ALLIANZ GLOBAL CORPORATE & SPECIALTY

PRODUCT RECALL MANAGING THE IMPACT OF THE NEW RISK LANDSCAPE

Loss Trends and Product Recall Claims Analysis Risk Mitigation Crisis Management



IN FOCUS

A product recall is potentially the most risk-laden situation a company can face. And whether a manufacturer, retailer or wholesaler, this risk is increasing, as supply chains grow more complex and the regulatory landscape becomes more robust. Yet businesses can often underestimate the impact of a recall and the negative effect it can have in terms of financial and reputational damage, despite the growing number of large loss events.

This report examines current and emerging risk and loss trends in product recall and includes exclusive insurance claims analysis. It focuses primarily on the automotive and food and beverage industries, but also incorporates other sectors. The report also highlights the increasingly important role of crisis management services, including specialized insurance, in a recall scenario and outlines what can be done to mitigate the fall-out when an incident occurs.

All claims values in € originally. All \$ US\$ unless stated otherwise.

Allianz Global Corporate & Specialty business scope

Allianz Global Corporate & Specialty (AGCS) is the Allianz Group's dedicated carrier for corporate and specialty insurance business. AGCS provides insurance and risk consultancy across the whole spectrum of specialty, alternative risk transfer and corporate business. Insurance product lines covered include:

- Alternative Risk Transfer
- Aviation (including space)
- Energy
- Engineering
- Entertainment
- Financial Lines (including directors' and officers' [D&O])
- Liability
- Marine
- Mid-Corporate
- Property

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isk landscape

all claims analysis

in product recall risk

teps to managing a recall

tational recall protection

BILLION DOLLAR (5) **RECALL INCIDENTS**

A pedal that caused a car to inadvertently accelerate, a hip replacement device that led to repeated surgeries and an outbreak of contaminated peanuts that resulted in a 25% industry-wide reduction in sales. Below are some of the largest and most costly – recalls of recent times.



2016 EXPLODING PHONES

Samsung recalled 2.5 million Galaxy Note 7 phones after users reported flames and explosions caused by overheating batteries. Estimated cost: \$5bn+1



2015 AIRBAG ERRORS

One of the largest recalls to hit the auto industry, expected to result in some 60 to 70 million units across at least 19 manufacturers being recalled worldwide. Japanese manufacturer, Takata filed for bankruptcy in June 2017. Estimated cost: \$25bn+²



2014 AUTO IGNITION FLAWS AND OTHER ISSUES

Issues such as ignition switch flaws meant General Motors had to recall over 30 million vehicles in total through 2014.

Estimated cost: \$4bn+³



2010 HIP HICCUPS

Johnson & Johnson subsidiary, DePuy Orthopaedics, recalled hip replacement devices due to a high level of repeated surgeries. More than 90,000 devices had been implanted worldwide. Estimated cost: \$3bn+⁴

2009 FAULTY PEDALS

Automaker, Toyota issued a recall on over four million vehicles to fix faulty pedals that led to unintended accelerations. In total an estimated nine million cars were eventually pulled back for pedal-related flaws. Estimated cost: \$3bn⁵



2008 PEANUT CONTAMINATION

One of the largest food recalls in US history, triggered by salmonella fears. More than 4,000 products, produced by over 200 different companies, were impacted, triggering an industry-wide 25% reduction in peanut sales. The company responsible, Peanut Corporation of America, filed for bankruptcy.

Estimated cost: \$1bn+⁶

2005 ARTHRITIS DRUG RECALL

The Food and Drug Administration in the US requested the removal of the Pfizer arthritis drug Bextra from the market due to side-effects. Estimated cost: \$3bn⁷



2004 ARTHRITIS DRUG RECALL

Merck recalled Vioxx, another arthritis drug, after a study found that patients who took the drug were more at risk from heart attacks and strokes. Estimated cost: \$5bn⁸

1. Samsung's losses from Note 7 disaster keep mounting, money.cnn.com, October 14, 2016

- 2. Takata puts worst-case airbag recall costs at \$24bn, Bloomberg, March 30, 2016
- 3. GM's total recall cost: \$4.1bn, money.cnn.com, February 4, 2015
- 4. As lawsuits climb, J&J may have new hip trauma, Reuters, July 12, 2012
- 5. The most expensive product recalls, Bloomberg January 17, 2013; Top 10 product recalls, Time, January 29, 2010.

- 6. 2016 Emerging Trends in Product Recall and Contamination Risk Management, Aon
- 7. The ten worst drug recalls in the history of the FDA, 24/7 Wall St, December 10, 2010
- 8. The most expensive product recalls, Bloomberg January 17, 2013

THESE EVENTS **COST ALMOST** \$50BN

PRODUCT RECALL: MANAGING THE IMPACT OF THE NEW RISK LANDSCAPE

EXECUTIVE SUMMARY

AGCS analysis shows that defective product-related risk is the single largest driver of liability claims. Product recall losses are a major contributor.



OF LIABILITY INSURANCE CLAIMS OVER FIVE YEARS **RESULTED FROM DEFECTIVE** PRODUCTS/WORK

Product–related risk is one of the biggest perils businesses face today. Defective products not only pose a serious safety risk to the public but can also cause significant financial and reputational damage to the companies concerned. Defective product incidents have caused insured losses in excess of \$2bn over the past five years, making them the largest generator of liability losses, according to AGCS. Product recall losses are a major contributor.

Although recall frequency can fluctuate year-onyear, and by industry sector, there has been a steady rise in activity over time. A more robust focus on safety and regulation by authorities, the rise of complex global supply chains, the knock-on effect from the current economic landscape, growing consumer awareness, and the increasing influence of social media are among those factors ensuring recall exposures are growing significantly. In addition, malicious product tampering and even extortion incidents pose an increasing threat. Meanwhile, advances in product testing could see a rise in litigation activity in future, as DNA technology makes it easier to establish the link between an incident and a company.

However, many businesses still underestimate the impact a recall event can have, with the costs often exceeding expectations, due to inadequate planning. Typically, the biggest costs are loss of sales and business interruption. However, even if a recall event doesn't result in the billion dollar losses that hit the headlines, losses can mount. According to AGCS analysis of insurance industry product recall claims across 12 sectors, even the average costs of a recall can exceed €1.4m (\$1.65m), rising to over €12m (\$14.5m) and almost €8m (\$9.42m) for significant claims in the two most impacted sectors – automotive and food and beverage respectively. The loss totals from individual events can far surpass these figures. \rightarrow Page 10

EMERGING TRENDS IN PRODUCT RECALL RISK

"Ripple effect" drives larger product recalls:

Product recalls are also increasing in size. Global companies now sell their products to millions. At the same time many manufacturers are sourcing components or ingredients from fewer suppliers. This has seen huge increases in values of risk and the emergence of a multiplier or "ripple effect" where a single recall can impact whole industries. The recent recall of Takata airbags is thought to have affected some 60 to 70 million units worldwide. Managing a complex global supply chain 24/7/365 poses an increasingly difficult challenge. \rightarrow Page 12

Tougher regulation brings more recalls:

Regulatory scrutiny is increasing, as many countries implement stricter product safety laws. Regulations such as the Food Safety Modernization Act in the US means authorities are now far more proactive. In the UK the number of recalls of food and drink products involving mislabeled allergens surged by over 60% in 2016 following the introduction of new European Union legislation. And product safety regulation is also increasing for automotive and consumer goods. Globally, when the regulatory bar is raised it increases risk for companies, as they have to adapt their safety culture to maintain higher standards. \rightarrow Page 14

The rise of new recall triggers: Undeclared allergens are fast-emerging as a primary cause of food recalls. Typically involving such products as nuts, milk and wheat, such recalls can often be the result of manufacturing error (mislabeling) or unintentional cross-contamination. Toxins in consumer products, in many cases imported from Asia, is another growing concern, while incidents of environmental contamination are also rising. Recent cases have come from sources such as micro- and nano-plastics, while the discovery of insecticide in Dutch eggs in 2017 triggered recalls in 16 countries across Europe and China. → Page 15

Economic pressures and the growth of food

fraud: Economic pressures continue to bite in many sectors, increasing the risk of human error. Meanwhile, food fraud, including **economic** adulteration and counterfeiting, has become a major issue that has resulted in large recalls, reputational damage and major losses. The 2013 horsemeat (substituted for beef) scandal in Europe is a prime example. There have also been issues with organic foods and milk powder. Many food fraud losses are uninsured. The insurance market is looking at solutions to address this. \rightarrow Page 16

The rise of non-safety recalls: Non-safety

recalls are an emerging phenomenon. Companies increasingly feel obliged to recall products if it emerges that child or slave labor has been used during production in the supply chain or if there are issues around religious or ethical designations, like halal or vegan food, in order to protect their reputations. \rightarrow Page 17

The exacerbating effect of social media: It can

be a fast and effective way of communicating with customers, but social media can also exacerbate recall risk. An erroneous post can impact the size of the recall and cause reputational damage. Social media can even have a bottom line impact on those companies not responsible. An academic study shows that negative comments on social media sparked by recalls in the automotive sector helped erase \$7.3m on average from the market cap of an "innocent" firm over just six days. → Page 18

PREVENTING A CRISIS AND THE ROLE OF INSURANCE

Pre-event preparation and planning can have a big impact on the size of a recall and the financial and reputational damage sustained. As part of a holistic risk management program, specialized product recall insurance can help businesses recover faster. As well as covering recall costs, including business interruption, it can also protect against other emerging triggers, such as malicious tampering. It also provides access to crisis management services which can help companies prepare by putting both recall and crisis management plans in place and organizing simulations which test a company's procedures, highlighting areas of improvement. While companies periodically conduct a traceability exercise, a full product recall simulation goes further, incorporating media, customers and other stakeholders. → Page 22

Recalls on the rise in China and across Asia:

Products from Asia continue to account for a disproportionate number of recalls in the US and Europe, reflecting the eastwards shift in global supply chains and historically weaker quality controls in some countries. In 2015 Chinese products accounted for over three times as many recall cases in the US as US products. Across Asia product safety regulation is improving, and consumer awareness is growing, leading to more government-led recalls. \rightarrow Page 19

"Cyber Recall" – technology to drive future

risks and claims: Developments such as genome-sequencing provide an opportunity to improve the quality and traceability of products but new technology also brings new risks. Future product recalls will come from new areas. Automated manufacturing plants increase efficiency but also increase cyber risk, which is underestimated, despite recalls for cyber security vulnerabilities in cars and cameras. Motivated by extortion or malicious intent, hackers could change or contaminate a product by controlling machinery. Nanotechnology and 3D printing are two further examples of innovations that could change recall exposures. \rightarrow Page 20



NUMBER OF CLASS ACTION LAW SUITS CONCERNING ALLEGEDLY **DECEPTIVE FOOD** LABELING IN THE US **SINCE 2012**



PAID A DAY IN PRODUCT RECALL INSURANCE **CLAIMS OVER FIVE YEARS** (€156.000)

INTRODUCTION

Drivers of the product recall risk landscape.

Product recall poses an increasing risk for businesses. In the past such recalls were relatively straightforward and could often pass unnoticed by the public. Today, they are much more complex, with the stakes far higher both in terms of the potential impact to a company's profits and its reputation.

Tougher regulation and harsher penalties, the rise of large multinational corporations and increasingly complex and consolidated supply chains, the socio-economic landscape, increasing threat of litigation, technological advances in product testing, as well as heightened consumer awareness – and growing use of social media – are just some of the contributing factors which means product recall exposures have

increased significantly over the past decade. We are now seeing and experiencing recalls on a scale not seen before, bringing record levels of activity and costs.

For example, more cars were recalled than ever before in the US during 2016 – the third year in a row this phenomenon has occurred. According to the National Highway Traffic Safety Administration, 53.2 million vehicles had to be returned – over three times as many as during 2012 (16.5 million). This trend is mirrored across Europe. The total number of automotive recall events jumped 76% year-on-year in 2016, according to Stericycle Expert Solutions¹ - the highest total recorded since the European Union's rapid alert system (RAPEX), which warns about

non-food products that pose a safety risk, began. And as recent incidents in the sector involving the likes of flawed airbags, accelerator pedals and ignition switches (see page 4) demonstrate – billion dollar loss bills are no longer a rare occurence.

RISE IN REPORTED INCIDENCES

The food and beverage sector is another that is particularly exposed. As well as having a catastrophic financial impact, a serious event can also endanger public health. One of the largest recalls in US food history, involving contaminated peanuts (see page 12), began after more than 700 people in over 40 states fell ill. It ended with the company responsible bankrupt and its CEO in prison.

Reported incidences are also on the rise in this sector. Food recalls in the US doubled over a decade, according to reinsurer Swiss Re² while there was a 20%+ surge in US and Canadian recalls year-on-year in 2016³, driven by pathogens and undeclared allergens. At the same time, introduction of new legislation on the labeling of food allergens across the European Union led to a 60%+ increase in recalls in 2016, driven by mislabeled allergens (see page 14).

PRODUCT-RELATED RISK LARGEST **CAUSE OF LIABILITY LOSS**

Analysis of more than 100,000 insurance industry claims by AGCS also shows the increasing risk for companies. Defective product/work

TOP 10 IMPACTED SECTORS BY PRODUCT RECALLS*: TYPICAL CAUSES OF INSURANCE CLAIMS



1 Automotive/ industrial supplier e.g. faulty electronic steering systems; gir conditioning unit outages; defective rear view mirrors

Average claim value:

€2 12m

2 Food/beverage e.g. contamination of cream; contamination of infant milk; undeclared allergens

Average claim value: €1.31m

in bagged salad



4. Retail 3 IT/electronics e.g. defective set-top e.g. loose buttons on boxes; faulty batteries baby clothes; faulty for tablets; overheating table; defective laptop computer flashing toy

Average claim value: Average claim value: €1.1m €649.000



5. Manufacturing/ packaaina/metal processing/ industrial machinery e.g. defective tow bar; faulty air compressor; defective rail injectors

Average claim value: €722.000

 \otimes

6. Medical e.g. faulty syringes/ tape; voluntary recall of stimulants due to hazard concerns: defective skin patches

7. Transportation/

6

logistics e.g. faulty plant and boiler components: damaaed transformers

8. Domestic appliances e.g. dishwasher recall after fire damage; exploding washing machines; tumble dryer recall after fire

1 415 automotive recall events in 2016. RAPEX. Stericycle Expert Solutions

2 565 US Food and Drug Administration (FDA) recall events in 2014 compared with 240 in 2004, Food Safety In A Globalized World, Swiss Re 3 764 food recall events in 2016 compared with 626 in 2015 based on FDA, US Department of Agriculture's Food Safety and Inspection

Service, Canadian Food Inspection Agency statistics, Food Safety Magazine 4 100.073 liability insurance claims analyzed between January 1, 2011 and September 13, 2016, Global Claims Review

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Liability In Focus, Allianz Global Corporate & Specialty

Claims values in €

Source: Allianz Global Corporate & Specialty

incidents have caused in excess of \$2bn of losses over five years, accounting for almost a guarter (23%) of the value of all claims analyzed⁴. This makes it the major cause of liability-related losses for businesses globally and the third most frequent generator of such claims. The growing number of recalls, and the fact that such claims are becoming larger and more challenging to settle due to the fact that an issue with a component or ingredient can cascade through the supply chain, are major contributors to this development.



e.g. faulty packaging/ labeling chemicals; defective plastic panels



10 Engineering/ construction e.g. leaking slurry pipe: defective

construction drver

* Based on value of 367 AGCS and insurance industry product recall claims. The average claim is influenced by the extreme values in the data set. For example, in the automotive sector, 57% of claims are below €100,000 causing a significant decrease in the average value. The value of product recall claims can be significantly higher and lower than the average values displayed.

Claims analysis does not include pharmaceutical industry drug recalls.

AVERAGE VALUE OF LARGE PRODUCT RECALL CLAIMS:



Claims value in €. Only "large" claims were considered. Large claims are those equal to or greater than ${\in}5{\rm m}$ Source: Allianz Global Corporate & Specialty

THE PERVASIVE NATURE OF PRODUCT RECALL CLAIMS

Loss level	Number of claims	Average value	Number share	Value share
Up to €1m	317	€88,885	86%	9%
€1m to €5m	29	€2,189,980	8%	20%
€5m+	21	€10,511,239	6%	71%

367 claims analyzed. Source: Allianz Global Corporate & Specialty

PRODUCT RECALL

Impacted industries by value of dedicated insurance claims



BY THE NUMBERS -PRODUCT RECALL CLAIMS ANALYSIS

For this report AGCS analyzed 367 dedicated product recall insurance claims from 28 countries across 12 industry sectors with a total value of €312.4m (\$367m)⁵. Overall, defective product or work is the major cause of product recall claims across all sectors, accounting for around 80% by number. This was followed by product contamination (12%), which is heavily driven by the food and beverage sector.

The analysis also shows that the 10 largest product recall claims account for over 50% of the value of all claims analyzed, demonstrating the significant influence of large recall loss events. Nine of these originated in the automotive/ industrial supplier sector. This sector is also the most expensive from a claims perspective, accounting for 71% of the value of all losses analyzed, with the average costs associated with a signicant recall incident totaling almost €12.5m (\$14.5m). However, the total loss bill from the largest recall events can rise into the hundreds of millions, or even billions, of dollars, when other factors are taken into consideration, such as loss of sales and reputation, penalties and fines and litigation, for example.





Domestic appliances







Engineering/construction

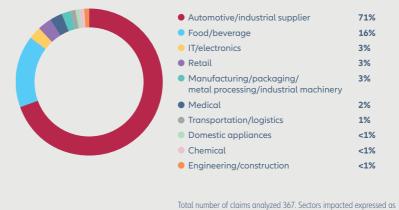
Total number of dedicated product recall claims analyzed 367 between January 2012 to June 30, 2017. Sectors impacted expressed as a % of value of all claims analyzed. Other sectors account for <1% of value of all claims Claims analysis does not include pharmaceutical industry drug recalls.

Source: Allianz Global Corporate &

5 367 standalone product recall claims featuring AGCS and other insurers analyzed between January 1, 2012 and lune 30 2017

PRODUCT RECALL

IMPACTED INDUSTRIES BY VALUE OF INSURANCE CLAIMS



a % of value of all claims analyzed. Other sectors account for <1% of value of all claims Claims analysis does not include pharmaceutical industry drug recalls.

Source: Allianz Global Corporate & Specialty

PRODUCT RECALL IMPACTED INDUSTRIES BY NUMBER OF INSURANCE CLAIMS



Total number of claims analyzed: 367. Sectors impacted expressed as a % of claims received. Other sectors account for <1% of number of claims. Claims analysis does not include pharmaceutical industry drug recalls. Source: Allianz Global Corporate & Specialty

Total number of claims analyzed: Total value of claims: Average value of all claims analyzed: Countries in which claims arose: Average Euros paid per day:

Claims scope: AGCS analyzed 367 dedicated product recall claims with a total value of €312,421,913, recorded for the accident years 2012 to 2016 and up to June 30, 2017. All claims figures are 100% (not only the AGCS share but including coinsurers' shares, as product recall risks can be shared between different insurers). Small value claims < \in 20. While the losses analyzed are not representative of the industry as a whole, and reflect AGCS' risk appetite, they give a strong indication of the product recall risk landscape today. Claims analysis does not include pharmaceutical industry drug recalls.

	71%	
	16%	
	3%	
	3%	
	3%	
chinery		
	2%	
	1%	
	<1%	
	<1%	
	<1%	

The automotive sector accounts for over 70% of the value of all losses. Recalls affecting a higher number of units are on the rise, driven by trends such as more complex engineering, faster speed-to-market, leaving less time for product testing, outsourcing of research and development and cost pressures. Many common components are in use so an issue can impact millions of vehicles. The food and beverage sector is the second most impacted, accounting for 16% of losses. Undeclared allergens (including mislabeling incidents) and pathogens, such as listeria and salmonella, are a major issue, as are contamination problems caused by foreign bodies such as glass, plastic and metal.

Together, the automotive and food

and beverage sectors are the most

for around 60% of claims volume.

Product recalls involving domestic

driver of claims received (10%).

1% of the value of all losses.

frequent drivers of claims, accounting

appliances, such as washing machines

and fridges/freezers, are a significant

However, they are low severity events,

collectively accounting for less than

	42%	
	18%	
	10%	
	7%	
	6%	
	5%	
	5%	
ichinery		
	3%	
	2%	
	1%	

Average value of claims analyzed, excluding small value claims: €1.4m

367 €312.4m €851,000 28 €156,000

PRODUCT RECALL DRIVERS AND TRENDS

AGCS experts examine eight emerging developments in product recall risk.

1. "RIPPLE EFFECT" BEHIND LARGER PRODUCT RECALLS

Product recalls are increasing in size and number, This "ripple effect" has contributed to a number predominantly driven by the increasing complexity of global supply chains and concentration of certain components or ingredients on a smaller number of suppliers, as well as tougher regulation.

Global companies now sell their products to millions of consumers. For example, since launching the iPhone in 2007, Apple has sold over a billion units. Meanwhile carmakers VW and Toyota produced over 10 million vehicles apiece in 2016¹.

At the same time, many manufacturers are sourcing their components, ingredients or raw materials from fewer suppliers, as supply chains become leaner and more global. This has seen huge increases in values at risk and the emergence of a multiplier or "ripple effect", where a single recall can impact numerous manufacturers, brands and countries, causing reputational damage and large financial losses.

7 REASONS RECALLS ARE RISING:

- Increasing product safety regulation
- Complex and consolidated supply chains
- Technological advances in testing
- Identification of new pathogens
- Economic pressures/cost-cutting
- Rise in consumer awareness/use of social media
- Retailer/original equipment manufacturer (OEM) pressure

of large product recalls recently, most notably in the food and automotive sectors. For example, in 2016, a recall of sunflower seeds due to possible listeria contamination impacted hundreds of products across dozens of brands. Similarly, a 2015 recall of cumin spice (contaminated by nuts) affected 14 companies, 100 brands, and 153 individual products, and 756 products in different packages².

The extent of supply chains in the food sector was also revealed by the 2008 Peanut Corporation of America (PCA) recall – one of the largest ever – which was sparked by a salmonella outbreak. Although PCA handled just 2% of the US peanut supply, its peanuts found their way into around 4,000 products, produced by over 200 different companies. The recall was estimated to have cost the food industry some \$1bn after an industry-wide 24% reduction in peanut sales. Some leading brands saw sales almost half³, even though they were not implicated. The company had to file for bankruptcy.

In the automotive sector, large airbag and ignition switch recalls have rippled through the supply chain, affecting millions of units across multiple brands and countries.

"Today the automotive supply chain is totally different to 15 or 20 years ago. Consolidation in the automotive industry has brought efficiencies but it has also increased product recall risk," explains Christof Bentele, Head of Global Crisis Management, AGCS.

1 Toyota set to remain world's largest automaker, Forbes, January 10, 2017

- 2 The Multiplier Effect Strikes Again, Stericycle Expert Solutions
- 3 Peanut Outlook Impacts of the 2008-09 Foodborne Illness Outbreak Linked to Salmonella, US Department of Agriculture
- 4 Takata Airbag Recall Everything You Need to Know, Consumer Reports, July 14, 2017
- 5 Takata puts worst-case airbag recall costs at \$24bn, Bloomberg, March 30, 2016



"In the automotive segment we see an increasing number of recalls with higher units," says Carsten Krieglstein, Regional Head Liability Central & Eastern Europe, AGCS. "This is driven by factors such as automotive engineering becoming more complex, faster speed-to-market, leaving less time for product testing, outsourcing of research and development to first and second tier suppliers, as well as increasing cost pressures. Modular strategies of original equipment manufacturers (OEM) means the number of recalled units is likely to increase further.

"The technological shift in the automotive industry towards electric and autonomous mobility (see page 21) will create further recall risks."

The recall involving Japanese airbag manufacturer Takata illustrates just how concentrated recall risk has become. The recall is the largest ever to

adjusting company.

Photo: Shutterstock

hit the US automotive industry and is expected to result in some 60 to 70 million units recalled worldwide, across at least 19 manufacturers⁴. Costs have been estimated at close to €25bn.⁵

"A previously innocuous product can result in billions of financial losses for a sector without any recourse," says John Turner, Director of Crisis Management at McLarens, a global loss

"Companies are usually confident in their ability to manage their own risks but it's a different story when it comes to suppliers. You just can't manage a complex global supply chain 24/7/365. That is a big driver for buying protection such as product recall insurance."

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2. TOUGHER CONSUMER REGULATION BRINGS MORE RECALLS

In response to a number of high-profile recalls and rising consumer expectation around product quality and safety, regulatory scrutiny has been increasing around the world. Many countries have implemented stricter product safety laws (see graphic).

"There is now much more attention on how companies deal with defective or contaminated products, how responsive they are and how resilient their product safety systems are," says Christof Bentele, Head of Global Crisis Management, AGCS. "More than ever, consumers are also part of the agenda and are driving company behavior by making their choices subject to how companies deal with crises."

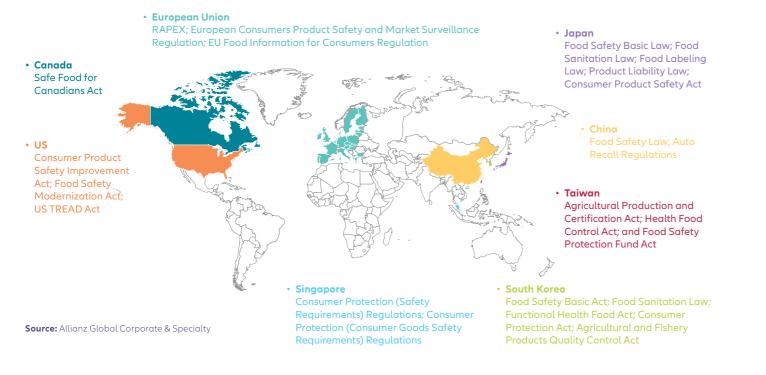
Authorities are now far more proactive, particularly in the food sector. Following a number of fatal outbreaks in the US, the Food Safety Modernization Act (FSMA), signed into law in 2011, has resulted in the most sweeping reform of food safety laws in more than 70 years. It sees a big shift in regulatory focus from reaction to prevention – giving the US Food and Drug Administration (FDA) greater powers to investigate and order recalls. In the wake of a contamination scandal involving infant milk, China also made significant revisions to its Food Safety Law in 2015.

Meanwhile, the number of product recalls in the UK hit a record high in 2015/16, increasing 48% on the previous year, according to analysis of statistics by law firm Reynolds Porter Chamberlain (RPC). The increase was also seen in consumer goods, automotive and pharmaceuticals but was particularly acute in the food sector, driven in part by new EU legislation on the labeling of food allergens. The number of recalls of food and drink products involving mislabeled allergens increased by 62% in 2015/16¹ following its introduction.

Product safety regulation has also been increasing for automotive and consumer goods. For example, the 2008 Consumer Product Safety Improvement Act in the US introduced whistleblower protections and new testing requirements for substances, such as lead, in consumer products.

"Whether it is the US, Europe or Asia, when the regulatory bar is raised, it creates a risk zone. Companies have a mixed ability to maintain higher standards and adapt their safety culture, and this increases risk," says John Turner, Director of Crisis Management at McLarens.

RECENT REGULATIONS AND NETWORKS IMPACTING THE PRODUCT RECALL LANDSCAPE INCLUDE:





3. UNDECLARED ALLERGENS, TOXINS AND ENVIRONMENTAL CONTAMINATION: THE RISE OF NEW RECALL TRIGGERS

Typically, a product recall is triggered by safety concerns that could cause harm or cause bodily injury, although there are many reasons why a company might recall a product.

During 2016, a number of major food recalls were sparked by undeclared allergens and bacterial contamination (in particular listeria, but also E. coli and salmonella). For example, listeria found in soft cheeses, frozen vegetables, ice cream, apples and cantaloupes have all caused large recalls in the US in recent years.

Across North America and Europe, allergens have become a significant public issue – around 15 million Americans are said to have food allergies¹. In fact, undeclared allergens are fastthe US. In the first guarter of 2015, 95% of recalls were due to undeclared allergens, with 91% attributed to undeclared nut/peanuts².

Undeclared allergen recalls (typically involving nuts, milk, wheat and soy) are often a result of a simple manufacturing error, such as mislabeling, mispackaging or unintentional crossfood fraud (see page 16).

- 2 Stericycle Recall Index US Q1, 2015
- 3 Mattel recalls nearly 100,000 toys after lead paint alert, The Guardian, August 3, 2007
- 4 Contaminated eggs cost Dutch chicken farmers 33 million euros, Reuters, August 23, 2017

Meanwhile, toxins in consumer products, in many cases imported from Asia, have been another cause of concern in recent years. Lead, arsenic and cadmium have been found in toys, jewelry and cosmetics, leading to a number of recalls and a tightening of safety regulations. In 2007, Fisher-Price³ recalled 1.5 million toys worldwide due to a potential lead poisoning hazard, while cadmium in children's jewelry made in China has resulted in a string of recalls by retailers in recent years.

Environmental contamination has also triggered several large recent recalls, as chemicals and plastics used in industry and agriculture have found their way into food.

emerging as the primary cause of food recalls in In August 2017, insecticide found in Dutch eggs triggered a massive recall of egg products in 16 European countries and as far afield as China. Early estimates suggested that Dutch chicken farmers suffered losses of almost \$40m in that month alone as a result⁴. In China, there have also been a number of recalls due to heavy metals getting into food.

contamination. But they can also be the result of Micro- and nano-plastics are another potential source of environmental contamination. Tiny particles of plastic, invisible to the naked eye, have been found in seafood, table salt, honey, sugar and beer.

¹ Centers for Disease Control and Prevention



What is economic adulteration? The fraudulent, intentional substitution or addition of a substance in a product for the purpose of increasing its value or reducing production costs.

Since 2012, there have been more than 200 class action law suits in the US against food and beverage companies regarding allegedly deceptive labelling.¹

Photo: Shutterstock

4. IMPACT OF ECONOMIC PRESSURES AND THE GROWTH OF FOOD FRAUD

Economic pressures continue to bite across many sectors, putting a growing number of companies and supply chains under pressure. In some cases this is leading to increasing risk of human error and criminal activity. Tougher trading conditions can lead to companies sourcing cheaper suppliers or cutting back on experienced personnel. It can also tempt individuals into acts of fraud, such as using inferior or cheaper ingredients or components.

Food fraud, including economic adulteration and counterfeiting, is a growing risk. And from olive oil to wine, to honey to cinnamon, it is big business. Organized crime groups mix foods with cheaper ingredients or sell inferior products as genuine. At the same time some businesses can be tempted to commit fraud by the need to boost profits. Notable incidents include the 2008 infant milk scandal in China, where milk powder was deliberately adulterated with melamine, and the 2013 horse meat scandal in the UK. The latter involved a massive recall after a manufacturer mixed imported horse meat with beef before selling its products as 100% beef.

"Food fraud has become a major issue that has resulted in large recalls, reputational damage and major losses," says Christof Bentele, Head of Global Crisis Management, AGCS. "The horse meat scandal is a perfect example, but we have seen similar issues with organic foods, religious foods and milk powder. While some of these food fraud cases can be addressed by insurance, the majority of resulting losses are uninsured. The insurance market is looking for solutions to address this."

At the same time, the trend for shorter product development cycles means less time to test products or to fully understand the health implications of new materials and ingredients. For example, the use of Bisphenol A (BPA) in food packaging was not an issue 10 years ago. Today, there are questions over its potential impact on human health and the environment. Recent years have also seen increasing health concerns about the use of chemical solvents known as **phthalates**, which are used in toys, cosmetics and other products.





Recall risk:

BRFAD Recall risk: BAGGED SALAD

5. THE RISE OF NON-SAFETY RECALLS AND LONGER TAIL EVENTS

Non-safety recalls have become something of a phenomenon in recent years. These can involve the use of child or slave labor during production, issues around labeling, food fraud and religious or ethical designations, like halal or vegan food. When consumer expectations are not met in such areas, companies often feel obliged to recall products in order to protect their reputations.

UK and US retailers withdrew food products after media reports revealed that certain fish products could be traced back to boats using slave labor in Asia. In 2015, US and European confectionary companies were accused of using cocoa produced with child labor.

"There will be incidents when there is no legal or regulatory requirement to recall but it is the right thing to do. This is a genuine business risk that companies have to be prepared for," says Christof Bentele, Head of Global Crisis Management, AGCS.

Product recall exposures are also becoming longer-lasting. For example, frozen food has not historically been associated with product recalls, but in 2016 some 456 consumer products sold under 42 separate brands¹ were recalled after frozen vegetables from US-based producer CRF Frozen Foods were found to contain listeria. The nature of frozen food means any contamination only emerges once the food is consumed, which may be many months after it was produced, particularly given best-before dates have been creeping up to as long as 24 months for some products.











COOKIES

CANNED PRUNES

In the automotive sector, US regulations now require manufacturers to attempt a 100% recall rate over a period of at least 15 years. A recent ignition switch recall affected millions of vehicles, some as old as 18 years old. Notifying consumers and repairing older vehicles is more complex and expensive than for newer vehicles.

6. GOING VIRAL - THE EXACERBATING EFFECT OF SOCIAL MEDIA FOR IMPACTED AND "INNOCENT" FIRMS

Social media is a double-edged sword when it comes to recalls. It can be a fast and effective way of communicating with customers, help early identification of issues and aid restoring brand and reputation following an incident.

However, it can also exacerbate product recall risk if it is not well managed and can be used as an outlet for disgruntled customers and groups.

Bad news travels fast and a situation can rapidly escalate and become out of control. Even a relatively small recall can become a major crisis. Social media channels can quickly spread false or fraudulent information, which can be detrimental to a company's brand.



"Social media is a real game-changer," says Stewart Eaton, Head of Product Recall, Regional Unit London, AGCS. "An erroneous post or tweet can cause reputational damage and directly impact the size of a recall. Social media adds a whole new dimension to product recall losses, meaning companies need to react much faster."

Research also shows that social media can even impact "innocent" brands. A study analyzing 1,000 automotive social media sites following recall announcements involving four manufacturers revealed a sharp increase in negative comments about "innocent" brands in addition to those directly impacted by the recall event; a phenomenon the study called a "perverse halo"¹ - a perception that others share the problem of the car being recalled.

This phenomenon can also impact the bottom line. Researchers aggregated car models across each analyzed brand and found that the negative comments sparked by a rival brand's recall also erased \$7.3m, on average, from an "innocent" firm's market cap over just six days.

"If not well managed, social media can mean a company has less control of a crisis, but if social media is approached in a professional and sensitive way, it can actually help keep a recall under control," says AGCS' Eaton.

7. GROWTH OF PRODUCT RECALLS AND INSURANCE IN CHINA AND ASIA

Products from Asia continue to account for a disproportionate number of recalls in the US and Europe, reflecting the eastwards shift in global supply chains and historically weaker product quality controls in a number of countries across the region.

According to the US-China Economic and Security Review Commission, Chinese goods accounted for 23% of all goods in the US in 2014, but represented 51% of all product safety recalls. Meanwhile. China's share of US tov recalls rose from 10% in 1988 to 98% in 2007¹. In 2015 China accounted for 2,124 product recall cases in the US, compared with 685 from US companies.² The country also accounted for 62% of the product safety alerts issued by the European Union in 2015.³

"There is a clear link between product recall claims and the shift in manufacturing to Asia and China. Product quality management levels in Asia are improving but they are not yet up with the levels seen in the US and Europe," says Christof Bentele, Head of Global Crisis Management, AGCS.

Asia is still a relatively small market for product recall insurance, compared with North America and Europe. But while Asian companies once only purchased product recall insurance for exports to the US and Europe – especially in the automotive sector – many are now starting to buy cover for their home markets, where product

"More and more Asian companies realize that buying product recall insurance makes sense, even when they only operate domestically," says AGCS' Bentele. "It is hard for any company to survive in a market with a bad or faulty product. That is as true for Asia as anywhere else."



Photo: Shutterstock

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1 Social media amplifies damage of product recalls to firms - and their rivals, University of Washington Foster School of Business

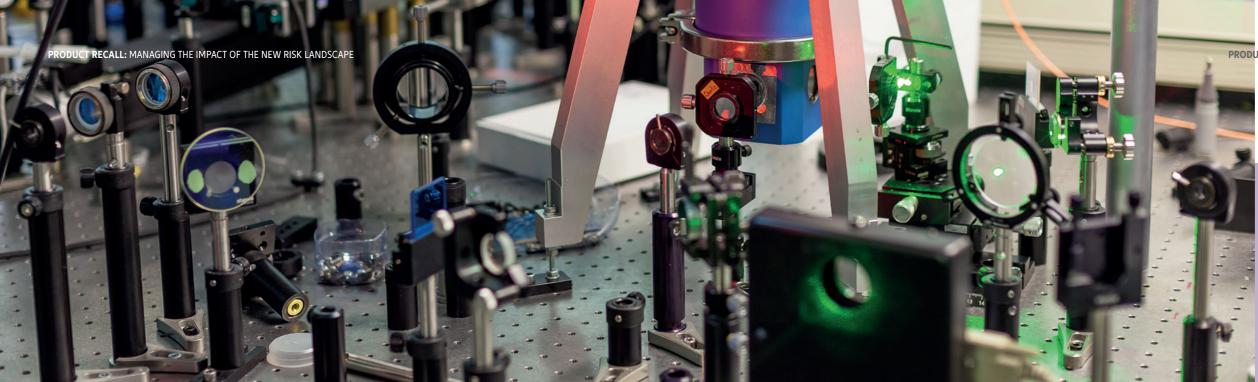
1 China Product Recalls: What's at Stake and What's Next, NERA Economic Consulting

2 Consumer Product Safety Commission

3 Toys and Clothing Top The List of Dangerous Products Detected in 2015, European Commission

safety regulation and consumer expectations are rising. Government-led recalls are becoming more common – particularly in China. Recall numbers are also on the rise elsewhere, with Singapore and the Philippines among those seeing increased activity.

Photo: Shutterstock



8. "CYBER RECALL" - TECHNOLOGY AND INNOVATION TO DRIVE RISKS AND CLAIMS OF THE FUTURE



What is genome sequencing? The process of determining the complete DNA sequence of an organism's genome at a single time.

AGCS works with SGS, a leading inspection company, to utilize full genome sequencing and DNA testing, when companies want to understand the root cause of a product contamination. This can help enable businesses to take recourse against suppliers and gather evidence for authorities and customers in case of an incident. Advancements in technology are both a boon and a challenge for product recall. On the one hand, they offer an opportunity to improve the quality and traceability (see column) of products. On the other, they create new risks.

"What we see today in supply chain management would not have been thought possible even five years ago. The speed of development and the potential for improvements in product safety have been quite amazing," says Christof Bentele, Head of Global Crisis Management at AGCS.

Manufacturing plants are now mostly automated. And while automation should increase efficiency and reduce human error, it also introduces the risk of a cyber-attack. Motivated by extortion or malicious intent, hackers could theoretically change or contaminate a product at the point of manufacture by controlling machinery or changing processes. For example, the US Department of Homeland Security (DHS) recently warned that syringe pumps used in hospitals around the world have flaws hackers could exploit to change the dosages being delivered to patients.¹

Technology itself is likely to become a bigger driver of product recalls in the future, whether it's recalls around cyber security or the introduction of innovative but untested advances, such as artificial intelligence, nanotechnology or biotechnology.

"Cyber is currently an underestimated risk for product recall," says **AGCS' Bentele**. "We have already seen incidents of recalls for cyber security vulnerabilities in products like cars and cameras. Concern about automation and machine learning is also likely to be accompanied by an increase in product risk."

In 2015, Chrysler recalled 1.4 million vehicles to fix a software flaw revealed by security researchers while webcams² were recalled following a cyber-attack in 2016. In August 2017, the FDA³ ordered a recall of almost 500,000 pacemakers in the US to patch cyber security vulnerabilities.

"There are huge pressures to get innovations and advances in material sciences, artificial intelligence and biotechnology to market. And while fast-evolving technology is good news for the efficiency of products, it also produces new recall risks," says AGCS' Bentele.

"Failures can happen when there is a shortage of time and not enough testing. This is also where human error creeps in. And that increases the risk of a recall." Recalls involving emerging technologies are also likely to be even larger and more complex than today. Widespread introduction of autonomous driving in future, for example, is likely to see a shift in liability from individuals to product manufacturers, a move that could potentially see an increase in recall risk. If a series of accidents raises safety concerns for the artificial intelligence technology behind driverless cars, it could trigger a massive recall.

New technology will raise interesting questions around liability and insurance.

"How will insurance policies interact, including product liability, recall and cyber? As yet there are no definite answers," says **AGCS' Bentele**.

Already used to manufacture products ranging from aircraft parts to food, pharmaceuticals and human tissue, 3D printing is another area that could change recall exposures.

"Future product recalls will come from new areas," says **Stewart Eaton, Head of Product Recall, Regional Unit London, AGCS**. "As insurers, we have to keep abreast of emerging technology issues, such as nanotechnology or 3D printing, to ensure we are able to respond and be proactive." PRODUCT RECALL: MANAGING THE IMPACT OF THE NEW RISK LANDSCAPE

GENOME SEQUENCING: TECHNOLOGY IMPROVES TRACEABILITY

New technology is also making it easier for regulators and manufacturers to trace products and identify liable parties. For example, advances in genome-sequencing technology are providing food safety regulators with a powerful new tool to identify sources of contamination or foodborne illness outbreaks, such as listeria and salmonella.

"This is an exciting advance," says Marcos Garcia Norris, Crisis Management Regional Practice Group Leader, North America, AGCS.

The Food and Drug Administration (FDA) in the US is using genome sequencing to match pathogens found in sick patients with those found in food or production facilities. It also uses technology to track down the root source of contamination by identifying exactly which ingredient is responsible for an outbreak and where in the world the contaminated ingredient may have originated. Genome-sequencing helped trace a large listeria outbreak to soft cheese manufactured by a New Yorkbased company in March 2017. The FDA was able to match the genetic fingerprint of the listeria bacteria found in a number of ill patients with samples taken at the production facility. It ordered production to be ceased and all products were recalled.

POTENTIAL RISE IN LITIGATION

However, increasing use of such DNA technology could result in an increasing appetite for litigation in future, due to it becoming easier to establish the link between illness and an individual company. Conversely, it could also result in faster claims settlement because of swifter identification of contaminated products.

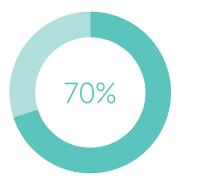
¹ Security warning over hospital syringe pumps, BBC, September 12, 2017

² Chinese firm recalls webcams, Daily Mail, October 24, 2016

³ Firmware Update to Address Cybersecurity Vulnerabilities Identified in Implantable Cardiac Pacemakers, US Food & Drug Administration

PREVENTING **A CRISIS** FIVE KEY STEPS TO MANAGING A RECALL

WHEN A PRODUCT'S SAFETY **COMES INTO QUESTION, TIME IS EVERYTHING – PARTICULARLY IN** THE DIGITAL AGE. DECISIONS NEED TO BE MADE QUICKLY, BUT **ILL-JUDGED ONES CAN ADD COST** AND DAMAGE REPUTATION. **RESPONSE CAPABILITY IS VITAL** IN FIGHTING THE SIZE OF A **PRODUCT RECALL CLAIM. A COMPANY THAT EMBRACES CRISIS MANAGEMENT AND** MAKES IT PART OF ITS DNA IS FAR LESS LIKELY TO SUFFER A **MAJOR INCIDENCE.**



70% of recall plans are estimated to be inadequate

1: PREPARATION

Pre-event preparation and planning can have a big impact on the size of a recall and the extent of financial and reputational damage.

"Around 75% of our work is pre-event crisis consultation, testing protocols and recall plans and running scenarios to put the crisis team through its paces," says Christof Bentele, Head of Global Crisis Management at AGCS.

Product recall insurance (see page 26) gives access to crisis management consultants who are experts, having experienced recalls first hand. For example, AGCS works with red24, a leading risk and crisis management specialist, with operating experience in over 120 countries. These consultants can use this expertise to help a company prepare for a potential situation, putting both recall and crisis management plans in place. Plans need to be implemented and tested at least annually.

They can also organize product recall simulations to test a company's recall and crisis management procedures, which help familiarize people with the plan and crisis consultants, as well as highlighting areas of improvement. While companies will periodically conduct a traceability exercise, a full product recall simulation goes further, incorporating social and traditional media, customers and other stakeholders.

"How a recall is handled can impact the size of the recall but also the potential damage, including the potential for litigation, loss of customers and the impact on brand value and reputation," says Stewart Eaton, Head of Product Recall, Regional Unit London, AGCS.

"Many companies are still woefully inadequate when it comes to preparing for a recall, but crisis management services that are included with specialty recall insurance give you invaluable guidance when you do not know what to do," says John Turner, Director of Crisis Management at McLarens.

1 Allianz Global Corporate & Specialty

"The key to how fast and how well a recall works" "Pre-incident' training needs to be fine-tuned or *is; prepare, prevent and practice,"* adds **Marcos** Garcia Norris, Crisis Management Regional Practice Group Leader, North America, AGCS. "A company that is well prepared will have the information in advance that there is the potential for a recall, such as chemical analysis results and checks etc., and will therefore have time to warn authorities and consumers.

2: DISCOVERY

The speed with which a company identifies and acts upon a potential issue can have a significant impact on the size of a recall and its impact. Every recall is different, but the first few hours are particularly crucial when consumer safety and a company's reputation are at stake. Discovering a problem does not mean just waiting for a call from the regulator or a supplier. Frequent product testing is critical to identifying potential issues early and therefore limiting the size of a recall – infrequent testing will mean more products find their way to market before a problem is apparent.





Cons Significant impact on profits; Brand damaged; Production plants closed down; Loss of client; Legal action from regulator and consumer

a recall could result in a disaster. In the military. for example, if an army unit is going to do g beach landing it knows there is a chance it could be ambushed, so it prepares accordingly. The same approach needs to apply in a product recall. If unprepared, anything can happen."

Companies should constantly monitor a wide range of indicators to establish if something might have gone wrong as early as possible. For example, monitoring social media can be a good way to find out what customers are saying. Customer help lines and other forms of feedback can also be tracked to see if complaints have spiked.

"Perception is everything. Everyone wants to see a company do the right thing. And a poorly managed recall can quickly get out of control. So how you handle the initial stages of a recall *is critical,"* says AGCS' **Eaton**.

WELL-MANAGED RECALL

Pros No significant impact on profits; No loss of key clients or impact on brand value; Normal service resumes

Source: Allianz Global Corporate & Specialty

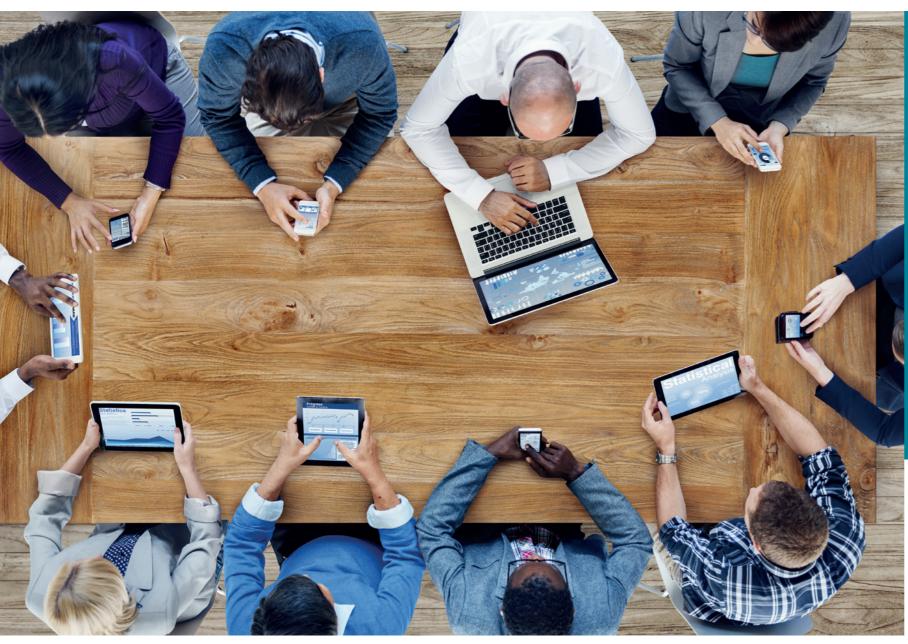


Photo: Shutterstock

3: ACTION

is critical, and is an area where planning can really pay off. Ultimately, a company will need to make the call whether their product is at fault and if it needs to be recalled. This decision is not always black and white.

Senior managers will be under immense pressure to take a snap decision, even when all the facts are not known – it may not be clear their product is at fault, or they may not have had time to carry out the necessary testing.

Making an informed decision in a recall situation A good well-rehearsed crisis management plan will, however, help make the decision-making process smoother. By working through recall scenarios in advance, the right people should be prepared and in a position to make more informed decisions.

> "Deciding whether or not to trigger a recall is a difficult and time-pressured decision, especially when the company's brand and reputation hang in the balance. But it is more likely that the right decision will be made if the process is planned and rehearsed," says Stewart Eaton, Head of Product Recall, Regional Unit London, AGCS.

- Malicious product tampering

4: COMMUNICATION

The hallmark of a good recall is timely and honest communication. Early and informed notification is key, especially given the potential for bad news to go viral via social media.

Relationship management comes to the fore in a recall. Ongoing regular communication with customers and stakeholders, like regulators, will help smooth the process.

Recall rates in some sectors remain low, especially food and beverage where products are quickly consumed or disposed of. But good and timely communication should help maximize the recall rate. Today, there are a wide orders of the Galaxy Note 8 model when it range of communication channels available to inform the public of a recall, but not all companies make full use of them.

"Withholding facts and dishonesty will not make a potential recall go away. It will only make the situation worse," says John Turner, Director of Crisis Management at McLarens. "Be upfront and honest. No one likes the perception that a company is being underhanded."

CRISIS MANAGEMENT SUPPORT: 7 WAYS IT CAN HELP

- Crisis scenario planning and preparation - Product recall and traceability - Product testing - Legal support - Regulatory liaison - Crisis communications expertise

- investigations and support

5. RECOVERY

Recalling a product is a logistical operation, but equally as important is to return the business to normal as quickly as possible. A well-managed recall will proactively work to rehabilitate the brand and return sales to pre-recall levels.

Follow-up communication with customers, directly or through social media, can help restore confidence. Offering customers a reward for their loyalty, such as vouchers or money off future purchases, can also help boost sales. For example, following the recall of Samsung's Galaxy Note 7 smart phone, the company offered customers a sizable discount on prelaunched a year later.

"Being upfront and transparent is the best policy. If a company says that it is sorry and makes a goodwill gesture then customers are more likely to remain loyal. And these additional costs of rehabilitating the brand can be covered by product recall insurance," concludes **Stewart** Eaton, Head of Product Recall, Regional Unit London, AGCS.

THE ROLE OF

ELECTRICAL

FAULT

FOTRICAL

RUNNIG

Not to be confused with product liability insurance – which covers the third party liabilities arising from a faulty product – specialist product recall insurance is designed to help manage the considerable costs of a recall and limit reputational damage. Coverage is tailored to meet the needs of different industry sectors.

Demand for product recall insurance has been increasing over the past decade with greater awareness of the potential for reputational damage and significant financial loss.

Take-up has been highest in the food and beverage sector, reflecting high levels of regulation and the size of companies relative to the exposures. However, automotive, consumer goods, pharmaceutical and medical device manufacturers are also typical buyers.

Product recall insurance covers the cost of a recall and crisis management consultants.

"For most businesses crisis management services can be of huge assistance," says Marcos Garcia Norris, Crisis Management Regional Practice Group Leader, North America, AGCS. "Few people have the expertise to know what to do in a recall, especially given changing regulations."

Crucially it can also cover business interruption losses and associated additional costs of working. If, for example, a listeria outbreak forces a food company to close a plant and cease production, insurance can cover the cost of using an alternative plant or competitor to produce the goods.

Product recall insurance typically responds when a product causes actual bodily injury or property damage, or poses an imminent risk of doing so. But it can also be extended in some circumstances to include other triggers, such as malicious tampering in the food and beverage sector.

In the automotive sector, the main trigger is typically bodily injury and property damage, but policies can also include product impairment cover, where a product is recalled because it fails to perform the function for which it was manufactured.

THE COSTS OF A RECALL

The biggest single cost of a product recall event is typically the loss of sales and business interruption, both from the recall itself and reputational damage. Other costs include: identification and tracing of defective products; repair, disposal and replacement; use of third party consultants; laboratory testing and investigative costs; sanitizing contaminated factories; and rehabilitation costs to help restore the brand.

"When companies are presented with the total cost of a recall, it is typically way above expectation. There is a tendency among some companies to hope for the best and not plan for the worst," says John Turner, Director of Crisis Management at McLarens.

"Managing a product recall is as much about protecting the brand as it is about the logistics of the recall. In some cases we see that the cost of the reputational damage is equal to, or even greatly exceeds, the financial cost of the recall," says Stewart Eaton, Head of Product Recall, Regional Unit London, AGCS.

Product recall insurance can help protect the brand in a number of ways. The cover gives access to crisis management experts that provide pre-loss planning as well as support and consulting during a crisis. It can also pay for brand rehabilitation and additional expenses aimed at getting product sales back up to pre-recall levels.

"If you lose your reputation you won't have an ongoing business. But product recall insurance is as much about protecting the brand as it is about indemnifying the financial loss," concludes AGCS' Eaton.



Photo: Shutterstock



TYPES OF RECALL INSURANCE: HOW THEY WORK

CONTAMINATED PRODUCTS

Although predominantly associated with the food and beverage sector, contaminated products can impact a number of other industries as well – from cosmetics to pharmaceuticals. Such incidents can occur in a number of ways.

TYPICAL TRIGGERS INCLUDE:

Accidental contamination - Any accidental or **Government recall** - Any accidental or unintentional unintentional contamination, impairment or mislabeling of contamination, impairment or mislabeling of a product which occurs during its production or distribution and has a product, which occurs during its production or distribution been deemed unfit by authorities, resulting in a recall Malicious product tamper - Any actual, alleged or Intentionally impaired ingredients - Any contamination threatened, intentional, malicious contamination of a or impairment of a product, which occurs as a result of an product that renders it unfit for intended use/consumption, ingredient supplied to the company by a third party, where or creates that impression to the public such contamination or impairment was intentional or Adverse publicity - The reporting of an alleged, but not wrongful but not malicious

actual, accidental contamination or malicious product tamper in the media

Examples of insurance coverage:

- Recall costs (first and third party)
- Expenses to inspect, withdraw, destroy and replace the product
- Business interruption (loss of gross profit)
- Rehabilitation costs

Photo: iStock

- Consultancy costs
- Third party recall liability
- Customer loss of profits
- Unsubstantiated recall costs
- Preparation of crisis management plans

AUTOMOTIVE

Automotive product recalls can have a substantial impact on all elements of the supply chain, from small parts manufacturers to the consumer. The implications of a recall range from loss of reputation to significant, and potentially fatal, financial loss. Product recalls have prompted original equipment manufacturers (OEMs) to demand that parts suppliers reimburse costs caused by a supplier's defective part.

TYPICAL TRIGGERS INCLUDE:

Bodily image and property damage - Product recall due to the use of a product that has resulted in bodily injury or property damage, or poses actual and imminent danger of doing so

Impaired property/product guarantee - Product recall of products which fail to perform the function for which they were manufactured

Examples of insurance coverage:

- First party recall expense
- Third party recall expense
- Repair, replace or refund of products

- Government recall expenses
- Crisis management fees and expenses



Whether it is a manufacturer, wholesaler or retailer of a wide range of goods – from electrical appliances to children's clothing – a company can be left in ruins if it does not manage a recall well. The long-term costs can be sizeable.

TYPICAL TRIGGERS INCLUDE:

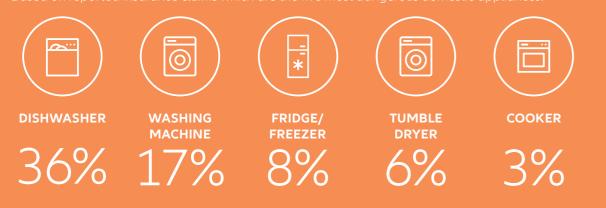
Product recall, or market withdrawal, due to the use of a product that has resulted in bodily injury or property damage, or poses actual and imminent danger of doing so.

Examples of insurance coverage:

- First party recall expense
- Third party recall expense
- Business interruption (loss of gross profit)
- Repair, replace or refund of products

- Rehabilitation
- Government recall expenses
- Adverse publicity
- Crisis management fees and expenses

DANGEROUS DOMESTIC APPLIANCES



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