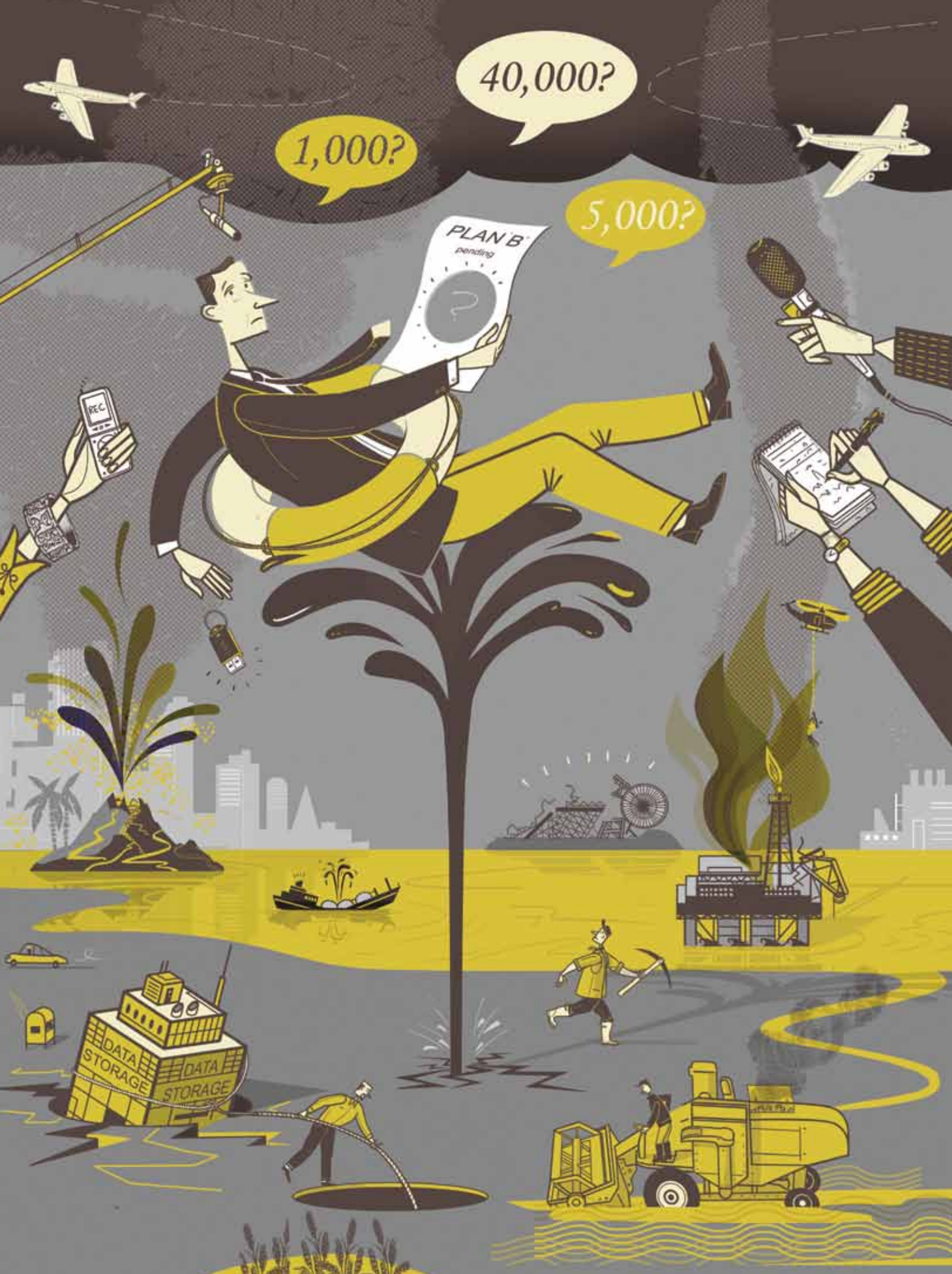
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A SERIES of UNFORTUNATE EVENTS

BY SARAH FISTER GALE >> ILLUSTRATION BY IAN WHADCOCK

2010 had its fair share of disasters—natural and manmade. From these, project professionals learned some valuable lessons in managing risks.

From earthquakes, floods and volcanoes to oil spills, mine collapses and economic stagnation, 2010 was marked by disasters. This string of calamities shut down projects, forced companies into bankruptcy, and made executives and project professionals take a long hard look at their ability to respond to crises.

While plenty of companies have risk-management and contingency plans in place as part of their project management processes, too often these efforts only offer effective guidance when everyday risks occur. Come a major disaster, many project leaders are woefully unprepared.

"Most companies focus their disaster-response planning on things like making sure they have a data backup," says Glenn Strausser, PMP. He is a Piketon, Ohio-based director of engineering, procurement and construction at USEC Inc. (United States Enrichment Corporation), a global provider of enriched uranium. "They don't have any idea what they would do if the office building where the backup is stored burns to the ground."

Even the organizations that weren't directly affected by the many major crises that occurred last year can still learn valuable lessons by looking at how other companies responded—or failed to respond.

Savvy project professionals have used the year's high-profile mishaps as a springboard to improve their own risk-management and contingency-planning processes. In so doing, they reduce the risk that this year's inevitable disasters derail their projects or take down their organization.

LESSON 1: MAKE RISK MANAGEMENT A PORTFOLIO-LEVEL JOB.

Siemens, the global electronics, energy and healthcare giant, wasn't directly affected by any of the disasters of 2010, according to Mr. Strausser, who until recently was a senior consultant with the company. It lost no offices to floods or earthquakes—although several executives were stranded by the volcanic eruption in Iceland that shut down European airports for six days in April. But the company was shaken enough by merely witnessing these events to begin rethinking its approach to risk management.

"The biggest thing Siemens did in response to the events of 2010 was invest in organizational maturity," Mr. Strausser says.

In particular, the company moved its risk-management processes and accountability to the portfolio level. Rather than having each project manager assess the risks to his or her individual projects, risk management for common issues that span the organization is now handled by Siemens' portfolio management team.

It's easy to take for granted that a disaster like this won't happen to you, but when it does, it's humbling. It has taught us that you can never be over-prepared.

—Jeff DeQuattro, The Nature Conservancy, Mobile Bay, Alabama, USA

For example, labor issues are a common risk for many projects. Instead of creating a contingency budget within each project plan to mitigate these risks, they are handled through a general portfolio management budget that assesses and manages labor issues on all projects as they arise.

"By moving risk management to the portfolio level, Siemens requires less organizational management, and project managers contribute a smaller amount of their overall budgets to risk contingency," Mr. Strausser says.

This not only streamlines risk management, it makes Siemens more competitive. "If I can reduce my risk allocation when I bid a job, I can bid less than the competition," he points out. "That means the company gets more work."

Mr. Strausser saw the benefit of this high-level risk-management process in the company's energy business unit, where large-scale construction projects often faced labor problems. "The project manager can now escalate the issue to management and keep the project budget whole," he says.

LESSON 2: DIVERSIFY YOUR PROJECT TEAMS.

For other companies, the lessons of 2010 hit closer to home. In Pakistan, for example, the massive flooding that occurred in July after unusually heavy monsoon rains impacted projects and organizations far beyond the water's reach.

Companies in cities that were untouched by the floods, and even some in neighboring countries, were brought to a standstill when their employees left in droves to help, says Muhammad A. B. Ilyas, PMI-SP, PMP, PgMP, CEO and principal consultant of Lifelong, a project management training and consulting firm headquartered in Kuwait City, Kuwait.

"People had to leave their jobs to attend to their families," he says. "It caused project delays, and many companies shut down for several weeks because most of their employees were gone."

>>THE YEAR OF LIVING DANGEROUSLY

12 JANUARY: A 7.0-magnitude earthquake hits Haiti, 25 kilometers (15.5 miles) west of Port-au-Prince, the country's capital. An estimated 230,000 people die, 300,000 are injured and 1.3 million displaced. Thousands of buildings collapse, including parts of the National Palace, home of the president.

27 FEBRUARY: An 8.8-magnitude earthquake, one of the biggest in recorded history, occurs off the coast of the Maule Region of Chile and is felt across the country. The quake triggers a tsunami that devastates coastal towns, including the port of Talcahuano. Buildings and bridges are destroyed, and as many as 700 people die.

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It was a critical lesson for a region that hires many employees from rural communities who commute to the cities during the week and return home on weekends and holidays. "Workers from remote areas are less expensive, but they end up being more of a liability than a benefit during a massive disaster like this," Mr. Ilyas says.

The experience taught many business owners the value of investing in a local work force—at least for critical roles in the organization—and diversifying the talent pool. "It's part of a good risk-mitigation strategy," he says. "You've got to keep a mix of people on your projects, and you never want to rely on one specific town or region for an entire team."

It may cost more, he adds, but when problems occur, companies with geographically diverse staffs can move projects forward with minimum effect while others scramble to find replacement team members.

>>THE YEAR OF LIVING DANGEROUSLY

21 MARCH: Volcanic eruptions near the Eyjafjallajökull glacier in Hvolsvöllur, Iceland, disrupt air travel across Western and Northern Europe for six days.

APRIL: Greece spirals into an economic debt crisis. Credit rating agencies downgrade the country's debt to "junk" status, forcing it to require a bailout or risk bankruptcy. On 2 May, the eurozone countries and the International Monetary Fund agree to bail out Greece with a €110 billion loan.

20 APRIL: BP's *Deepwater Horizon* oil rig in the Gulf of Mexico blows up and sinks, killing 11 workers and spewing an estimated 2.5 million barrels of oil into the water before the company is able to effectively seal the well in September. The next month, BP claims to have spent US$11.2 billion reacting to the blowout so far, and that's not including the US$20 billion trust fund it promises to set up to guarantee payment of individual damage claims.

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LESSON 3: CONTINGENCY PLANNING IS WORTH THE INVESTMENT.

When the BP oil rig blew up in the Gulf of Mexico on 20 April and began spewing millions of barrels of oil into the ocean, Jeff DeQuattro didn't panic—although he had every right to. As the coastal project manager for the not-for-profit organization The Nature Conservancy, he headed a US$2.9 million project to build 1.5 miles (2.4 kilometers) of new oyster reefs in Mobile Bay, Alabama, USA.

Mr. DeQuattro's team had installed much of the fragile reef on 5 April, two weeks before the oil spill occurred. Within days, the U.S. National Oceanic and Atmospheric Administration (NOAA) predicted that the oil was headed straight toward the new reef.

"It was clear that this was going to be a big deal," Mr. DeQuattro says.

It turned out to be not as big a deal as it could have been: His team had just committed 36 man-hours to devising a detailed contingency plan. It outlined what it would do in the case of a natural or manmade disaster—even though such plans aren't standard operating procedure at The Nature Conservancy.

"The contingency plan was not a required part of the grant," he says. But Mr. DeQuattro had experience working with big oil and industrial services companies in the past, and he knew the value of a contingency plan in case of a crisis.

A primary goal of the plan was personal safety, and that meant keeping people out of the water. By 27 April, work on the project was forced to stop.

At this point, Mr. DeQuattro tapped his network of resources to save his reef. He needed a boom, a floating barrier that contains an oil spill, but no stores in town had any in stock. So he reached out to people he knew who had suppliers in Texas, and within 24 hours, 3,500 feet (1 kilometer) of boom and pallets of absorbent material were delivered to his work site.

Partnering with J&W Marine Enterprises Coastal Environments, the project team placed the boom in the water to protect the fledgling reef.

As of September, the reef was showing substantial oyster growth, and the area was flourishing with fish and crabs. The marsh had begun regeneration and sediment accumulation—all good signs that the reef escaped heavy oiling.

The oil spill inspired The Nature Conservancy to increase its safety and

emergency-response procedures on all projects. The organization created a template for safety planning that governs how to respond to an oil spill. Every team member is encouraged to complete 40 hours of hazardous material training each year.

"It's easy to take for granted that a disaster like this won't happen to you, but when it does, it's humbling," Mr. DeQuattro says. "It has taught us that you can never be overprepared."

4 LESSON 4: CREATE A CULTURE OF SAFETY.

In the wake of so many tragedies, project professionals must learn that safety should come before all else.

"You need a true safety culture to avoid these kinds of events, and it can't just be an org chart with boxes to check off," says Pavel Molchanov, energy research analyst for Raymond James & Associates, a global financial services holding company in St. Petersburg, Florida, USA. "Safety has to be the number-one priority."

He points to Exxon's response to its 1989 oil spill when the *Exxon Valdez* oil tanker ran aground in Alaska, USA, spilling hundreds of thousands of barrels of crude oil into Prince William Sound. After that incident, Exxon dramatically revamped its risk-management and safety processes, creating a culture that encourages people at all levels of the company to report concerns or safety risks to management. The company also aligned its incentive compensation policies with safety priorities, Mr. Molchanov says.

"That's why Exxon's gone 20 years without any major safety incidents, while BP has had three in the last five years," he says—including, of course, the recent explosion in which 11 workers lost their lives.

Some projects have proven even deadlier. The worst monsoon rains in 20 years, a collapsed pedestrian bridge and a terrorist attack made a safety snafu of the megaproject to ready New

Delhi, India, to host the Commonwealth Games in October. Forty-five construction workers died during the past two years while employed on the project, the labor department admitted in an affidavit.

Safety has to be factored into every project decision, and it must be a part of every team member's job if you want to avoid making the same catastrophic mistakes, Mr. Molchanov says. He suggests tying performance reviews and compensation to safety goals.

"You have to hit people in their pockets, otherwise when crunch time comes and they are balancing budgets and schedules, they'll take shortcuts," he says. "You've got to create a culture where the temptation to take risks isn't there."

5 LESSON 5: QUALITY CONTROL SAVES LIVES.

Miguel Carbuccia, senior engineer for PBS&J, an engineering firm in Orange, California, USA, saw firsthand the destruction caused by the massive earthquake that shook Chile on 27 February. He also witnessed the amazing lifesaving results that come from good engineering and consistent quality control.

"In Haiti, a 7.0-magnitude earthquake devastated the entire area, but in Chile, there was an 8.8-magnitude

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>
> —Carolina Milanesi, Gartner, Egham, Surrey, England

>>THE YEAR OF LIVING DANGEROUSLY

29 JULY: After unusually heavy monsoon rains, flash floods and landslides hit northwestern Pakistan and Pakistani-administered Kashmir. The United Nations (U.N.) estimates that the flooding killed 1,600 people in Pakistan alone. More than 13 million people are affected and businesses across the region shut down to deal with the disaster. The U.N. appeals for US$460 million dollars in emergency aid.

22 AUGUST: Thirty-three miners are discovered alive but trapped miles underground after the small San José mine near Copiapó, Chile collapses. All of the men are freed on 13 October in a rescue operation that progresses more quickly than expected.

4 OCTOBER: Toxic red sludge from an aluminum plant in western Hungary bursts out of a containment reservoir and floods local villages in three counties. Nine die from the toxic muck—most from drowning—while 120 more suffer chemical burns.

earthquake—which is exponentially more powerful—and only a couple of buildings and eight bridges collapsed," he points out.

The vast difference comes down to Chile's adherence to strict building codes on construction projects and effective quality control. "Many times, the design of a building may be well-done, but then the constructors do what they want in the field," Mr. Carbuccia says. "You saw that in Haiti. Even the presidential palace collapsed. That shows a huge lack of quality control."

The rest of the world can learn lessons about the benefits of investing in seismic design and good quality control as it looks back on the major quakes of last year.

"It's a wake-up call for countries to move more resources into better requirements for construction projects," he says.

It should also be an opportunity for those engineers whose buildings withstood the powerful quakes to celebrate their success with the rest of the world, Mr. Carbuccia adds. "We need to share our stories with the international community and encourage others to follow what we have done."

LESSON 6: DON'T DELIVER AN INFERIOR PRODUCT IN THE RUSH TO THE MARKET.

Not every disaster that occurred in 2010 was deadly. There were also business-related debacles that resulted in firestorms of bad press. Most notable was the early release of the Apple iPhone 4.

Apple released a slick new model of its wildly popular iPhone in June with video calling and a high-res display—although it also featured an antenna that didn't work if users gripped the device's lower left corner.

The company's error frustrated thousands of loyal customers, tarnishing its reputation. The misstep also shined a spotlight on a common dilemma project teams face when developing innovative IT gadgets: balancing testing and time-to-market without upsetting stakeholders.

"Testing products before they go to market is getting harder and harder because so much depends on software nowadays," says Carolina Milanesi, research vice president of mobile devices at IT research firm Gartner in Egham, Surrey, England.

In the case of the iPhone 4, the project team was aware there was interference with the antennas but decided to ignore the problem. It was a conscious decision made by the team, and that's the important point, says Joel Delman, creative director at Product Development Technologies Inc., a product develop-

ment consultancy in Los Angeles, California, USA. "The project management process that led to the decision was fine," he adds. "They looked at the consequences of the problem and felt the cost of solving it was higher than the benefit."

In retrospect, they misjudged the problem. Reviewers lambasted Apple in the media, and CEO Steve Jobs only made matters worse when he tersely stated that the signal interruption was a "non-issue" and offered as a solution, "Just avoid holding it that way."

Apple eventually did publicly acknowledge the scope of the problem and sent free phone "bumpers" to users that eliminated the interference.

Such mistakes on a product development project can lead to angry clients and lost market share. In the rush to be the first to market, quality all too often gets sacrificed.

"In this market, you can be crucified for missing delivery dates, even by a few weeks," Ms. Milanesi says. She notes that Nokia's stock price fell and the company was roundly criticized when its N8 phone had a delayed release in September.

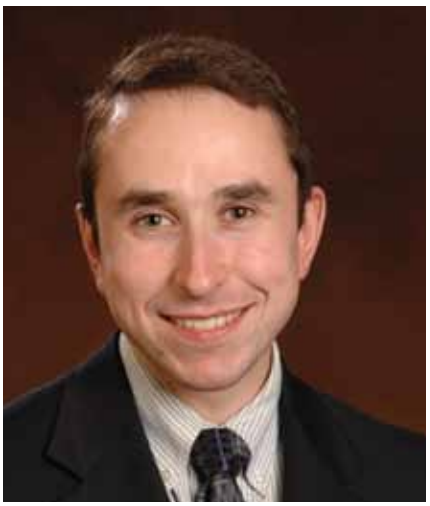
On the flip side, however, if you release a product before testing it properly, you can do irreparable damage to a company's reputation.

The key, Ms. Milanesi says, is to understand your audience and what it will tolerate. Then assess the risks and rewards accordingly. "Sometimes it's worth missing your deadline to get it right," she advises.

7 LESSON 7: CHOOSE YOUR LEADERS WISELY—AND COACH THEM HOW TO REACT TO DISASTERS.

Just as Mr. Jobs poorly handled the iPhone 4 debacle, BP's leadership also faltered in the face of the oil spill disaster. The company's early mistake was to downplay and seemingly evade the true scope of the problem.

"The leaders never tried to deny the issue, but the estimates of the daily flow rates grew from 1,000 barrels a day to 5,000 to over 50,000," Mr. Molchanov says. Incomplete data is partially to blame for the widely varying numbers, but the situation sent a terrible message to stakeholders.



"The perception BP inadvertently created was that it was stonewalling and trying to mislead the public," he says.

Later, flippant comments from BP CEO Tony Hayward—"I'd like my life back," he was quoted as saying—and his decision to participate in a yacht race while oil still gushed into the Gulf caused the public to turn on him and question the energy behemoth's efforts to plug the leak. His handling of the situation ultimately cost him his job.

"Hayward's style grated on people and just didn't work within a U.S. context," says David Miller, managing director of Changefirst, a global provider of change management tools and education based in Haywards Heath, West Sussex, England.

Every organization needs to have an executive team whose style is suited to different leadership roles. Know each person's strengths and weaknesses. "Organizations should predetermine who would be the best leader in a crisis," he says.

By following these seven tips, organizations can be better prepared for whatever 2011 throws their way. PM

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—Pavel Molchanov, Raymond James & Associates, St. Petersburg, Florida, USA