## Our footprint reduction initiatives<sup>1</sup>

Offices

Distribution Centers (DCs)

•	Retrofitting T-8 and halogen lighting with energy-efficient LED, T-5 and CFL alternatives and maintaining appropriate lux levels
•	Refurbishing modular working areas to create aesthetically-pleasing, open-plan office spaces that maximize natural light and feature ergonomically-sound stand-up work desks, spaces for collaboration and accessible meeting areas
•	Refurbishing areas with carpets, tiles and paints that emit zero or very low levels of volatile organic compound (VOC) emissions and flooring that is phthalate-free
•	Using energy-efficient variable refrigerant volume (VRV) air conditioning systems
•	Optimizing performance and energy-efficient retrofits of chillers and ventilation systems
•	Consolidating equipment and installing energy-efficient blade servers and virtual machines in ou server rooms, as well as conserving energy by improving airflow and enclosing areas that have high-intensity cooling requirements
•	Turning off lights, computers, monitors and printers when not in use
•	Implementing an automatic computer and lighting shutdown policy outside of working hours
•	Maintaining office and server room temperatures at levels that minimize energy use
•	Reducing energy consumption of IT infrastructure through use of virtual machines, blade servers, efficient air flow systems, revamp of storage and server technology and changing from hybrid cooling system to water cooling
•	Using renewable energy where feasible; photovoltaic panels generate a portion of our Istanbul office's electricity demand
•	Collecting materials for recycling, including glass, metal, paper, and plastics in our offices in Hong Kong, and those other materials in other locations depending on what can be recycled in local markets
•	Donations of used electronics to charities for reuse
•	At total of nine ISO 14001 EMS standard certifications are held covering a total of 13 DCs, with more in the pipeline
•	Continuing to implement Logistics' Lean Transport initiative that includes:
	> Optimizing the proximity of DC facilities to supplier and customer locations
	<ul> <li>Maximizing vehicle loads, minimizing truck mileage, reducing empty vehicle returns and consolidating customer deliveries</li> </ul>
	<ul> <li>Phasing out pre-Euro IV diesel commercial vehicles with the phased introduction of Euro V and VI vehicles</li> </ul>
	> Improving route planning to reduce fuel consumption and GHG emissions
	<ul> <li>Operating three electric delivery vans in Hong Kong, and eleven through a third party in Mainland China, with plans to expand our electric vehicle fleets</li> </ul>
	> Awarding drivers that consume less fuel than the monthly fuel consumption standard
•	Directing ocean freight to marine transport operators that provide more environmentally-responsible fleets with reduced air pollution, greenhouse gas emissions and waste generation

1 With the strategic divestment of Li & Fung's three product vertical businesses, Furniture, Beauty and Sweaters as announced in December 2017 and completed in April 2018, the reporting scope now excludes the manufacturing facilities of our former Beauty vertical and we have reported on our footprint initiatives for our Continuing Operations only.



## Our footprint reduction initiatives

•	Operating a DC in China that sources a portion of its power from the building's rooftop
	photovotaic solar system with another to be implemented in Sha Tin, Hong Kong in 2019

- Deploying drones for stock taking and eliminating the need for warehouse colleagues to use very large, energy-consuming equipment and to work at height. As the drones can analyze 180 pallets per hour, twice as fast as traditional methods, productivity gains are also realized
- Using environmentally-responsible materials in building construction and refurbishment, including building materials with responsibly-sourced and/or recycled content, non-toxic and ultra-low VOC paint and carpet tiles with pre- and post-consumer recycled content
- Reducing energy consumption by:
  - > Maximizing natural light with skylights
  - > Installing high-efficiency induction lighting, motion sensors and infrared automatic induction lighting in high-self areas and voice-controlled lights in corridors
  - Equipping non-air-conditioned areas with large and energy-efficient ceiling fans to enhance air ventilation
  - Installing LED lighting in newly-built warehouses and replacing existing halogen lighting with LED in restructured warehouses
  - Changing the control sequence of the conditioning to use less units, and aligning the heater workload and water spraying control valve
- Reorganizing DC operations to streamline processes, increase automation and reduce waste, and adopt more energy-efficient equipment
- Operating forklift vehicles that have rechargeable electric batteries for the majority of our fleets in all our facilities, and safely reusing fit-for-purpose parts from retired forklifts for vehicles in operation
- Using handheld monitoring devices with rechargeable batteries that are linked to centralized databases to monitor inventory and thereby reduce paper consumption and enhance the efficiency of warehouse operations
- Reducing waste by reusing boxes and hangers, providing reusable dishware and cutlery, increasing the capture of recyclables, and installing filtered water stations that meet required drinking water standards to reduce waste arising from plastic water bottles
- Using machines and rope to reduce the consumption of plastic shrink wrap in the warehouse, and bundling packages for delivery to reduce packaging waste
- Planting trees and vegetation to reduce heat and dust in warehouse areas and capturing rainwater for landscape irrigation to reduce water consumption. During non-rainy seasons, rainwater captured and stored at our DC in Taiwan is able to provide a month's supply water
- Our Logistics business operates a one-million-square-foot logistics facility in Singapore that
  received LEED<sup>2</sup> Gold and BCA<sup>3</sup> Green Mark Platinum certifications in recognition of its
  achievements in environmental design and performance in 2016. This nine-story,
  multi-temperature facility is Singapore's largest, automated and customs-bonded warehouse,
  leveraging a suite of best-in- class technologies and product-handling methods, including an
  automated storage and retrieval system (ASRS), semi-automated pallet shuttle system, robotics,
  put-to-light pick systems and market-leading e-commerce logistics solutions. It also consumes
  30% less energy than a facility we previously operated in Singapore, despite being four times
  larger. Key features of the facility include:



<sup>2</sup> Leadership in Energy and Environmental Design (LEED).

<sup>3</sup> Building and Construction Authority of the Government of Singapore.

## Our footprint reduction initiatives

>	An intelligent lighting system, combining motion sensors and LED lights, reduces electricity consumption, greenhouse gas emissions and cost. The LED lights are 45% more efficient and last 25 times longer than florescent lights and they emit much less heat compared to traditional metal halide lamps, which also reduces air-conditioning demand
>	A mix of air cooling and ventilation systems that reduce energy consumption and improve air flow in large areas of the warehouse with varying temperature require ments. The building facade has composite panelling and glazing to minimize solar heat gain, acting as insulation to keep the interiors cool, which enhances the comfort and productivity of workers on hot days. With only half of the building being air-conditioned, the rest is cooled by seven-metre-wide, high-volume, low-speed fans that circulate extremely high volumes of air using much less energy than would be consumed by air-conditioning systems. Louvered windows are also used to maximize natural ventilation and air circulation
>	Energy-efficient variable speed chillers that are 20% more energy efficient than conventional systems as well as air-conditioning systems that are 40% more efficient with CO2 demand control ventilation sensors
>	High-efficiency, zero-emission handling equipment was fully adopted to avoid the indoor air pollution that arises from traditional, diesel-powered equipment and to conserve energy. Examples include:
	Best-in-class, electric-powered forklifts, cranes, conveyors and semi-automated pallet shuttles that move goods throughout the warehouse
	An electric-powered, high-density ASRS with narrow aisles that uses 25% less floor space than conventional storage systems, requiring less energy for lighting and temperature control
>	Cooling towers consume NEWater – reused wastewater that has been treated through both dual-membrane (via microfiltration and reverse osmosis) and ultraviolet technologies and conventional water treatment processes, thereby reducing overall water consumption
>	A Building Management System (BMS) integrated with the electrical, water and plumbing, mechanical ventilation and fire protection systems that optimize temperature control and operating times within the building. Sub-metering linked to the BMS monitors performance and detects leaks for all major water uses
>	Non-toxic paints and ultra-low VOC carpets used during the fit out of the indoor office areas benefit both indoor air quality and workers' health. Indoor air quality (IAQ) management plan implemented with air filters providing 80 to 85% dust spot efficiency for key working and staff areas
>	Sheltered bicycle racks and onsite showering facilities encourage people to adopt healthy and more environmentally-responsible transport options. Preferential parking for hybrid, fuel-efficient and car-pooling vehicles
>	Recycling of at least 50% of waste arising from the construction process and of paper, plastic, glass and carton boxes during operations

