

# INDUSTRIAL DISASTER RECOVERY

TRANSFORMING CATASTROPHE  
INTO OPPORTUNITY



A few years ago, on a cold winter night, a fire broke out in one of the industrial facilities as well as the warehouse of a European precision-casting manufacturer. The fire spread rapidly, destroying a large part of the upstream production process. Fortunately, the plant was unoccupied at the time, as it was the weekend, and nobody was hurt. But when the fire was finally extinguished, the site director realized only two areas of the plant had been left undamaged: the finishing and inspection facilities and the warehouse, where inventory was stored. The rest of the plant had literally burnt down to the ground, leaving more than half of the employees with no jobs on the following Monday morning.

Production was completely blocked for three weeks in order to secure the site and allow authorities and the insurance company to perform the necessary investigations. Customers urgently requested information about damaged tools and inventory. They expressed their concerns about the manufacturer's ability to meet its commitments. Many of them risked shortages of critical parts used for civil and military applications.

The management team was taken by surprise by this disruptive event and had to learn the hard way how to recover and put operations back to a "business as usual" footing. Having managed to contain the fire, maintain a constant line of communication with customers, and work with sister plants to deliver the most urgent orders, the company decided to completely rethink its operations and modify its footprint.

## CASE STUDY PART I

Following the fire that destroyed most of its production facilities, the precision manufacturer hired Oliver Wyman to help the company design and implement a recovery plan.

Based on customer requirements and priorities, as well as qualitative and quantitative assessment of the inventory, Oliver Wyman put together a totally new production plan.

The plan took into account all the operational constraints resulting from the fire: limited capacity with clearly identified bottlenecks; limited productivity due to employee disorganization and lack of motivation; and spare capacity available at other plants within the business unit with similar processes and skills.

The resulting production plan became the backbone of the operations during the crisis period and the

starting point for any industrial decisions or customer communications. As a result, our client was able to (re)organize its production and to define its needs in terms of labor accordingly (for example, deciding to put half of the employees in technical unemployment).

Part of production was relocated for finishing and inspection at sister factories all over the world, requiring additional preparation and having a heavy impact on cost structure. Quick and effective reorganization of the client at a global level ensured on-time delivery of critical parts to key customers, thus sustaining business relationships for the long term.

In order to protect itself from increasing customer pressure, the client followed Oliver Wyman's recommendation to enter into a Safeguard procedure (equivalent to Chapter 11 in Europe).

## COMPANIES ARE GENERALLY INSUFFICIENTLY PREPARED FOR MAJOR DISRUPTIVE AND UNFORSEEABLE EVENTS

“*Black swans*”<sup>1</sup> (those events with low probabilities of happening and severe consequences) are almost impossible to foresee and provide limited options to minimize their effects once happening. “*Black swans*” theory teaches us that it’s useless trying to predict such events and that companies have no other choice than to develop their robustness and resilience.

As in the case of the manufacturer in the example on the previous page, when facing unexpected disruptive events, companies generally don’t have any ready-to-use plan of action for tackling the situation. Roles and responsibilities are rarely defined in a comprehensive manner, which prevents companies from reacting swiftly. They tend focus their efforts on the most obvious and immediate issues, and in the heat of the event neglect to address the needs and concerns of important stakeholders. In the end, those randomly taken decisions may lead to errors, compounding the company’s troubles later on.

First, management may be overwhelmed by questions involving security, safety, and legal issues. Was there anybody on-site when the disaster occurred? Should the entire facility be shut down for health and safety reasons, even if parts of the site are undamaged? Then there is the matter of employees, who are worried about their jobs and future at the company, while their union representatives want to obtain commitments from management on jobs security. Management is also heavily engaged in coordinating the investigation aimed at identifying the causes of the disaster. “*Force majeure*” may be invoked.

In addition, management must also handle external stakeholders, prioritizing which requests and expectations are the most urgent and important. Customers may become extremely intrusive in reaction to the invoking of force majeure (thus allowing the manufacturer to suspend or delay shipments) when it comes to their delivery plan. They may regularly request order status and inventory level and put pressure on the manufacturer to get the best share of available finished products versus other customers. They also may invoke any legal terms in their outstanding contracts that could allow them to open double-sourcing options and challenge contracts.

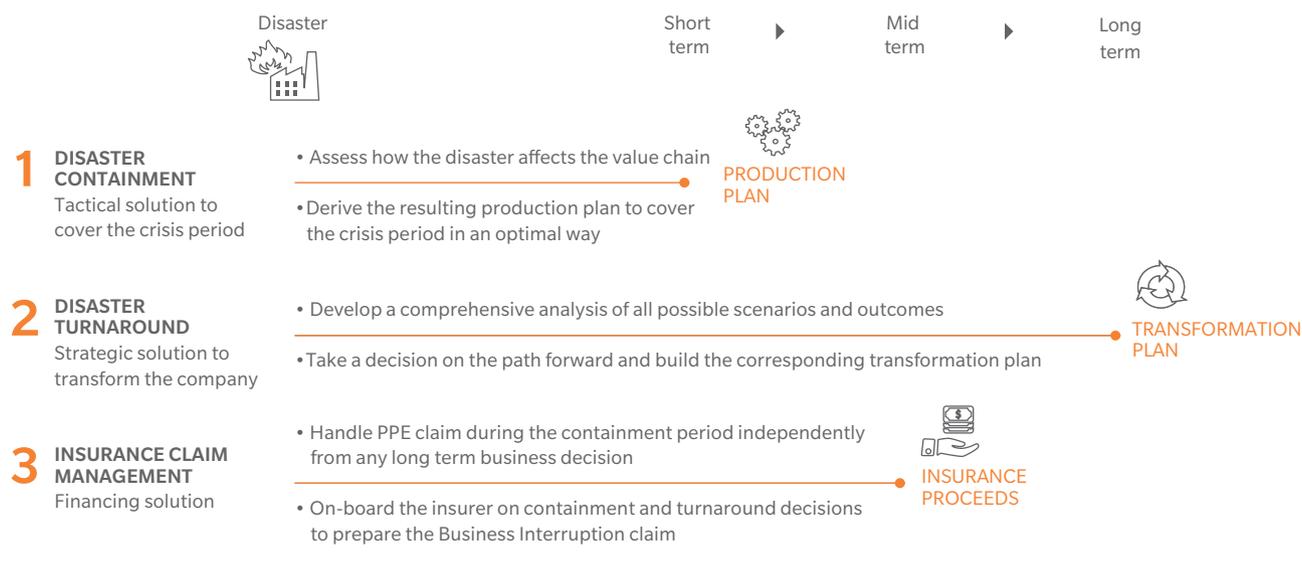
Suppliers may adopt a defensive and protective behaviour. They may ask for upfront payments and supply the company only if management is able to present a tailored production plan with sufficient cash guarantees.

At the same time, shareholders may request that management review the company’s business plan and establish a crisis and financial communication strategy. The authorities may engage management in discussions early on in the crisis, to influence decision making in regard to the survival of the company. Finally, media scrutiny is likely to intensify the pressure, relaying information from individual interviews with employees or union representatives.

All those things together can place enormous pressures on the management team, which in turn may react in taking unwise and untimely decisions.

<sup>1</sup> The concept was developed by Nassim Nicholas Taleb, a Lebanese-American essayist, scholar, statistician, and risk analyst, whose work focuses on problems of randomness, probability, and uncertainty.

**Exhibit 1** A disaster recovery consists of three phases, which are undertaken in parallel following the disaster



## CASE STUDY PART II

Oliver Wyman led a comprehensive analysis of three scenarios (complete restart, partial restart, and closure of the factory). Based on this analysis, the client decided to shut down the damaged plant and transfer the remaining activities to the other facility in the country, convinced this was the only viable option.

In order to shut down the factory, Oliver Wyman prepared a fast and legally mandated nine-week personnel downsizing plan impacting a majority of the plant employees. Oliver Wyman also supported the client in restructuring its remaining activities in the country, especially by building a three-year business plan and assisting the client's negotiations with its customers.

At the end of the containment period, Oliver Wyman wrote the transformation plan (social, industrial, economic, financial, and environmental impact of restructuring) that was presented to the shareholders and the local authorities.

This transformation plan was unanimously approved by all stakeholders involved in the proceedings (creditor representatives, customer representatives, and unions). It successfully allowed the client to exit the Safeguard/Chapter 11 process and to regain full business control.

## THE FIRST PRIORITY IS TO CONTAIN THE DISASTER AND TACTICALLY MANAGE THE CRISIS

As seen in the example above, handling the situation immediately following an industrial disaster can be highly challenging and can result in creating additional damage to the company. The first priority of management, therefore, should be to rapidly organize the recovery in a consistent and comprehensive way, with a clear view to priorities. It is crucial above all to avoid adopting an over-reactive mode, wherein every leader thinks he must act personally for the general interest of the company, because that kind of behaviour will lead to an increase in complexity and may jeopardize the recovery process.

Our experience in helping companies facing these situations reveals that taking a value chain based approach is the surest way to protect stakeholders' interests and prevent damaging relations with customers. We also recommend implementing a number of mitigation actions, including revised governance and well-defined responsibilities:

- Clear accountability between CEO and shareholders
- Roles and responsibilities clearly delineated between headquarters and local site management
- One single voice and channel of communication to customers
- Standardized, prepared, and managed communication to the media and authorities

### Exhibit 2 A specific checklist allows efficient assessment of potential impacts across the value chain

VALUE CHAIN	KEY QUESTIONS RAISED DURING THE CONTAINMENT PHASE
SUPPLIERS	<ul style="list-style-type: none"> <li>• What is my remaining supply inventory level?</li> <li>• How are my supply needs about to change because of the disaster?</li> <li>• How are the prices negotiated with my suppliers subject to change due to change in volumes?</li> </ul>
PRODUCTION	<p><b>EMPLOYEES</b></p> <ul style="list-style-type: none"> <li>• What employees are potentially affected by the work center's destruction?</li> <li>• What are the skills of my employees who can potentially be reallocated to other work centers?</li> <li>• What can we do for employees who cannot work anymore, even temporarily (technical unemployment, temporary or permanent transfers, social plan)?</li> </ul> <p><b>SUBCONTRACTORS</b></p> <ul style="list-style-type: none"> <li>• How are my subcontractors affected by the disruption?</li> <li>• Can my current subcontractors integrate a bigger part of the value chain during the containment?</li> </ul> <p><b>MACHINERY &amp; EQUIPMENT</b></p> <ul style="list-style-type: none"> <li>• What is left in terms of equipment in the facility? What machinery and equipment can I still use and in what conditions?</li> </ul>
DOWNSTREAM LOGISTICS	<p><b>DIRECT TRANSPORTATION</b></p> <ul style="list-style-type: none"> <li>• How are direct logistics capabilities affected by the disaster? Can I still supply my customers the same way?</li> <li>• What finished products can I deliver directly to customers that may have been completed prior to the disaster and have not been destroyed?</li> </ul> <p><b>INDIRECT TRANSPORTATION</b></p> <ul style="list-style-type: none"> <li>• Are there any sister companies or other facilities within the company with similar capabilities and remaining capacity to help me produce and deliver to my customers?</li> </ul>
CUSTOMERS	<p><b>CUSTOMERS</b></p> <ul style="list-style-type: none"> <li>• How critical is the situation for each customer? <ul style="list-style-type: none"> <li>– What is their remaining buffer?</li> <li>– What are their delivery rate commitments and consequent supply needs?</li> </ul> </li> <li>• How may my long-term relationships with customers be affected by the disaster? How can I prioritize my customers to minimize the long-term impact?</li> </ul>

Once a clear assessment of the potential impacts of the disaster at every stage of the value chain has been performed, management must build a recovery production plan and communicate actively to all stakeholders to reassure them and avoid additional complications. This optimized production plan must take into account customers' requests, suppliers, production, and downstream logistics constraints, which can then be used for contractual operations and communication purposes.

Communication must be maintained across the entire value chain. Employees need to know the decisions made regarding possible reduced activity measures, industrial footprint adjustment, or workload balancing. New rates, conditions of delivery, debtor claims, and inbound supply-chain adjustments have to be formally communicated to suppliers and subcontractors. The impact on local employment and industrial network, investigation consequences, public liability, and potential court proceedings have to be clearly articulated and formalized for the authorities. A statement that includes carefully crafted language regarding social, safety, security, and industrial impacts of the disaster can be disclosed publicly through the media.

Regular two-way communication must be organized with customers and shareholders to ensure they are engaged in the decision-making process at every stage of the crisis. Customers in particular must be involved in decisions related to inventory management and buffer stock level, capacity planning, updated production planning, parts priority lists, new transportation conditions, contractual updates, and discussions on potential penalties. Shareholders must be involved in higher-level decisions and discussions, especially about impact on profits and losses, revised business plan, consequences on other business units, or aspects of the business.

### Exhibit 3 Communication is key to handling the disaster successfully

#### UNILATERAL PASSIVE REPORTING

##### EMPLOYEES

- Have employees involved in the implementation of the production plan
- On-board employees on major management decisions

##### SUPPLIERS

- Secure immediate necessary supplies
- Outline the path forward in order to maintain current contractual commitments

##### AUTHORITIES

- Reassure authorities on the efficient containment of every aspect of the crisis
- Obtain the approval of the authorities on all the decisions related to the transformation

##### PUBLIC OPINION

- Communicate appropriately to mitigate reputational risks



#### BILATERAL ACTIVE COMMUNICATION

##### CUSTOMERS

- Question customers' delivery needs to highlight key priorities and share production constraints to derive the production plan
- Secure outstanding and future contractual commitments

##### SHAREHOLDERS

- Have shareholders involved at every stage in the decision-making process

- Ensure full support to any financing needs related to the containment and the transformation

##### INSURANCE

- Involve the insurer early in the decision process



## EXECUTING THE TURNAROUND AFTER THE DISASTER IS A TRUE OPPORTUNITY FOR TRANSFORMATION

Following the containment of the disaster, a comprehensive analysis of all potential outcomes should be developed before taking any mid- or long-term decision. It is very important to thoroughly identify and qualitatively describe all possible scenarios and make sure that any potential solution has been fully considered. Scenarios must address social, industrial, and environmental impacts, and present a consolidated financial assessment across all dimensions.

In the situation we presented earlier, the manufacturer had relocated production at sister factories all over the world a few days after the fire left its production facility destroyed. This quick and effective reorganization ensured on-time delivery of critical parts to key customers, and allowed the company to sustain its long-term business relationships.

Then, with the help of the Oliver Wyman team, the company led a comprehensive analysis on three possible scenarios for the future of its operations in the damaged site: complete restart, partial restart, and plant closure.

Following the analysis, the company decided to shut down the damaged plant and transfer the remaining activities to other production sites in Europe, in the interest of its customers, convinced that it was the only economically viable situation.

After reviewing the most likely scenarios with key stakeholders, management needs to make a decision on the path forward and then build the relevant action plan, taking into account:

- **Social impact**
  - If a personnel downsizing plan is needed at the facility, detailed phases need to be outlined according to the country's legal framework
  - If new jobs need to be opened in other facilities, job specifications with required capabilities and experience need to be written, and channels for advertising need to be specified
  - If reorganization within the company is required, a new organizational structure needs to be outlined, including key responsibilities and team sizes
- **Industrial impact**
  - If industrial facilities and equipment have been destroyed, it may be worth considering new technology to replace the older one
  - Take the opportunity to review the product definition and its complete manufacturing process to update it to current standards of performance
  - It may also be an opportune time to digitalize existing processes and assess the impact it could have on the resulting operations efficiency
- **Environmental impact**
  - Industrial disaster may have environmental impacts if there has been a fire or a flood, for instance
  - There may be some actions that need to be undertaken, such as wastewater treatment or building demolition that, in some cases, are costly and prevent business activities on-site

- **Economic and Financial impacts**

- Any decisions taken will result in economic and financial impact, which have to be carefully estimated
- Additional investments may have a significant impact on debt level, future cash flows, and shareholder value

Once the action plan has been designed and stabilized, it needs to be communicated officially to all stakeholders involved in the process. The communication is critical to on-boarding these stakeholders, as they are all key for a successful implementation of the transformation plan.

For those involved in the decision-making process, such as shareholders and customers, communication consists in formalizing the decision that has been taken prior to building the plan of action. They should already have been on-boarded at this stage. For employees, suppliers, the authorities, and the media, it consists in communicating the consequences and expected outcome of the decision.

## OBJECTIVE OF THE INSURANCE CLAIM PREPARATION IS TO RECOVER FROM ANY ADDITIONAL COSTS

A disaster typically has two financial impacts: property damage and Business Interruption (BI). Property damage refers to real estate assets, machinery and equipment, stock, supplies, and raw materials that may have been damaged. Business interruption refers to a loss in profits and/or extra expenses incurred.

Property damages are typically assessed by experts, such as architects or equipment manufacturers, called in by the company, which has to make sure that the quotes are reflective of the assets damaged (for example, in the case of equipment, the company has to prove that the specs and capacity levels indicated in the quotes match the ones of destroyed assets).

### CASE STUDY PART III

Oliver Wyman assisted the client in structuring the business interruption claim. The challenge was to present a comprehensive BI claim to the insurer only a few months after the disaster in order to start the negotiations as early as possible.

This entailed the need to identify all business interruption costs related to the disaster (production transfer costs, payroll costs, non-recurring costs, and lost revenues), and being able to project them going forward to derive a projected comprehensive estimate of

the insurer's financial exposure to the disaster, looking 12 to 18 months ahead.

In parallel to this exercise, Oliver Wyman helped the client build the same projection in a hypothetical "restart" scenario, where the plant would be refurbished. This hypothetical recovery claim estimate was used as a way to demonstrate that the insurer's exposure would have been much greater had the client had decided to resume production at the initial location.

Insurance policies usually reimburse assets on the basis of their replacement value. However, policies often allow the total reimbursement of these assets if the company can prove it spends or commits to spend at least as much on capital expenditures at other locations within the business unit.

By definition, business interruption is the period between the date of the disaster and the point at which production resumes. During this period, the company may claim different types of costs incurred (depending on the policy in place), such as any loss in profits due to the disaster versus budgeted profits during that period or any extra expenses incurred to mitigate this overall loss of profit (for example, extra costs incurred to resume production at other locations). These extra costs will be compared to the amount of loss that is reduced due to such measures.

While companies usually contact their insurer immediately to report the disaster, they tend to postpone business interruption issues until after the disaster has been contained. Our experience has taught us that involving the insurer early on in the business interruption claim process as a key decision-making partner is a best practice, and that doing so can mitigate the overall financial impact of the disaster. Preparing the BI claim immediately after the damage allows the insurer to measure the impact of the disaster on business activity from day one (that is, it lets the insurer isolate and record all extra expenses and revenue losses directly due to the fire as they occur). Involving the insurer in the design of the disaster containment plan allows the company to get approval for all the extra expenses that will be incurred in order to mitigate the overall loss. It also allows the company to enlist the support of the insurer, potentially reducing difficult negotiations further down the line.

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While companies usually contact their insurer immediately to report the disaster, they tend to postpone business interruption issues until after the disaster has been contained.

As the various long-term options for the company may have different impacts on the duration of the interruption, it is also important to involve the insurer in the comprehensive analysis process of all possible scenarios and have its assent on the best path forward.

BI claim preparation requires time, technical expertise, and hands-on management. The degree of complexity of a BI claim varies according to the magnitude of the disaster, its implications on the remaining activities of the company, and on the containment solutions put in place. Complexity has a direct impact on the internal time and resources needed to prepare the claim and conduct the negotiations with the insurer. Oliver Wyman is able to help its clients drive the insurance claim process through both disaster containment and turnaround phases. Together with insurance experts from our sister company Marsh, a global leader in insurance solutions, Oliver Wyman can help structure the claim and conduct all the in-depth analyses necessary to support the claim.

We, for instance, assisted our manufacturing client in structuring its business interruption claim. The challenge was to present a comprehensive BI claim to the insurer only a few months after the disaster, in order to start the negotiations as early as possible.

This entailed identifying all business interruption costs related to the disaster (production transfer costs, payroll costs, non-recurring costs, and lost revenues) and being able to project them going forward to derive a comprehensive estimate of the insurer's financial exposure to the disaster, looking 12 to 18 months ahead.

In parallel to this exercise, we helped our client build the same projection in a hypothetical "restart" scenario, where the plant would be refurbished. This hypothetical recovery claim estimate was used as a way to demonstrate that the insurer's exposure would have been much higher if the client had decided to resume production at the disaster location.

This example shows that although the outcome relies greatly on negotiations with the insurer, a robust and well-prepared business interruption claim can greatly enhance the chances of recovery.

## COORDINATION AND A HOLISTIC VIEW OF THE SITUATION ARE KEY SUCCESS FACTORS

Designing and implementing a recovery plan, following an industrial disaster, is a complex and highly demanding task for managers. They must work on both short- and long-term perspectives, and be able to coordinate a long list of expectations and potentially conflicting requests from all stakeholders—and be able to do so under extremely stressful conditions.

From day one after the disaster up to the complete recovery, management must focus all its actions on preserving customers' interests before anything else. The leadership team must fight the tendency to minimize the impact of the disaster on customers. It must immediately engage in direct communication with them, even though a complete industrial solution has not been found. Isolationist behaviour may result in a lack of trust from customers and generate inadequate industrial solutions, due to insufficient collaboration and alignment with clients' needs.

An operational "sized-to-deliver" company usually doesn't have the additional resources available at the time of the disaster to properly manage the situation. Given the extraordinary nature of such events and the breadth of issues to tackle, managers must reach out for internal support from group's back-office capabilities (human resources, legal, finance, production, sales), as well as specific external support in the form of a fully dedicated and experienced team capable of reacting quickly in a comprehensive and systematic way. Management and support teams must then work closely on both short-term crisis management and a long-term restructuring plan.

- The management team must set priorities on highly sensitive issues, such as union talks, customer meetings, and press releases

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From day one after the disaster up to the complete recovery, management must focus all its actions on preserving customers' interests before anything else. The leadership team must fight the tendency to minimize the impact of the disaster on customers.

- The internal support team should provide timely help to both the management team and the external support team
- The external support team ought to have a critical view on the short-term topics (such as union negotiations, customer meetings, and external communication); at the same time, they should build the long-term restructuring plan and manage relationships with key business stakeholders

Specifically, management and support teams must be in synch from day one, in order to optimize the insurance claim process. The external team should be at the centre of the insurance claim, and should make certain that the insurer is involved from the beginning and at all stages of the disaster recovery. The management team should have minimum interaction with the insurer, as this is not their top priority. The internal team should focus on a separate expense accountability for the insurance claim.

## **COLLABORATION WITH MARSH CRISIS MANAGEMENT TEAM**

Oliver Wyman works extensively with the support of the Marsh Crisis Management team, part of Oliver Wyman's sister company Marsh. Together, we offer the expertise and external support needed to help companies successfully recover from an industrial disaster.

We are in a position to provide a unique and successful consulting approach because we:

- Tailor our solutions, best practices, and industry standards to meet clients' unique operating environments
- Build upon what clients have already started to implement
- Take a holistic and integrated view of all business elements
- Define plans and processes to work with different cultures and management styles
- Transfer knowledge and expertise to clients by:
  - Building governance, frameworks, toolkits, and documentation, which guide and serve the client's program and capability over time
  - Training the trainer
  - Providing on-going support when needed, ranging from hands-on management to advice and counsel, as well as real-time response support

Oliver Wyman and Marsh's recent collaborations (through the Marsh Crisis Management Team) have allowed us to develop a solid knowledge of disaster situations and stay ahead of the curve in dealing with issues, thereby maximizing our clients' chances to recover the costs incurred in the wake of a disaster.

## SPEED, FOCUS AND CONSISTENCY WILL ENSURE THE SUCCESS OF THE RECOVERY PLAN

The success of a robust recovery from an industrial disaster lies in the capability of the team in charge to act speedily and with consistency through a set of laser-focused actions, and to deal effectively with a vast array of topics (from manufacturing, supply-chain management, and sales to legal and communication). In the example described in the introduction, such a team, combining management and internal and external support, had to design and execute an actionable strategy and plan site ramp-down until full closure, covering all aspects from industrial planning, transfer of assets, social strategy, preparing for union negotiations, and protecting customer deliveries. It was key, for instance, to be able to complete the plant shutdown, transfer of work and assets, social plan implementation in a very short timeframe, and to comply with country legislation and regulations.

The single most important factor to managing an industrial disaster recovery project successfully, however, is the capability to mobilize an integrated team of industrial and legal experts, emphasize the importance of teamwork towards the objective, and build in a high degree of flexibility to handle all the obstacles that inevitably must arise.

The value chain based comprehensive approach allows the company to achieve full alignment with the industrial objectives of the ramp-down phase and preservation of customer interests (critical deliveries).

Dynamic planning, communication, and risk management in all dimensions (social, industrial, client, local politics, and the media, etc.) allow it to handle the most critical aspects of the recovery plan smoothly:

- Business continuity in the production/delivery activity of the company
- Full respect of the local social legislation, while bringing creative solutions to the negotiation table with the unions and the courts
- Buy-in and understanding from workers and unions with “positive neutrality” regarding the shutdown process and acceptance of a “fair treatment”
- Protection of the company brand image in France (no visibility in media, no issue with local politics)
- Preparation, simulation and calibration of social plan and strictly managed budget, avoidance of “bad surprise”
- Early warnings sent to the Board/corporate headquarters when necessary
- Proactive support to union negotiations, respecting local culture and behaviors (fair treatment, “win-win” approach, positive confrontation only)

Finally, early involvement of the insurer and paying attention to it as a key decision-making partner is a best practice that facilitates the negotiation process and optimizes the claim process.

## ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting. With offices in 50+ cities across 26 countries, Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. The firm's 3,700 professionals help clients optimize their business, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities. Oliver Wyman is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC]. For more information, visit [www.oliverwyman.com](http://www.oliverwyman.com). Follow Oliver Wyman on Twitter @OliverWyman.

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