Internal charging stations also meant that security response times need not be compromised as the need to drive out of campus to top up petrol has been eliminated.



Live operations dashboard in OCA



Team behind the OHS The Rising Star Season 4 virtual event (Picture taken before circuit breaker)



"The digital launch of the Zero Waste Action Plan 2030 amidst the pandemic was a first for the Recycling Taskforce despite the technical IT challenges. We have set an ambitious diversion target of 90% by 2030, a significant step up from our 24% recycling rate in 2019. We will encourage our community to conscientiously sort waste into various recycling streams and reuse as much as possible. Together, we can progress further on our zero waste journey, despite COVID-19."

- Loo Deliang (OED) and Harry Lim (OFM) on Zero Waste NUS



Maintaining The Human Touch

Safely distanced, but still socially connected. Even as COVID-19 physically separated us more, we looked into ways to weave the human touch back into our lives, by reaching out to those in need, and engaging the UCI community in our initiatives.



Festivities and NUS Day of Service event organized by the UCI Recreation and Leisure Activities Committee (ReLAC) for the cluster



Urban farming activity (on left) in Jan 2020, and physical tree-planting sessions (on right) conducted in Nov 2020

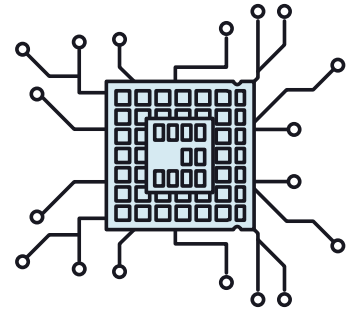
"Our H and G unit in OFM aims to conserve the natural heritage of NUS, create an environmentally responsible campus, and fight climate change. We believe it is important to engage our community in greening NUS for climate action; nurture a deep sense of appreciation for nature, and this year is no exception. To comply with safe management measures, we organized 7 tree-planting sessions instead of our usual single session to include all who were keen to participate. With that, we are also pleased to share that 10,000 trees have been planted as of 2020, an increase from the initial 8,000 tree target!"



Mary Peh, Seh Been Tah and Ang Chee Wee (OFM) on horticulture and grounds (H and G) work

REFRAMING OUR CAMPUS BEYOND COVID-19

A recent report by McKinsey* finds that COVID-19 catalysed the uptake of digital technology by several years and that many of the changes are likely here for the long haul. For UCI, it means speeding up our journey towards a smart, safe and sustainable campus, and test-bedding more digital solutions than before. Some of these include the digitalization of customer interactions, automation of operations and the use of new collaborative platforms for project management.



New and Digitalized Processes



Launch of OHS chatbot



E-payments



Network Attached Storage (NAS) for CCTV footage download and sharing



Web-based platforms for project management



CCTV crowd monitoring systems



Virtual and hybrid events



Digital menu boards in canteens



Implementation of mobile key for residential check-ins



Instruments for measuring the impact of trees on ambient temperature



Digital Solutions Currently On Trial



Introducing our food delivery bot (on left) which can navigate through different floors of building using elevators, and a mobile tray return bot (on right) that patrons can use to deposit their cutleries and trays instead of walking all the way to the central tray return station.

* <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>

UNIVERSITY CAMPUS INFRASTRUCTURE



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