Post-Covid Workplace Strategies

The Global Pandemic

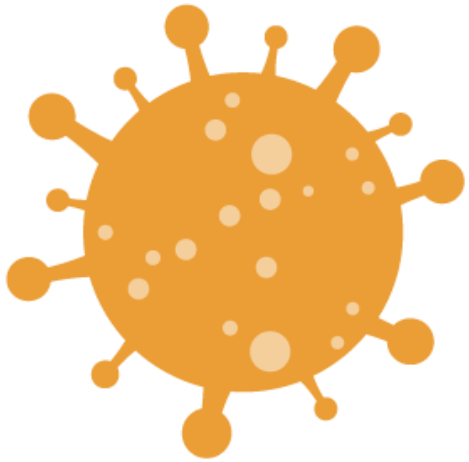
The 2019–20 coronavirus pandemic is an ongoing pandemic of coronavirus disease (COVID-19)

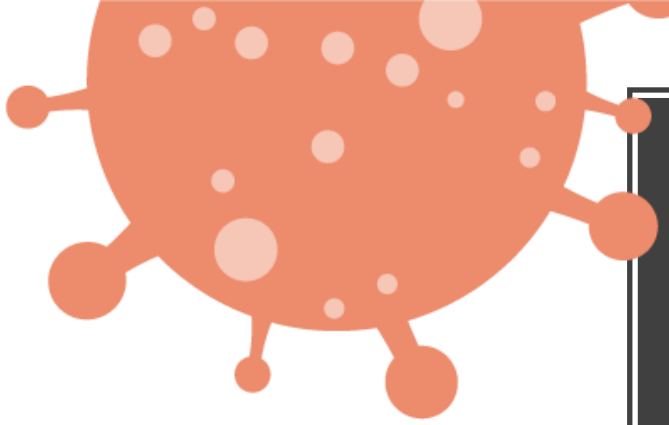
30 January 2020 : WHO declared outbreak as a Public Health Emergency of International Concern.

11 March 2020: WHO declared COVID-19 a global pandemic

As of 5th May 2020, more than 3.5 million cases of COVID-19 have been reported globally, resulting in more than 240,000 deaths.

Characteristics of a pandemic





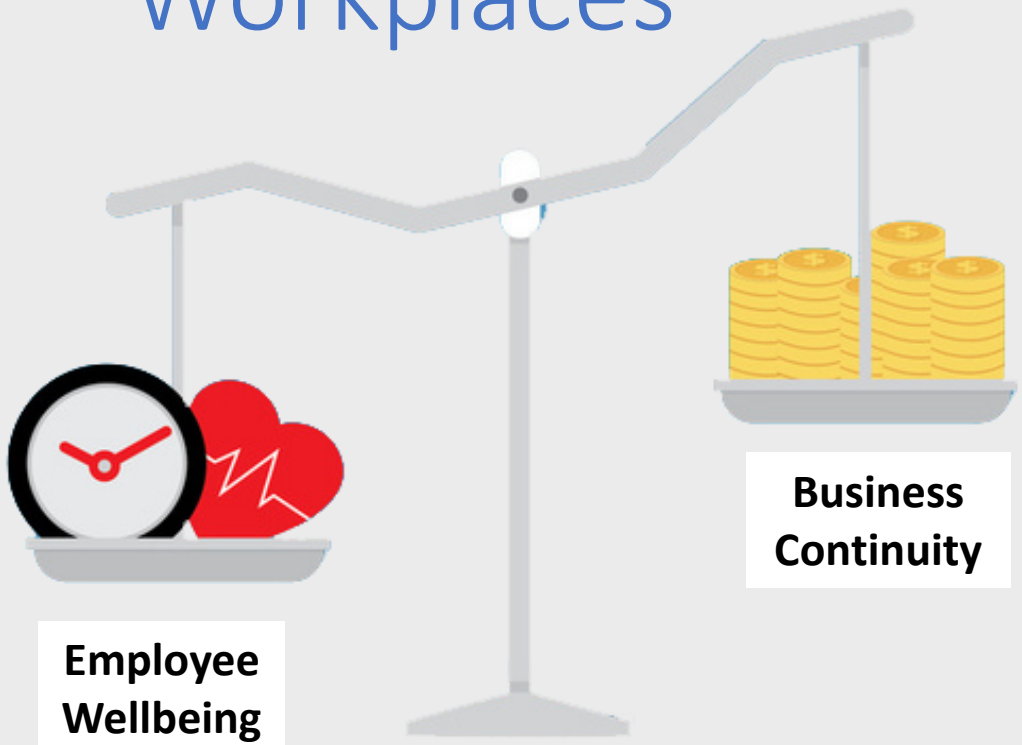
What is Covid-19? Who does it affect?

- CORONAVIRUS DISEASE 2019 (COVID-19) is a new disease spread from the Coronavirus family.
- The official name of the virus - SARS-CoV-2. The virus has a close resemblance to SARS-CoV
- Range of symptoms, from mild illness to Acute respiratory distress syndrome
- At present, there are no therapeutics or vaccines proven to treat or prevent COVID-19.
- It can affect all age groups; however the effects are more severe with age.

How is it transmitted?

PERSON-TO-PERSON CONTACT.

Effect on Workplaces



Employee Wellbeing

Business Continuity

Post-Covid Workplace Strategies

Combating today’s workplace challenges and planning for the unknown

Why is it required?

PEOPLE NEED TO BE SAFE AND FEEL SAFE.

What should an organisation be doing?

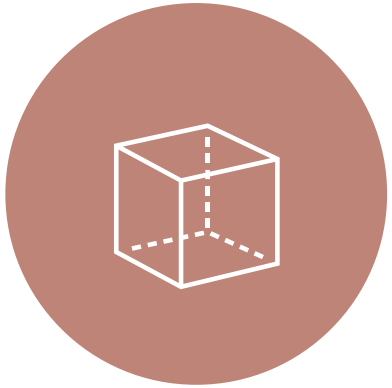
Socioeconomic impacts of the pandemic have been profound.

Implementing a comprehensive set of measures to slow down transmission of COVID-19.

Restoring to their daily workplace activity

A NEW WORKPLACE DYNAMIC

EASY



PHYSICAL

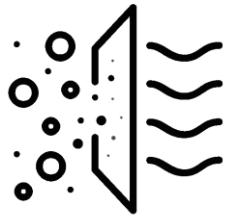
OPERATIONAL

Changing Trends and Upcoming Challenges

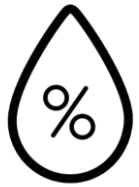
- Building Systems
- Architectural Design
- Interior Design and Ergonomics
- Plumbing and Bathroom Design
- Housekeeping and Cleaning
- Innovative Technology
- Nourishment and Fitness
- Policies and Standard Practices

Building Systems

VENTILATION



AIR FILTRATION



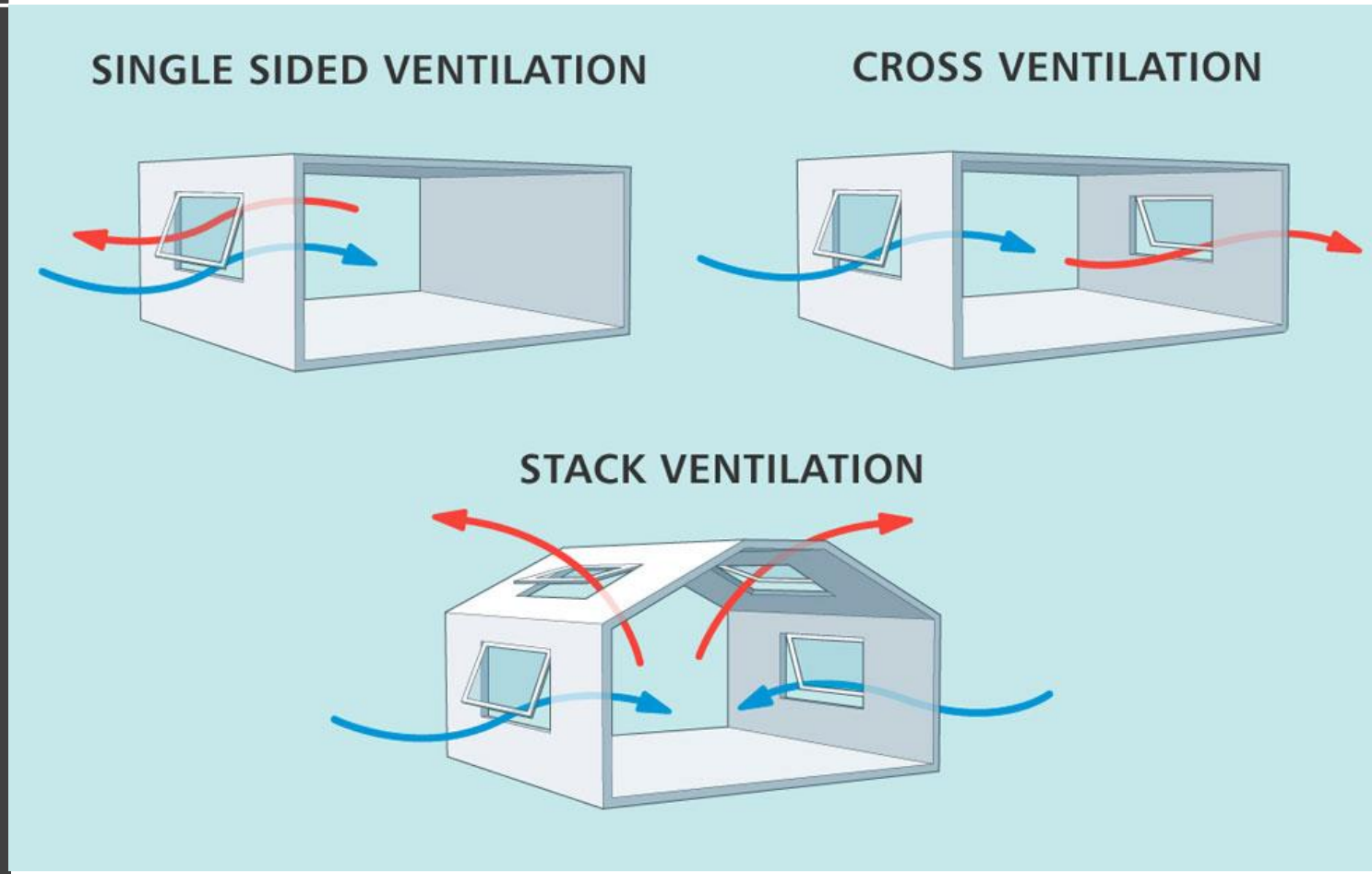
RELATIVE HUMIDITY

TEMPERATURE

Easy

Ventilation

- Natural Ventilation
- Increasing the fresh air intake
- Room Pressure Differentials
- Disable demand control ventilation (if possible)
- Bypass energy recovery ventilation (incase of leak)
- High end office climate control system (future)

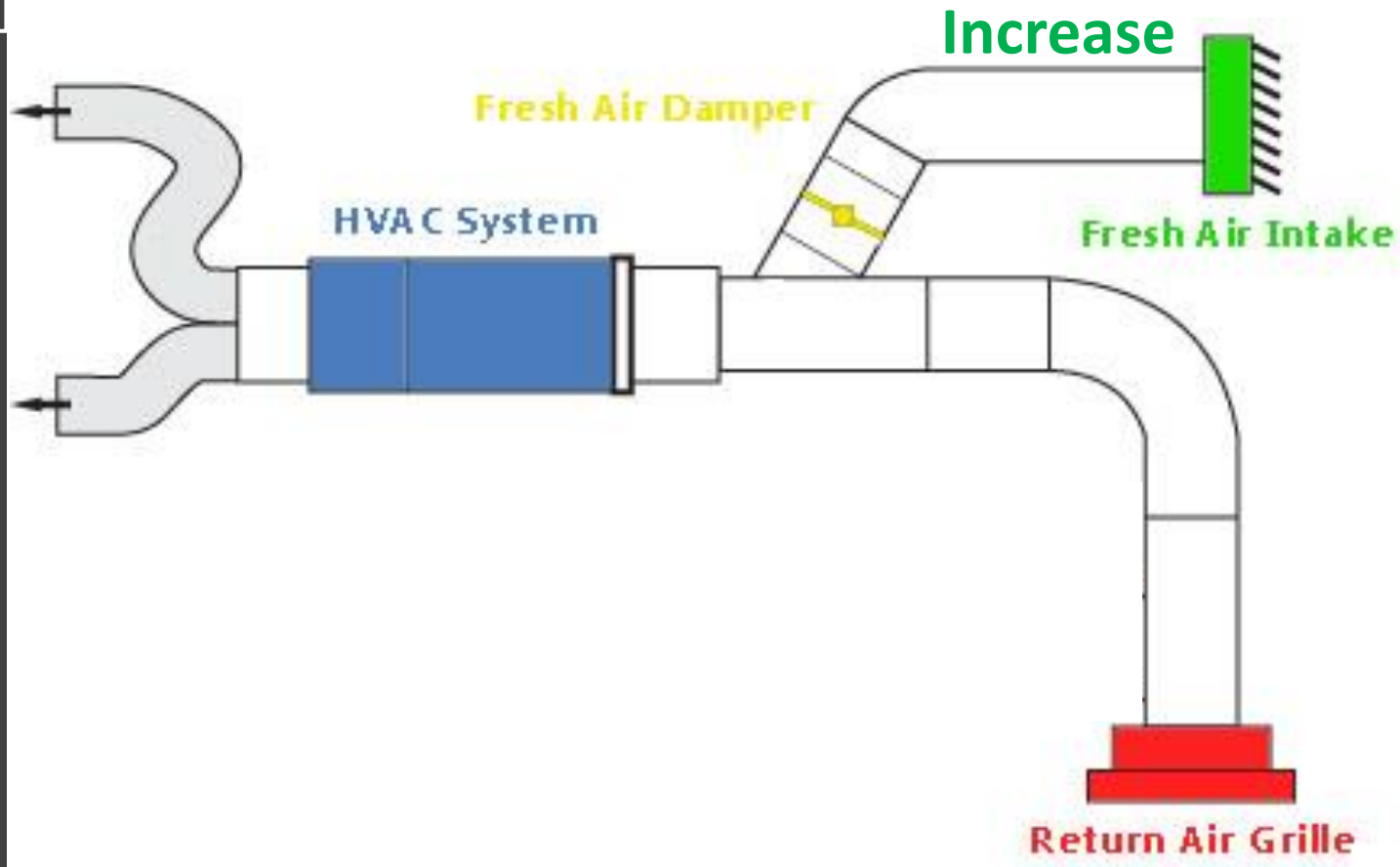


Source- https://www.tealproducts.com/natural-ventilation-control

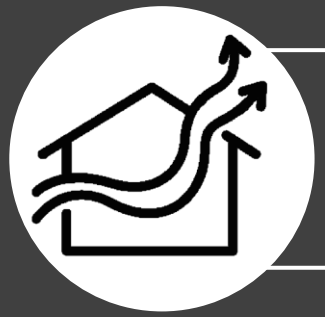
Easy

Ventilation

- Natural Ventilation
- Increasing the fresh air intake
- Room Pressure Differentials
- Disable demand control ventilation (change CO2 setpoint to lower)
- Bypass energy recovery ventilation (incase of leak)
- High end office climate control system (future)



Source: https://www.adams-air.com/houston/ventilation.php



Ventilation

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- **Increasing the fresh air intake**
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- **High end office climate control system (future)**

Easy

Recommendations

Supply as much outside air as reasonably possible.

Ventilate the space at least 2 hours before occupancy and run the system at low speed for 2 hours or longer after building usage time

Run toilet ventilation exhaust 24/7 with –ve pressure, especially to avoid the faecal-oral transmission

Air Filtration

- **Enhanced Filtration**
- **Ultraviolet Germicidal Irradiation (UVGI)**
- **Stand alone filtration & UVGI units**

High-efficiency particulate air filters for AHU

Stand alone HEPA filters

Source: https://alltimeairconditioning.com/wp-content/uploads/2020/03/commercial-uv-light.jpg

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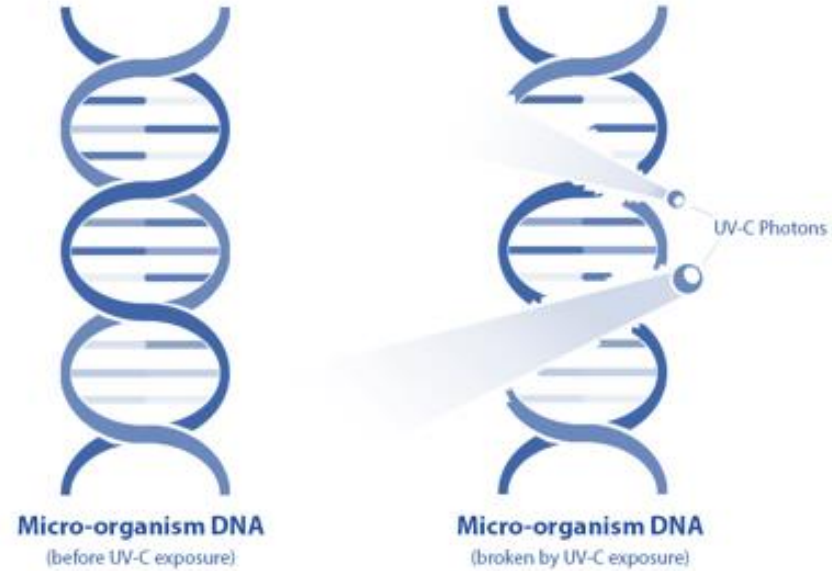
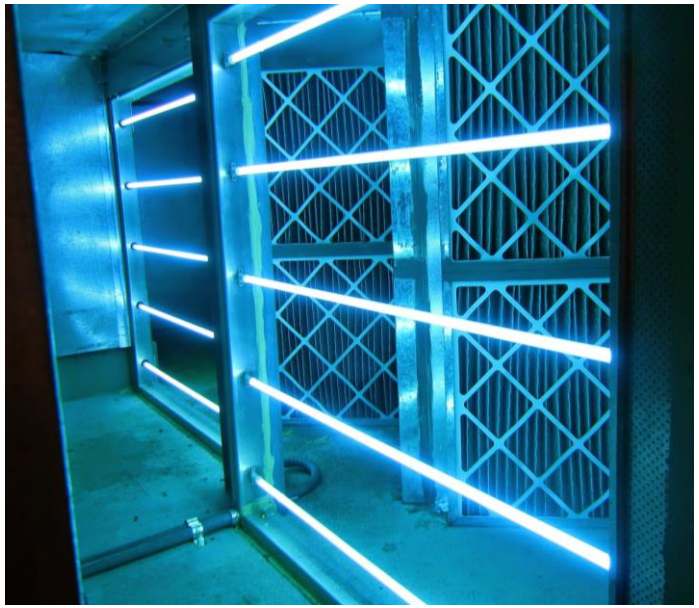


UVGI systems alter the DNA of the microbes rendering them harmless



In duct/coil UVGI systems

Portable surface treatment UVGI

Source: https://alltimeairconditioning.com/wp-content/uploads/2020/03/commercial-uv-light.jpg

Easy

Humidity

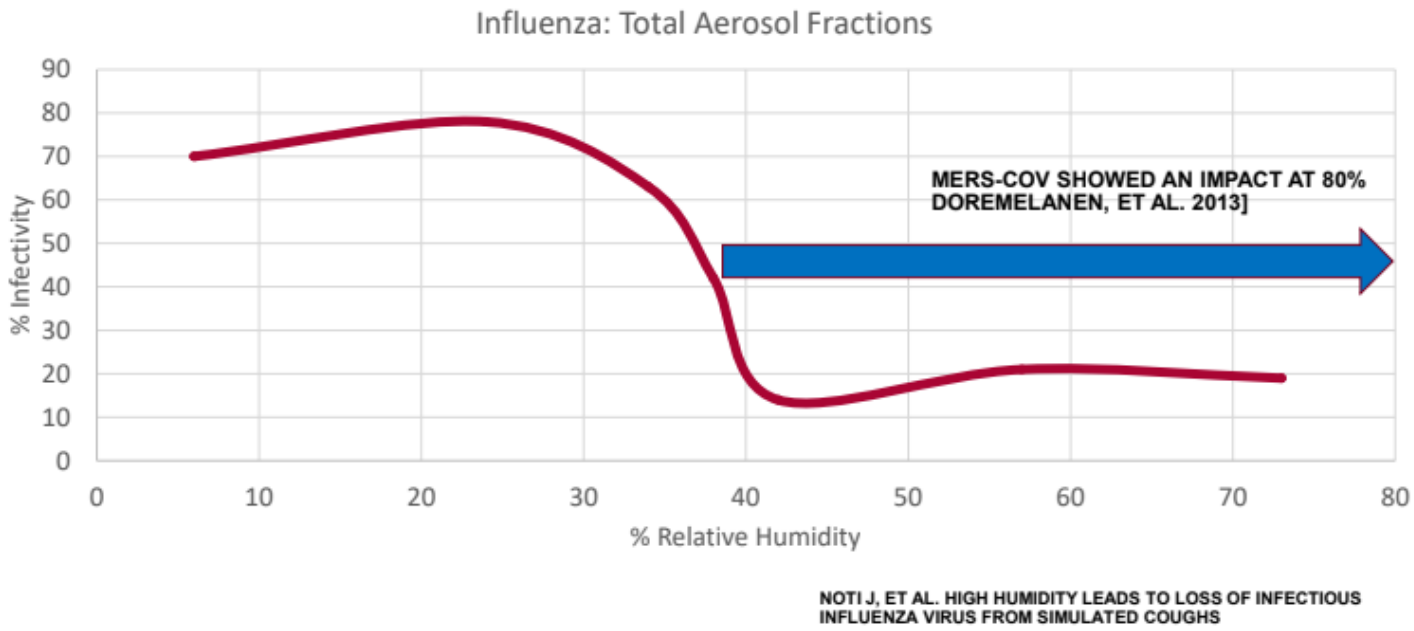
HVAC systems can control indoor humidity and temperature, which can in turn influence transmissibility of infectious agents.

RELATIVE HUMIDITY (RH)

can reduce transmission of certain airborne infectious organisms, including some strains of influenza.

Three mechanisms could potentially explain the observed influence of RH on transmission:

Relative Humidity and Influenza and MERS-CoV



NOTI J, ET AL. HIGH HUMIDITY LEADS TO LOSS OF INFECTIOUS INFLUENZA VIRUS FROM SIMULATED COUGHS

Source - https://www.ashrae.org/file%20library/about/position%20documents/pd_infectiousaerosols_2020.pdf

Easy

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Three mechanisms could potentially explain the observed influence of RH on transmission:

People inhale fewer droplets at a higher RH due to slower evaporation from large droplets.

Breathing dry air could cause desiccation of the nasal mucosa, which renders the host more susceptible to respiratory virus infections.

Low RH conditions may actually increase the viability - as many are anhydrous resistant.

Easy

Temperature

SARS-CoV 2 is temperature resistant or not is part of ongoing research

SARS-CoV 2 has been found highly stable for 14 days at 4ºC; 37ºC for one day and 56ºC for 30 min were need to inactivate the virus (chin et al, 2020).

This suggests that keeping temperature as high as possible can be an effective management strategy.

Therefore it is suggested that unless absolutely requires, all indoor air conditioning systems be operated at or above 25 degree Celsius

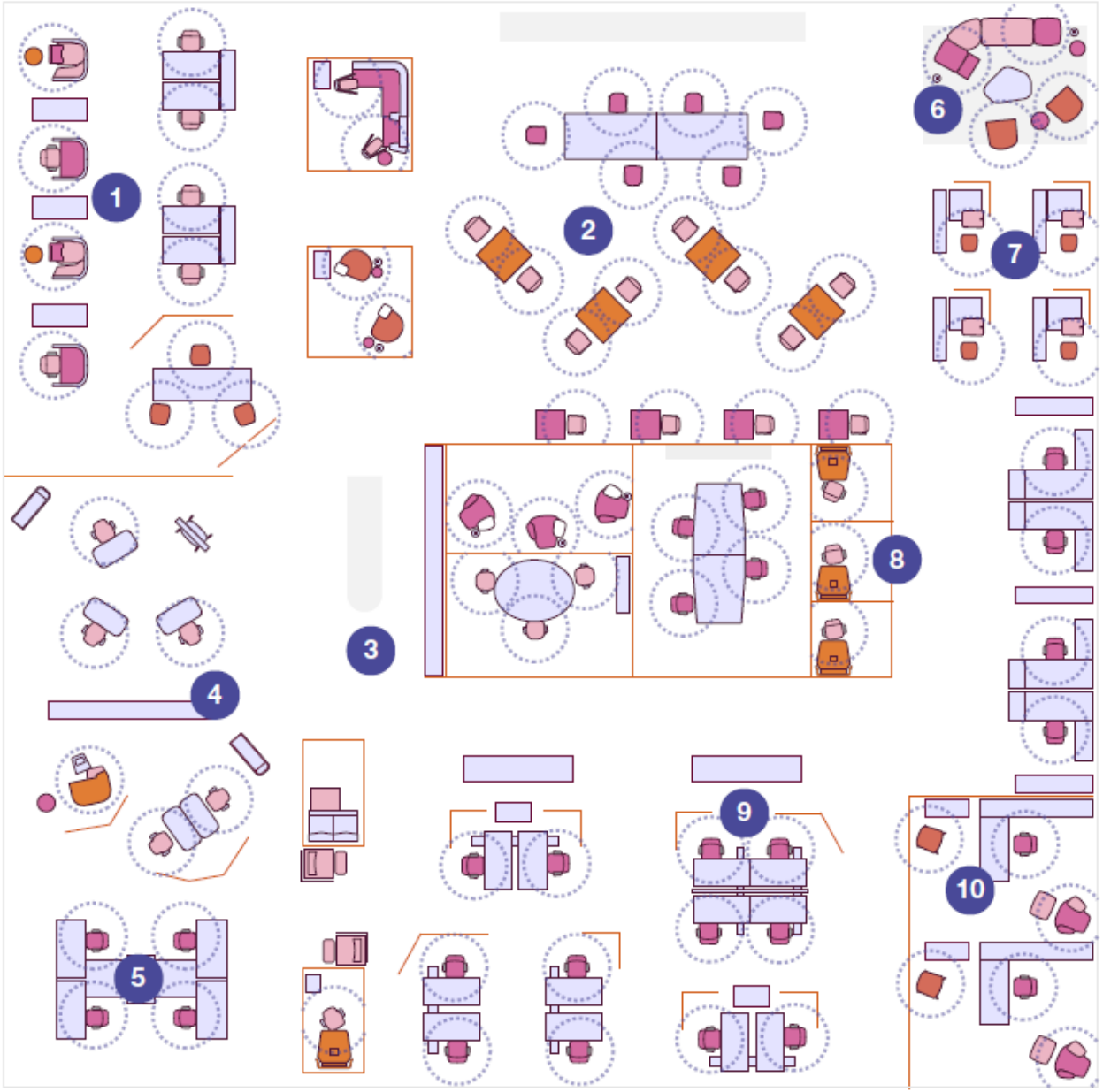
Architectural Design

De-densifying the workplace

Practice **SOCIAL DISTANCING** in the workplace.

Minimum **6FT/2M DISTANCE** between people in all areas.

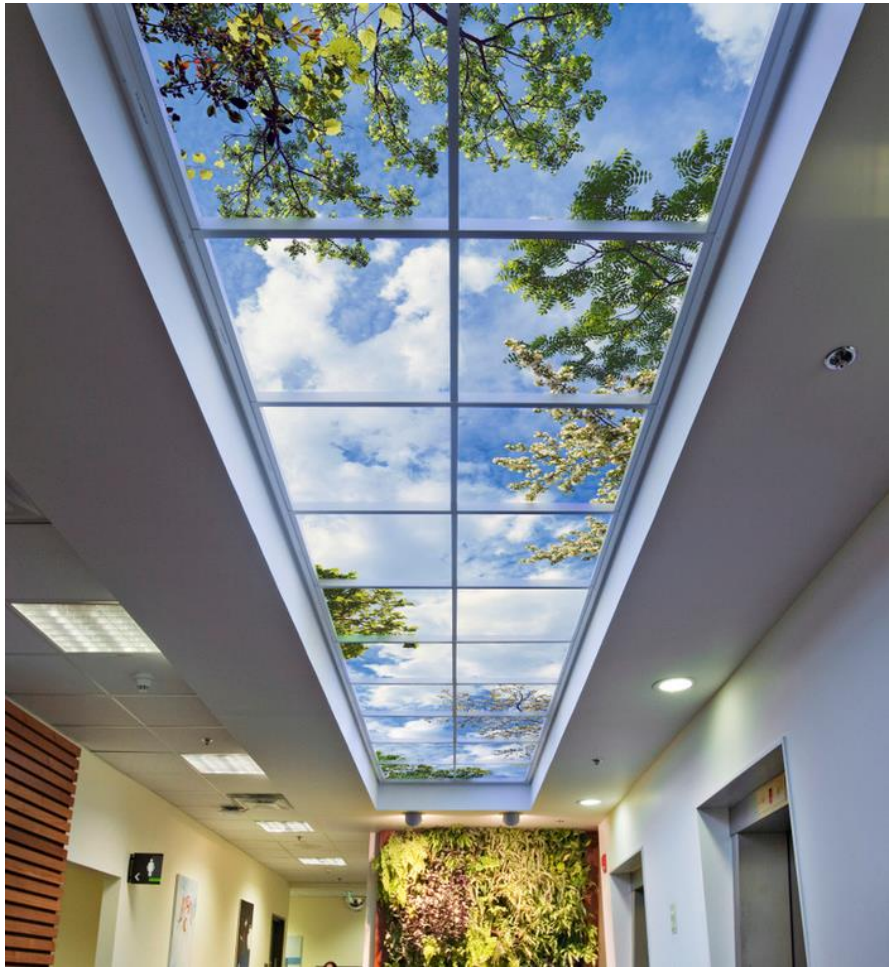
125 sq. ft. FOR EACH EMPLOYEE.



Source: www.steelcase.com

Biophilic Design Elements and Gathering Spaces

Biophilic Design:
An architectural framework that weaves the patterns and forms of nature into the built environment to strengthen the human-nature connection.

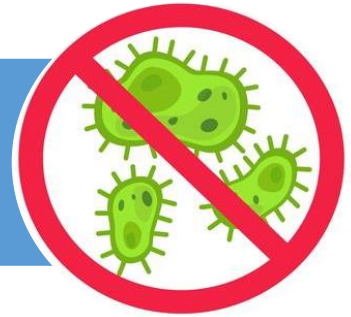


Anti Microbial Materials

Antimicrobial refers to something that is detrimental to a microbe.

Antimicrobial materials could have a detrimental effect against a range of organisms, typically associated with disease such as bacteria, viruses and fungi.

Antibacterial:



Antiviral

Antifungal

Materials

Surface

Additives

Fabrics

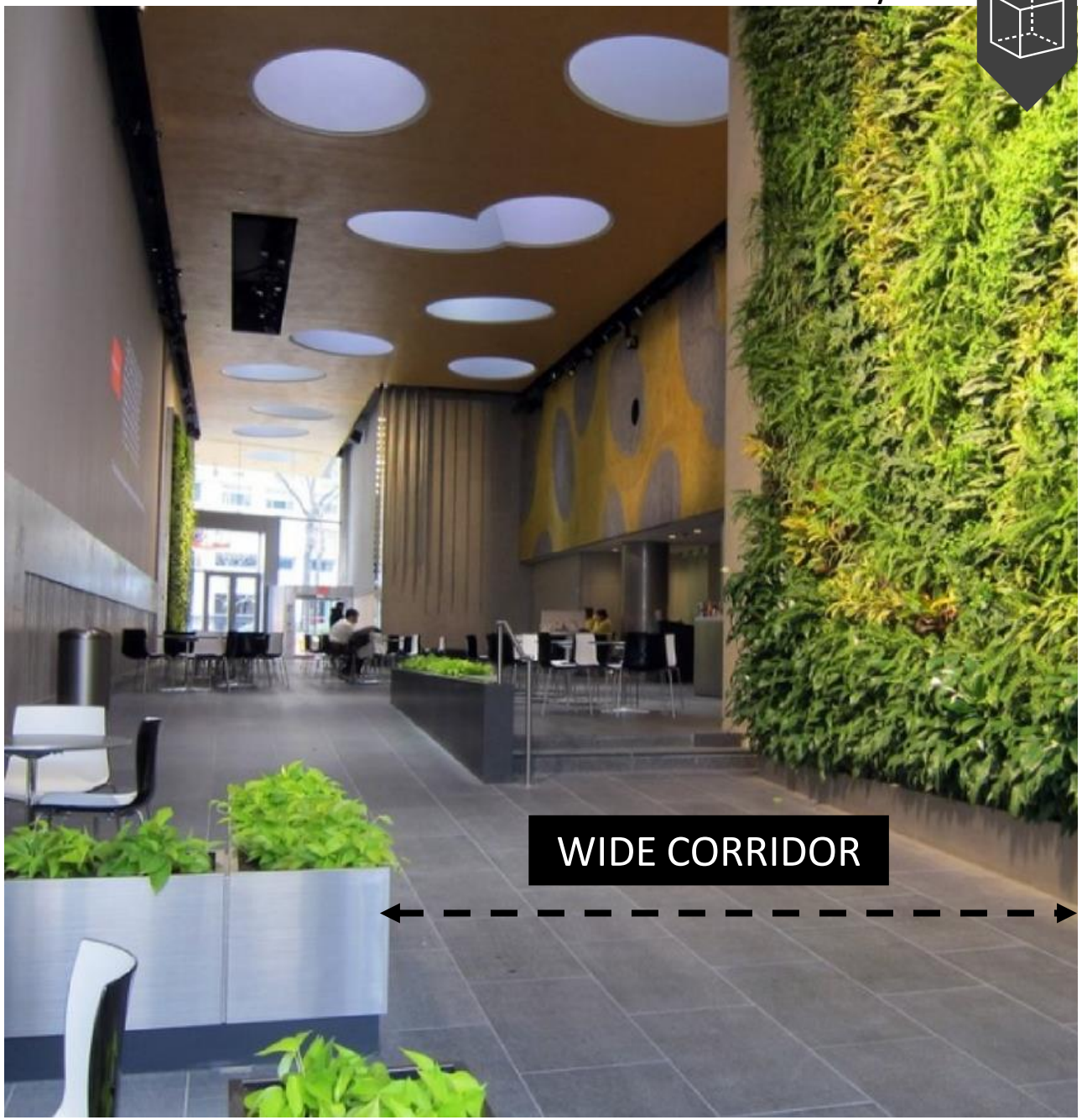
Coatings

Isolation rooms, flexible cubicles & video conference enclaves

Physical

Circulation Paths and Systems

Physical



Easy

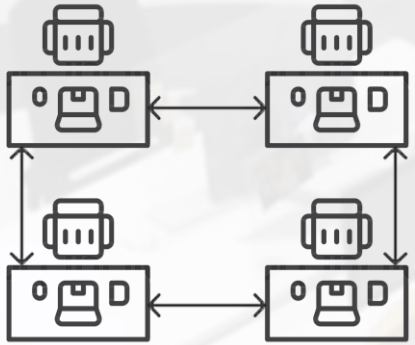
Easy

Doors and Windows

Interior Design & Ergonomics

Workstations

SPACING



ORIENTATION

Source: Cushman and Wakefield: Six Feet Office

Partitions & Screenings

Physical

High flexible partition walls for open office cubicles

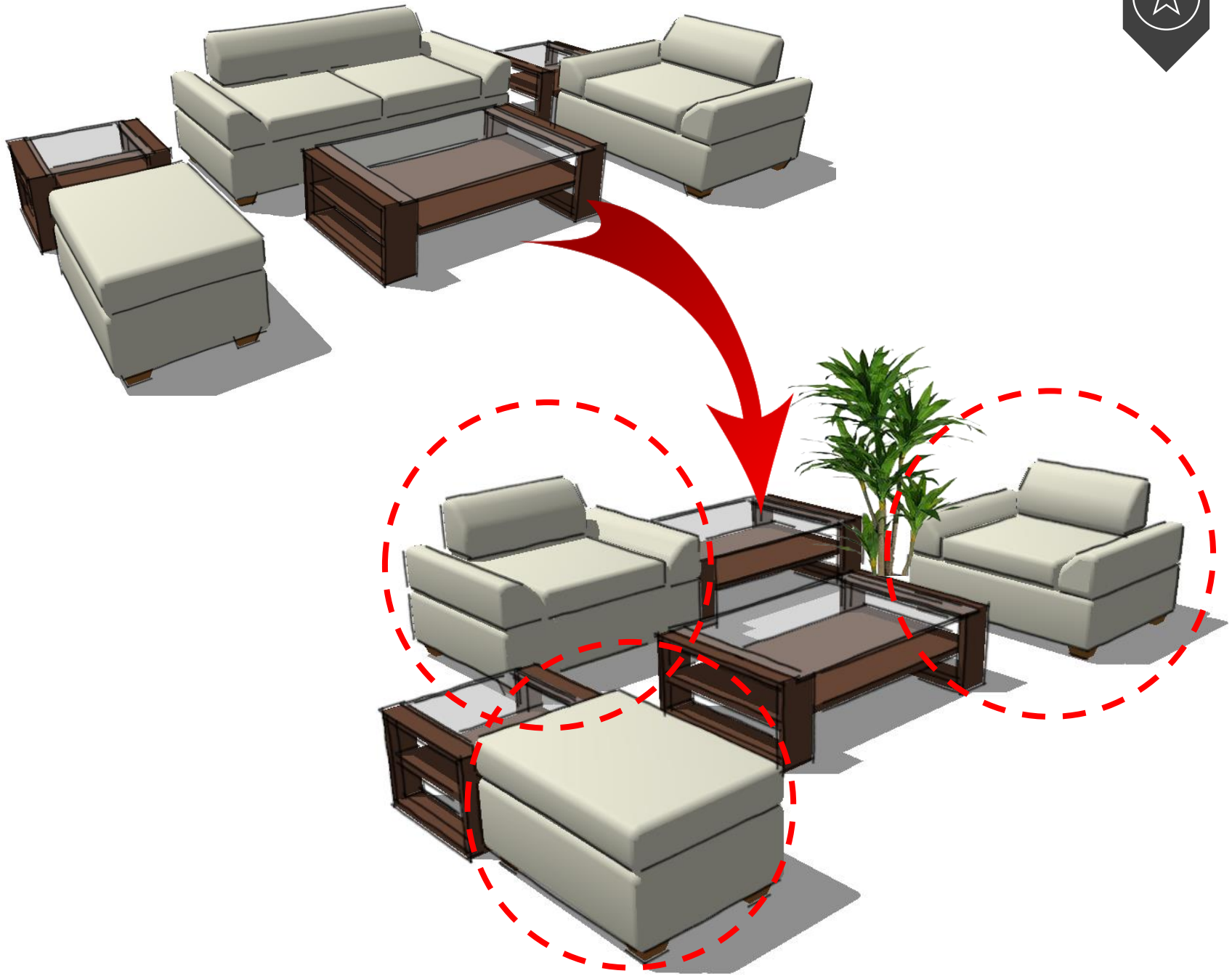
Moveable Screens to create smaller isolation zones

Natural elements to create screening: Indoor plants, green walls etc.

Furniture

Breaking multi-seating clusters

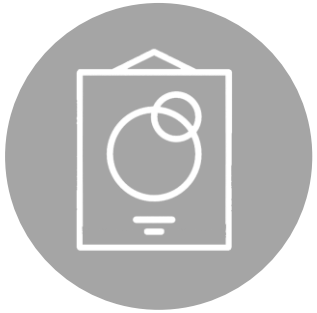
Easy



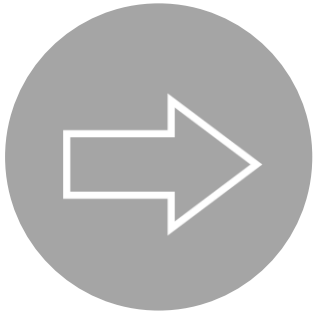
Easy

Visual Signals

Carpet Design



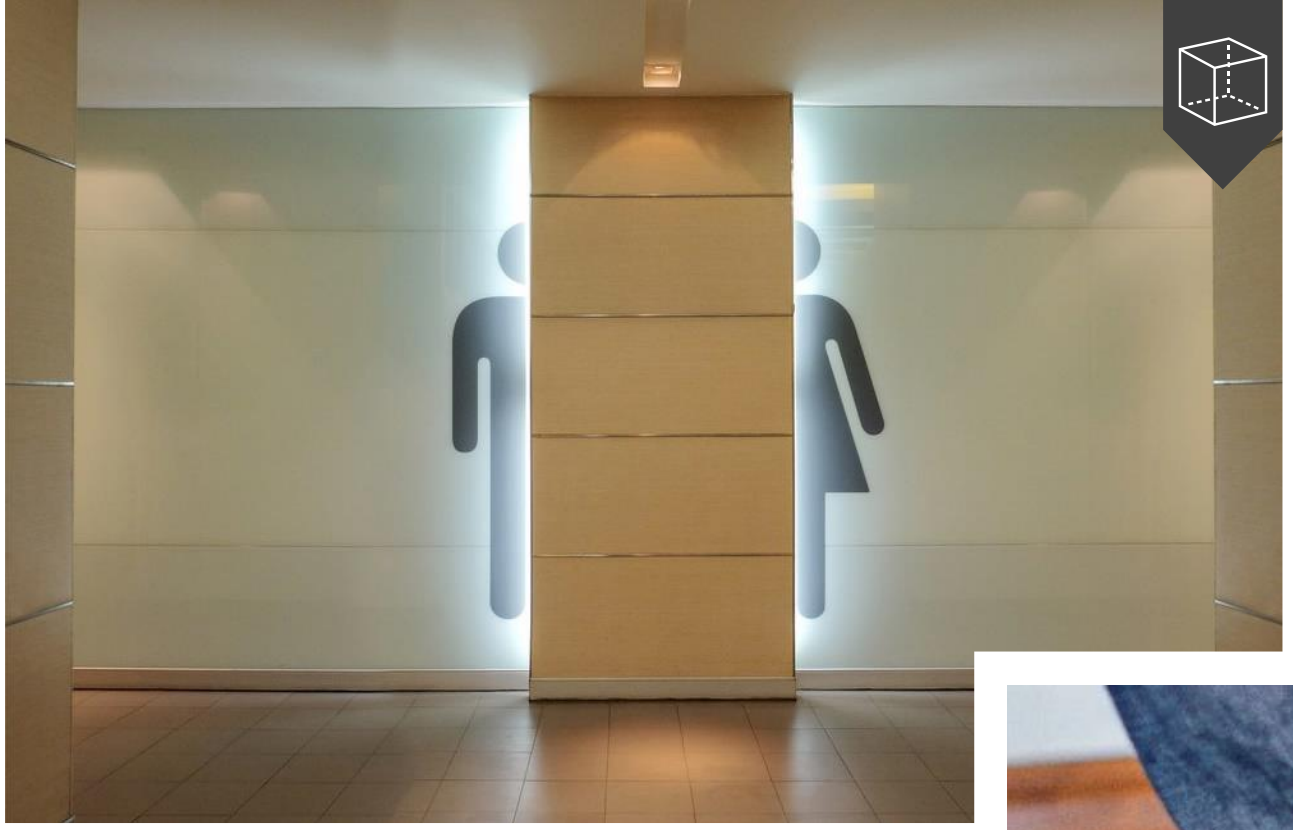
Posters and Displays



Directional Arrows

Sanitization stops

Plumbing and Bathroom Design



Physical

Doorless washroom entrances can be integrated in design to prevent touching of handles and knobs, like airports.

Door handles can be replaced with foot pedals to prevent encountering high-touch surfaces.

Easy

Easy

Sensor based soap dispensers can be used in washrooms to ensure limited touch.

Mixers/taps can also be equipped with sensors to provide a touch-free experience.

Physical

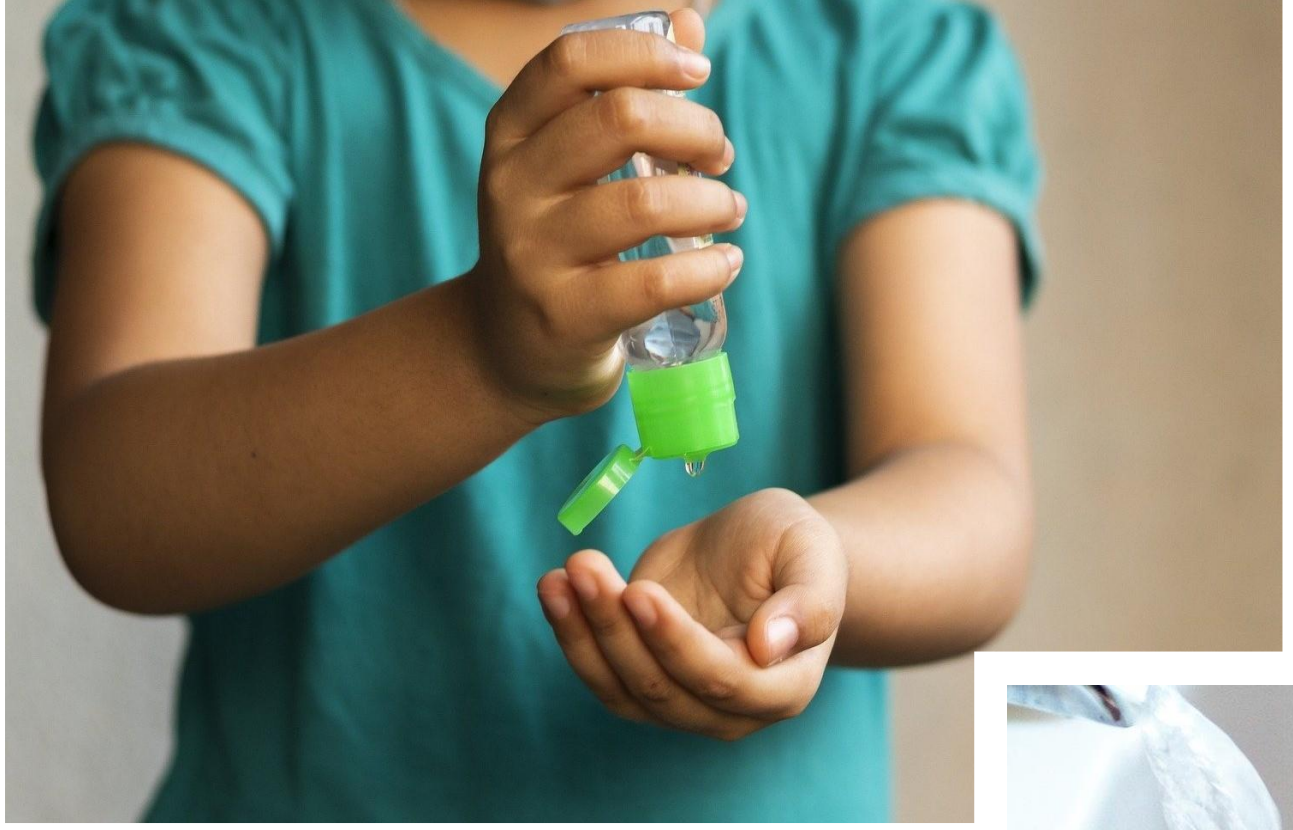

Easy
Flushing systems can be integrated with motion sensors or voice-activators


Operational
Lids must be closed automatically or manually to avoid harmful fumes


Easy
Paper dispensers can be equipped with laser-sense technology

Housekeeping And Cleaning

Easy



Organizations should educate on

Personal Hygiene

by communicating via emails, posters, WhatsApp group etc

Hand Sanitizer

Ensure that it has at least 60% alcohol and use it for 20-30 seconds until hands feel dry

Organizations should implement

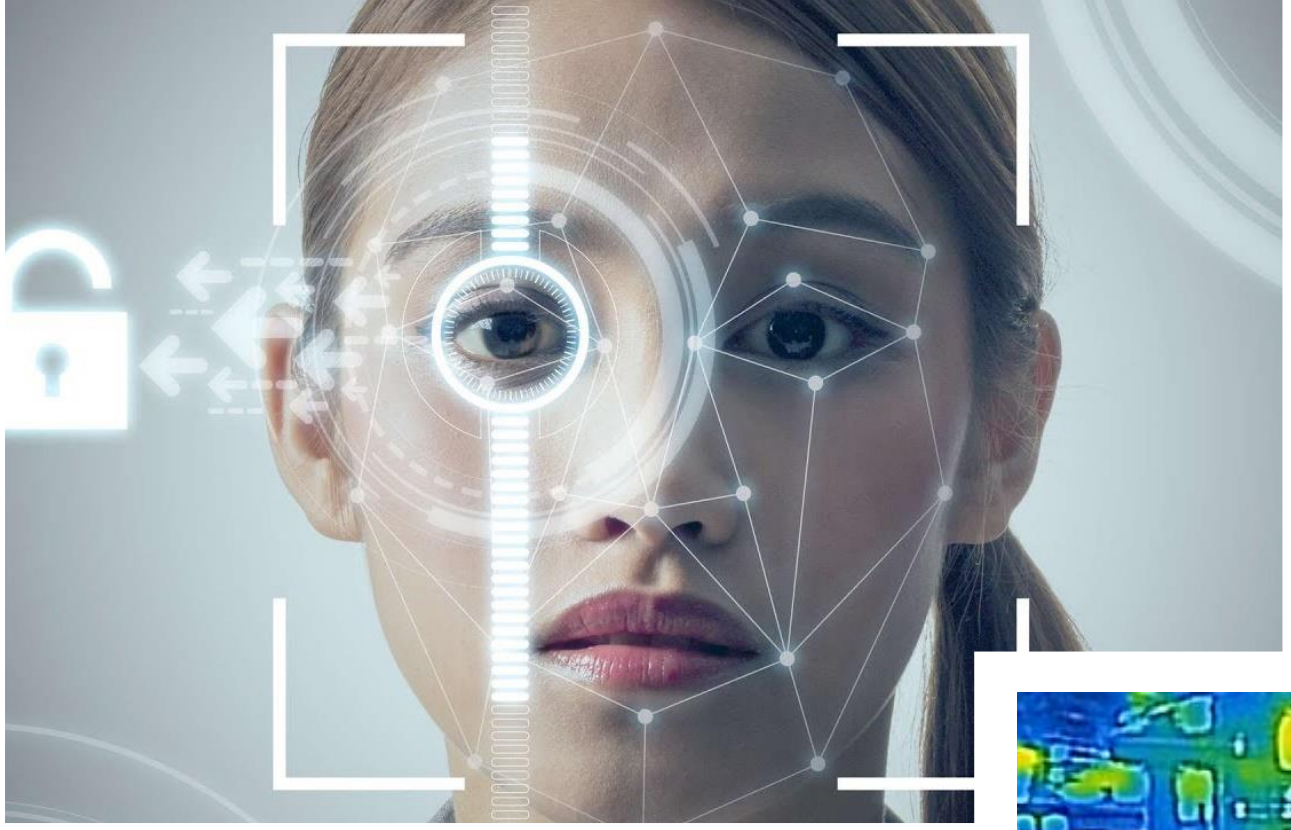
Professional Cleaning & Sanitizing Protocols

for workstations, conference rooms, reception desks, social and common areas

Cleaning Materials

Including disinfectants, hand soaps, sanitization products must comply with international standards.

Innovative Technology



Biometric systems can be replaced with

TOUCHLESS TECHNOLOGY

like face-recognition, iris scanning, touchless fingerprint scanning etc.

Infrared Screening, Thermal Imaging & Temperature Guns

can be used at building entry to detect infected persons

Real-time monitoring

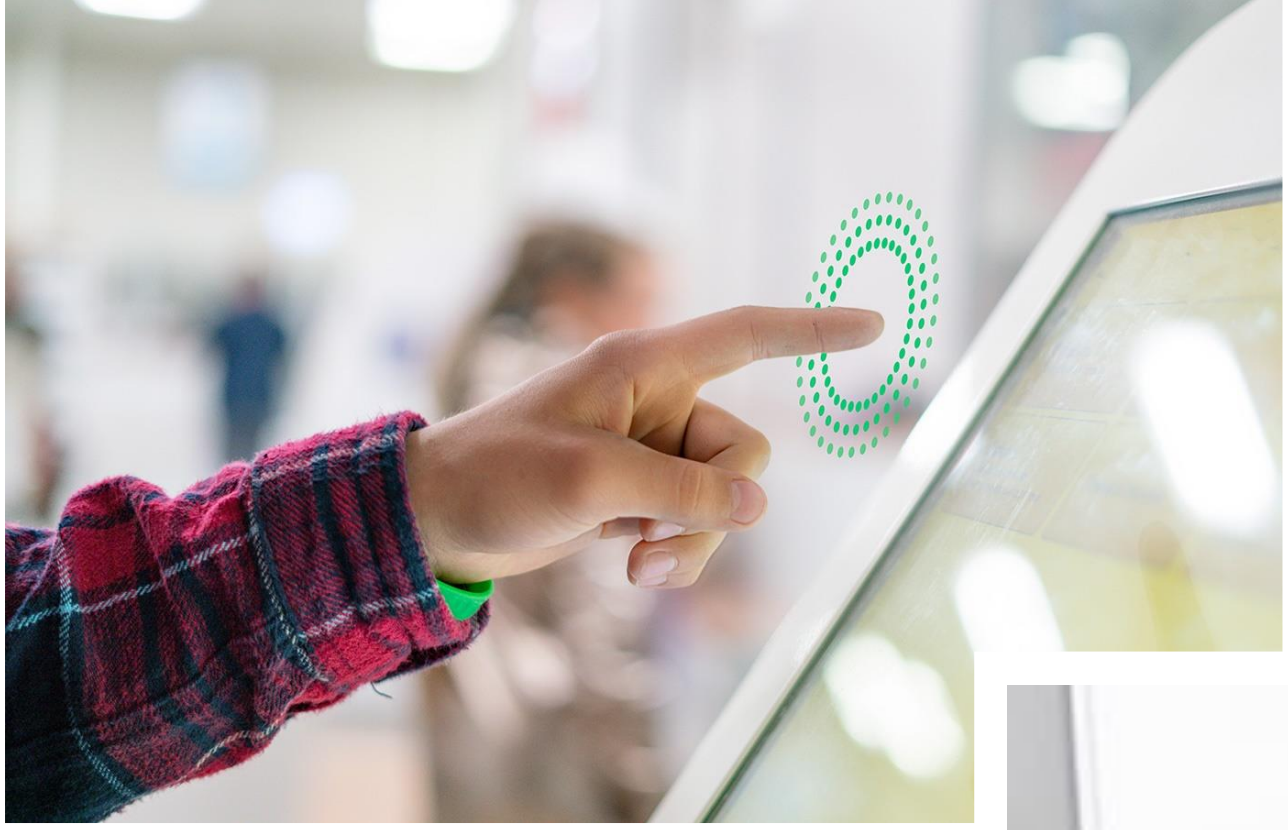
Monitor social distancing

Monitor Indoor Air Quality .

Real-time over crowding indicator

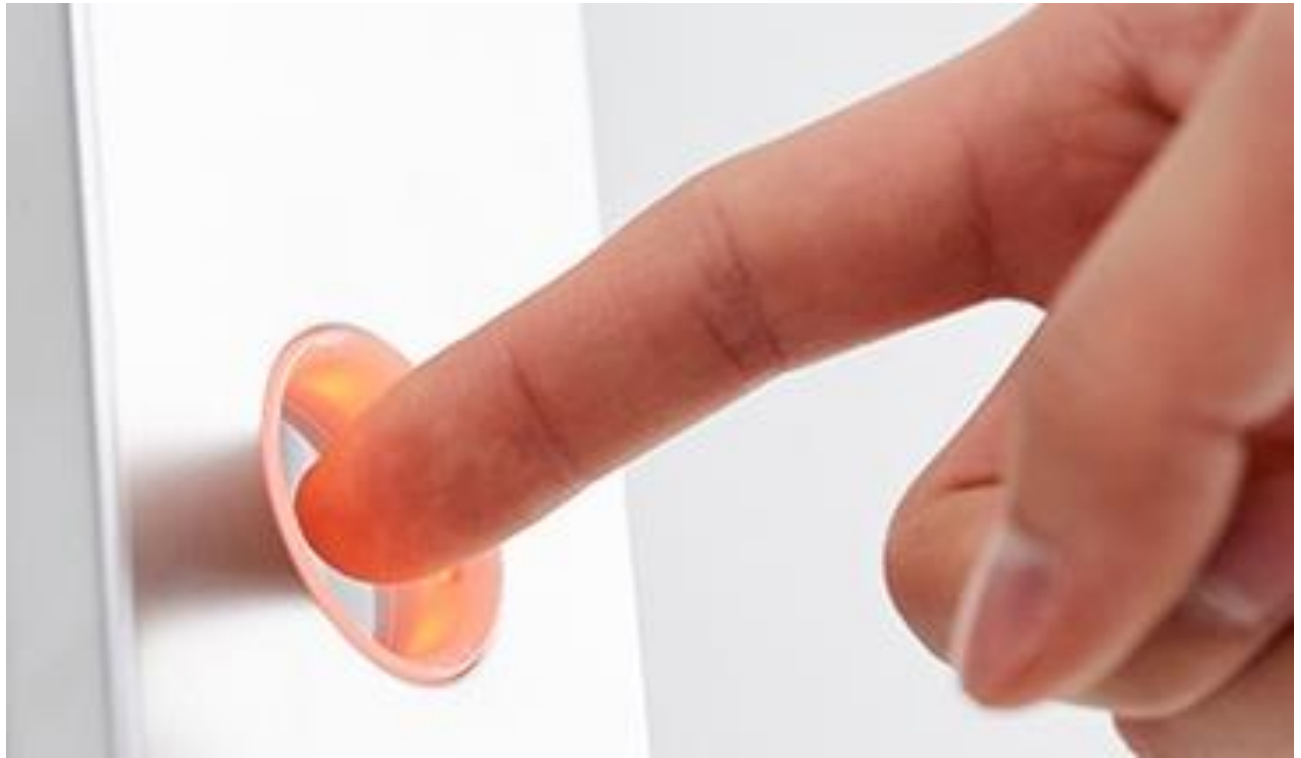
Remote meeting management

Safe and smart cleaning



Gesture Control

Sensor Based Buttons



Nourishment and Fitness

Immunity is the first line of defense and a robust immune system thrives in a healthy body.

Fresh fruits and vegetables

and other components of a balanced diet should be made available to employees daily.

Drinking water must also be promoted

Kitchen Gardens

provide ensure a healthy supply of fresh food while gardening proves to be a stress buster for employees.

In case of excess produce, the stock can be available to the employees thereby reducing the need to visit high-density vegetable markets.

Drinking water should be promoted by having visible dispensers and posters

Workplace design should include outdoor dining spaces tha accommodate the employees away from their workstations

Fitness centres

equipped with cardio-vascular and muscular-strengthening equipment should be provided to promote physical wellbeing

Along with physical fitness, spiritual wellness should also be considered.

Yoga & Meditation centres

can help employees manage stress and ensure longevity.

Outdoor Fitness

provides all the physical benefits of indoor exercise and also provide vital exposure to sunlight (vitamin D)

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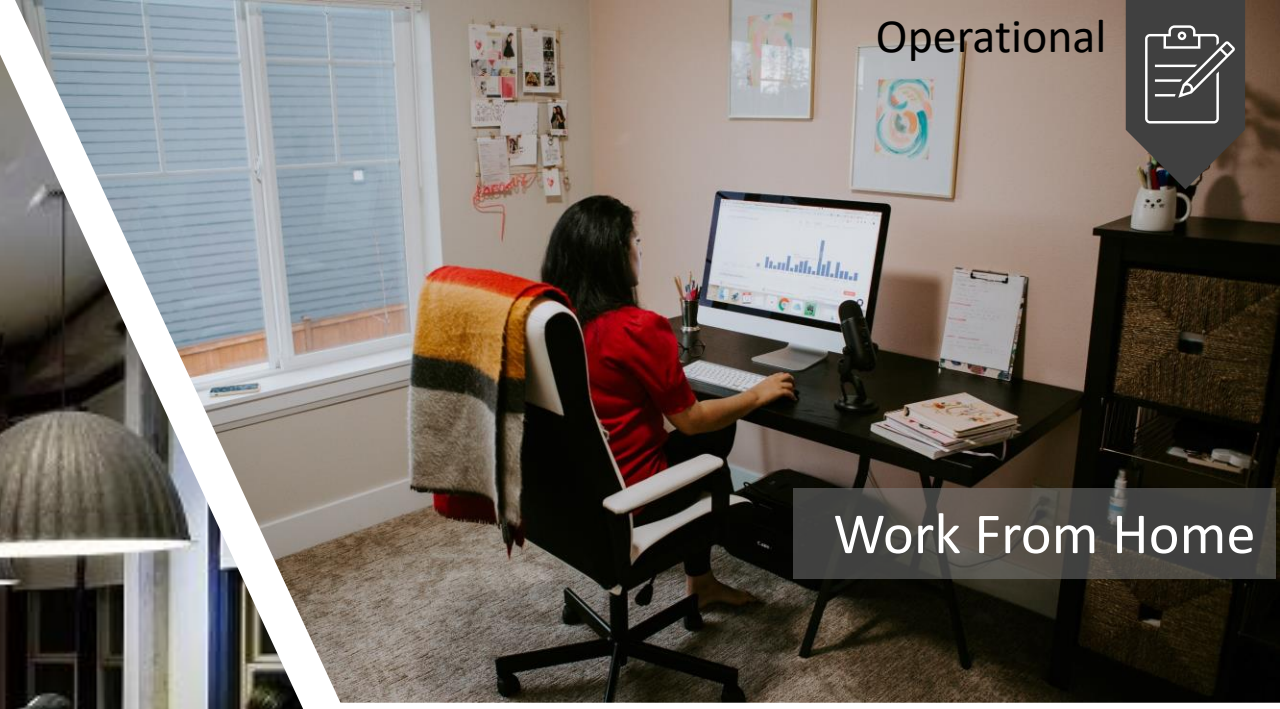
Policies and Standard Practices

Social Policies and Standard Workplace Practices

Operational

Remote Offices



Work From Home

Free Address

CONCLUSION

THE ROLE OF THE WORKPLACE IN A POST-COVID-19 WORLD IS MORE IMPORTANT THAN EVER.

THANKYOU

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Questions and Answers