

Restarting Operations after the Shutdown



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Restarting Operations after the Shutdown

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Typical challenges we hear from companies

A complete shutdown of the entire operations and supply chain creates a completely new situation, with limited applicability of lessons learned from past ramp-ups

“How can we plan **customer demand** reliably?”



“How do we plan within the supply chain, knowing that for instance **material transport is impeded** due to border controls or closures?”



“How do we **monitor the health** of our employees, while at the same time having accurate workforce numbers to plan the production restart?”



“How do I adjust and prepare **my production processes** so that they consider new health requirements, but also enable me to ramp-up production again?”

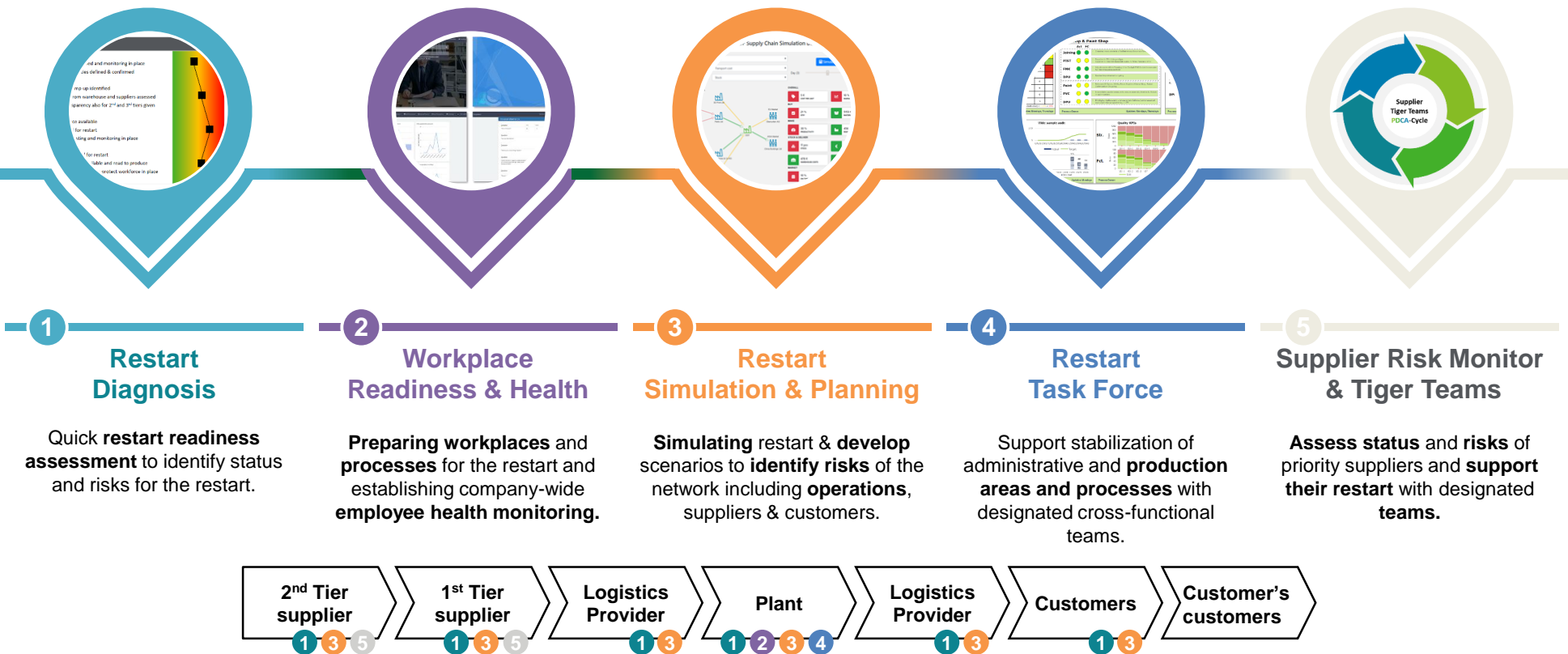


“How do I achieve **visibility** on the **status** of my **suppliers** knowing that they are facing the same challenges in restarting production again?”



Selected key levers to prepare the restart and ramp-up

In order to prepare the operations and supply chain for the restart and subsequent ramp-up, a few key levers need to be addressed – we provide “ready-to-deploy” solutions to do that!

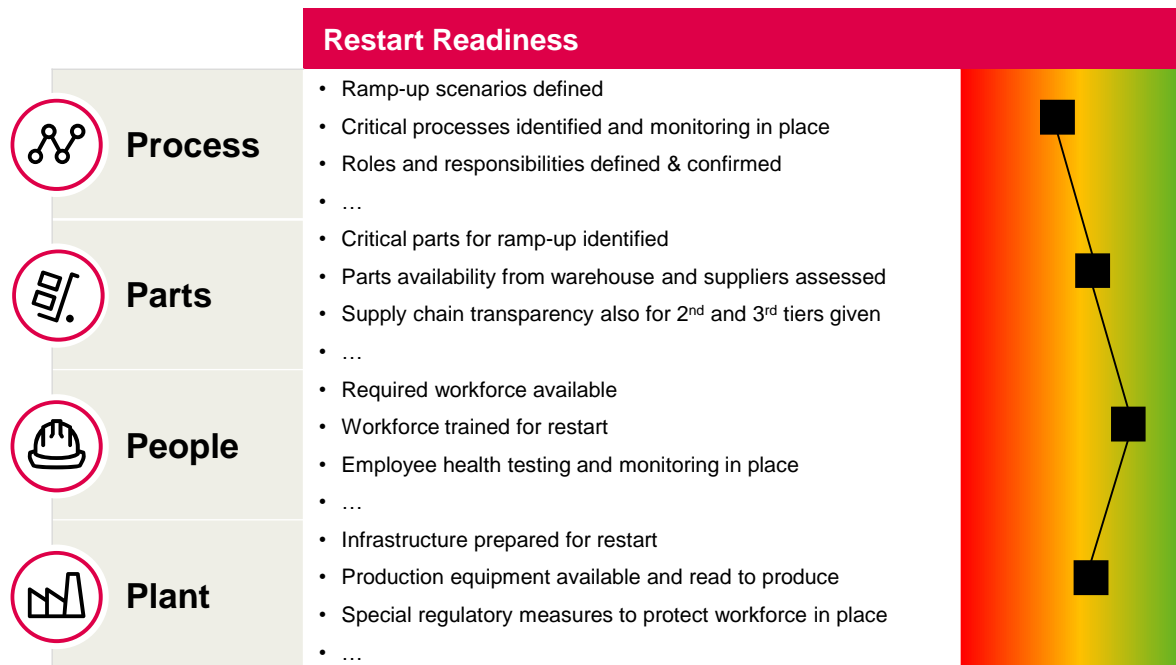


Prior to initiate planning and subsequent execution of the operations and supply chain restart, we recommend a readiness assessment along four key dimensions: process, parts, people & plant

1 2 3 4 5

Heatmap based on 4P - Restart Readiness Health Check

Client example



Important considerations...

... on critical categories, such as:

- Availability of qualified staff
- Synchronization of material demand and supply
- Process stability in case of volatile volumes
- Effectively working deviation processes

... on COVID-19 specific conditions:

- Daily infection testing of employees
- Arrange shift and break planning in order to avoid large crowds
- Reduction of production volumes and thus cycle times

Deep Dive | Workplace Readiness & Health Monitor – Production Line Adjustments

The restart and subsequent ramp-up needs to be done under special health conditions. Significant adjustments to the value stream of the production line needs to be made to meet (legal) requirements

1 2 3 4 5

Ramp-up adjustments



Workstations adapted

Ensure distance of employee, because safety and health is of highest priority



Daily health checks

prior/post work shifts and centrally stored in health monitoring platform



Holistic health monitoring

with RestartNow platform as a basis for production and shift planning



Production processes

Adjust cycle times in production to account for reduced workforce

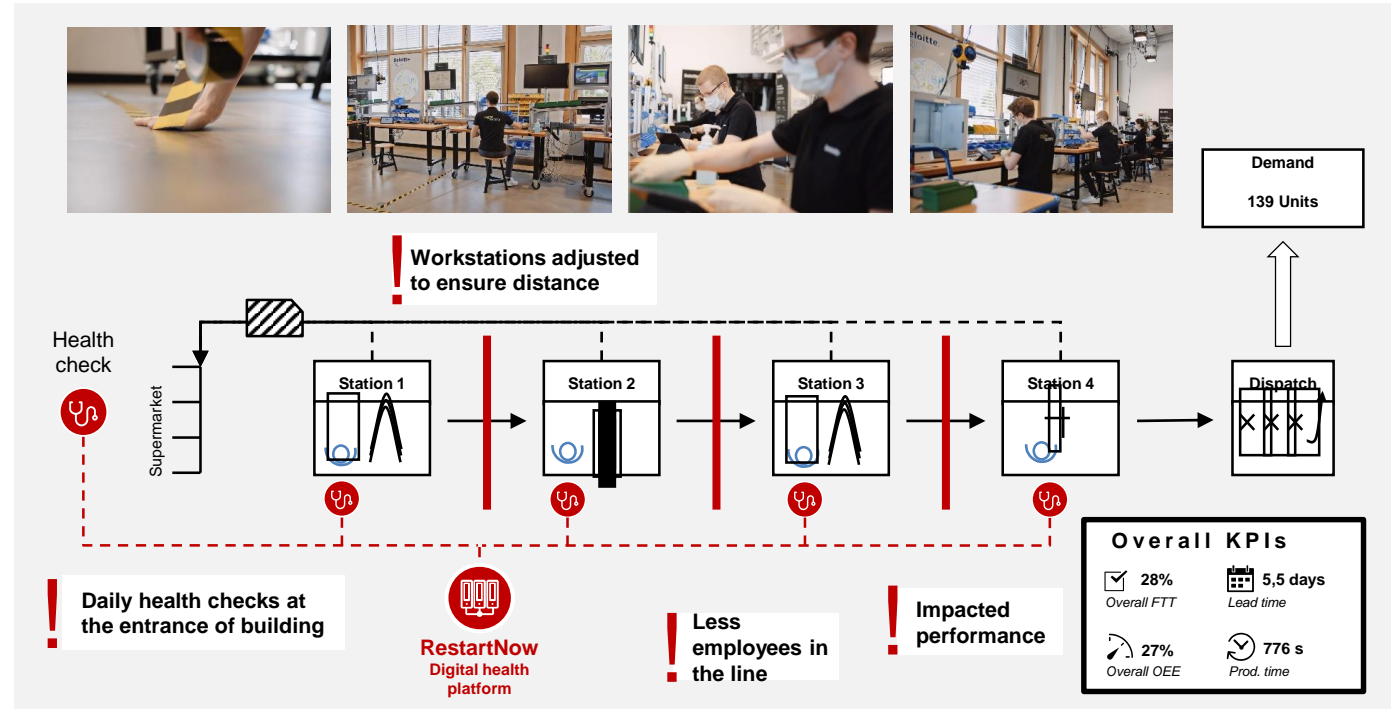


Production planning

Support optimal planning based on the current infective situation

Value stream (simulation)

Digital
Factory



Employee

Barrier

Daily health check

Transport Kanban

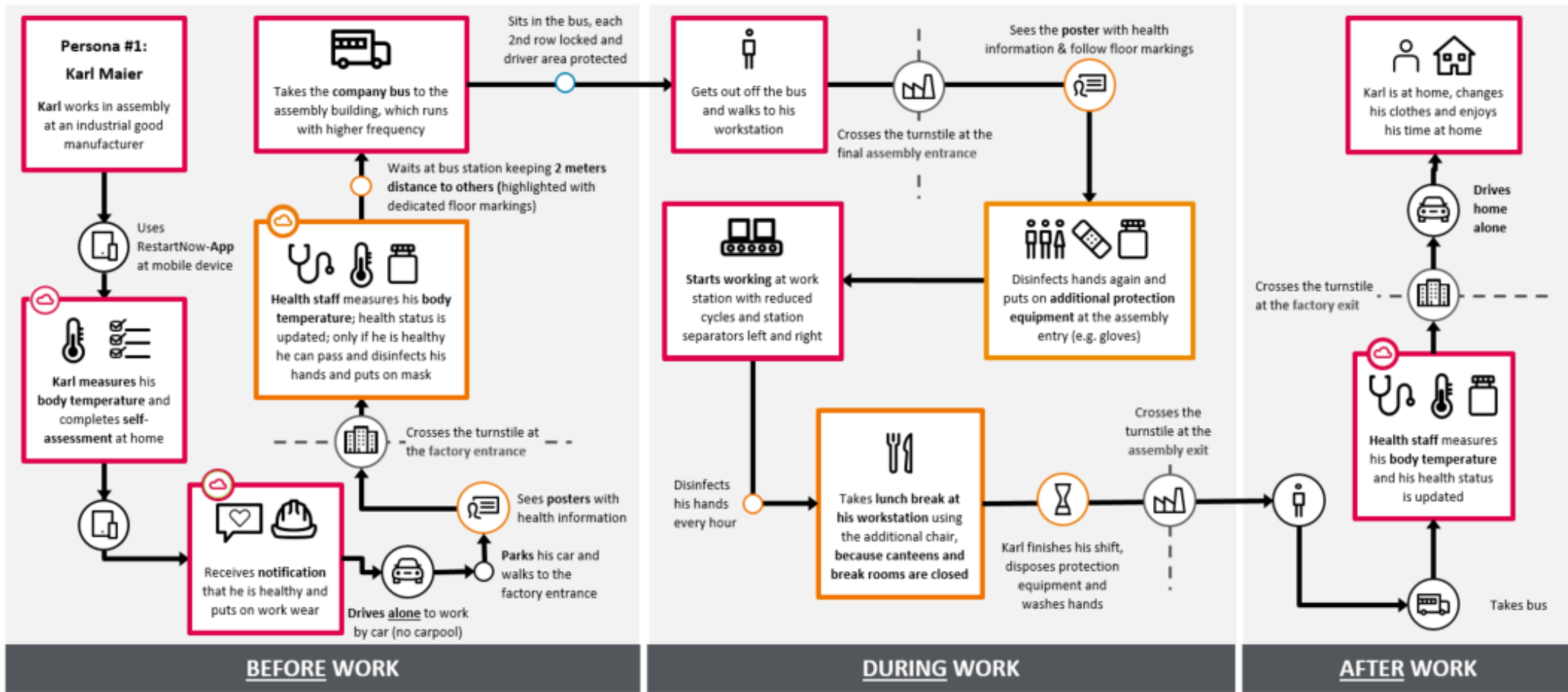
FTT – First time through

OEE – Overall equipment effectiveness

Deep Dive | Workplace Readiness & Health Monitor – New procedures for employees

Pragmatic and effective solutions are necessary to ensure the health of employees. Besides making adjustments to workers' paths into the factory and work stations in the factory, RestartNow provides holistic health management real-time

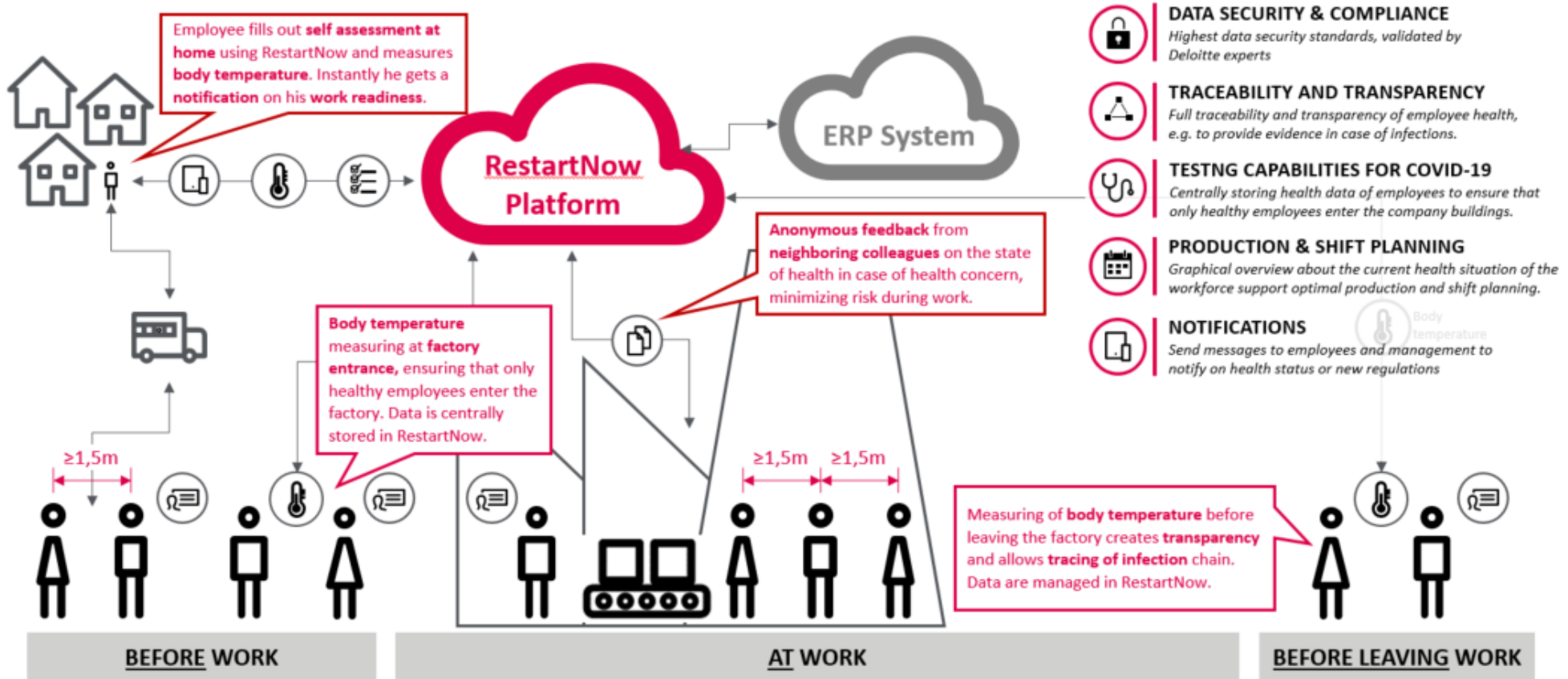
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RestartNow Data Exchange

Deep Dive | Workplace Readiness & Health Monitor – RestartNow Platform

Keeping employees healthy is crucial and requires proper planning and execution – our integrated health platform “RestartNow!” enables companies to do that!

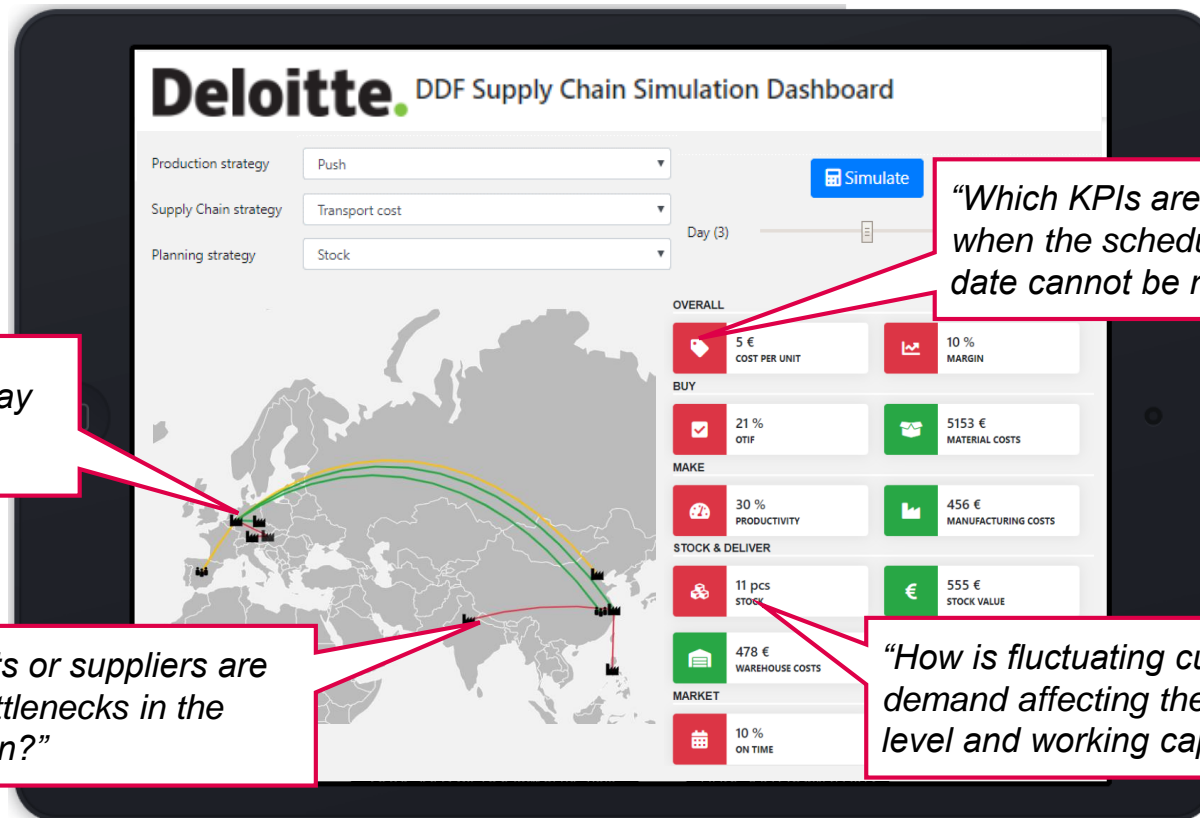


- Awareness measures (e.g. posters)
- Body temperature checks
- Self assessment
- Nudging/ Notifications
- Neighboring colleagues alerts based on the group of close colleagues defined by the employee

Besides preparing for the restart on plant-level, our simulation approach defines scenarios on the overall network-level to identify potential risk areas and unpredictable events within the supply chain

1 2 3 4 5

Deloitte's simulation addresses some key questions, such as ...



“What is the expected delay in production?”

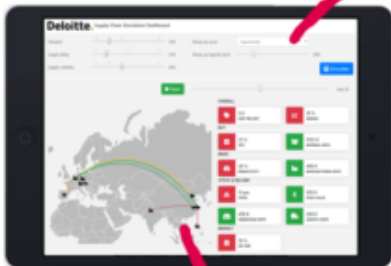
“Which parts or suppliers are causing bottlenecks in the supply chain?”

“Which KPIs are affected when the scheduled restart date cannot be met?”

“How is fluctuating customer demand affecting the stock level and working capital?”

Our simulation tool can be set up fast and offers simulation capabilities to validate restart and ramp-up plans

Various input parameters can be easily adjusted



Deloitte Supply Chain Simulation Dashboard

Demand: 10% | Ramp up curve: Exponential

Supply delay: 15% | Ramp up capacity level: 20%

Supply volatility: 20%

Start | Day (3) | Simulate

Ramp-up assumptions, e.g.

- Logarithmic, linear or exponential ramp-up curves
- Specific capacity level during the ramp-up

General input factors, e.g.

- Higher demand and supply volatility
- Increased supply delay

Market setup per customer, e.g.

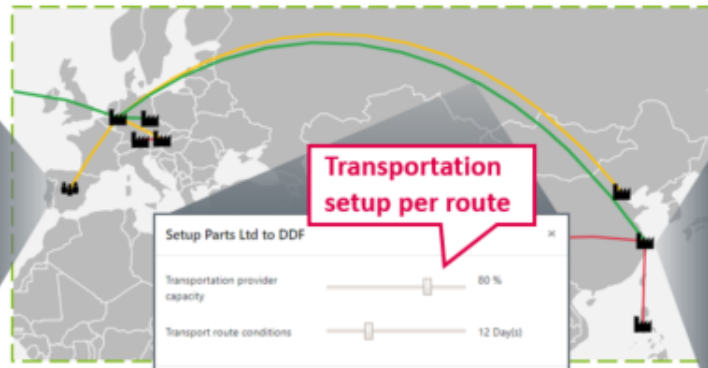
- Decreased Demand
- Specific call-off volatility

Setup Kundenunten AG

Market demand: 75%

Call-off volatility: 7%

Close Save



Transportation setup per route

Setup Parts Ltd to DDF

Transportation provider capacity: 80%

Transport route conditions: 12 Day(s)

Close Save

SC setup per supplier, e.g.

- Reduced capacity
- Increased throughput times
- Increased prices

Setup Engines AG

Supplier capacity: 65%

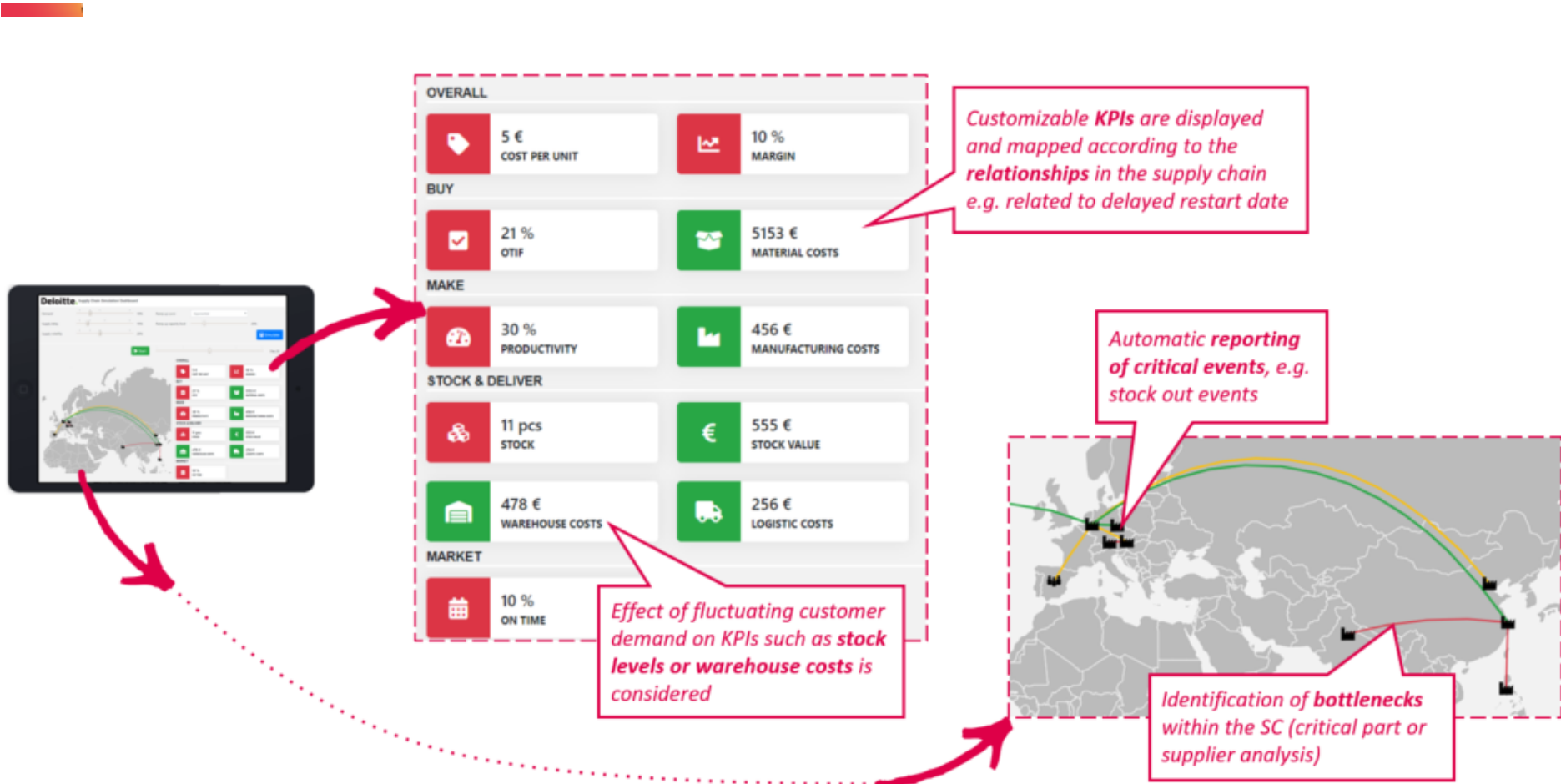
Price increase in case of scarcity: 6%

Supplier throughput time: 6 Day(s)

Close Save

The dashboard shows key KPIs and illustrates the impact of critical events within the supply chain

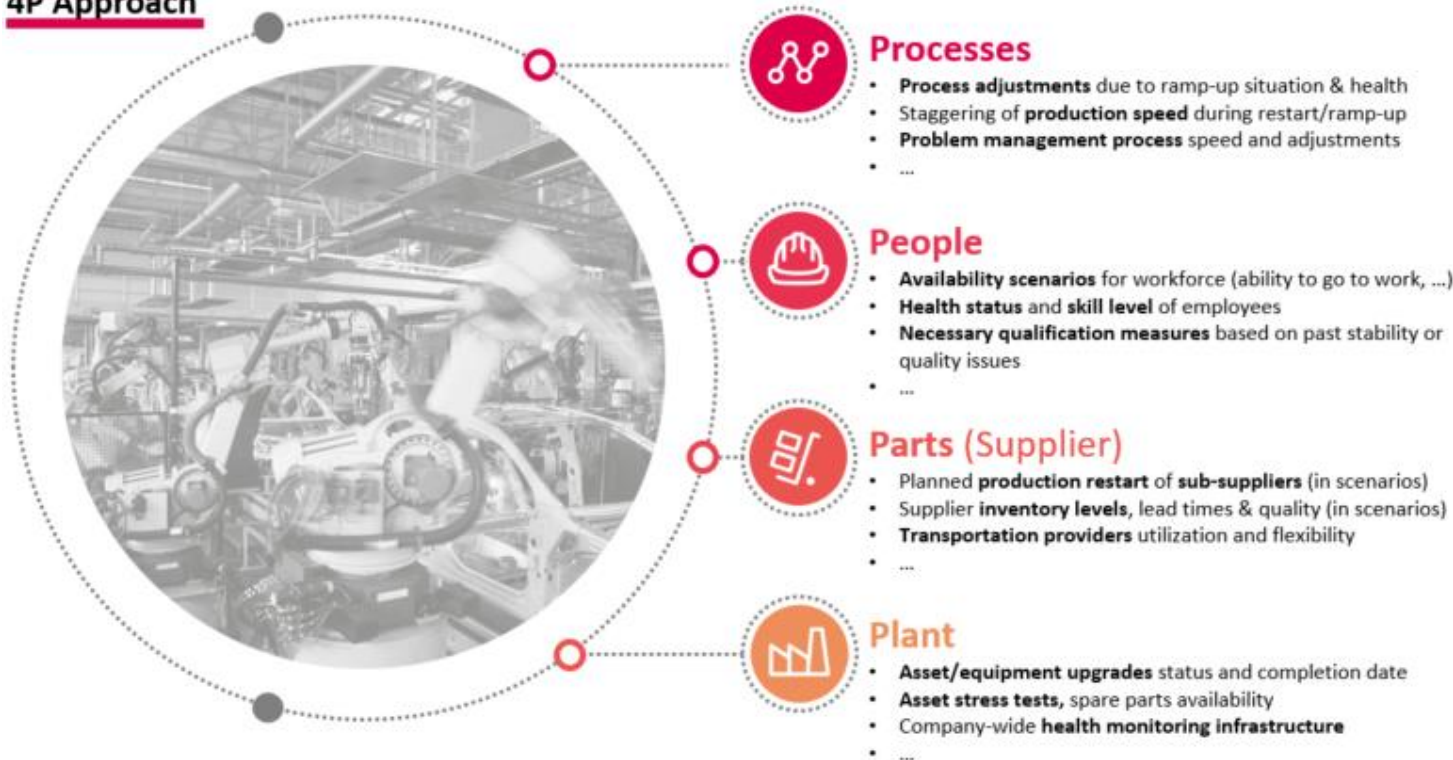
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A multitude of topics and activities before and during the restart and subsequent ramp-up require full visibility on status & risks and effective cross-functional management

1 2 3 **4** 5

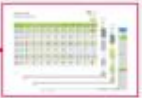
4P Approach



Select Tools / Accelerators

4P status monitoring

Monitoring tool steers readiness for the restart in 4 critical dimensions (Process, People, Parts, Plant) and provides progress transparency during the ramp-up.



Stabilization and quality status

Provides key performance metric related to production output, while focusing on the critical stabilization phase (e.g. output, rework time, defects per unit).



Ramp-up KPI cockpit

The ramp-up KPI cockpit is a top management dashboard providing daily updates on critical KPIs.



Restart/ramp-up schedules

Integrated schedules outlining detailed preparation activities as well as key quality gates during the ramp-up across all involved areas and functions and shifts



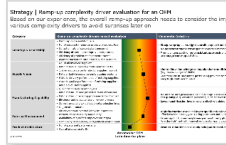
Deloitte Tool Suite for your restart and subsequent ramp-up (Selection)

Our restart and ramp-up tool suite consists of “ready-to-deploy” approaches and tools, which are fully adaptable to remote working situations

A. RESTART DIAGNOSIS

Activities:

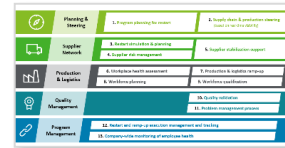
Quick restart readiness diagnosis to identify status and risks for the restart



B. RESTART TASK FORCE

Activities:

Deploying cross-functional task force to manage restart efforts, especially in production



C. 360° WORKING CAPITAL MONITOR

Activities:

Deploying AI-enabled 360° working capital monitor for transparency and potential optimizations



D. SUPPLIER TIGER TEAMS

Activities:

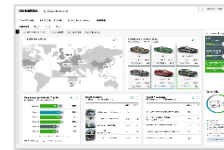
Deploying tiger teams for key suppliers to assess status/risks and support restart/ramp-up



E. PREDICTIVE QUALITY

Activities:

Analyzing quality issues and deploy predictive quality analytics to prevent failures



F. DIGITAL LEARNING FACTORY

Activities:

Deploying digital learning factory pilot to train employees for restart/ramp-up



G. SUPPLY CHAIN CONTROL TOWER

Activities:

Setting up real-time supply chain monitor regarding status across plants, suppliers and customers



H. RESTART SIMULATION & PLANNING

Activities:

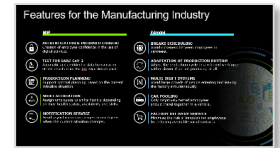
Simulating the restart and ramp-up of the entire supply chain and develop scenarios



I. WORKPLACE READINESS & HEALTH

Activities:

Integrated digital platform to drive employee health and continuously monitor status



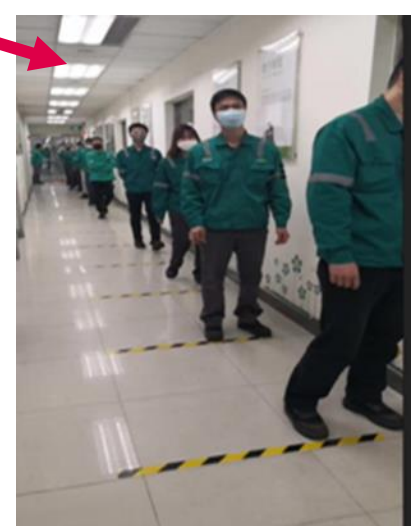
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Safety Social Distancing @ SchneiderElectric



The most popular solution in Canteens of our plants and our Suppliers proposed by employees



How to proactively move on in such difficult situation with agility

SE China Covid -19 Steering Committee since Jan 25th

Chief Finance Officer

SVP GSC

SVP HR

SVP QCS

Internal

I.1 All Functions Fight Together

I.2 Learning & Wellbeing

I.3 Plants &DCs Work-Resumption

I.4 Agile Communications

External

E.1 Continuous Serving Our Customers

E.2 Partners/Customers Training

E.3 Suppliers Work-Resumption

E.4 Seamless Collaboration from End-to-End



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