

Overcoming Challenges Amidst COVID-19

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Sharing Structure

- 1. Introduction to CTM
- 2. COVID-19 Related Challenges
- 3. Human & Technology Interventions
- 4. Going Forward



Introduction – The Group Today



Our Services in Summary

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Commercial Cleaning Services

- Commercial Buildings
- Industrial Buildings
- Residential Buildings
- Government Buildings
- Entertainment Centres
- Hotels
- Aviation Infrastructure
- Facade Cleaning
- Large Scale Events



Waste Management and Recycling

- Commercial Waste
- Industrial Waste
- Sewerage Tank Plumbing & Jetting
- Sludge Disposal
- Recycling
- Provision of Equipment



Integrated Public Cleansing

- Town Council Conservancy Works
- Public Highways & Roads Cleaning
- Drains Maintenance,
 Desilting & Flushing
- Beach & Parks Cleaning
- Waterway Cleaning
- Public Infrastructures
 Maintenance



Auxiliary Services

- Food Handlers
- Baggage & Trolley Handlers
- Transport Drivers
- Hotel Room Attendants
- Warewash Helpers
- Hygiene Services
- Pandemic Response Team



Healthcare Services

- Janitorial Services (patient wards & common areas)
- Stewarding
- Food Services
- Value-Added Services:
 - Linen & Laundry
 - Landscape & Potted Plants
 - Pest Control

Quality, Safety & Health Certifications

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ISO 9001/ISO 14001
OHSAS 18001
ISO 22301
BUREAU VERITAS
Certification















COVID-19 Related Challenges



COVID-19 Disruptions – Manpower Related



- Staff Morale & Safety
- Safety in Dormitories
- Evolving Govt Regulations
- ❖ Lockdown (E.g MCO, "CB")
- ❖ Quarantine / "SHN"
- Cleaning Supplies & PPEs
- Clients Requests & Negotiations

COVID-19 Disruptions – Execution Related



- Cater to existing client's and new client's needs. Many were in "panic mode" and wanted enhanced cleaning for their premises.
- 2. Getting resources to perform the work. Everyone was unsure during those times. Need to provide adequate PPEs to ensure crew's safety.
- Answering enquiries. Our team needed to be trained in a short time to be able to answer and reply to clients queries on various types of disinfecting works.
- 4. Getting PPE supplies. Have to source for new avenues of PPE supply (E.g. Batam, China, Europe, etc).



Human & Technology Interventions



Employee Engagement & Communication

- HR hotline mental wellness, relation issues with roommates, colleagues, etc
- HR in partnership with Operations organized a series of employee engagement & communication sessions with employees at various project sites (in-person or e-meet)
 - Allay their concerns on job security
 - Redeployment to sites where operations is BAU.....to protect jobs









 Participated in > 20 jobs fairs & career outreach programmes organized by CDCs/WSG/e2i/SCORE/SBF/BSS to recruit locals since April to fill up positions make vacant by the foreign workers





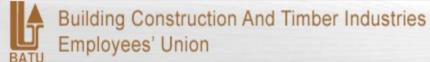








 Partnership with unions like BATU, SMMWU & FDAWU to reach out to locals made redundant by the Covid-19 pandemic







Partnership with BATU

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Provision of Covid-19 support fund for members & non members affected by pandemic crisis





Incorporating E-Learning into CTM Training Pathway

Core Training / Refresher Observation/ OJT **SFDW** VIA WSQ ITE COJT Orientation Blended E-learning **Synchronous Online Onboarding Video**

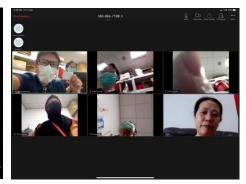
Development

- Mandatory
- Functional
- Critical Skills



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ctmcsrvideo





Pandemic Team Setup Since 2016

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*WE HAVE COMPLETED OVER 100 CONFIRMED CASE SITES.
NOT INCLUDING NUMBER OF ROOMS WITHIN SITES.

PPE Shortages & Proven Disinfecting Methodology

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PPE:

- Initial shortage of PPE ESG came in to support on the national stockpile for the Cleaning Industry
- CTM is 1 of the 2 PPE stockpile for Cleaning Industry
- Price very high 3 times (E.g. Coverall price in Mar 2020 was \$8.00, and in Apr the price when up to \$27.00 per piece 3 times increase)

Methodology:

- General Cleaning vs. Disinfection Cleaning
 - General Cleaning = Eliminating Dirt
 - Disinfection Cleaning = Eliminating Virus / Bacteria
- Clients would normally expect a total disinfection works (total clean up) for a Confirmed Case, Suspected Case or even for a Preventive Disinfection Works
- Most Clients thought that it is sufficient with just misting of affected areas. <u>However</u> wipe-down processes are required! (*Refer to NEA Advisory on Surface Cleaning and Disinfection for COVID-19)

NEA Advisory on Surface Cleaning & Disinfection for COVID-19

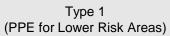
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For general disinfection, a wipe-down of surfaces with an effective disinfectant is recommended. There are many modes of applying chemical disinfectant on surfaces, as marketed by many suppliers. Not all are effective as claimed and some precautionary measures may be needed during application. For example, applications of chemical disinfectant by handheld misters and electrostatic sprayers are not adequate on their own, and should only be used to supplement a wipe-down. NEA has not received any robust scientific evidence to support the effectiveness of automisters and surface coatings against coronaviruses, or the long-lasting effect of surface coatings. As for whole-room fumigation and ultraviolet irradiation, these are effective for specific purposes, such as in hospitals and laboratories. They must only be executed by trained professionals, as the processes are complex and exposure to chemical vapours and UV can cause harm. As UVC radiation can cause injury to the skin (e.g. sunburn) and eye (e.g. inflammation of the cornea), NEA does not recommend the household use of such products.

*https://www.nea.gov.sg/our-services/public-cleanliness/environmental-cleaning-guidelines/cleaning-and-disinfection/advisories/advisory-on-surface-cleaning-and-disinfection-for-covid-19

Proper Usage of PPE to Keep Our People Safe







Type 1 (PPE for Higher Risk Areas)

Type 1 (Enhance Disinfection Cleaning within Lower / Higher Risk Areas):

Personnel performs high-touched / low-touched areas. However PPE may be a constraint to blind spots.

With the use of enhanced technologies (e.g. Cold Fogger / Electrostatic Mister) the Decon Specialist is able to cover blind spots / hard to reached areas.





Type 2 (Confirmed Case):

Personnel can only be deployed into hot area for about 45mins in recommended coverall due to its design – Protection against contact with blood or body fluids and protection against infectious agents therefore coverall ventilation is limited.



With the use of enhanced technologies (e.g. Steramist and PAPR) the Decon Specialists are able to perform task comfortably and effectively.











Use of Smart Systems

Data + Intelligence Alerting Sensors Wetness detection Usage pattern Dear Mr. Tan, Air Quality Monitoring washroom@Level 2. The floor seems to be wet. You will need to Virtual Cleaning Supervisor User feedback carry the mop. Please Cleaner logs Fig. Air Quality monitoring with gas concentrations and AQI values





WSH Institute's Slips, Trips and Falls Prevention Trial with Vulcan Al

- 3D Sensors; Al Recognition with Cameras
- ❖ Wearable Based Detector (e.g. for elderly staff who are at higher risk of STF, for areas not covered by CCTV
- Dashboard with historical data and alerts

Trial Ongoing at CTM Material Recovery Facility ("MRF") (Est. end in Jan 21)

* Responsive planning, quicker reactions leading to reduced workplace hazards and complaints













Integrated Smart Solutions

Autonomous Robotics

Blended Training Roadmap





Current Business Climate in COVID-19

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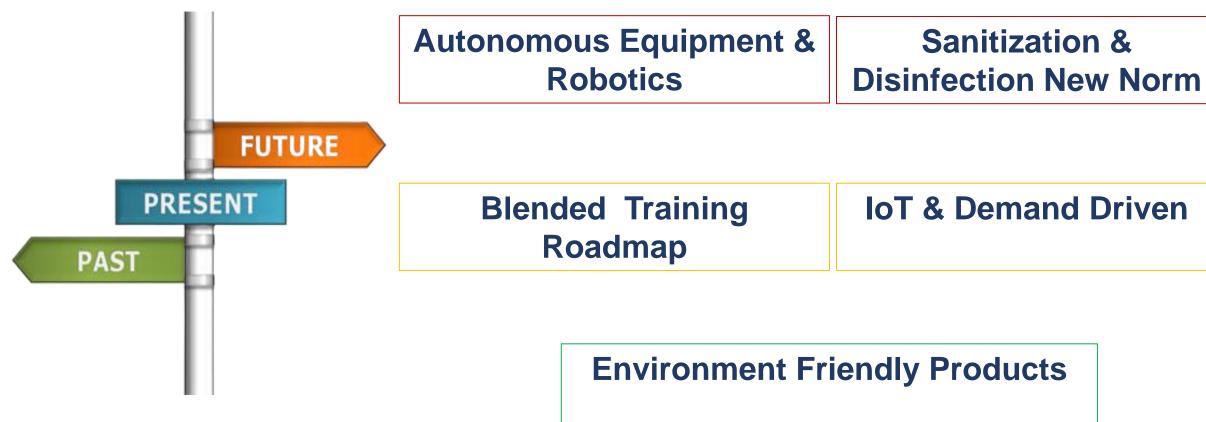
Some Key Clients Affected Competitors
Slashing
Prices

Increased
Costs (Levy,
PWM, FW
Accomd,
tests)

Safety of Staff, SMM, "Closed" Borders Essential
Services
STILL
NEEDED!!

Next 12 Months...





IoT & Demand Driven



