

# THIRD ANNUAL GLOBAL DANGEROUS GOODS CONFIDENCE OUTLOOK

The definitive outlook for the worldwide dangerous goods industry based on the thoughts and attitudes of DG pros across the globe

2018 »

Sponsored by Labelmaster, IATA,  
and Hazardous Cargo Bulletin



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SOFTWARE PRODUCTS SERVICES





# //OVERVIEW

## DG CONFIDENCE OUTLOOK

Shipping dangerous goods (DG)/hazardous materials (hazmat) is complex and high risk, and those responsible for compliance have an increasingly critical job. In an effort to better understand today's DG landscape, Labelmaster, IATA, and Hazardous Cargo Bulletin partnered to survey DG professionals around the globe about how their organizations approach DG shipping and handling and the specific compliance challenges they face.

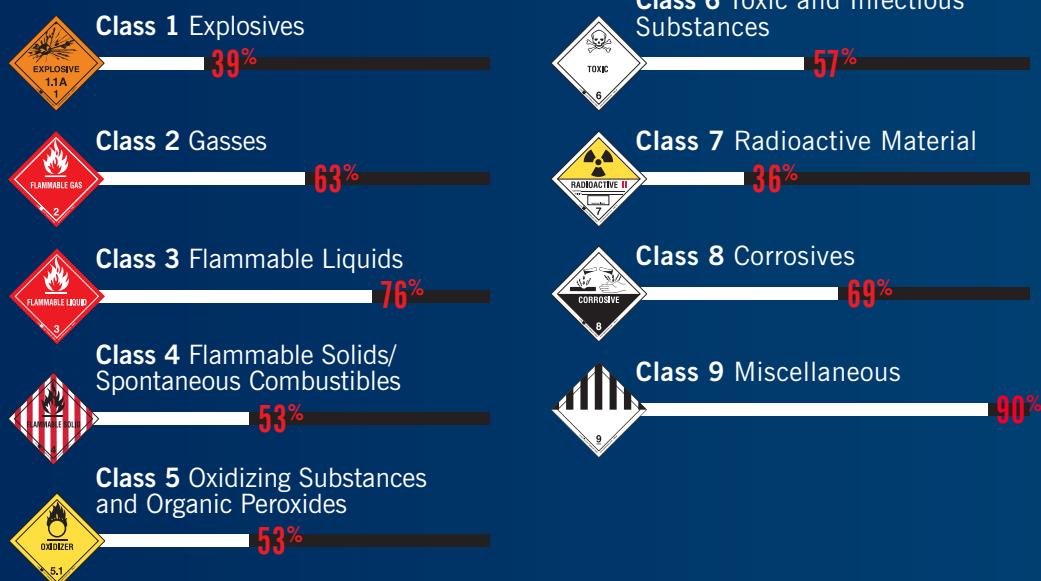
# //PARTICIPANT PROFILE

**500** TOTAL RESPONDENTS

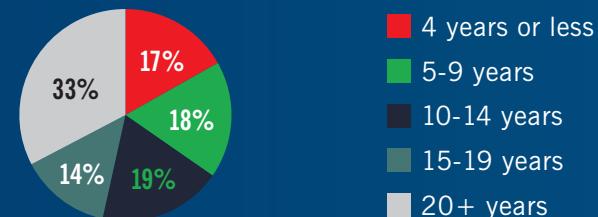
GLOBAL & DOMESTIC OPERATIONS:  
80% GLOBAL 20% DOMESTIC



ON AVERAGE, 5 DISTINCT CLASSES  
TYPICALLY HANDLED BY EACH COMPANY:



YEARS INVOLVED IN DG HANDLING/  
SHIPPING/MANAGEMENT:



COMPANY ROLE:



## RISK ACROSS THE GLOBAL DG SUPPLY CHAIN

There has always been inherent risk when it comes to shipping DG, but growing volumes and types of these goods, along with increasingly complex supply chains, have only escalated the risk. As a result, the rules and regulations that govern DG shipping have become more extensive and complex. Consequently, those responsible for moving DG in a safe, secure and compliant manner have an increasingly difficult job.

## THE CHALLENGES ARE REAL

Maintaining a smooth supply chain is critical in today's highly competitive market. Yet despite the importance (and overall impact) of compliance on the supply chain, many DG professionals find it challenging to do their jobs effectively and efficiently.



**51%**

find it challenging to keep up with the latest regulations.



**58%**

feel that even if they follow the regulations perfectly, there is a chance their shipments will be stopped.



**57%**

agree that verifying compliance of shipments against the latest regulations is time-consuming.



**15%**

were NOT confident that they could ensure DG regulatory compliance across their entire organization; 13% were unsure.

All these sentiments are higher for those with global operations as opposed to domestic only.





USE TRAINING  
COURSES TO  
KEEP UP WITH  
REGULATORY  
CHANGES

ON AVERAGE,  
DG PROS USE  
**5 SOURCES**  
TO KEEP UP WITH  
REGULATORY  
CHANGES.

## KEEPING UP WITH REGULATORY CHANGES

Staying up to date on the latest regulations is critical to ensuring compliance and, **on average, DG pros use five sources to keep up with regulatory changes.** Those most frequently used include:

- TRAINING COURSES: 71%**
- REGULATORY TEXTS: 57%**
- DG PRODUCTS/SERVICE PROVIDERS: 57%**
- DIRECT CONTACT WITH NATIONAL AUTHORITIES: 45%**
- TRADE/REPRESENTATIVE ASSOCIATIONS: 37%**
- PEERS/SOCIAL MEDIA: 22%**
- TRADE PRESS: 18%**
- TRADE SHOWS AND EVENTS: 15%**

Yet even with the challenges associated with meeting constantly changing regulations, DG pros are not against regulations. In fact, most believe the regulatory requirements imposed on DG are appropriate.

**67%** Requirements are appropriate – should stay the same

**24%** Requirements imposed should be tighter – more restrictive

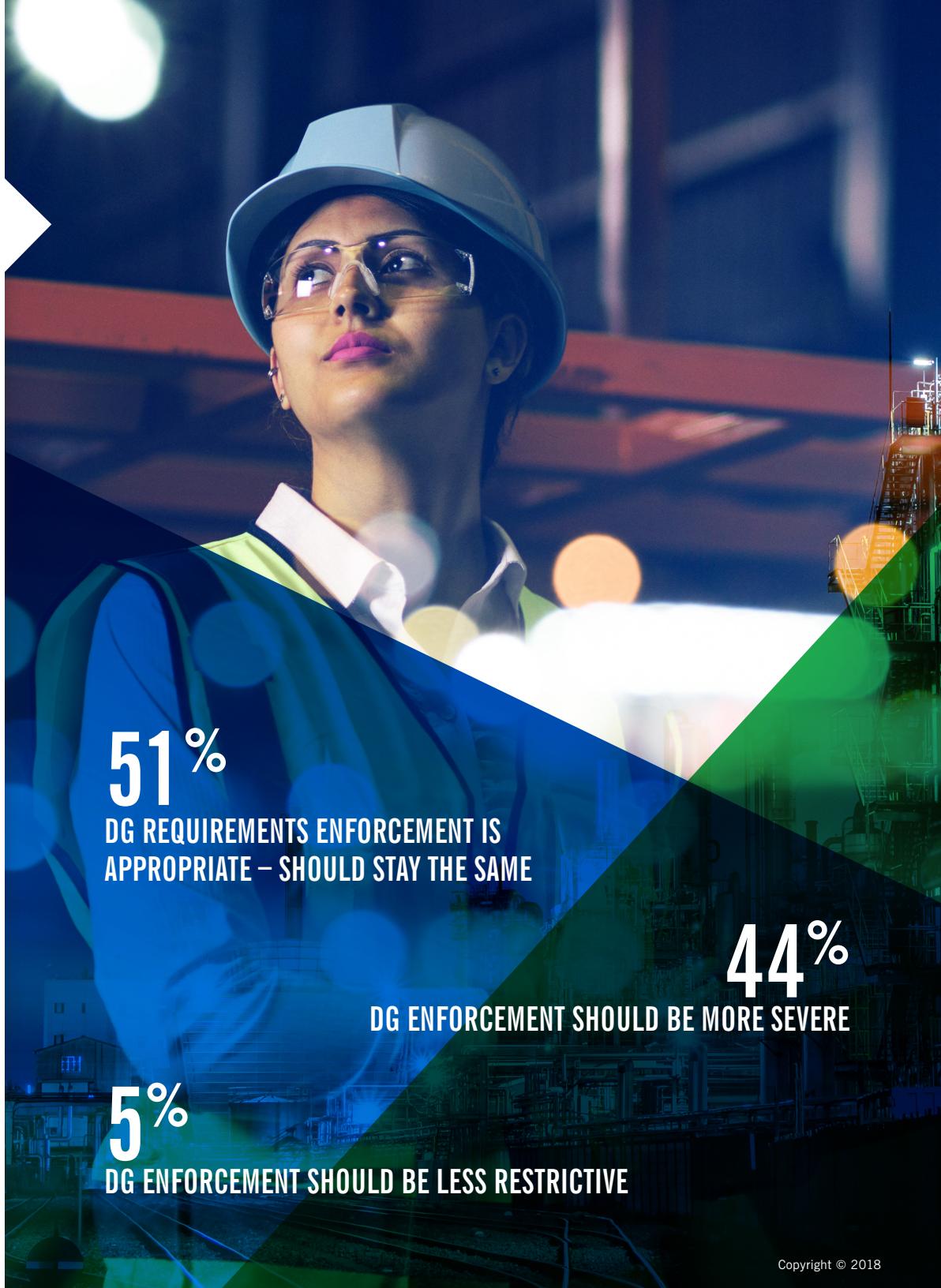
**10%** Requirements should be looser – less restrictive

## APPROPRIATE DG ENFORCEMENT

While many are satisfied with the level of regulations, there are mixed feelings regarding the level of enforcement.

Although there are varying opinions on whether the level of regulatory requirements and enforcement are appropriate or should be more or less restrictive/severe, it is evident that DG pros recognize the importance of ensuring the safe and secure movement of DG around the world, and believe that those not following the rules should be held accountable.

The regulatory bodies are working in the right direction, but more industry feedback may be needed from sources like member states or airlines to make the requirements clearer. And all regulations, no matter how complex, need to be handled and implemented by the team “on the floor” with the proper knowledge and training.



## SUPPLY CHAIN IMPACT

DG compliance impacts stakeholders throughout the supply chain, and DG pros wish others (both internally and externally) were as knowledgeable and compliant as they are.



believe that keeping DG secure across the entire supply chain is more important than ever.



wish their supply chain partners were as compliant as their company.



think that DG training should be extended to other departments across their company.

## ORGANIZATIONAL ATTITUDE AND SUPPORT

Staying up to date on the latest regulations and abiding by them requires the proper training, infrastructure and processes. In general, most DG pros believe their companies stay abreast of the latest regulations and implement training appropriately. But there is still a significant population for whom improvement may be needed.

**20%** feel their company does NOT always stay up to date on the latest regulations.

**25%** feel their company's DG training does NOT adequately prepare people within the organization to comply with DG shipping regulations.

**16%** indicated that DG compliance is NOT a major priority for their company.

**54%** wish their companies would understand that supply chain and DG shipping management could be a differentiator.

## DG COMPLIANCE CHALLENGES

There is a consistent sentiment from DG pros across the globe that compliance is challenging, and there are several factors that contribute to this:

»»»	GREATEST CHALLENGE	TOP 2 GREATEST CHALLENGES	TOP 3 GREATEST CHALLENGES
BUDGET CONSTRAINTS	28%	48%	65%
COMPANY LEADERSHIP NOT AWARE OF RISK	21%	35%	53%
INSUFFICIENT OR INEFFECTIVE TRAINING	19%	41%	57%
LACK OF TECHNOLOGY	17%	37%	61%
DIFFICULTY IN KEEPING UP WITH CHANGING REGULATIONS	15%	40%	65%

While the exact factors that contribute to compliance challenges may vary from company to company, **what is consistent is the need for additional investment in some type of compliance resource.**



**30%**

OF DG PROS BELIEVE  
THEIR COMPANY VIEWS DG  
MANAGEMENT SOLELY AS A  
REGULATORY MANDATE.



**28%**  
COMPANY COMPLIES ONLY BECAUSE  
REGULATIONS MANDATE IT – ADHERE TO MINIMUM

**48%**  
COMPANY CARES ABOUT SAFETY  
AND GOES BEYOND REQUIREMENTS

**23%**  
COMPANY VIEWS COMPLIANCE AS  
COMPETITIVE ADVANTAGE

## ORGANIZATIONAL ATTITUDE AND INVESTMENT

Companies invest in areas where they believe they get the biggest financial return – and nearly **30% of DG pros believe their company views DG management solely as a regulatory mandate.**

The organization's attitude toward compliance has a real impact on how much a company invests in compliance resources – and **over one-quarter of DG pros think their companies are under-invested.** When asked about the total investment their company makes to support DG compliance, respondents said:

**27%**  
Not adequate  
to meet current  
needs

**59%**  
Adequate to  
meet current  
needs

**14%**  
More than adequate  
to meet current and  
future needs

Furthermore, 80% of DG pros believe their company's infrastructure is "lagging" or needs updating to quickly adapt to regulatory and supply chain changes.

**65%** are "current, but need updating"

**15%** are "lagging behind the industry"

**21%** are "advanced – ahead of the industry"



## TECHNOLOGY USED TO SHIP DG

Technology is critical to the supply chain, and significantly improves efficiency, speed and accuracy. Yet more than one-quarter of respondents are still doing everything manually and not even using general shipping or warehouse software or systems provided by carriers.

Respondents indicated the following when asked which type of technology their company uses to ship DG:

**28% NO TECHNOLOGY – MANUAL PROCESSING ONLY**

**19% MANUAL PROCESSING AND GENERAL SHIPPING SOFTWARE**

**20% MANUAL PROCESSING AND CARRIER-SUPPLIED SOFTWARE**

**16% MANUAL PROCESSING AND DG-SPECIFIC SOFTWARE**

**8% MANUAL PROCESSING, CARRIER-SUPPLIED SOFTWARE, GENERAL SHIPPING SOFTWARE AND DG-SPECIFIC SOFTWARE**

**9% ALL OTHER COMBINATIONS**

The type of technology used is also likely connected to the company's level of investment. And while more than half indicated that their company's investment in compliance technology and training has stayed the same year over year, for some it has increased, and for others, even decreased.

## DG PROS DESIRE ADDITIONAL SUPPORT

Investment in infrastructure and training is critical to enabling DG pros to do their jobs effectively and efficiently. Whether their budgets have increased, decreased or stayed the same, DG pros desire additional support.

But getting additional resources when compliance may not be a priority for executive leadership (or not on their radar at all) is difficult, so it's up to DG pros to communicate the impact of compliance (and non-compliance) on the organization. And DG pros need data and insights to do this.

**Respondents thought these items would be most helpful in communicating DG value to customers, supervisors or senior leaders:**

**60%** Industry data reports dealing with non-compliance trends

**55%** Understanding the total cost of compliance for your company

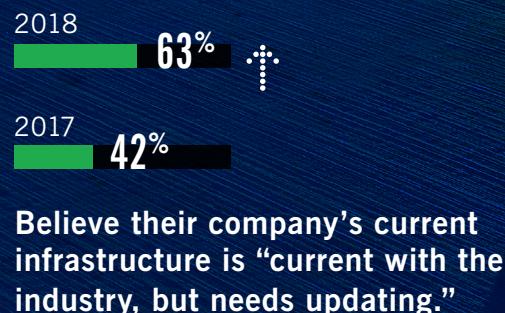
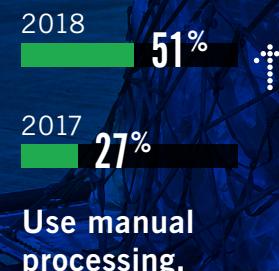
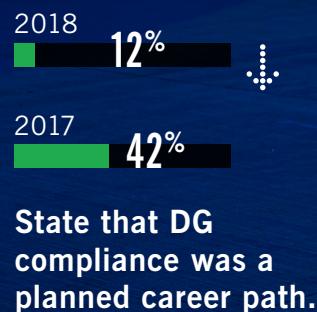
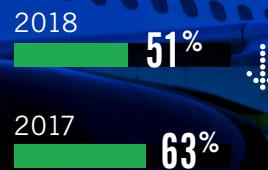
**54%** Case studies from best-in-class companies

**43%** Shipment data by mode/proper shipping name



## ATTITUDE SHIFT: COMPARING NORTH AMERICA'S 2018 AND 2017 SURVEY RESULTS

While responses from DG pros in Europe were consistent with last year's survey, there were some notable shifts from those in North America. **Based on the 2018 survey, compared to 2017 DG pros in North America:**



## A CLOSER LOOK: THE IMPACT OF HOW DG COMPLIANCE IS VIEWED WITHIN AN ORGANIZATION

Across the globe, DG pros view compliance as critical to an organization. Unfortunately, as evident in the survey responses, not every company shares that view. And how DG compliance is viewed within an organization directly impacts its infrastructure level of investment, confidence and much more.

When examining the survey responses on a deeper level, there were clear behavioral, attitudinal and compliance gap differences between companies that view DG as a “competitive advantage,” those that “go beyond the minimum requirements,” and those that “adhere to the minimum requirements.”

**How companies around the world view DG compliance varies:**

### HOW WOULD YOU BEST DESCRIBE HOW DG COMPLIANCE IS VIEWED WITHIN YOUR COMPANY?

**28%**

**My company complies only because the regulations mandate it, we adhere to the minimum requirements.**

**49%**

**My company complies because it cares about the safety of the industry, we go beyond the requirements.**

**23%**

**My company views compliance as a competitive advantage, an initiative that adds real business value.**

Those companies that “go beyond the minimum” and “view compliance as a competitive advantage” have high confidence in overall operations, while less than 50% of those who “adhere to the minimum requirements” are confident.

Yet despite having a higher level of confidence in being able to ensure compliance, those that view DG as a “competitive advantage” feel most strongly that there is still a chance their shipments may still be stopped.

Those “adhering to minimal requirements” are seeking company support – from greater awareness among senior leadership, to extending DG training to other departments, to access to additional resources.

## FOR THE FOLLOWING STATEMENTS, PLEASE INDICATE YOUR LEVEL OF AGREEMENT OR DISAGREEMENT:



	Total	% of Companies Adhere to Minimum Requirements	% of Companies Go Beyond Requirements	% of Companies View Compliance as Competitive Advantage
My company always keeps current on the latest DG regulations no matter the mode of transport	80%	<b>57%</b>	<b>87%</b>	<b>91%</b>
My company's DG training adequately prepares people within the organization to comply with DG shipping regulations	75%	<b>56%</b>	<b>81%</b>	<b>87%</b>
Given my company's current infrastructure and training, I'm confident that I can ensure DG regulatory compliance across my entire organization	72%	<b>47%</b>	<b>81%</b>	<b>86%</b>
I wish my supply chain partners were as compliant as my company is	72%	<b>63%</b>	<b>72%</b>	<b>81%</b>
I think that DG training should be extended to other departments across my company	67%	<b>75%</b>	61%	68%
Even if I follow the regulations perfectly, there is a chance my shipments will be stopped	58%	58%	55%	<b>65%</b>
Verifying compliance of shipments against the latest regulations is time-consuming	57%	<b>61%</b>	57%	52%
I wish that my company would understand that supply chain and DG shipping management could be a differentiator	54%	<b>62%</b>	54%	46%
I find it challenging to keep up with the latest regulations	51%	<b>61%</b>	46%	50%
Unfortunately, DG compliance isn't a major priority for my company	16%	<b>36%</b>	10%	3%



Companies that “adhere to minimum requirements” admit their technology is “lagging” and those that “go beyond the requirements” believe their technology “needs updating.”

#### PLEASE INDICATE THE TYPES OF TECHNOLOGY YOUR COMPANY USES TO SHIP DG:

	Total	% of Companies Adhere to Minimum Requirements	% of Companies Go Beyond Requirements	% of Companies View Compliance as Competitive Advantage
Manual processing – no technology	59%	<b>66%</b>	57%	54%
Carrier-supplied technology	37%	38%	36%	35%
General shipping management or warehouse management software	42%	36%	<b>45%</b>	<b>43%</b>
DG-specific technology	36%	24%	36%	<b>48%</b>

Companies that “view compliance as a competitive advantage” generally have technological support that quickly adapts to regulatory and supply chain changes.

#### MY COMPANY'S ABILITY TO QUICKLY ADAPT INFRASTRUCTURE TO REGULATORY OR SUPPLY CHAIN CHANGES IS:

	Total	% of Companies Adhere to Minimum Requirements	% of Companies Go Beyond Requirements	% of Companies View Compliance as Competitive Advantage
Advanced/ahead of the industry (3)	21%	4%	20%	<b>42%</b>
Current with the industry, but needs updating (2)	65%	61%	<b>71%</b>	56%
Lagging behind the industry (1)	15%	<b>35%</b>	9%	2%

Companies that “adhere to minimum requirements” are much more likely to be challenged by ineffective training and a lack of awareness on the part of company leadership. **A lack of technology is more of an issue among the “competitive advantage” companies.**

	Total	% of Companies Adhere to Minimum Requirements	% of Companies Go Beyond Requirements	% of Companies View Compliance as Competitive Advantage
Budget constraints	28%	25%	<b>27%</b>	<b>34%</b>
Company leadership not aware of the risk if something goes wrong	21%	<b>31%</b>	19%	13%
Insufficient or ineffective training	19%	23%	19%	15%
Lack of technology	17%	11%	17%	<b>23%</b>
Lack of access to resources/information/guidance required to keep up with changing regulations	15%	10%	18%	15%

## WHAT IS THE GREATEST CHALLENGE YOU HAVE WITH COMPLIANCE?

Investment priorities also differ based on how DG is viewed. For example:

- Those that “adhere to minimum requirements” are **most likely to think training needs to be more impactful.**
- Technology most likely “needs more support” for those that **“go beyond the requirements” and “view compliance as a competitive advantage.”**
- **Complete access to the latest regulations is more likely to be desired** by those companies that “view compliance as a competitive advantage.”

	Total	% of Companies Adhere to Minimum Requirements	% of Companies Go Beyond Requirements	% of Companies View Compliance as Competitive Advantage
More effective training	42%	<b>50%</b>	<b>44%</b>	25%
Technology/software for better supply chain efficiency and compliance	29%	21%	<b>30%</b>	<b>37%</b>
Complete/team-wide access to the latest regulatory sources and manuals	18%	17%	15%	<b>25%</b>
Additional headcount	12%	12%	11%	13%

## IF THE SENIOR LEADERSHIP AT YOUR COMPANY OFFERED TO INVEST MORE IN DG COMPLIANCE, WHERE WOULD YOU PRIORITIZE THE EXTRA SUPPORT?

## IMPLICATIONS: SOLUTIONS TO ESTABLISH SUPPORT FOR DG COMPLIANCE

The risks associated with shipping and handling DG are greater than ever, and DG pros need the proper technology, training and regulatory access to ensure they are moving goods in a secure, safe, compliant and efficient manner. As this year's Dangerous Goods Confidence Outlook suggests, obtaining the budget and resources to fuel these areas is not easy. In fact, it most likely requires buy-in from executive leadership.

**But how do you get that buy-in? It starts with changing the DG management conversation.**



### CHANGING THE CONVERSATION WITH SENIOR LEADERSHIP

Changing the conversation means reframing the overall view of DG management within an organization. This begins with DG pros quantitatively demonstrating how their compliance program can reduce costs and increase revenue to make a positive contribution to the company's bottom line. Simply put, it is defining your company's total value of compliance.

**The total value of compliance takes into account three factors relevant to any business engaged in DG transport:**

- **The costs of maintaining compliance** throughout your supply chain, such as expenses for people, processes, compliance products, supportive software and technology, reporting, training and management
- **The costs of non-compliance** due to errors and lapses such as civil penalties, carrier refusal and delays, fines, remediation and higher insurance costs
- **The opportunities of higher-level compliance-enabling differentiation, revenue growth and faster cash flows,** such as implementing new products that are aligned with regulatory standards from day one, faster product delivery to customers, increased brand equity, and the ability to offer emerging or popular products that other companies who are less familiar with DG may have to avoid

This total value framework helps DG companies make compliance a powerful, revenue-positive aspect of their business.

To begin understanding how your operation performs at total value of compliance, ask your Labelmaster account manager or go to [labelmaster.com/tvc](http://labelmaster.com/tvc) for a free assessment. From there, we will help you change the conversation with your company's leadership.

## LEVERAGING TECHNOLOGY TO INCREASE COMPLIANCE, SAVE TIME AND SHIP FASTER

As the report suggests, DG-based technology can enable confidence and cost savings. But there is more to this story: **Using the right technology for your specific situation creates transparency and visibility across every supply chain hand-off – driving incremental revenue and earnings.** With the dozens of tasks required to put a DG item into transport (e.g., item classification, training, regulatory rule access, permits, preparing, validating, document generation, carrier selection and more), significant inefficiencies, errors and delays can likely be found across each supply chain partner. There are technology solutions to help streamline these efforts.

### TRANSPORTING DG BY AIR?

IATA is currently developing and piloting **DG AutoCheck** – an airline acceptance technology program that automates the documentation part of the acceptance process, checking the Shippers Dangerous Goods Declaration (DGD) against the IATA Dangerous Goods Regulations. DG AutoCheck brings many benefits, including:

- **Safety:** improved accuracy and consistency, addendums to the IATA Dangerous Goods regulations immediately applied, training record monitoring and more
- **Cost savings:** reduced fines for non-compliance
- **Process improvement:** reduced acceptance check time, increased flow of shipment data

IATA also offers a variety of electronic options of the DGR and other regulatory content to provide users faster access to international cargo standards.



### TRANSPORTING DG BY GROUND, AIR, VESSEL OR TRAIN?

Labelmaster offers a number of scalable solutions that validate DG shipments across all modes, saving time researching each shipment. For enhanced flexibility, **Labelmaster's Dangerous Goods Information System (DGIS) can integrate with your company's ERP and/or warehouse/shipping technology.** Or for smaller operations, DGIS offers a stand-alone version that does not need IT manager involvement. DGIS brings many benefits, including:

- Instant, accurate and compliant DG shipping documentation
- Shipment validation against the latest regulations from DOT, IATA and more
- Requires no installation so you can use it right away and is delivered securely through the cloud

## INSIST ON DG TRAINING THAT ADDS REAL BUSINESS VALUE

The DG Confidence Outlook spotlights an alarming fact in the DG industry: For many companies, hazmat training is the single (and only available) resource for building and maintaining compliance. This puts a tremendous amount of pressure on the training to effectively achieve some critical tasks – from updating employees on frequent regulatory changes, to creating awareness, to communicating company procedures and so much more.



Unfortunately, DG pros do not typically give their training programs high marks. Here are a few ideas to make your training efforts pay off:

### Use a training resource that has DG expertise

- The risk is high if your content is incorrect or outdated
- Make sure it is based on adult-based learning principles

### Ensure your training content is relevant to your company

- Integrate your company's unique policies, procedures, industry, products and suppliers into the training
- Use functionality, tasks and examples unique to your situation

### Get quantitative

- Measure your training cost per employee and set tangible goals to reduce it
- Establish objective, quantitative metrics that show cost savings or revenue generation
- Enhance tracking, reporting and certificate retention using a technology platform

In addition to providing adequate training to employees, it is also critical for organizations to properly record details of their training programs. Case in point: Training records are typically the first thing an inspector will request when conducting an inspection. And when organizations have problems maintaining and producing those records, inspectors are on the alert for what else the company might have compliance issues with. Keeping clean, up-to-date records that are readily available is the first line of defense against an aggressive inspection – and something that is much easier with the aid of technology.

## ABOUT LABELMASTER

For more than five decades, Labelmaster has been the go-to source for companies – big and small – to navigate and comply with the complex, ever-changing regulations that govern the transport of dangerous goods and hazardous materials. From hazmat labels and UN-certified packaging, hazmat placards and regulatory publications to advanced technology and regulatory training, Labelmaster's comprehensive offering of industry-leading software, products, and services helps customers remain compliant with all dangerous goods regulations, mitigate risk and maintain smooth, safe operations. [Learn more at labelmaster.com](http://Learn more at labelmaster.com)

## ABOUT IATA

The International Air Transport Association (IATA) is the trade association for the world's airlines, representing some 290 airlines or 82% of total air traffic. We support many areas within the aviation industry and play a vital role in formulating industry policy on critical aviation issues. As the trusted source of information for shipping dangerous goods by air, recognized by the global airline industry, we provide the manuals, training and other operational tools to ensure your shipments are compliant with the latest regulations. Whether you're a shipper, manufacturer, freight forwarder, cargo handler or airline, IATA is your one-stop shop for a complete range of proven DG products. [Learn more at iata.org/dgr](http://Learn more at iata.org/dgr)

## ABOUT HAZARDOUS CARGO BULLETIN

Hazardous Cargo Bulletin (HCB) was established in 1980 to help those involved in the transport and storage of dangerous goods to keep up to date with changing regulations. We continue to cover regulatory developments and to bring our readers news of products and services that aim to make their operations safer or more efficient.

[Learn more at hcblive.com](http://Learn more at hcblive.com)

## // ABOUT THE SURVEY

The survey was conducted online between May 2 and June 15, 2018. This survey was open to DG pros and was not limited to Labelmaster customers, International Air Transport Association (IATA) members or subscribers of HCB media. It was promoted within Labelmaster, IATA and HCB marketing properties.

All questions were developed by Labelmaster, IATA and Hazardous Cargo Bulletin. Management of the survey and tabulation of the results were conducted by an objective third party. Neither Labelmaster, IATA nor HCB has shared contact lists or information with each other or any other outside parties.

The data and results are copyrighted by Labelmaster, IATA and HCB.

