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Covid-19 Response Program to recover & accelerate Ramp-Up

> Ralf Bechmann – Partner ROI Management Consulting

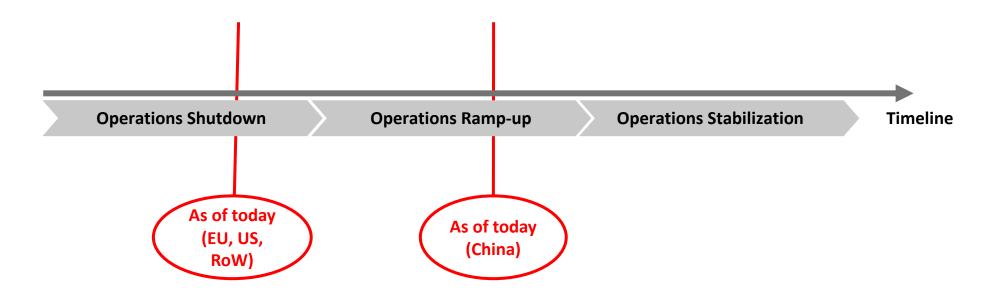
Stuttgart, April 15 2020

1	Current Activities	in the	Automotive	Industry

2 Covid-19 Response Program

3 ROI Facts & Figures

4 Contact Information



Key Questions "When & how to return to (new) normal?" include e.g.

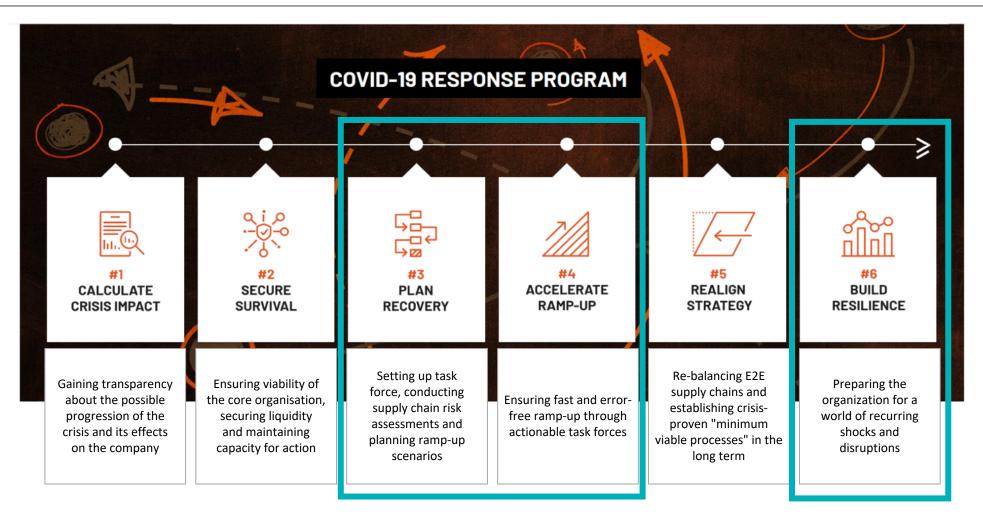
- How to prepare for reopening factories (OEM & OES)?
- How to implement health safety procedures in the factories?
- What will we see during supply chain ramp-up? (disturbed global supply chains, distressed Tier-n-1 suppliers etc.)
- What will Automotive market recovery (sales ramp-up) look like?

Current Activities by Automotive OEM & OES driven by COVID-19 Pandemic (examples)

Plant Activities	 Implementing short-time-work Implementing inhouse-manufacturing risk assessment (footprint, workforce, equipment) Setting up ramp-up-playbooks & safety protocols (including supplier network) Ongoing vehicle launch preparation activities Manufacturing medical products (ventilators, PPE etc.) Global purchasing support for medical products (PPE)
Supply Chain Activities	 Intensified Tier 1 supplier base scan by region (focus on JIS/JIT parts) Intensified Tier n-1 supplier risk evaluation (financials, operations, sub-suppliers) Part suppliers Tool & manufacturing equipment suppliers Service providers (LSP etc.) Ongoing End-2-end supply chain inventory assessment Intensified After Sales/service parts supplier risk evaluation

How to prepare for Automotive Industry Ramp-up?

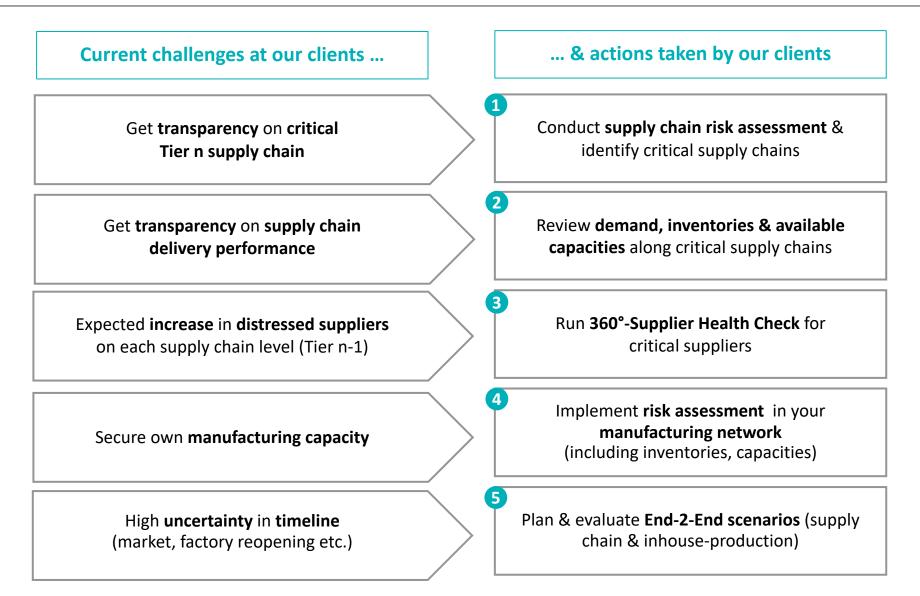
ROI-EFESO-Covid-19-Response Program



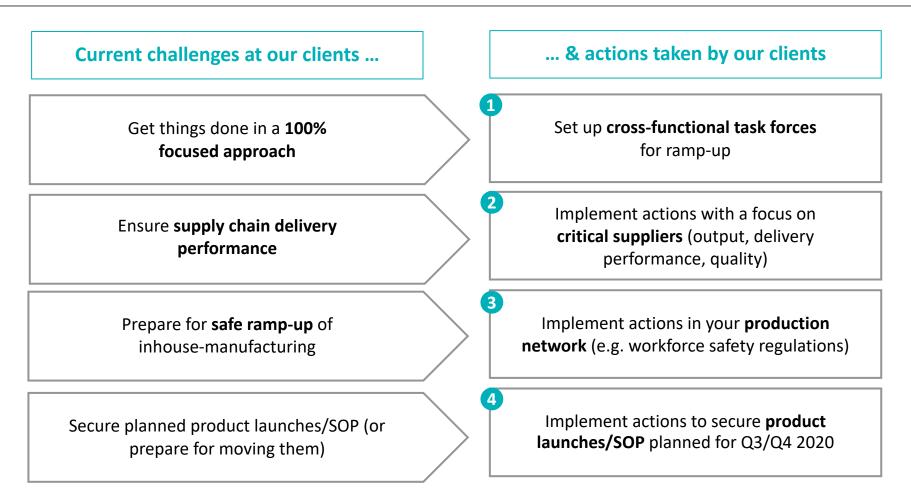
What do we see at our clients?



Talking about #3 Plan Recovery: what do we see at our Clients?

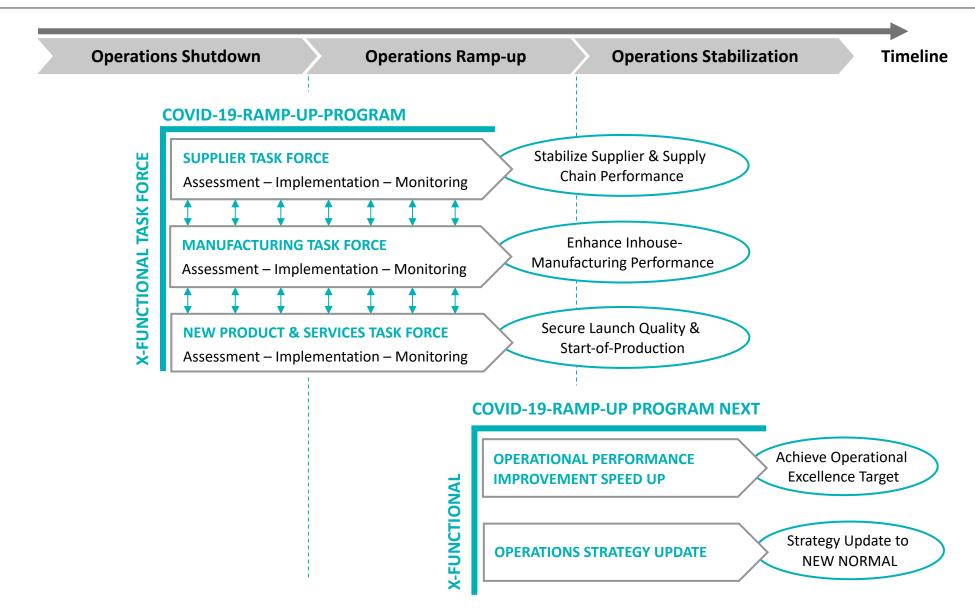


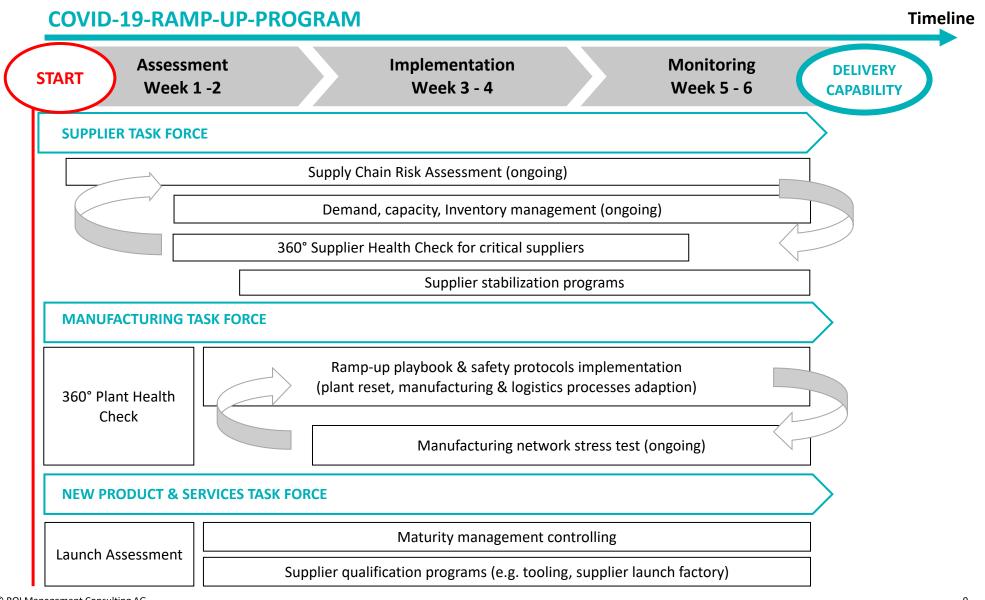
Talking about #4 Accelerate Ramp-up: what do we see at our Clients?

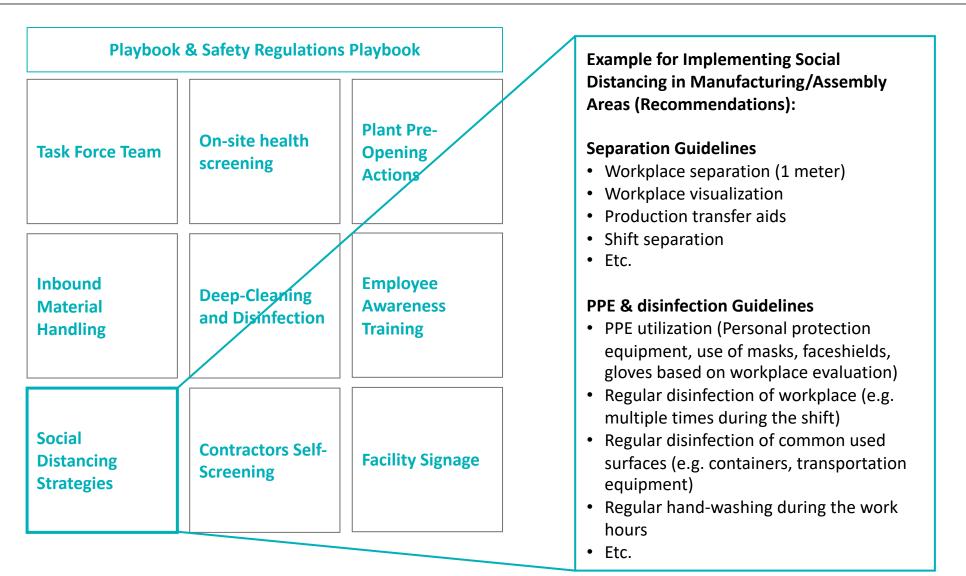


Overall: flexible planning, close control & pragmatic implementation of ramp-up process

To summarize – COVID-19-Ramp-up-Program Structure (example)







Source: Example bases on Lear Corporation Safe Work Playbook

Robust Supply Chain Design

- Implement Tier n supply chain mapping as standard toolset
- Implement short/local supply chain & intensify localization efforts (in-depth localization)
- Implement Digital Supply Chain Approach (e.g. near-real-time-tracking)
- Implement stress test for JIT/JIS supply chains (e.g. change supplier location etc.)

Partnership-based Supplier Collaboration

- Align global/local supplier strategy with Tier-1 suppliers
- Setup strategic partnerships along Tier n supply chain & Intensify partnership-based supplier management
- Install critical supplier early warning system

BUILDING SUPPLY CHAIN RESILIENCE

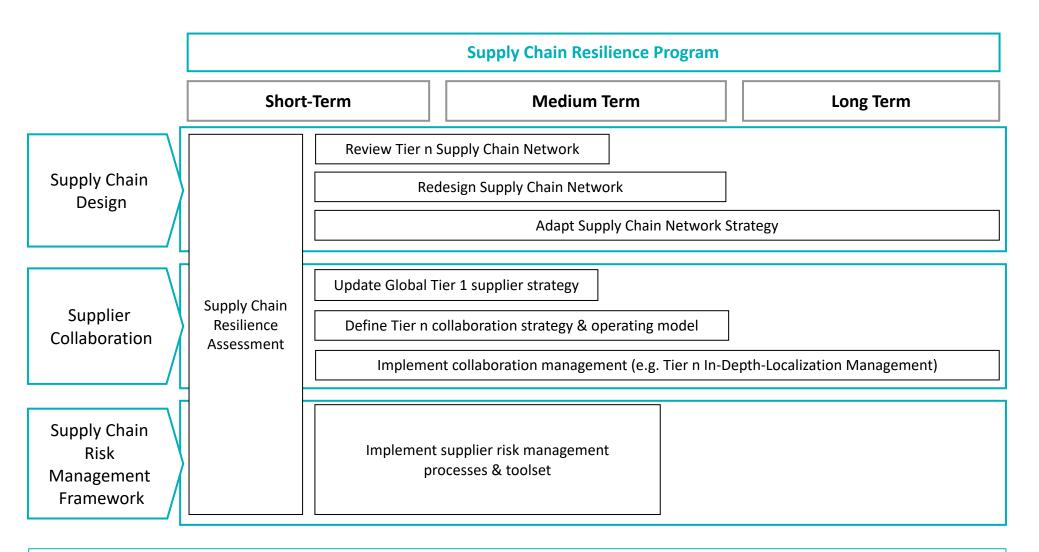
• Implement dual sourcing strategy

- Check & possibly adapt inventory strategy for global supply chains
- Implement regular supply chain stress test

Enhance Supply Chain Agility

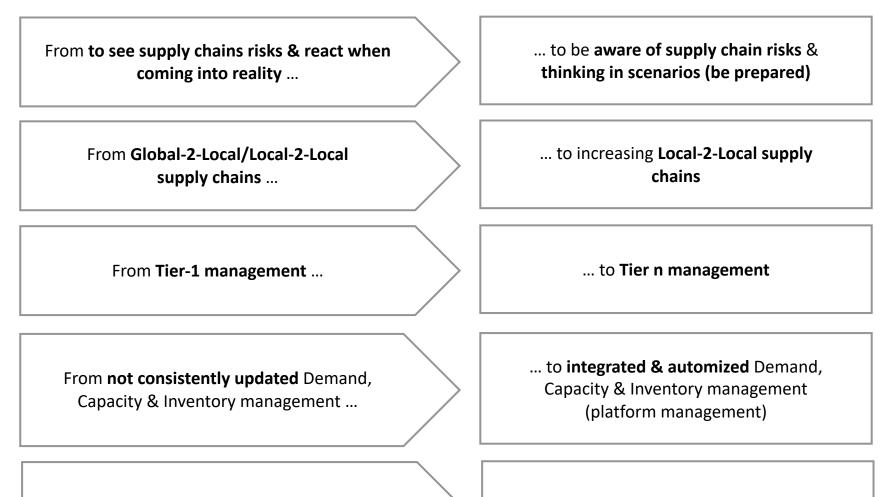
Structured Supply Chain Risk Management

- Ongoing Tier n-1 supply chain risk assessment including supply chain walk for critical suppliers or parts
- Implement data-driven risk management based on internal/external data sources
- Implement supplier risk management/ critical parts & insolvency management organization



Supply Chain Risk Management Implementation needs to be accompanied by Cultural Change

Outlook – Future Changes in the Automotive Supply Chains for Discussion



From Tier-1 localization ...

... to Tier n In-depth localization

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FACTS & FIGURES

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<u>MANU</u> <u>FACTURING</u> <u>& SUPPLY</u> <u>CHAIN</u>	Global Footprint & Network Design Lean Manufacturing	Excellence & Ind Supply Chain Intra	re Factory dustrie 4.0 logistics arehousing	Change Management Enablement & Training Leadership Excellence Coaching
		eventive Total Cost ality of Quality	QUALITY Quality Assurance	

IDENTIFY RISK – ASSESS SITUATION AT SUPPLIER – STABILIZE CRITICAL SUPPLIER

SUPPLY CHAIN RISK ASSESSMENT

- Identify critical supply chains
 - focus on suppliers from upstream supply stages (Tier 2-n)
- Select the right criteria
 - Critical supplier regions (e.g. Italy, Spain)
 - Critical basic industries (e.g. electronics, plastics)
 - Global & complex supply chains (e.g. supplying US plants from EU)
 - Financially weak suppliers
 - Suppliers in critical launch situations
 - Suppliers who have been critical to supply in the past
- Intensify collaboration models with direct suppliers
 - Map the respective Tier n supply chains
 - Identify critical supply chain participants

360° SUPPLIER HEALTH CHECK

- Implement assessment for the critical supplier
 - Business situation with focus on maintaining liquidity and continuation
 - Supply Chain Performance (supply planning, inventories)
 - Operations performance (capacity limitations and output, flexibility in quantity, delivery quality etc.)
 - Pre-supplier management (installed supplier management including emergency management)

• Assess Management of the COVID-19 situation at the critical supplier

- Crisis management in HQ & on plantlevel
- Knowledge carriers & decision makers
- Scenario planning & outlook
- Identify Quick Wins/set up action plan to be implemented

SUPPLIER STABILIZATION PROGRAM

- Define & support implementation of actions at critical suppliers
 - Install Covid-19 ramp-up playbook & safety regulations at suppliers (e.g. social distancing guideline in assembly)
 - Analyze and ensure delivery capabilities, possibly by actively taking over planning and control tasks
 - Secure supplies from sub-suppliers using virtual supplier round-table meetings
 - Stabilize processes in manufacturing and logistics (increase output and/or quality, reallocate human resources, manage material flow)
 - Plan and relocate production orders to other supplier locations (if possible)
 - Identify and secure property (e.g. tools, load carriers)
 - Identify needs of the supplier for financial support
 - If necessary, prepare and implement change of supplier

360° PLANT HEALTH CHECK	RAMP-UP PLAYBOOK & SAFETY PROTOCOLS	NETWORK STRESS TEST
 Identify critical manufacturing sites in your own network Plants in regions with workforce heavily affected by COVID-19 Plants in regions with local supplier base affected by COVID-19 Component plants in critical regions (internal suppliers) Start 360° Plant Health Check for critical sites in the production network Emergency team with topmanagement attention Order backlog & structure Product flexibility Production capacity Inventories Availability and flexibility of workforce Financial situation & cost structure 	 Define compulsory COVID-19 playbook & safety protocols for all plants Responsibilities Tasks Documentation Implement consistent COVID-19 actions in all manufacturing locations Social distancing across all plant functions Inbound Material Handling Disinfection Plant pre-opening actions Early warning process & action plan in case of emergency 	 Evaluate different scenarios for manufacturing network "under stress", e.g. Adjust production program based on supply shortages Evaluate manufacturing flexibility for massive demand fluctuations in short time cycles Change from 2-shift operation to 3-shift operation with less staff to adjust to COVID-19 safety regulations Optimize the overall output in the production network by relocating products between sites (cost, time, quality) Define & implement actions Product flexibility Manufacturing Network flexibility Workforce flexibility Supply chain flexibility