### Summary

**OPPORTUNITY**
- Optimise and motivate a workforce consisting of mature staff and persons with disabilities by leveraging technology to reduce manual labour and streamline housekeeping processes

**ACTION**
- Reviewed housekeeping tasks and identified areas which could be simplified or streamlined
- Tested and introduced new equipment to automate some labourious cleaning tasks
- Quick facts:
  - Rollout period of 16 months
  - Project cost was approximately S$27,300

**RESULTS**
- 40% ↓ in time taken to perform related tasks – in cleaning of rooms, corridors and pool area
- Speedier turn-around time of rooms for Front Desk to release
- Score for cleanliness consistently rated Best-in-Class within wider group of Crowne Plaza properties in the region
- Internal employee focus groups showed Housekeeping employees found the equipment effective and helpful

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**REDUCING PHYSICAL STRAIN ON HOUSEKEEPERS THROUGH AUTOMATION**

Kim Ong, Executive Housekeeper at Crowne Plaza Changi Airport, manages a team of 55 - of whom more than 50% are mature workers or staff with disabilities. A leader who cares for her team, Kim is always on the lookout for ways to improve operations, and reduce the amount of physically demanding work processes for her staff. Her hands-on approach in supervising and spending time on-ground with employees allows her to regularly audit current ways of working and identify areas where staff may face challenges or inefficiencies.

In June 2012, Kim recognised an opportunity to streamline cleaning tasks within Housekeeping operations by automating certain processes: 1) the cleaning of floors along the corridors and pool area which was a manual 3-step process at the time involving soaping and scrubbing, rinsing, and mopping (to dry); 2) the in-room cleaning tasks for carpets and toilet floors. Kim’s analysis showed the existing processes involved multiple steps requiring much manual labour, and sought to find better ways for her staff to conduct such tasks.
To identify equipment to automate these manual tasks and consolidate steps, Kim tested a host of equipment, bearing in mind the equipment would not only have to be effective but also manageable for mature Housekeeping employees. Suitable tools identified:

- 2 ride-on scrubbers to replace the manual task of mopping floors along corridors and outdoors; the scrubbers also combined certain steps that housekeepers used to do separately (e.g. wetting, scrubbing, vacuuming and drying)
- 3 scrubbers to replace the manual task of cleaning guestroom toilet floors
- 3 carpet shampoo machines to replace manual scrubbing of room carpets, which was time-consuming and physically straining

### Key Steps

- **Combining instinct and insight to identify impactful solutions:** Observations on-the-ground and regular conversations with employees helped Kim first identify opportunities. This opportunity was then validated with data collected regularly, to quantify the benefits of new equipment. This presented a strong case to management, which approved the investment in these new tools.

- **Trial-testing equipment chemical for optimal use:** The hotel placed great emphasis on giving their employees the right type of tools so that they can do their jobs productively. While the equipment is the main investment, the chemicals used will affect the overall usefulness of the tools. Before fully rolling-out the equipment, early testing was done to refine the type and concentration of chemicals to be used.

- **Training employees in phases and developing early champions to embed changes:** A phased approach to the training and roll-out of the new equipment was put in place to avoid making sudden changes that could be potentially rejected by staff.
  - Starting with a core team of supervisors trained directly by vendor suppliers created a group of early champions, who could support the rest of the team if they faced challenges along the way
  - Supervised trial sessions also enabled team members to test the equipment a few times to get a feel of how to use them on different floor surface areas
  - Overall, employees took three to four sessions of on-the-job training to familiarise themselves with the equipment

- **Empower staff to own the process in the long-term:** After the initial phase of guidance, the Executive Housekeeper then empowered the staff to take ownership of planning their schedules in using the equipment—the team had autonomy to decide when the equipment would be used as part of daily cleaning tasks and by whom.
Key Success Factors

- **Win-win productivity enhancement**: The very premise of this initiative was not only about creating a better guest experience or turning around rooms more speedily for sales; it was about improving the work environment for employees by automating previously highly manual processes. Real benefits for the employees helped them embrace the change.

- **An environment of support and encouragement**: With the supervisors being advocates for change, they were key in encouraging the workers to embrace new ways of working with technology – which can be daunting for a more mature workforce. Kim showed strong guidance and was very hands-on in coaching. She also ensured that they celebrated successes – which made staff feel a sense of accomplishment when they were able to successfully learn new skills to operate the equipment (*Photo 2*). The positive experience that spread by word-of-mouth helped lower barriers to adoption.

- **Success of new tools linked with management evaluation**: One of the internal audit processes at the hotel included asking the staff if they are equipped with the right tools and equipment to help them do their job. This is a constant reminder and incentive for management to look at meaningful ways to improve the working environment, such as the use of equipment to help housekeepers. This audit also helps management identify relevant areas where they can better serve their employees.

*Photo 2: Executive Housekeeper Kim Ong guiding colleague Richard on using the ride-on scrubber to demonstrate ease of use*
**Project period:** The roll-out of new Housekeeping equipment and processes was implemented over a 16-month period, between June 2012 to October 2013 (from problem identification to final roll-out)

**Estimated cost:** The 8 new pieces of equipment cost S$27,300

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### RESULTS

**IMPROVED HOUSEKEEPING WORKFLOW: EMPOWERED STAFF AND FASTER TURNAROUND**

- **Tangible time savings with overall 40% improvement in cleaning efficiency:**
  - Ride-on scrubbers: Reduced time taken to clean hard floors from ~10.5 hours to 5.5 hours daily
  - In-room cleaning equipment: Reduced time taken to perform cleaning duties from ~30 min to 20 min per room, enabling faster turnarounds

- **Exemplary guest satisfaction on cleanliness:** From guest satisfaction surveys for Nov 2013 - Jan 2014, the hotel is consistently ranked amongst the top three Crowne Plaza properties in Southeast Asia on cleanliness metrics (for both Guest Room and Bathroom).

- **Positive staff feedback:** Focus groups showed housekeeping staff found the equipment effective and helpful; mature workers actually gave the feedback that being able to learn how to use technology at their age made them motivated to continue learning and improving their skills.

- **Up-skilling of workforce:** The successful integration of new equipment meant that staff, including mature and disabled team members, acquired new skills to operate advanced machinery. By demonstrating that they could adapt to new technology, this has set a foundation for subsequent productivity improvements.

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"The equipment helps make things much simpler and I can do more with less stress now."

-- Teo Siew Kim
Public Area Attendant
Crowne Plaza Changi Airport

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As of Jan 2014