

FOURTH 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

2019 »

Sponsored by Labelmaster,
International Air Transport Association
and Hazardous Cargo Bulletin



A woman with short dark hair, wearing a white blazer over a light-colored button-down shirt, is looking down at a tablet computer she is holding. She is in a warehouse or industrial setting, with blurred shelves and windows in the background. The image is overlaid with a large blue and orange geometric shape on the left side.

//OVERVIEW

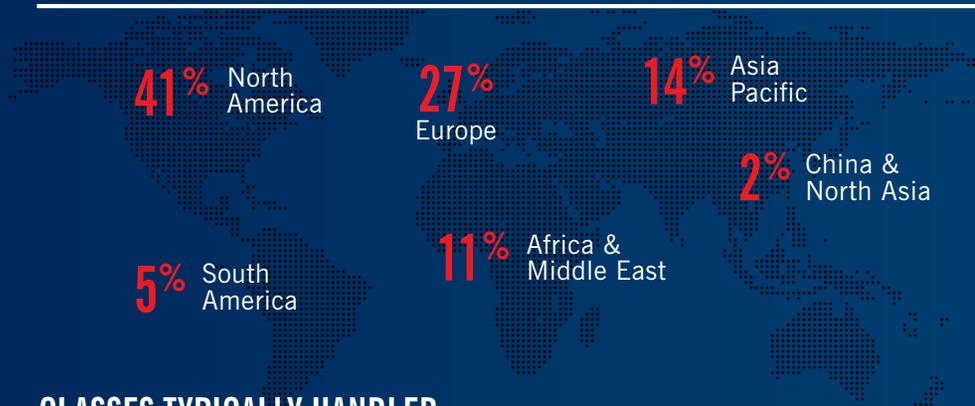
DG CONFIDENCE OUTLOOK

Shipping Dangerous Goods (DG)/hazardous materials (hazmat) is complex and high risk, and those responsible for compliance have an increasingly critical job. To better understand today's DG landscape, Labelmaster, International Air Transport Association (IATA) and Hazardous Cargo Bulletin partnered to survey DG pros around the globe about their organizations' approach to DG shipping and the compliance challenges they face to keep their supply chains safe and compliant.

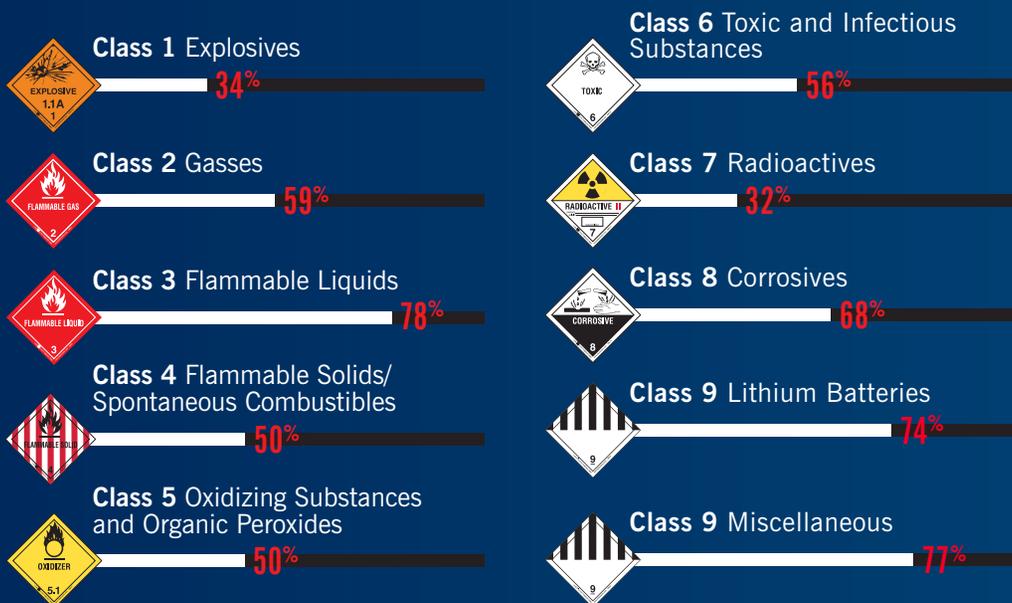
//PARTICIPANT PROFILE

432 TOTAL RESPONDENTS

GLOBAL & DOMESTIC OPERATIONS:
83% GLOBAL 17% DOMESTIC



CLASSES TYPICALLY HANDLED:



YEARS INVOLVED IN DG HANDLING/ SHIPPING/MANAGEMENT:



COMPANY ROLE:



TRANSPORTATION MODE FOCUS:



AVERAGE DG SHIPMENTS PROCESSED WEEKLY:



SECTION ONE

PREVIOUSLY ON THE GLOBAL DANGEROUS GOODS CONFIDENCE OUTLOOK...

Summary of key takeaways from previous Global Dangerous Goods Confidence Outlook reports:

DG pros continue to find it challenging for their companies to operate a safe and compliant supply chain.

- Budget constraints, lack of technology, lack of senior-level executive risk unawareness and resource constraints all contribute to this feeling.
- Companies differ in the way they view DG management as a business lever, which directly affects resources and support. And getting the appropriate infrastructure, resources and funding for a compliant hazmat supply chain is easier if the company views **hazmat management as a competitive advantage** versus simply a regulatory mandate.
- While many DG pros are confident in their own organization's compliance, there is a general lack of trust in their supply chain partners.

DG pros whose companies leverage technology to manage DG operations tend to be more confident in their ability to maintain a safe and compliant supply chain.

- However, the technology infrastructure that powers the DG supply chain is generally perceived (at best) to be adequate for current conditions and (at worst) outdated. **Only a small minority of DG pros feel their company's infrastructure is ready to meet future needs.**
- Despite modern technology advancements, many shippers (one-quarter of respondents) still rely on manual processes to handle DG compliance.

DG pros must change the conversation with leadership to get the budget and resources necessary to meet current and future compliance and safety needs. This will require:

- Making a stronger, more financially reasoned business case – the need to approach supervisors and C-suite in a different manner.
- Defining the total value of compliance – **defining the value of DG management beyond the costs of fines.**
- Demonstrating the role of technology – how technology can add to confidence in DG compliance.
- Having training add business value – how to improve the business value of your DG training beyond just the regulatory mandate.

THIS YEAR'S GLOBAL DANGEROUS GOODS CONFIDENCE OUTLOOK...

Responses to this year's survey suggest that the attitudes and perceptions among DG pros have not changed much over the past year. **DG pros still find compliance challenging and time-consuming and want additional support from their companies** in order to efficiently and effectively maintain a safe, compliant and reliable supply chain.

In this year's Global DG Confidence Outlook, we've focused on helping DG pros garner the resources they need — not only to keep current with the latest regulations, but also to **best position their organizations for the future** and help them successfully navigate an increasingly complex and dynamic hazmat supply chain landscape.



This year's Global DG Confidence Outlook examines:

- The impact of the supply chain on businesses
- Key gaps existing within the supply chain
 - Ability to handle reverse logistics
 - Presence of complete, accurate and reliable master data
 - Extent to which a company's existing technology contains DG functionality
 - Compliance of partners and carriers
- Three types of organizational compliance, based on survey responses
- How to change the DG conversation
- A roadmap to compliance

SECTION TWO

LINKING DG TO THE SUPPLY CHAIN, DATA AND TECHNOLOGY

The supply chain can have a tremendous impact on an organization's overall performance. And managing DG safely and compliantly adds an even greater level of complexity to the supply chain. So how do DG pros feel about the value of their supply chains?

Overall, DG pros feel confident that their supply chains can meet current needs...with 1 in 5 believing they can support future needs, and only 13% indicating they cannot meet current needs.

And while most DG pros believe their supply chain has a positive economic impact on their business, many respondents do not believe that (or are unsure if) their supply chains are a differentiator.

This attitude may, in part, be the result of specific gaps within the global hazmat supply chain. Let's examine some of those key gaps.

» Does your supply chain have a positive economic impact on your business?



» Is your overall supply chain a differentiator for your company in serving customers?



» GAP #1: ABILITY TO HANDLE REVERSE LOGISTICS

The continued growth of e-commerce has brought with it challenges for companies, including increased reverse logistics activity.



This onslaught of return deliveries – both consumers returning to stores and stores returning to manufacturers and distributors – has created a challenging reverse logistics environment. And it is compounded by the fact that **many products being purchased and returned online contain hazardous components** such as lithium batteries, medical devices, laptops, varnishes, paints, cosmetics and other items.

In today's e-commerce reality, it is critical that companies be prepared to handle reverse logistics. Unfortunately, many DG pros are not confident in their organization's ability to manage this process.

¹<https://www.invespro.com/blog/ecommerce-product-return-rate-statistics/>

How would you best describe your company's end-to-end processes and management around reverse logistics – ensuring DG materials are returned in a safe and compliant manner?

20%
More than adequate to meet current needs and can support future requirements

67%
Adequate to meet current needs

13%
Not adequate to meet current needs

ONLY 20%

of DG pros believe their companies can support future reverse logistics needs.

North America is least likely to think they can support future reverse logistics needs (14%) compared to APAC (24%) and Europe (23%).

Building a strong reverse logistics process for hazardous products requires a thoughtful, proactive approach:

- Gain a clear understanding of how reverse logistics and returns impact your supply chain and the overall health of your company.
- Identify the impact a mismanaged process could have on customer perception and brand reputation.
- Develop more streamlined ways to marry efficiency with safety to achieve positive change.

» GAP #2: COMPLETE, ACCURATE AND RELIABLE MASTER DATA

The supply chain has become increasingly data-driven, making access to and communication of timely and accurate master data imperative. Unfortunately, data accuracy, completeness and reliability are challenging.

These shortcomings are reflected both in the centralized data stored and communicated across companies' supply chains and in the data quality and accuracy they receive from upstream supply chain partners.

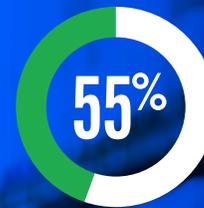
Centralized collection, storage and communication of key hazmat data:



49% >>

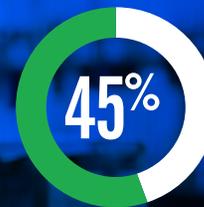
North America had more instances of problems (49%) than any other region

Quality and accuracy of data provided by supply chain partners:



of respondents claimed master data is stored and communicated across the supply chain with complete transparency.

EUROPE 53%
NA 38%



of respondents indicated that data collection is sporadic, inconsistent or not done at all.

EUROPE 45%
NA 60%

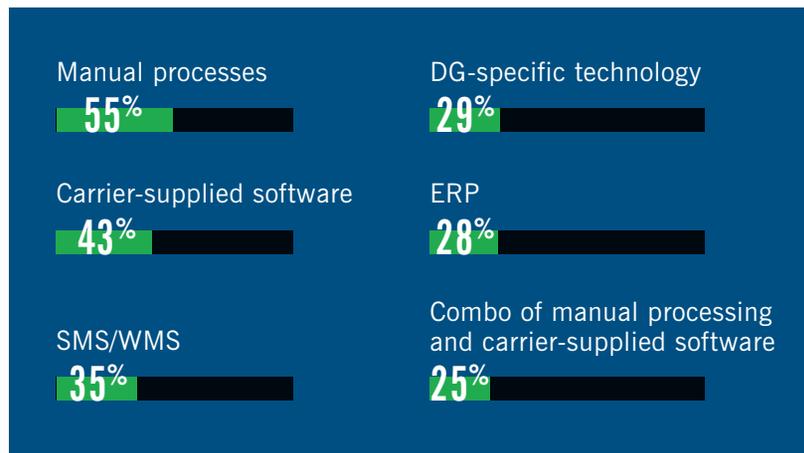
» GAP #3: LIMITED TECHNOLOGY AVAILABLE

One key reason for organizations' inability to achieve data collection and transparency is the use of limited and disparate technology across the supply chain.

While technology has continued to advance and is critical to the supply chain, **more than half of DG pros still rely on manual processes for shipping DG.** Manual processes are fraught with inefficiencies, including the inability to validate shipments against the latest regulations and an overall slowing of shipping time.



WHICH TYPE OF TECHNOLOGY DOES YOUR COMPANY USE TO SHIP DG?



But simply using technology is not a guaranteed fix for DG management and compliance challenges. In many cases, DG pros believe that using their company's existing systems, such as ERP and WMS technology, is not particularly effective (or understood) with respect to DG functionality.

Does your ERP system possess 100% of the DG supply chain functionality needed to profitably comply when moving an order through the supply chain?

YES: 29% **NO: 43%** **NOT SURE: 28%**

Does your WMS system possess 100% of the DG supply chain functionality needed to profitably comply when moving an order through the supply chain?

YES: 41% **NO: 33%** **NOT SURE: 27%**

Technology can significantly improve the efficiency, accuracy and compliance of shipping DG. But every company is different, so it's not a "one size fits all" approach. It's about using the right technology and getting the most out of it.

DG shippers need to understand the functionality of their systems, know how these systems integrate into the DG supply chain and identify gaps in their infrastructure and processes. This will help improve compliance while providing greater transparency, both internally and with supply chain partners.

» GAP #4: SUPPLY CHAIN PARTNERS, REGULATORS AND TRANSPORTATION CARRIERS

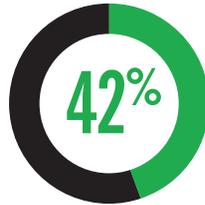
While some supply chain issues have to do with internal process or infrastructure gaps, others have to do with the risk associated with their partners.

PARTNERS



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

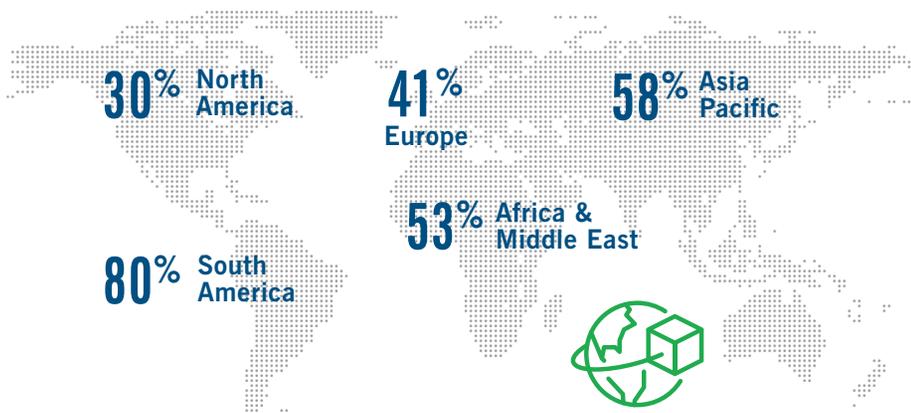
CARRIERS



of respondents agree that the carelessness with which carriers handle/transport DG is a significant problem for their business.



AND THIS SENTIMENT VARIES BASED ON REGION:



REGULATORS

But DG pros also point to regulators for the complexities of hazmat supply chain management. When asked to choose suggestions for regulatory bodies, they said:

- 
50% “Develop one core set of requirements that is common to all regulatory bodies and then have annexes for all modes.”
- 
23% “Accelerate the U.S. to totally harmonize with the rest of the world.”
- 
17% “Insist the regulatory bodies, associations and carriers produce annual hazmat analytics, shipment and other data.”
- 
10% “Reduce the amount of UN numbers and proper shipping names so that each number is based on real differences for emergency response handlers.”

SECTION THREE

KEY TYPES OF ORGANIZATIONAL COMPLIANCE

The survey statistically defined three distinct groups of companies based on attitudes and behavioral responses. Each is rooted in DG pros' perceptions of how their companies view DG within their overall business operations.

A company's group status impacts its:

- **Compliance confidence**
- **Resource availability**
- **Technology effectiveness**
- **Training**
- **and other issues**

Your company's group gives you a framework that may provide a practical approach to help get more resources and, ultimately, increase compliance confidence.



Basically Compliant



Safely Compliant



Competitively Compliant



» THE BASICALLY COMPLIANT GROUP (28% OF GLOBAL RESPONDENTS)

The Basically Compliant company lags behind the industry in their level of investment in DG infrastructure and resources, making compliance more challenging for DG pros. **DG pros within this group typically work at companies where DG management is viewed simply as a regulatory mandate**, resulting in a lack of investment in DG compliance resources and, ultimately, a lack of confidence that DG compliance is managed effectively across their organization.



THE BASICALLY COMPLIANT COMPANY

Is more likely to:

- Find keeping up with regulations challenging and time-consuming
- Have an infrastructure that is lagging behind the industry
- Have their investment in DG compliance either stay the same or decrease over the past year
- Feel their investment in supporting DG compliance is not adequate to meet current needs
- View DG as a regulatory mandate

Is less likely to:

- Feel confident in DG compliance
- Wish partners were as compliant as their company
- See “lack of technology” as their greatest challenge

Greatest challenge to compliance:

1. Company leadership not aware of the risk if something goes wrong
2. Budget constraints
3. Insufficient or ineffective training

Would spend additional budget on:

- More effective training

Most helpful in communicating DG value to customers, supervisors and senior leaders:

1. Industry data reports detailing non-compliance trends
2. Understanding the total value of compliance for the company



» THE SAFELY COMPLIANT GROUP (38% OF GLOBAL RESPONDENTS)

The Safely Compliant company is generally confident in ensuring DG compliance across their organization, in part because of their company's commitment to overall safety beyond the regulatory requirements. However, there is uncertainty in terms of what the future holds: The investment their company makes in DG is current within the industry, but needs updating to address future needs.



THE SAFELY COMPLIANT COMPANY

Is more likely to:

- Have an infrastructure that is current but needs updating
- Feel their total investment in supporting DG is adequate to meet current needs
- Go above the requirements because of their safety focus

Is less likely to:

- Be concerned about shipments being stopped, even if regulations are followed perfectly
- List “insufficient or ineffective training” as their greatest compliance challenge

Is similar to Competitively Compliant companies in that they:

- Feel confident in DG compliance
- Wish partners were as compliant as their company
- See technology and training investment increasing

Greatest challenge to compliance:

1. Lack of technology
2. Budget constraints
3. Lack of access to resources/info/guidance required to keep up with changing regulations

Would spend additional budget on:

- Technology for better supply chain efficiency

Most helpful in communicating DG value to customers, supervisors and senior leaders:

1. Industry data reports detailing non-compliance trends
2. Case studies from best-in-class companies
3. Understanding the total value of compliance for the company



» THE COMPETITIVELY COMPLIANT GROUP (34% OF GLOBAL RESPONDENTS)

The Competitively Compliant company views DG compliance as a competitive advantage in which investment is above the industry average. They are highly confident of DG compliance across their organization.



THE COMPETITIVELY COMPLIANT COMPANY

Is more likely to:

- View DG compliance as a competitive advantage
- Have their total investment in supporting DG be more than adequate to meet current needs and support future needs
- Believe their infrastructure is advanced and ahead of the industry

Is similar to Basically Compliant companies in that they:

- Are concerned about stopped shipments even if regulations are followed perfectly

Is similar to Safely Compliant companies in that they:

- Feel confident in DG compliance
- Wish partners were as compliant as their company
- See technology and training investment increasing

Greatest challenge to compliance:

1. Lack of access to resources/info/guidance required to keep up with changing regulations
2. Lack of technology
3. Budget constraints

Would spend additional budget on:

- Technology for better supply chain efficiency

Most helpful in communicating DG value to customers, supervisors and senior leaders:

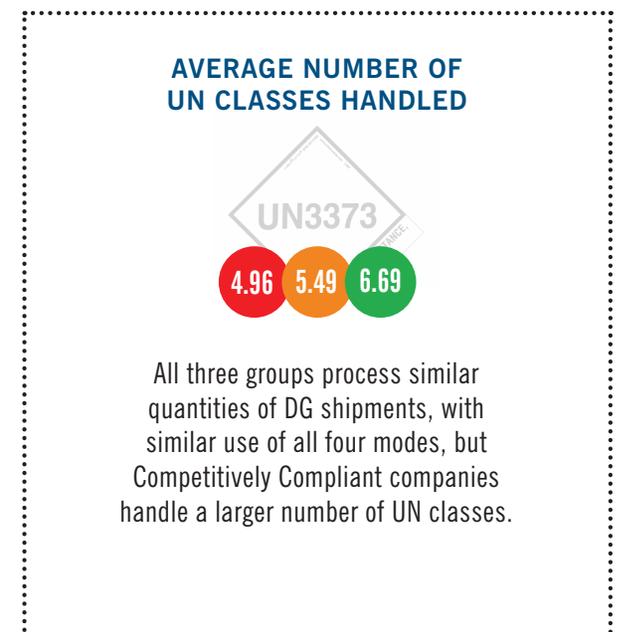
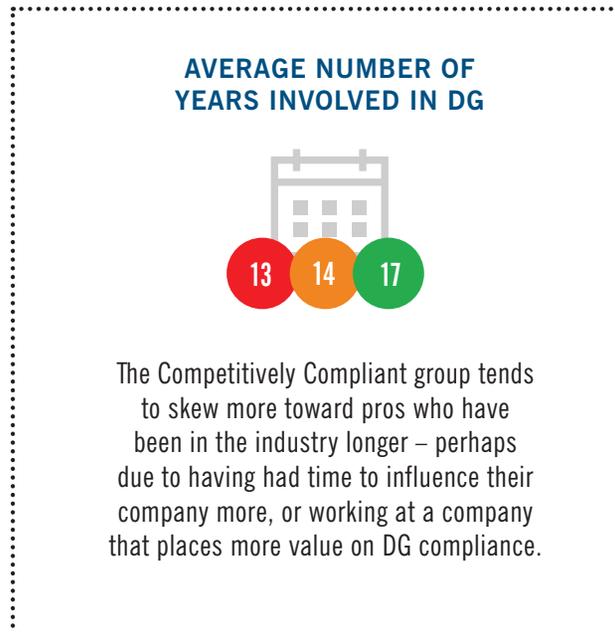
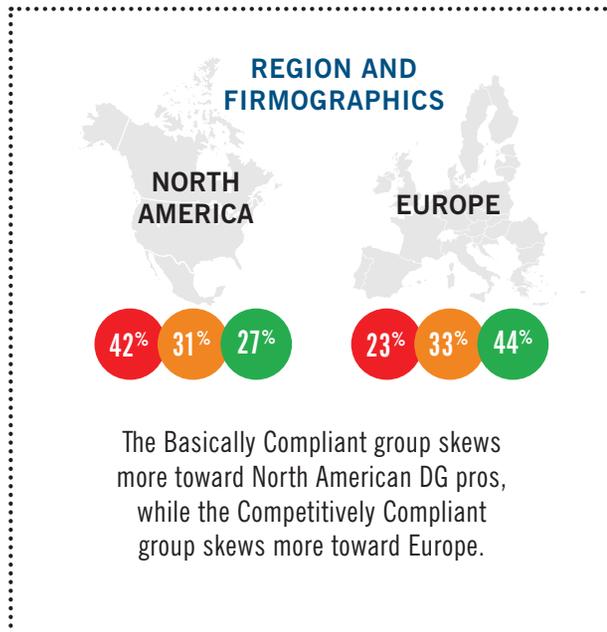
1. Industry data reports detailing non-compliance trends
2. Understanding the total value of compliance for the company
3. Case studies from best-in-class companies

SHIFTS IN THE DG LANDSCAPE

After comparing the sizes of each group over the past two years, we see that the balance of these three categories of compliance has shifted.



SEGMENTATION INSIGHTS





MACRO ENVIRONMENT INFLUENCES

This year, we added questions related to macro environment inputs that may be hindering (or assisting) DG pros in maintaining a safe and compliant supply chain.



CONCERNS AND PRIORITIES

Carelessness with which carriers handle/transport DG is a significant problem for my business.



OVERALL, 4 OUT OF 10 DG PROS believe carrier carelessness places an undue burden compliance on the supply chain...with the Competitively Compliant group feeling more passionate than the Safely Compliant group.

DG professional certifications are viewed as valuable credentials by leaders in my company.



MORE THAN HALF THE RESPONDENTS

say they value certifications, but the Competitively Compliant group does so at more than twice the rate of the Basically Compliant.

Hiring and retaining qualified people to work in DG is becoming harder.



HIRING QUALIFIED PEOPLE IS HARD

for companies in all three groups, and their attitudes toward compliance seem to make no difference.

THREE AREAS TO FOCUS ON TO CHANGE THE CONVERSATION

DG pros who wish to elevate their organizations' levels of compliance may need more resources. That means demonstrating to senior level management the broader financial importance of:

1. Current logistics technology
2. Supply chain information
3. Enhanced training

#1 CURRENT LOGISTICS TECHNOLOGY

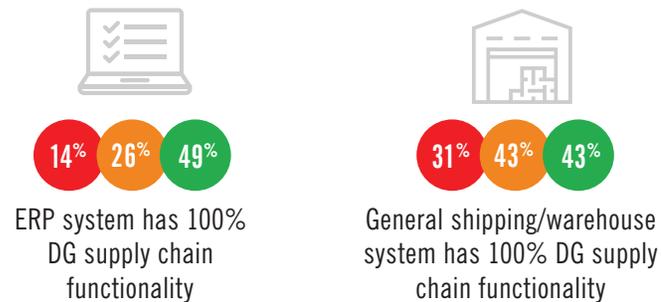
TYPES OF TECH USED



Basically Compliant and Safely Compliant companies are more likely to use manual processing. Carrier-supplied tech is used more by the Basically Compliant group. The Competitively Compliant group leverages more DG and general shipping tech.



DG FUNCTIONALITY OF GENERAL SOFTWARE



The Competitively Compliant and Safely Compliant groups are more likely to have some DG functionality built into their company-wide systems, but both have room for improvement.

#2 SUPPLY CHAIN INFORMATION

MASTER DATA IS CENTRALLY COLLECTED, STORED AND COMMUNICATED



34% 60% 66%

Complete and accurate



58% 35% 31%

Sporadic and inconsistent



8% 6% 3%

Not at all

Those in the Basically Compliant group have more gaps in overall data quality, completeness and accuracy within their supply chains, but there is still room to improve in the other groups, as well.

DATA QUALITY AND ACCURACY PROVIDED BY UPSTREAM PARTNERS



28% 53% 51%

Complete and accurate



67% 45% 47%

Sporadic and inconsistent



5% 2% 1%

Not at all

#3 ENHANCED TRAINING

TYPES OF DG TRAINING USED



78% 87% 91%

Classroom



14% 13% 26%

Webinar



58% 52% 45%

Online/e-learning



13% 9% 19%

other

Competitively Compliant and Safely Compliant companies are more likely to use classroom training

Basically Compliant companies are more likely to use online/e-learning

WHY DO COMPANIES IN THE DIFFERENT GROUPS PURSUE DG TRAINING?



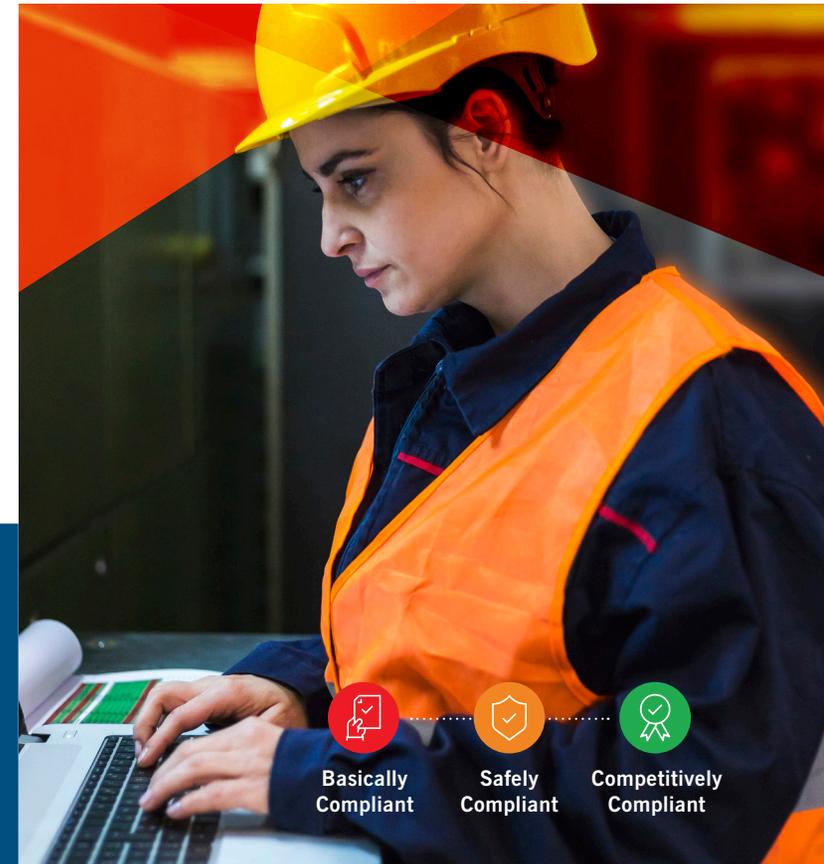
81% 60% 35%

Simply comply with regulations



19% 40% 65%

Provide/add business value



Basically Compliant



Safely Compliant



Competitively Compliant

A ROADMAP TO COMPLIANCE

Where does your company fit?

When you know where your company fits, you can determine the steps you may need to take to raise your organizational commitment to compliance.

As we, as an industry, push toward creating a safer and more compliant supply chain, it will be up to individual organizations to drive greater levels of compliance. But this is a complex process and it can't be fixed overnight.

Here's a roadmap of practical steps toward creating a more safe and compliant supply chain.



BASICALLY COMPLIANT COMPANIES

PRIMARY FOCUS: Help solve immediate compliance problems with limited budget and move toward raising senior-leader awareness of the value of compliance.

POSSIBLE STRATEGIES AND TACTICS:

- Elevate the view of DG within your organization by quantifying the value of total compliance to senior leaders
- Ensure you are getting the best value for your training spend
- Gain greater understanding of the supply chain, IT infrastructure and processes to identify gaps and where immediate improvements can be made using existing resources
- Align with regulatory bodies and third-party experts to identify low-hanging fruit and cost-effective solutions
- Begin to define and document metrics

KEY QUESTIONS TO ANSWER:

Quantifying the value of total compliance

- What steps are needed to define and document metrics and processes?
- What percentage of your company's business/revenue is hazmat?
- How many DG shipments do you have daily, weekly and yearly?
- How many fines have you had as a result of non-compliant shipments?
- What is the dollar value of non-compliance?
- If you have multiple locations, how compliant is each location?
- What is your compliance budget and how is it allocated?
- How much additional budget is needed to do your job more effectively and efficiently?

Understanding the value and shortcomings of your current training

- What gaps exist within your current training program?
- How prepared do company personnel (throughout the organization) feel based on their current training?
- When was the last time you evaluated or updated your training?
- Does your training reflect your company's current business operations or the market landscape?
- How can your training be improved?
- Where do you keep training records?
- Are your training records kept up to date?

Understanding organizational infrastructure and processes

- How much time does it take to identify processes and ship out a hazmat item?
- How many of these processes are manual? Can any easily be automated using current infrastructure?
- How closely aligned are you with other departments?
- What departments are responsible for packaging, shipping, procurement, etc.?
- What compliance procedures are in place for these departments? What data is available for each?

Aligning with industry regulators and experts

- Has your company had a third party conduct an onsite assessment to identify low-hanging fruit?
- How closely do you align with regulatory bodies?
- Do you have access to (and utilize) industry reports that highlight industry trends, challenges and benchmarks?

A ROADMAP TO COMPLIANCE

Where does your company fit?



SAFELY COMPLIANT COMPANIES

PRIMARY FOCUS: Build on organization's safety focus to anticipate future needs and make compliance a competitive advantage.

POSSIBLE STRATEGIES AND TACTICS:

- Strengthen link to partner and with EH&S team to review processes and look for connection points
- Improve technology IQ across the supply chain and improve understanding of DG functionality within ERP, WMS, TMS and other systems – both internally and with supply chain partners
- Demonstrate ideas/framework for data transparency, reliability and consistency with key supply chain partners
- Further define the total value of compliance metrics to establish more robust data reports
- Support and provide unique training and tech ideas to ride investment growth
- Refine metrics and begin to include within senior-level dashboard; manage to those metrics

KEY QUESTIONS TO ANSWER:

Improving your technology IQ

- Do you understand the DG functionality within ERP, WMS, TMS and other systems?
- Have you explored opportunities for further integration of DG into those systems?
- How closely are you aligned with IT?

Improving data transparency, reliability and consistency

- What metrics and processes are in place for compiling and communicating data?
- How complete, accurate and transparent is your company's data?
- Where are there gaps within your master data?
- How is that data shared with upstream partners?
- How is your data used to improve operational performance and compliance?

Defining total value of compliance metrics

- How many fines have you had as a result of non-compliant shipments?
- What is the dollar value of non-compliance?
- How much additional budget is needed? What is the ROI?
- What's the cost per employee/shipment for compliance training, technology, etc.?

Providing unique training and tech ideas

- When was the last time your DG training or technology was evaluated or upgraded?
- What specific needs are not addressed within your current training and infrastructure?



COMPETITIVELY COMPLIANT COMPANIES

PRIMARY FOCUS: Gain additional business value by further integrating compliance throughout your organization and with supply chain partners.

POSSIBLE STRATEGIES AND TACTICS:

- Identify and stabilize key metrics that demonstrate ROI, as well as opportunities for compliance to deliver greater value throughout your organization
- Enhance communication of data and metrics to carriers and other supply chain partners to drive performance and compliance improvements
- Maximize DG functionality of ERP, WMS, TMS and other systems and further integrate DG into other areas of the organization
- Formalize and communicate compliance processes throughout the organization – across all departments and locations
- Leverage metrics and results into appropriate financial report(s), adjust the senior-level dashboard and manage to those metrics

KEY QUESTIONS TO ANSWER:

Identification and stabilization of key metrics

- How many stopped shipments and fines do you have monthly/quarterly/yearly?
- Are there consistent causes for those stopped shipments and fines?
- What is the current cost of training employees? What is the cost versus ROI if you improved your training?
- What metrics are you keeping for carrier performance?
- How are you working with your carriers to improve performance?

Communicating data and metrics

- What data is shared with carriers and supply chain partners?
- How is it used to improve performance?
- Is DG data integrated into their systems and processes?

Maximizing DG functionality and integration

- How is DG functionality integrated into each department within your organization?
- How can you better partner with IT to explore options to further integrate DG functionality into existing systems?

Formalizing and communicating compliance processes

- How are you partnering with customers, carriers and other partners to anticipate trends and solve problems?
- What are your organization's formal processes and metrics? Are they consistent across all departments, locations, etc.?
- How are these processes implemented and monitored following an acquisition, the building of a new facility, etc.?
- Does your training reflect your company's current business operations or the market landscape?
- Is DG involved in on-boarding of new clients, product development or procurement to ensure compliance plays a role in purchasing decisions, product launches and on-boarding processes?
- What's your procurement process to ensure you have compliant labels and packaging?

// ABOUT THE SURVEY

The survey was conducted online between April 15 and May 31, 2019. 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.

LABELMASTER

SOFTWARE PRODUCTS SERVICES

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. Labelmaster's dedication to supporting its customers' operational and compliance needs is enhanced through its unmatched industry expertise and consulting services, which serve as a valuable resource for customers to answer difficult and commonplace regulatory questions. Whether you're shipping hazardous materials by land, air, or sea, Labelmaster is your partner in keeping your business ahead of regulations and compliant every step of the way. [Learn more at labelmaster.com](https://www.labelmaster.com)



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](https://www.iata.org/dgr)



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](https://www.hcblive.com)