SCHMID Elektronik

5-Phase MVP «COVID-19-Immune System»

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that 10-15% of employees can become ill

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Start of Corona-Event
Swiss Government Decisions
• Friday 13.3.2020
• Monday 16.3.2020
• Friday 20.3.2020

End of Corona-Event
ca **End of June**

Concept «Flatten the Curve»
by rigorous measures

Worst Case   Best Case

| March | April | May | June | July | August | September | November |

Phase ❶   Phase ❷   Phase ❸   Phase ❺

| Containment | Team Building | Safe Operation | Normal Operation |

Phase ❹ (Emergency Case)

| Lockdown |

Content

This **MVP** is what it is: an open source hack "as is" against the aggressive corona virus according to the philosophy: **Build**.**Ship**.**Fail**.**Fast**.**Learn**! The first two are done, let's now together and quickly raise the shields against this Black Swan, detect errors agile, then adapt and share gained knowledge. This MVP is **Open Source** and can be shared with anyone.
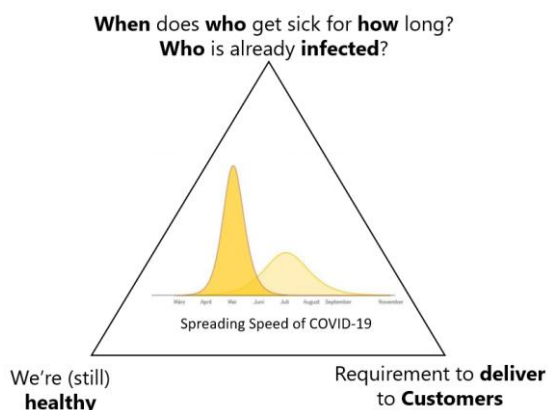
1   Increase Resilience of the Company

Schmid Elektronik's **COVID 19 Response Team** has transferred its internal roadmap for dealing with the current situation into this neutral, reusable **MVP** (Minimum Viable Product) "**COVID-19 Immune System**". It is designed for an **industrial SME** offering engineering and production services and has its own products (in our case hardware modules, functional modules, software components). So there is something for everyone in this package.

2   Increase Resilience of the Leadership

First of all, the **strategic management** of an SME must forge a corona roadmap that is binding for all, define clear tasks, responsibilities and competencies, release this roadmap closed and then have it **rigorously and ASAP operationalised**. The MVP "**COVID-19 Immune System**" presented here can serve as a basis for this or provide supplementary ideas for an existing roadmap.

It is important that the strategic and operational leadership continuously monitors the velocity of the virus spreading. What has **changed** in the environment (Country, Continent, World) ? What are the chances, dangers, consequences ? Which measures have to be taken ? Which ones have to be adapted ? How effective are they ? What are the learnings?

The situation is new for leadership. From now on, it must be able to reassess day by day and make important **decisions** that are in the best interest of both customers and employees. The unpredictable and uncertain aspect of the situation is the **exponential** and **rapid development** of its spread, which is unknown to us all. It feels something like this: first the virus was far away (China), then it was on our doorstep (Continent) and then it crept up on us. Without **rigorous measures**, in the worst case, the spread will double daily and then hit us with all its harshness. **That is why every day counts now!**

When does **who** get sick for **how** long?
Who is already **infected**?

Spreading Speed of COVID-19

We're (still) **healthy**

Requirement to **deliver** to **Customers**

This is a **test for leadership**, as this is an extreme situation and a tour de force with many unknowns. Nobody can answer the most important question: when do I make which decision? Days later the answer is known, but the situation has already changed again.

Today, a company is faced with a **triple tension** against the background of the expected speed of distribution.

☛ **This white paper helps the leadership to fight a black swan**

Most important are the key-learnings that we can use to combat COVID-19. A concrete example is correct internal and external communication in a state of emergency. The white paper „Manage_Black_Swan_Event_Whitepaper_AON.pdf" can among many other valuable resources be found on the COVID-19 Response Site.

☛ **„Turn the Ship Around": a valuable book for leadership in extreme situations**

We are navigating in storm and heavy seas right now. You are quickly in the quadrant "Urgent & Important" and have your hands full to keep your ship on course and manoeuvre safely past the cliffs through the chaos. Stay calm and look at the situation from "above", then you get a better feeling for the dynamics and tendency. L. David Marquet commanded a nuclear-powered rapid attack submarine and transformed it from the worst submarine in the fleet into the best. Available from AMAZON.

3   Increase Resilience of the Employees

«Together optimistic and with a respectful look into the future»

Responsibility of the **Leadership**:

☐ Define **hygiene regulations** "How to protect ourselves" and rigorous implementation in everyday life (based on recommendations of the WHO):
  o Wash your hands thoroughly
  o avoid shaking hands
  o Cough and sneeze in the crook of your arm
  o Stay at home if you suffer from fever and cough
  o Only after telephone registration in medical practice
  o Keep distance (**2m**)
☐ Setting up a **hygiene infrastructure** and processes:
  o Setting up disinfection dispensers at neuralgic points such as toilets, in canteens and in reception halls.
  o Cleaning with soap or alcohol **2x a day**
    ▪ All door handles
    ▪ All phones
    ▪ All light switches
    ▪ Coffee machine panel
    ▪ Rest Rooms
    ▪ Tables in meeting rooms
    ▪ Lift
    ▪ keyboards, mouse
☐ Implementation of travel restrictions (no more flights)
☐ Switch from personal visits to videoconferencing

Responsibility of the **Employees**:

- ☐ keep calm
- ☐ Observance and compliance with all safety measures, both by the federal government and by Schmid Elektronik
- ☐ Implement the same behaviour at home with the family and the children
- ☐ Taking signs of illness seriously. Communicating them is not a weakness but a strength as self-discipline
- ☐ Compensate overtime
- ☐ Attend online training courses and read books

4 Theory of the 5-Phase-MVP «COVID-19 Immune System»

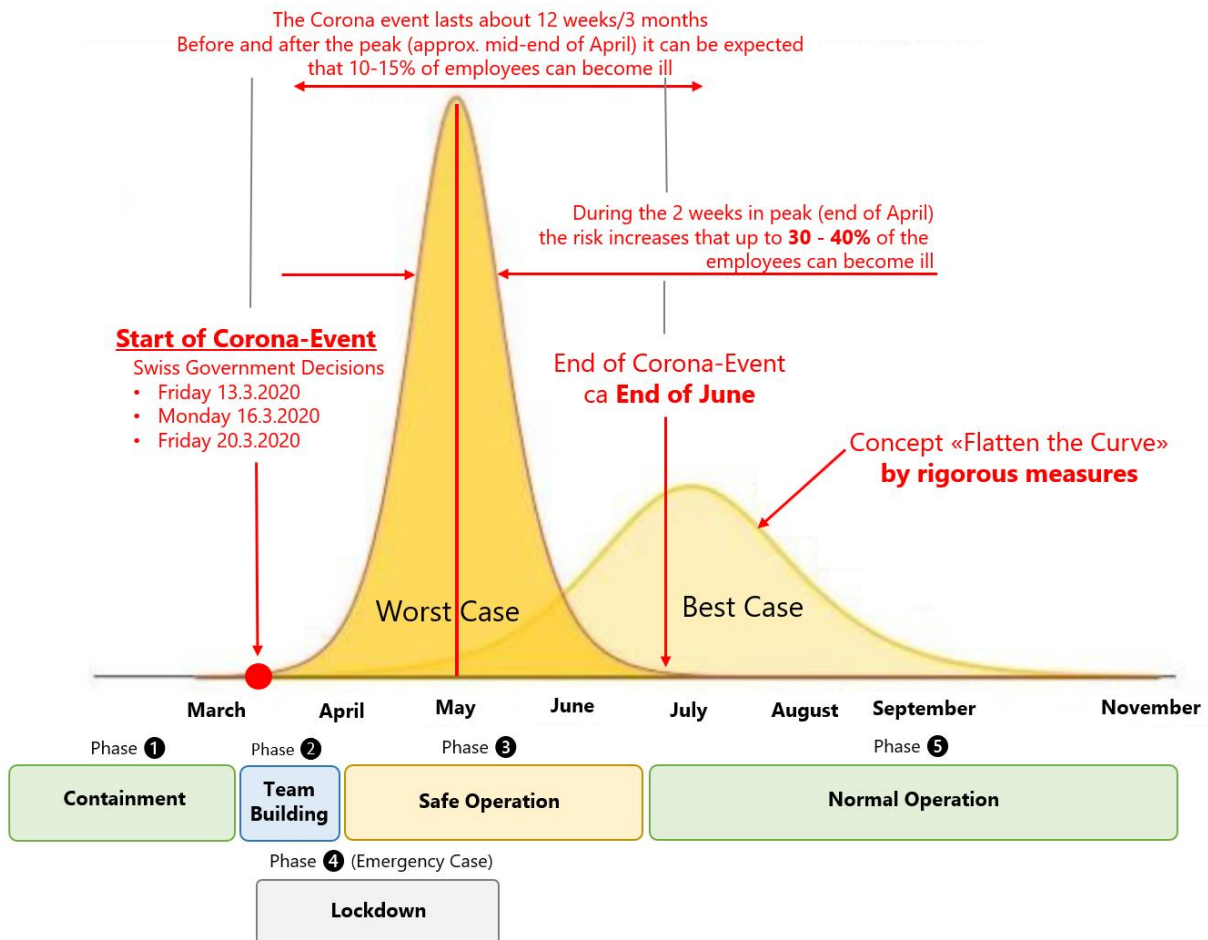Read «Why You Must Act Now» : **every single day counts now and social distance is key:**
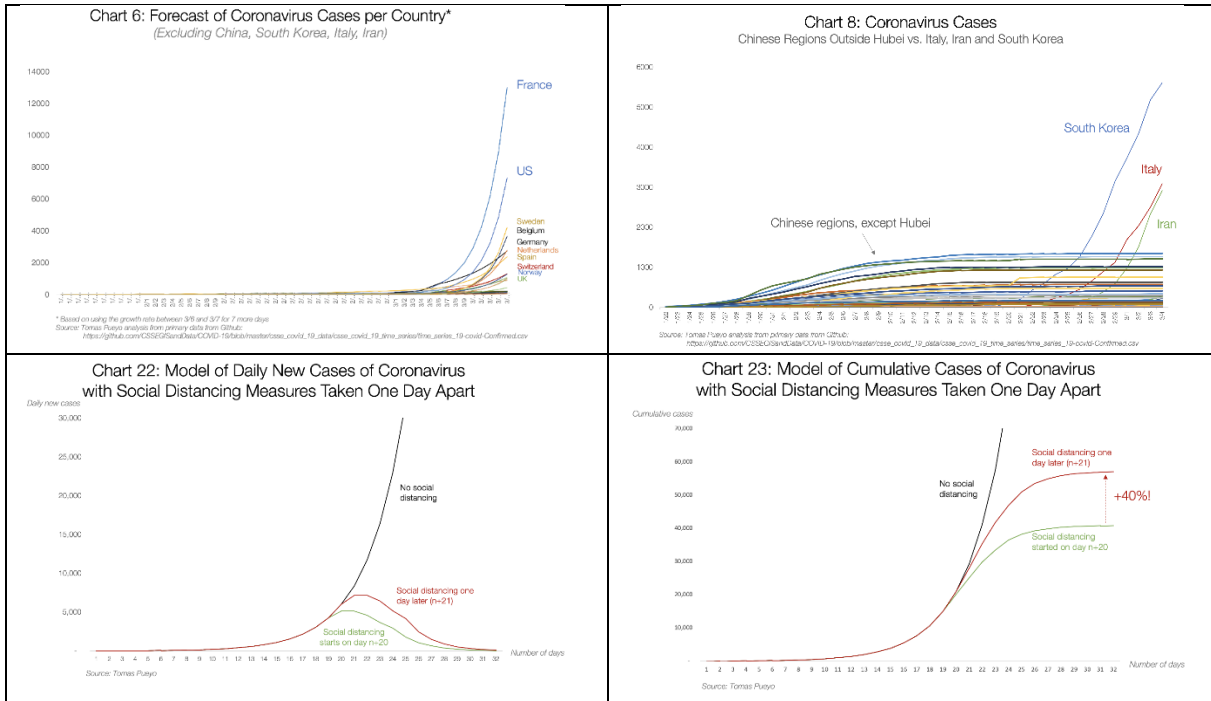
The solution is called "**Flatten The Curve**" and this led to the present 5-phase MVP "**COVID-19 immune system**
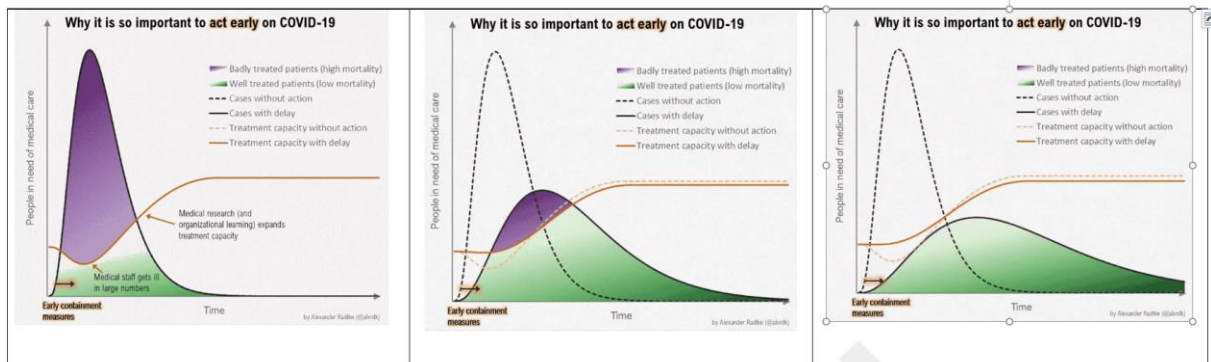
The most important parameter for the further ability to act and deliver is now the **speed at which infections increase**. (switzerland: bag-coronavirus.ch)

5 The 5 Phases of the «COVID-19-Immun System»

To be on the safe side, we are assuming the **worst-case scenario** and expect a spread according to the dark yellow curve. From now on, the **speed of spread** (= number of infections per time) is the most relevant indicator of the **future ability to act** in two respects (WHO). From now on, the top priority is to proactively <u>protect the health of employees</u> while <u>maintaining reliable quality and performance</u> and supplying customers.

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«COVID-19-Immune System»

In essence, the intention is to flatten the curve by prophylactically bringing the operative business in the office and production area to a **social distance** from now on. This will take as long as the corona lasts. In this way, a company sacrifices some productivity, which can have an impact on delivery dates. On the other hand, the chance are that the company will remain healthy and capable of doing business and still be able to maintain its ability to deliver even in a state of emergency increases. In this reduced operation, the management must be prepared at all times to switch seamlessly to an emergency scenario prescribed by the federal government, such as national quarantine, a lockdown or a plant closure.

Ultimate Goals:

1. A **company** must continue to **minimise the risk of infection** in the workplace so that employees remain healthy and thus able to act. For this reason, hygiene regulations are being continued and the social distance is being intensified with
   - Moving engineering and backoffice to home office
   - Introduction of a "mini-shift operation" in production to comply with the **2m rule**.

2. The **operational infrastructure** and processes must be maintained and the key tasks must be ensured for the next three months

3. The employees are **obliged and responsible to comply with the rules** issued by the federal government and the **companies**. They must take signs of illness seriously and communicatethem. Implement the **same guidelines at home** with family, children and friends.

Procedure in the 5 Phases

Phase	Aufgaben	Phasenübergang
❶ **Containment**	Observe hygiene regulations Study COVID-19	Since 27.2.2020 recommended by the WHO and Federal Office of Public Health
❷ **Team Building**	Reorganization and testing of backoffice, engienering and production for social distance	Measures of the Swiss Government bag-coronavirus.ch
❸ **Safe Operation**	Orderly operation with maximum social distance	Possible switch to short-time working (delivery bottlenecks in production, too many employees are sick, etc.), in the lockdown ❹ or into normal operation ❺
❹ **Lockdown**	Complete lockdown or nationally ordered quarantine	Federal decisions: National quarantine or closure
❺ **Normal Operation**	Orderly startup to normal operation	For the most part, the employees are healthy again and back in the company. The financial parameters are stable, the budget is manageable, the procured material is in house.

6 Phase ① Containment

☐ **Kickoff** with all employees and **sensitization** regarding the new hygiene regulations according to the recommendation of the WHO.

☐ 1x per week a short, honest **15 minute status briefing** to all employees

☐ Information sheet for **visitors**, carriers and express services at all entrances with the two rules:

- **Shake hands**? Please give a smile instead…
- **2m distance** motto: socially distant, but emotionally close

☐ Setting up a **central information point** in the company so that employees receive a "single source of truth". Recommend that media releases be treated with caution

☐ Monitoring changes in the cases of illness (most important parameter!)

☐ Based on the McKinsey & Company website "COVID-19: Implications for business" study the **nature** and **background** of the COVID-19 epidemic, set up a **COVID-19 response team** and collect **knowledge** about COVID-19

☐ Download and prepare a **pandemic plan** from the WHO

☐ The most important **FAQs** "Pandemic and Operations" steamed down to an easily understandable two pager and go through it with the staff.

☐ Expand the **risk map** with new risks and defined probability of occurrence and defined extent of damage. The following are now in the "yellow" or even "red" area of the risk map

- Infection of employees with COVID-19
- Procurement market collapses
- Cooling of the economy in the corresponding sector, in our case the electrical industry
- Global recession as a result of the corona virus
- Budget deviations due to corona event
- Finances get out of hand due to COVID-19

☐ Expanding **SWOT** to include the new threat COVID-19 (supply chain, health, finance) and creating and continuously adapting a **defence strategy** based on its own weaknesses (the result of which is this MVP).

☐ Study the following documents on the COVID-19 Response Site :

- Key to Success in Managing a Black Swan Event: here, above all, to copperplate communication in times of crisis.
- Cyber Risk Implications of the Coronavirus Outbreak
- Pandemic Flu vs. COVID-19
- Businesss Continuitiy Management for Infectious Disease Threat
- Business Planning Checklist: infectious disease
- Supply Chain Analysis: Checklist for Infectious Disease Threat
- Five Key Questions to Consider for Managing and Mitigating Risk of COVID-19
- COVID-19 Communication Plan Guidance

7 Phase ❷ Team Building

An IT infrastructure for mobile working should be created, if not already existing. This requirement helps teams to organize themselves for the home office. Mixed solutions are possible: for example, a minimum staffing level with the rule that only 1 employee may be in a room. Important: the **2m distance** now counts. In production, a mini-shift operation is being introduced and tested: two redundant sub-teams, each working in the morning and afternoon and handing over work in isolation. By this thinning we prevent infections.

Kickoff Phase ❷
- ☐ Introduction of the 5-phase "**COVID 19 Immune System**" to the operative management
- ☐ Introducing the immune system to the teams
- ☐ Providing a **FAQ** to each employee
    - o The most important questions that every employee now asks
    - o Answer from the swiss government (labour law issues)
    - o Statement of the human resources group (cultural side)
- ☐ From now on, proactively send employees who are particularly at risk home

IT made ready for mobile work
- ☐ Create an IT roadmap with a continuously updated Google Sheets document and download links that are now immediately accessible to everyone.
- ☐ Communication
    - Create and test the Whatsapp groups according to the organization chart
    - Strategic Leadership (Board)
    - Operational C-level leadership
    - Team leader
        - ▪ Employees 1
        - ▪ Employees 2
        - ▪ Employees n
    - Videoconference (Skype, Webex, Zoom, etc)
- ☐ Email & Calendar with Outlook is probably already in use at most companies. Here especially with the calendar use the merging of the different employee calendars, so that the synchronization is done by a self-regulating system.
- ☐ Information: Create a shared Google Drive for the the operational leadership
- ☐ Local file access
    - Mount network drives via encrypted remote access (such as FortiClient VPN)
    - Edit Office documents and other files
- ☐ Handling of special application software -> access dialing with Teamviewer from remote
- ☐ Make ERP accessible from outside
- ☐ Step-by-step start-up (no Big Bang!)
- ☐ Create an emergency plan, in case the technology fails
- ☐ Who provides support? If external IT provider: Please note the lead time.
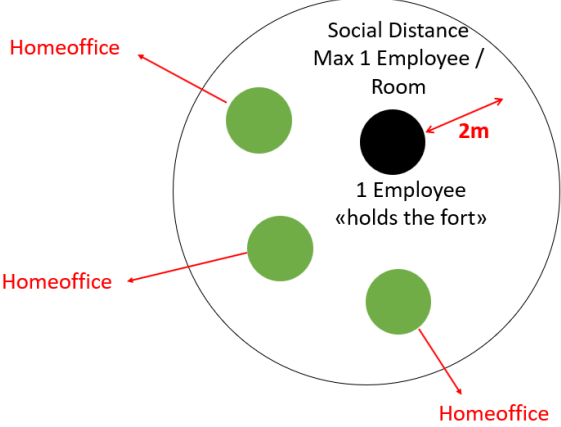
Preparing the advance notification of short-time work (applies in switzerland)
- ☐ Proactive completion of all necessary forms of the AWA. A hard work that is worthwhile.
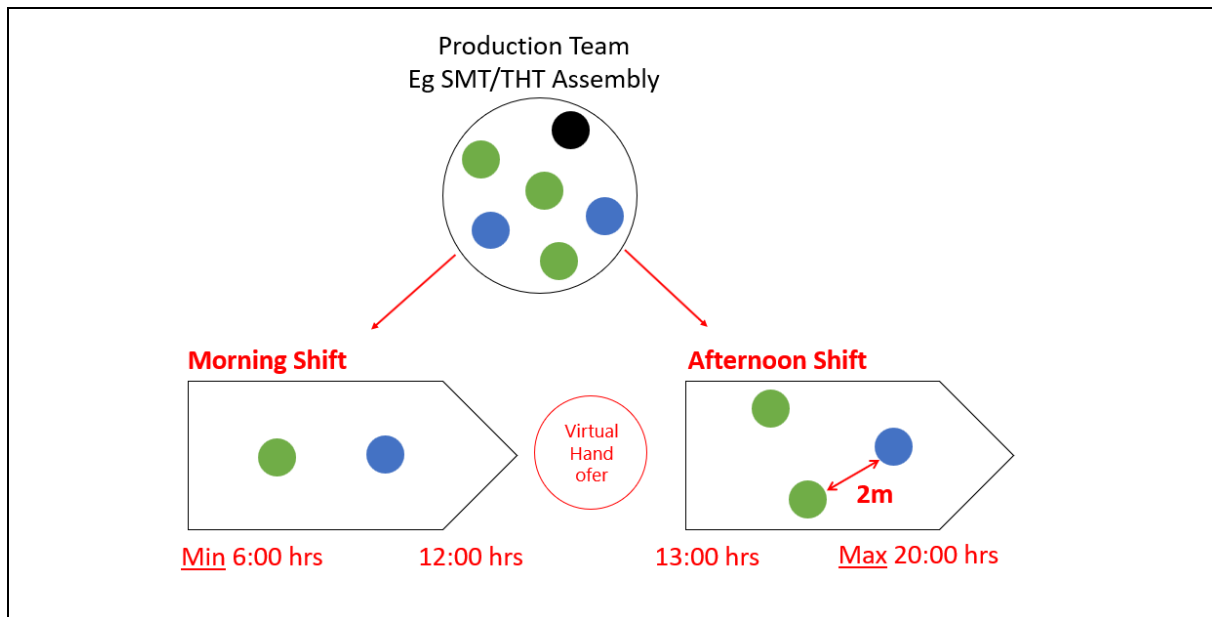- ☐ Decide on a daily basis when to submit, at the latest in phase ❹

Custumer information and communication
- ☐ Information to customers about the companies COVID-19 strategy
- ☐ Sharing important learnings, exchanging experiences, connecting with external response teams
- ☐ Share this MVP
- ☐ Mutual commercial arrangements (payment deadlines, staggered invoices, etc)

Organize mobile work for home office operation

Homeoffice
 	
Social Distance Max 1 Employee / Room
2m
1 Employee «holds the fort»
 	
Homeoffice
 	
Homeoffice
	☐ <u>Organize</u>:
	  o Who goes to the home office?
	  o Who holds the fort in the office?
	  o Establishing our processes
	  o How will the shop floor management be continued?
	☐ Check <u>mixed forms</u>: e.g. one employee per room, all others in the home office
	☐ Testing <u>IT infrastructure</u> for remote work in the office
	☐ Regulate <u>remote collaboration</u> (technology alone is not enough)
	☐ <u>Step by step</u> to the home office (not all together -> test if IT can cope with this)

Organization and testing of a shift operation in production

- ☐ Planning and operationalization of <u>staggered production</u>: who, from, to? This means: more shifts, but fewer employees per shift = rigorous containment of social contacts.
- ☐ To this end, hang A3 posters with clear instructions at critical points: **DISTANCE 2m** (socially distant, emotionally close)
- ☐ Calculate <u>performance output</u> that can be maintained through secure operation and proactively inform customers of new delivery dates.
- ☐ **Normal Mode**: organized **2m distance** operation. Reorganise production by restraining workstations so that the distance can be maintained.
- ☐ **Sharp Mode**: completely isolated shift operation, no physical crossing. According to Swiss labor law, working hours may be freely chosen between 6:00-20:00. Dividing the teams into two subteams. Team A comes at 6:00 and works until e.g. 12:00. Then team A leaves the company and team B arrives at 13:00 and works until 20:00 at the latest. In the "isolation time" in between they disinfect. The handover of shift "Tomorrow" "Afternoon" does **not take place personally**, but virtually. It is essential to isolate these two subteams in order to delay the risk of infection as long as possible.
- ☐ Organizing a well manageed <u>reduction of overtime</u>
- ☐ Ensure that <u>holidays</u> are taken regularly and that they are properly managed. Reason: when we get out of the corona, we need to be able to start and maintain performance immediately.
- ☐ <u>Redundancy</u> (failsafe concepts) is important in team allocation
- ☐ How does <u>information</u> and <u>communication</u> take place on physical the shop floor board (LEAN instrument)?
- ☐ <u>Staggered breaks</u> and <u>lunches</u> (containment of social contacts)
- ☐ **Rigorously maintain hygiene measures: distance min 2m (also during meetings)**

8 Phase ❸ Safe Operation

This phase lasts as long as the corona event lasts or in the meantime unplanned phase ❹ must be initiated. Around mid to end of April, the peak of corona spreading will hit us and it can be assumed that up to 40% of the employees will then fall ill and stay at home. It is essential to reduce existing overtime step by step during this phase. Some employees will be healthy and work from home, others will be sick and released from work.

☐ **Engineering** and **backoffice**: mobile working in the home office
☐ **Production**: working in shifts on a stationary basis
☐ No more external visitors are allowed into the company. Clear regulations for goods delivery.
☐ Create emergency scenarios if individual employees or entire groups are absent
☐ Tracking of sickness-related failures and categorization according to KANBAN
   o **Start** disease
      ▪ Who was sent home as a preventive measure (risk groups)
      ▪ Slight symptoms of illness (sore throat, slight cough, cold)
      ▪ More severe symptoms (fever, severe cough, breathing difficulties)
      ▪ Officially quarantined
   o **End** of illness
☐ Comparison with the holiday plans of the employees. Even during this time, plan holidays and use them with the family as non-home office days (Preparation phase ❺)
☐ Develop and produce orders **as long as possible** in a busy year-end manner
☐ Monitor supply chains closely and report anomalies to operational management
☐ Have as few physical meetings as possible and if you do, keep your **2m distance**. Alternative: online meetings via video conference.
☐ Preventive preparation of the phases ❹ and ❺, and continuous learning. What worked and what didn't, and why not? What has changed in the environment? What does this mean for us? Which tasks are necessary? How effective is the result?
☐ Monitor and visualize the conditions and changes (lean instrument):
   o Update SWOT and, if necessary, defense strategy
   o update risk map
   o Adapt hazard map to the changes
☐ Monitor liquidity
☐ Staying in close contact with customers and helping each other
☐ Anticipation of further scenarios that could occur & playing through solutions
☐ Plan and carry out remote training courses
☐ Share with others what has worked and what has not
☐ Creatively recognize and use new acquisition opportunities (channels)
☐ Go through the list from now on and add to it continuousl

Prepare proactively for the ❹ phase right now, do the hard work, fill out the forms so that they can be taken out of the drawer immediately ready to be used in an emergency and submitted to the Office of Economic and Labour Affairs for short-time working.

9 Phase ❹ Lockdown

By order of the swiss federal government, switch to the ❹ phase and go home. This can be the case in the following scenarios:

- Federal government shuts down because regulations have not been met
- Federal government imposes national quarantine
- Federal government imposes quarantine for your particular company

This feels like a compulsory company holiday. Backoffice and engineering then work in home office mode, production remains closed. In this phase, apply for short-time work at the Office of Economics and Labour. The preliminary work for this has already been done in the phase ❷. Especially in the phase ❹ the condition "sick" or "fit for work" must be clearly defined and continuously monitored.

Checklist for short time work: please observe national Office of Economics and Labour

A possible **strategy** for a production plant during short-time work:

1. A <u>core team</u> performs the key business functions and works practically 100% in production
2. <u>All the others</u> are on call at home and are on short-time working
3. In this phase, depending on the order situation, it must be possible to scale flexibly and dynamically on a daily basis with the employees in the company and those at home.

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10 Phase ❺ Normal Operation

In the ❺ phase (transition to normal operation), it is essential to be able to ramp up operating performance again as quickly as possible, as a peak in orders is expected here following the temporary economic slump during the corona event. The company also urgently needs the previously strained liquidity.

☐ Already in the ❸ phase, make sure that employees take their holidays regularly and do not go on summer vacation during this important phase.
☐ Prepare a concept for the time after Corona
☐ Go through the list from now on and add to it regularly

11 Remarks, Disclaimer & Contact

This MVP shows how Schmid Elektronik will specifically deal with the corona crisis over the next 3 months. In this sense it is a vehicle from **our practice**. The MVP is therefore for **information purposes** only and has no claim to general validity and **is without guarantee**.

The MVP may be shared with anyone in the spirit of **open source**. Please start operationalize it quickly. Time is of the essence now. The urgency of the issue can be seen from the statement of Dr. Michael Ryan, WHO Executive Director: „*The single biggest mistake ist not to move. We must not be afraid of failure. Instead, we should be afraid of not getting into high alert and action mode. ASAP! If you need to be right before you move, you will never win. Perfection is the enemy of the good, if it comes to emergency management*.“

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