

Critical Response
PROTECT Phase

Adapt and Prepare
REVIEW Phase

Grow or Pivot
IMPLEMENT Phase

Recovery and Growth Opportunities as a Response to Crises such as COVID-19

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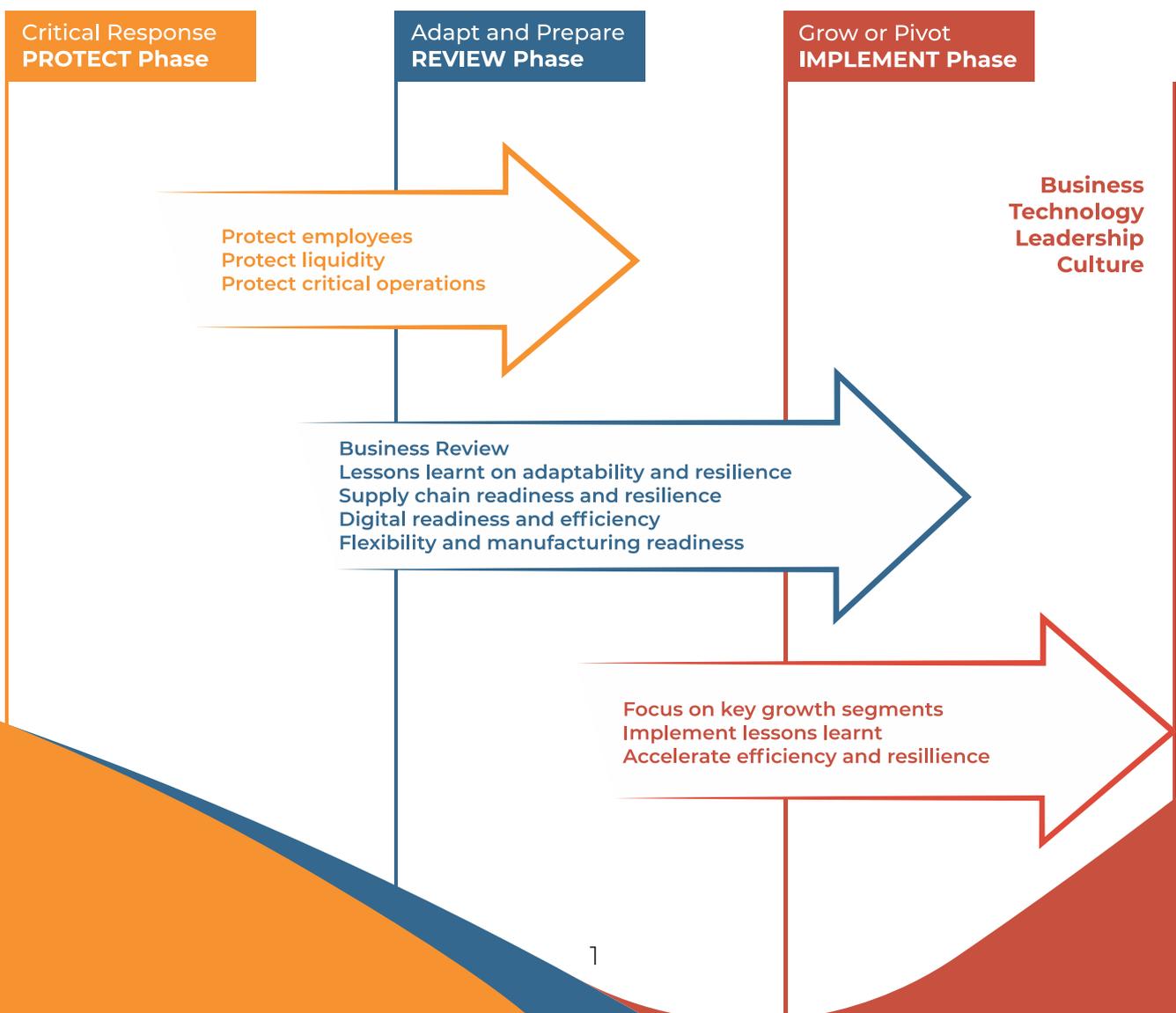
Introduction

The recent systemic shock across the industry, caused by the COVID-19 pandemic, has resulted in many businesses having to enter an emergency state. As yet, it is difficult to clearly predict when the current lockdown and the resulting reactionary business measures will be lifted, or indeed the future state of the manufacturing sector.

Based on our previous learnings and strategic work with manufacturing businesses, HSSMI has developed a three phase model which can help manufacturers not only survive the current shock, but use this time strategically to realign and plan for growth in the future.

Our model is based on three key phases:

- **PROTECT** phase: react quickly to the market shocks and ensure business continuity is achieved;
- **REVIEW** phase: reassess the market situation and capabilities to plan for business continuity and / or growth and adapt to the new norm;
- **IMPLEMENT** phase: implement the new strategy and capability enhancements in anticipation of growth in the future.



PROTECT Phase

The immediate effects of the shock will require quick definition of actions and a clear direction communicated internally within the organisation. The establishment of a task force or a group that takes responsibility for this phase is important to quickly align the organisation across all functions.

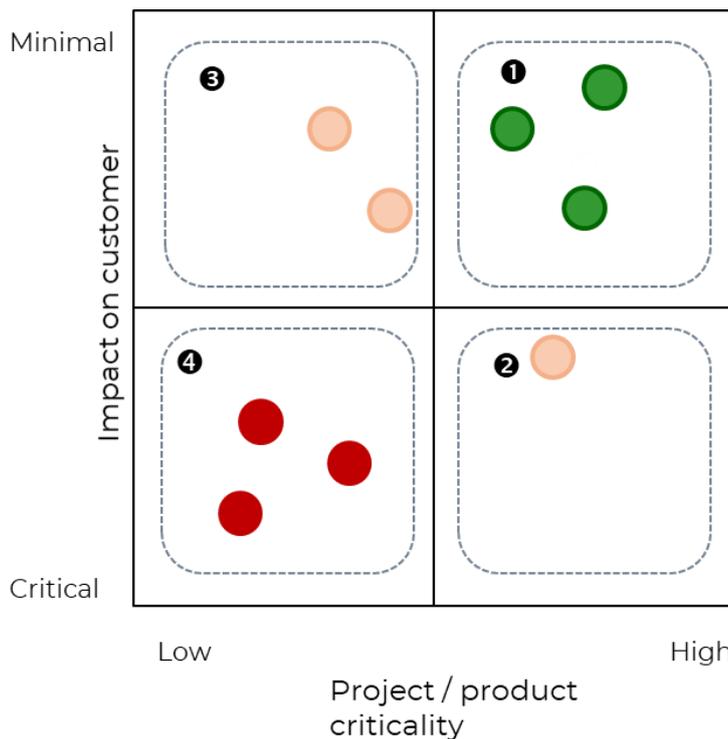
The group will regularly update all departments, set priorities and make critical decisions to protect employees, revenue streams and liquidity.

A risk assessment of revenue streams / projects will identify risks requiring attention, the required mitigating actions and the ownership of these actions.

One key risk that may come out of the risk assessment exercise is the availability of adequate funds to remain a going concern and the need for financial support. In the case of the COVID-19 pandemic, identification of such a shortfall in funding will alert management to the need to access Government support such as the Coronavirus Business Interruption Loans or the Job Retention Scheme in the UK.

Assigning a new special measure budget will formalise the short-term direction and responsibilities, which will be monitored on a regular basis by the PROTECT-task force / team.

	Actions in PROTECT phase	Objective
1	Create Action group ("PROTECT") including representation from Operations, Finance, Sales & HR	Create concentrated leadership & responsibility
2	Rearrange and respond to government advice with regards to social distancing and other rules and regulations. Deploy HR to assess employee wellbeing.	Protect staff and minimise disruption
3	Assess risks in the sales pipeline and communicate with all customers / projects about actions to be taken	Identify revenue at risk
4	Assess cash flow	Identify need for financial support
5	Assign project leads to protect existing revenue	Mitigate revenue risks
6	Access Government support (CBIL, Furlough), if necessary	Support working capital, ensure liquidity
7	Establish short-term "PROTECT" budget and develop a new extraordinary budget with sub-budget owners	Assign responsibility and implement stabilisation mechanisms



① Low risk projects – assign project leads and manage continuation

② To be protected revenue – assign project lead and manage with customer payment terms to help customer through the period.

③ To be protected revenue – assign project lead and manage with customer the priorities to keep project relevant in the current situation

④ Project at risk – Plan for the loss of the project. Negotiate a pause with the customer to protect for the future

The risk assessment of the different revenue streams from projects can be classified by the structure above.

Low risk revenue streams (i.e. revenue which is protected and unlikely to be lost) need to be continued, while to-be-protected revenues should

have assigned leads who either offer customers special terms or prioritise customer needs in order to protect the projects.

At risk projects should be identified and potentially put on hold in order to safeguard them for the future.

REVIEW Phase

Once the PROTECT actions are established, it is time to strategically assess the direction, capabilities and efficiencies of the organisation. This phase is ideally led by a separate team, with focus on lessons learnt and validating the business model.

For example, remote working of the whole organisation has forced teams to utilise technology

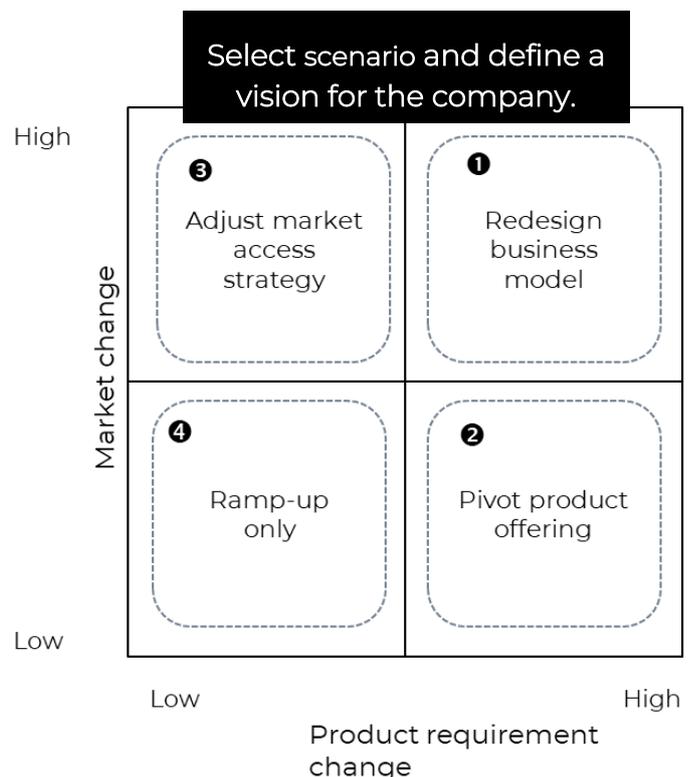
more and in ways previously done rather rarely. However these experiences are also valuable in addressing cost and time inefficiencies.

The aftermath of a major crisis also requires the business model and business environment to be assessed in order to emerge with a stronger business case and operational capabilities.

	Actions in REVIEW phase	Objective
1	Create Action group ("REVIEW") including representation from Operations, Finance, Sales & HR – separate from PROTECT team	Create concentrated leadership & responsibility to identify opportunities
2	Assess what has fundamentally changed in the market. What is the relevance of the products?	Develop and establish future scenarios
3	Assess the capabilities and roadmap to ramp up production after consolidation -> Manufacturing Readiness Level Review	Develop scale-up strategy
4	Assess the lessons learnt and capabilities on digital collaboration / remote collaboration -> Digital Readiness Review	Develop strategy to increase efficiency
5	Assess the resilience of the supply chain and / or internalise and bring the supply chain closer -> Supply Chain Readiness Review	Increase supply chain resilience
6	Prioritise key areas to support the future scenarios	Identify high priority action items
7	Develop an action plan for the implementation phase	Create a vision for the organisation

The matrix on the right shows how the impact of the crisis can be classified. The aftermath of the crisis and the resulting market and industry changes will determine whether a return to normal means simply scaling-up production or completely redesigning the business model. An intermediate scenario would mean that either the strategy needs to be adjusted to the market changes or the product offering needs to be pivoted to a different product range.

Defining and selecting the most likely scenario is important in order to define the strategic direction during the REVIEW stage.



Each scenario will have implications on all three areas:

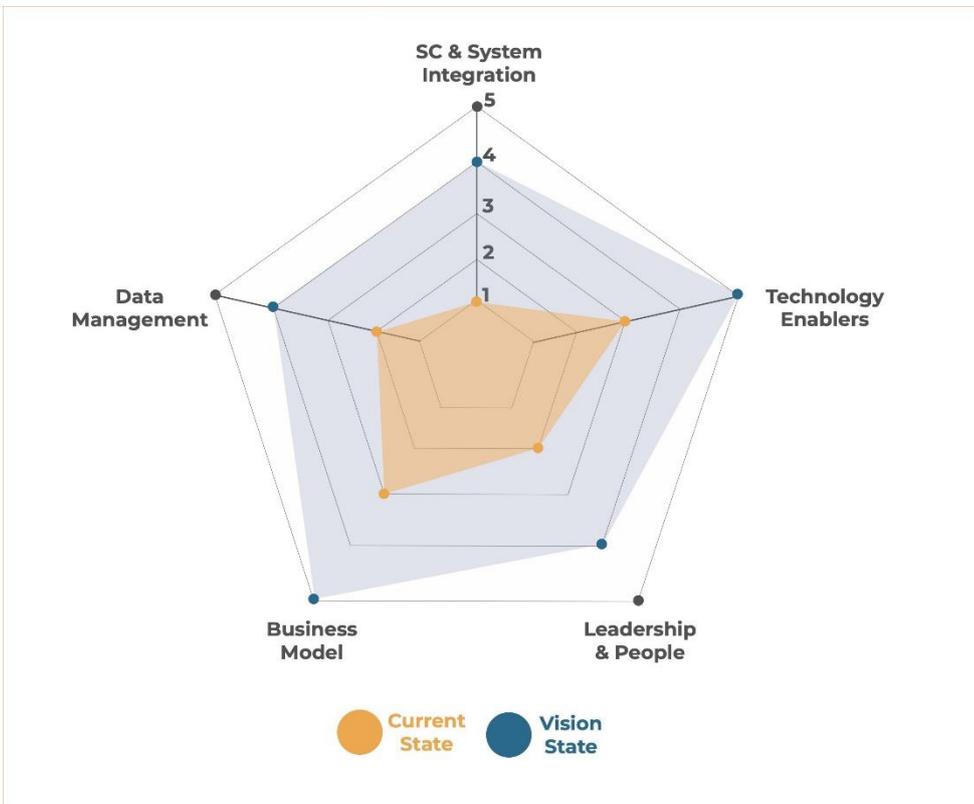
- Manufacturing readiness: the ability to upscale production efficiently after the downturn;
- Supply chain readiness: the ability to assess and adapt the supply base operation;
- Digital readiness: the ability to utilise the right tools to increase efficiency within the business.

All three elements, however, require input from a leadership and culture perspective, identifying suitable technologies and process alterations.

	Leadership & Culture	Technology	Processes
Manufacturing Readiness	Ramp-up strategy and reduce operational cost		
Supply Chain Readiness	Supply chain redesign and increase resilience		
Digital Readiness	Assess capabilities and increase efficiency		

From our experience at HSSMI we recommend developing current state and future state scenarios for the three different readiness levels in order to develop roadmaps which drive business improvements.

Also important is to include not only a technological perspective but also all three areas of (1) leadership and culture, (2) technology and (3) processes. An example of a Digital Readiness Review is shown below.



The spider diagram of the review shows the evaluation of the current state of the business compared with the ideal state. This diagram allows companies to identify priority areas which can be used to derive a further roadmap to be used in implementing the transition. Top levels spider diagram is shown on the left. Typically, high level of details can be shown in lower level diagrams.



IMPLEMENT Phase

The objective of the IMPLEMENT phase is to ensure the review in the previous phase is put in place. A dedicated cross-departmental team works well to drive and communicate changes.

Communicating the business vision as a response to the crisis is a vital starting point for staff to understand the actions to be taken. The specific roadmaps on the manufacturing, digital and supply

chain levels build the basis for transitioning the business.

Regular monitoring of actual versus planned as well as a regular feedback loop from the business executives is essential.

Company achievements throughout this transition should be shared and communicated openly to create buy-in from the organisation.

	Actions in IMPLEMENT phase	Objective
1	Create Action group ("IMPLEMENT") including representation from Operations, Finance, Sales & HR	Create concentrated leadership & responsibility to implement the company vision
2	Communicate company vision to all staff	Communicate future scenario
3	Create, champion and deliver roadmap to ramp up production after consolidation -> Manufacturing Readiness Level Review	Implement scale-up strategy
4	Create, champion and deliver roadmap on digital collaboration / remote collaboration -> Digital Readiness Review	Implement efficiency improvements
5	Create, champion and deliver roadmap supply chain and / or internalise or bring supply chain closer -> Supply Chain Readiness Review	Implement supply chain resilience strategy
6	Monitor and update strategy	Deliver roadmap
7	Communicate gains to all staff	Create buy-in

Conclusion

At HSSMI, we believe that crises can be managed, if a structured approach is used. It can also serve as a catalyst to improve organisations, innovate, grow, gain future market shares and increase competitiveness. However, it is vital that accountabilities are assigned early on and the organisation is guided through the three vital phases from PROTECT, REVIEW

to IMPLEMENT. HSSMI has developed strategic tools such as the Digital Readiness Review, the Manufacturing Readiness Review and the Supply Chain Readiness Review which are able to guide and help manufacturers to develop their individual roadmaps and increase the resilience of their businesses.

About HSSMI

- HSSMI is a sustainable manufacturing innovation consultancy, committed to helping manufacturing companies achieve their ambitions. HSSMI works across manufacturing industries to help companies respond to market challenges by increasing productivity, transitioning towards a circular economy, and upscaling their products and processes.
- Since being founded in 2012, HSSMI has worked with government bodies, established manufacturers and aspiring start-ups. HSSMI connects industry experts with people who want to make their products in a cost effective, innovative and sustainable way.
- HSSMI's areas of expertise include: manufacturing strategy, digital manufacturing tools, circular economy, lean manufacturing and automation, hydrogen propulsion, advanced manufacturing simulation, E-drives, battery technology, and project management. For further information please visit www.hssmi.org.

Further information

- **Digital Readiness Review - information about HSSMI's work and support**
<https://hssmi.org/drr/>
- **Examples and case studies of previous work**
<https://hssmi.org/our-work/#casestudies>

For further support contact

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