2019 GLOBAL EHS REGULATORY FORECAST

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TABLE OF CONTENTS

2019 GLOBAL EHS REGULATORY FORECAST

Introduction

This forecast is an extension of
Enhesa's 2019 Global EHS Regulatory Forecast webinar.
It will prepare you with **a better understanding** of **what to expect worldwide this year** in terms of **environmental, health & safety regulations (and policy)** that could **impact your company's operations**.

Enhesa's team of EHS Regulatory Analysts are continually tracking new EHS laws, proposals and policy developments in more than 285 jurisdictions around the world. Our analysts write a specific report for every development, compiling a business impact analysis that our clients purchase access to. The data is then categorized according to our standardized topic headings and used for the basis of our analysis, which is supplemented with insight from our analysts specializing in each region.

That is a lot of information and gives us a unique insight that we look forward to sharing with you.

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2018 Forecast & Global Drivers

In Enhesa's previous 2018 EHS Regulatory Forecast, our analysts identified the following areas as those which they thought would see increased activity in 2018 (and beyond):

- **Climate Change**—In general, which can include mitigation and adaptation efforts
- **Worker Protection**—Particularly workplace stress, bullying and harassment
- **Chemicals and Hazardous Materials Management**
- **Stricter Environmental Standards and Enforcement**

We expect significant developments in regulation on these topics during 2019 and beyond. For us to examine trends in policy and regulation, it is also important to examine the drivers that push legislators and policymakers to focus on particular areas. We have identified five main drivers that are already having an impact and/or will impact environmental and health & safety regulation in the future:

Social, Cultural and Political Changes

The changes include, but are not limited to, the focus on equal pay and working conditions for women; the impact of the #metoo movement on harassment and bullying in the workplace; the taboo being lifted around mental health at work; the aging population and workforce; higher living standards in developing economies and the impact of the current U.S. Administration wanting to roll back environmental laws.

Technological Advances

New technologies are constantly being introduced into workplaces; the *way* we work as a result of the applications of technology is also likely to change in the coming years. This will likely result in regulation to cope with the associated challenges. We are also witnessing an energy transition from a gasoline-based energy economy to one focused on renewable energy.

Public Awareness of Environmental Issues

Public awareness of EHS issues is always a critical driver. This year we have a huge global focus on the issue of plastic waste in our oceans—largely driven by documentaries and activism. In fact, the theme to the UN's World Environment Day in 2018 was "End Plastic Waste."

Climate Change

2018 witnessed a number of extreme weather events. Although it is difficult to link them directly to a changing climate, climate scientists have predicted an increase in number and intensity of such incidents. On October 8, 2018, the UN released a report stressing the importance of action to combat our changing climate.

UN Sustainable Development Goals

The 17 United Nations' Sustainable Development Goals (SDGs) cover environmental, health and safety matters. For more developed countries, the SDGs are unlikely to have a large impact as they are already covered by existing initiatives. However, in countries where there is less policy or regulation in place on these issues, then the global unifying voice of the UN is likely to have some impact.

Global Trends: Regulatory Growth

Global Numbers

Figure 1 represents the overall number of Regulatory Forecaster reports Enhesa wrote globally (across all jurisdictions we cover) 2015 to 2018.
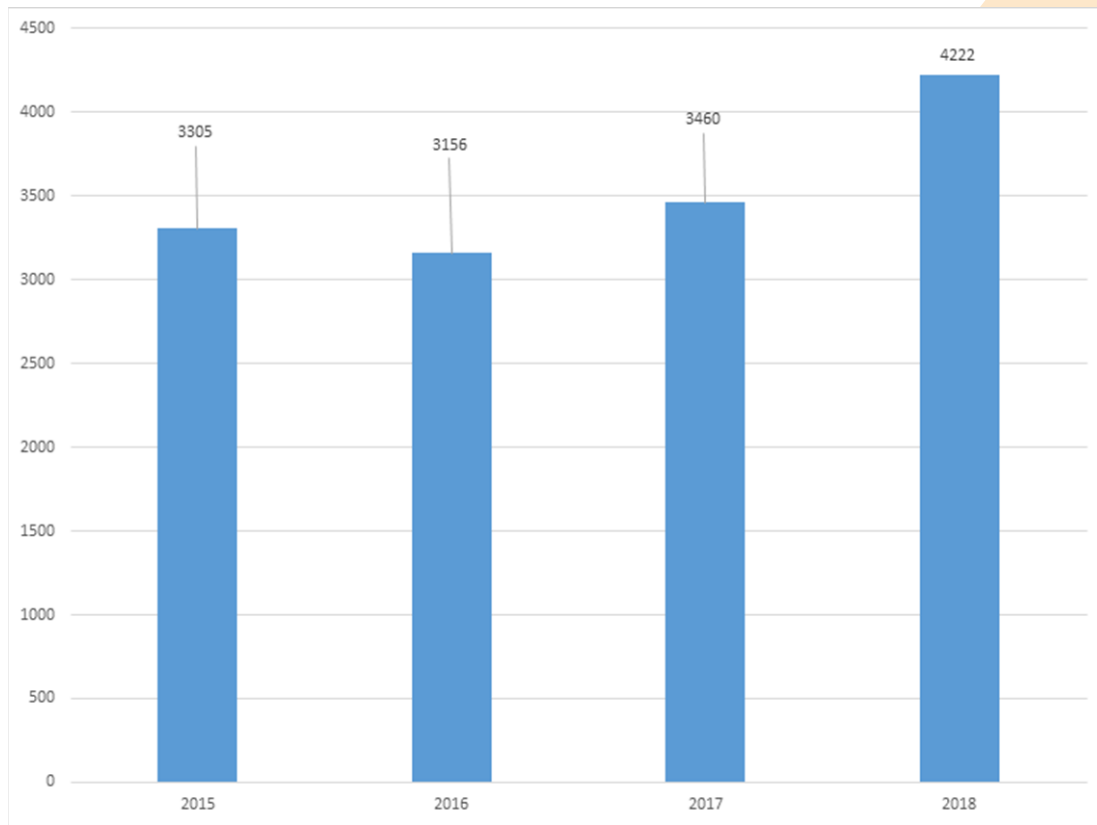
Figure 1. Total numbers of Enhesa EHS Regulatory Forecaster reports published per calendar year
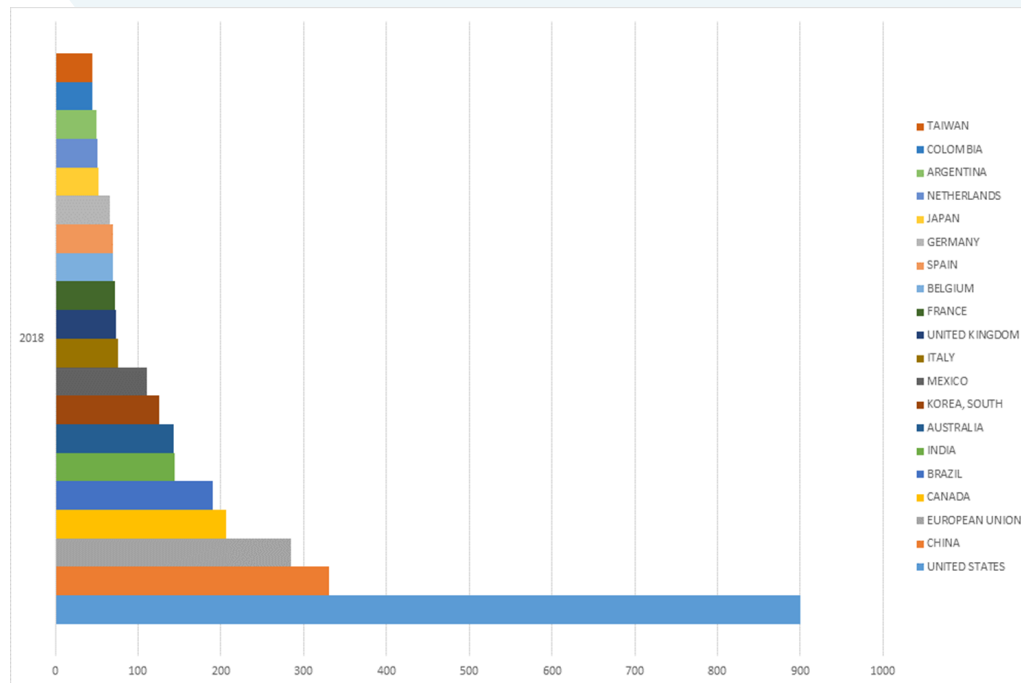
Key takeaways:

- There was an increase of nearly 10 percent in reporting from 2016 to 2017.
- 2018 exceeded the number of reports written in 2015 and 2016.
- Compared to 2017, 2018 increased 35 percent in terms of EHS regulatory and policy devlopments.

Top 20 Countries 2018

Figure 2 shows the numbers of reports written for the 20 most active countries during 2018.

Figure 2. Number of Enhesa EHS Regulatory Forecaster reports published during 2018 for the 20 most active countries

Key takeaways:

- The United states has a high number of reports because we cover developments at multiple levels: Federal, all 50 states, territories, dependencies and the U.S-Administered Antarctic Region.
- China is experiencing a high volume of regulation, policy development and enforcement. In addition to China Federal, we also cover a large number of Chinese Provinces.
- The European Union (EU) has always produced a large amount of legislation and policy – many of the policies have been implemented into the national law of EU Member States. The EU is often a catalyst for regulatory trends around world.
- A few countries that do not have an historically strong approach to EHS regulation appear in this list, such as India, Argentina and Colombia. This can indicate the 'maturing' of regulatory systems in those countries and could provide an indication of a global trend in this regard.

All Reports, Globally

Which EHS topics were the most prevalent in terms of regulatory developments in 2018?

Figure 3 shows how reports for 2018 have been categorized according to Enhesa's broad topic headings.
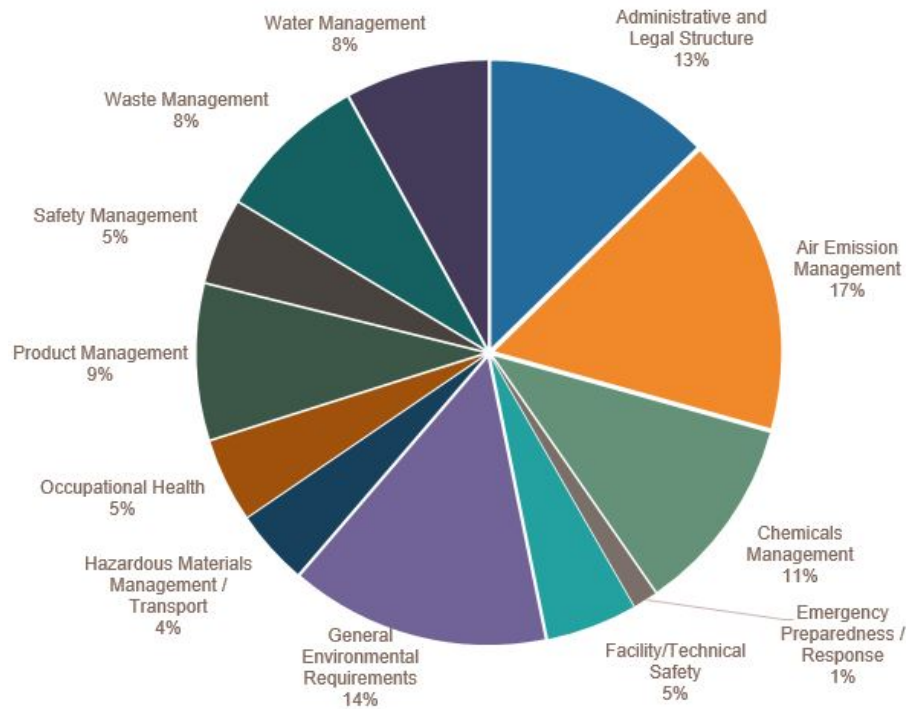

Figure 3. Breakdown of broad EHS topic categorization of Regulatory Forecaster reports, globally during 2018

Key trends:

- **Air Emissions Management** topics came first, constituting 17 percent of all reports. This includes issues such as *Climate Change Policy, Air Emission Limits, Air Quality and Energy Efficiency of Processes and Buildings*, which fit with Climate Change as a global driver.
- **General Environmental Requirements** come a close second (covering issues such as environmental permitting, soil contamination and environmental impact assessments)
- **Chemicals and Product Management** (Product Stewardship) topics, when grouped together, have seen a lot activity, globally. This can be linked back to the drive towards a circular economy (particularly in the EU) and a focus on plastic waste, labeling and chemical restrictions in products.
- In terms of the allocation of Environmental topic headings, versus those more focused on Health & Safety, there is a clear tilt towards environmental topics (51 percent), with only a 25 percent of reports being allocated to health & safety related headings*
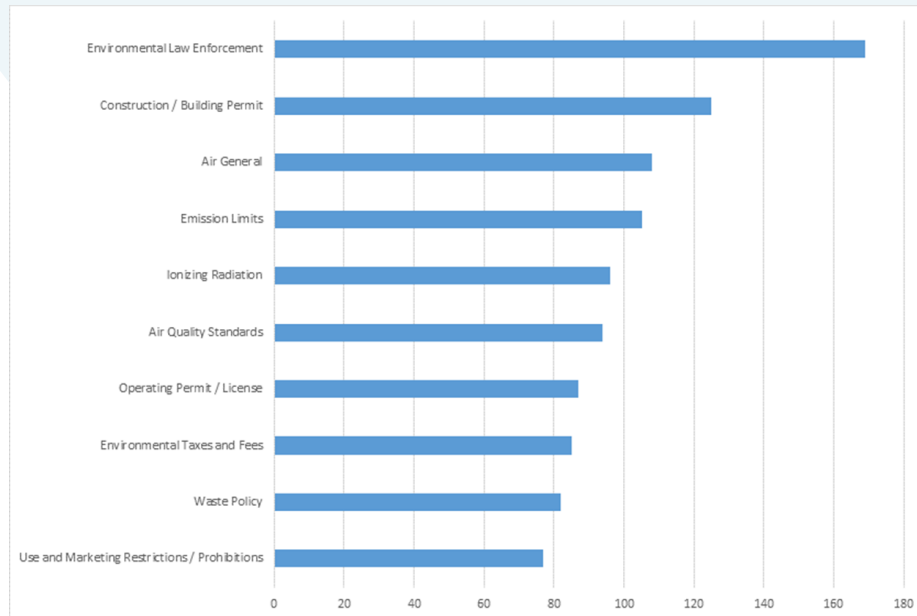
*The remaining 24 percent deal with administrative and regulatory structure (not related to either Environment of Health and Safety specifically); or Product Management, which is often managed as a separate domain.

Specific Topic Headings, Globally

Figure 4 shows the more specific topic headings that appear most often in 2018 Enhesa reports:

Figure 4. Breakdown of Top 10 specific EHS topic categorization of Regulatory Forecaster reports, globally , during 2018

This provides the following conclusions:

- *Air General, Emission Limits, Air Quality Standards and Ionizing Radiation* (emissions to ambient air) are all specific headings under the **Air Emissions Management** umbrella heading. This clearly indicates a significant overall topic of concern to regulators and policymakers.
- Of note is the top placement of *Environmental Law Enforcement*, this backs up the fact that enforcement is on the rise, particularly in terms of environmental issues, and particularly in countries where this was not previously the case (e.g. China, India)

Asia Pacific

Stats & Topic Trends

The Asia-Pacific (APAC) region (including Australia and New Zealand) has seen explosive growth over the past four years in terms of EHS law and policy developments. This growth is largely due to China's increased focus (and India's, to a lesser extent) on environmental regulation and enforcement.

As **Figure 5** demonstrates, the number of reports written covering APAC in 2018 far exceeded those written during 2017. There has been a very clear consistent upward trend over each of the past 4 years, but an exponential jump in 2018.
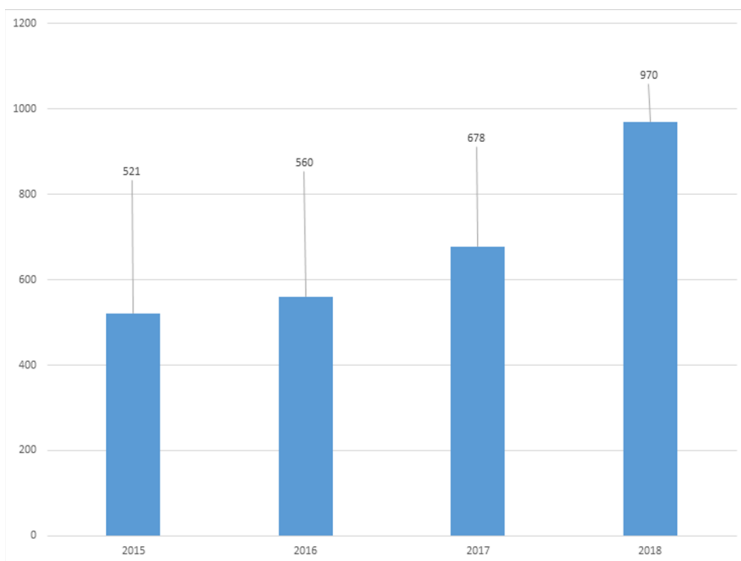
Figure 5. Total number of Enhesa EHS Regulatory Forecaster reports published per calendar year for Asia-Pacific jurisdictions

As we can see from **Figure 6**, China accounts for more reports than the next two countries (Australia and India) combined. Australia, South Korea, Taiwan and Japan also have a large amount of activity.
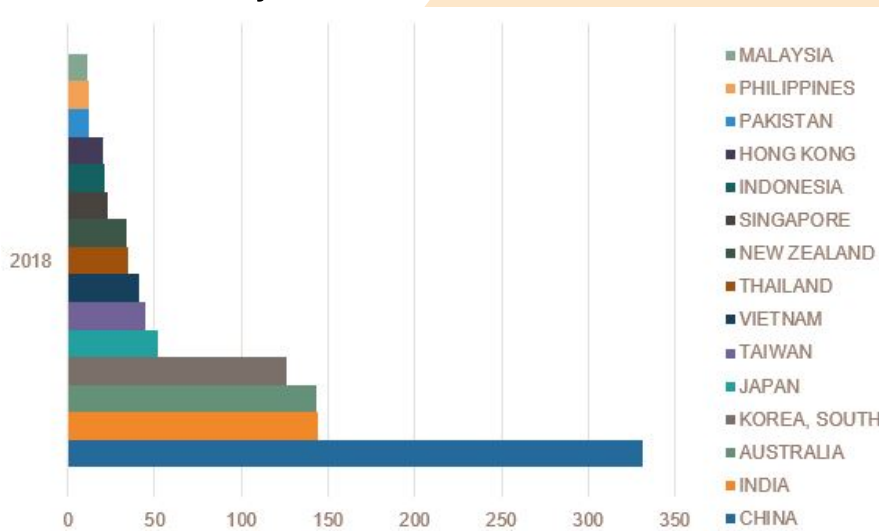
Figure 6. Numbers of Enhesa EHS Regulatory Forecaster reports published for Asia-Pacific jurisdictions during 2018

Asia Pacific: Stats & Topic Trends

As noted in **Figure 7**, there was an increase in reports in India. India's rate of growth for number of reports written in 2018 exceeds that of China (**Figure 8**).

Figure 7. Total numbers of Enhesa EHS Regulatory Forecaster reports published per calendar year for Indian jurisdictions (National & State level)
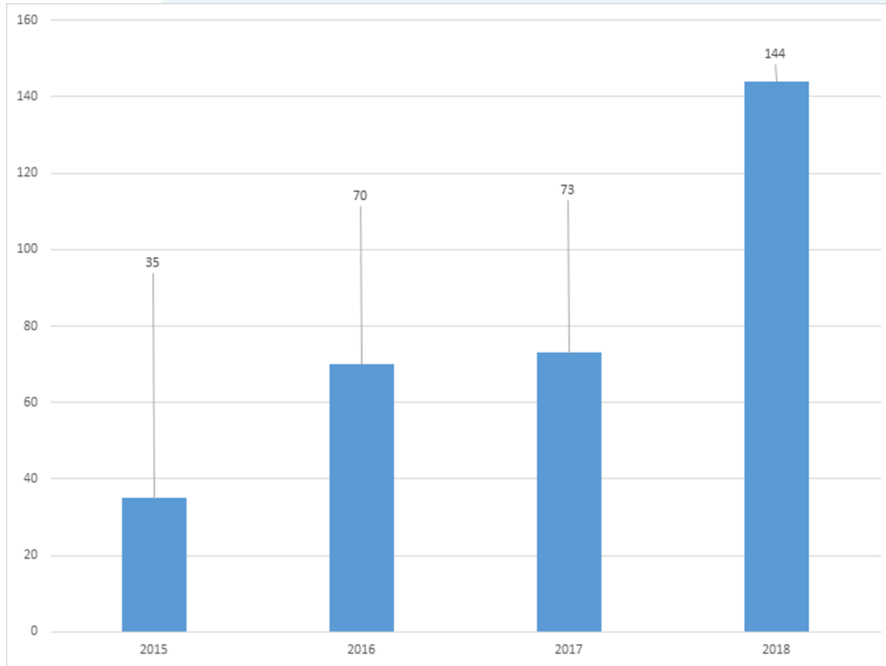
Figure 8. Total numbers of Enhesa EHS Regulatory Forecaster reports published per calendar year for China jurisdictions (National & Province level)
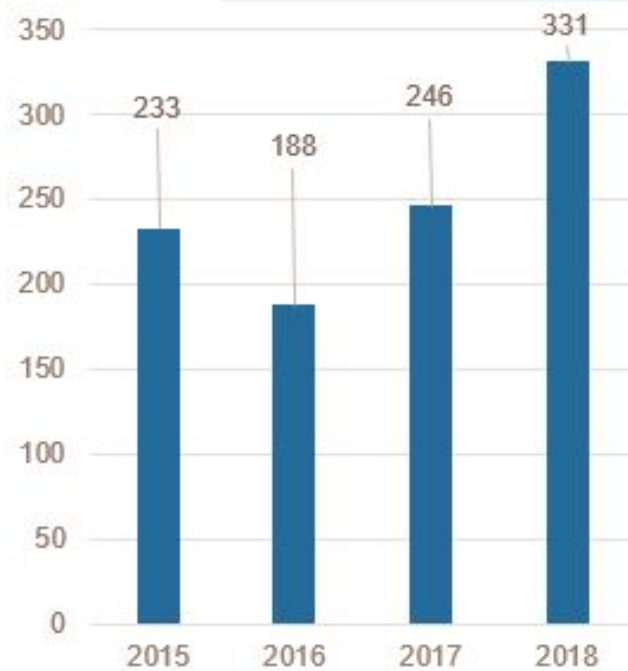
The most prevalent specific topic headings featuring in APAC are highlighted in **Figure 9**:
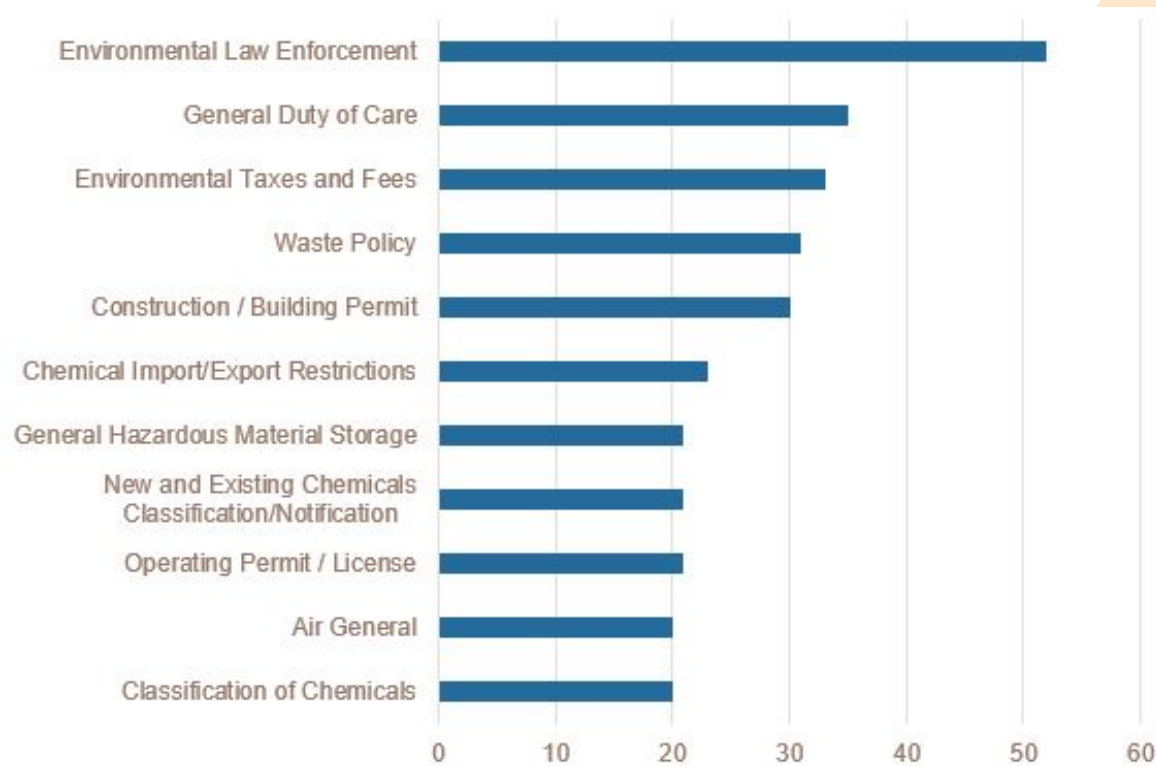
*Figure 9. Breakdown of Top 10 specific Regulatory Forecaster report topics for
Asia-Pacific jurisdictions during 2018*

Points of note:

- As with the global trend, there is a heavy weighting towards environmental issues, and **Environmental Law Enforcement and, General Duty and Environmental Taxes** topics are particularly prominent. This is not surprising given the increasingly high-profile nature of environmental issues in China and India.
- There is quite a broad spread in terms of the top environmental issues, with *Chemical Restrictions*, *Hazardous Materials Storage* and *Waste Policy* also featuring – indicating that countries in Asia are generally strengthening their environmental laws.

China Focus

China has had a fundamental shift in environmental regulation in recent years. Where before the government's focus was purely economic growth, often at the cost of the environment, the new focus is on responsible and sustainable economic growth. The granular-level topics provide further evidence that China is tackling a variety of basic environmental issues.

Figure 10's focus on regulation and policy around the *General Duty of Care* to the environment, *Air General (emissions)*, *Environmental Taxes and Fees*, etc. indicates a back-to-basics approach. China is focusing on integrating the concepts of fundamental rights to a healthy environment, clean air and clean water. *Fire Prevention* being in the top ten Regulatory Forecaster reports further indicates China's renewed overall drive to improve EHS performance.
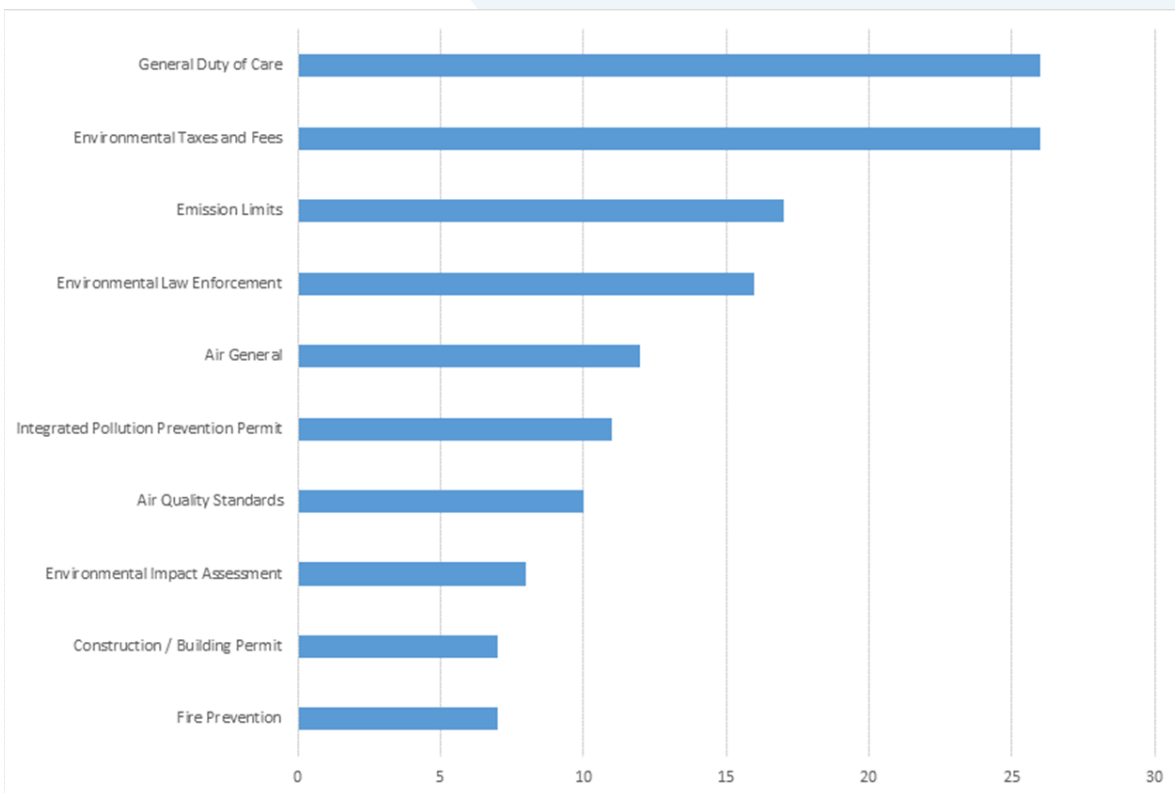

Figure 10. Breakdown of Top 10 specific EHS topics of Regulatory Forecaster reports for China jurisdictions during 2018

Enhesa's Insight

Alongside the aforementioned statistics, Enhesa's EHS Regulatory Analysts covering APAC have identified the following as key trends for 2019 and beyond:

Air Emissions Management

China is imposing emissions limits on specific industries that generate large amounts of VOCs, GHGs and levying environmental protection taxes on emitters of air pollutants and dischargers of wastewater.

In **Shandong, China**, facilities engaging in industrial surface coating or organic chemicals production, and emitting VOCs, are subject to newly published Shandong Emission Standards of Volatile Organic Compounds. Facilities that emit air pollutants in **Beijing, China** are subject to several amendments made to Beijing Air Pollution Prevention and Control Regulation. The affected operations include construction and activities that emit air pollutants. The amendments emphasize the alignment with the national pollutant discharge permit compliance requirements and the environmental protection taxation on air pollution. In **Hubei, China**, companies discharging wastewater into the Hanjiang River Basin must comply with the new discharge standards for 16 water pollutants. The standards cover 16 discharge limits, such as chemical oxygen demands, ammonia nitrogen, total ammonia, total phosphorus and petroleum. In addition, the Standards specify three control areas for Hanjiang River Basin, including special protection, major protection and general protection areas. Different wastewater discharge limits are applied in these protected areas.

Waste Bans

At the very beginning of 2018, **China** announced a ban on imported waste. The banned wastes include 24 categories of solid wastes, such as waste textile materials, vanadium slag, slag from smelting iron and steel, waste plastics from non-industrial sources and unsorted waste papers. In addition, 16 more categories of solid wastes that could be imported and used as raw materials are now prohibited. Following the ban, the Chinese government imposed further restrictions on solid waste importing with respect to import licensing, pre-shipment inspection of the waste and limitation of custom declaration and clearance on the imported waste. Waste importers, such as domestic consignees of imported solid waste, are now limited to using the waste on their own and cannot resell waste to others.

In response to the waste ban and restriction, other countries are also beginning to implement waste import restrictions. For example, in **Thailand**, a variety of scrap electronics and recycled plastics will be gradually banned from importation. Similarly, **Malaysia and Vietnam** revoked or ceased issuing of waste importation permits. **Taiwan** also proposed amendments to restrict waste imports and further regulate importers.

Energy Conservation

Most APAC countries are signatories of the Paris Agreement. To meet their goals, countries in these regions, such as **China** and **Thailand**, have gradually adopted and implemented measures for energy conservation with respect to reducing energy consumption and air emissions. For example, **Singapore** is imposing carbon taxes for industrial facilities' GHG emissions. **India** has also introduced commercial building internal temperature restrictions to reduce energy consumption. Since this year, **China** also requires designated heavy energy users to establish energy conservation targets and accountability systems.

Environmental Impact Assessment

China has been focused on providing more flexibility and increasing the efficiency of the EIA process with respect to the public consultation requirement. Also, disclosure of corporate environmental responsibility is mandated for companies trading in China. In **Malaysia,** companies subject to an environmental impact assessment (EIA) procedure must now ensure that specialized consultants are involved in the EIA procedure. EIA reports without the necessary information will be rejected. In **Thailand**, all operations causing an environmental impact are subject to more stringent environmental impact assessment requirements. The revisions of the EIA requirements insist that companies conduct a health impact assessment and a public hearing for all projects that are likely to cause a severe impact on the environment, health hygiene and quality of life — among other things.

Corporate Environmental Responsibility Requirements

The concept of Environmental, Social and Corporate Governance is becoming well-recognized by large economies in the region like China, India, Hong Kong, South Korea, Singapore and Taiwan. For example, disclosure of corporate environmental responsibility is mandated for companies trading in China and the national government is encouraging non-trading companies to disclose their environmental compliance information.

Meanwhile, companies in **India** seeking Environmental Clearance can be required to allocate a specified percentage of capital investment for Corporate Environmental Responsibility. More regulators have realized this tool to enforce big and influential companies to take the responsibilities to manage their environmental issues.

Corporate Environmental Responsibility Requirements *(cont.)*

In **Japan**, companies can review the 5th Environmental Basic Plan (第五次環境基本計) published by the Ministry of Environment, the central environmental policy document for 2018-2023. Although the Plan does not specify of any potential environmental regulatory measure, it emphasizes three key matters: revising environmental policy implementation; productization of biomass-derived materials and promoting green economic and financial systems.

Emergency Response

(focusing on firefighting and environmental accidents response planning)

The State Ministry of Work Safety of **China** has been reformed to become the Ministry of Emergency Management. This implicates a shift of focus of the agency to strengthen emergency management matters in addition to worker safety regulations. Similar regulatory schemes can be found in **Japan**. Beginning this year, companies in **China** are required to devise environmental accident emergency plans in accordance with the national Guide on Reviewing Companies' Environmental Accident Emergency Plans (Trial). Moreover, **China and Malaysia** have introduced firefighting measures, such as onsite fire brigades and fire emergency response plan requirements. In coming year, more regulations on emergency response are anticipated.

Extended Producer Responsibility (EPR) on Electric and Electronic Equipment

China has adopted laws around the EPR for batteries used in electric vehicles, which imposes the registration and battery take-back requirements on manufacturers and importers of electric vehicles (EVs) in China. Likewise, the government in **India** has developed a plan to address EEE (Electrical and Electronic Equipment) waste by requiring the producers to collect and recycle the waste. Similarly, producers of plastic products in **India** are prohibited from using PET/PETE in certain bottle products and certain non-recyclable plastic materials. Similar regulatory schemes can be found in **Thailand, Hong Kong** and other regions.

Workplace Harassment & Bullying

There are several examples of regulation on this topic across APAC. Under a proposal in **South Korea**, all facilities except for those that are operated by family members would need to prepare and use a manual as part of the required training to prevent sexual harassment in the workplace. The proposal at issue is part of the Ministry of Employment and Labor's efforts to clarify what measures facilities must undertake to prevent and prohibit sexual harassment.

Workplace Harassment & Bullying (cont.)

In **Australia**, all companies will soon be able to access an updated version of the Australian 10-year work health and safety (WHS) strategy 2012-2022 to assist in reducing worker injuries and fatalities. This is due to a mid-term review of the Strategy carried out by Safe Work Australia in 2017, which identified the need to make minor changes to the current strategy (such as the incorporation of explicit references to workplace bullying, harassment and occupational violence). In **Japan**, an investigative committee under the Ministry of Health, Labor and Welfare published a report to understand and take voluntary initiatives to prevent or reduce cases of power harassment at the workplace. "Power harassment" is a form of workplace harassment that involves one's superiority status over another in terms of job title, experience, knowledge or other matters. The investigative committee was unable to conclude the necessary regulatory measures to combat power harassment, as it passed on the decision for the Labor Policy Council, the highest policy-making body of the MHLW for labor-related matters, to make.

Future of Work – Impact on Regulation

It is also worth noting that with economies and workplaces likely to be transformed by technology in the coming years, we can expect to see some regulation to react to this. This is already happening in some places. For example, in **Japan** under the five-year safety and health plan published for 2018-2022, a particular emphasis has been placed on industrial robots and machine use. The Plan encourages companies to take a dual corporate level and facility level approach to safety and health management and address prominent issues such as workplace fatalities, overworking and supporting chronically-ill workers.

North America

Stats & Topic Trends

The USA has had by the most regulatory activity of any country during 2018.

Figure 11 shows that the topics that garnered the most attention during 2018. Most notably:

- There is a strong focus on **Air Emissions Management** topics—representing three out of the top 10 most popular topics.
- **Water Management**-related topics also feature prominently and cover both controls on *Wastewater Discharge* (*Policy, Permits and Restrictions*) and *Drinking Water Protection*.
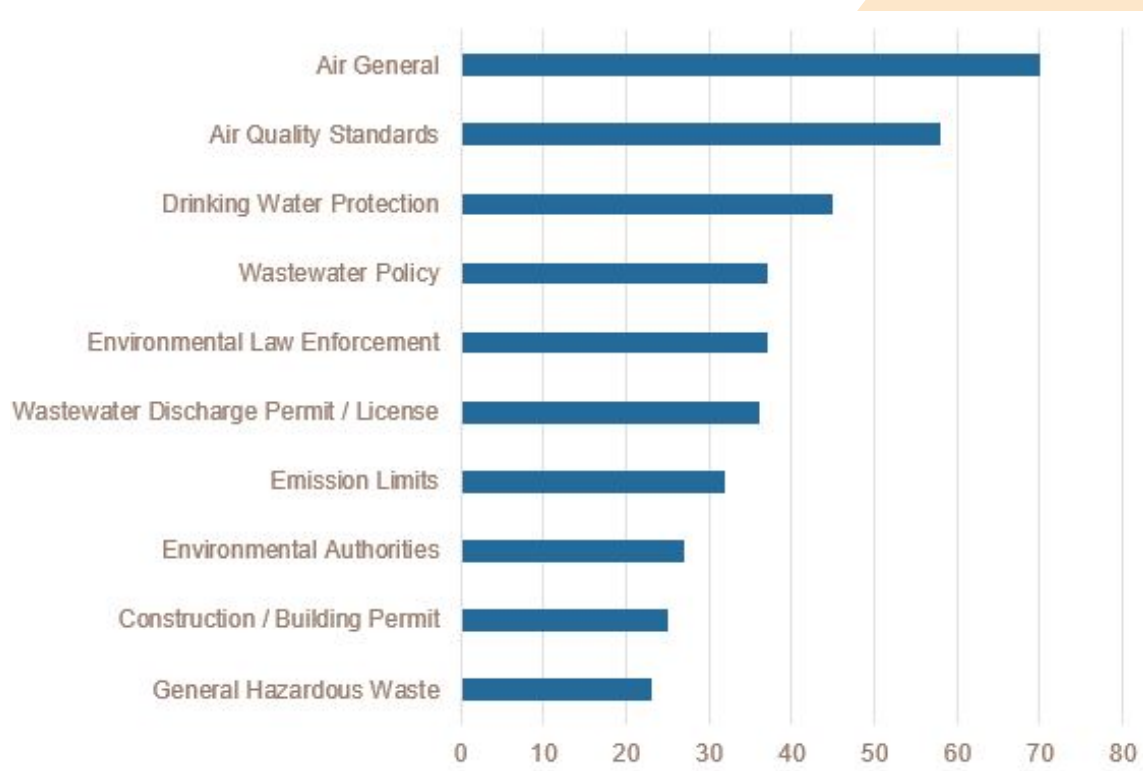

Figure 11. Breakdown of Top 10 Specific EHS Topic Categorization of Regulatory Forecaster Reports, for U.S. Jurisdictions during 2018

Comparison with Canada

Although Canada was the fourth busiest country globally, in terms of EHS regulation and policy development in 2018, it had only one quarter of the developments as the U.S.

North America: Comparison with Canada (cont.)

As well as the differences in volume of law and policy developments, Canada's top four topics for 2018 are very different to the United States' and relate primarily to chemicals management. The high volume of chemicals management reports can be partially explained by ongoing assessment activities, such as the third phase of Canada's Chemicals Management Plan (CMP). The third phase of the CMP was launched in 2016 to assess the health, safety and environmental effects of 1,550 priority chemicals that were identified during the categorization phase. While this process is ongoing and will continue through 2020, there is no new information or developments that warrant identifying these chemicals management issues as an emerging trend for the coming year.

The following are examples of chemicals-related developments in Canada over the last year:

- A number of developments at the Canada National level revolve around specific chemicals. For example, there are various, separate proposed orders that would revise Significant New Activity (SNAc) notifications for the use of substances such as ethane, 1-2-dimethoxy- (also called monoglyme); furfuryl alcohol and tetrahydrofuran.
- Various amendments to the Canada National Domestic Substances List (DSL) are also proposed. For example, Benzophenone and phenol, 2-(1-methylpropyl)-4,6-dinitro- (also called dinoseb) are proposed to be added to the Toxic Substances List.
- Also at the Canada National level, companies manufacturing, importing or using 22 specific substances in their industrial processes no longer have to comply with reporting requirements under the Canadian Environmental Protection Act 1999 (CEPA) as of 24 June 2018 because the substances were added to the DSL.

In Canada, the next four most popular EHS topic categories from 2018 related to climate change and air emissions management—following the global trend and signifying an important emerging trend in Canada for 2019: carbon pricing. To take one example, since September 1, 2018, operators of facilities in **Saskatchewan** that emit 10,000 tons or more of CO2 emissions annually are subject to newly established reporting requirements.

North America: Enhesa's Insight

As we have pointed out, the number of Enhesa reports written on particular topics is a rough indication of regulatory trends. Therefore, while some of the most popular EHS topics from 2018 indicate emerging trends for 2019, others do not.

In the USA this is likely due to federally delegated programs that give states the authority to administer and enforce federal requirements. Under delegated programs, states must ensure that their requirements are at least as stringent as the federal requirements. When a federal agency adopts a new rule or revises an existing requirement, each state with delegated authority must adopt or revise its own rules to reflect the federal changes. This system accounts for many reports on air and water quality standards, hazardous waste requirements, ionizing radiation rules and underground storage tank (UST) regulations in the US.

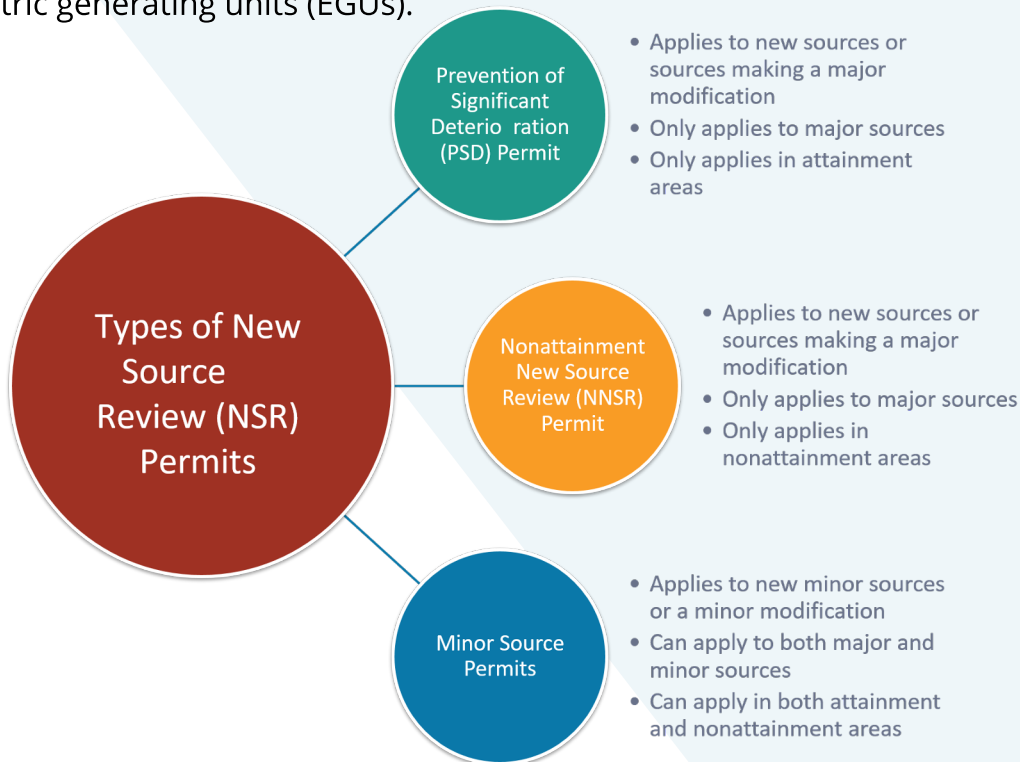## *USA: Continuing Environmental Deregulation*

Over the past few years, the dominant theme in the **United States** has been environmental deregulation. In the past, we have seen the U.S. Environmental Protection Agency (EPA) use direct measures to postpone, repeal or replace numerous environmental regulations or policies. For example, at the beginning of 2018, the EPA rescinded its "once-in-always-in policy" for the classification of major sources of hazardous air pollutants (HAPs). Now that this policy is no longer in effect, major sources that lower their potential to emit (PTE) below the applicable major source thresholds become an area source and are no longer subject to the more stringent maximum achievable control technology (MACT) standards. Previously, the EPA's policy required major sources to comply with the MACT standards even if they took measures to reduce their PTE below the applicable major sources thresholds.

During 2019 and into the future, we expect this theme of direct deregulation to continue, especially with respect to air emissions issues. For example, the EPA is currently in the process of resolving 148 regulatory actions and has identified an additional 49 deregulatory actions it hopes to initiate in the near future. One important example of an upcoming deregulatory action is the New Source Review (NSR) program under the Clean Air Act (CAA). In early 2019, the EPA expects to publish a proposed rule that would simplify the NSR process. Currently, companies could become subject to three different types of NSR permits if they construct new sources or modify existing sources, including a Prevention of Significant Deterioration (PSD) permit, a Nonattainment New Source Review (NNSR) permit or a minor source permit. The EPA believes that the existing regulations hinder or discourage companies that want to upgrade or modify their facilities for fear of being subject to the NSR requirements. Therefore, the EPA is in the process of determining how to best amend the NSR program to allow for more cost-effective operations.

USA: Continuing Environmental Deregulation *(cont.)*

In addition to continuing direct deregulation efforts, we also expect to see federal deregulation take other forms. Specifically, we predict that the EPA and other administrative agencies will decrease federal regulatory oversight by redistributing or delegating their administrative authority to the states using cooperative federalism. This is already taking place with the Clean Power Plan (CPP) replacement rule: The Affordable Clean Energy (ACE) rule. Under this rule, the EPA essentially allows each state to decide how it wants to regulate air emissions from fossil fuel-fired electric generating units (EGUs).

Types of New Source Review (NSR) Permits

Prevention of Significant Deterio ration (PSD) Permit
- Applies to new sources or sources making a major modification
- Only applies to major sources
- Only applies in attainment areas

Nonattainment New Source Review (NNSR) Permit
- Applies to new sources or sources making a major modification
- Only applies to major sources
- Only applies in nonattainment areas

Minor Source Permits
- Applies to new minor sources or a minor modification
- Can apply to both major and minor sources
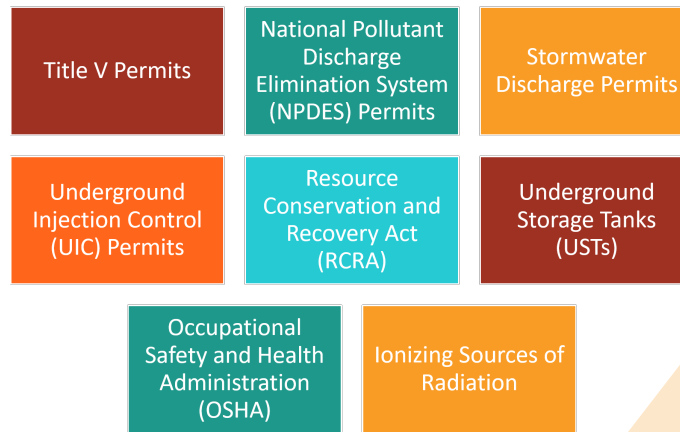- Can apply in both attainment and nonattainment areas

Outside of the CAA, we are also seeing the EPA and other agencies delegating more of their implementation authority to states under existing environmental programs. For example, more states are applying for—and the administration is granting—more delegation requests, such as:

- **North Dakota** becoming the first state to administer underground injection control (UIC) permits for Class VI wells under the Safe Drinking Water Act (SDWA)
- **Florida** and **Wisconsin** planning to apply for and assume Section 404 dredge and fill permitting delegation under the Clean Water Act (CWA)
- **Kentucky** being delegated more authority under the Resource Conservation and Recovery Act (RCRA)
- The administration wanting to expand delegation authority under the National Environmental Policy Act (NEPA) to include more agencies and programs, instead of the existing, limited delegation authority granted to the U.S. Department of Transportation (DOT)
- **Vermont**, and to a limited extent **Wyoming**, applying to become agreement states with the U.S. Nuclear Regulatory Commission (NRC) to regulate ionizing sources of radiation.

USA: Continuing Environmental Deregulation *(cont.)*

Title V Permits	National Pollutant Discharge Elimination System (NPDES) Permits	Stormwater Discharge Permits
Underground Injection Control (UIC) Permits	Resource Conservation and Recovery Act (RCRA)	Underground Storage Tanks (USTs)
	Occupational Safety and Health Administration (OSHA)	Ionizing Sources of Radiation

Examples of Federally Delegated Programs

While the administration has been increasing its deregulation efforts, there has been noticeable pushback from environmental groups, states and, notably, the courts when the current administration has tried to delay enforcement of Obama-era regulations. Examples of this include:

- A U.S. District Court's decision to overturn the delayed enforcement of the Waters of the U.S. (or WOTUS) rule under the CWA
- Numerous court challenges to the U.S. Bureau of Land Management's (BLM's) delay of the 2016 methane waste rule
- The D.C. Circuit Court's decision to overturn the delayed enforcement of the 2017 Risk Management Program (RMP) amendments under the CAA
- **Vermont's** law to freeze energy efficiency standards for appliances and equipment as they existed on January 23, 017 should the current standards be rolled back
- **Oregon's** law to freeze all air and water regulations as they existed on January 19,2017

As more environmental groups file lawsuits against the administration's deregulatory actions, we expect this type of pushback to continue into next year, which could affect companies in several different ways. In some circumstances, it could mean that companies do not have to comply with the more stringent Obama-era requirements because the current administration will successfully repeal or replace the rule before it takes effect. However, in other circumstances, it could mean that companies would still have to comply with the more stringent, Obama-era regulations because the courts overturn the current administrations attempts to delay implementation of the requirements or because states retain and enforce the previous requirements under delegated programs, as is the case with **Vermont** and **Oregon**.

USA: PFAS Regulation

The EPA has also seen pushback from communities and the legislature regarding its failure to sufficiently regulate per- and polyfluoroalkyl (PFAS) chemicals. Currently, the EPA only regulates two PFAS chemicals - perfluorooctanoic acid (PFOA) and perflorooctanesulfonic acid (PFOS) - through lifetime health advisories, but these advisory levels are not directly enforceable, are difficult to implement and are arguably not protective enough. The EPA has outlined four actions the EPA could potentially take to regulate PFAS:

- Set maximum contaminant levels (MCLs) for PFOA and PFOS to protect drinking water contamination
- Designate PFOA and PFOS as hazardous substances
- Develop groundwater cleanup recommendations for PFOA and PFOS at contaminated sites
- Draft toxicity values for various PFAS chemicals

The EPA has begun the process for a few of the above options; however, the EPA predicts that the proposed actions could take several years before being adopted or taking effect.
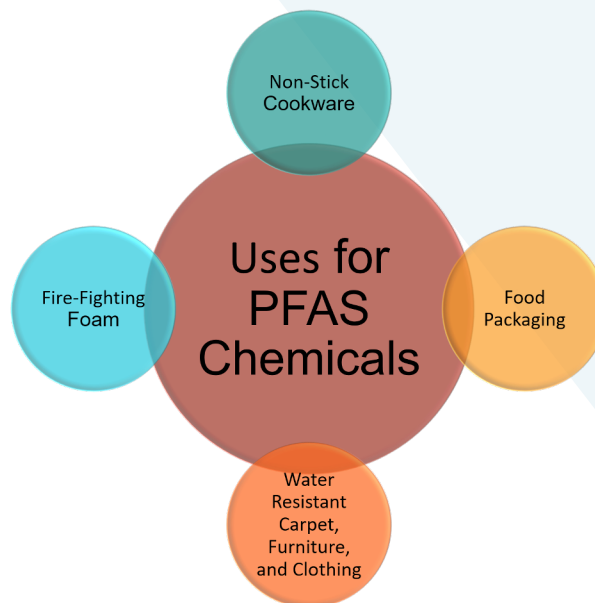
In the meantime, there has been community pushback and anger due to high exposure rates across the United States, which could lead Congress to act faster than the EPA and enact something over the next year. A more likely outcome, however, is that states will continue to research the effects of PFAS exposure and set more stringent standards for PFAS chemicals. Many states have already begun to do so, including: **Alaska**; **New Jersey**; **Colorado**; **Vermont**; **Michigan**; **Pennsylvania and Minnesota**.

USA & Canada: Workplace Violence and Sexual Harassment

In both the **United States and Canada**, Enhesa consultants have noticed that states and provinces have been adopting and proposing rules to regulate workplace sexual harassment and workplace violence. In the U.S., the federal Occupational Safety and Health Administration (OSHA) does not regulate this topic area, meaning it is left to the states. In the era of *#metoo*, a few states and provinces have begun creating new sexual harassment policies or revising and strengthening existing rules, and we expect this trend to continue in 2019. Some of these jurisdictions include: **Alberta**; **Delaware**; **New Brunswick**; **New York** and **Vermont**.

To take the **New Brunswick** development as an example, after April 1, 2019, companies operating in New Brunswick will be required to prepare and update written risk assessments for workplace violence under adopted amendments to the provincial Occupational Health and Safety Act. If these assessments identify a risk of violence, workplaces are then required to establish a written code of practice to mitigate the risk of violence and ensure the health and safety of employees. Additionally, all workplaces are required to establish a code of practice related to harassment, and employers are required to develop a training program to further implement the code.

Canada: Carbon Pricing

There have been quite a few issues dealing with the carbon market program in Canada, with some pushback from provinces like Ontario. In December 2016, the Canadian government and *most* provinces and territories signed the Pan-Canadian Framework on Clean Growth and Climate Change to meet greenhouse gas (GHG) emissions targets. The aim was to put a price on carbon pollution. Each province was given leeway to design and implement its own carbon pricing system. For example, provinces could set an explicit price on carbon pollution or could develop a cap-and-trade system. Provinces were given until September 1, 2018 to submit their carbon pricing system or notify the government of their intentions. Otherwise, the province would be subject to the federal plan or federal backstop.

 On October 23, 2018, the Canadian government announced its [federal backstop](#), which will take effect in 2019. Under the federal backstop, there will be a $20 per ton tax on GHG emissions that will increase by $10 each year until the cost of carbon pollution is $50 per ton by 2022. Because the following provinces have not designed or implemented their own carbon pricing system, they will be subject to the federal backstop beginning in April 2019: **Saskatchewan**; **Manitoba**; **Ontario** and **New Brunswick**. We expect to see further developments in this regard at the provincial level in Canada as the federal backstop and provincial programs take effect

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## Canada: Transportation of Dangerous Goods

On June 30, 2018, **Canada** proposed comprehensive amendments to its Transportation of Dangerous Goods (TDG) regulations. Under the current TDG requirements, any person importing, offering for transport, handling, or transporting certain higher risk dangerous goods above certain quantities or concentrations must have an Emergency Response Assistance Plan (ERAP) approved by Transport Canada (TC). For example, dangerous goods that trigger the ERAP requirements include chlorine, propane and crude oil. An ERAP describes what actions must be taken in the event of a transportation accident involving these higher risk dangerous goods. TC proposed these amendments in response to a train derailment in July 2013 that spilled crude oil and caused 47 deaths.

To prevent similar accidents in the future, the proposed amendments would clarify the implementation of ERAPs and would enhance emergency preparedness and response requirements. The public comment period for this proposal ended in August 2018, which means that these amendments will likely be adopted and take effect in the next few years. TC is also planning other upcoming amendments to its TDG regulations over the next few years.

Latin America

Stats & Topic Trends

Figure 12 shows that Mexico and Brazil—the two most populated countries in the region—l dominate the number of reports published covering Latin America (LATAM) during January to October 2018. Both countries regulate matters at State level as well as the Federal level, which means there are multiple jurisdictions developing and implementing EHS law and policy in those countries. Although the LATAM region in general has had a tradition of poor EHS regulation and enforcement, it is interesting to note that of the top 20 jurisdictions globally in terms of developments tracked by Enhesa (see **Figure 2** above), four of those countries are from the LATAM region (Argentina and Colombia are the two additional ones).
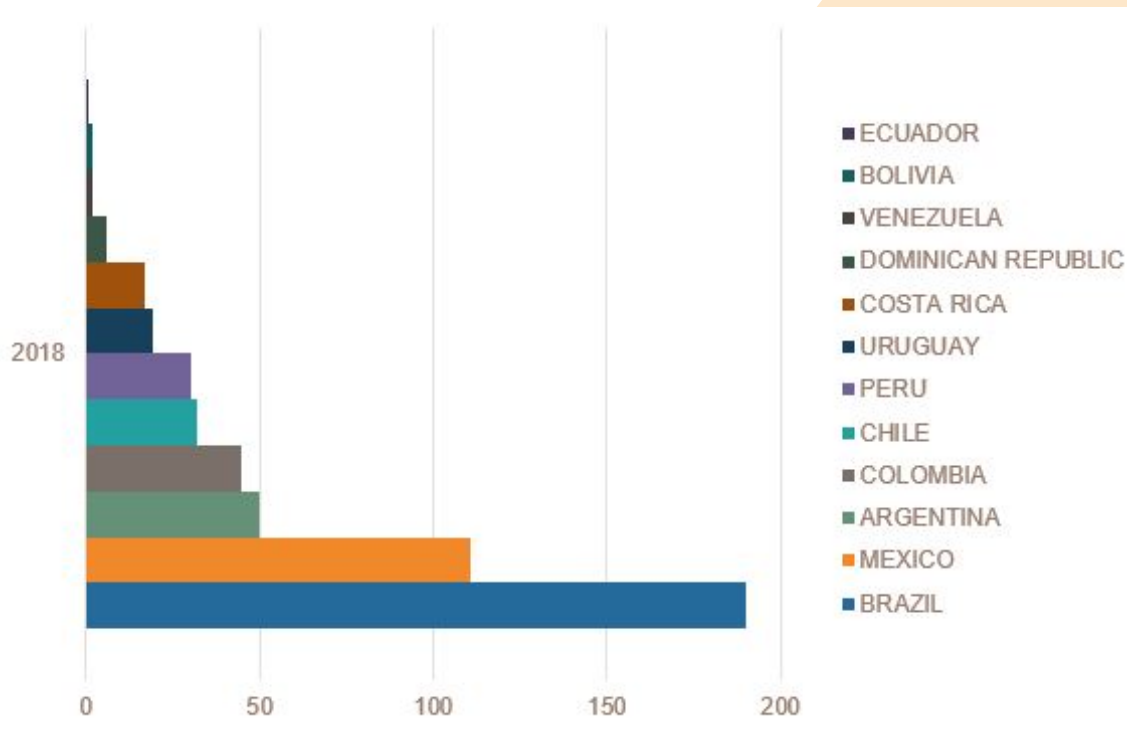
Figure 12. Number of Enhesa EHS Regulatory Forecaster reports published for Latin American countries during 2018

Latin America: Breakdown of Topic Headings 2018

The most popular topics covered in LATAM in 2018 are highlighted in **Figure 13.**
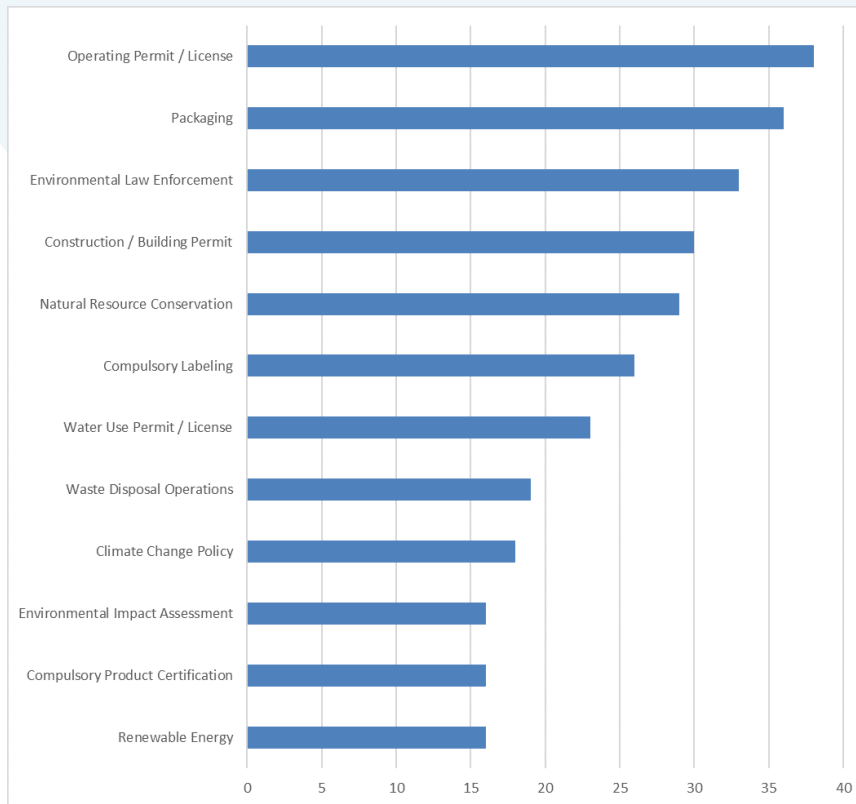
Figure 13. Breakdown of Top 10 specific EHS topic categorization of Regulatory Forecaster reports, for LATAM jurisdictions during 2018

Key points of note:

- Although the statistics would appear to indicate that there is an overall focus on strengthening provisions around permitting (both around general/integrated environmental operating permits, but also for permits related to construction works and water use), it is worth noting that this topic is number one due to a surplus of activity in Brazil. If we take Brazil out of the equation the figures change quite a bit; *Packaging* becomes the number one topic followed by *Environmental Law Enforcement, Compulsory Labeling, Climate Change Policy* and *Environmental Impact Assessment.*
- As the most popular topics seem to address the spectrum of environmental media, this indicates a general move to improve and mature environmental regulation and enforcement. This is further backed up by *Environmental Law Enforcement* featuring strongly.
- Although overall there was little focus on **Air Emissions Management**, there have been a number of *Climate Change Policy* and *Renewable Energy* developments which, as they become implemented and associated laws are developed, could lead to an increased focus on this in coming years.
- Due to LATAM's abundant natural resources (e.g. the Amazon rainforest) and the pressure rapid economic development has placed on the natural environment, there are unsurprisingly a number of developments in this regard.

Latin America: Enhesa's Insight

Aside from the aforementioned statistics, Enhesa analysts covering Latin America have come up with the following major trending topics for which we expect to see more developments in the coming year:

Worker Protection

As we predicted in our forecast for 2018, there remains focus on worker health and protection across Latin America—especially regarding female workers' risks and maternity rights. In **Argentina**, both in Buenos Aires and at National level, there are proposals that would require employers to provide breastfeeding rooms and longer breaks than currently established. **Chile** has a pending proposal which would require companies with 20 or more workers (not specifically 20 or more female workers) to have nurseries or pay the related costs and to extend the right to a paid parental leave for fathers.

In **Uruguay**, a frontrunner on this area, breastfeeding rooms have been mandatory since 2017; Uruguay established specific regulations these rules must comply with this year. Similarly, **Colombia** and **Costa Rica** have also issued regulations establishing the minimum technical requirements for nursing/lactation rooms, such as type of refrigerators and materials for the floor.

Regarding sexual harassment at the workplace, both **Mexico** and **Peru** have adopted regulations amending their Criminal Codes to establish stricter criminal sanctions. **Costa Rica** and several states in Mexico have also adopted or proposed regulations to prevent and sanction workplace harassment and violence. In **Uruguay**, there is a new regulation that requires employers to adopt measures to ensure gender-based violence at the workplace does not negatively affect the career of the workers and their right to work.

Plastics Pollution

The fight against single use plastic and plastic waste has reached Latin America in full force.

In **Argentina,** both at National level and in Buenos Aires, there are several pending proposals that would ban certain plastic products such as expanded polystyrene containers and cups for food and beverages, polymer-based bags, polyethylene bags and all other conventional plastic material for packaging and cups and straws manufactured of a polymer derived from petroleum. Most of these proposals would replace the plastic products for biodegradable alternatives.

Both **Chile** and **Uruguay**, already a step further, have adopted laws prohibiting plastic bags. Additionally, **Chile** has a pending proposal that would ban conventional plastic containers made from non-biodegradable or non-compostable polyethylene and polypropylene. Several states in

Latin America: Enhesa's Insight

Plastics Pollution (cont.)

Both **Chile** and **Uruguay**, already a step further, have adopted laws prohibiting plastic bags. Additionally, **Chile** has a pending proposal that would ban conventional plastic containers made from non-biodegradable or non-compostable polyethylene and polypropylene. Several states in **Mexico** have also adopted regulations banning or restricting the manufacture, distribution and use of plastic bags and establishing their replacement with biodegradable options. Both **Colombia** and **Peru** have pending proposals prohibiting the manufacture or supply of single use plastics and plastic bags.

In **Brazil**, the emphasis is on ban of plastics in cosmetics. **Rio de Janeiro** has already prohibited the manufacture and distribution, use and disposal of any cosmetic, personal hygiene or cleaning product containing plastic microbeads. While at Federal level there is a proposal that would prohibit the handling, manufacture, import and commercialization of toiletries, cosmetics and perfumes containing microbeads.

Waste Resource Protection

In **Buenos Aires, Argentina**, the use of water resources has been further regulated according to water availability maps for both surface and underground water. Both in Buenos Aires and at National level there are pending proposals to establish the basic principles for proper environmental management of wastewater from industrial sources and stricter requirements to issue water use permits.

Chile has adopted two legislations on water protection. The first one establishes a more stringent inspection and sanctions regime regarding the use of water resources and the second one allows the installation of gray water reuse systems to use the treated water. There is a pending proposal that would revise the standards for the discharge of wastewater to underground water.

Colombia has adopted several stricter regulations on water use and wastewater discharges. For example, facilities discharging wastewater into marine water must comply with specific parameters and maximum permissible pollutant levels; companies with water concessions must develop a program for efficient water use and water saving and companies intending to obtain a wastewater discharge permit must follow a national guidance on water modeling for surface freshwater.

Latin America: Enhesa's Insight

Waste Resource Protection (cont.)

 In **Brazil**, at Federal level, the criteria for granting groundwater use authorizations has been consolidated and streamlined and restrictions to abstract water from specific water bodies have been extended several times. At State level, **Sao Paulo** has established that companies failing to comply with any requirement on the use or protection of water resources can now be subject to fines. In **Rio Grande Do Sul** the criteria for granting groundwater abstraction authorizations has been updated and made stricter. In **Peru**, companies can now participate, on a voluntary basis, in the "Water Footprint Programme." The programme encourages the measurement and the reduction of the environmental impact related to the use of water in production processes.

 The **Dominican Republic** has a pending proposal that would change the ownership of water resources, making them part of public domain. The proposal would require companies to obtain a concession for their use and a permit for the discharge wastewater into water bodies. **Mexico** also has a pending proposal to modify an official standard that would establish stricter maximum limits of basic contaminants, heavy metals and cyanides for wastewater discharges into water bodies, introduce new parameters to measure in discharges and increase the reporting requirements.

Climate Change

Continuing the 2018 trend, several countries in Latin America continue to issue regulations and policies to fight climate change. In **Argentina**, there is a proposal to establish strategies, measures, policies and instruments for greater adaptation to and mitigation of the consequences of climate change. This could result in companies being subject to more stringent requirements related to reduction of greenhouse gases and energy efficiency. **Chile** has adopted regulations establishing obligations to monitor, report and verify air emissions from fixed sources and to register initiatives to mitigate greenhouse gases. In **Colombia**, its first emission trading system has been adopted which establishes annual emission quotas of carbon dioxide.

Costa Rica has adopted a National Policy of Adaptation to Climate Change to mitigate and prevent its possible negative effect. Similarly, **Peru** has adopted a Framework Law on Climate Change aimed to plan, execute and monitor public policies on climate change and adaptation to its consequences. In order to comply with its international engagements on greenhouse gases emissions' reduction, **Mexico** has amended the General Law on Climate Change to establish stricter emission targets and a mandatory emission trading system. Additionally, several states have adopted new or stricter regulations regarding emissions' reduction, reporting and monitoring obligations and maximum emission limits.

Climate Change (cont.)

 Among other regulations, **Brazil** has adopted a National Biofuels Policy (RenovaBio) and its implementing decree which require companies producing, distributing, using, or placing fuels on the Brazilian market to comply with compulsory targets for the reduction of greenhouse gas emission. Additionally, companies importing hydrochlorofluorocarbons (HCFCs) or mixtures containing them must now comply with limiting quotas.

Uruguay, **Costa Rica** and **Mexico** have adopted the Kigali Amendment, which aims at cutting down the global use of harmful hydrofluorocarbons. While the Doha Amendment, which establishes further commitments to reduce the emission of greenhouse gases, has been adopted by **Uruguay** and **Brazil**. The adoption of these amendments will result in additional measures to ensure compliance with their provisions.

Europe

Europe: Statistics & Topic Trends

Europe always sees a lot of policy and regulatory developments around EHS. Trends that start there often spread around the rest of the world.

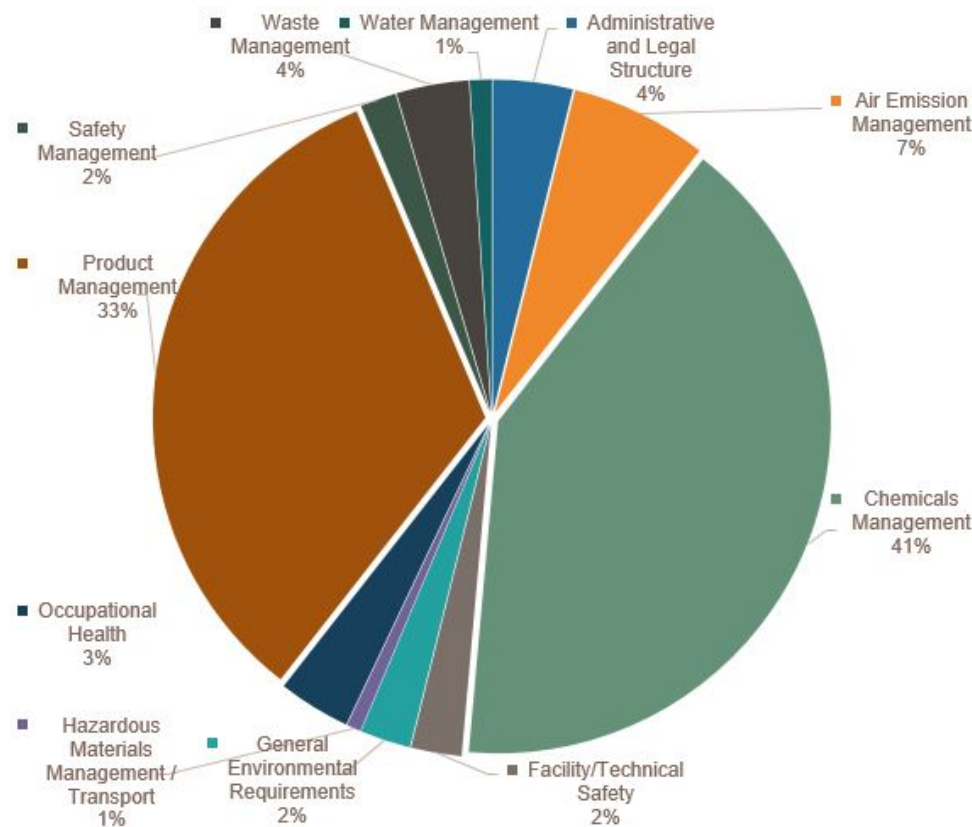### *Comparing the European Union (EU) and European Countries as a Whole.*

There are two ways of looking at Europe:

- As the EU (as a supranational law-making body — a jurisdiction in itself)
- Individual countries that may be member states of the EU or a wider geographical European area

It is immediately obvious from looking at the broad topic areas that the EU regulatory and policy developments are dealing with, that there are two areas seeing almost a duopoly in coverage. As we can see in **Figure 14**, these two areas are **Product Management** (topics related to the placing on the EU market of products) and **Chemicals Management** (relating to the use, marketing and production of chemicals).

2

Figure 14. Breakdown of broad EHS topic categorization of all Regulatory Forecaster reports, for the European Union during 2018.

The EU's current policy focus is very clearly the topic of "Circular Economy." In addition, there is also a focus on restrictions on using chemicals in certain products, as well as the continuing functioning and expansion of the REACH Regulation and the CLP Regulation (implementing the UN's Globally Harmonized System for the Classification and Labeling of Chemicals). As the EU is often a precursor to the development of laws that then need to be implemented in its Member States (and often, copy-cat laws then spread outside the EU), this trend could provide a strong indication of where regulators will be focusing globally in the coming years.

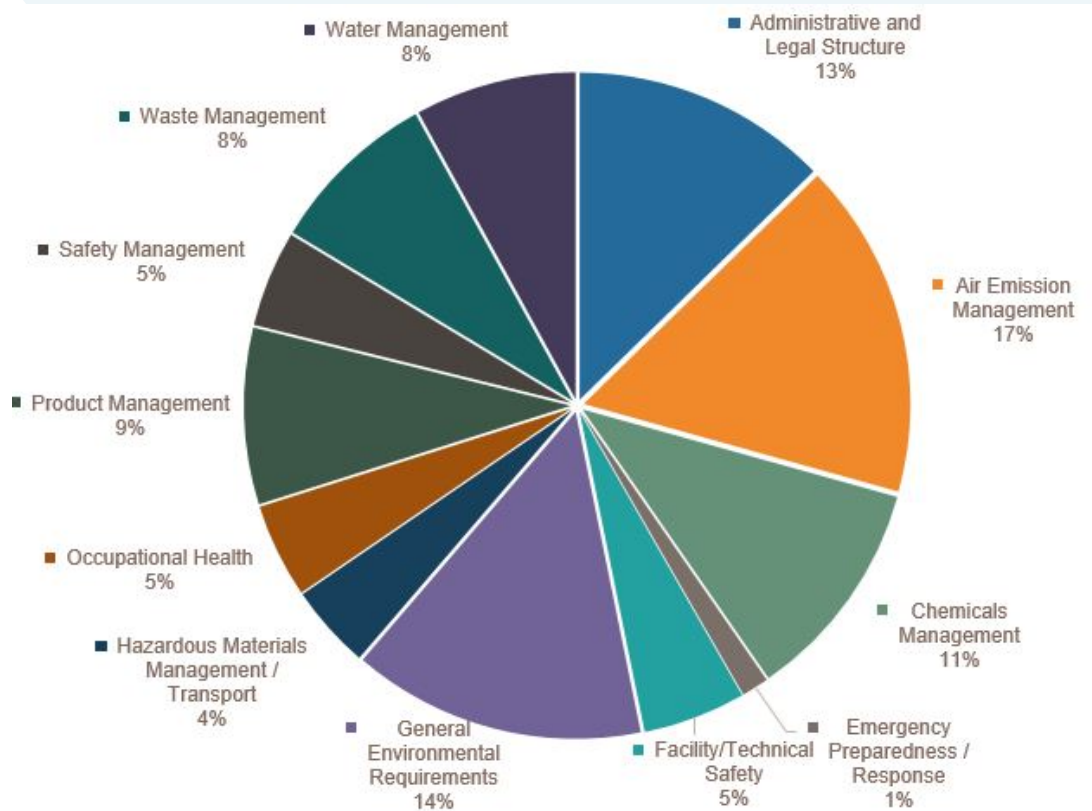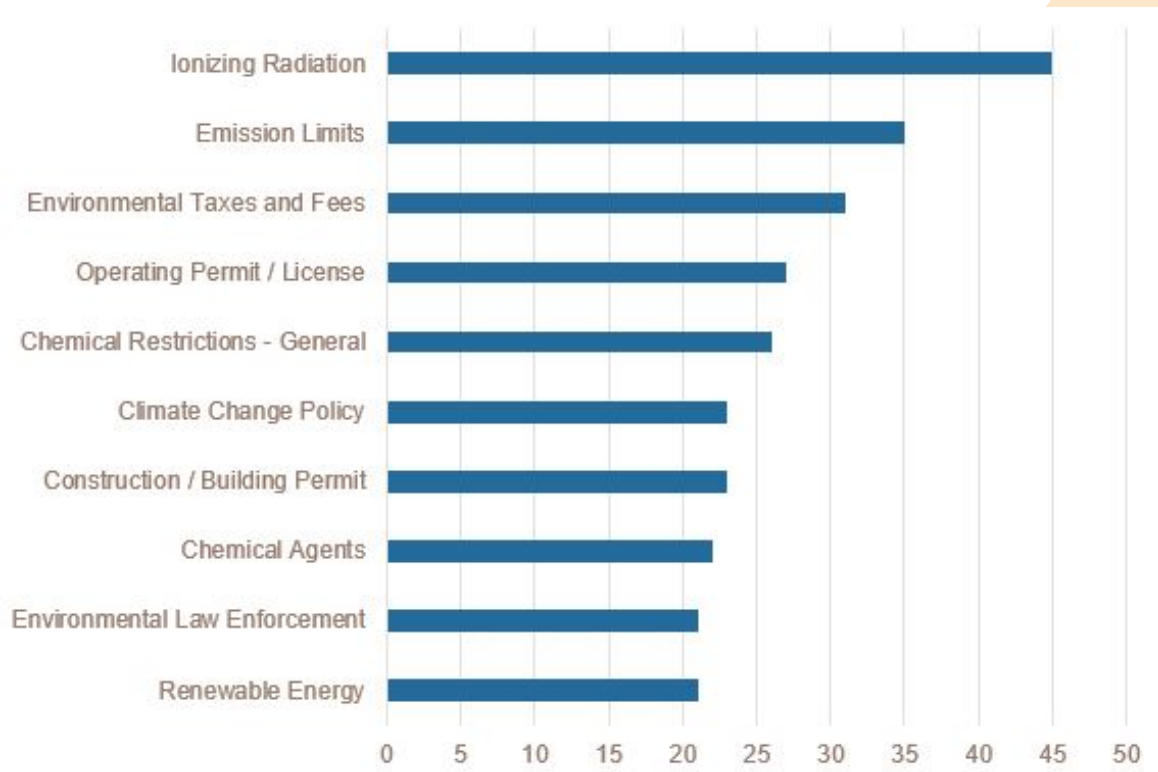## *Comparing the EU and European Countries as a Whole (cont.)*

Figure 15. Breakdown of broad EHS topic categorization of all Regulatory Forecaster reports, for all European jurisdictions (but not the EU) during 2018.

If we look at the individual jurisdictions within Europe (all current 28 EU Member States, plus other countries typically considered part of 'Europe", but excluding the EU as its own jurisdiction) (**Figure 15**), we see that the trend is far more aligned than what we see globally: Air Emissions Management features much more prominently, Waste Management and Occupational Health are also a clear focus of lawmakers and Chemicals is much less prevalent. This difference is likely due in part to the delay in policy and proposals at the EU filtering down into national laws. It also highlights the fact that European countries are each their own master when it comes to what their laws and policies focus on. EU Member States have certain obligations to implement or directly apply EU laws, but individual countries can pursue their own initiatives

Europe: Statistics & Topic Trends

Europe (not EU): Top 10 Specific Topic Headings 2018

Figure 16. Breakdown of Top 10 specific EHS topic categorization of Regulatory Forecaster reports, for all European jurisdictions (but not the European Union) during 2018

When we consider the breakdown of specific topics across individual European jurisdictions, it is illuminating that the topic of Ionizing Radiation (protection of releases to the ambient air) is by far the most frequently cropping up (**Figure 16**). This is a concrete example of the knock-on effects of EU rulemaking on the laws of its member states. As well as topics that we see leading globally (emission limits, air quality and climate change), we also again see "core" environmental protection areas, such as Permitting and Enforcement. These have consistently featured across all regions in this 2019 forecast report.

Europe: Statistics & Trends

Aside from the aforementioned statistics, Enhesa's EHS Regulatory Analysts identified the following key trends in Europe:

Climate Change

This year, the EU passed a reform of the 4th phase of the EU Emissions Trading System (ETS) (aimed at enhancing cost-effective emission reductions and low-carbon investments). The reform makes the following changes:

- Lowering emissions allowances as to speed up emissions reductions
- Making the EU ETS resilient to any future financial shocks that would result in a decreased incentive to reduce emissions, such as by strengthening the Market Stability Reserve
- Establishing a prolongation and revision of measures to combat carbon leakage, giving sectors at the highest risk of relocating production outside the EU (often energy intensive businesses) free allowances for another decade. Under the reform, only 50 sectors can benefit from a free allowance—this is down from 180
- Setting up of low-carbon funding mechanisms to help the industry meet innovation and investment challenges; there is a fund for innovative technologies and a fund for modernizing the power and energy industries
- Binding commitments to GHG emission reductions in forestry and land use

The result of this reform is that companies will have to put more effort into reducing carbon outputs, but the EU has introduced various mechanisms to help them do this. In the meantime, companies in the EU will be able to submit feedback on the ETS to a new EU expert group on climate change policy which will analyze the possibilities for further legislation that will implement Paris Agreement obligations. Under consideration is an update of the rules for determining free allocation to industrial installations and the auctioning of 50 million allowances for the innovation fund.

Other policies aimed at tackling climate change include the potential for further regulation of the heavy-duty vehicle industry, as vehicles are a significant source of green-house gas emissions. Any adopted measures would have an indirect effect on industrial operations.

Europe: Statistics & Topic Trends

Ionizing radiation

One of the key trending topics in the EU that is likely to result in a higher compliance cost in companies next year relates to the protection of workers from the risks of ionizing radiation. This is an example of the knock-on effects of EU rulemaking on the laws of its Member States. The foundation of many of these changes was laid by a 2013 Euratom Directive, which requires EU states to adopt a risk-based approach to permitting activities related to radiation. This could lead to higher compliance costs for companies over the next few years.

Some examples include:

In **Austria,** legislation was passed to introduce new principles and objectives on nuclear safety and introduce the possibility for workplaces where workers are exposed to ionizing radiation to conduct a self-assessment and a peer review. In **Spain**, stricter measures may soon come into effect so as to restrict employee exposure to gamma radiation. Such measures might also apply to sub-contractors and not just standard employees. The idea of expanding the protected classes of persons was followed by **Croatia**, where companies may soon be required to better protect trainees, students, specialists and others from radiation.

Many countries have already adopted regulations on radiation safety. In the **UK and Ireland**, measures have already been adopted to protect workers from radiation from practices involving non-medical imaging exposure. These practices must first be approved, every exposure must be justified and regular reviews must take place. New requirements for consumer products containing radionuclide or generating ionizing radiation also come into force.

Radon

It is also worth noting that in **Spain**, stricter measures have been proposed to restrict employee exposure to radon. Limits have also been set in **Bulgarian** workplaces for exposure to indoor radon concentrations.

These developments, coupled with the aforementioned ones on ionizing radiation, are indicative of an on-going push across European workplaces to limit harmful consequences of radiation in various forms.

Europe: Statistics & Topic Trends

Chemicals, Waste and the Circular Economy

Various changes are predicted to occur regarding how companies are obliged to manage their chemicals and their waste.

For example, the European Chemicals Agency is currently looking at the possibility of establishing a new database with information on articles containing candidate list substances, aimed at helping consumers and waste managers to make sound decisions. This proposal is part of the circular economy package. Although it mainly concerns manufacturers, importers and retailers (who would be subject to more notification requirements), companies that are end-users of articles containing substances included in the Candidate List will be able to consult this database to make an informed choice when selecting a product.

Another chemicals-related matter is the likely introduction in EU countries of Editions 6 and 7 of the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. This will entail changes to generic cut-off values (minimum concentrations of substances to be taken into account for classification in a mixture), aerosols and hazard classes.

Brexit

In our 2018 Forecast, we stated that there was still a lot of confusion around Brexit. At the time of writing (February 2019), this is still the case as there yet been no final exit deal agreed between the UK and EU (which would then also need to be approved by the UK parliament and EU Member States). However, certain aspects have been clarified in the short term. For example, it has been confirmed that the UK will remain part of the EU Emissions Trading Scheme until at leasst the end of the current trading period. Early indications are that a pragmatic approach will be taken with regard to EHS law in general, and that the UK will look to maintain the status quo in terms of the essential aspects of EU law that are currently already implemented into domestic law. However, if talks fail and a "hard Brexit" occurs, then we will once again be in a situation of great uncertainty.

Middle East & Africa

It is harder to spot trends in the Middle East and Africa. This is largely due to the fact that there has traditionally been a lack of focus in these jurisdictions on environmental, health and safety issues—and a lack of law enforcement. Information on EHS policy and regulation is also less publicly available.

Stats & Topic Trends

Middle Eastern & African jurisdictions do not follow the general global trend of an increase in regulatory activity. In fact, in a number of countries , virtually no developments occur year after year. However, of the data on reports published that we do have, it is interesting to note that we see relatively more activity around Safety Management and Occupational Health than in other regions. Air Emissions Management appears to be less of a focus than in other global regions. Developments surrounding Chemicals and Hazardous Materials Management would appear to be virtually non-existent, which really contradicts the trends of other regions.
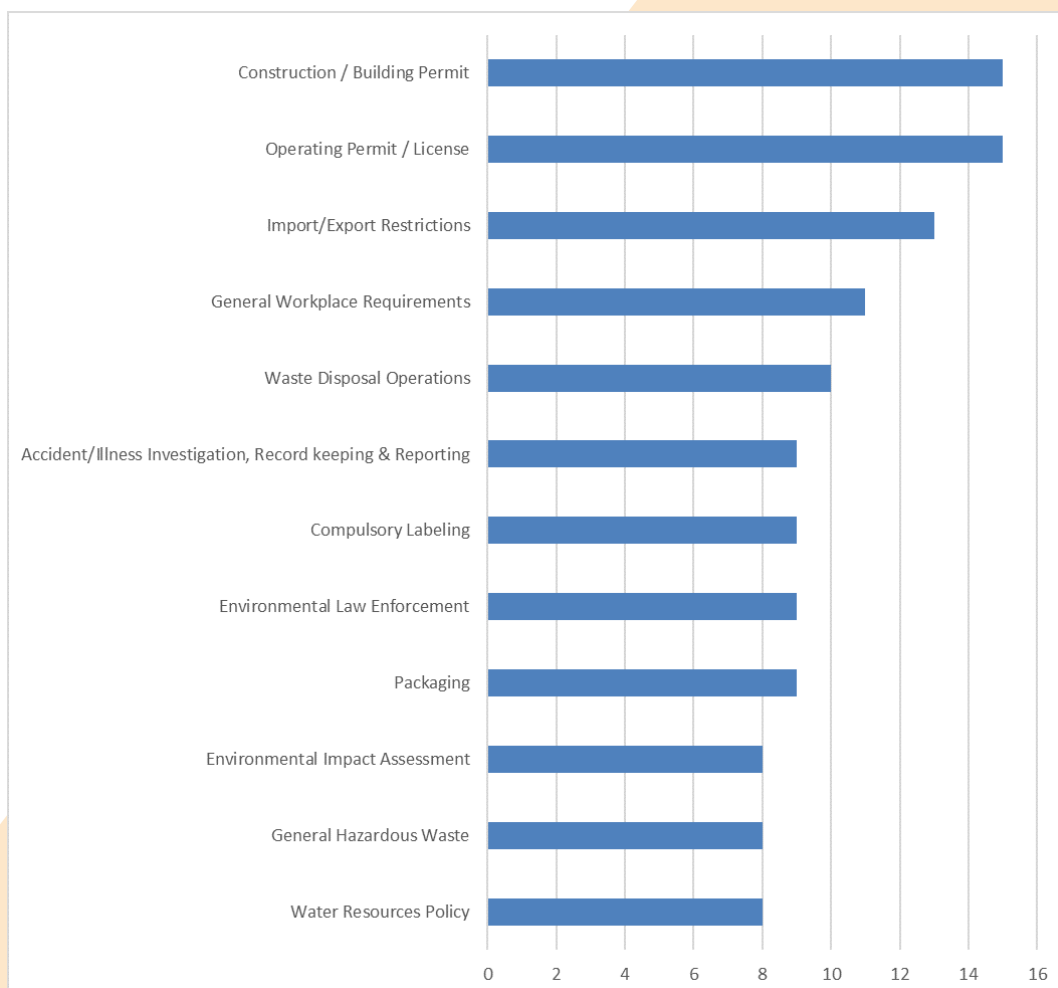

Figure 17. Breakdown of Top 10 specific EHS topic categorization of all Regulatory Forecaster reports, for all Middle East and African countries covered by Enhesa during 2018.

The breakdown of the top individual topics (**Figure 17**) provides a little more insight. The use of permitting in both construction and regulating environmental operations is on the rise, indicating that measures are being adopted in the right direction. Otherwise, it is hard to point to specific trends in the data with issues around various broad elements of Chemicals, Workplace Safety and Waste and Water Management.

Middle East & Africa: Enhesa's Insight

Enhesa analysts have identified the following key regulatory trends they see on the horizon:

Waste and Wastewater

The most evident and prevailing trend across the Middle East relates to protection of the environment from waste and wastewater discharges, with recent actions taken by **Jordan, Qatar, Israel** and **Turkey**. In **Qatar**, a new regulation requires companies to bear the cost of transporting wastewater and, if no sewerage system exits in their area, to establish their own wastewater system. In **Israel**, companies are subject to new guidelines for monitoring and sampling wastewater.

Regarding waste, companies active in **Qatar** will see enforcement of measures prohibiting the disposal of waste in public areas, empty lands and certain parts of buildings. The trend will also see further measures implemented to combat the environmental hazards of hazardous waste such as toxic waste and medical waste. **Kuwait** has recently adopted specific requirements for the handling and disposal of such hazardous materials and liquids, in tune with an announcement from **Bahrain's** Supreme Council for Environment last year that it would step up enforcement to ensure the correct treatment of medical waste.

Middle East & Africa: Enhesa's Insight

Middle East: Worker Protection

As some Middle Eastern countries see a push for further construction and development (particularly Gulf countries), companies need to ensure that construction sites are secure enough for workers to operate. This is particularly relevant to the Middle East, as tough climate conditions often encourage workers to remove their personal protective equipment. This year, **Iraq** has seen the adoption of safety standards for electrical installations, as well as stricter OHS requirements relating to first aid and preventative measures against the risks of working in high temperatures. **Saudi Arabia,** on the other hand, introduced OHS requirements for the first time, requiring companies to take specific measures according to the level of risk to workers. These factors, coupled with the drive in construction, indicate that such measures are likely to be on the rise in 2019.

Although we reported in 2018 that **Qatar** was considering adopting requirements to improve health and safety in view of international pressure regarding migrant workers on construction sites, the international community is yet to see any progress on this front. For this reason, there is always the possibility for further measures or enforcement of health and safety law in the run up to the 2022 World Cup.

Africa: Enforcement

A key factor that is becoming more and more relevant in Africa is enforcement, whether this means more environmental policing or the introduction of stricter penalties. Specifically, **Egypt, Morocco, Ghana, Mali, Tanzania** and **Zambia** all appear to be stepping up their enforcement practices. One area that is particularly under the spotlight of the environmental police is wastewater discharge. For example, **Morocco** has released new industry-related effluent limits and quality parameters for discharges to surface or groundwater. Miles away in **Ghana**, company executives have been arrested for allowing pollutants to be released into the aquatic environment. Prison time is at stake. Further, **Morocco** has published its "National Air Quality Program," which will oversee the installation of air quality monitoring systems, allowing for enhanced emissions controls and enforcement. Such monitoring programs have also spread to **Egypt,** where a campaign to reduce industrial emissions has begun, leading to countless inspections. These trends can only be indicative of increased and more meticulous environmental enforcement across Africa.

Middle East & Africa: Enhesa's Insight

Worker Safety

Another crucial trend pervading Africa is worker safety. As it is quite a wide-ranging topic, different actions have been taken across the continent. **South Africa** has adopted measures with a view to protect workers in mines from explosives. This is done by the introduction of certification systems and written explosives procedures. Companies with operations in **Tanzania and Zambia** have, this year, been subject to more regulation to protect workers from the risks given rise to by lifting equipment such as hoists, lifts, chains and ropes. This means that companies will be required to undertake more inspections to ensure equipment is in good working order and is used safely. Such inspection may also target the safety of electrical installations. Moreover, African countries are likely to consider the introduction of measures to protect workers from radiation, following in the footsteps of both the EU and, at a more basic level, **Kenya**, which has proposed that nuclear and radioactive materials and facilities are safeguarded with appropriate measures.

Plastics and Rubber

The final trend permeating Africa relates to the continued fight against plastics, and this is predicted to continue through to 2019. **Kenya's** tough ban on the use, importation and manufacturing of plastic bags for commercial and household packaging was upheld earlier this year after the industry unsuccessfully challenged the ban by judicial review. **Egypt** has also introduced measures to prohibit the import of unrecyclable rubber waste, further imposing a requirement on companies to obtain a control certificate from an internationally accredited body that the rubber waste does not contain flammable or toxic substances restricted under the Basel Convention. Moreover, **Egypt** introduced restrictions on the importation of thermoplastics such as polyethylene, polypropylene and polyethylene terephthalate. This is indicative of raised awareness on the issue and further measures in the near future.

Conclusion

The immediate and obvious conclusion from this 2019 Global EHS Regulatory Forecast is that there is considerable activity globally.

What is also clear is that there are regional and even country-by-country variations on what is being focused on.

However, there are some overarching themes that we see globally:

- Issues around **Air Emissions Management** (including Climate Change) will continue to be the most important topic across the world. This will result in companies needing to take a holistic approach to how they impact the ambient air, and how they can adapt to a changing climate, or help to mitigate the potential impacts of global warming.
- Regulation on **Chemicals Management** remains a top priority in many countries around the world, not only from the perspective of controlling the use of those chemicals in industrial operations, but also from the perspective of evaluating them and restricting or banning their use alone or in products.
- The impact of the EU's drive to push for a "circular economy" is likely to have a significant impact on regulations in Europe, initially, but these could then be expected to spread around the world. **Product Management** will be a key focus of law- and policy-makers
- In terms of **Occupational Health & Safety**, it is the issue of workplace harassment and bullying that is likely to continue into 2019, as we see countries move to adopt proposals and enact laws to meet their policy goals in this regard.
- There continues to be a trend around the world to strengthen the basic provisions in national and state laws to defend the **Environment**, largely through permitting efforts as well as an increased focus on implementation and **Enforcement** of laws, even in countries where this was not previously necessarily the case.
- One major trend that we see continuing and which could impact companies all over the world, is **China**'s more aggressive regulation and enforcement of environmental and H&S rules and regulations.
- With the outcome of recent **U.S. midterm elections** re-shaping the House of Representatives and with **Brexit** likely to be finalized in 2019, the coming year will prove pivotal in seeing whether political events will have a lasting impact on EHS laws, regulations and government policies.