

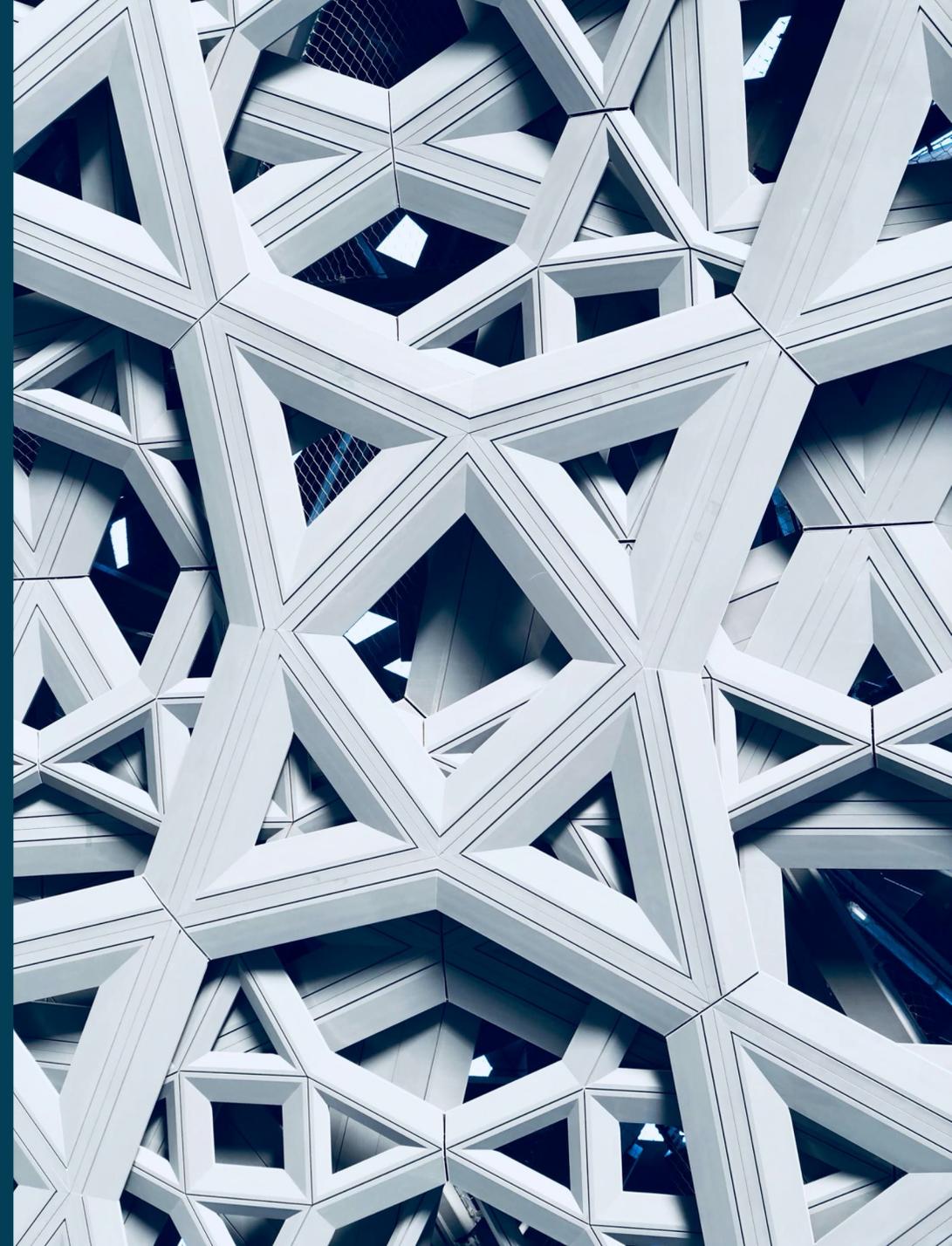


tandem
circular economy consultants

Operational restructuring as a response to COVID-19

Tool pack

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Introduction and aim of this tool pack

Before Operational Restructuring we recommend that staff be educated on the required behaviours to prevent the spread of COVID-19 (please request the **Zambia staff health and safety training** with us if needed). This is however not sufficient to be prepared for the pandemic. Companies are highly advised to review all their operational activities, to make sure that employees are:

- provided with the resources to adhere to requirements for washing hands and disinfecting surfaces.
- supported to adhere to social distancing at all locations and for all activities. Social distancing means avoiding or limiting contact with others wherever possible. Along with hand hygiene, social distancing is one of the most important tools in our fight to control the spread of COVID-19.

This document contains tools to help seed industry companies to make a list of and implement practical measures for operational restructuring that are required to get ready for the pandemic.

Operational restructuring covers:

- **All needed changes on site to support social distancing**, such as changing routines, schedules, (the order of) activities, roles, processes, walkways, seating arrangements etc
- **All needed changes on site to promote the required sanitation**, such as adding hand washing facilities, providing sanitizer for hands and surfaces, adjusting cleaning schedules, installing a cleaning team, etc

Examples



Temperature measurement on entry and exit



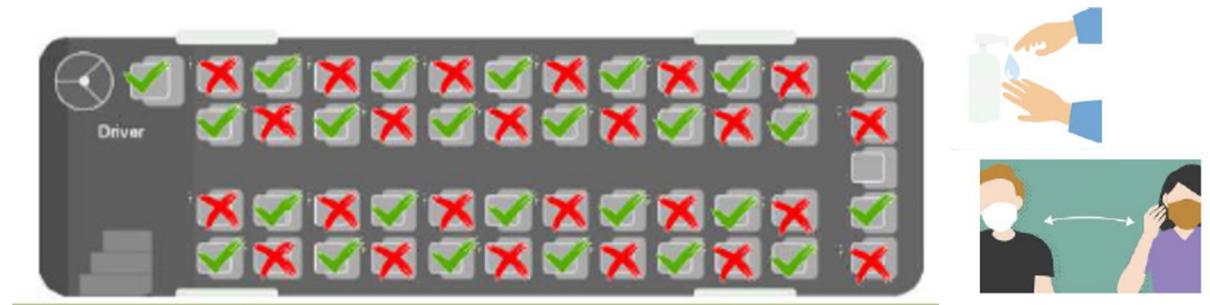
Disinfecting high-touch areas



Isolated workstations



Washing and sanitizing facilities



Transport of staff in dedicated bus

Content of this tool pack

The tools described in this pack are:

1. **General guidelines.**

These guidelines are a list of measures that can generally be applied to most work environments by providing the right resources at the right locations and by making changes in everyday routines. Reviewing the list of general guidelines will help companies to select those measures that apply to the company.

2. **Analysis of employee movements.**

Visualization of employee movements, by drawing their path of movement on a map from entry to all activities to departure, will gain insight in how people move on site, what the level of interaction is between employees, how many locations they visit and how this may possibly be restricted.

3. **Analysis of activities.**

Generating a list of activities first and then applying a decision tree per activity, will guide the team to discover potential measures to promote social distancing by changing or even stopping certain activities.

Advised approach for operational restructuring

This documents contains 3 tools for operational restructuring and we advise:

1. To discuss the **general guidelines** of **tool #1** in your management team or taskforce (duration +/- 2 hours), and tick off the measures you find useful to implement on your site.
2. To plan a workshop with representatives from all departments (duration +/- 2 hours) to look at needed measures from **an employee point of view** by applying **tool #2**. This will give insight in movements on site and what is needed to restrict those movements.
3. To plan a workshop with representatives from all departments (duration +/- 2 hours) to look at needed measures from **an activity point of view** by applying **tool #3**. This will make sure that all activities are discussed and evaluated.

These tools will generate overlapping but also unique measures by applying different perspectives. The end result of applying 3 tools is 1 list of measures that will need to be implemented on your site and will support you to continue operations while keeping your people safe.

Tandem is available to facilitate meetings or workshops to help you apply these tools to your organization if required.

Keeping track of implementation

The outcome of applying the 3 tools is 1 list of measures that needs to be implemented.

It is expected that each company will require an extensive list of measures to get prepared for the pandemic. It is advised to keep track of the implementation of all measures in one overview, and to add an owner, deadline and status.

A tracking template for operational restructuring is embedded:



The general guidelines are pre-populated in this tracker. The team can delete measures that do not apply and add measures that are the outcome when applying **tool 2** and **tool 3**.

Tool #1: review general guidelines

Steps

1. Plan a management team or COVID-19 taskforce meeting and schedule 2 hours for this exercise
2. Run through the list of general guidelines with the team
3. Tick off the guidelines that will be useful to implement on your site
4. Make an action plan: decide who will do what by when, and keep track of progress in the 'Operational Restructuring Tracker' (find template embedded on the previous slide)

General guidelines – per area

Coming on site:

- Use non-contact laser thermometers to test temperatures when people come on site
- Time Clocks (Punching In & Out) - Determine if actual physical punching in is needed or if it can be temporarily forgone or completed using a simple checklist at the entrance.
- Stagger arrival times and/or shift start times and develop a schedule for arrival that allows for following the social distancing guidelines.
- Look for the high touch areas and eliminate or regularly disinfect them. This may include opening the entrance door and keeping the door propped open.

At workstations

- Where possible and practical, adjust work areas so that workers are spaced at least 2 metres from one another. This may mean spreading shifts over a longer day or adding an extra shift to operations.
- Provide physical barriers between workstations. If plexiglass is not available or cost prohibitive, consider using rolls of poly sheeting. Focus first on areas where workers are required to be within two metres, such as assembly lines.
- When workers must be within two meters, ensure that each worker wears a face shield (or mask) and practices safe and frequent hand hygiene. Workers may also wear safety glasses to prevent touching eyes and faces. Disinfect frequently, use anti-fog wipes to prevent workers needing to take off the glasses.
- Wherever possible, do not allow employees' shared tools. Any tools that must be shared must be disinfected before and after each worker uses them.
- Eliminate meetings and if not practical, minimize the number of attendees

Shipping / Receiving

- Stagger receiving and delivery to minimize contact.
- Arrange for contactless delivery wherever possible.
- COVID-19 virus (SAR-CoV-2) is stable and infectious for the following time periods: • Aerosol (airborne solutions) - up to 3 hours • Copper - up to 4 hours • Cardboard - up to 24 hours • Plastic and Stainless Steel - up to 72 hours Shipments that are outside of those windows are expected to be safe
- Procedures for maintaining social distancing with delivery drivers must be developed

Maintenance Shop

- Eliminate or reduce shared tools. For all shared tools, implement disinfecting before and after each worker uses them. Most importantly, consider how employees will access these shared tools and mitigate the risk of employees meeting at certain stations.
- Eliminate shared work tables and benches in favour of single worker stations.

Source: CM&E

General guidelines – per area continued

In the office

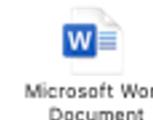
- Look for the high touch areas in your punching in process and eliminate them or mitigate risk with signage. Shared resources usually include admin tools, like the copier, water cooler, document processing, etc
- All workers who can work from home should be working from home. Purchase the needed electronics to allow workers to be effective away from the office. Teleconference whenever possible. Test the boundaries of what is considered possible for teleconferences. Include internal meetings with in-house staff on the list of teleconference meetings.

Breakrooms and canteens

- Stagger break times so that fewer people are in the room at the same time. To identify break time staggering requirements, apply some math to your break schedules (e.g. 120-minute window for lunch break divided by 40 employees who need to take their 30-minute break = 10 people in the break room at a time.
- Use floor markings (such as tape, stickers or paint) to encourage one-way traffic and avoid people having to pass each other.
- If the break room will only accommodate six people with social distancing, remove all except six chairs in the room.
- Consider using plastic dividers between stations and adjust furniture so that employees are not facing one another.
- Replace “Made to Order” food service with “Grab and Go” premade options.
- Use tape or stickers to mark off two metre spacing: at the tables, in front of coolers, in front of the microwaves,
- Assign a single person to operate high touch areas, who will also periodically clean these areas using the disinfectants correctly
- Staff who have desks should eat lunch at their desks.
- Weather permitting, encourage staff to eat lunch outside while continuing to observe social distancing.

Bathrooms, change rooms and locker rooms

- Stagger shift handover / start of shift times so that fewer people are in the room at the same time.
- Ensure hygiene supplies are available.
- Post hand washing and cough hygiene posters in the locker room in languages appropriate to your workplace, example is here:
- Encourage workers to change out of the clothing that they arrive at work in and into clean clothing for the work shift, changing back as they leave the shift.



Source: CM&E

General guidelines – apply to all areas

- Post social distancing and hand washing signage in poster format in multiple languages appropriate to your workforce (see example embedded on previous page)
- Add hand sanitizer stations to high traffic areas and when entering a new zone of the site. Mark a wait line 2 meters from the station to ensure appropriate spacing.
- Make a list of high touch items per area, such as remote controls , operator control stations, shared tools, phones, light switches, door handles, lunchroom tables, shared printer fax machine, toilet seats, microwave handles, keyboards etc. Share this list with your team and ask them to pay close attention to what they're touching over the next couple of days that isn't already on this list and add to them as you go.
- Decide who needs to disinfect
 - For single person workstations and tools, have each person disinfect their tools and area at the start and end of each shift.
 - For multi person workstations, use tape, paint or other markings to separate the area and have people stay in, and disinfect, their own sections of the workstation or area.
 - Provide a clear procedure on the steps each worker should take and the timing, with visuals where possible.
 - Or, arrange for a cleaning team or company to provide large scale disinfecting to the manufacturing areas.
- Adjust work instructions for proper disinfecting
 - Disinfect surfaces with an industrial disinfectant spray or household detergent. Generally, look for these ingredients: at least 70% or anhydrous alcohol, Benzalkonium Chloride, Hydrogen Peroxide, Bleach, Sodium Hypochlorite (there are others, but these are the most commonly-used products). When using wipes, each wipe style product has its own disinfecting procedures. Read the label instructions or visit the manufacturers' website. A quick wipe will not effectively kill the virus.
 - Wear disposable gloves.
 - Brush all dry solid materials / dirt off the surface to be cleaned. Wipe the surface with an all purpose-cleaner first before disinfecting. Spray / wipe the chosen disinfectant
 - Disinfectant must sit on the surface for 10 minutes without drying to kill COVID-19.
 - For electronics: Spray disinfectant on a cloth first and not directly on the electronics
- Consider making high-traffic aisle ways one way. Mark with arrows using tape on the floors and add signage to aisleways.

Source: CM&E

Tool #2: analysis of employee movements

Steps

1. Print or draw a map of several section of the site
2. Make a list of jobs
3. For each job, draw a path of movement between entry, all activities, and departure
4. Decide on zones based on guiding principles
5. Decide on schedules and shifts and grouping of activities
6. Make list of measures and keep track of implementation

Step 1. Print or draw a map of several sections of the site



Step 2. Make a list of jobs

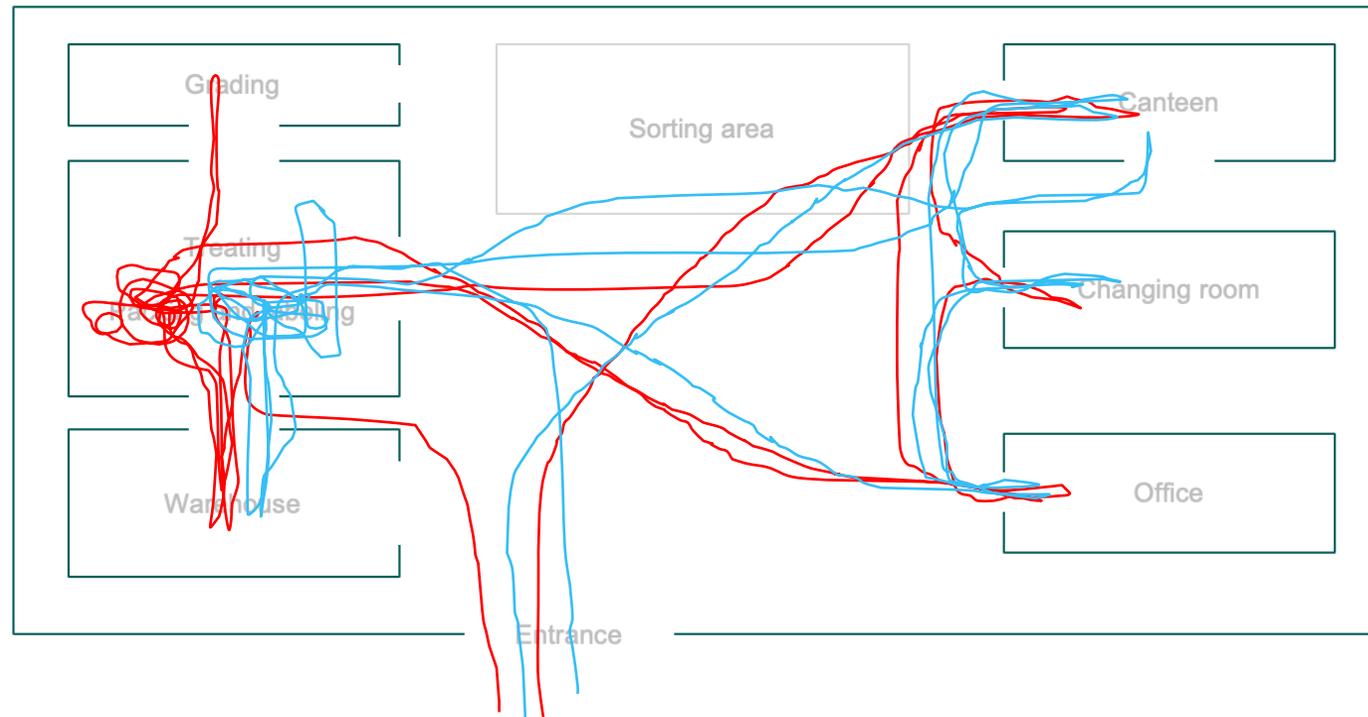
Make a list of the different types of jobs on your site, for example:

- Guarding
- Seed sorting
- Carrying bags
- Operating the treating process
- Operating the packaging line
- Operating the labelling machine

For each job, perform step 3 (next slide).

Step 3. For each job, draw a path of movement

- The example below is for a packing operator (red) and labelling operator (blue) during one shift from 08.00 – 17.00, from arrival to all activities to departure.
- Start from entry on site and include the complete movement path until departure, including all activities such as operating, re-stocking, getting support and paperwork, going for lunch / the toilet / dressing room, etc



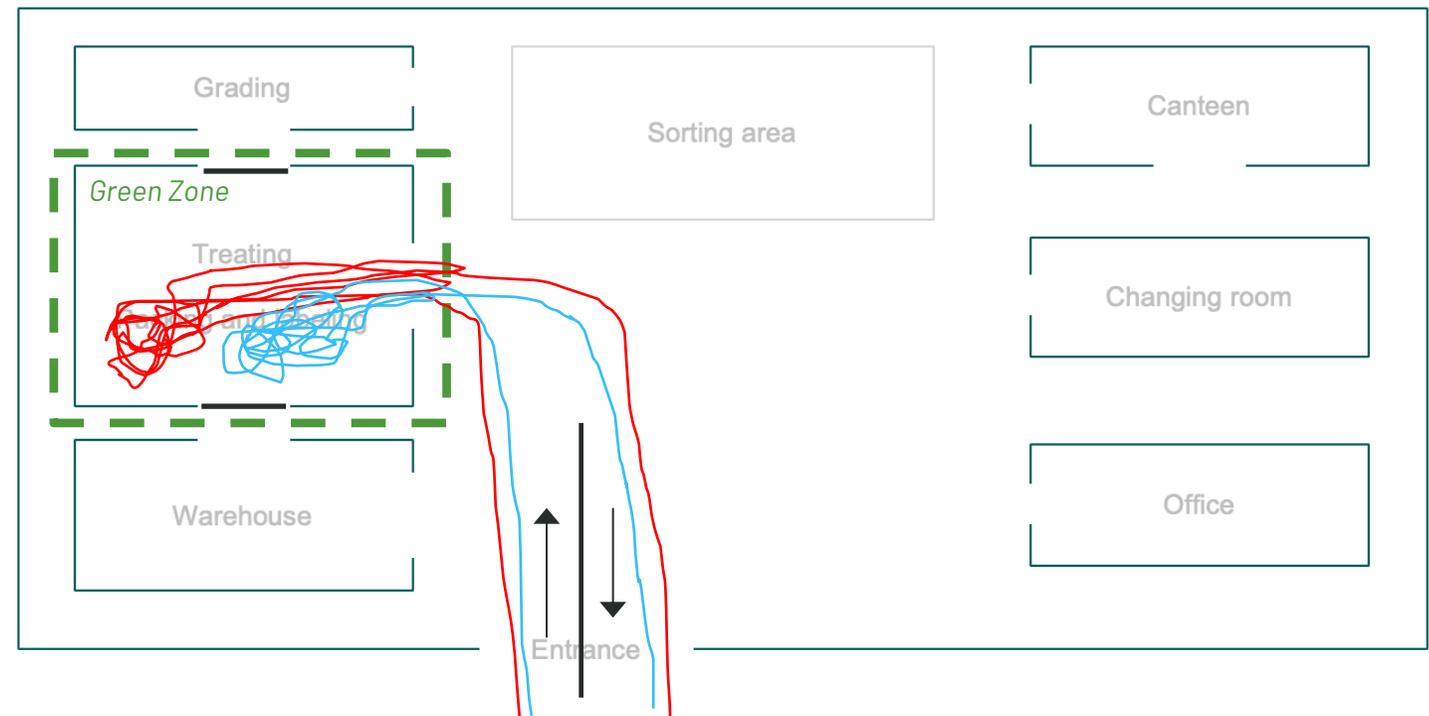
Step 4. Decide on zones based on guiding principles

Apply guidelines to the movement paths:

- Can you apply zone boundaries around 1 cluster or groups of nearby clusters to reduce movement?
- Can you apply zones on walking directions?
- Can you apply lining, physical boundaries, locking (or opening) of doors, etc, to support the clarity of zones?
- Can you assign equipment, tools and other resources to a limited group of people, preferably 1?
- What resources and measures are required to implement the new way of working?

For our example:

- Treating, packing and labelling area is announced to be the 'green zone' (this is possible when it has restroom facilities)
- The operators of this zone receive a 'green pass' and are only allowed in this zone (and no-one else)
- 2 entrance doors are locked, 1 remains open. Hand washing facilities are provided at the 1 entrance
- Materials from the warehouse need to be delivered to the entrance instead of the operators picking it up
- Operators need to bring their own lunch and change clothing within the zone
- Doors to canteen and dressing rooms are closed
- Within this zone, posters are supplied to remind operators to keep 2 metres distance, wash hands when entering and leaving the zone and to use their personal set of tools
- Household detergent / alcohol is provided to clean high-touch surfaces regularly and operators have a time schedule, list and instructions to perform sanitation
- Supervisor has set meetings with operators to discuss new way of working and to learn about concerns and challenges
- At the entrance we applied lining on the floor with clear paths to walk when coming in and leaving the site.



Step 5. Decide on schedules and shifts and grouping of activities

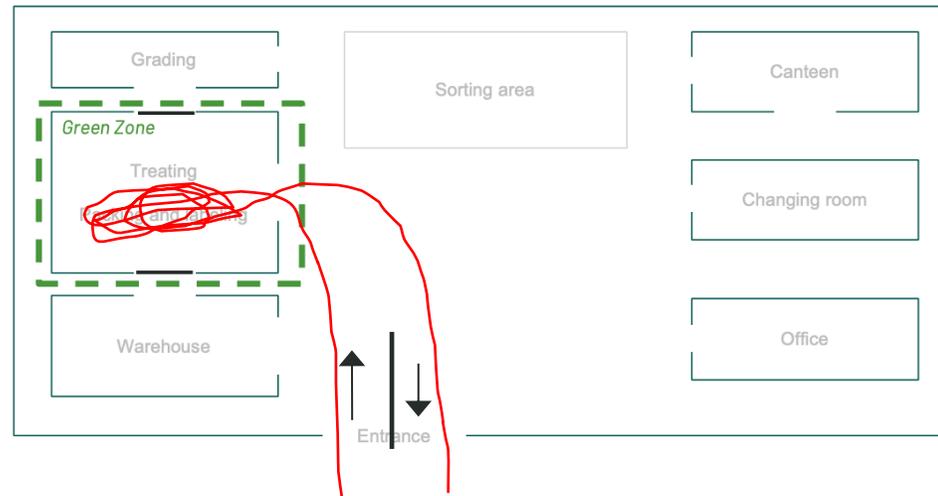
Answer the following questions:

- Can you implement shifts and reduce production speed to reduce the number of people in one area?
- Can you implement schedules for shared facilities, such as a canteen and dressing room? Or can you close them?
- Can you group activities to reduce handovers and close contact?

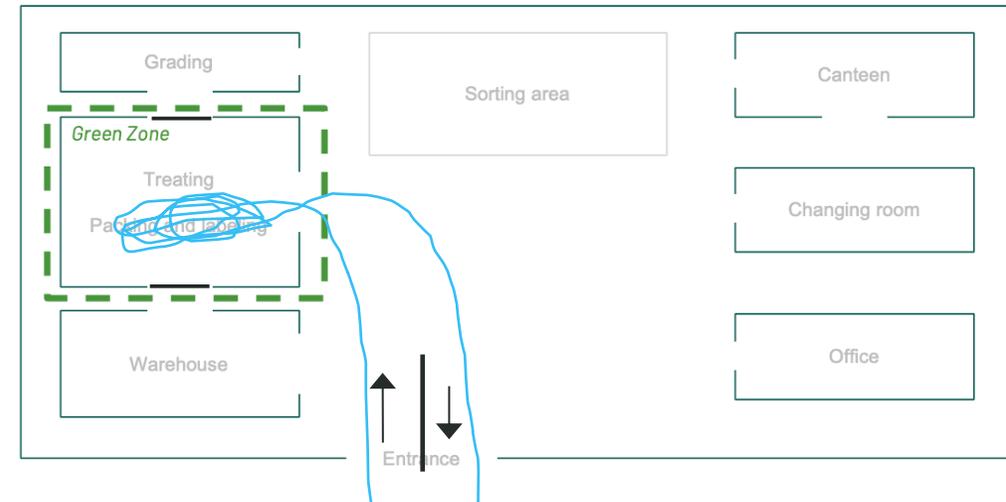
For our example:

- Packing and labelling is done in a sequence by one operator
- Speed of production line is reduced by half
- Operators of the green zone are required to start at 07.00 am instead of 08.00 am, to reduce traffic at the entrance.
- Operators work in 2 shifts

SHIFT 1



SHIFT 2



Step 6. Make list of measures and keep track of implementation

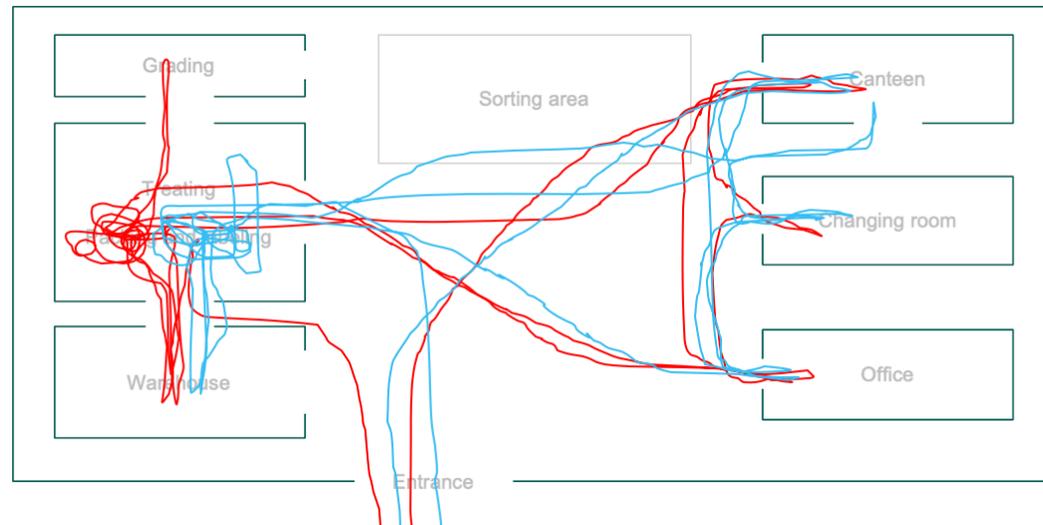
For our example:

- Print green coloured badges to assign a limited number of people to the green zone
- Install hand washing facilities at entrance of green zone
- Provide 2x bottle with sanitizer and 10x clean cloths per day for sanitation of surfaces in the green zone
- Provide sanitation list and timetable to the green zone
- Announce working in shifts per certain date and start- and end time of each shift
- Announce to all employees to bring own lunch and allowance provided
- Task employee A to replenish soap, water and sanitizer at all zones
- Lock doors X, Y, Z
- Group activity F,G,H into 1 role
- Plan staff communication meetings
- Etc

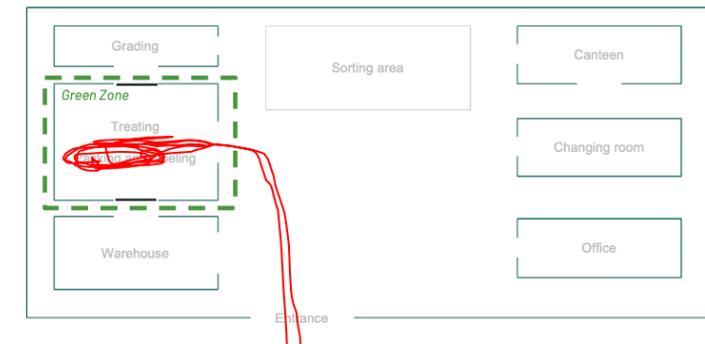
Summary

Guiding principles to reduce movement and contact, and therefore to increase staff protection are:

- Implement zones and assign the right capacity (group of people) to the zones. Strictly forbid movement between zones
- Implement shifts and schedules and grouping of activities



SHIFT 1



SHIFT 2



Tool #3: analysis of activities

Steps

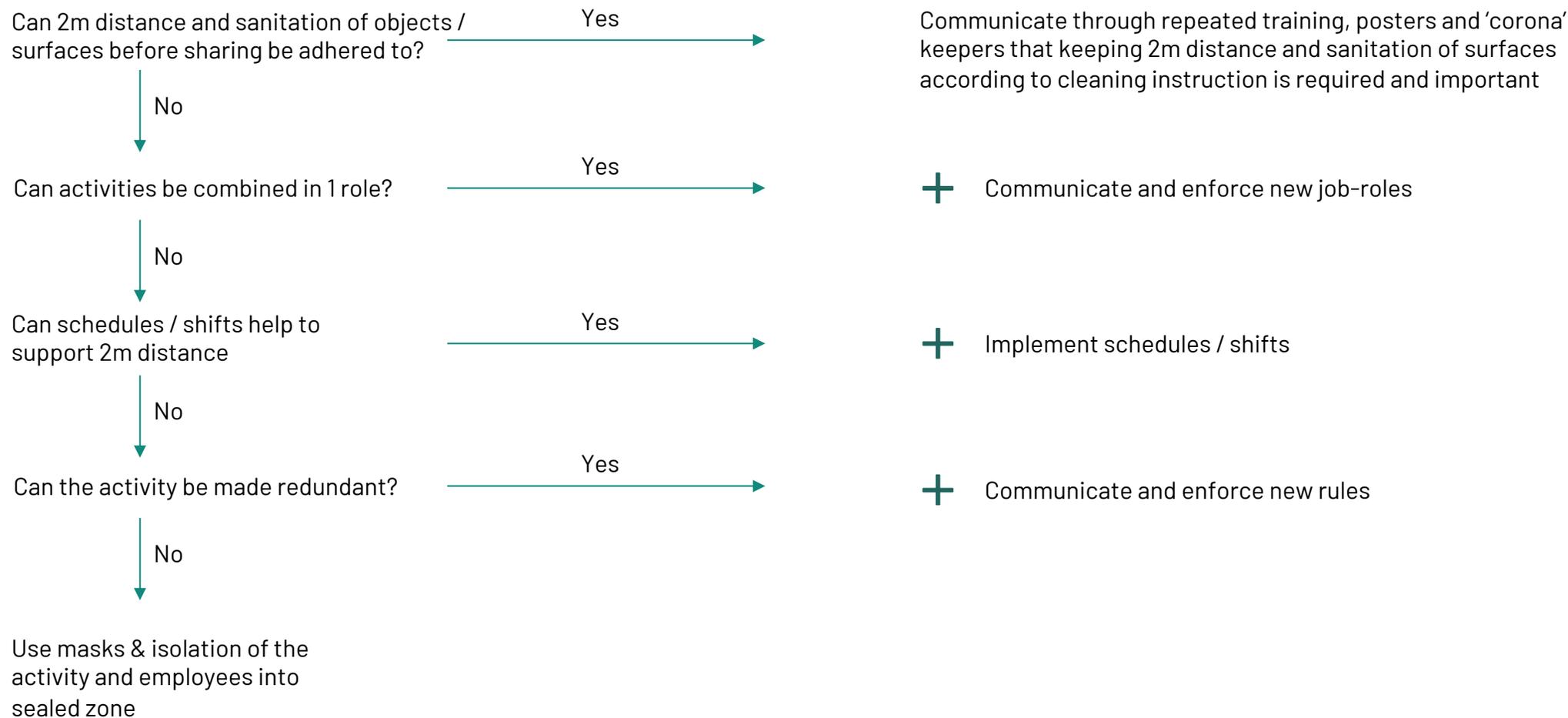
1. Make a list of all activities per area of operations
2. For each activity, run through the decision tree
3. Decide on measures based on guiding principles
4. Make list of measures and keep track of implementation

Step 1. Make a list of all activities per area of operations

For example goods receipt:

- Coming in for work
- Signing presence list
- Change clothing
- Find coffee
- Go to workstation
- Opening gate for truck
- Inspecting load
- Signing paperwork
- Bringing paperwork to the office
- Offloading truck
- Carrying bags to sorting area
- Having a lunch break
- Going to the toilet
- Asking supervisor for help
- Etc

Step 2. For each activity, run through the decision tree



Step 3. Decide on measured based on guiding principles

For example: offloading truck

Can 2m distance and sanitation of objects or surfaces before sharing, be adhered to? → Yes

↓ No

Can activities be combined in 1 role? → Yes

↓ No

Can schedules / shifts help to support 2 M distance? → Yes

↓ No

Can the activity be made redundant? → Yes

↓ No

Communicate through repeated training, posters and 'corona' keepers that keeping 2m distance and sanitation of surfaces according to cleaning instruction is required and important

+ Communicate and enforce new job-roles

+ Implement schedules / shifts

+ Communicate and enforce new rules

Assign a fixed group of employees for this activity into 1 zone, set clear zone boundaries and make sure hand-washing facility is used when entering and leaving the zone. Employees in this zone should not come into contact with employees from other zones. Provide transport to commute if possible. Wearing masks is advised to 'cover' coughing and sneezing. Communicate to keep 2m distance as much as possible (however not fully).

Step 4. Make list of measures and keep track of implementation

Add to the list of measure in the Operational Restructuring Tracker:

- Assign a fixed group of employees for off loading trucks, communicate the boundaries of the zone
- Communicate to all employees who is allowed in the zone and who isn't
- Provide coloured passes to be able to grant access to the offloading zone
- Provide hand-washing facility at entry of the zone and train on washing hands when entering and leaving the zone.
- Provide separate transport to commute for this group of employees.
- Provide clean masks every morning for this group
- Communicate to keep 2m distance as much as (not fully) possible, no hand-shaking etc.

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