RISK CONSULTING

IF'S RISK MANAGEMENT JOURNAL 1/2016

Take-off of the drones

Corporate management must stay alert at all times

How to secure key machinery

Put your roof to work

Solar panels and fire safety

The trouble-some water

WE ALL NEED water, but sometimes there is too much of it – for too short a period. Although they are not sure how bad it will be in the future, climate experts agree on one thing: No matter how hard we try to reduce emissions, there will be more and heavier precipitation in coming years. We as an insurance company must recognise this and contribute to understanding the risks that will arise in the wake of this.

There are numerous examples of violent damage events: Torrential rain in Copenhagen in 2011 resulted in over 90,000 instances of damage and cost insurance companies approx. DKK 5 billion. In the same year, rain in Thailand resulted in damage costs of over USD 45 billion. And last autumn, rain caused massive damage in several locations in Norway.

Due to the knowledge we have acquired in this field and because we see that our customers need assistance, we feel a special responsibility to contribute. That is why we have now entered into a partnership with CICERO Centre for Climate Research in Norway, one of the most respected climate research institutes in the world. It was recently made public that the research to which we contribute received public support in both Norway and the EU. The work will help society find out how much more rain will fall in the future and who will be worst affected.

Using the research results, which should be ready in five years, we might be able to better predict which of our customers in the Nordic region and in Europe will be most vulnerable to torrential rain and flood damage. This knowledge will be very beneficial to society and individual companies.

For If, this is social responsibility in practice. We take our core expertise and share it so that society and the companies that we insure can face the future in safety.

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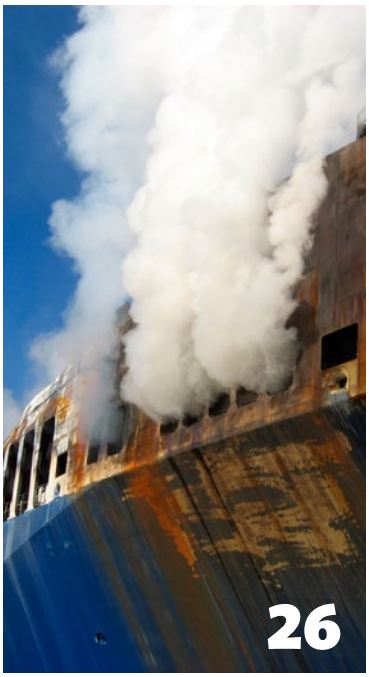
NICLAS WARD,
Head of Business Area Industrial, If



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GETTY IMAGES

Weather related catastrophes all over the world cost the global economy several billion dollars every year.

Weather disasters

FLOODS, STORMS, HEATWAVES and droughts cost the global economy between $250bn and $300bn each year, new research has estimated.

The report The Human Cost of Weather Related Disasters, released by the United Nations, also noted that 90% of major global disasters were caused by weather-related events.

The report aimed to highlight the impact that climate change has had on the world since the first Climate Change Conference (COP) in 1995. It revealed that 606,000 lives were lost due to weather-related incidents over the past 20 years, with 4.1 billion people being injured, displaced or left in need of emergency assistance. ■

The internet of things disrupts insurance

The internet of things (IoT) will disrupt global insurance markets according to Accenture. The consulting firm says "Insurers will need to dramatically reshape their business model, combining insurance with technology, ecosystem services and partners."

For their part, the insurers already agree with 80 per cent saying they expect the IoT will disrupt their traditional way of doing business. Accenture has identified three dimensions of the sector it says will be most affected;

- Consumer Expecting not just a product but a unique "always-on" service oriented experience
- Offerings and Risks Moving from product to service, without ignoring the impact of new risk pools
- Competition New competitors creating contestable markets from unexpected industries

Terrorism insurance

Terrorism insurance, an industry that did not exist in America before September 11, 2001, is on the upswing these days, with companies offering coverage for property damage and loss of revenue when nightmares bleed into reality.

Today, 62 percent of businesses in the US have some form of terrorism insurance, according to the Insurance Information Institute. With recent attacks on soft, non-military targets, like in Paris, Brussels and San Bernardino, more businesses are feeling vulnerable. And while terrorism insurance is still a relatively young phenomenon in the United States, other countries like the United Kingdom and Israel have had it for some time.

Flood risks

Floodplains once covered wide stretches along European rivers, but today only fractions of them remain. These ecosystems have an important role to play in reducing flood risks and are also the natural habitat of many endangered species. A new report by the European Environment Agency provides an overview of significant floods in Europe and looks at the role of floodplains in flood protection, water management and nature conservation. The report highlights the benefits of an integrated approach to flood risk management and argues that a coordinated implementation of EU legislation would enhance the effectiveness of the policies.

PHOTOS: GETTY IMAGES, IF

Solar panels

and fire safety

As solar panels are becoming more cost-effective, an increasing number of companies are turning to rooftop PV panel systems. In this development, it is important that all electrical fire hazards are managed correctly.

In our time there is an ever-increasing focus on carbon dioxide emissions and on the limited natural resources that are available on our planet. Carbon dioxide (CO_2) is a greenhouse gas that is naturally present in the Earth's atmosphere. The main human activity that emits CO_2 is the combustion of fossil fuels, such as coal, natural gas and oil, to produce energy. Adding more CO_2 to the atmosphere than what is naturally present is enhancing the greenhouse effect, which affects the planet's temperature.

As companies look to reduce their dependence on fossil fuels, the need for renewable energy sources becomes increasingly apparent. Renewable energy can generally be defined as energy that is obtained from resources which are naturally replenished, such as sunlight, wind and biofuels.

Solar power is the conversion of the power of the sun into usable energy.

SOLAR POWER IS the conversion of the power of the sun into usable energy. The most common source of solar power utilizes photovoltaic cells to convert sunlight into an electrical current. Electrons are emitted when the photovoltaic (PV) panels absorb the radiation from the sun and electricity is harnessed.

The top surface of a PV panel is usually made of tempered glass and the bottom cover of the panel is typically some sort of combustible plastic material, used to encapsulate the PV circuitry. Solar panel systems contain multiple components, including its module circuitry, cables, inverters and combiner boxes etc. All electrical installations, by their nature, will carry some degree of fire risk.

A fire can, for example, occur from a malfunction within the module circuitry, which can ignite the combustible materials within the panel. Another example is the combiner boxes, which are associated with a considerable voltage. Electrical arcs that occur near a combiner box, where numerous wires from PV panels are connected, can cause a fire. Furthermore, overheating of electrical cables can also result in a fire.

As solar panels are becoming more cost-effective, an increasing number of companies are turning to rooftop PV panel systems. The large and often flat rooftops of industrial and commercial buildings are an ideal location to harvest the energy of the sun.

However, it is not only for economic reasons that companies want to use their rooftops to generate power. It is also a way to obtain a greener profile and to demonstrate their commitment to improve the environment on our planet.

Rooftop PV panel systems do, however, come with some specific fire concerns. One of the many dangers associated with rooftop PV panel systems is how the panel and its mounting system affects the combustibility of the overall roof system. For example, the mere presence of PV panels on a roof structure will change the dynamics of a fire and may increase fire spread across a common roof assembly. In a typical fire on a rooftop, the flame is primarily vertical, or somewhat slanted due to the wind. Once such flames spread under a PV panel, the flame is nearly parallel to the roof structure and is therefore much closer to the surface of the roof.

THE NUMBER OF PV panel system installations on existing roof structures have increased exponentially over the past decade, and with this growth, the associated risks have grown significantly. It is a cause of great concern when the rooftops in question are constructed using combustible materials, including insulation materials. If a fire occurs in a panel, cables or other equipment, the heat from the fire may radiate back and forth between the PV panel and the surface of the roof, causing the fire to spread to the combustible roof materials.

As a result, this growth has included an increase in the number of fire incidents involving PV systems. According to the literature, for example, it is estimated that in Italy alone over 700 fires involving PV panel systems occurred in 2012. The in-

vestigations into these fires revealed that DC arcing and the ignition of combustible roof insulation materials, such as for example polyurethane (PUR) or polystyrene (EPS) foam, were often contributing factors in these fires. Some of these incidents involved large fires and some were followed by an interior compartment fire. Some of the fires even resulted in a total loss of the building.

A ROOFTOP FIRE with PV panels can occur in a number of different scenarios. Electrical faults, such as short circuits or DC arcing in PV modules, inverters, and combiner boxes etc., can create enough heat for the combustible components to ignite. Wrongly installed or defect equipment, such as DC/AC inverters, has also resulted in several fires in PV systems. Furthermore, faulty cable management can cause cables to overheat and ignite combustible materials on or within the roof structure.

In addition to the many different fire scenarios that can arise when installing PV panels on combustible roof constructions, having solar panels on the rooftop can also complicate the efforts of the fire brigade in a fire-fighting situation. When the fire brigade arrive at a burning building, they seek to disconnect all life threatening utilities to the building. However, this is not possible with solar panels, as they will continue to produce power as long as the sun is shining. Therefore, the fire fighters will have to fight the fire in the presence of significant voltage, which in addition to the risk of DC arcing, also poses a threat to their personal safety.

The primary hazards of solar power systems for emergency responders are:

- Tripping / slipping
- Structural collapse due to extra weight
- Flame spread
- Inhalation exposure
- Electrical hazards
- Battery hazards

ELECTRICITY FLOWS THROUGH a conductor through the path of least resistance, so it can flow both ways. In the case of photovoltaic, even if the main power source for a facility is disconnected, power may flow from the inverter back though the system and energize what is thought to be a de-energized system.

In off-grid (stand-alone) systems, large backup battery banks may or may not be included and can pose chemical hazards (sulphuric acid), explosion hazards (hydrogen gas) and electrical hazards (powering circuits even after you pulled the main meter).

Therefore, when securing the utilities, it is important that firefighters identify the source of the power from the photovoltaic system and disconnect that as well. This may be difficult if you are in a building for the first time and have no idea where it may be located. In some jurisdictions, however, the utility companies and code enforcement authorities have required the installation of a disconnecting device outside of the facility near the meter to disconnect the solar power from the buildings electrical system.

An example of a fire caused by solar panel malfunction.

RECENT TESTS HAVE been conducted by If in collaboration with the Technical University of Denmark and one industrial client. These tests have looked into possible ways to mitigate the fire hazard of retrofitted PV panel arrays on roofs containing combustible insulution, by adding a thin layer (30 mm) of mineral wool insulation material between the PV panel system and the otherwise combustible roof insulation, to separate the two. The results in these test showed that adding the mineral wool layer can mitigate foreseen fires from PV panels, but cannot exclude that more severe fires ignite the combustible insulation. ■

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How to avoid fire in PV panels

From a fire safety point of view, the following should be taken into account:

1. PV arrays should be installed according to OEM (Original Equipment Manufacturer) instructions.
2. PV panels containing expanded plastic, which may be found in the back-sheet construction of the panel, should be avoided.
3. All cables should be of the low combustibility type and installed with adequate provision for expansion and contraction for extreme temperature fluctuations over a year.
4. The cable connectors should be waterproof (IP 65).
5. It is strongly recommended that where PV panels are to be installed on building roofs, that the roof is non-combustible. Where a combustible weather-proof membrane is provided to an otherwise non-combustible built-up roof, the installation may be acceptable if the building is non-critical (value or business-wise).
6. No panel array should be closer than 5 metres from a major fire wall (typically walls that separate warehouses from production will be considered to be major fire separation walls) and cable runs should not be installed over a fire wall, without providing fire proofing to the cables.
7. The inverter and associated plant to the PV panels should be located in a dry, non-combustible enclosure, equipped with automatic fire detection and, if feasible, equipped with automatic inert gas or carbon dioxide fire extinguisher.
8. Inverters on the DC and AC sides should be provided with surge protection.
9. Emergency shut down of the system is highly recommended, located near the entrance of the building and at the inverter.
10. Soon after the PV array is taken in to use, a thermographic inspection should be carried out on all electrical components, including cable connections. Any identified faults should be repaired immediately. Thermographic surveys should be conducted every two years, as a minimum.

The panels themselves could need annual cleaning for efficiency and in order to reduce possible hotspots. These could also be detected with thermography. For large systems, embarked thermography cameras on a drone can simplify these type of surveys.

Annual maintenance should be performed in accordance with OEM specifications, and should include testing of inverters. Mechanical connections to PV panel supports should also be inspected. In addition, visual inspections are needed after every NatCat incident, e.g. storm, hail, snowfall, etc. Especially snow removal needs high attention. Continuous online monitoring becomes increasingly common and reduces the risk. The PV array insulation resistance should be tested every three years.

PHOTOS: ALL OVER PRESS, FORTUM

Oil floats on the surface of the water near a controlled burn by the Deepwater Horizon well in the Gulf of Mexico in the summer of 2010.

Corporate Management must stay alert at all times

Financial setbacks are often preceded by a chain of weak signals that could have been spotted. "Issues of vital importance for business are the part of doing business where you must not fail. Corporate management is responsible for taking care that the company's opportunities do not suddenly turn into threats," says Matti Ruotsala, COO of the energy company Fortum.

During his long international career, Matti Ruotsala has had a grandstand view of what has been happening in international business over the past few decades.

In the address Ruotsala gave in Helsinki at If's Risk Management Day 2016 for major corporations themed "How did this happen? Or, did business risk take you by surprise?" Ruotsala considered the opportunities and risks of business activities in light of his own experiences and startling examples.

As examples, he used such cases as the Enron bankruptcy (2001), BP's oil disaster on the Gulf of Mexi-co (2010), the Fukushima nuclear power plant accident (2011) and the closure of Oskarshamn 2 nuclear power plant (2015).

Ruotsala also discussed measures by which the irrevocable climate catastrophe could be avoided. "All efforts should be targeted to solving the problem instead of accelerating it. Renewable energy technologies are developing in leaps and bounds. More than anything, these are an opportunity for Finland," he underscored.

IN RUOTSALA'S OPINION, company values, taking advantage of business opportunities, and keeping the fundamentals in order to constitute an entity where all parts are closely connected.

"The framework of thinking is such that successful business is not only about taking advantage of great opportunities or managing individual risks. It is more about the ability to control both elements in such a manner that opportunities do not turn into risks, and never losing your focus."

According to Ruotsala, extreme dynamism is typical of today's business activities.

"In practice, this requires that you do not only understand change, but that you are also capable of implementing it. People, business models and clients are dynamic, and the development of data technology makes the scene even more dynamic."

"Of companies, a world like this requires novel agility, putting operating models to questions, and immense readiness for change. Even in an environment like this, it is the corporate management's responsibility to steer the company forward in a sensible manner and take care of how newgeneration organisations are managed."

"It comes down to enhancing productivity in an ever more rapidly changing operating environment in such a manner that the indicators indicating the quality of operations can be read correctly. No enterprise can rely on pure luck."

ACCORDING TO RUOTSALA, in the Enron bankruptcy the case was that the company management and the managers of the accounting firm Arthur Andersen forgot their own values. The value risk materialised, when the company values were buried under greed, arrogance, irresponsibility and unethical behaviour.

"When irresponsibility and greed function as a common denominator in company management, the consequences can be as terrible as they were in this second largest bankruptcy in the US history."

As the second example, Ruotsala used the largest oil spill in the world, whose damage is still being remedied. On 20 April 2010, an offshore oil rig of the oil company BP exploded on the Gulf of Mexico, 80 kilometres away from the US coast, and sank two days later. 11 people were killed and 16 injured in the accident.

The oil pipe severed by the accident discharged five million barrels of oil, contaminating the Florida peninsula and hundreds of kilometres of the fragile Louisiana coast. It took almost three months to contain the leak. The accident cost a total of USD 54.6 billion to the oil company BP, and the President and CEO was fired.

"Drilling a hole in deep waters and pumping oil from there was a known risk that was worth taking. But was this the kind of normal risk associated with oil drilling where something just could go wrong," Ruotsala asked.

He responded his own question: "The accident in the Gulf of Mexico was not caused by such a risk, but by pure negligence."

Investigations showed that in this particular project the safety culture related to oil drilling had seriously failed. Warning signs had been obvious for quite a long time, but the company management had ignored them, and they were not aware of all the difficulties, even though they were the ones who should have addressed the situation.

The idea of drilling for oil is to drill oil costeffectively even under quite difficult conditions, bring it to the market, and make profit.

"If this is the company's business idea expressed in a very simplified form, then there is nothing you can leave to chance on an oil rig, just trusting your good luck," said Ruotsala summing up the case.

The oil catastrophe in the Gulf of Mexico boiled down to security culture and materialised value risk.

Matti Ruotsala

Managerial duties at Kone Corporation, COO and Deputy CEO of Konecranes Plc, Vice President of the listed American company Agco Corporation, Managing Director of Oy Valtra Ab, and Executive Vice President of Power Division and COO of the Fortum Group since 2014

RUOTSALA'S THIRD EXAMPLE took the audience to Japan. The Fukushima nuclear power plant accident if anything was an example of a risk that was known, but that had not been prepared for. The Fukushima nuclear power plant happened to be in the path of the tsunami, and a ship carried by vast masses of water crashed through the power plant wall. At that point, nothing could be done anymore. When the reactor core began to melt, hydrogen accumulated in the containment building, blasting the building away when it exploded. The nuclear fuel became overheated and volatile radioactive substances es-caped into the environment.

This was the second largest nuclear power plant accident in the world, which, however, did not cause direct human casualties. A total of 150,000 people were evacuated due to the tsunami and the leaked radiation. The tsunami killed 18,500 people.

The overall costs of the disaster amounted to USD 100 billion. The state of Japan saved Tepco, the company that owned the power plant, by providing USD 12.5 billion of emergency funding. In its best days, the company had lent money to the Japanese car industry.

"Were the problems caused by poor reactor design? Not even close. The specific problem was that, when planning the power plant, neither the authorities nor the owner had taken into account

Search and rescue operations continue for possible survivors after powerful earthquakes and aftershocks in Japan.

the possibility of a tsunami, even though the probability of such an event taking place on the eastern coast of Japan is about once in 30 years."

In general, the goal is to keep the risk rating of a nuclear meltdown accident such that the probability would be around one to two in a million.

"For some reason, in Japan, both the operator and the authority considered the chosen engineering criteria correct for all these years, even though the understanding of what could happen grew all the time. In fact, the Fukushima nuclear power plant accident could well have been prevented. The risks were known, but no precautions were taken."

IN HIS ADDRESS, Ruotsala also warned against counterparty risks and country risks. When answering questions from the audience, he urged people to consider the question of what has been the biggest political risk that has materialised in the energy sector over the past few years.

"The correct answer is the German decision to shut down the nuclear power plants. That destroyed the valuable properties of many operators at a single phone call," he answered.

After having gone through his list of examples, Ruotsala discussed the methods by which climate change could be prevented.

"It is possible to launch these measures, and they can be implemented in an accelerated schedule. For example, emissions trading can be used to directly affect whether coal is burned or not."

"Naturally, prevention of climate change takes place at the expense of fossil fuels. The outcome, however, will certainly be better for all of us, including those suffering financial losses."

According to Ruotsala, prevention of climate change offers business opportunities, and the existing threat is in fact an opportunity that the human kind and companies can seize.

"For a longer time already, we have been building Fortum in such a manner that the company could function in a carbon-free world," he pointed out.

At the moment, as much as 64 per cent of Fortum's energy is produced causing zero emissions.

"NOW IS THE time for a synthesis," Ruotsala said, returning to the basic question: why do opportunities turn into threats, and what is the corporate management's role in the process.

According to him, the management is responsible for taking advantage of the business opportunities.

"We are not paid for relying on good luck to make profit."

Similarly, the management is also responsible for preventing opportunities from turning into threats, profits into losses.

"To emphasise the point, the management must be capable of seeing what the threats are to the company's success," he underscored.

"As managers, we cannot just hide behind such a statement that, well, this just happened to take place."

Something can always happen, but the starting point must always be a certain kind of zero tolerance.

Ruotsala is of the opinion that what lies behind success tends to be something quite simple and unscrupulous.

- It is the management's responsibility to understand weak signals.
- The management must have healthy values. The management must act honestly and openly.
- All success is based on high everyday quality and safety.
- All matters are managed well and with care.
- Performing our work as well as possible is the best act of self-defence for all of us.

"It may sound like an old cliché, but over 30 years, I have not come up with any better advice than this," said Ruotsala in conclusion of his presentation. ■

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 PHOTO: GETTY IMAGES

How to secure key machinery?

Attitudes towards risk-taking and the whole culture of risk environments are set from the top of an organisation.

Company boards find themselves under the risk spotlight and are increasingly being challenged to provide evidence of their competence to deliver their responsibilities for risk management. Faced with disruptive new business models, companies must take risks to succeed. They must also manage risks and comply with regulations and demands for disclosure.

A skilled risk management professional can step up as a risk leader figure to help the board meeting their risk management responsibilities.

The risk management profession is nowadays under the spotlight and we are in an exciting period of new professional opportunities. The risk engineers of If help to ensure that the basic approach to safety and security is not lost in complex models and vague goal-setting.

This article describes the basics involved in the overall risk evaluation of an organization as performed by If's Risk Engineers in their Risk Survey work. Typical factors for consideration include:

- Building Construction, Choice of Building Materials and Compartmentation
- Critical Machinery and / or Inherent Process Hazards
- Utilities
- Loss Prevention Measures
- Natural and External Hazards
- Maintenance
- Business Interruption or Business

THANKS TO OUR vast and varied clientele we have become familiar with many kinds of industries, each one of them different and with specific hazards and challenges. In this article I would like to share some of these basics, focusing on key machinery at production sites; this may be as obvious as a 'Yankee' Dryer Cylinder or a less obvious one like an overhead travelling crane.

Our competence is historically strong in the forest industry. There we find among others long conveyor systems which require regular cleaning and maintenance. Maintenance includes smart stocking of spare parts; this could include e.g. sections of spare conveyor belt. Fire is the main threat in this area and we recommend sprinkler protection, to be activated after the belt is automatically stopped.

The most critical part of the machinery in the pulp manufacturing process is the Black Liquor Recovery Boiler (BLRB). Special considerations should be made for wall tube thickness and soot blower optimization. Boiler safety walks made by the operators and maintenance employees are a simple but effective loss prevention measure. Water level supervision and Emergency Shutdown Procedures (ESP) with rapid draining must also be part of the operation procedures, and active prevention measures should be well rehearsed.

Continuous digesters should be monitored for corrosion, and stainless steels such as AISI 316 should be used. A spare high pressure feeder should be easily available on site or within the Group, to limit the business interruption exposure.

Lime re-burning kilns are somewhat less critical, but nevertheless without them the process would grind to a halt after the buffer storage capacity of spent lime was reached. The rotary kiln and its drives and supports must be monitored for cracks; gearboxes must be monitored with Non-Destructive Testing (NDT) and sampling of lubrication oil quality. In the case of an unforeseen stoppage due to the main driver failure a back-up rotating device must be in place to prevent hot spot forming resulting in a banana shaped cylinder. This type of rotary kiln is also encountered in cement manufacturing, where the same loss prevention considerations play a major role in business continuity.

CRITICAL MACHINERY IN the papermaking industry is the paper machine itself, where the press sections stand out as the most vulnerable section. For example a shoe-press involves large quantities of hydraulic oil. Here housekeeping and monitoring of oil quality are major tasks for the operators and maintenance personnel. Also the quality of flexible hoses should be monitored. We nowadays

Risk engineers help to ensure that the approach to safety and security is not lost in complex models.

see more and more waste paper or recycled fiber as the main raw materials. Handling, sorting and storage of these materials involve dust and sprinkler protection challenges. The dust problem can be even clearer in tissue paper converting departments, where dust should be controlled at or close to the source. The main critical machinery in the manufacture of tissue paper is the Yankee dryer. Shell thickness, crown formation, steam leaks and other key performance indicators should be monitored as laid down in the Yankee Dryer & Dryer Roll Inspection Standard and Guidelines. Special protection systems such as Water mist or Sprinkler protection may be considered. Cold water should be prevented from having a direct impact on the hot Yankee cast iron surface, because this may result in a destructive failure of the cylinder.

OTHER INDUSTRIES WHERE the amount of dust plays a major role in loss prevention are e.g. sugar milling, wood working, black and brown coal handling and milling, and textile mills including non-woven textiles. In these cases too, dust should be controlled at the source as much as possible. Automatic spark detection and extinguishing systems should also be installed in the transportation ducts.

Dust should be controlled at the source

Different industries also insured by If, including hospitals, health care facilities and electronic parts manufacturing sites, where dust control is inherent to the production environment (clean rooms), present other types of risks. Critical machinery in these industries includes air conditioning equipment, and special scanners making use of super-conducting magnets or X-rays, such as MRI / NMR Imagers and CAT, may be sus-

ceptible to magnet failure. Operating theaters may also involve a specific hazard if pure oxygen is needed, as this introduces a clear fire hazard. Automatic protection for these expensive pieces of equipment could be based on gaseous extinguishing systems, but pre-action sprinkler protection is also something we advise. An important loss-limiting feature for this type of occupancy is the availability of standby electrical emergency generator sets. Maintenance including regular testing is of paramount importance for these units. Preferably they should not be installed in cellars which may be subject to flooding.

Dust in breweries and flammable liquids in distilleries are governed by ATEX standards and an explosion risk evaluation must be performed. Preventive measures such as proper ventilation are essential. Critical machinery in these production units consists of refrigeration systems (may include ammonia), large vessels, storage and fermentation tanks. They need to be well-maintained and protected against corrosion, especially under insulation. Vacuum breakers against implosion hazards should also be fitted onto the tanks.

PRIMARY MATERIAL INDUSTRIES, involving melting and smelting of metals, ceramics and glass, are very much dependent on arc furnaces, rectifiers, kilns and extruders (Aluminum). Molten materials may cause havoc when containment is lost. Hence, hot spot supervision is important and controlled molten material collection should be properly arranged. NDT should be part of the maintenance regime, especially for the extruder blocks.

In the case of large metal workshops, such as ship and off-shore construction yards, very specific life safety hazards are found such as confined space entry and the hazards involved with the transport of heavy objects . Recommended mitigating actions could be hands-free lifting procedures, proximity switches, storm locking, hoisting gear testing and quality control. For the larger gantry cranes we often recommend additional features such as gaseous protection of the control room, misalignment protection and storm safety features such as safety pins and automatic rail clamps should be considered.

Coating activities in spacious painting halls are often carried out with flammable paints, thus putting big demands on loss prevention measures such as proper bonding and grounding and fire suppression systems.

Flammable liquids are also seen in high hazard chemical manufacturing plants. A complicating factor here may be that components are handled at high temperatures (above flash point) and high pressures. Exothermic reactions may further complicate the hazard, putting great demands on proper process control systems and general management systems, including management of change (MOC).

Often high speed rotating equipment is found on these sites, which makes a predictive maintenance regime an imperative. A complicating factor for pharmaceutical components manufacturers can be that the local Food and Drug Administration (FDA) ruling may differ from one country to another; in the case of a major loss event this may result in extensive delays and jeopardize back-up arrangements.

For all industries it is clear that operations will stop without a power supply, ICT, heat supply and effluent or sewage treatment plants. Considerations for these suppliers or plants are summed up in the table attached.

INDUSTRY	CRITICAL MACHINERY	MAINTENANCE ISSUES	LOSS MITIGATION REMARKS
ICT Computer services	Electrical installations / Cabling	Business Continuity Plan, update and training	No powder estinguishers allowed Water detection under raised floor
Steam generation	Excessive corrosion of furnace and boiler walls Dry cooking	Refractory tiles damaged Increased local attack boiler wall and piping High temperature corrosion and clogging of super-heaters Local boiler tube overheating due to inadequete cooling	Prevent large objects from entering the furnace Improve attachment of tiles Monitor gas flow and temperature and moderate reductive atmosphere firing (to increase NOx) Lower temperature, use special alloys for coatings, apply mechanical cleaning Monitor water level and quality of boiled water
Power generation	Steam turbine failure Generator gailure Cable fire Electrostatic Precipitator filters	Corrosion Over-speed Gearbox failure Oil leakage Short circuit stator windings Coundercurrent from public grid Compartmentation Explosion relief	Use clean steam only Monitor vibration and speed constantly Monitor oil quality at regular intervals Replace flexible hoses and couplings at regular intervals Partial discharge testing to detect insulation deteoration, predictive maintenance Proper shut-down procedures Sprinkler protection Transformers in own fire cells CO monitoring
Sewage and water treatment plans	Aeration blowers Pumps	Preventative	Methane gas Microbes present in Bio-culture ecosystems may need long time to recover

IF'S RISK ENGINEERS make sure that the basic approach to safety and security is adhered to. The above is just a selection of some of the many industries we insure, and where some special points of attention are recommended.

My personal view is that these basic RM considerations are indeed the basis for overall Risk Management and should not be lost in complex models. The engineers from If will help you to focus on practical, realistic and cost effective solutions. Working together, I believe we can manage risks and reduce loss exposures. ■

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Could accident at Bangkok bank have been prevented?

When to use aerosol fire extinguishing systems – and when not.

THE DESTRUCTIVE DISCHARGING of an aerosol fire extinguishing system that occurred in conjunction with maintenance work at the headquarters of a major Thai bank in Bangkok in early March forces us once again to focus greater attention on the choice of extinguishing system.

"THE QUALITY AND availability of extinguishing gases that are safe for personnel are better than ever, so for that reason, too, aerosol fire extinguishing systems should be resorted to only in very few locations," says Ari Ahonen, risk engineer at Risk Management, If.

He has more than 35 years´ experience in assessing companies´ property and interruption risks and has a clear opinion about the narrow limits of the usefulness of aerosol fire extinguishing systems.

"One area in which aerosol fire extinguishing systems are highly suitable is, for example, the engine compartment of buses and other similar heavy engine spaces in which there are no people."

In the second week of March, eight people died and a number were injured in Thailand´s capital, Bangkok, when the extinguishing system in the archiving facilities at the headquarters of one of the country´s largest banks, Siam Commercial Bank, was triggered in conjunction with maintenance work and the extinguishing agent was discharged into the room.

AEROSOL FIRE EXTINGUISHING systems appropriate for unmanned spaces

Ahonen´s message is clear. Unlike gas extinguishing systems, aerosol fire extinguishing systems are not appropriate for areas in which there are people or sensitive electronic equipment such as computers.

"Automatic aerosol fire extinguishing systems are intended primarily for unmanned spaces. The particles in the extinguishing agent reduce visibility when discharged and the particulates can penetrate to the air sacs of the lungs. The smallest particles can get into the circulation from the lungs´ air sacs with destructive consequences."

Fortunately, there are excellent alternatives.

Another problem with aerosol fire extinguishing systems is that the particles contained in the extinguishing agent together with moisture easily cause corrosion and are extremely detrimental to sensitive electronic equipment.

"THE TRIGGERING OF an aerosol fire extinguishing system in computer rooms and electrical facilities, which are crucial for the continuity of operations, may indeed extinguish a fire, but may also result in damage to sensitive apparatus. In addition, a great deal of equipment and a large number of people will be needed to clean the apparatus, but in spite of this the end result will be uncertain."

Extinguishing gas that is safe for personnel does not damage even the most sensitive equipment

Fortunately, there are excellent alternatives. Ahonen recommends systems based on the use of extinguishing gases in the crucial locations of an enterprise, such as computer rooms and electrical facilities, where fire damage could easily result in a major interruption of business.

"APPROVED EXTINGUISHING gases do not usually cause any problems. For example, inert gases extinguish fire efficiently and the clean-up process takes place by ventilating the premises without major clean-up operations and damage to sensitive equipment. Moreover, inert gases are safe for personnel and do not cause toxic reactions.

Second on Ahonen´s list after inert gases are chemical gases pursuant to the new directives which do not supplant oxygen to a dangerous extent. In some cases, a so-called oxygen reduction system can also be used. This system was described in issue 2/2015 of this magazine. The operating principle of this system is to continually maintain the concentration of oxygen at a level low enough to prevent fire from breaking out, but sufficient to enable people to work for a period of time in the space in question.

"For example, in archiving facilities water mist or a pre-action sprinkler system whose activation is not based solely on activation of the sprinkler nozzle can be used. The system is constructed in such a way that water is only released when the system has been alerted by the smoke alarm as well.

One of the most important factors relating to extinguishing systems in sensitive facilities still remains to be described. Installation and testing of a well-designed extinguishing system in accordance with the standards is an essential prerequisite for fire safety, but it is still not sufficient.

"Smoke detectors, for example, are sensitive devices, which must also be serviced properly. The same principle also applies to other extinguishing apparatus," Ahonen emphasises in conclusion. ■

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PHOTOS: ISTOCK

Fire
The main loss driver in mechanical industry

Fire caused extensive property damage in mechanical industry over the last three years. If's Risk Management team calls for fire prevention measures in the industrial sector working with welding, hot liquids and high temperatures.

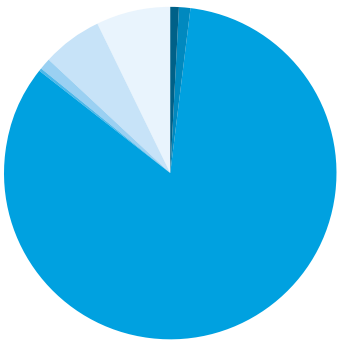
Mechanical industry is a broad category of businesses, including manufacturers of metal products, machinery equipment, motor vehicles, trailers and other transport equipment such as ships, boats and air and spacecraft machinery. The predominant raw materials are different kinds of metals, most commonly steel.

The main risks in mechanical industry are fire, natural catastrophes and machinery failure. The processes in mechanical industry often include e.g. welding, heat treatment, grinding and cutting. High temperatures and sparks often occur in many of these processes and increase the risk of fire. Flammable liquids are among the most important loss drivers in this industry.

If's loss statistics for the period 2012 to 2014 show that fire was the cause of 84 % of all claims in mechanical industry, as demonstrated in Chart 1. This resulted in costs of over 17.8 million euros (Gross) in the same time period. A few large fires have driven the costs up during this period.

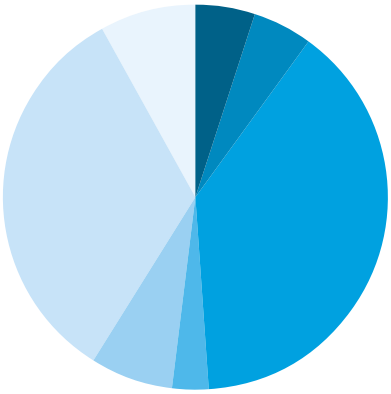
"One incident in particular drove the fire percentage up. This was a large fire in Sweden with a total cost (PD and BI) of 8.7 million euro (Gross). That is nearly half of the total costs in this period," re-

Chart 1
Claims paid per type of loss
All Claims
Mechanical Industry



- Crime 1%
- Electrical phenomenon 1%
- Fire 84%
- Leakage 0%
- Machinery breakdown 1%
- Natural phenomenon 6%
- Other 7%

Chart 2
Claims paid per type of loss
Frequency claims < 5MSEK
Mechanical Industry



- **Crime 5%**
- **Electrical phenomenon 5%**
- **Fire 39%**
- **Leakage 3%**
- **Machinery breakdown 7%**
- **Natural phenomenon 33%**
- **Other 8%**

marks Håvard Thevik, Head of Property Underwriting Norway.

However, if we look at all the low-frequency claims the numbers paint a rather different picture. Fire is still the main reason for loss, representing 39 % of the claims (Chart 2), but at a close number two, natural disasters come in at 33 %.

”If we compare these numbers to the period six years prior to this, we find that the relative contribution of fire losses was even greater in 2006 – 2011. Thus, it is fair to say that fires represent the number one challenge for this industry.”

HÅVARD THEVIK BELIEVES that many measures can be taken to reduce the risks, and much boils down to having the right culture and attitude.

”We see many examples of effective and dedicated loss prevention work, although from time to time we encounter examples where clear improvements are needed. It is not rocket science to bring a site up to a decent protection level. However, management commitment is a necessary condition for success in loss prevention work,” says Thevik.

Thevik highlights three important factors that can reduce the risks of loss in mechanical industry:

”It is important to control fire from hydraulic oils and to maintain good housekeeping. Keep work-shops and other areas clean and tidy. Having good hot work procedures and living up to them is also essential, and always monitor hot-work contractors tightly,” he says.

THE NUMBERS SHOW that Business interruption represented 36 % of the costs. This is equivalent to 7.6 MEUR (Gross). Although not the largest percentage of the cost, the risk of losing market share increases every day that production is halted.

”Getting back in the market after a loss is not always easy. The customers need their products, so if you are not selling a highly specialized product your competitors will take their business elsewhere the day you fail to deliver,” says Oddmund Bleie, Head of Major Property Claims Norway.

In mechanical industry it is common to produce specialized products that are shipped immediately to the customers, with a minimum amount of stored goods. This makes the industry especially vulnerable.

”Tying up capital to store products is usually avoided in mechanical industry, which often operates with low profit margins. Some companies keep spare parts to fix smaller problems with customer machinery, but larger problems causing machinery breakdowns can be a big problem for these businesses,” says Bleie.

He emphasizes the need for a contingency plan in the event of a crisis.

”Few businesses have an updated contingency plan for business interruption. You need to consider what you are going to do if your most critical machine breaks down. Do you have a back-up? Do you have spare parts? How long does it take for an identical component to be delivered? Do you need to rent a new facility? How much will it cost? You may need to ask yourself if you can you buy production capacity from an ally or a competitor and consider the risks of that,” says Bleie.

IF'S OWN RISK Management team regularly visits production sites to assess the risks of property damages and business interruption caused by fires, natural hazards and machinery breakdown. They often experience that important safety measures, which can save a business in an emergency, are considered to be too expensive.

”The problem with small margins in mechanical industry is that the businesses are often not keen on the idea of spending hundreds of thousands of euros on installing essential safety equipment and systems, even if the outcome of a halt in production can be disastrous,” says Anders Rørvik Ellingbø, Head of Risk Management Norway.

One very concrete example of how well safety measures can work was a business that invested in a firewall dividing their storage facility into two units. When fire struck, one fire cell was completely destroyed but the other was unharmed by the flames and smoke, leaving the business with 50 % capacity instead of 0.

”In mechanical industry the production is often specialized, so we try to identify the most critical bottleneck of the production line and suggest specific measures to isolate this part from the rest of the facility to ensure its survival,” says Anders Rørvik Ellingbø. ■

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WE'LL HELP YOU

If's policy is to help their customer get back on their feet as quickly as possible after a loss. In any given case this could include building a new facility nearby or buying production capacity from a competitor.

– We will spend money to save money, because we know that the risk of losing market shares and even bankruptcy increases every day a business has reduced production capacity. We aim to cooperate with our customers to ensure that they live to see another year, says Oddmund Bleie.

PHOTOS: ALL OVER PRESS, GETTY IMAGES

The difficulty in predicting risks

Dealing with insurance, you have come to learn that you are dealing with a subject matter that is rather imperceptible. It is called risk. In order to deal with the unpredictability of risk, insurance is not only good to have, but more a necessity.

In olde England the 'Black Swan' was a metaphor for a non-existent creature. An expression for something that was just possibly imaginary. Something that could not happen. Until one day a real and very much alive black swan was eventually discovered in Australia! It is sometimes very difficult to perceive all eventualities. Reality is sometimes unreal.

The incidents occuring to a large 6700 TEU vessel last year were unusual. Not by themselves. But because they occurred as a chain of events that, combined, made it hard to fathom. These types of incidents, on their own, or as in this case, developing consecutively, is a stark reminder of the vivid imagination coupled with some respectable experience that any good Risk Manager needs to have. Difficult? Yes. Impossible? No.

Reality is sometimes unreal.

THE FIRST INCIDENT occurred shortly after midnight on Thursday 14 May 2015 when a 52-year old crane operator was loading and unloading containers in the Port of Bremerhaven. The huge container boom of the large gantry crane collapsed, dropping the crane cabin and its operator onto the container vessel some 50 meters below. It took several hours of delicate manoeuvring before they recovered the body of the crane operator. The gantry crane was still at risk of collapse, exacerbated by the fluctuation in tidal heights.

The authorities cautiously shut down the waterways in the vicinity and operations were suspended, causing delay to other carriers and cargo.

WHILST WORK WAS still ongoing to rectify the mayhem of the first incident, then on May 22, a fire broke out. It is reasonable to suppose that the welding work that was being carried out to remove the crane caused the fire. In an effort to keep the flames from spreading, cargo holds 3 and 4 were flooded with water and foam.

Fire brigades from nearby Bremen, Hamburg and Wilhelmshaven supported the local terminal resources during the firefighting. There were, luckily, no reports of pollution or alarming levels of toxic gases. Tugs with firefighting capabilities were alongside the container ship to assist in firefighting, and ashore a large number of firefighters were working to contain the blaze. The fire was finally extinguished a day later.

As a result of the second incident, General Average (GA) was declared by the carrier and GA adjusters appointed. The owners of the cargo and their underwriters therefore had to put up General Average security and bonds in accordance with the terms of the shipping contract to contribute to the damaged caused to cargo and ship to save the common adventure.

WHAT MIGHT ALSO be of interests in this event is that another incident occurred in February 2014 when the container vessel collided with another docked container vessel in an area of the Port of Bremerhaven in close proximity to this incident. Both vessels only sustained minor damage, but three container gantry cranes were heavily damaged, with one on the verge of collapse. It followed that these earlier events needed to be investigated carefully. Had this crane that collapsed been damaged previously? Had it been properly repaired and inspected?

THERE WERE A number of consequences for cargo owners and insurers as a result of these incidents. For instance, the collapse of the crane resulted in the crushing of certain cargo, and there was damage to refrigerated cargo, such as fresh produce, as a result of delay.

Liability for the losses and damages suffered as a result of the collapse of the crane may lie with the terminal operator. From a legal liability perspective, investigating the design and maintenance of the crane needs to be looked at as a crane collapse is very unusual.

The fire which broke out during the welding work resulted in fire damage to cargo, wetting damage to the cargo by foam and water, and damage to, or further damage to, cargo as a result of the delay.

Whilst the fire likely started as a result of the removal of the debris of the crane, there are further questions that need to be asked from a liability perspective. Was the work completed by the vessel's crew or employees, or alternatively by the terminal operator's staff or contractors? As a matter of course, it will be imperative to consider the cause of the fire in order to determine where liability should fall.

TO THIS END, there are 5 'classes' of cargo on board the vessel which will be subject to differing disputes. There may also be combinations of these. These classes and the main potential disputes are regarding sound cargo, cargo damaged as a result of delay, crushed cargo, fire damaged cargo and wet damaged cargo. All these various claims have been subject to a demand for GA contributions, which is based on an assessment of the value of the saved and delivered cargo.

As a Risk Manager you need to consider whether GA contributions or any demand for payments on account should not be paid at this stage, as there may be a legal defence under the York Antwerp Rules, these being a legal regime governing General Average and incorporated either by way of contract (bill of lading and or charter party) or by way of law. Damage to the cargo or related losses may be recoverable from the carriers. If the terminal operators can be found liable, any GA contributions eventually paid may be recoverable from the terminal operators or other parties responsible for the crane by way of tort proceedings.

Insofar as cargo has suffered damage as a result of the firefighting, there would be an anticipated near full recovery of such losses as being GA sacrifice. You will also need to consider whether package or weight limitations will apply to GA sacrifice claims, though this is unlikely.

Once evidence has been collated of the causes of the damage to the cargo and the General Average sacrifice losses from cargo interests, investigations need to establish whether there are good allegations of breach of duty to be brought against the terminal operators, and whether any unseaworthiness allegations might be brought against the carriers, both in respect of the available GA defence and also with respect to potential recovery actions for damage to cargo losses. In these types of incidents there will also normally be an official police investigation and quite likely the National Accident Investigation Board will launch an investigation. Viewing these investigations is one way of gaining more insight into the circumstances which will put you in a better position to assess your merits, arguments and possible liable parties.

THIS IS AN event that has involved a vast number of unfortunate occurrences on one vessel during a short space of time laying by the same berth in the same port. An unfortunate death. Structural and physical damage to property, crane and vessel. Damage to cargo. Fire. Flooding and consequential wet damage. Potential pollution by air and sea. General Average. Legal and expert costs. Delay – and damage due to delay. Insurance claims. Recourses.

So what can you as a Risk Manager do to better protect your good company against these complicated and very costly risks in international trade?

To start with, if you are the owner of the cargo under the contract of sale, you need to ensure that you have proper cargo insurance.

If you are a freight forwarder, you need to ensure that you have freight forwarder's liability insurance for your potential liability as a contracting carrier.

If you are the contracting carrier, can you hold the performing carrier liable? You need to think through the contract of sale and the trade terms. Should the risk transfer once the cargo is loaded on board the vessel? For instance, if you have agreed to FOB terms or CIF terms, the buyer is at risk when the goods have been delivered on board the ship at the port of shipment. So, the seller would be off the hook if the cargo had been loaded, but not the buyer. If you agree to be the party that stands the risk during the sea leg of the international transport, there are a number of complications that can arise.

If you are on risk, you also need to consider that you have covered all potential risk elements – preferably with insurance. In order to untangle the claims, you may have to appoint local lawyers to protect your position in that jurisdiction, and to protect the factual investigations, as well as cargo and other experts. The costs of advice and potential recourses will very quickly rack up to substantial amounts.

This casualty clearly shows that reality sometimes defies the imagination. Remember the 'Black Swan' metaphor – this can well be viewed as such an event.

If you place your risks with us at If, you will be in safe hands. We have the knowledge and experience to assist you.

However complicated – think your risks through! ■

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Tax update FATCA & BEPS

Increased regulation and compliance is one of the hottest issues currently affecting the insurance industry.

IN PARTICULAR, TAX compliance is receiving close attention from governments, multinational organizations and corporates. Two of the most far reaching tax initiatives of recent years are FATCA and BEPS.

FATCA STANDS FOR "Foreign Account Tax Compliance Act". It is a US tax law enacted during the US recession in 2010 to counter foreign tax evasion and increase tax revenues. US taxation is based on the principle of nationality. US physical and legal persons are taxed on their total income irrespective of where that income originates or where they are domiciled. FATCA aims to provide the Internal Revenue Service (IRS) with information on income held by US persons outside the United States so that such income can be subjected to taxation in the United States.

Tax rules have been left behind in our globalized world.

Under FATCA, Foreign Financial Institutions (FFIs) must identify US accountholders and report their income and assets to the IRS . FFIs who don't comply with FATCA risk having US sourced payments subjected to 30% withholding tax. FFIs include corporations which accept deposits or hold financial assets, such as banks, credit institutions and funds. Corporations which are not classified as FFIs must fill out W-8 series forms confirming that they are Non-financial Foreign Entities (NFFEs) and provide these forms to US counterparties. The final category of entity affected by FATCA is withholding agents. Any entity having control over US source payments may qualify as a withholding agent and as such be required to collect W-8 forms from FFIs confirming FATCA compliance and from NFFEs confirming their NFFE status. In the event that FATCA compliance cannot be confirmed, withholding agents can be required to withhold 30% of US source payments.

CERTAIN LIFE INSURANCE companies offering cash value insurance or annuity contracts are classified as FFIs and must report information on US customers to the IRS. Non-life insurers, reinsurers, brokers and most captive companies should constitute NFFEs and will be required to provide US-based counterparties with W-8 forms confirming their NFFE status. US custodian banks, US fronting partners and US brokers may qualify as withholding agents. Accordingly, unless foreign insurers and their customers can provide W-8 forms confirming FATCA compliance, income from US based investments may be withheld by US custodian banks and US-source premium and claims payments may be withheld by US fronting partners and brokers.

What's next? A global FATCA! In 2014, the OECD published a Common Reporting Standard (CRS) setting out a global model for the automatic annual exchange of financial account information in tax matters between governments. 51 countries have now entered into a multilateral agreement on information exchange under CRS. CRS was implemented into EU law in 2014 in the form of a directive (DAC II), which entered into effect in all member states on 1 January 2016. On foot of CRS and DAC II, FATCA has in effect gone global, requiring financial institutions worldwide to report financial information on foreign account holders for exchange between the relevant tax authorities. However, as in the case of FATCA, P&C insurers, brokers and captives should not qualify as reporting financial institutions under CRS or DAC II and hence will not be subject to the reporting requirements.

TAX AUTHORITIES AND governments worldwide have taken the view that tax rules have been left behind in our increasingly complex globalized world. Base erosion and profit shifting (BEPS) refers to tax planning strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations where there is little or no economic activity, resulting in little or no overall corporate tax being paid. In 2013, the G20-countries gave the OECD the task of producing an action plan for preventing erosion of countries' tax base and profit shifting. The principal aims of the BEPS project are to (i) achieve a fairer distribution of multinational companies' tax payments, (ii) strengthen the connection between value creation and taxation, and (iii) focus on preventing double non-taxation instead of preventing double taxation.

The BEPS Action Plan identifies 15 key areas to be addressed by 2015, a number of which could have a significant impact on the insurance industry. By strengthening the rules on taxation of CFCs, Action 3 could affect the location of insurance vehicles including captives for corporate income tax purposes. Stricter rules on interest deductions under Action 4 could limit insurance companies' ability to deduct interest expenses for taxation purposes. Action 7 will result in a wider definition of what constitutes a Permanent Establishment (PE). Under the new definition, agents, fronting partners and the mere collection of premium could lead to insurers being assigned PE status in the country in question and hence being subjected to local taxation and increased compliance requirements. Actions 9 and 10 dealing with transfer pricing could lead to the recharacterisation or non-recognition of certain fronting and inter group reinsurance arrangements from an income tax perspective.

BEPS has now entered into the implementation phase. On 23 February 2016, the OECD agreed on a new framework allowing all interested countries to directly participate in implementation of the BEPS Actions. On 28 January 2016, the EU Commission presented a new package of measures against corporate tax avoidance aimed at implementing the BEPS Actions within the EU. The package includes a proposal for an Anti Tax Avoidance Directive setting out six legally-binding anti-abuse measures and new transparency provisions.

In summary, FATCA and BEPS are already having, and will to an increasing extent continue to have, a significant impact on the insurance industry. Insurers and insurance customers would be well advised to monitor developments closely together with their tax advisors to ensure compliance during the years to come. ■

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Managing the quality of a global insurance programme

How If P&C manages the modern network of co-operating partners.

There are many different parameters that are involved when selecting an insurer for a global insurance programme, and their importance varies between the insurance buyers. Basic factors to be considered are the insurance products and services available as well as the compliance with regulatory demands. Fronting partner security is usually high on the list. The article on page xxxx will elaborate how If manages the security aspects.

The service performance and deliveries are equally important to define the quality of a global insurance programme. Key performance indicators have, of course, individual variations, but the importance of the quality in administration of the insurance processes and claims services is common to all. In this article, we describe how If P&C work to manage the quality of our global insurance programme in order to fulfil the expectations and future needs of our clients.

If P&C´s global network of insurance partners is built on a platform of carefully selected companies in each geographical market, with the goal of delivering high quality services where our clients are situated now and in the future. If P&C's modern network concept with co-operating partners allows a flexibility for individual solutions, and it has a well prepared process for expansion into new markets.

To control a service network without the ownership and financial tools that comes with ownership is a challenge that If P&C shares with many other companies like, for example, Hotels.com and eBay. A well-functioning management model needs to be in place in order to orchestrate the processes and control the deliveries. Contractual obligations need to be applied, and yet there is a need for good cooperation structures in order to allow flexibility and provide scope for innovative development.

WHEN SELECTING IF P&C's network partners, we prioritize insurance companies who are among the largest in their respective country. It is an advantage for the clients´s local subsidiary if their local insurer is well known and trusted on their market. Hygiene factors are a wide range of good insurance products, a good security rating and an organizational infrastructure that can support If P&C in giving dedicated and professional local service. It is important that the service is provided by an insurer that delivers consistency of cover and support in addressing local compliance and regulatory issues. Local claims services are evaluated so as to ensure rapid and coordinated response to claims.

There are many factors that together build the quality of a global insurance programme.

In some countries, it is impossible to find one local insurer to fulfil all of If P&C ´s demands, and for this reason we often seek cooperation with multiple partners. In this way, the global programme can be designed to fit for the individual client need in relation to risk exposures and service demands.

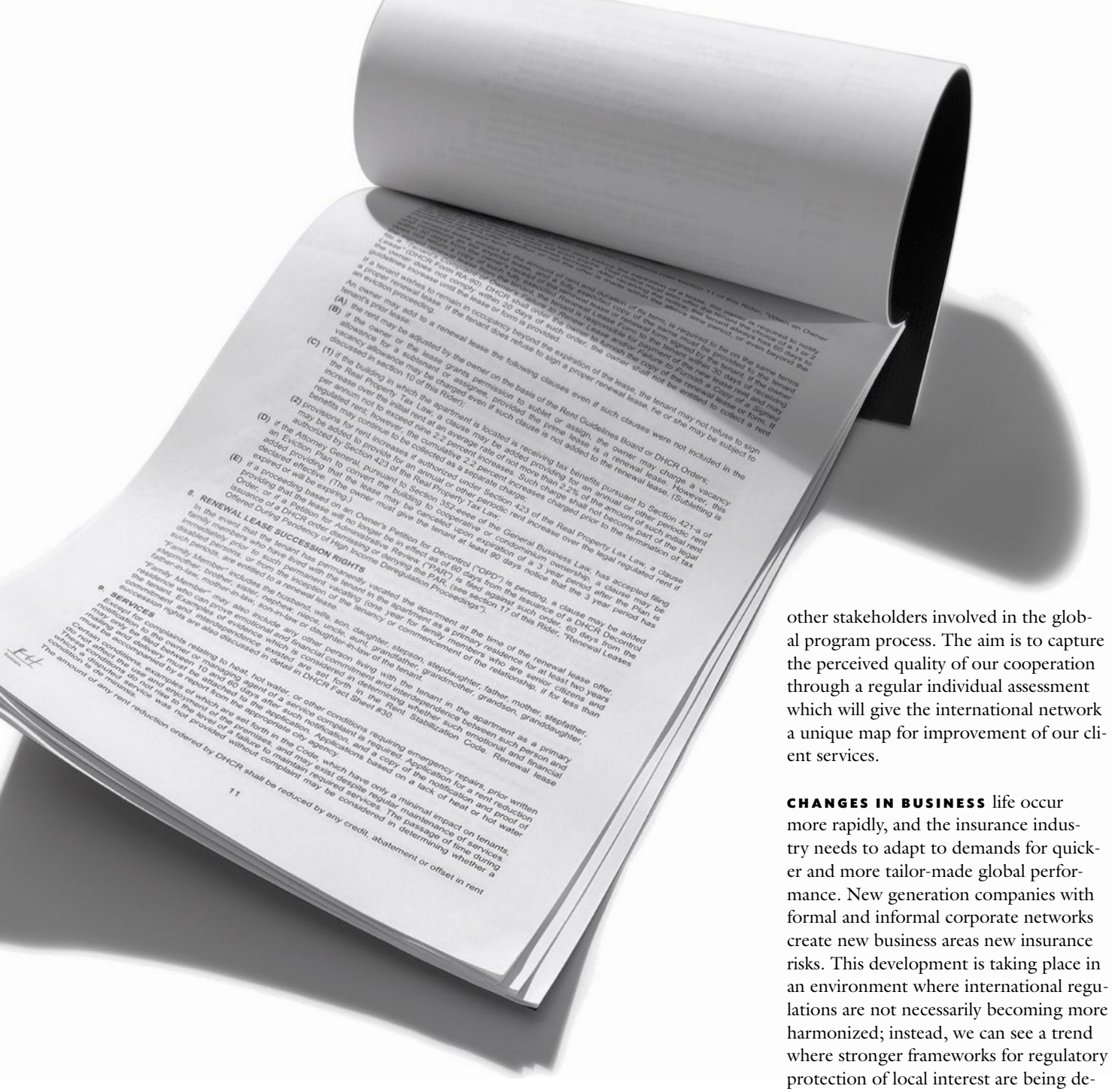
IF P&C'S ORGANIZATION is structured to support an efficient management of the network model. Our International Network Unit consists of Regional Managers and Network coordinators who have a responsibility for partners as well as for monitoring named countries. Their task is to identify and evaluate partners together with the security analysts as described on page 24, and to negotiate the cooperation agreements to secure If's global insurance offering.

Regular partner meetings are held in order to follow up the performance and assess the co-operation. Access to all necessary facts and process information about the Network partners is provided to If P&C´s Underwriters through a digital platform, If Worldwide.

For each partner there is an annual activities and strategy plan and for the larger network partners teams of specialists are established to secure functioning processes.

TRAINING IS, A very important part of If P&C network development process. Internal training consists of individual development plans, for example regarding language skills, and of regular international insurance training programmes regarding, for example, compliance regulations. International network forums are held on a monthly basis for all of If P&C´s Nordic underwriters in order to give information and most importantly so that they can share their experiences with each other, which brings a practical edge to the international training structure. Knowledge-sharing is an important part of the client service.

If P&C´s efforts to reduce dysfunctions within the network performance also include developing international skills together with our international partners. Interaction between the underwriters at both ends play a central role. Increased understanding of cultural differences and business-processes on both sides has a clear positive effect on the outcome of international co-operation. For this reason,



we arrange regular partner meetings, exchange programmes and workshops to develop mutual knowledge and to form ties for to better understand the processes.

One important part of the management philosophy for If P&C´s network model is to strive for reciprocity, to achieve mutual benefits based on understanding and trust. Therefore, this spring If P&C started up a project in co-operation with a university professor to carry out research into the factors that build successful business networks. With this knowledge, we aim to create tools to further improve our network management concept. The quality of interpersonal relationships has a high impact on the co-operation between organizations. We believe it is as important to address the personal part of the network relationship as it is to negotiate the legal and financial terms of the high-level partner agreement. It must never be forgotten that it is the sum of all these daily personal interactions that forms the final footprint on the market and creates the value to clients.

THERE ARE MANY factors that together build the quality of a global insurance programme, and some of them can be measured more easily than others. If P&C continuously follows up many of the key factors, as for example stated in the article on security controls (on the next page). In order to also capture the softer parts of the network relationship, If P&C has now built a new model for quality checking on the relation with our network partners. A questionnaire will this spring be sent out to the partner contacts and to If P&C underwriters and other stakeholders involved in the global program process. The aim is to capture the perceived quality of our cooperation through a regular individual assessment which will give the international network a unique map for improvement of our client services.

CHANGES IN BUSINESS life occur more rapidly, and the insurance industry needs to adapt to demands for quicker and more tailor-made global performance. New generation companies with formal and informal corporate networks create new business areas new insurance risks. This development is taking place in an environment where international regulations are not necessarily becoming more harmonized; instead, we can see a trend where stronger frameworks for regulatory protection of local interest are being developed. In addition, the governance of compliance is increasing.

Our client's expectations of high quality in global service deliveries are growing. Therefore, we can clearly see that quality management as above is an important factor for future success. To have the ability to be agile vis-à-vis individual client demands and their rapidly changing business processes will become increasingly important. Accordingly, the international network management concept needs to capture these challenges and be ready to perform. ■

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The fronting partner security analysis

Rating gives us a good starting point for the analysis, but we must always have an assessment of our own as well.

I was commuting to work the other day, when a headline in my Bloomberg app caught my attention: "Vladimir Putin Starts His Own Ratings Firm".

The Bloomberg article said that Moody's and Fitch, the New York-based credit rating companies, have announced they are not issuing a local rating in Russia anymore in order not to break any international sanctions set against the Russia. After Western rating agencies had downgraded Russia's sovereign rating, Mr Putin approved a new law regulating that the rating agencies in the country will not be able to withdraw any rating based on the political pressure. Thus a national rating agency known as ACRA, Analytical Credit Rating Agency, was incorporated to provide ratings for the Russian market which is promoted by the Russian central bank to become the most significant domestic player in the field.

If Standard and Poor's decides to leave Russia as well, there are no Russian companies left anymore which would have a private rating from any of these Big Three Western rating companies. Finding a local Fronting Partner with a good Western rating in that case would be impossible.

WHEN WE ARE assessing our Fronting Partners we wish to make sure that they have a good rating either from Standard & Poor's, A.M. Best, Moody's or Fitch. If the company has a credit report written by any of these agencies, it is very valuable information to have to support your assessment work. Ratings are important to If when we are choosing our partners, and we must always pay close attention to the rationale behind the ratings and their changes. As things are in Russia at the moment, the status quo can change rapidly, creating a new de facto standard where new rules apply, ¬-and we have to be aware of it and how it could affect our business.

So why pay attention to rating rationales; downgrading always means that the company is just performing poorly, right? Not always; a good example is when sovereign ratings can in some situations negatively affect private ratings. Some studies have concluded that if a country's sovereign rating is downgraded then also companies domiciled in the country easily get downgraded despite their financial strength. However, when there is a sovereign upgrading then private ratings are not upgraded.

So why pay attention to rating rationales?

Of the P&C insurers in Iceland, for example, only one has a rating from Standard & Poor's, and it is BBB. Strongly influenced by Iceland's poor sovereign rating. So it would be challenging to find a Fronting Partner with a high rating from Iceland. However, that does not mean that insurance companies in Iceland are all poor Fronting Partners; they just need to be assessed in relation to the client's needs and the business about to be written there.

Another example of this comes from the reinsurance side. When Japan's sovereign rating was downgraded from A+ to A-1, Tokio Marine's and Tokio Millennium's ratings were downgraded from AA- to A+, even though nothing worrying had happened in these companies. When HCC was acquired by Tokio Marine Group, it was downgraded too, from AA to AA-, just because of the acquisition and the connection to a Japanese owner.

This was just an example to give you the idea that there could be different rationales behind the ratings and that to look at the rating as such, you must read the rationale behind them to know how the rating agency has come up with that specific rating.

Besides all this, you should always put your own judgement, own analysis and assessment above anything and back that with as much material and information as you can find. This is and has been If's philosophy when assessing our counterparties.

SO HOW DO we assess our partners and what is the objective of our assessment work? Well, the objective of If's Fronting Partner security assessment is, given the financial market environment, to secure only solvent insurers with a good claims paying abilities to be accepted as Fronting Partners in our international partner network. Security assessment begins when the Regional Manager from If's International Network Unit contacts If's Reinsurance Security Analyst and proposes a new potential Fronting Partner(s) to be evaluated. Evaluation is then carried out on the basis of both quantitative and qualitative information.

Assessment starts with discussing with the Regional Manager the risks that are about to be underwritten in the target country. Total Sums Insured and Estimated Maximum Losses have to be known in order to understand the maximum exposure and to compare whether the potential Fronting Partner handles similar sized risks in its daily underwriting. Partner evaluation then continues with going through all the material the Regional Manager has provided of the potential partner company. This material usually includes the latest annual report and sometimes additional insurance market information of the country where client policies are about to be written.

When the Reinsurance Security Analyst has reviewed all the material provided, a second round of assessment starts.

1. Bloomberg 2016. Vladimir Putin Starts His Own Ratings Firm, http://www.bloomberg.com/news/articles/2016-03-17/putin-starts-own-rating-firm-as-fleeing-americans-leave-void, & Reuters 2016. RPT-Moody's withdrawal of Russia's local ratings leaves field open for Kremlin-promoted agency, http://www.reuters.com/article/russia-crisis-ratings-idUSL5N16I5WG

2. Liu, Li-Gang & Ferri, Giovanni 2001. How do Global Credit Rating Agencies Rate Firms from Developing Countries? http://www.adb.org/sites/default/files/publication/157187/adbi-rp26.pdf

In this phase the Reinsurance Security Analyst will comprise information from A.M. Best's Statement File database, Axco's Insurance Market Reports, reinsurance broker's extranet and in addition to these three sources, any public information available if necessary.

Quantitative analysis relies mostly on A.M. Best's database which has the most extensive coverage available of financial data on insurance and reinsurance companies. Criteria evaluated are capitalisation, group affiliation, history, market position, composition and development of assets, reserving history, operating performance in core business and investments, investor market indications and trends, key ratios development and – most importantly – liquidity.

IN FRONTING AGREEMENTS, where If is the ultimate underwriter and claims payer for the client, and where the Fronting Partner acts merely as an intermediary providing the legal policy in the operating country, we always make sure that our partner has sufficient capital and surplus and liquid funds to operate complying If's view of good standards. We compare the financial information from A.M. Best's database to the one we have received from Regional Manager to make a spot check that all the information is in line with each other.

Qualitative analysis is built mostly from Axco's Insurance Market Reports, from which we try to understand the local market structure more comprehensively. Quantitative and qualitative analysis are entwined, since we go through the market reports, look at the total market written premium, total market asset value and total market technical reserve amount and compare our potential partner's income statement and balance sheet values against the market information in order to understand whether the company is in line with the common market practises in the country. Also, the importance of the year of incorporation arises in this point. The more functional years an insurance company has in its history, the more likely it is that this company has established its place within the local market, and can write insurance business as a going concern.

Qualitative analysis is also about discussions with the Regional Manager and the Underwriter about the client's needs. Our clients might have a good history with certain insurance groups they have worked with in other countries and would like to use the same group in a target country. If the potential partner passes the security check, then we will use the partner which our client feels the most comfortable with.

To conclude, I would like to say that each partner assessment is always a very individual process depending on whether the partner is a well-known insurance company with a good rating, or whether it is a company operating in a country where Western ratings are not common, or are controlled by the legislation, as we said at the beginning. We also give an internal If rating and underwriting limits to our trusted partners to help our underwriters in their work when they are evaluating the local risks. We monitor our partner list continually and make changes to our internal ratings if we see any negative or positive development amongst our trusted partners. ■

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The fire broke out when the vessel was in port.

Cars and ships
– a combustible combination?

The damage was extensive when fire broke out in a vessel carrying new cars.

On a nice spring day not that long ago a fire started on board a vessel. The vessel was a large roll-on/lift-off vessel and designed to carry, for example, cars.

Luckily, as it developed, when the fire broke out the vessel was in port. It took a while before the fire was detected, and once it was detected the initial firefighting efforts were not to scale. The fire had quickly spread, and the heat and the smoke made it impossible to combat at close range. Ships have the ability to close off cargo spaces and once that is done they can release CO_2 into the holds and thereby suffocate the fire. This was eventually done but it took quite some time.

IN THE BALANCE between life and property, life prevails. In order to close off spaces and release CO_2 into the area of the fire, making the environment lethal to humans, one needs to be sure that everyone is accounted for. During this space of time it took to make sure that everyone was out of harm's way, the fire grew stronger by the minute, engulfing a larger and larger space. Once the CO_2 was re-

The cause of the fire could not be established with absolute certainty.

leased, it was insufficient to put out the fire. The fire raged on and local firefighters from the local fire stations coupled with tugs with firefighting capability were called to the scene to assist. The fire was at this point at the brink of being out of control, but with persistence it was eventually put out some 9 hours later.

ONCE THE AREA of the fire was accessible, the investigation into the cause of the fire could finally get underway. The scene of the fire was carefully documented and investigated. Cars and other units were surveyed by vehicle and fire experts, and numerous follow-up surveys were done of the cargo once it had been removed from the vessel. All in an effort to find the exact cause of the fire. Damage to property was extensive, to both cargo (mostly cars) and vessel.

Due to the size of the claims and the vast variety of stakeholders involved – ship-owner, charterers, cargo owners and underwriters – legal proceedings were initiated in five different jurisdictions. Costs were quickly skyrocketing. Due to the fact that the fire was not contained at an early stage, the damage ran into millions of US dollars.

The fire detectors had been switched off due to repair works in the port, thus delaying the detection of the fire. The crew was also not mustered in a speedy fashion, delaying the release of CO_2, further allowing the fire to rage on and grow stronger. Regrettably, there was also quite a delay in calling for shore assistance. This added to and exacerbated the situation and the spread of the fire.

THERE ARE SPECIFIC regulations regarding dangerous goods and how they should be shipped. However, new cars, as in this case, are shipped in transport mode, with minimal fuel in the tanks and with electrical circuits turned off. They are normally not a cause for concern, although things nevertheless may happen. Used cars on the other hand are considered to be dangerous goods and should, therefore, be shipped with caution. Looking at the carrier, the ship was old and was up for replacement. It had been lengthened a few years ago and what was interesting was that the cables that ran along the length of the vessel had not been properly extended. However, the cause of the fire could not with absolute certainty be established. The reasons are many – but one reason is that the heat and the length of the fire caused the evidence to incinerate.

THE MAIN LESSONS are, as with all fires, that they need to be contained. They need to be contained as quickly as possible. This is likely with fire detectors switched on. If fire detection systems are shut off, there need to be crew and fire watches established that carefully monitor the area. A further issue in this case was whether the crew had conducted proper and regulated fire training onboard. This is doubtful and probably caused some of the delay not only in releasing the CO_2 but also in calling for external assistance.

This very costly incident and its aftermath could have been greatly reduced, if not prevented. ■

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PHOTO: ISTOCK

Take-off of the drones

Unmanned aerial vehicles (UAV) commonly referred to as drones have taken to the skies at a phenomenal pace. In just few years the production and sales of civil drones have already grown into a multibillion euro business.

The number of drones sold in a year has reached 2 million, and sales are rapidly expanding. Of course the military use of the drones was the first application and still dominates the figures. The history goes back decades.

There are plenty of ideas on how to utilize drones waiting to be found. But why have commercial and recreational drones right now evolved so strongly? The answer is in the technological breakthroughs. The manoeuvring uses digital remote control units and a GPS system. Many of the technologies used for the navigation and control of the propellers have developed quickly, and they make remote operation very easy. The computing power of the vehicle enables smooth and adaptive flight. The new lithium-polymer-batteries have made it possible to carry more power and release it quicker. It is possible to attach more load for the tasks of the drone such as sensors, cameras or payload.

Agriculture, for instance monitoring of crop circumstances or spraying, is currently the biggest area of civil use of drones. The utilities need monitoring of power lines and scanning for storm damage. In public services, there are wide applications such as border control, firefighting, traffic guidance and wildlife protection. Of course, use in the media with live cameras in the air right at the scene of the action is already widespread. Now the commercial use is in full flight and companies are coming up with new ideas such as measuring gases and chemicals in the air, selling surveillance services to risk management of buildings and factories and insurance claims situations. The most typical recreational use is probably video photography or just flying the gadget for fun.

Discussion and testing of UAVs for deliveries of goods is lively, but there seem to be still some major obstacles before this becomes reality. The risks involved in long distances without visual contact between the operator and the drone are obvious.

The development of drones has not stopped. There are already fixed-wing vehicles besides the helicopters. The level of autonomy is also going forward from remotely piloted towards full automation.

AVIATION IS HIGHLY regulated due to the massive risks involved in air traffic. Aeroplanes must be safe. International co-operation on traffic control, standards and systems is inevitable.

Are drones aviation? The regulation has lagged behind identifying the clear differences between flying a drone weighing a few kilograms and a commercial airliner.

The International Civil Aviation Organization (ICAO) is the UN specialized agency working with 191 member states and industry groups to reach consensus on international civil aviation standards and policies. They are working on a regulatory framework to integrate the UAVs into non-segregated airspace together with the commercial aviation.

The European Aviation Safety Agency (EASA) has in December 2015 published its technical opinion of a regulatory framework for the operation of unmanned aircraft. It establishes three categories of operation based on the risk. But even below these categories there is a "harmless" subcategory for very small drones like toys, where only local rules and laws apply. It has more to do with product safety and product liability, with instructions given with the product.

Open category applies to drones below 25 kg and has a minimum set of rules to follow so as to avoid risk. The operation must be within the visual line-of-sight of the pilot and below 50 m altitude. There are various rules for safe distance from other airspace users according to defined zones and from people.

The rise of the drones will continue.

Flying in the Specific category means that one or more safety barriers of the Open category are exceeded. The operation in the Specific category always requires a safety risk assessment.

Certified category means that risks similar to those associated with commercial airlines require rigorous risk management actions and can be operated only with a Remote operator certificate (ROC).

Even with the international agencies addressing the issues to make drones adapt to the risk environment of the skies, there are still many local regulations in force, and countries are at different levels of up-dating them. One illustrative example is Finland, where the authority TRAFI published its regulation last year stating in the media release: "Our brand new regulation on the use of unmanned aircraft is the most liberal in Europe, if not in the whole world. The regulation leaves room for experiments and allows for the development of new business activities."

When the regulation is liberal and leaves the competence and risk management issues to the users and simultaneously requires liability insurance, some of the tasks of regulation are transferred to the insurance companies. Does everyone get coverage or do instead of the regulator the insurance company set the requirements?

At the same time, the Federal Aviation Authority (FAA) in the USA has ruled that every drone weighing more than 227 g must be registered and marked for identification. We will soon see how the international and domestic initiatives to regulate the use of drones will develop. Looking at the pace of the sales and new applications of the drones, there is some urgency.

THE DRONES ARE not expensive and the loss of one would not be a catastrophe. And even with the possibly expensive sensors, cameras and other equipment carried by them, the risk is low. The largest risk potential of the drones is caused if the drone hits property or people on the ground or in a nightmare vision collides with a manned aircraft causing a crash.

There have already been hundreds of reported near misses between drones and manned aircraft although the rules forbid flying drones in airport zones. There are plans to create "geo-fencing" where a safety programme in the operation system of the drone prevents it from automatically flying into restricted areas. On YouTube there are also scary videos of drones crashing and nearly causing accidents.

Because the drone operator has strict liability the risks of drone use seem to be mainly liability risks. They may be dependent on the operator's errors and be evaluated with the tort laws. If there is a manufacturing defect causing a malfunction, it could be judged against the product liability laws. It is still somewhat unclear whether the laws and conventions on commercial manned aviation apply to the liability. They are all based on strict liability without any limit of liability towards third parties.

But if a catastrophe accident would happen, the operator's liability even with liability insurance coverage would probably not be sufficient to cover the damages. This risk is taken by us all when the use of the drones is accepted. Therefore it is very important that the risks of widespread drone traffic are constantly followed and new methods of risk management introduced to prevent accidents.

A privacy issue may also come into the picture in the surveillance or photography by drones.

The technology including digital data processing involves cyber risks. There are test examples of taking over drones or interfering with the signals in the operation. Cyber risks pose serious threats to safety.

Finally, the terrorism threat is also unavoidable. With the capabilities to fly easily anywhere, the drones have already been used by, for example, ISIS in its attacks.

IT IS NOT completely clear whether the compulsory liability insurance requirements of commercial airlines apply to drones. In the EP's Regulation (785/2004) on insurance requirements for air carriers and aircraft operators, the minimum take-off mass category is below 150 kg with a requirement of a liability insurance with at least SDR 750,000 corresponding to about EUR 900,000. There must be coverage even for terrorism. The regulation does not seem to really take into account the difference between drones and manned aircraft, and we are expecting it to be up-dated. But, at the moment it probably applies to commercial drones.

Typically, aviation liability is excluded from the standard general liability insurance policies, and coverage must be obtained from the international markets like London. However, we have witnessed product development on the local markets. The new products have been based either on the existing aviation coverages or general liability policies with new clauses. It is now possible to obtain coverage for commercial drones, for example, from If P&C Insurance.

The hobby use and toys may be covered by the homeowner's policies, but it is too early to state that this will be the standard.

On the ground, the typical all risk property damage and business interruption policies would cover the damage caused by a drone. Of course, there would be the recourse possibility against the owner or operator of the drone. ■

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 PHOTOS: GETTY IMAGES

Managing risks while travelling, or even before?

Travelling? Get a risk overview. Travel-related risks are constantly changing and travel to high-risk geographical locations is becoming more and more frequent.

In the modern world, digitalization as such reduces the need for business travel, but at the same time globalization as a phenomenon in itself is expanding and increases the need for business travel. It is estimated that business travel keeps growing more than 7% annually.

The scale of travel risk is huge, from natural disasters to traffic accidents, more often from various sicknesses to hospital care. Furthermore, the well-being of personnel travelling has become an increasingly important part of an employer´s duty of care. When travel-related risks are constantly changing, it needs well planned and implemented travel risk management as well as a high level of knowledge of the risk profile of companies and locations where employees are traveling to.

The scale of travel risk is huge.

Especially when operating in high-risk geographical locations, an excellent plan is not enough - readiness to act fast is crucial.

YES, IT'S ABSOLUTELY worth planning, for business reasons. Preventive actions are worth the time invested. The main target is to reduce both the company's but also the individual traveller´s risks. The consequences for the company in the worst-case scenario are business or project interruptions, key person losses or interruptions due to key person incidents, reputation and legal risks and monetary losses for variable reasons. According to a Control Risks Group survey for U.S and U.K. travellers, poor preparations exist among travellers and a poor perception of their employers travel safety programme. 80% think that their company has a legal obligation to ensure their safety while traveling abroad on business, 54% carry no specific contact phone number for use in a crisis abroad, and 46% have little confidence that their firm would provide correct information during overseas emergencies.

Furthermore, all employers have a duty of care to their employee. This means that the employer must take all reasonable steps to ensure the health, safety and wellbeing of their employees. This obligation arises under health and safety legislation as well as common law. An employer would be deemed to have breached their duty of care if they failed to do everything reasonable to keep their employee safe from harm. Excellent planning, systematic procedures and practices and well organized and documented travel safety management offers a solid base for evidence of duty of care.

Our recommendation is to begin business travel management with Business Travel Navigator in order to assist in planning and focusing on preventive actions. It also fulfils the employer's duty of care of their employees.

WITH THE ASSISTANCE of Business Travel Navigator, the company obtains an overview of the current travel risk status in a simple and clear way. It also provides recommendations for avoiding existing or emerging travel risks. Furthermore, Navigator assists the company in prioritizing development actions for the future. Business Travel Navigator is also a great tool for benchmarking purposes. Units within a company are able to compare their own level of travel safety to each other. This helps to learn from best practices and make improvements step by step.

Travel risk and management areas, which are discussed challenged are the following

1. Does your company have a vision and plan regarding travel safety?
2. What kind of travel risk management organization does your company have?

3. How are the travelling personnel trained in travel risks and safety awareness?
4. Does your company have checklists for travel and assignment arrangements?
5. Do the travelling personnel receive information about the health risks and travelling risks existing in the place of destination?
6. Does your company have an online database of country-related travel risks and hazards?
7. Does your company have a travel booking system in use?
8. Does your company have a crisis management plan, and when was it last updated?
9. Does your company have a system for feedback, and is the information utilized?
10. Evaluation of your company´s travel insurance policy.

HOW TO START? Simply contact us – we at If are happy to assist. Our Risk Management experts will conduct a review and assessment together with your company representatives. The review itself will take a couple of hours consisting of completing a review questionnaire and

facilitative discussions led by an If expert. After the joint session, the If expert will deliver a report with a risk status together with risk improvements and managerial recommendations.

When you have a good holistic overview of consequences of travel risks, preventive actions should be planned accordingly. Then, what are the actions worth of investing? So, what are the Must Haves and what are the Should Haves?

Must Haves

- Contact numbers in case of emergency
- Assistance Services in place
- Insurance coverage according to global presence and high-risk destinations

Should Haves

- Travel Risk Management plan
- Travel Safety Organization together with Crisis Management
- Evaluations of risk at destinations or database of country level travel risks and hazards
- High risk travel approval practice
- Travel warning practice and country bulletins in case of emergency
- Tracking services
- Regular health check-up practice especially for frequent travellers and long destination travellers
- Health screening practice in place especially for those returning from high health risk destination

Not every single preventive action point has to be in place and up and running immediately. Good vision, a proper plan and carefully chosen actions with the help of If experts guarantees a good night's sleep for risk managers.

And finally, start reducing your travel risks by saving your mobile phone ICE (In Case of Emergency) code and the number of your Assistant Service provider. Just in case. ■

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As a global travel insurer, we operate from all Nordic countries with hundreds of clients and with a hundred thousand travellers around the world in more than 140 countries.

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A+ to If

The rating agency Standard & Poor's assigns If the highest rating within the Nordic P&C arena.

Standard & Poor's rating of If has been raised to A+ with stable outlook (A).

Many customers have rating as a criteria when deciding on insurance provider and even if a higher rating in itself does not give any contracts it will be received positive by the market.

It is also a good grade on our business and each employees contribution, who daily makes this possible, says Magnus Braun, If's Head of Capital Planning & Rating.

"The large and often flat rooftops of industrial and commercial buildings are an ideal location to harvest the energy of the sun."