

Annual Report
FY2017/2018

Shaping a liveable,
loveable city

Urban Redevelopment Authority

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Shaping our future city, our home

A great city is one where citizens love to live, work and play in. It is where they can connect and grow in thoughtfully planned spaces, a place they have a stake in shaping, and a home they feel proud of. Creating a great city lies not just in drawing up great plans, but also in putting people first, at the heart of every plan.

FY 2017 was a fruitful and fulfilling year for URA, as we continued to develop plans for Singapore as a highly liveable, distinctive and sustainable city for generations to come. We introduced urban innovations to make our city more vibrant and convenient to live in. We also broadened and deepened partnerships with our stakeholders to build a more delightful and endearing home together.

Long-term plans for a liveable future and sustainable growth

Long-term plans continue to anchor URA's efforts to build an economically competitive and sustainable city, with a quality living environment that meets the needs and aspirations of all Singaporeans. A key strategy is to create growth centres island-wide. These centres will help drive different sectors of the future economy, and contribute to the transformation goals of the Singapore economy. They will also help bring good jobs closer to where people live, and provide more growth opportunities for businesses.

URA unveiled the master plans of two major growth centres last year: Jurong Lake District and Punggol Digital District. These district-level master plans helped us to plan more comprehensively for businesses and the community, and to promote innovations for greater liveability. Both districts will have flexible and adaptable spaces that cater to the fast changing needs of businesses, and will be supported by resource-efficient urban solutions such as pneumatic waste conveyance, district cooling, and logistics systems. There will be good access to a wide range of social amenities and spaces that are highly-connected, vibrant and green.



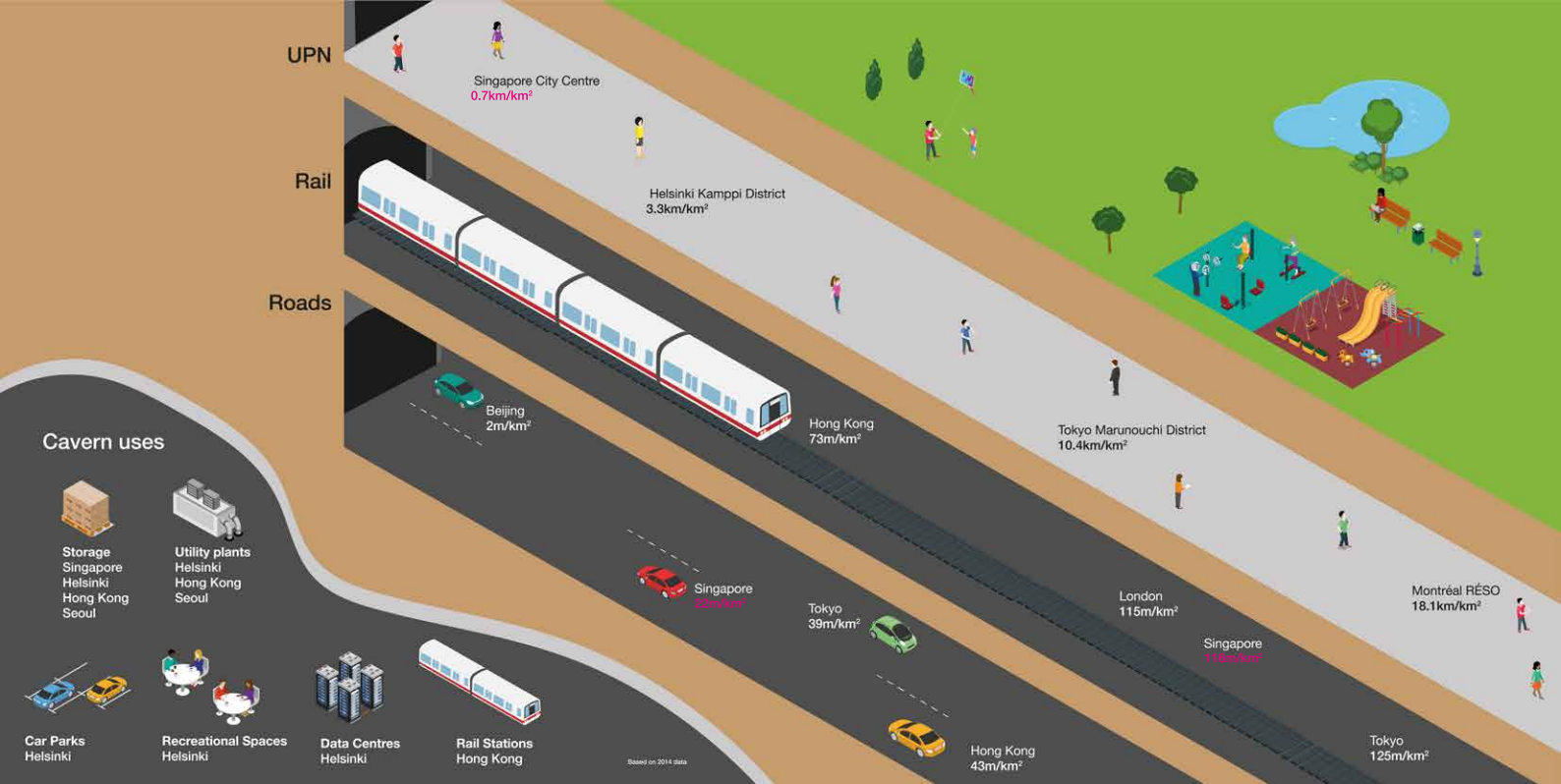


Rejuvenating familiar places

Rejuvenating our city to make it more liveable and people-friendly is a priority. URA announced enhancement works for areas in the Civic District and at Raffles Place, to make them more vibrant and walkable. We are also working out the future plans for Orchard Road to ensure its relevance as a signature lifestyle destination for Singaporeans and visitors alike.

Outside the city centre, we finalised environmental improvement plans to make Jalan Kayu more attractive for both residents as well as visitors. We showcased concepts for future neighbourhoods at Bayshore, Kampong Bugis and Holland Plain, which place more emphasis on lifestyles that are healthy, sustainable and rich with human connection.





Pushing the envelope for a car-lite city

Going car-lite is an important element in our effort to create a sustainable city. In addition to putting in the hardware such as supporting infrastructure and policies, we recognise that it is vital to gain the support of the people in the push towards becoming a car-lite society.

For this reason, we expanded our programmes to provide citizens more opportunities to experience the benefits of a car-lite city. Last year's editions of Car-Free Sunday SG featured more extensive road closures and community activities, as well as stronger participation from our community partners in promoting the car-lite message.

Innovating for a more liveable future

A focus on innovation allows us to incorporate creative urban solutions to optimise our land, enhance the way we plan, and improve the quality of life of our citizens. We have made good progress in planning for underground spaces to site infrastructure and pedestrian links, in order to free up space above ground for more community-based uses. Last year, we facilitated plans for the first 230kV underground substation in Singapore. Now we are tapping 3D digital technology that will help us to better visualise, plan and design underground spaces.

We continue to explore creative uses of urban spaces. The launch of the LUSH 3.0 (Landscaping for Urban Spaces and High-Rises) programme literally took greenery to new heights through schemes designed to encourage more high-rise farms and gardens, helping to position Singapore as the capital city for vertical greenery. The "Growing More with Less" exhibition was another useful platform which generated awareness on the potential of high-tech urban farms to increase food resilience while freeing up land to support future development needs.



From the top: URA's commissioned study by Arup, showing where Singapore stands in terms of international best practices in underground space management (image credit Arup) and examples of buildings that embrace vertical greenery - the Lee Kong Chian History Museum (above left image credit Finbarr Fallon) and the Tree House Condominium (above right image credit Finbarr Fallon)

Making daily life more convenient

The goal of deploying smart solutions is to improve the living environment and the quality of our daily lives. The new Parking.sg app, for instance, demonstrated how digital technology can be applied to provide innovative public services that benefit citizens in a practical and user-centric way.

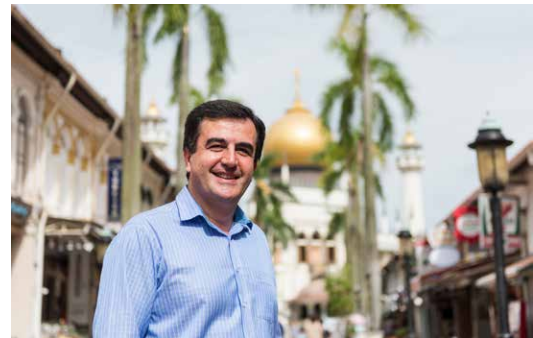
URA has also improved other digital public services, such as enhancing URA SPACE to provide professionals and the public with better information on land and property uses under one roof.

Engaging widely to strengthen interest in what we do

A city is truly home when citizens are able to identify its needs, and then take ownership to shape its spaces and future. Beyond consulting our stakeholders – the people and the private sectors – on future plans, URA reached out widely to promote our efforts in urban planning, and strengthened partnerships to collectively shape a delightful and endearing home. To this end, we developed the URA Volunteer Programme to enhance our engagement. The support from our volunteers enabled us to engage citizens more effectively to raise awareness in city planning, and involve them more extensively in shaping our plans.

Through local and global platforms, URA engaged industry partners to profile the roles of architectural excellence and good urban planning in building a liveable city. The “20 under 45” Exhibition, the Lee Kuan Yew World City Prize Laureate 2018, and the World Cities Summit 8th Mayors’ Forum, reflected our commitment to engage and to recognise our partners’ contributions, as well as to collaborate to promote and apply best practices. To grow interest in city planning among young people who are the future of Singapore, last year’s Challenge for the Urban & Built Environment and Urban Planning Festival gave students a platform to showcase their multifaceted talents in imagining Singapore’s future as a city.





Celebrating our built heritage together

Conservation in Singapore has always been done with strong community support in order to ensure that all conserved buildings meaningfully commemorate our past, while staying relevant to current and future needs. This principle was reflected in the conservation of the National Aerated Water Factory building in December 2017, and reaffirmed in the annual Architectural Heritage Awards in October 2017. Through open and robust dialogue, URA worked with various stakeholders to maximise the retention of the Ellison Building, which will be affected by the construction of the North-South Corridor, and to retain selected blocks in the Dakota Crescent estate with a view to integrate them with future developments.

To nurture stewardship for our built heritage, we have collaborated with students on several initiatives. These included a documentation exercise of the conserved Bukit Timah Railway Station by students from the Singapore University of Technology and Design, and having student volunteers from the Institute of Technical Education West campus lead heritage tours in Tiong Bahru.

A great city for the people, by the people

The key to making spaces meaningful and delightful is to have the people themselves take charge in shaping and activating them. Following years of public engagement to develop the plans, we have started work along parts of the 24 km Rail Corridor to make it accessible to people of all ages and abilities. The conversation continues with more partners on board to design and programme the Corridor as a vibrant, shared community space.

Our focus in place making has reaped results, with more stakeholders taking on a proactive role in enlivening their precincts. In recognition of these contributions and to encourage more stakeholder-led place management, we awarded the Place Champion Award 2017 to the chairman of One Kampong Gelam, and launched the pilot Business Improvement District programme.

We also moved the gear a notch forward in our support of ground-up initiatives to transform streets into treasured spaces for everyone, with new runs of the “Streets for People” and “Our Favourite Place” programmes, as well as PARK(ing) Day. We introduced more platforms for citizens to contribute innovative ideas for public spaces, such as the inaugural URA-REDAS “Spark Challenge” and “Re:bench” competitions. We hope to see more community-initiated ideas being translated into reality, and will certainly work with everyone to make this happen.

The work of creating a great city never ends, and the means of this undertaking will evolve over time. The only constant is that a great city will always be defined by its people, so citizen-centric planning will be the main ingredient in making a great city and a great home.

I thank all our partners and stakeholders – Singaporeans especially – for their contributions, and for working together with us to make Singapore a great city to live, work and play in. I also thank URA staff for their professionalism and dedication.

Peter Ho Hak Ean
Chairman

From the top left: The Red House, the Cathedral of the Good Shepherd (image credit Cathedral of the Good Shepherd) and the Warehouse Hotel (image credit: Darren Soh) were recognised in the Architectural Heritage Awards 2017 for efforts in restoration and in retaining the community function as a bakery/café (the Red House). Saeid Labbafi (above, far right), Chairman of One Kampong Gelam, was awarded the Place Champion Award in 2017 for his place-making efforts in Kampong Gelam

Shaping the future

As Singapore's business, housing and social demands and expectations evolve, we continued to think critically and creatively in planning for environments and spaces that can adapt to changing lifestyles, shaping a more liveable and sustainable future.





Planning for future spaces

In support of the future economy, we unveiled key strategies for major hubs outside the city centre such as in Punggol Digital District and Jurong Lake District. These districts reflect a new generation of work environments planned to be highly integrated with inclusive live, work, play, learn spaces. Each district has a unique role to play in contributing to Singapore's growth, defined by a distinctive identity and environment. They will also bring quality jobs closer to citizens' homes, and provide more growth and talent opportunities for businesses.

Punggol Digital District

The master plan for Punggol Digital District (PDD) was unveiled on 21 January 2018, anchoring the north-east region as the first district integrating business and education, driven by technological, social and urban innovation. The plans were jointly developed with JTC, the Infocomm Media Development Authority, and the Singapore Institute of Technology.

The district will house digital firms involved in key growth fields such as cyber-security and digital technology (Internet of Things, data analytics and artificial intelligence) as well as fostering industry-academia collaboration at the new Singapore Institute of Technology campus. It will be developed as a mixed-use district comprising commercial and business park uses, alongside the new Singapore Institute of Technology campus.

The JTC Corporation is the master developer for the district. As it is an Enterprise District, JTC will have the flexibility to develop the district based on overall land use and gross plot ratio guidelines set at the district level, rather than having specified guidelines for individual land parcels. This will allow for better integration of needs, flexibility in responding to the industry shifts, and the ability to holistically plan district-wide design features.

A suite of innovative district-level infrastructure and technologies are planned to optimise the use of land and resources to enhance the liveability and reduce carbon footprint of the district. They include an integrated facilities management system for optimal building management, a pneumatic waste conveyancing system for automated waste collection, urban logistics for centralised automated delivery of goods, and IoT systems from the ground-up that allows continuous digital experimentation and innovation.

The district is also planned with the larger Punggol community in mind, providing an attractive work, learn and play environment. A new hawker centre, community club and childcare facilities will be located within the district, together with parks and public spaces. Along the waterfront, an active and lively market village is planned. The existing Punggol Road will be pedestrianised and transformed into a heritage trail linking Punggol Waterway Park to the Punggol Promenade Park Connector.





Jurong Lake District

In the west, Jurong Lake District is planned to be the largest growth hub outside the city centre. Since the release of the Master Plan in 2008, the area has evolved from an industrial area into a vibrant business district anchored by the Jurong Lake Gardens, Singapore's third national garden.

With the development of the Tuas mega port from 2020 and new rail lines like the Jurong Region Line, the master plan is being refreshed with partner agencies to strengthen Jurong Lake District as a key hub. Some of the key strategies of the Jurong Lake District master plan presented on 25 August 2017 are:

Vibrant district with adaptable spaces

With business needs evolving in the knowledge economy, more flexibility and adaptability is provided for at the urban planning and design stage to cater for changes and evolution in future. A regular grid system for land parcels in the district offers flexibility in providing larger or smaller land parcels to meet different needs while a 'white' zoning for most sites in the mixed-used business area enables landlords and tenants to mix various uses like schools, community facilities, attractions and event spaces within a building, adapting spaces for future needs. Ground floors of developments will also have generous public spaces and through-block links for greater interactions and networking, creating a lively streetscape.

Shift towards sustainable mobility

The district offers a shift in paradigm to more sustainable mobility where green mobility options like public transport, cycling etc. will take centre stage. Dedicated transit corridors are planned for residents, workers and visitors to move around easily and to MRT stations. It is envisioned that the target mode share of more than 80 per cent of all trips will be made via public transport, higher than the current 66 per cent islandwide.



Green, blue spaces for everyone

Capitalising on the lake and national gardens in the district, unique green and blue assets will be enhanced further with a recreational belt created within the mixed-use business district and around transport hubs. 100 hectares of park and open spaces will be added. All new developments will feature skyrise greenery, forming a 'green carpet' in the sky. A new water channel is also planned for Jurong Lake, creating an extensive waterfront space for all to enjoy.

Smart, sustainable district

The district is envisioned to be one of the most sustainable district in Singapore with targets set, for example, all new buildings will be required to achieve a Green Mark rating to reduce energy consumption by up to 30 per cent. Smarter and more integrated urban systems will be explored like the district cooling system, common services tunnel and the pneumatic waste conveyance, and these will be located underground to free up land for housing, greenery and other uses. In addition, the district can potentially further leverage on infrastructure design, technology and data to optimise and influence lifestyle choices and resource consumption.



From the top: Artist impressions of a bird's eye view of Jurong Lake District, a courtyard in the main business area and a community space

Future neighbourhoods

In envisioning future neighbourhoods, we presented new possibilities for three future residential precincts, Kampong Bugis, Holland Plain and Bayshore, with a focus on more people-centred designs to support healthier and more sustainable lifestyles. Key ideas were presented in an exhibition, “Designing neighbourhoods of the future” that sought public feedback. Some of the key strategies unveiled for the three precincts on 16 October 2017 are:

Moving around with ease

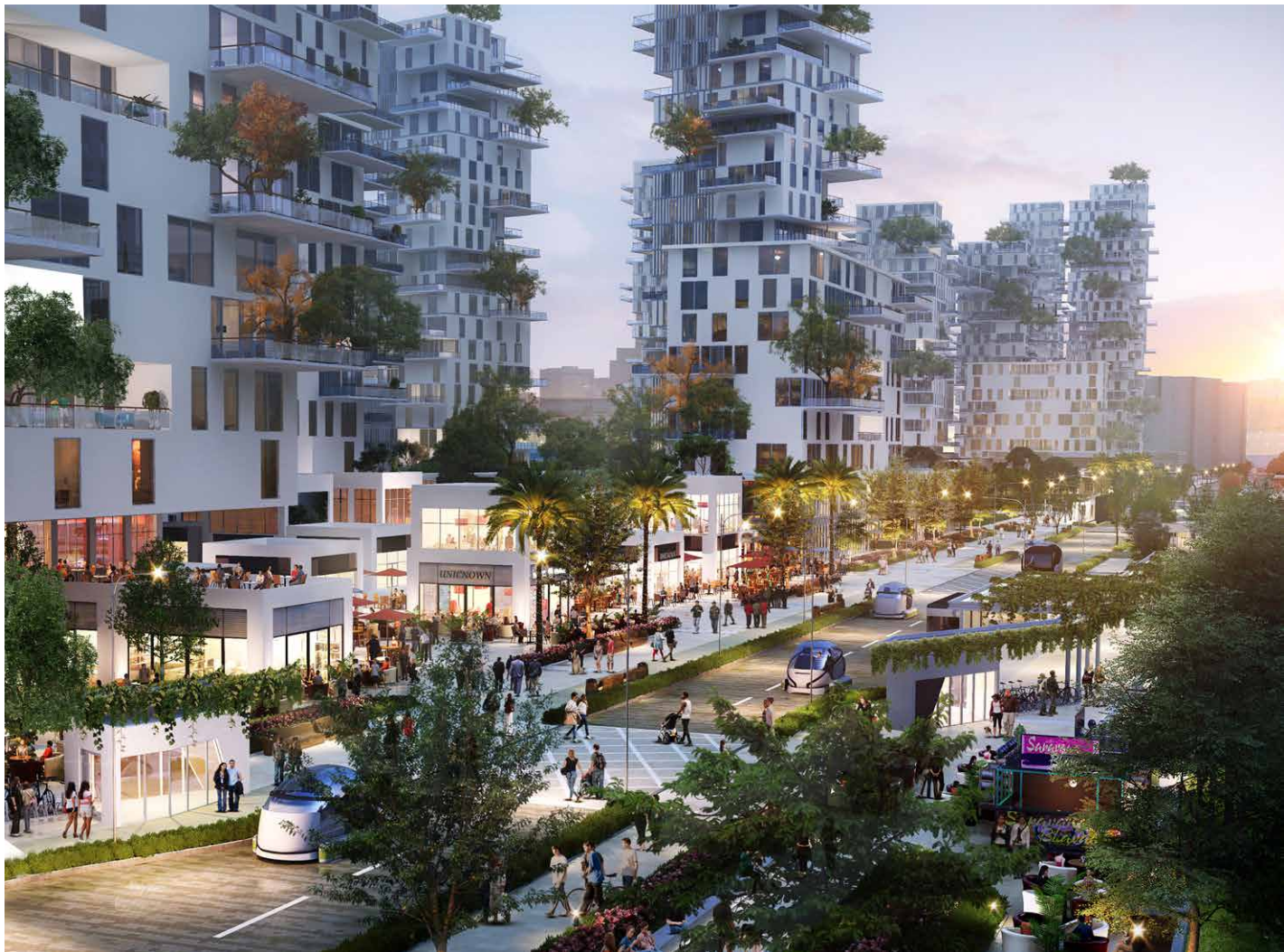
A variety of mobility options are encouraged in the three precincts, whether on foot, using bikes or other mobility devices. Public transport nodes and shared transport are also planned to be easily accessible. With a focus on more car-lite environments, there will be more space for greenery and other amenities.

Bonding on a larger scale

A diversity of public and recreational spaces are planned on ground, above ground and across neighbourhoods. This offers a wide range of play spaces for all ages.

Greening richly and going up

The rich biodiversity within the precincts will be retained, with naturalised canals cleansing storm water runoff and skysrise greenery encouraged. District level pneumatic waste systems will also be explored to contribute to cleaner environments.



Ideas for the three precincts: key highlights

Kampong Bugis

Location	Along Kallang Basin
Number of homes in future	4,000
Key ideas	Tapping on the larger cycling network, Kampong Bugis will be piloted as a car-lite residential precinct to be implemented by a single master developer. One can cycle from Kampong Bugis to the city in 15 minutes and have access to a variety of commute options. The existing Kallang Riverside Park will be enhanced into a lush, vibrant waterfront park.

Holland Plain

Location	Near King Albert MRT station, close to Rail Corridor
Number of homes in future	2,500
Key ideas	Two new parks – the community plain and wetland park, will be introduced to encourage community bonding. They will cover 30 per cent of the precinct and native plant species can be introduced to extend nearby habitats and improve biodiversity. Sustainable features like vegetated swales and rain gardens can be incorporated to cleanse storm water runoff and green fingers will be introduced in between developments for better connections to the MRT station and nearby Rail Corridor.

Bayshore

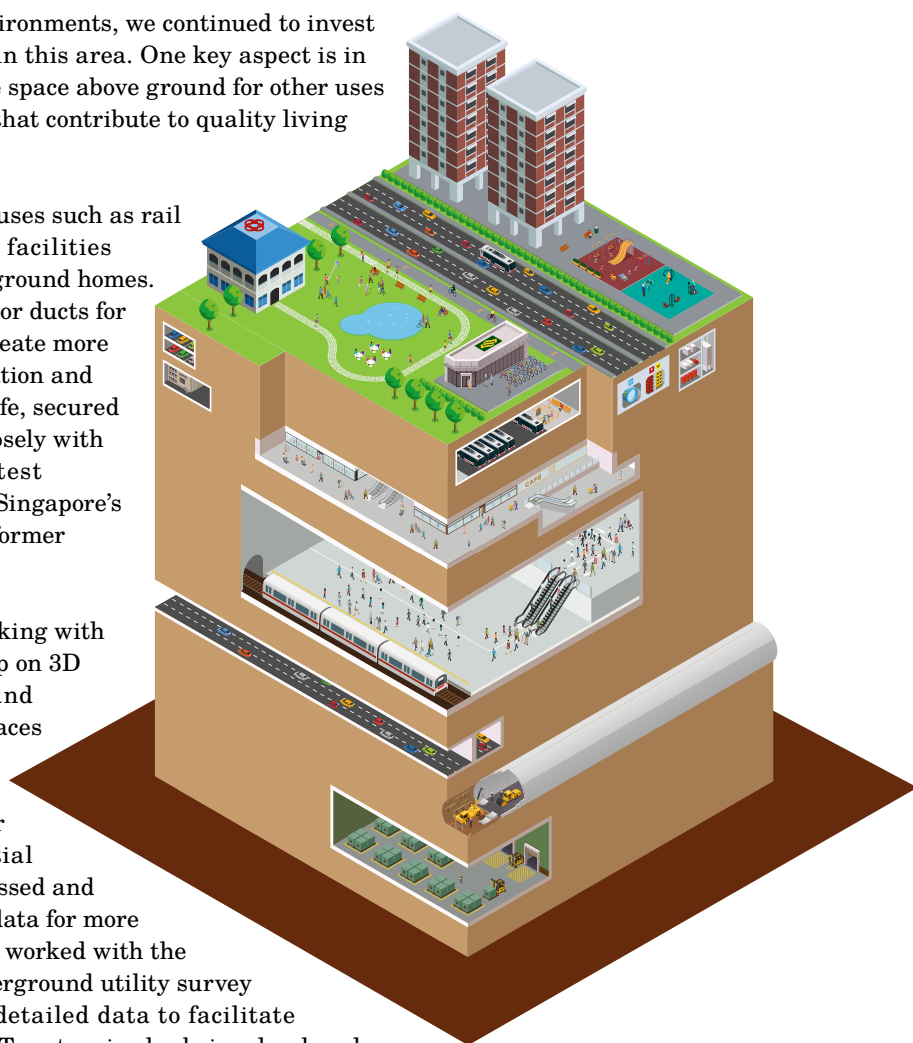
Location	Next to East Coast Park
Number of homes in future	12,500
Key ideas	A 1 km Bayshore street is envisioned with wider pavements lined with trees, cafes, parks. A linear green space behind the existing row of low-rise residential developments along Upper East Coast Road will give a sense of the former coastline in the 1960s and future residents can walk directly to East Coast Park via a new landscaped bridge across East Coast Parkway.

Investing in infrastructure

To sustain the provision of high quality environments, we continued to invest in infrastructures and pursue innovations in this area. One key aspect is in going underground. This helps free up more space above ground for other uses like housing, parks and community spaces that contribute to quality living environments.

In Singapore, the priority remains to place uses such as rail lines, utilities, warehousing and storage facilities underground. There are no plans for underground homes. Developing dedicated underground tunnels or ducts for utilities and infrastructure will also help create more resilient networks where installation, operation and maintenance works can be carried out in safe, secured and controlled environments. We worked closely with partners to plan for and facilitate the latest infrastructure to be located underground - Singapore's first 230kV underground substation at the former Pasir Panjang Power District.

Building on current efforts, we are also working with various agencies and partners to further tap on 3D technology and data for a more holistic and comprehensive planning of underground spaces in Singapore. The aims are to be able to accurately identify and understand the more intricate underground conditions prior to development works, to establish potential obstacles and constraints that can be addressed and to develop detailed visual information and data for more advance planning. As part of the efforts, we worked with the Singapore Land Authority to establish underground utility survey standards to capture more accurate and detailed data to facilitate planning work. An underground planning IT system is also being developed to help with better planning, the safeguarding of our underground space upfront and to guide implementation efforts.



Other infrastructure related initiatives carried out in FY2017 include:

- A new Common Services Tunnel (CST) Act was introduced with legal and regulatory practices and rules to ensure the safe and efficient operation of common services tunnels in Singapore. The CST houses multiple utilities such as electricity cables, telecommunication cables, portable and chilled water pipes. The CST in Marina Bay is located under the roads and is the most comprehensive CST network in South East Asia.
- Works for the 22kV electrical substation-cum district cooling heat exchanger station at the Bayfront event space have started. A first of its kind in Singapore, it helps to keep the outdoors cool, enhancing the enjoyment of major events and activities in the area.
- Land preparation works for residential sites at Sendudok and Dairy Farm areas have been completed.



Deepening insights through research

In finding innovative urban solutions for the future, we deepened our research efforts in addressing urban challenges and issues shaping our urban landscape. In support of a more future-ready city, the Cities of Tomorrow R&D programme was launched on 29 June 2017 to build new capabilities and expertise in various areas: construction productivity, infrastructure resilience, space creation, urban sustainability, urban environmental analytics as well as complex system studies.

We also initiated two design research projects to develop ageing friendly environments for a rapidly ageing population in Singapore. The first seeks to better understand the connection between the built environment and older persons' social, physical and mental health, so as to develop planning and design guidelines for ageing friendly neighbourhoods in Singapore. The second project aims to develop new nursing home typologies that facilitates person-centric care and are well-integrated into the community.

Beyond research, we regularly share new ideas and innovations through Urban Lab, a platform that reaches out to industry, academia and the public in presenting emerging urban trends and inspiring new solutions. The exhibition, "Growing more with less" on 6 September 2017, showcased innovations that are transforming the farming sector and which present new possibilities for a more food resilient future in Singapore.



Farming anywhere

In the “Growing more with less” Urban Lab exhibition, farming ideas and innovations show that technology and new typologies can enable highly productive farms to be located in the urban environment. This reflects a shift in the farming paradigm, redefining the relationship between city dwellers and their food.

Integrated urban agricultural district

In Shanghai, design firm Sasaki Associates is designing an entire district between the airport and city centre that will integrate mass-scale vertical farming and agricultural R&D with homes, shops, restaurants and parks. It also serves as a living laboratory for farming innovation and education in future.



Image credit Sasaki



Image credit Beladon

World's first floating dairy farm

Piloting at the port of Rotterdam in Netherlands, Dutch firm Beladon has designed a floating farm that can produce dairy, eggs or vegetables over virtually any body of water. The platform can potentially produce 1,000 litres of milk a day.

ComCrop's rooftop farming

ComCrop is championing the use of marginalised spaces to feed the city by operating a vertical hydroponic farm on the roof of Scape at Orchard Road, and is ready to scale up with more rooftop farms. Co-founder Allan Lim believes that urban farming has the potential to do for food resilience similar to what Singapore has achieved in terms of water security. “If we become a primary producer of food,” says Allan, “we can spin off multiple products up the value chain, which creates more jobs.”



Citizen farm at your doorstep

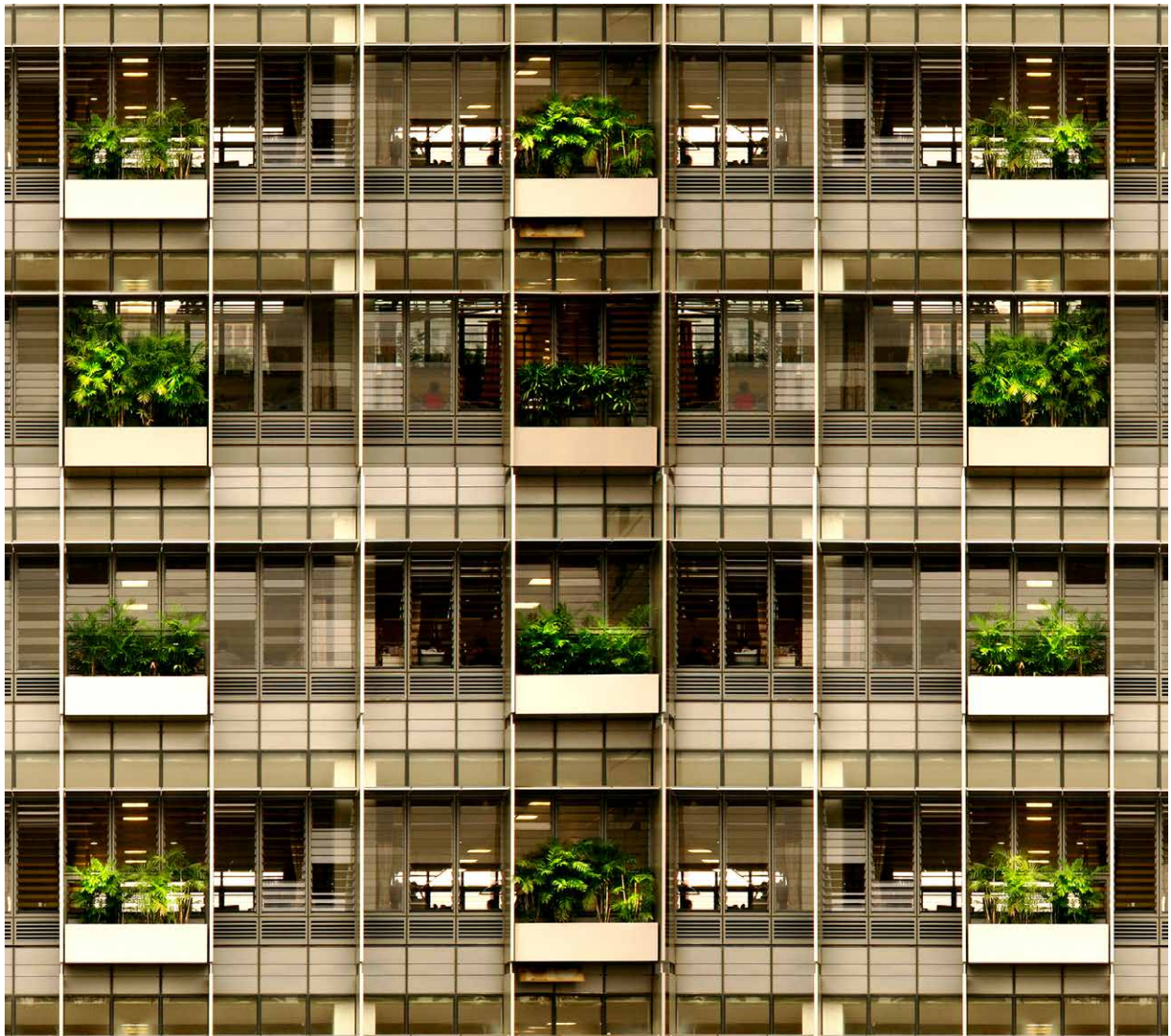
Citizen Farm has a vision to integrate the farm and food production with surrounding child care centres and elderly day care centres, to provide opportunities for education and well-being. The farm has also developed prototypes for indoor growing facilities that can be installed in

housing estates and office buildings. Education and outreach is a large part of Darren Ho's work as head of Citizen Farm, to educate citizens about where food comes from, and also interest them to become consumers of locally-grown produce.



Creating quality environments

What makes a city more lovable? Even as we invest in shaping future environments, we continued to focus on creating quality environments immersed in greenery, while protecting and celebrating our built heritage, encouraging more active mobility and improving environments in key areas.





Boost for greenery

LUSH 3.0

To further strengthen Singapore's position as the capital city for vertical greenery, we enhanced the Landscaping for Urban Spaces and High Rises (LUSH) programme with the launch of LUSH 3.0 on 9 November 2017. First introduced in 2009, the LUSH programme has been a major driver of urban and skyrise greening efforts. It emphasises the importance of integrating nature with architecture as we strive towards the vision of a City in a Garden, leveraging on development proposals as an opportunity to inject even more greenery into the cityscape. This in turn enhances the quality of our developments.



From the top: With LUSH 3.0, some are already developing rooftop gardens such as the Raffles City Singapore Rooftop Garden by Edible Garden City (image credit Edible Garden City) and Spectra Secondary School's rooftop garden led by the school staff developer, Chong-Phoon Lyvenne

Implemented in close collaboration with private and public sector partners, LUSH has contributed more than 130 hectares of greenery over the years since its inception, with the total amount of LUSH greenery island-wide increasing at an annual average of 15 per cent.

To keep up with urbanisation, the roles and contributions of urban greenery must continue to evolve. Thus under LUSH 3.0, the aim was to support more forms of greenery that can contribute positively to sustainability and the urban ecology. These include urban farming, green walls, and green roofs co-located with solar panels. In addition, minimum Green Plot Ratio standards were also introduced for private developments to safeguard sufficient density of greenery within a site.

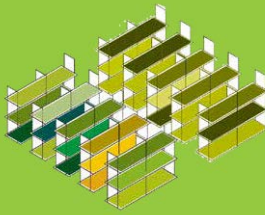
ROOFTOP URBAN FARMING

Under LUSH 3.0, rooftop urban farming can qualify as a form of landscape replacement.

This will encourage urban farming on rooftops, providing an opportunity for Singapore to enhance the resilience of its food sources.



Wheelock Place, 2017
Photo provided by Edible Garden City



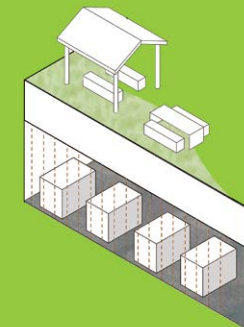
OPTIMISING ROOFTOP USE

Under LUSH 3.0, hotel and commercial developments that place sustainability-related uses like urban farms and communal gardens at rooftops can transfer their rooftop mechanical and electrical (M&E) equipment to the top three floors. Up to one floor's worth of covered area occupied by the M&E equipment can be exempted from gross floor area.

Rooftops offer opportunities for the co-location of uses such as urban farming, greenery and solar panels.



HDB Building Research Institute Solar Garden, 2017
Photo by Amanda Goh



GREEN WALLS

Under LUSH 3.0, green walls are allowed as a form of landscape replacement.

Well-designed and well-maintained external green walls contribute to visual greenery and can help reduce ambient temperatures in the vicinity.



Treehouse, 2017
Photo by Fabian Falken



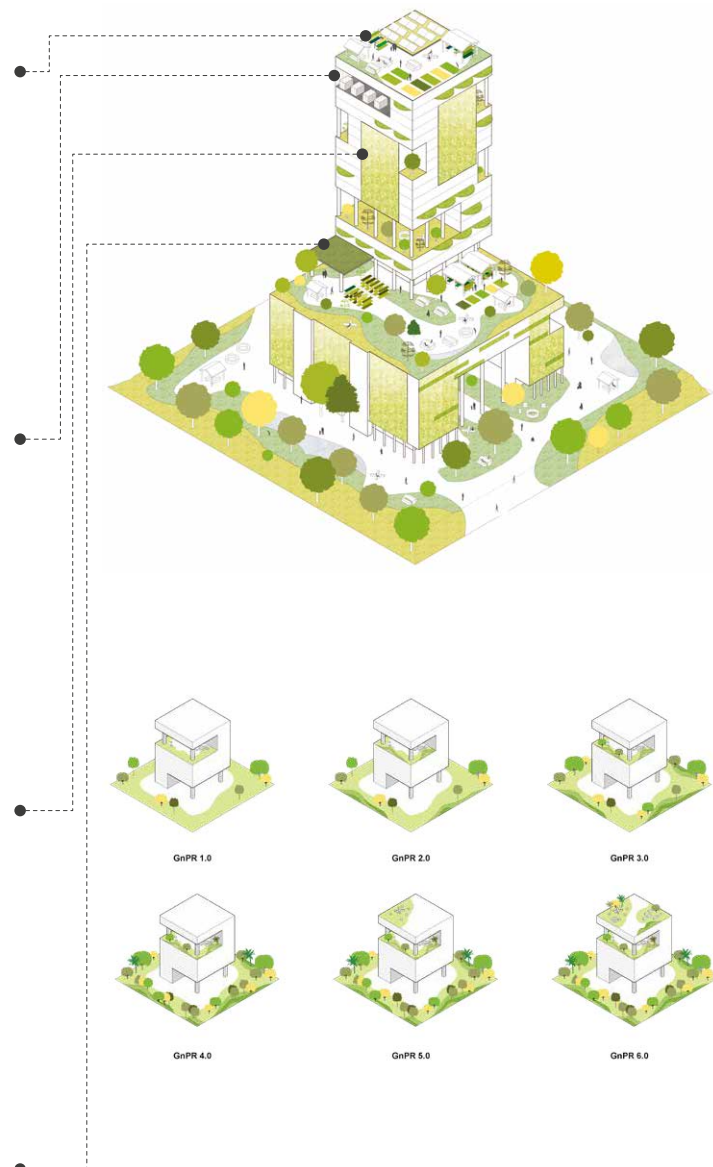
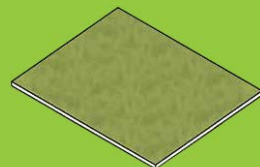
GREEN ROOFS

Under LUSH 3.0, extensive inaccessible green roofs can now be counted towards landscape replacement.

Green roofs can be useful ecological links for fauna like birds and butterflies to navigate the city, providing habitats and food. They also provide visual relief for neighbouring buildings.



Resorts World Sentosa, 2017
Photo provided by ICN Design International Pte Ltd





The concept for Khoo Teck Puat hospital is a hospital in the garden, garden in the hospital. It is a hospital without boundaries whereby the community has access to the hospital. It is a green hospital that is literally full of plants, animals and insects and this contributes to the overall healing environment.

Jerry Ong Chin-Po, Senior Vice President,
CPG Corporation Pte Ltd

Leveraging on the LUSH programme, designers and developers are increasingly looking at approaches to greenery that rethink the building form and urban typologies. Beyond just serving as a visually attractive feature, greenery is also valued for its contribution to the community and the environment. One example is the Khoo Teck Puat hospital.

Rail Corridor

Cutting through the island from north to south, another type of green space is being enhanced. On 21 October 2017, we announced enhancement works together with the National Parks Board for a stretch of the Rail Corridor that will begin in 2018. Previously used as the railway line for the Keretapi Tanah Melayu's (KTM) trains between Singapore and Malaysia which closed in 2011, the Rail Corridor has been planned as a seamless and continuous green and community space for users of different ages and abilities.

Since 2011, we have consulted the community widely on their aspirations for the Rail Corridor and worked with design teams in a Request for Proposal exercise to develop a Concept Master Plan based on the community's contributions. In 2016, we organised a series of community exhibitions and workshops and reached out to residents and stakeholders in the neighbourhoods near the entire Rail Corridor to seek their views on how the proposals can best meet their needs.

The community's feedback has been taken on board to refine the concept ideas for the Rail Corridor (Central), and to develop the preliminary design for the stretch.

Rail Corridor (Central) is a 4 km stretch between the Hillview area and the conserved Bukit Timah Railway Station. The preliminary design for this stretch was guided by three key themes:

Heritage and culture: sensitive enhancements to railway heritage structures and improved public access to these sites.

Biodiversity and greenery: distinctive landscape experiences for visitors, and strengthened ecological connection between green spaces.

Recreation: an inclusive hub with open spaces that cater to a range of recreational activities and needs of different users.



Bukit Timah Railway Station

As part of the proposal, the Bukit Timah Railway Station will be a major landmark of the Rail Corridor (Central), embracing all three themes. It will be transformed into a major community node with a strong sense of history and spaces for the community to enjoy.

In creating opportunities for more diverse groups to lead part of the efforts in transforming the old railway station site, we initiated a collaboration with the Singapore University of Technology and Design. For the first time, students were directly involved in shaping the restoration of a conserved building.

Under the guidance of Assistant Professor Yeo Kang Shua, 31 students from SUTD's Architecture and Sustainable Design conducted an in-depth study of the station building between May to August 2017. They developed survey reports that can help guide the restoration of the building to strengthen its identity as an important reminder of the former railway line when it is put to adaptive reuse. The students' input provided an added dimension to the restoration plans for the building, enhancing the understanding of its heritage value. Kang Shua and one of the students, Yan Yan, share more about the project.

What is one thing the students learnt from the study?

Kang Shua: Even though the station's structure and design is seemingly simple, the students realise that there is much to learn from this building. There is also the challenge of studying a landmark such as this that has limited literature and historical documentation.

How does this study enhance the curriculum?

Kang Shua: It gives students a hands-on learning experience of the intricacies behind architectural conservation. It is important to include historical construction methods in the architectural curriculum, beyond the focus on new construction technologies. This is especially pertinent when an increasing number of structures around the world are conserved.

What can even ordinary windows tell us?

Yan Yan: Through observation and using clues from different parts of the station, we realised that some works had been carried out through the years as technology advanced and the functions of the station evolved. We discovered that there are six different types of glass window panes used in the station, ranging from textured float glass to clear float glass. These indirectly bear witness to the evolution and technological advancements of glass making through the years.





Love for heritage

In recognising the importance of our built heritage, we found many ways of celebrating our historical gems. To raise awareness about our modern buildings, we presented an exhibition, “Heritage of our modern past” to showcase the significant number of modern buildings protected over the years through careful balancing of land use needs and in consultation with the Conservation Advisory Panel and other stakeholders. The exhibition was also on display as part of the Singapore Heritage Festival in 2017 and 2018.

Architectural Heritage Festival and Awards

We also recognised quality restoration of conserved buildings through the annual Architectural Heritage Awards (AHA) on 31 October 2017. In its 23rd year in 2017, two awards were given out to the Cathedral of the Good Shepherd and The Warehouse Hotel, adding to a total of 130 projects that have received the award to date. The iconic Red House was awarded the Special Mention for the effort to retain its community function as a bakery/café.

As part of the AHA outreach efforts, an inaugural month-long Architectural Heritage Festival (AHF) was launched to promote appreciation of our built heritage to a wider audience. The AHF offered guided tours, talks and other activities to share more about the many award-winning conserved buildings and their neighbourhoods. Youths and kids were also engaged in meaningful ways in creating new narratives around our heritage buildings. In partnership with URA, 10 students from Teck Whye Primary School published two books, “A Wish Come True” and “Billie’s Adventures in Joo Chiat” for pre-schoolers, sharing about the life, trades and conserved buildings in Joo Chiat. Students from the Nanyang Technological University’s Wee Kim Wee School of Communication and Information also produced short films with memorable stories about selected heritage buildings.



From the top left: Winners of the Architectural Heritage Awards 2017 – the Cathedral of the Good Shepherd (image credit Cathedral of the Good Shepherd), the Warehouse Hotel (image credit Darren Soh) and the Red House, awarded the Special Mention



Protecting historical gems

Beyond celebrating our built heritage, we also protected more of our historical gems with the support of the community. The main building of the former National Aerated Water Factory was put up on 15 December 2017 to be gazetted for conservation. Completed in 1954, this Art Deco Style building is a well-known local landmark along Serangoon Road as the bottling factory that produced popular soft drinks such as Sinalco, Kickapoo Joy Juice and Royal Crown Cola. It is also one of the last few remaining structures along Kallang River that reflect the area's rich industrial past.

The former Singapore Improvement Trust (SIT) estate at Dakota Crescent has received much interest in the recent years. Taking in feedback from the Advisor and a team from the Save Dakota Crescent group, we reviewed our plans for the area to retain the heritage and identity by keeping the central cluster of six blocks of flats around the courtyard (including the dove playground), while making plans to redevelop the remaining flats into new Housing Development Board flats to serve the needs of Singaporeans.

In addition, we worked with the Land Transport Authority (LTA) to maximise the retention of the corner unit at the Ellison Building that was affected by a section of the North-South Corridor, a major expressway connecting towns in the north to the city. After extensive technical discussions and studies with LTA, their engineering consultant Arup Singapore, and conservation specialist Studio Lapis, as well as consultations with heritage groups, LTA's revised plan will seek to maximise the retention of the affected corner unit, including the iconic cupola of the conserved Ellison Building.

Quality restoration

To continue to guide and improve the standards of works carried out on conserved buildings and to build up the technical competencies within the industry in this aspect, we regularly review our guidelines and produce useful handbooks and best practice guides. On 15 December 2017, we released revised conservation guidelines following a review in consultation with local and international practicing architects and conservation specialists.

The revised guidelines sought to better protect unique original architectural features. New interventions in the historic streetscape will be guided more closely so that overall scale, urban grain and historic character is retained. To complement the conservation guidelines, we also collaborated with the local chapter of the International Council of Monuments and Sites (ICOMOS Sg) to produce a series of conservation technical handbooks to support and promote quality restoration.



Push for greater active mobility

With the emphasis on going car-lite, more improvements were made in the city centre to make it easier to walk and cycle along various streets. Plans for a network of cycling paths in the city centre were announced on 28 May 2017. As part of this plan, Bencoolen Street was revitalised with two of the four original car lanes converted into wider walking spaces for pedestrians and a dedicated cycling path that will connect to existing and future cycling routes around Singapore.

To inject vibrancy into the streetscape, we partnered with students and alumni from the Nanyang Academy of Fine Arts (NAFA) to design and install a series of unique benches along the street. These are well patronised by students and public alike, helping to transform the street into an active, delightful public space.

In addition to the revitalised Bencoolen Street, similar enhancement works were completed in May 2017 at the Civic District to make it a more walkable and people-friendly precinct. The pedestrianisation of one side of Anderson Bridge offers a gateway into the arts and cultural precinct, where pedestrian-friendly public spaces have been created earlier by reclaiming road space around the Padang.

Plans were also announced to transform Coleman Street, Armenian Street and Waterloo Street in the next few years. Road lanes will be reclaimed to make walking and cycling a more enjoyable experience. Part of Armenian Street will be fully pedestrianised and transformed into an urban park by the National Parks Board.

Focus on enhancing city, neighbourhoods

Within the city centre and beyond, we announced major enhancements across precincts.

Raffles Place

Plans were announced on 9 February 2018 for the streetscape around Raffles Place to be enhanced in tandem with the redevelopment of former Golden Shoe Car Park, as part of the continuous efforts to rejuvenate the city centre. This will transform the area into a vibrant and people-friendly precinct in the heart of the Central Business District.

Orchard Road

To further enhance Orchard Road, we launched a public tender together with the Singapore Tourism Board on 11 December 2017 calling for proposals for a business study of the area. The aim was to strengthen Orchard Road's positioning, offerings and visitor experience in continuing to make Orchard Road a vibrant lifestyle destination. The findings and recommendations from the study will be incorporated into a blueprint to guide the development of Orchard Road over the next two decades. In the meantime, shorter term initiatives have been carried out, including initiating several pop-up activities in the area.

Jalan Kayu

Outside the city centre, improvements were also made to key neighbourhoods. An example is Jalan Kayu, an identity node with a popular stretch of shophouses that has drawn people from all over Singapore with its good food and laidback setting. The area is undergoing works that seeks to preserve its distinct identity while enhancing the overall pedestrian experience. Proposed improvements include the addition of new pedestrian pavements, setting aside outdoor areas and enhancing the greenery with more landscaping.

To encourage more quality proposals and higher construction productivity for developments in key areas such as Holland Village, Sengkang Central and Hillview Rise, we adopted the Concept and Price Revenue tender approach for the sale of sites within these areas. At Holland Village, the Concept and Price Revenue tender approach was used to shortlist quality development concepts with meaningful integration of amenities connected through a network of well-designed streets and spaces. We also trialed the use of 3D models for the Concept & Price Revenue tender for Holland Village.



Delighting customers, enhancing capabilities

With technological advancements, we continued to enhance our services and engagement of customers and further strengthened our planning and urban design capabilities.





Delighting customers

Leveraging on technology, we introduced key service improvements and platforms to better serve our customers. Key highlights are:

Parking.sg

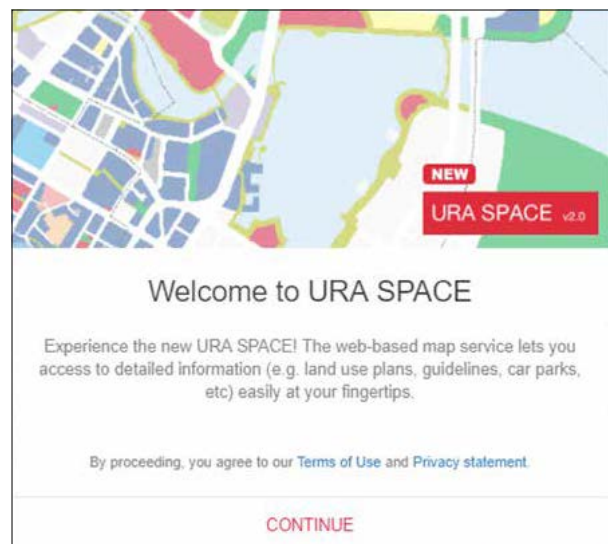
We launched the parking.sg app on 1 October 2017 to make it more convenient for motorists to pay for parking at all 1,100 public car parks that accepts the use of paper coupons.

URA SPACE

We have continued to enhance URA SPACE to offer more self-help e-services and to improve the user experience. In FY2017, we have made the platform richer with five more new information layers added. Developed in-house since 2016 with useful information such as on land use, season parking and property market transactions for businesses, owners and the public, the platform has attracted more than 1.5 million views to date.

Property buyers and developers

To better protect buyer's interest in their purchase of uncompleted non-residential properties, we consulted the public on proposed changes to the Sale of Commercial Properties Act and the Sale of Commercial Properties Rules. The changes will help buyers make better informed decisions with greater transparency and improved industry standards. We released new data on private housing supply from en-bloc redevelopment projects to further enhance property market transparency. To better serve developers' needs, the sale of developers' packets were also made available online.



Enhancing capabilities

Within URA

In harnessing technology and data for better planning, we have made good progress to deepen planning capabilities in the digital age with the three-year digitisation plan. We have assembled a rich set of data on land use and infrastructure, population and amenities, commuter and freight, and ground sensing, that are integrated and available to planners to support planning analytics studies, while having robust governance procedures in place.

To build up our officers' capabilities in using digital planning tools and applying data analytics in planning, we continued with our in-house vocational training programmes such as the Analytics Immersion Programme (#AIM) and an Executive Analytics Programme (#EAP). Our Digital Planning Lab together with the URA Academy, which was set up in 2016, implemented these and other training programmes to help planners and architects develop key competencies to plan for Singapore in a fast-changing world.

In addition, the URA Academy developed the Planners' Competency Roadmap, to provide a structured programme to train new planners and architects in functional work areas and other areas on planning, data analytics and visualisation.



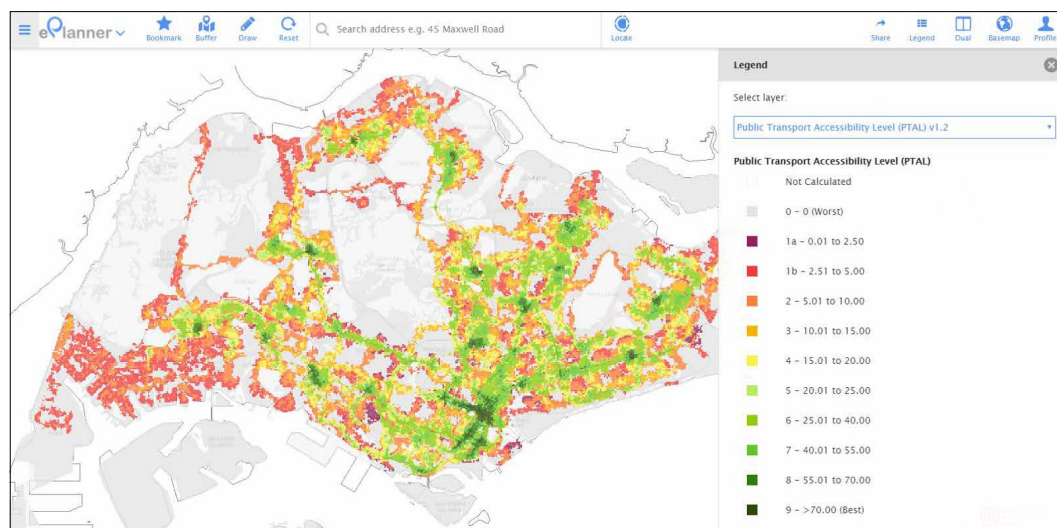
To deepen planners' understanding of planning and policies, URA Academy's senior fellows such as Mrs Koh Wen-Gin, Dr John Keung, Professor Heng Chye Kiang and Mr Khoo Teng Chye were invited to share their experiences in urban planning, design and management.

To build up URA's urban design expertise, an inaugural advanced urban design course was curated for senior architects in partnership with the Future Cities Laboratory under the Singapore-ETH Centre. A new urban design technical department was also set up to drive the use of 3D digital tools for urban design.



Across the public sector

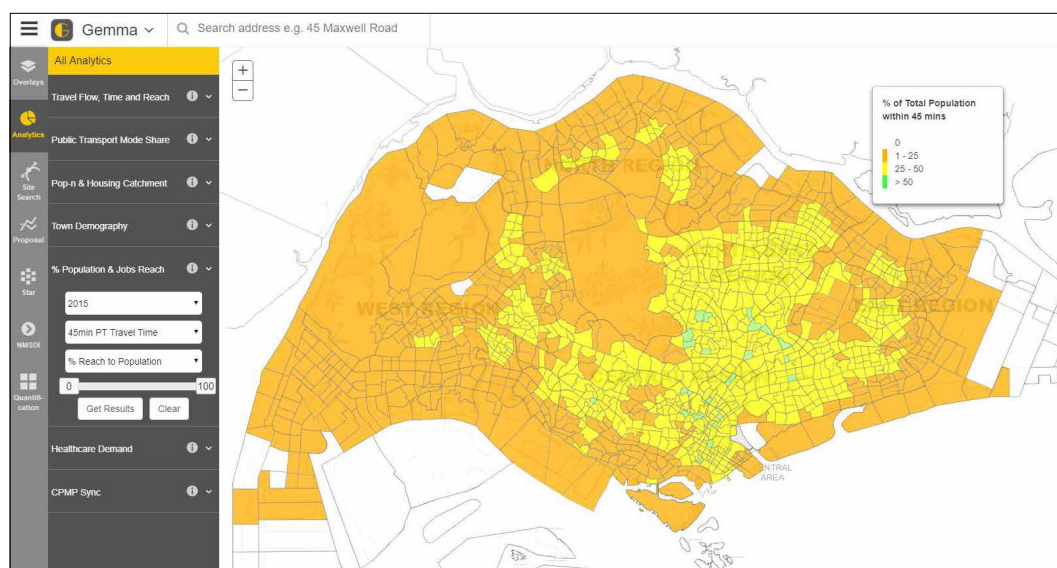
We have also been building up capabilities jointly with agencies. Beyond the training of their officers through #AIM and #EAP, we also partnered six government agencies through Joint Labs to develop new capabilities in digital planning tools (DPTools) and to undertake joint analytics studies. These collaborations have led to more data-informed planning that enable more targeted interventions to better meet the needs of businesses and communities. They have also resulted in improved cross-agency coordination and responsiveness in terms of enforcement actions.



Recognition for digitalisation efforts

Our digitalisation efforts and several digital initiatives have garnered significant local and international recognition. In particular, URA is one of Singapore's public sector leaders in digitalisation. Our digitalisation plan achieved the Public Service 21 Best Practice Award for Organisation Development in 2017. URA also obtained the International Data Corporation Digital Transformation (DX) Awards 2017 as the Asia Pacific leader for talent acceleration, and Singapore leader for information visionary.

URA was also awarded the ESRI Special Achievement Award (SAG) in 2017 for GEMMA, the GIS-Enabled Mapping, Modelling and Analysis platform, for its innovative application of geo-analytics in a common place for planners across agencies to collaboratively conduct integrated land-use planning analysis and simulation, as well as to jointly study land-use & infrastructure scenarios. This has enabled us to strengthen the way we site, size and stage the development of land uses, to better optimise the use of resources while delivering better planning outcomes.



Building communities

Recognising citizens and champions as the key to shaping and sustaining thriving environments and spaces around us, we actively nurtured youths, urban champions and architects in making our streets, public spaces and buildings even more engaging and delightful.





Nurturing the next generation

A key focus of our outreach efforts is in nurturing aspiring young planners and architects through the Challenge for the Urban & Built Environment (CUBE), an annual workshop and competition for tertiary schools started since 2009. In the 9th edition of CUBE held in November 2017, over 145 students from 16 schools became planners for a week, exploring new ideas for Mei Chin in Queenstown, Singapore's first HDB town.

On a larger scale, secondary and tertiary students and teachers can also learn more about urban planning and design through the month-long urban planning festival. The 3rd edition from 22 March to 27 April 2018 has grown, attracting 2,000 students and teachers from 35 schools, with a range of exhibitions, workshops, talks and tours.

A new addition to the festival was a live art jamming session conceptualised by artist Sun Yu-li, together with ArtBeatz over two days, resulting in beautiful art created by 200 youths at The URA Centre. The initiative sought to recreate the splendour of modern civilisation and how it has come to be.

To build community stewardship in shaping our liveable, people-friendly and delightful home, we launched the URA Volunteer Programme to strengthen our engagement with citizens, and deepen their awareness and involvement in URA's initiatives. Hailing from various institutes of higher learning and community organisations, our volunteers took on the role of guides at the Jurong Lake District and Punggol Digital District master plan exhibitions. They also promoted our conservation work, in particular the Historic District of Chinatown, and during the Architectural Heritage season in 2017. Others collaborated with us to drive programming and content, such as running campaigns on our social media channels to raise awareness about Car-Free Sunday SG. A growing group of passionate and talented photographers and videographers also profiles our efforts in shaping a distinctive city, by contributing picturesque perspectives of our city, vibrant streets and public spaces.

To capture and document the lesser-known landmarks, spaces and life of Serangoon Road, one of Singapore's oldest roads, we initiated "DOCUMENTING: Serangoon Road", in partnership with the National Youth Achievement Award Council Young Photographers Network. A year-long project from March 2016 to February 2017 and exhibited in April 2017, Darren Soh, together with three other photographers Bernice Wong, Philipp Aldrup and Chia Aik Beng mentored and guided 30 tertiary students from 16 schools, uncovering new sights and perspectives about this colourful enclave.



Cultivating active champions

Within precincts and along streets, there are many ways for active stakeholders to play a part in shaping these. One area is in place management, a coordinated, multi-stakeholder approach to improve precincts.

Stakeholder-led place management

We have been working with partner agencies and stakeholders to implement crucial place management efforts over the years. In the last decade, more private sector stakeholders have been actively managing precincts in areas such as the Singapore River, Little India and Kampong Gelam.

In recognition of his place-making contributions to Kampong Glam, Saeid Labbafi, Chairman of One Kampong Gelam was conferred the Place Champion Award.

An exhibition and seminar, “Making places great” was organised to celebrate the positive impact that place management has brought to various precincts in Singapore, and encourage more to come on board.

We also formally launched the pilot Business Improvement District (BID) programme, making available seed funding to support stakeholders in their place management efforts. The government will provide dollar-to-dollar matching for the collected membership fees at a cap of \$500,000 per year for a precinct during its four-year term to help encourage more stakeholders to work together for the betterment of their precincts.





Place-making for Kampong Gelam

Saeid Labbafi initiated place management initiatives for Kampong Gelam from 2011. Operating in the precinct for 15 years with several carpet shops along Arab Street, he took the initiative to first approach several shops to rally businesses together. Seven years on, and One Kampong Gelam (OKG), a place-management association he founded in 2014 has 70 members made up of mainly businesses in the area.

How did you get started?

I approached 10 shops to get initial support. And focused on three areas of common interest to stakeholders: improving the cleanliness of the area, introducing relevant events and regular bazaars that will help increase footfall and working on enhancements that will help both businesses and visitors such as ensuring sufficient car parking and outdoor refreshment areas.

How do you gain the support of businesses?

For every major event and enhancement we want to implement, we carry out many surveys with businesses to listen to what they want and need, to ensure that improvements are made with their interests at heart. Very often, we walk door to door to stay in touch with stakeholders.

How can the pilot BID benefit Kampong Glam?

The pilot BID can offer greater financial stability and support more substantial improvements in the long term. Most importantly, it will benefit both businesses and visitors. More will come to visit and stay longer. Kampong Gelam can continue to remain relevant and close to our hearts.



At an individual level, anyone can initiate place management efforts in their neighbourhood, starting with a public space or a street. In FY2017, many local champions and individuals continued to come forward shaping active spaces and streets around us including organising car-free activities through various regular programmes and platforms such as Streets for People and Car-Free Sunday SG. In FY2017, we supported 13 Streets for People projects, and six pop-up projects and public space initiatives under the Our Favourite Place Programme.

Activating spaces, streets

Here are some of the initiatives and activities held throughout the year.

Car-Free Sunday SG

28 January 2017

Car-Free Sunday SG returned for a third edition, since it first started in 2016. The regular bi-monthly events in the Civic District and Central Business District were supplemented by an inaugural one-north event, co-organised with JTC. The events continued to draw strong support by a growing network of passionate corporate and community partners under the Friends of Car-Free Sunday SG network.

“My Ideas for Public Spaces: Pop-up Projects” competition

5 September 2017

The public submitted 102 submissions in the third edition of the competition with pop-up ideas to enliven public spaces. Six winning ideas were selected and another six were given merit awards on 5 September 2017. The winning ideas are being explored for implementation.

PARK(ing) Day

16 September 2017

In the fifth edition of PARK(ing) Day as part of the global movement creating temporary public spaces, 85 parks were generated from car park lots, the highest number to date. For the first time, streets in Bugis and Kampong Gelam areas were also closed to traffic as part of the event.

First precinct-wide street closure

October 2017

The first precinct-wide street closure in Kampong Gelam was organised involving nine streets, in conjunction with the Aliwal Arts Night Crawl. Such a large scale event showcased the area’s diverse offerings and demonstrated many possibilities for all to enjoy the precinct.



Design ideas

Beyond regular programmes, we also created new opportunities for individuals to contribute to creating delightful spaces, generating new ideas and coming together to enjoy distinctive areas like Marina Bay.

The “Re:Bench” public competition was launched on 14 August 2017 to invite submissions for designs of public benches using the remaining salvaged seating planks from the former National Stadium in capturing its spirit and memories. This third edition targeted a new generation of designers aged 35 and below to create benches that not only commemorated the stadium but also served to inject new vibrancy in public spaces.

In the inaugural URA-REDAS (Real Estate Developer’s Association), Spark Challenge initiated in November 2017, ground-up innovations were sought to improve the public’s health and wellness via prototype designs that could be installed in and around shopping centres.

Celebrating the bay

On the Marina Bay front, the sixth edition of i Light Marina Bay continued to bring people together with its many creative installations and range of activities. Held from 9 March to 1 April 2018, the festival presented 22 sustainable light art installations by artists from Singapore and around the world. Designed with energy-saving lighting, recycled or environmentally friendly materials, the installations reinforced Marina Bay’s position as a sustainable precinct. For the first time, the showcase of installations extended beyond the bay to the Esplanade Park where six installations were on display.

The annual countdown celebration was also organised on a larger scale from 26 to 31 December 2017 with Marina Bay and the Civic District transformed into a spectacular celebration venue, decked out in beautiful light projection shows and firework displays.

Marina Bay also welcomed a new addition with the iconic Red Dot Museum which moved to the Marina Bay City Gallery at the end of 2017. The new museum houses several galleries that host exhibitions of award-winning designs. It also holds a monthly market to add life and vitality to the bay.





Inspiring design-conscious communities

In continuing to foster a more design-conscious community in Singapore, major initiatives were implemented under URA's architecture and urban design excellence (AUDE) programme.

20 under 45

"20 under 45: The Third Edition" was launched on 1 December 2017 recognising the next generation of 20 Singapore-registered architects under the age of 45 who have contributed to Singapore's distinctive architecture.

The launch included a major exhibition, book and talks promoting the architects and their works. The "20 under 45" architects were selected by a panel of assessors from the architectural profession and related industries based on their achievements in design, ideas and leadership. Earlier editions were presented in 2004 and 2010.



President's Design Award

Recognising the important role of design in impacting society and businesses, the President's Design Award, the highest design accolade, was revamped as announced on 20 July 2017 with a greater emphasis on the impact of design in transforming work and business; raising the quality of life; enhancing culture and connecting communities; and advancing the design industry and the role of designer.

Jointly administered by URA and the DesignSingapore Council, the revamped award was also changed to biennially instead of annually to allow more time for new architectural projects to fully evolve and assess their impact and to encourage more submissions from multi-disciplinary fields, especially for complex outcome-based projects.

Talks and exhibitions

In promoting architectural excellence as part of the AUDE programme, regular talks and exhibitions are organised each year featuring local and foreign architects and their works. Some of the key exhibitions hosted at The URA Centre were local firm DP Architects' 50th anniversary showcase in August 2017 and British architectural firm Farrells' "Urban Dialogue" in October 2017, a first comprehensive display of the firm's key projects in the region.



Sharing ideas globally

On the global front, we continued to play an active role in contributing to the discourse of creating liveable, sustainable cities through the Lee Kuan Yew World City Prize and other platforms like the World Cities Summit Mayors Forum and the hosting of regular sharing sessions with international delegates.





In honouring outstanding achievements and contributions to the creations of liveable and sustainable urban communities around the world, the Lee Kuan Yew World City Prize was awarded to Seoul, the capital city of South Korea, on 18 March 2018. Through a combination of visionary leadership and active engagement of its citizens, Seoul has flourished to become an inclusive, creative and sustainable city with a high quality of life. The biennial international prize is organised by URA and the Centre for Liveable Cities. Four other cities received Special Mentions for best practices in city management: Hamburg, Kazan, Surabaya, and Tokyo.

In sharing key ideas and best practices across cities, the annual Mayors Forum held in May 2017 in Suzhou, China, brought together many mayors and leaders who discussed how to embrace the future through innovation and collaboration to overcome challenges. URA planners also share their planning expertise regularly with the international community, hosting more than a thousand delegates from over 40 countries each year.

Sino-Singapore Tianjin eco-city

In January 2018, we completed the review of the Master Plan for the Sino-Singapore Tianjin Eco-City (SSTEC), working together with the Tianjin Eco-City Administrative Committee (ECAC), the China Academy and the Tianjin Urban Planning Academy. The review, covering 30 sq km of the Tianjin eco-city, proposed changes to the land use for better integration with the revised location of the MRT station. New ideas were also proposed to allow for greater land use flexibility and to enhance vibrancy in the city.

From June to December 2017, we worked closely with the ECAC, the Joint Venture Company and AECOM consultants to complete the urban design plans for the city centre. The new city centre is a key part of the 4.5 sq km of the central district which is located to the north of the start-up area. The urban design plans include a proposed distinctive skyline for the city centre with tall towers framing a gateway plaza next to the MRT station, envisioning the area as the heart of the commercial, leisure and recreational activities in the eco-city. Residents and visitors can enjoy a 1.2 km vibrant shopping street from the gateway plaza to attractions such as the Sino-Singapore friendship garden and the public library.

From the top left: Seoul has been transformed over the years with many urban initiatives such as the Cheonggyecheon, a green haven in the heart of the city, a result of highways making way for public spaces and the Mapo Oil Tank Cultural Park, an eco-friendly cultural centre crafted from the remains of a fuel storage facility. Image credits Seoul Metropolitan Government and URA

Who we are

Mission

To make Singapore
a great city to
live, work and play

Values

Service
Passion
Integrity
Respect
Innovation
Teamwork

Board members



1. **Mr Peter Ho Hak Ean (Chairman)**
Senior Advisor, Centre for Strategic Futures
Senior Fellow, Civil Service College

2. **Mr Liang Eng Hwa**
Managing Director
Treasury & Markets, DBS Bank Ltd
Member of Parliament, Holland-Bukit Timah
Group Representation Constituency
(until 31 March 2018)

3. **Mr Tan Chee Meng, Senior Counsel**
Deputy Chairman
WongPartnership LLP

4. **Mr Mok Wei Wei**
Managing Director
W Architects Pte Ltd
(until 31 March 2018)

5. **Mr Nagaraj Sivaram**
Partner, Assurance
Ernst & Young LLP

6. **Mr Joe Sim Heng Joo**
Chief Executive Officer
Malaysia Operations Division
Parkway Pantai Limited
(until 31 March 2018)

7. **Mr Goh Sin Teck**
Editor, Lianhe Zaobao
Singapore Press Holdings Ltd
(until 31 March 2018)



8. **Ms Anisa Hassan**
Managing Director
IJL Professional Dating (S) Pte Ltd
(until 31 March 2018)
9. **Mr Khew Sin Khoon**
President and Group Chief Executive Officer
CPG Corporation Pte Ltd
10. **Prof Brenda Yeoh Saw Ai**
Director, Humanities & Social Science Research
Office of Deputy President
(Research & Technology)
National University of Singapore
11. **Dr Cheong Wei Yang**
Deputy Chief Executive Officer
National Research Foundation
Prime Minister's Office
12. **Mr Ngien Hoon Ping**
Chief Executive, Land Transport Authority
13. **Mr Ng Lang**
Chief Executive Officer
Urban Redevelopment Authority
(until 31 August 2017)
14. **Mr Lim Eng Hwee**
Chief Executive Officer
Urban Redevelopment Authority
(effective 1 September 2017)

New Board members (effective 1 April 2018)

Ms Judy Hsu
Chief Executive Officer, Singapore and ASEAN Markets
Standard Chartered Bank (Singapore) Ltd

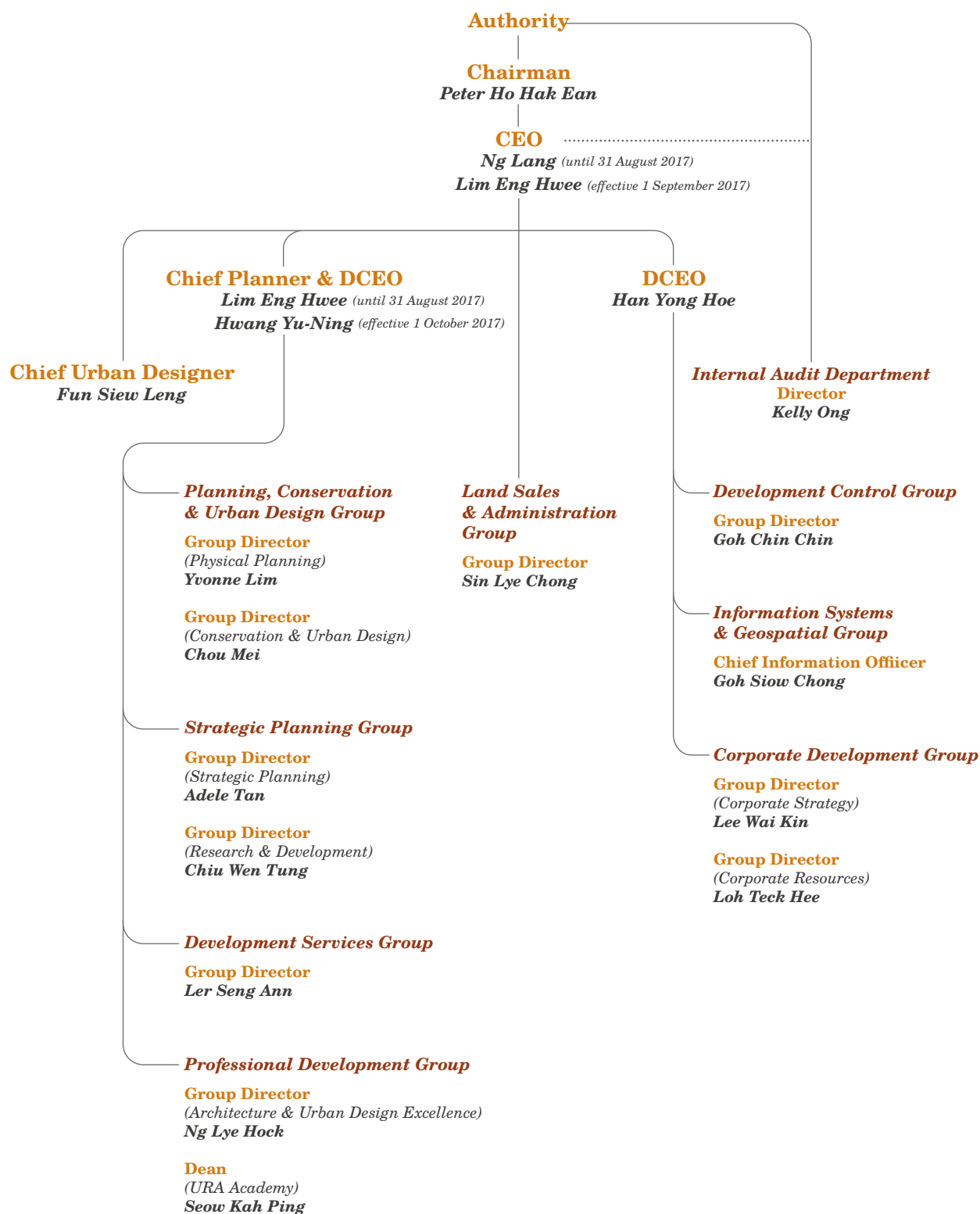
Ms Angelene Chan
Chief Executive Officer, DP Architects Pte Ltd

Mr Bill Chang
Chief Executive Officer, Group Enterprise, Singtel Ltd

Mr Ong Kim Pong
Regional Chief Executive Officer, Southeast Asia
PSA International Pte Ltd

Mr Khairudin Saharom
Principal and Director, Kite Studio Architecture

Organisation structure



With effect from 1 April 2018, the Professional Development Group was renamed Architecture & Urban Design Excellence, and URA Academy came directly under Deputy Chief Executive Officer.

With effect from 25 June 2018, Lee Wai Kin stepped down as Group Director (Corporate Strategy), and Mieko Otsuki was appointed Acting Group Director (Corporate Strategy).

Advisory Committees

International Panel of Experts*

This panel was established to seek the perspectives of international experts, including architects, urban economists, planners and developers, on best practices and the latest global trends in planning and urban design, to address Singapore's planning challenges in the medium-to-long term. It also provides feedback on strategic planning issues identified by URA, as well as perspectives on a broader range of strategic and urban-related issues.

Chairman

Mr Peter Ho Hak Ean

Chairman

Urban Redevelopment Authority

Members

Mr Jeremy Bentham

Vice President, Global Business Environment

Shell

Dr Chris Luebke

Director, Global Foresight and Innovations

Arup

Prof Lui Pao Chuen

Advisor, Ministry of National Development

Ministry of Transport

National Research Foundation

Prime Minister's Office

National University of Singapore and

Nanyang Technological University

Mr Michael Pawlyn

Founder, Exploration Architecture

Dr Peter Edwards

Former Director, Singapore-ETH Centre

Principal Investigator, Ecosystem Services

Urban Landscapes and Cooling Singapore

Dr John D. Kasarda

Director, Centre for Air Commerce

University of North Carolina Kenan-Flagler Business School

CEO, Aerotropolis Business Concepts LLC

President, The Aerotropolis Institute China

Dr Hong-Seung Roh

Director, Logistics Policy and Technology

Korea Transport Institute

Dr Anthony M. Townsend

Principal Consultant, Bits and Atoms LLC

Dr Anne Lise Kjaer

Founder, Kjaer Global

Goodwill Ambassador

Copenhagen and Danish / UK Chamber of Commerce

Prof Rebecca L.H. Chiu

Head of Department, Urban Planning & Design

Director, Centre of Urban Studies and Urban Planning

Hong Kong University

Ms Jennifer Keesmaat

CEO, Creative Housing Society, Vancouver

Former Chief Planner and Executive Director, Toronto

Design Advisory Committee

This committee reviews and provides feedback on URA's urban design and waterbodies design guidelines, as well as advice on local best practices and industry trends for urban design, building and architecture. It also identifies ways to encourage and promote innovative architecture and urban design in Singapore.

Chairman

Mr Mok Wei Wei

Managing Director

W Architects Pte Ltd

Members

Ms Pauline Goh

Chief Executive Officer

Singapore and South East Asia

CBRE Singapore Pte Ltd

Mr Khew Sin Khoon

President and Group Chief Executive Officer

CPG Corporation Pte Ltd

Mr Seah Chee Huang

Director

DP Architects Pte Ltd

Mr Poon Hin Kong

Deputy Chief Development Officer

Asia / Head of Design Management

CapitaLand Group

Mr Cheng Hsing Yao

Group Managing Director

GuocoLand (Singapore) Pte Ltd

Mr Tan Shao Yen

Chief Executive Officer

CPG Consultants Pte Ltd

(until 1 June 2017)

Mr Wong Mun Summ

Founding Director

WOHA

(effective 1 July 2017)

Mr Tan Swee Yiow

Chief Executive Officer

Keppel REIT Management Limited

Mr Wong Heang Fine

Group Chief Executive Officer

Surbana Jurong Private Limited

Ms Fun Siew Leng

Chief Urban Designer

Urban Redevelopment Authority

New committee member

Mr Khairudin Saharom

Principal and Director, Kite Studio Architecture

(effective 1 June 2018)

*The current term for the panel is effective from April 2018

Conservation Advisory Panel*

This panel gives input on built heritage proposals put up by URA, and proposes buildings for URA to study for possible conservation. It also promotes greater public education and understanding of our gazetted built heritage.

Chairman

Mr Richard Eu Yee Ming
Group Chief Executive Officer
Eu Yan Sang International Ltd

Members

Mr Loh Lik Peng
Managing Director
KMC Holdings Pte Ltd

Mr Richard Helfer
Chairman
RCH International Pte Ltd

Mr Saeid Labbafi
Chairman
One Kampong Gelam

Mr Bernard Leong Mun Choy
Chairman
Chinatown Business Association

Mr Rajakumar Chandra
Chairman
Little India Shopkeepers and Heritage Association

Mr Raymond Wong Sin Kang
Owner
Rumah Kim Choo

Prof Brenda Yeoh Saw Ai
Director, Humanities & Social Science Research
Office of Deputy President (Research & Technology)
National University of Singapore

Dr Yeo Kang Shua
Assistant Professor
Architecture & Sustainable Design
Singapore University of Technology and Design

Dr Lai Chee Kien
Adjunct Associate Professor
Architecture & Sustainable Design
Singapore University of Technology and Design

Mrs Koh-Lim Wen Gin
Director
Keppel Land Limited

Mr Tan Kay Ngee
Principal Architect
Kay Ngee Tan Architects

Mr Ashvinkumar s/o Kantilal
Group Chief Executive Officer
ONG&ONG Pte Ltd

Mr Ng Chee Seng
Honorary Treasurer
Real Estate Developers' Association of Singapore

Mr Ignatius Low
Chief Marketing Officer
Integrated Marketing
Singapore Press Holdings Ltd

Mr Jerome Lim
Heritage Blogger
The Long and Winding Road

Ms Clara Chan
President
Friends of the Museums

Mr Zainal Abidin Nordin
General Manager
Darul Arqam Singapore

Mr Alfred Lim Song Huat
Taxi Driver
ComfortDelGro

Mr Kenneth Lee
Director
Humanities Branch
Curriculum Planning & Development Division 2
Ministry of Education

Ms Debbie Loo
PhD student
Department of Architecture
National University of Singapore

Mr Alvin Tan
Assistant Chief Executive (Policy & Development)
National Heritage Board

Ms Chou Mei
Group Director (Conservation & Urban Design)
Urban Redevelopment Authority

*The latest term for the panel ended in May 2018

Corporate governance

The URA Board and Management have put in place a framework to ensure adherence to good corporate governance practices.

URA Board

The URA Act provides for URA to have a Chairman and up to 12 other Board members. The Board members are individuals from both the public and private sectors. Hailing from wide-ranging fields of architecture, media, finance, academia, and government, the members provide complementary expertise and depth of experience to the Board. Other than URA Chief Executive Officer, who is also a Board member, the rest are non-executive members.

Staff Review Committee

The Staff Review Committee consists of URA Chairman, Chief Executive Officer, and one other Board member. It reviews and approves the recruitment and promotion of officers into and within superscale grades, as well as provides guidance on HR policies and programmes..

Finance and Investment Committee

The Finance and Investment Committee (FIC) is chaired by URA Chairman and includes three other Board members and one non-Board member. The FIC reviews and recommends policies on the investment of surplus funds for the Board or Minister's approval, as well as considers and approves investment guidelines in line with policies approved by the Board. The FIC reviews the appointment of fund managers, custodians, investment consultants, and related service providers. Besides reviewing the annual budget for the Board's endorsement, the FIC also reviews changes to the Financial Operation Manual for the Board's approval.

Audit and Risk Committee

The Audit and Risk Committee (ARC) is chaired by a non-executive Board member and includes three other Board members and two non-Board members. The main function of the ARC is to assist the Board in discharging its statutory and oversight responsibilities. The ARC meets with URA's internal and external auditors as well as Management to review their audit plans, observations, and the annual audited financial statements. It also reviews the adequacy and effectiveness of URA's risk management and internal control systems.

Staff Review Committee

Chairman

Mr Peter Ho Hak Ean

Chairman, Urban Redevelopment Authority

Members

Mr Ng Lang

*Chief Executive Officer, Urban Redevelopment Authority
(until 31 August 2017)*

Mr Lim Eng Hwee

*Chief Executive Officer, Urban Redevelopment Authority
(effective 1 September 2017)*

Dr Cheong Wei Yang

Deputy Chief Executive Officer, National Research Foundation

New committee member

Mr Bill Chang

*Chief Executive Officer, Group Enterprise, Singtel Ltd
(effective 1 April 2018)*

Finance and Investment Committee

Chairman

Mr Peter Ho Hak Ean

Chairman, Urban Redevelopment Authority

Members

Mr Liang Eng Hwa

*Managing Director, Treasury & Markets, DBS Bank Ltd
(until 31 March 2018)*

Mr Khew Sin Khoon

*President & Group Chief Executive Officer
CPG Corporation Pte Ltd*

Mr Ho Tian Yee

Managing Director, Pacific Asset Management (S) Pte Ltd

Mr Ng Lang

*Chief Executive Officer, Urban Redevelopment Authority
(until 31 August 2017)*

Mr Lim Eng Hwee

*Chief Executive Officer, Urban Redevelopment Authority
(effective 1 September 2017)*

New committee member

Ms Judy Hsu

*Chief Executive Officer, Singapore and ASEAN Markets
Standard Chartered Bank (Singapore) Ltd
(effective 23 April 2018)*

Audit and Risk Committee

Chairman

Mr Nagaraj Sivaram

Partner, Assurance, Ernst & Young LLP

Members

Mr Tan Chee Meng, Senior Counsel

Deputy Chairman, WongPartnership LLP

Mr Joe Sim Heng Joo

*Chief Executive Officer, Malaysia Operations Division
Parkway Pantai Limited
(until 31 March 2018)*

Mr Ngien Hoon Ping

Chief Executive, Land Transport Authority

Mr Khoo Teng Chye

*Executive Director, Centre for Liveable Cities Singapore
(until 31 March 2018)*

Prof Heng Chye Kiang

*Lum Chang Chair Professor, School of Design & Environment
National University of Singapore
(until 31 March 2018)*

New committee members

Ms Angelene Chan

*Chief Executive Officer, DP Architects Pte Ltd
(effective 23 April 2018)*

Mr Ong Kim Pong

*Regional Chief Executive Officer, Southeast Asia
PSA International Pte Ltd
(effective 23 April 2018)*

Risk Management Practices and Internal Controls

Internal Control Framework

URA's internal control framework aims to ensure that assets are properly safeguarded, accounting systems and controls are sound and effective, financial information is reliable, and key computerised systems are adequately secure to minimise risks.

These objectives are achieved through:

- Management's emphasis on the importance of good governance and an organisational culture that is conscious of the need for internal control and risk management;
- An organisation structure with clear definition of responsibility and reporting at different levels;
- Established communications channels through regular staff seminars, staff circulars, orientation briefings, and provision of comprehensive information in URA's intranet to educate staff on internal controls and good governance;
- A Financial Operation Manual, which sets out the internal control and financial policies, procedures, and financial authority relating to all key operations of URA;
- Careful selection and deployment of staff, with regular reviews to ensure that there is appropriate segregation of duties, and that personnel are not assigned conflicting responsibilities;
- Independent internal and external auditing functions;
- Adoption of Singapore Government Security Instructions for the Handling and Custody of Classified Documents and Government Instruction Manual on Information Technology, to ensure proper use and safeguarding of URA's information;
- Close monitoring of URA's financial risk exposure and implementing measures to minimise risk; and
- Monitoring of monthly and quarterly reporting of financial and operational performance of key activities by Management and the Board.

Risk Management Framework

The Board has overall responsibility for the establishment and oversight of the organisation's risk management framework. The Board, through the ARC, is responsible for developing and monitoring the organisation's risk management policies.

URA's risk management policies are established to identify and analyse the risks faced by the organisation. Management together with ARC, set appropriate risk limits and controls, and monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the organisation's activities.

The ARC oversees how Management monitors compliance with the organisation's risk management policies and procedures, and reviews the adequacy of the risk

management framework in relation to the risks faced by URA. The ARC is assisted in its oversight role by URA's Internal Audit and Organisation Excellence departments. Both departments undertake both regular and ad hoc reviews of risk management controls and procedures, and the results are reported to the ARC.

Internal and External Audit Functions

URA has an internal audit (IA) function that is independent of the activities it audits. The internal auditors report to the Chairman of the ARC functionally and to the Chief Executive Officer administratively.

The department performing IA function conducts audits and reviews URA's business functions to provide assurance to the Board that internal controls are adequate and effective in all key financial, operational, compliance and IT systems and processes. It furnishes Management with audit observations, analyses, and recommendations on areas for improvement and monitors the follow-up actions. Its audit plans are reviewed and approved by the ARC. The scope of the IA function encompasses:

- Conducting financial and operational audits;
- Conducting IT audits on key computerised systems and networks; and
- Performing checks on compliance with statutory requirements, regulations and standards.

The external auditor, BDO LLP, was appointed by the Minister for National Development in consultation with the Auditor-General, for the audit of URA's Financial Statements. The external auditor reports to the ARC its findings on significant accounting and internal control issues, and recommends possible ways to improve systems and procedures.

Business and Ethical Conduct

All staff of URA are bound by URA's terms and conditions of service to maintain a high standard of business and ethical conduct. In the course of their official duties, staff are obliged not to involve themselves in matters where a conflict of interest may arise and are to declare the situation to their supervisors. They are also obliged to comply with established guidelines pertaining to the acceptance of gifts and invitations from contractors, suppliers, clients, customers, developers, and any member of the public.

In addition, all staff members are subject to the provision of the Official Secrets Act and the Statutory Bodies and Government Companies (Protection of Secrecy) Act. They are required to sign a declaration upon recruitment to acknowledge this provision, and are reminded of this provision when they leave URA's service.

URA has also put in place a Whistle Blower Policy Statement to strengthen its business and ethical conduct. Details of the policy are posted on URA's intranet for employees' easy reference.

The Urban Redevelopment Authority (URA) is Singapore's land use planning and conservation agency. Our mission is "to make Singapore a great city to live, work and play". We strive to create an endearing home and a vibrant future city through far-sighted planning and innovation, in partnership with the community.

We have successfully transformed Singapore into one of the most liveable cities in Asia through judicious land use planning and good urban design. Adopting a long-term and comprehensive planning approach, we formulate strategic plans such as the Concept Plan and the Master Plan to guide the physical development of Singapore in a sustainable manner. Our plans and policies focus on achieving a balance between economic growth and a quality living environment.

We take on a multi-faceted role to turn plans and visions into reality. As the main government land sales agent, we attract and channel private capital investments to develop sites to support planning, economic and social objectives. URA is vested with regulatory powers under the Planning Act to ensure that development works are in line with plans through the grant of planning approvals. As the conservation authority, we have an internationally recognised conservation programme, and have successfully conserved not just single buildings, but entire districts. We also partner the community to enliven our public spaces to create a car-lite, people-friendly and liveable city for all to enjoy.

In shaping a distinctive city, we promote architecture and urban design excellence, and innovate to build a resilient city of opportunity that fulfils and anticipates the aspirations of our people.