

Greener Ownership Culture and Procurement Strategy



Opportunity showcased:



Cultivate ownership through participatory approach

Sustainable design solutions are only effective if the stakeholders involved are willing to be advocates of change.


When individuals develop a sense of ownership over an initiative, their personal motivations drive sustainable behaviour change within their circles.

In this project, the NUS team sought to make their design solutions relatable and personable to nurses in order to make waste reduction in wards a lasting, effective endeavour.

Other opportunities shown:



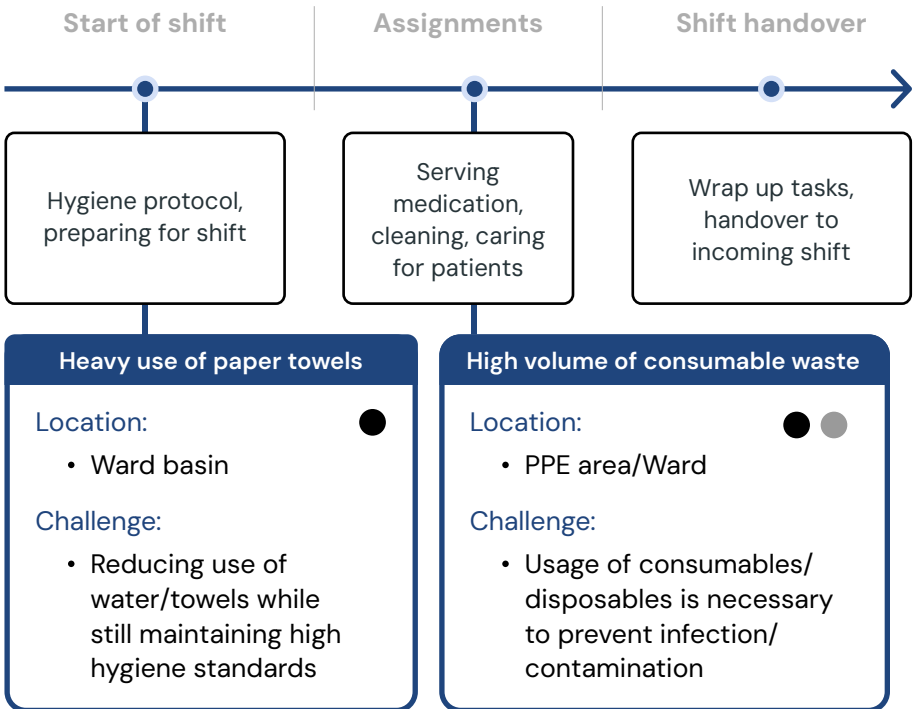
Tackle systemic waste at its roots



PROJECT CONTEXT

Nursing wards place patient care at the forefront. The need to ensure a high standard of cleanliness drives a high rate of hygiene consumables consumption. As such, infection control standards are prioritised over minimising waste.

CURRENT WORKFLOW AND CHALLENGES



Stakeholders involved

- Nurses
- Housekeepers

Research Approach

EVERYDAY
ACTION STEPS

ACTIVITIES DONE
BY TEAM

INSIGHTS
IDENTIFIED

Take a look
around



Conducted
observations
in wards

Excessive use of paper
towels when drying hands

Talk to
people



Interviewed
nurses

Recycling is not a
common practice due to
hectic schedules

Brainstorm
together



Held a co-creation
workshop with
nursing staff

Build
quickly

Gather
feedback

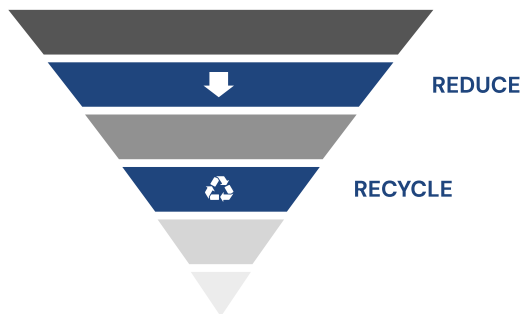
Designed and
tested solutions

Design Challenge

How might we motivate nurses to participate in acts of recycling and reduce the amount of waste generated in an inpatient ward?

Design Solution

The team focused on two design solutions to tackle nurses' motivation behind sustainable habits.



Their solutions aim to **reduce** waste generated from paper towel usage, and increase **recycling** rates within wards.

Design Solution 01

ZOOdles: Mascot-based Sustainability Framework

A participatory, mascot-based system to create a sense of ownership and cultivate positive associations with recycling.



Consider this!

Can you **Cultivate ownership** through a **participatory approach**?

It is easier to convince others to embrace sustainability if they can relate or develop a personal connection to it.

By encouraging nurses to draw the mascots used to adorn recycling points, a participatory, personal link is created. This allows nurses to feel ownership of their environment through the bins that they and their colleagues decorate by hand.

Problem Addressed

Nurses are motivated to recycle even more with the new bin designs. Previously, recycling rates were low even with ample bins.



How?

The new recycling point designs feature ZOOdle mascots drawn by nurses, as well as transparent bins that come with graphical labels denoting what can and cannot be recycled. These bins make every recycling interaction a joyful and well-informed one while providing humour through the unpolished nature of the drawings.





Consider this!

Can you **Tackle systemic waste at its roots***?

**Refer to pg. 72 to know more.*

Design Solution 02

Subtle Reduction in Default Paper Towel Size

Procuring paper towels of smaller dimensions to reduce material waste generated.

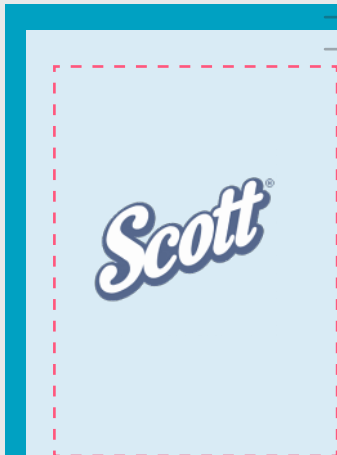
PROBLEM ADDRESSED

By accepting the fact that nurses use many paper towels to dry their hands quickly, the subtle replacement of smaller paper towels guarantees a reduction of material waste.



OUTCOME

The team procured paper towels that looked similar but were **10% smaller in size and 20% cheaper**. The change was not noticed by nurses, indicating that the towels were not inferior in drying quality.



Just Noticeable Difference (JND)

The difference threshold beyond which a behavioural change is observed

Scott PRO Multifold 28620 (Current)

Scott PRO Multifold 26165 (Proposed)

Just below the JND level, ensuring that nurses do not feel the need to pull more towels to dry their hands well.

Anything smaller would be noticed and lead to more towel pulls.

User Testing

Increase in ward recycling rate

ZOOdles: Mascot-based sustainability framework

The team got nurses to draw the mascots used to decorate recycling bins placed around the ward. This led to a **doubled recycling rate**.

[2 week testing period]



Before:

42.9%

After:

84.6%

INCREASE IN WARD
RECYCLING RATE

2X

*"The drawings caught my attention,
I find them very cute."*

> *Physiotherapist*

Reduction in material waste for paper towels

Subtle reduction in default paper towel size

The team counted the average number of towels used per wash before and after the towels were replaced with smaller ones.

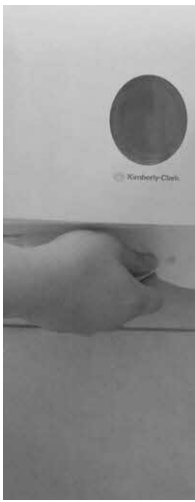
[2 week testing period]



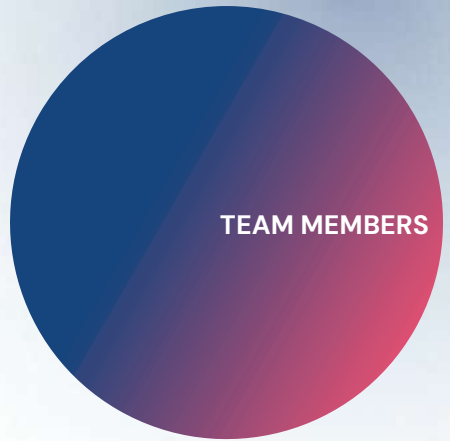
ANNUAL REDUCTION IN
PAPER TOWEL WASTE

179kg

Replacing the towels with those that were 10% smaller saw **no change in user behaviour**, indicating that they dried just as effectively.



GREENER OWNERSHIP CULTURE AND PROCUREMENT STRATEGY



LUKE GOH

Luke has a curious mind and loves tinkering with things. He strongly believes in good affordance in everyday things, observing the nuances in the things around us and wondering if it could be done better.

BRYCE LIM

Bryce is a designer driven by curiosity and exploration, fascinated by the challenge of discovering new possibilities through rigour and experimentation. His work is infused with a deep appreciation for exceptional craftsmanship, blending aesthetics and functionality to create impactful designs.

DAMIAN LIM

Damian is driven by the belief that good design can transform our daily lives. Striving for simplicity and effectiveness, he approaches design challenges with the aim of creating solutions that positively reshape the way we interact with the world around us.