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eBook

# Aerospace & Defense

## Navigating the Compliance Landscape

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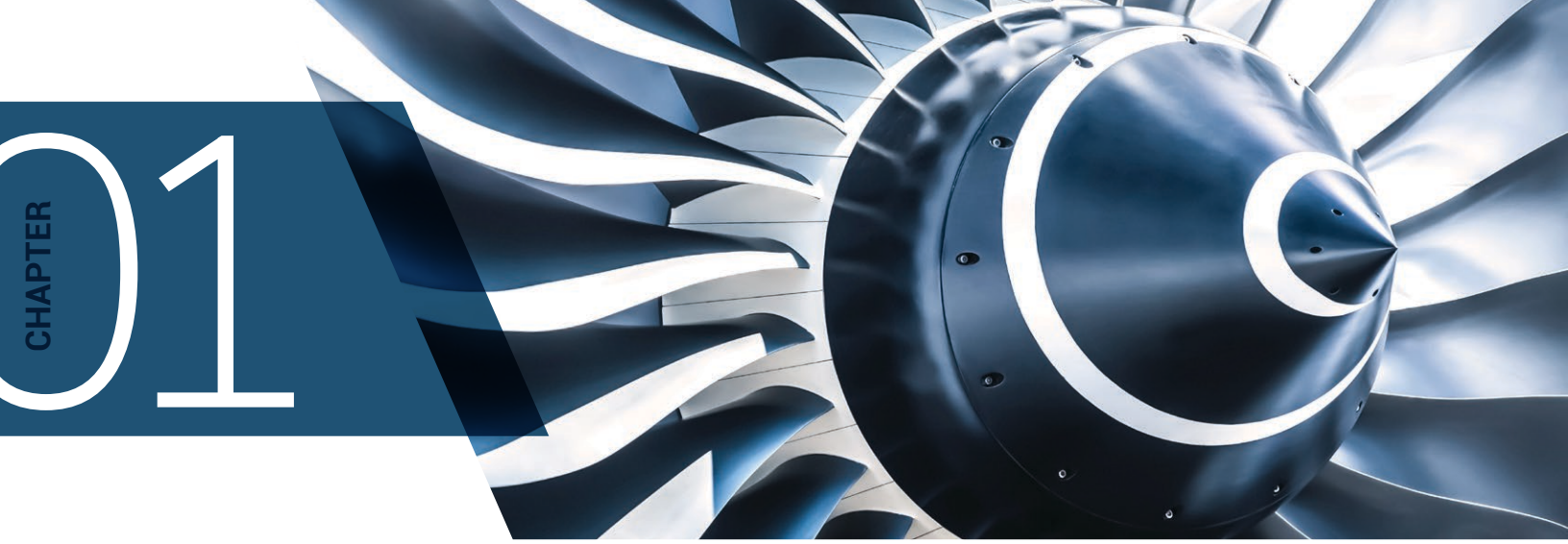
# Introduction

From its origins in the early 1900s to the jetliners of today, the airplane has long been a symbol of innovation. In order to maintain this reputation, the design and manufacturing processes for aerospace parts must continue to evolve and showcase the industry's commitment to safety and excellence.

That's why manufacturers invest heavily to ensure parts and final assemblies are airworthy, safe, and align with expanding regulatory priorities. Modern best practices are being implemented at every stage of production to maintain industry standards on environmental and human rights issues. This means the way aerospace and defense companies manage data is also changing.

Hard copy filing systems and point solutions are no longer enough to scale alongside the regulatory landscape, or the imperative for strategic alignment across corporate business units.

This eBook provides best practices to enhance your supply chain sustainability programs in product compliance; environmental, social, and governance (ESG); and vendor management. Its insights will inform and prepare your programs to adapt and scale, so you can continue innovating in safe, sustainable, and responsible ways.



CHAPTER 01

# Understanding the Industry

Manufacturers that sell products in the U.S. must uphold stringent standards to maintain lucrative federal contracts. To manage this, they build due diligence strategies as a best practice, the strength of which varies greatly depending on company size, sustainability goals, and executive buy-in.

To be effective, manufacturers must navigate complex, international, multi-tiered supply chains to carry out the processes required to build safe, reliable products. The production process often includes the use of substances that later become restricted, impairing the ability to maintain products throughout their lengthy life spans. All of these processes need to be documented by substance and material specification data and rolled up to the final manufacturer so they can track and report on the composition of their products effectively.

In a simple supply chain, it is easier to track the flow of data. A manufacturer purchases the substances and materials it needs to produce a completed product, which it sells either into a higher level of assembly or to the end consumer (see Figure 1.1).

## Figure 1.1: Simple Supply Chain



Substances, Mixtures, Materials, Semi-Components

Manufacturing Process(es)

Completed Products

Higher Level Assembly, End Consumer

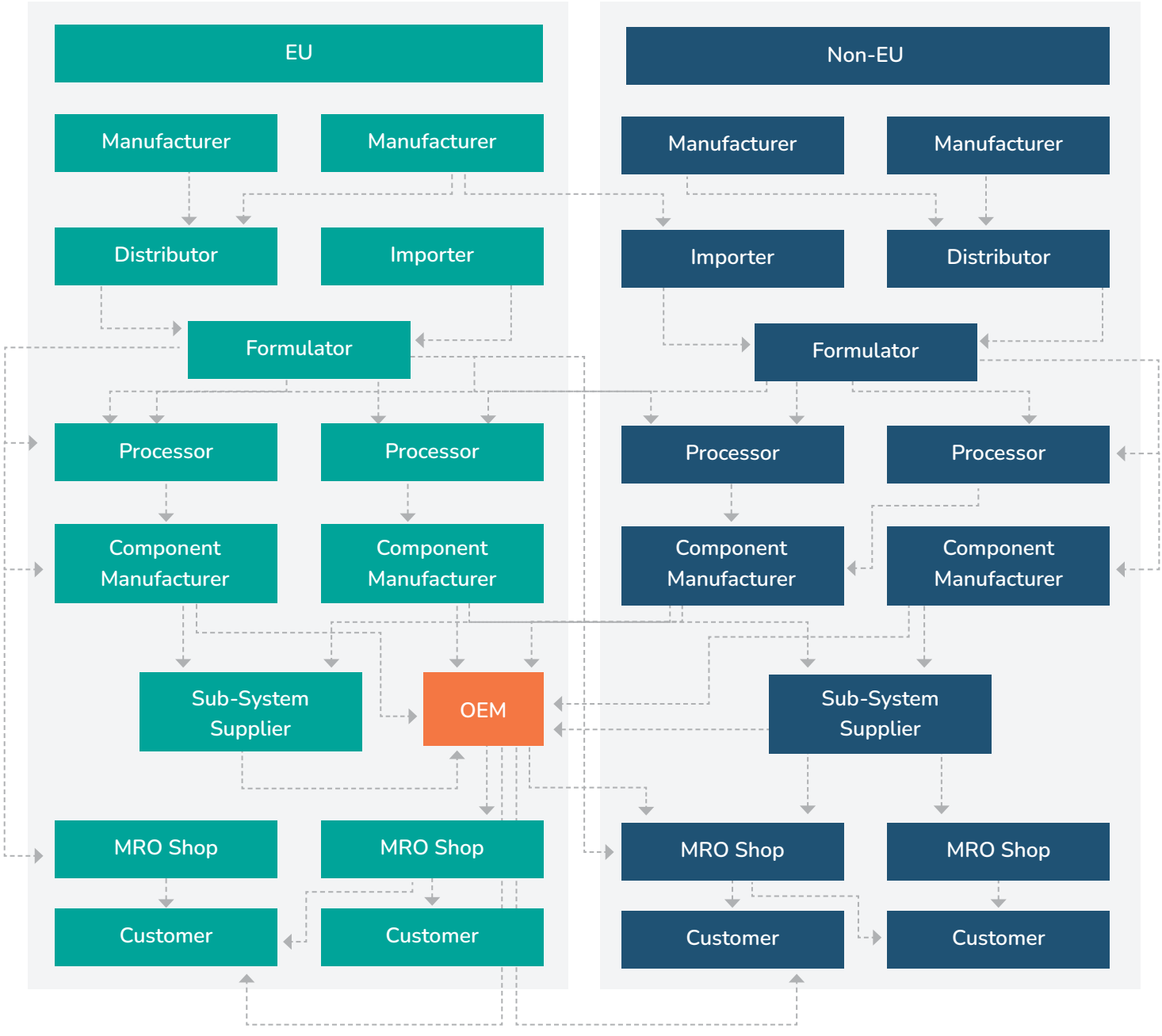
In the aerospace and defense industry, parts have complex specifications with little flexibility regarding the substances used in the manufacturing process. They may also enter multiple countries to undergo custom transformative processes (e.g., plating, hardening, heat treatment) before they are ready to be sent to the next level of manufacture.

Furthermore, the subparts that compose a finished product may be comprised of other subparts, and each may have undergone multiple processes. These subparts may yet contain more subparts, which themselves may have undergone several more processes.

(See Figure 1.2).



## Figure 1.2: Complex Supply Chain[1]




1 AeroSpace and Defence Industries Association of Europe. (2017). *ASD Sectoral Guidance for Substances in Articles Under REACH.* http://asd-europe.org/sites/default/files/atoms/files/ASD%20SiA%20Guidance_v1_Nov2017_1_0.pdf

In order to show compliance with applicable regulations and survey upstream for various requirements, companies need access to data at every tier of the supply chain. This means:

- Each material needs to be assessed in accordance with substance regulations
- Each factory and workplace needs to be examined for various factors
- Each country named as a source of products must be examined for ongoing conflict, political instability, and current trade climate
- Non-restricted substances still need to be documented to ensure business continuity

This constitutes a lot of data — and risk.

## The Importance of Supply Chain Sustainability Management

Performing supply chain due diligence in the aerospace and defense industry can be difficult, but failure to do so can open your company to a range of financial risks. Conversely, robust supply chain reporting is a competitive advantage as your customers, potential investors, and consumers are looking for more transparency from companies.

# Non-Compliance & Financial Risk

As the international marketplace becomes more regulated, enforcement activities against companies that fail to observe global regulations are growing in frequency and severity. Given the complexity of supply chains in this sector, and how easily risk can slip through the cracks, companies should not underestimate the impact that enforcement and the resulting negative brand image can have.

Simply gathering and reporting on chemicals data to show compliance with regulations such as the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation is not enough to avoid financial damage. Given the long life span of a typical aerospace and defense product, companies are open to business continuity risk when restricted chemicals are no longer available for the repair and manufacture of final products and their subparts. Staying informed about newly restricted chemicals, both current and on the horizon, can help your company anticipate restrictions, and evaluate its response options in advance.

Furthermore, in this hyper-competitive business world, customers expect the products they purchase to be ethically sourced and free of hazardous chemicals. If companies fail to effectively perform supply chain due diligence for a range of product, ESG, and trade data, they may face:

- Damage to reputation and credibility
- Contract loss
- Investment loss
- Fines and penalties
- Loss of market access
- Additional regulatory oversight

The financial risk of taking a head-in-the-sand approach to the compliance landscape far outweighs the cost of implementing a cost-effective, broad supply chain data strategy.

IAEG
INTERNATIONAL AEROSPACE ENVIRONMENTAL GROUP®

Assent is a proud member of IAEG, along with other aerospace, defense, and sustainability leaders, including:

- Boeing
- AirBus
- Dassault Aviation
- Rolls-Royce

# Industry Trade Associations

In the aerospace and defense industry, trade associations play a vital role in helping the industry respond to increasing regulatory requirements. In addition to guidance on imminent deadlines, and any new or updated legislation, they facilitate the development of industry standards to streamline, automate, and standardize data management, from materials extraction to end-of-life.

## International Aerospace Environmental Group

The International Aerospace Environmental Group (IAEG) is a non-profit organization formed in 2011. It provides the industry with best practices on key issues related to product composition and ESG issues, and gives companies a valuable forum to have their challenges and needs addressed. The IAEG has successfully delivered numerous initiatives, including:

- Creation of the:
  - Aerospace and Defence Declarable Substances List (AD-DSL)
  - Aerospace and Defence Substance Reporting Tool (AD-SRT)
  - IPC-1754 data exchange standard
- Educational materials on the Toxic Substances Control Act (TSCA) inventory notification and 2018 REACH Registration
- Collaboration on alternative technologies in order to reduce the use of substances of very high concern (SVHCs)

A best practices document to facilitate the transition to ISO 14001.

## Implementation by Smaller Companies

Though trade associations are influential in the development of data exchange standards, the implementation process is slow to trickle down to smaller manufacturers. This is exacerbated by difficulties in communicating regulatory requirements to deeper tiers of the supply chain. Often, suppliers do not understand:

- Why they need to respond to data requests
- The request itself, due to language barriers
- That non-compliance can lead to contract loss
- How to respond in the requested format

This means the companies that are the most difficult to acquire data from have the least ability to respond.

## The Expanding Aerospace & Defense Compliance Landscape

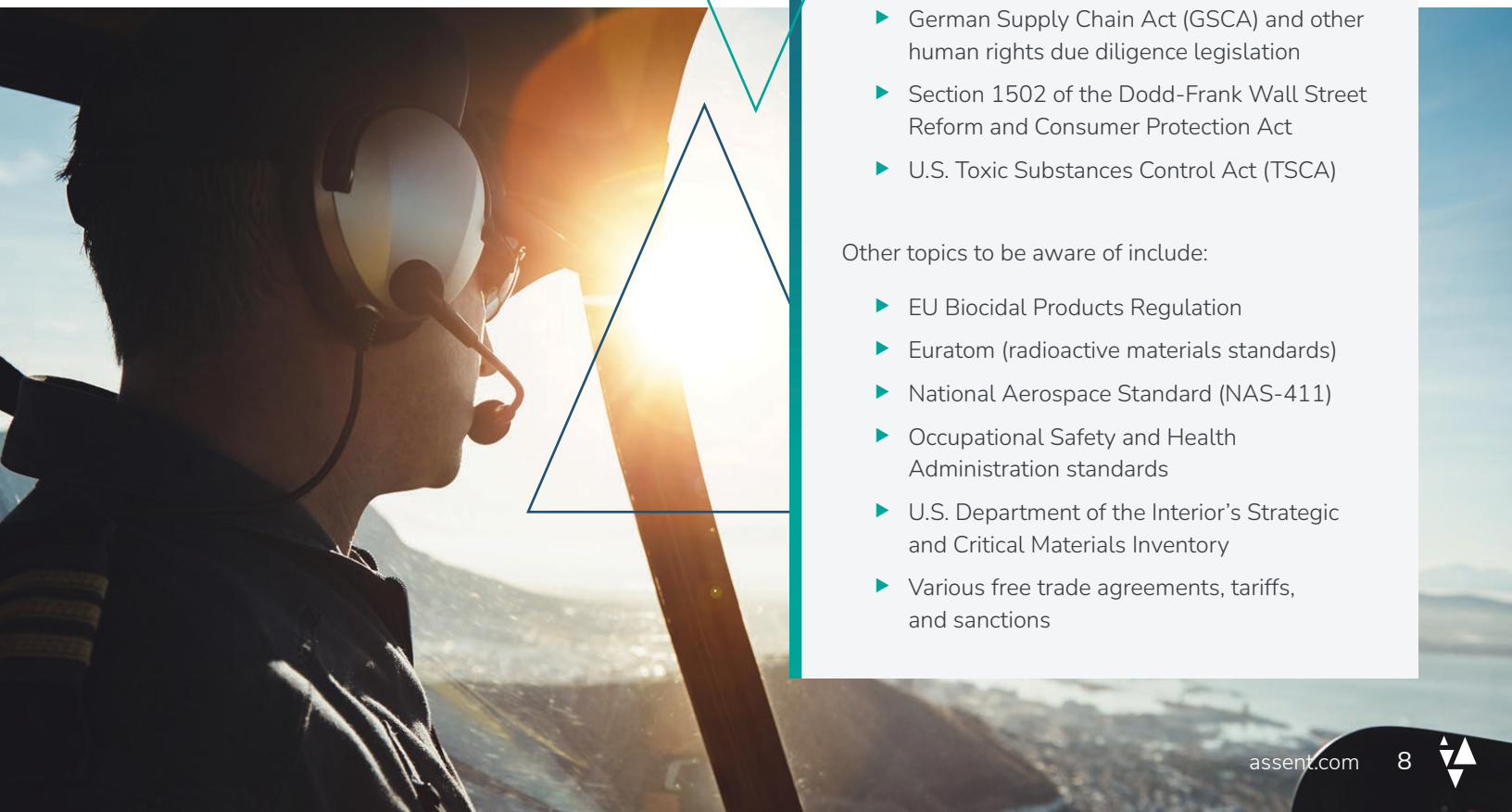
The aerospace and defense regulatory landscape has expanded in the last five years, increasing the number of reporting requirements with which companies must comply.

Main compliance considerations include:

- California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
- Defense Federal Acquisition Regulation Supplement (DFARS)
- DFARS flow-downs (NIST, Specialty Metals, Anti-Human Trafficking)
- EU Conflict Minerals Regulation
- EU REACH Regulation
- EU Restriction of Hazardous Substances (RoHS) Directive (due to multi-use products)
- EU Waste Framework Directive
- France's Corporate Duty of Vigilance Law
- German Supply Chain Act (GSCA) and other human rights due diligence legislation
- Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act
- U.S. Toxic Substances Control Act (TSCA)

Other topics to be aware of include:

- EU Biocidal Products Regulation
- Euratom (radioactive materials standards)
- National Aerospace Standard (NAS-411)
- Occupational Safety and Health Administration standards
- U.S. Department of the Interior's Strategic and Critical Materials Inventory
- Various free trade agreements, tariffs, and sanctions



CHAPTER 02



# Product Compliance

Most products used for aerospace and defense purposes are expected to weather high-stress environments for long periods of time. This frequently means companies rely on a narrow list of substances to ensure parts meet safety standards. It can be difficult for manufacturers to report on product composition, especially in consideration of an ever-widening list of SVHCs.

Though exemptions to chemical restrictions can be secured, these do not insulate companies from business continuity risk when suppliers cannot produce the substances needed to manufacture or perform repairs on products. In order to build a nuanced understanding of the risks associated with their products, companies need to maintain a complete view of their final composition, including the materials and chemicals used during the process of manufacture. However, there are several barriers that interfere with the ability to acquire quality data:

- Uncertainty about which optional substances were used in the process of manufacture
- Complex parts contain several subparts, each requiring independent documentation
- Legacy data stored on out-of-date systems that don't integrate with modern solutions
- Unclear technical design authority

Leveraging a supply chain sustainability management service provider helps companies see deep into their supply chains so they can manage these challenges with greater cost-efficiency than the internal, manual systems that many aerospace and defense manufacturers are moving away from.

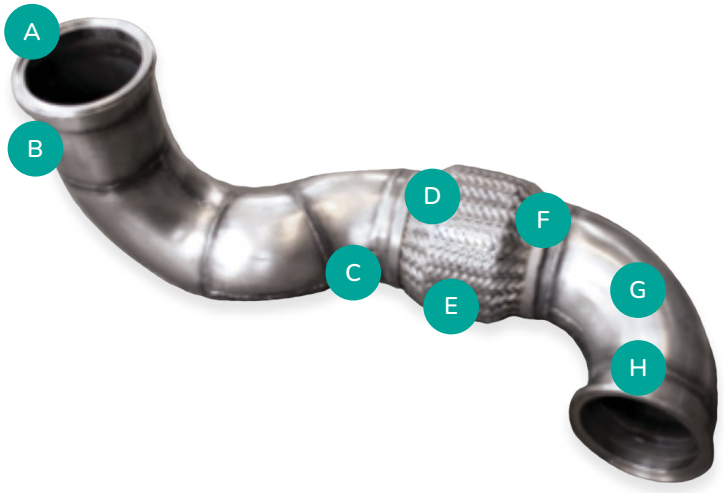
# Managing Hazardous Substances Data

Product engineers typically transmit data from product data management (PDM) and product lifecycle management (PLM) systems to enterprise resource planning (ERP) systems in order to transition a product from the design phase to production. The ERP system will then schedule resources based on order priority, in-house capacity and external vendors. During this process, several smaller finished products may get merged in the article transformation process to form a new product ID.

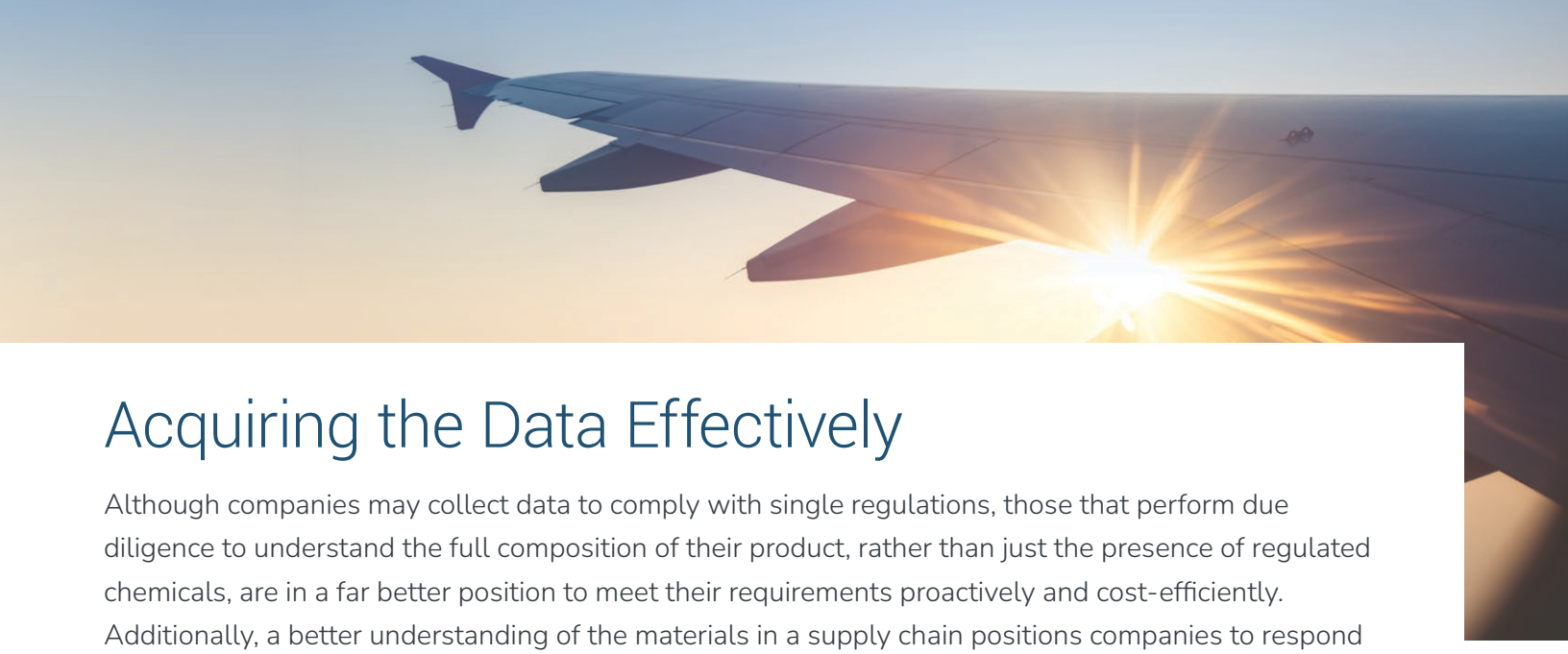
However, the “one product equates to one part number” rule of thumb does not apply in the aerospace and defense industry. Many subparts within the finished product were created with different materials and manufacturing processes, all of which need to be tracked and documented independently (see Figure 1.3), with separate threshold calculations for restricted chemicals. Furthermore, the “Once an Article, Always an Article” ruling indicates that REACH SVHC thresholds are to be calculated against each subpart individually, not against the final assembly.

Under the revised EU Waste Framework Directive, companies have a responsibility to ensure the safe handling of end-of-life products originally sold into the EU region. It requires that companies submit a range of product compliance data in a streamlined format to the Substances of Concern In articles, as such or in complex objects (Products) (SCIP) database, among other requirements.

## Figure 1.3: Simple Duct Pipe




A - H : Scraper ring
B, C, G : Pipe
D, F : Threaded connector
E : Protective covering



# Acquiring the Data Effectively

Although companies may collect data to comply with single regulations, those that perform due diligence to understand the full composition of their product, rather than just the presence of regulated chemicals, are in a far better position to meet their requirements proactively and cost-efficiently. Additionally, a better understanding of the materials in a supply chain positions companies to respond to unforeseen disruptions caused by chemical restrictions, geopolitical unrest, or trade disputes.

Given the complex nature of many aerospace and defense products, gaining access to complete product data can be a difficult task for companies to manage. To help, trade associations have published guidance and tools that help companies streamline the acquisition of holistic product composition data.

## The AD-DSL & AD-SRT

At the industry level, the IAEG has created tools that help companies disclose part composition with greater efficiency. The most crucial of these tools are the AD-DSL and the AD-SRT.

The AD-DSL is a list of substances that are c ommonly used in the industry, and which are restricted or controlled by a variety of regulations and industry requirements, including REACH, RoHS, and TSCA.

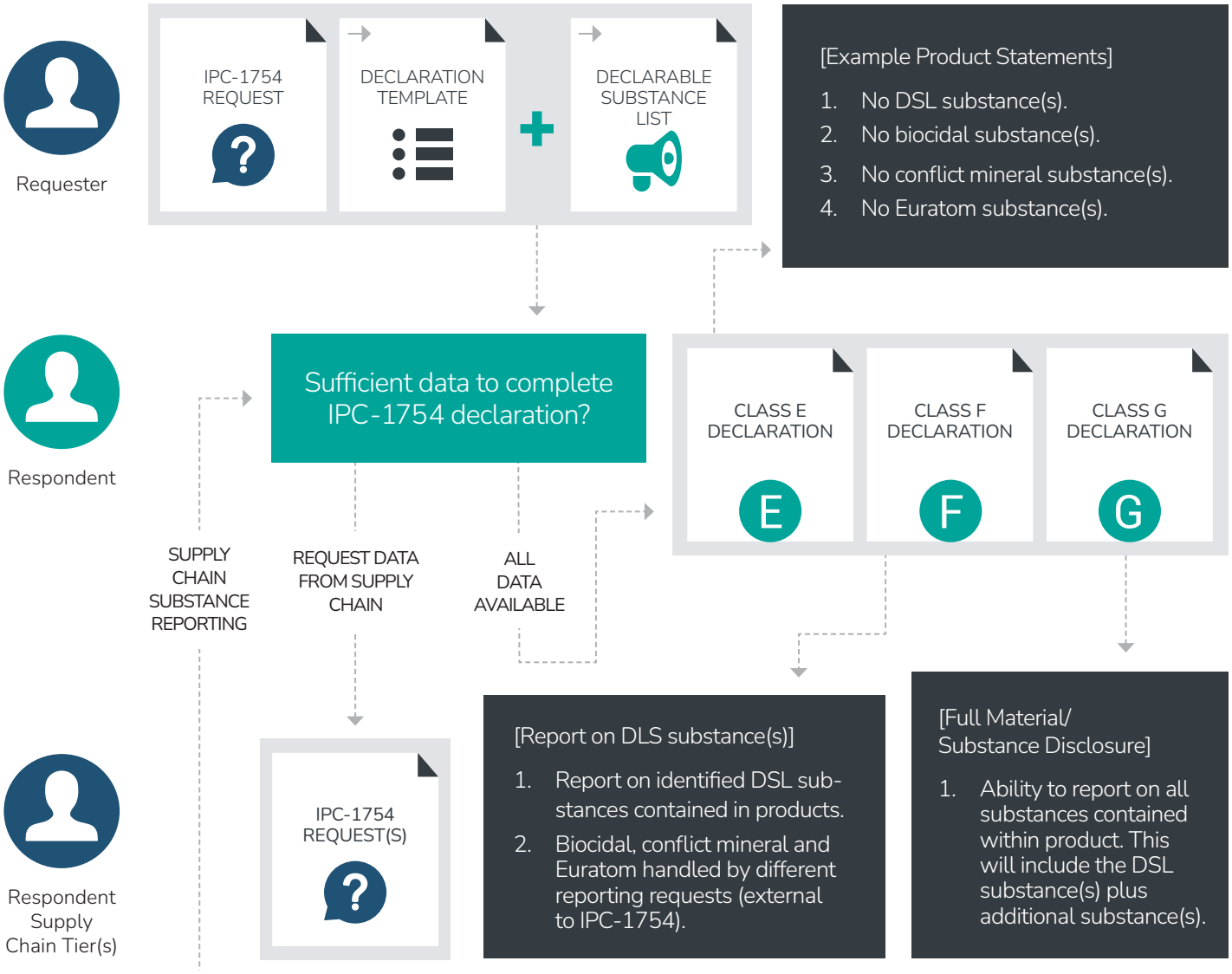
The AD-SRT provides the industry with a standard-ized reporting template for part manufacturers to communicate and roll up substance data. It allows companies that have yet to implement modern data exchange standards to share AD-DSL disclosures with its clients.

## IPC-1754

Developed by the Association Connecting Electronics Industries (IPC) and sponsored by the IAEG, IPC-1754 is a standard XML schema that allows companies to request, transmit, and analyze DSL data across the supply chain (see Figure 1.4). By adopting the tool, companies streamline the way they respond to supply chain data requests, saving time and money.

If some of the smaller companies have yet to implement the standard, they can still provide standardized data sets with the AD-SRT. Companies are receiving IPC-1754 data requests on an increasingly frequent basis. Those that contract with the U.S. government should expect to make declarations through the IPC-1754 standard, or at minimum, the AD-SRT.

## Figure 1.4: How IPC-1754 Data Exchange Works




This may end up being several levels deep, depending on number supply chain tier(s).

IPC-1754 has some unique data elements that facilitate this to occur and enable data to be 'rolled up'.

- BOM Level
- Requester Part Number
- Supplier Part Number

# Technical Design Authority & Data Sources

Companies must be prepared to use different strategies to send data requests to the correct destination and administer campaigns efficiently.

Product sources should be grouped into three categories to assess and determine data acquisition best practices:

- Mixtures and substances
- Standard parts (also known as commercial-off-the-shelf, or COTS)
- Original equipment manufacturer (OEM)-defined

Refer to the following Technical Design Authority and Data Source Summary Table to see how to acquire data in consideration of a range of product-specific parameters.

| | MIXTURES & SUBSTANCES | STANDARD PARTS | OEM-DEFINED PARTS |
|---|---|---|---|
| TECHNICAL DESIGN AUTHORITY | Chemical formulators and mixers, material manufacturers | Manufacturer of COTS parts, standards bodies | OEMs, contract manufacturers |
| OPTIONAL SUBSTANCES | Mixtures and substances are well-defined; less likely to see a wide range of options | Low variance. | Variance expected; depends on how well data is defined and maintained |
| SUPPLIER TYPES | Chemical formulators, chemical mixers | Distributors, purchasing agents | OEMs, contract manufacturers |
| PRODUCT TYPES | Degreasers, glues, sealants, oils | Nuts, bolts, screws, rivets, washers, resistors, capacitors | PCBA, specialist hoses, pipes, connectors |
| DATA ACQUISITION | SDS, compliance statements | Compliance statements, part manufacturer | Compliance statements, OEM, contract manufacturer |



# Five Keys to Success

## 1. Understand the scope of risk.

Leverage digital part geometry, bills of materials, and data stored in PDM and PLM systems to build a comprehensive understanding of your product's subpart and materials hierarchy, and any product-critical substances that can't easily be replaced. Check the ECHA website to see if these substances have been pre-registered.

## 2. Identify missing data.

Review documentation and any data already accessible to identify the information you need to acquire from your supply chain.

## 3. Leverage data exchange standards.

Standards such as IPC-1754 can help you acquire data from your supply chain in a single streamlined format that can be used to satisfy multiple requests that may not share a common declarable substance list.

## 4. Identify the correct data source.

Determine the most efficient starting point to acquire data, which varies depending on whether your materials are defined as mixtures and substances, standard parts or OEM-defined.

## 5. Evaluate your options.

If current or soon-to-be-restricted chemicals are present in your final assembly at a threshold higher than the limits outlined by regulators, evaluate your best way forward, which may include replacement technologies, redesign, or other alternatives. You may qualify for exemptions or convince your supplier to register the substance.

CHAPTER 03



# Environmental, Social & Governance

## More Legislation, Increased Scrutiny

Global companies have a responsibility to build comprehensive ESG programs to satisfy the growing expectations of their stakeholders. As entities that frequently do business with governments and are highly visible to consumers, aerospace and defense companies are under additional scrutiny. Furthermore, the largest purchaser in the industry (the U.S. Department of Defense) takes ESG into account when evaluating bids and current suppliers. Failing to consider this when bidding on contracts can be catastrophic for a company's bottom line.

The top companies in the sector are implementing comprehensive ESG programs to mitigate risks in their supply chain, which will have downstream implications to their suppliers. Companies are also improving their overall capacity to operate sustainably, which has long been shown to positively influence stock value.[2]

2 McKinsey & Company. (2009). *Valuing corporate social responsibility: McKinsey Global Survey Results*. https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/valuing-corporate-social-responsibility-mckinsey-global-survey-results

The benefits of a comprehensive ESG program can extend far beyond risk mitigation. Consumers care about the airlines they fly with and purchase from those that invest in sustainability. The average consumer does not have a direct relationship with manufacturers, but subscribes to the idea that airlines are responsible for the actions taking place in their supply chain, and hold them responsible when the vessels in their fleet are produced unethically. This can impact every company within the supply chain, from its lowest tier to the end-product user.[3]

## Human Trafficking & Slavery

Companies across verticals are performing more due diligence to detect and correct potential human rights violations in their supply chains. For the aerospace and defense industry, this is largely driven by legislation related to DFARS, but also growing investor and consumer concerns about the manner in which companies do business.

### Code of Conduct

A code of conduct is an essential tool in engaging your suppliers with your ESG initiatives. It allows you to gain acceptance of your company's values and ethical policies throughout your global supply chain.

### Data Acquisition

In 2017, the Social Responsibility Alliance (SRA) published the Slavery and Trafficking Risk Template (STRT),[4] which has emerged as a go-to standard to empower human trafficking and slavery reporting with a standardized dataset.

## Responsible Minerals

Both U.S. and EU markets have requirements for some companies to produce conflict minerals disclosures.[5] The EU Conflict Minerals Regulation takes a multi-faceted approach to the sourcing of tin, tungsten, tantalum, and gold (also known as the 3TGs) in conflict-affected regions. In order to comply:

- Non-EU manufacturers importing goods must assess compliance
- Importers must conform to any EU product-level declarations that apply
- EU manufacturers must create disclosures and perform due diligence
- Non-EU smelters and refiners may be required to perform due diligence to import
- EU smelters and refiners have mandatory, government-driven due diligence obligations

3 Anttila, T. and Kretzchmar, A. (2010). *Application of CSR Programs in the Air-Line Industry.* Saimaa University of Applied Sciences, 20-33.

4 SRA. (n.d.) *The Slavery & Trafficking Risk Template.* https://www.socialresponsibilityalliance.org/strt/

5 European Commission. (2017, June 8). *Combatting Conflict Minerals.* http://ec.europa.eu/trade/policy/in-focus/conflict-minerals-regulation/



### Get the CMRT & EMRT

Access the CMRT and EMRT Excel files for free.

CMRT | EMRT

Flow-down requirements could affect countless aerospace and defense exporters, which will in turn impact their suppliers. This means more companies than ever will be collecting conflict minerals and smelter data in the future, highlighting the need for training and guidance, and reinforcing that these requirements are here to stay for any company that sells products globally.

Meanwhile, companies are taking a closer look at the cobalt in their supply chains. Although there is no legal obligation to do so, many are performing this due diligence voluntarily due to the reputational risk to their brands and customer pressure.

## Data Acquisition

Since the implementation of reporting requirements under Section 1502 of the Dodd-Frank Act, the Responsible Minerals Initiative[6] (RMI) has provided training, resources, and audit programs to companies working to strengthen their response to conflict minerals requirements. Working with industry leaders, the RMI publishes the CMRT and the Extended Minerals Reporting Template (EMRT), both standardized templates that help companies acquire responsible minerals sourcing data.

6 http://www.responsiblemineralsinitiative.org/

# Sustainability

Global companies are increasingly viewing sustainability reporting as crucial to maintaining positive relationships with stakeholders and bolstering their marketing efforts. Furthermore, some governments are implementing mandatory reporting requirements. As new legislation is implemented, and more companies begin to produce reports, it causes increased strain on suppliers, who may struggle to respond to multiple data requests that may not be standardized.



## GE Translates Sustainable Design Into Profit

Since the program's creation in 2005, GE's line of Ecomagination products has set a standard for sustainable design, and garnered more than $200 billion in profits. GEnx jet engines use 30 percent fewer parts, and decrease emissions by 20 percent over standard models, with a significant reduction in noise pollution

In 2014, the EU Non-Financial Reporting Directive (NFR) was introduced, with its first reporting year in 2018. Companies that sell products into the EU are required to report on their sustainability performance in the previous financial year. At minimum, disclosures should include data from the following categories:

- Environmental protection
- Social responsibility and employee treatment
- Human rights
- Anti-corruption, anti-bribery
- Diversity on company boards

Companies must also disclose on the following five content areas:

- Business model
- Policies, including due diligence processes implemented
- Outcome of policies
- Principal risks and how they are managed
- Key performance indicators (KPIs)

Failure to submit thorough EU NFR disclosures could lead to scrutiny from a range of stakeholders and lead to adverse media reports. Contractors that sell to the approximately 6,000 in-scope entities operating within the EU (including prominent aerospace and defense importers such as Airbus and Eurosam) should be increasingly prepared to respond to data requests.

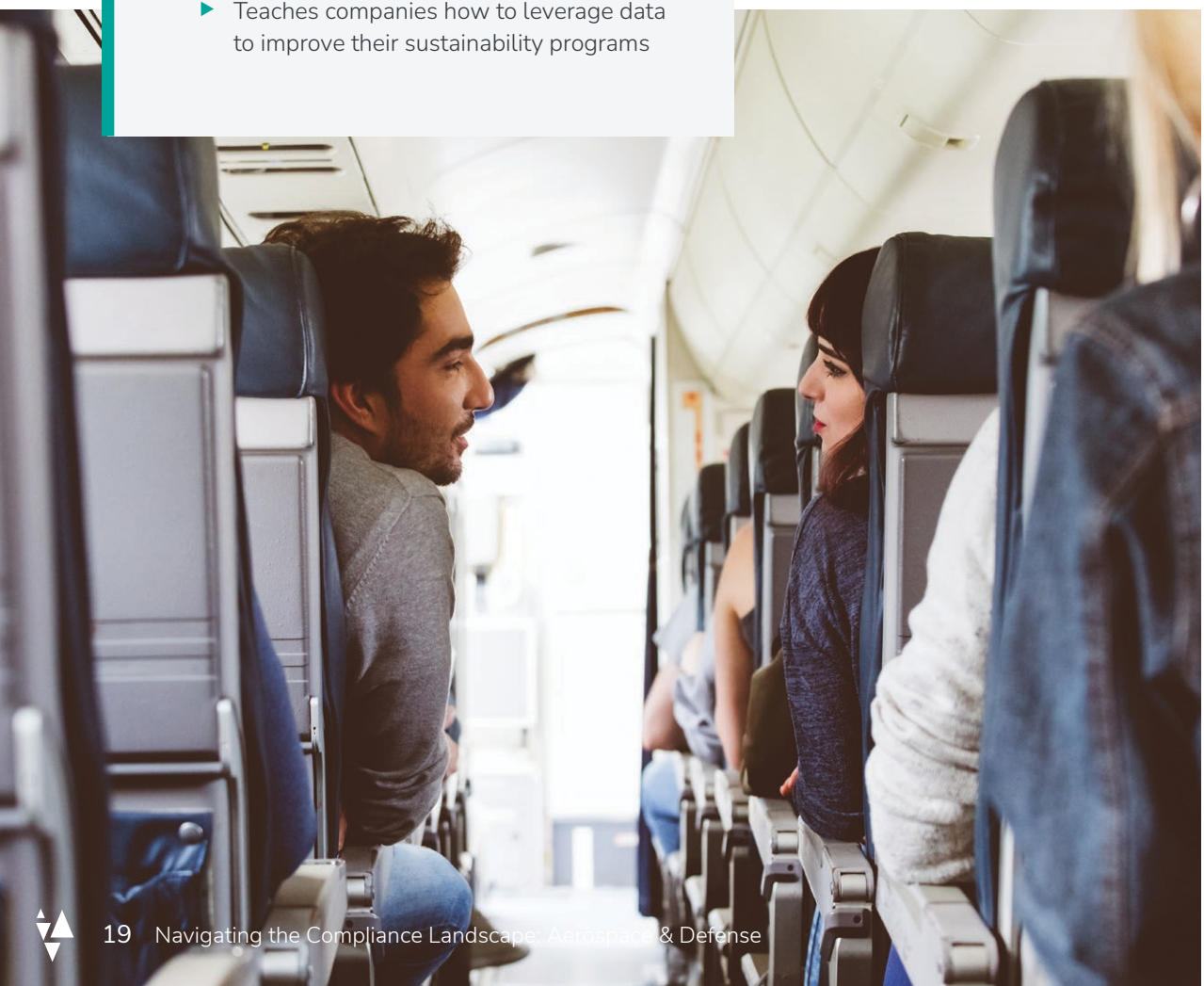
## The Global Reporting Initiative

The Global Reporting Initiative (GRI) helps organizations empower their sustainability programs with guidance and educational resources. As companies in the aerospace and defense industry implement a more broad, programmatic response to the regulatory landscape, more will leverage resources provided by the organization, which:

- Creates standards and guidance to advance sustainable development
- Harmonizes and streamlines the sustainability reporting landscape
- Provides a central resource hub for sustainability reporting frameworks and initiatives
- Teaches companies how to leverage data to improve their sustainability programs

## Data Acquisition

The GRI provides a comprehensive range of standards that streamline the kinds of data companies need to acquire in order to show year-over-year progress in addressing economic, environmental, and social topics. Leveraging these standards will help companies address stakeholder expectations across a wide range of sustainability-related internal and supply chain requirements.






## Anti-Bribery, Anti-Corruption

The World Bank estimates that roughly $1.5 trillion USD — or two percent of the gross domestic product — is paid in bribes around the globe every year. In the aerospace and defense industry, contracts are highly sought after and competition is stiff. As such, Foreign Corrupt Practices Act (FCPA) violations occur frequently and, when uncovered, are heavily punished.

Although most companies recognize the importance of establishing a culture of anti-corruption, many have yet to perform adequate due diligence in their supply chains or with third parties as a standard practice. Often, programs that do examine the extended enterprise make the mistake of focusing on historical data rather than what's happening in their supply chains in the present.

### Data Acquisition

Companies can examine their supply chains for bribery and corruption data by leveraging the ISO 37001 standard. It clarifies requirements and provides guidance for building an effective anti-bribery, anti-corruption program. A supply chain sustainability partner should leverage the standard to establish a common surveying schematic for the purpose of performing due diligence upstream.

# Implementing an ESG Program

There is no one-size-fits-all method for creating an effective ESG program, and each company's unique attributes will set the standard for the kinds of processes needed to perform effective due diligence. However, there are general best practices any company can leverage to set their program on the path to success.

## Conducting a Scoping Assessment

When starting an ESG program, there is immense pressure to rapidly engage the entire supply chain. A more realistic approach is to first map the suppliers you:

- Most often directly source from
- Spend significant amounts of financial capital on
- View as absolutely essential to production

## Mapping the Supply Chain

Surveying your direct suppliers won't be enough to spot hidden risks deep in your supply chain. To map your entire manufacturing supply chain, you should:

- Identify your most critical procurement and spending categories
- For every product or service, trace the flow of materials and data from initiation to consumption (and, in some cases, to its disposal if full product lifecycle is being considered)
- Collect in-depth risk information on the human rights, labor, environmental, and corruption issues at each stage of the supply chain
- Verify findings with trusted peer companies, supply chain experts, and industry bodies
- Identify legal requirements

Once you have successfully mapped your supply chain, you can more accurately determine the appropriate scope of your ESG program so that all risks and opportunities are accounted for.

# Five Keys to Success

## 1. Gain executive buy-in.

Securing commitment to ethical and legal sourcing practices from management and executive staff is critical to any successful ESG program. Make sure your ESG team works with executive staff and management to reinforce the value of ESG principles and associated goals.

## 2. Identify measurable goals.

Outline any measurable goals and commitments that align your ESG plan with your business strategy and selected disclosure approach. These can be quantitative or qualitative in nature.

## 3. Make a proposal for ESG actions.

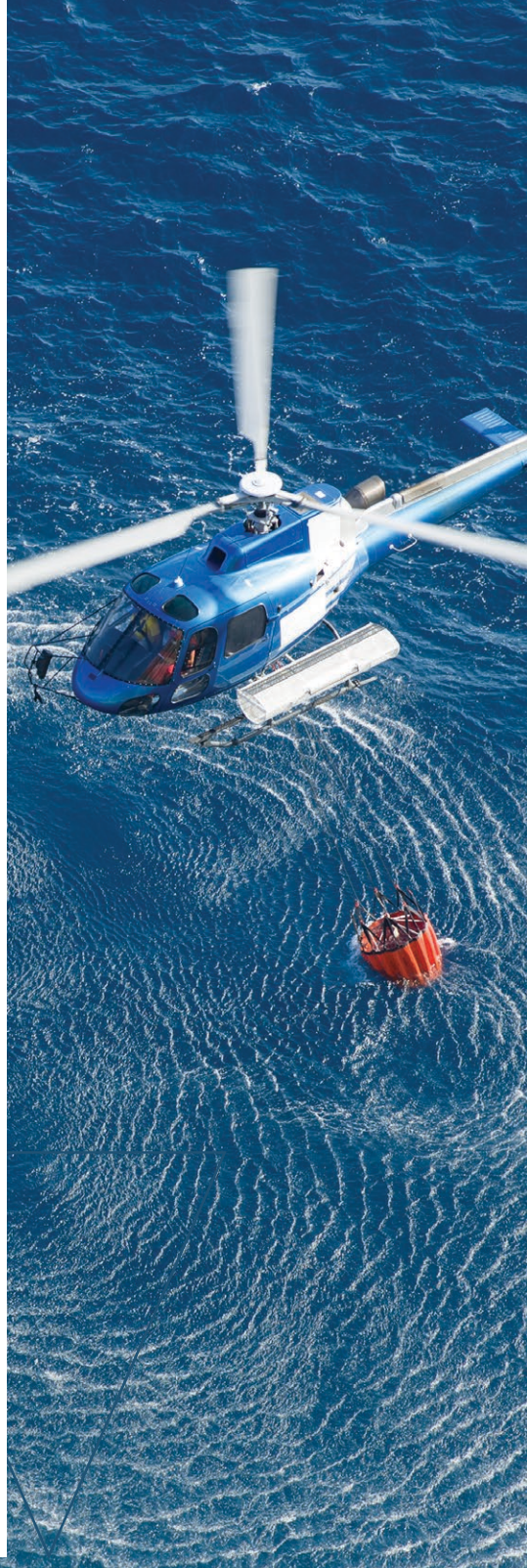
Develop an inventory of ESG activities important to your company and its key stakeholders.

## 4. Take a programmatic approach.

Create a supplier outreach campaign with regular progress checks so that strategies for continuous improvement can be implemented.

## 5. Educate your supply chain.

Educated supply chains are generally more compliant ones. Implementing a training program for employees and suppliers will enhance and inform data management, including increased response rates and better data quality.







CHAPTER 04

# Vendor Management

### Key Data Types

- General Data Protection Regulation
- Code of Conduct
- Customs Codes (HS/HTS Codes)
- Country of Origin
- National Institute of Standards and Technology (NIST) 800-171

Aerospace and defense parts can cross many borders during the manufacturing process and frequently change hands. Companies should ensure products aren't delayed at customs during import and export in order to avoid financial penalties and protect the general profitability of their products.

Fluctuating free trade agreements create additional uncertainty regarding the ongoing profitability of a company's global products.

Companies can address these financial risks by implementing a solid vendor management strategy that manages trade issues proactively through the acquisition of customs data. This information can be leveraged to:

- Calculate tariffs
- Select suppliers strategically
- Support bids on U.S. government contracts

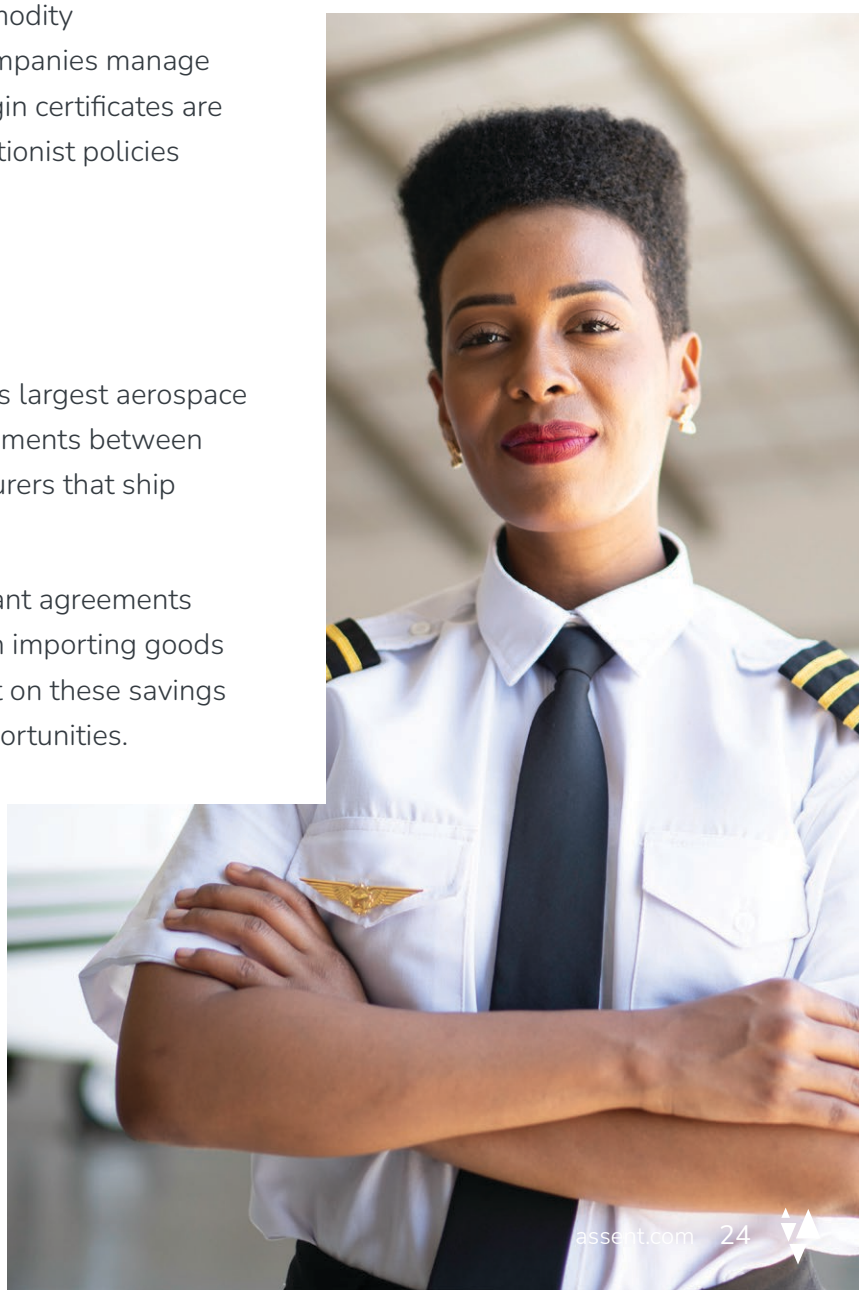
Given that the world's largest purchaser of aerospace and defense products is the U.S. government, vendors have strict security standards to maintain,

including those that protect the data of users, and others that govern the security clearance required to access it. Companies must communicate these requirements throughout their supply chain or risk losing business-critical contracts.

Companies that effectively manage their vendors are in a better position to make key business decisions, maintain market access, and general profitability, and avoid contract loss.

# Country of Origin & HS Codes

Country of origin certificates and Harmonized Commodity Description and Coding System (HS) codes help companies manage the rising cost of international tariffs. Country of origin certificates are required to calculate tariffs, and comply with protectionist policies such as Buy American.



# Free Trade Agreements

Canada, the EU, and the U.S. are three of the world's largest aerospace and defense producers. Because of this, trade agreements between these regions can have a great impact on manufacturers that ship products between them.

Staying aware of exemptions associated with relevant agreements can save your company a great deal of money when importing goods across borders. However, many companies miss out on these savings by failing to collect the data required to identify opportunities.

# Data Governance

Companies that create International Traffic in Arms Regulations (ITAR)-controlled products will have both controlled and non-controlled data. In order to comply with ITAR, any company that could potentially gain access to sensitive data should have a range of protections in place throughout the supply chain, including:

- ITAR Control Plan Internal Assessment.
- AWS GovCloud (A FedRAMP authorized datacenter).
- U.S.-only email exchange.
- U.S.-person-only instance.
- SOC-Type 2/SSAE-16-validated security.
- Conformity with NIST 800-171.

Staff also require ongoing training in order to maintain the correct security clearance to manage ITAR-controlled data, and receive annual training to keep their knowledge up to date.

# General Data Protection Regulation

The EU GDPR[7] requires companies that handle the Personally Identifiable Information (PII) of EU citizens to implement a series of safeguards and processes developed to protect the privacy of personal data. The regulation grants EU citizens ownership of their own data, includes the right to be forgotten, and enhances data protections surrounding collected personal demographic information, including identity, location, health, biometrics, ethnicity, political views, and sexual orientation. Companies should perform an assessment in order to understand which systems contain PII, and identify and mitigate risk. Under the requirements of the regulation,[8] companies must:

- Provide breach notifications within 72 hours of detection
- Respect the right of data subjects to review and consent to any use of personal data
- Allow data subjects to request erasure of his/her personal data (right to be forgotten)
- Build data protection standards into new systems during design, not as an addition
- Appoint a data protection officer in cases where systematic monitoring is necessary

7 https://www.eugdpr.org/

8 Council of the European Union. (2016, April 6). http://data.consilium.europa.eu/doc/document/ST-5419-2016-INIT/en/pdf

# Five Keys to Success

Companies should take the following steps to manage trade compliance, data protection, and gain policy buy-in throughout their extended enterprise.

## 1. Communicate your company values.

Develop a supplier code of conduct and gain sign-off throughout your supply chain.

## 2. Purchase from trusted suppliers.

Maintain a reliable database of cooperative vendors that source and manufacture their products ethically, and keep a digital paper trail.

## 3. Write data requirements into your contracts.

Assert requirements in any legal contracts and acquire data as soon as possible to detect issues.

## 4. Calculate tariffs proactively.

Review country of origin certificates in order to immediately process free trade agreement adjustments.

## 5. Keep records of everything.

Maintain historic survey results and store data in a format that can easily be searched, analyzed, and reported on.





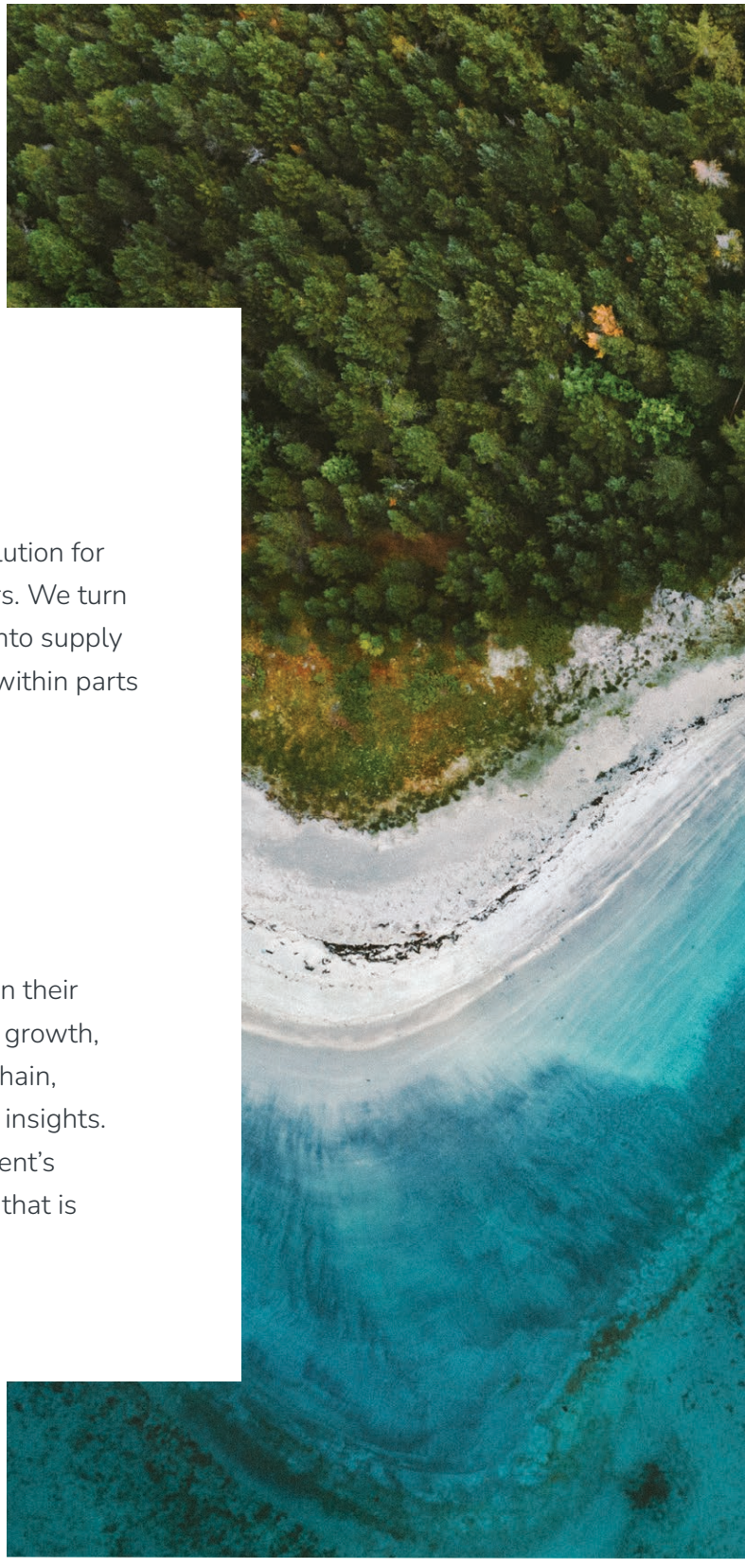
# Conclusion

Aerospace and defense products are often complex. While many companies have been responding to substance requirements under regulations such as REACH for years, many have yet to leverage supply chain sustainability management technology. They also may be in the beginning stages of implementing due diligence activities to mitigate a range of risks in their supply chain, including modern slavery and conflict minerals. Additional challenges are introduced by fluctuating free trade agreements and tariffs that threaten the profitability of final products.

The penalties of non-compliance far outweigh the cost of a robust solution. Providers like Assent help companies streamline their data management, identify and assess risk, and maximize efficiencies. A supply chain sustainability solution allows companies to anticipate the regulatory landscape, leverage industry standards, streamline data acquisition, engage suppliers, and centralize data under one platform.

For more information about how Assent helps aerospace and defense companies manage a robust, comprehensive supply chain sustainability management program by seeing deep into their supply chain, contact us at **info@assent.com.**

Assent®



# Who is Assent?

Assent is the supply chain sustainability management solution for the world's most forward-thinking complex manufacturers. We turn sustainability goals into tangible action by delving deep into supply chains, identifying suppliers, parts, and even substances within parts to map the entire complex manufacturing genome.

# What We Do

We help companies spot sustainability risks hiding deep in their supply chains and identify new areas of focus to enhance growth, efficiency, and value. By digging deep within the supply chain, we pull and validate more actionable data to provide real insights. Guided by regulatory experts with a diverse skill set, Assent's solution delivers a cross-enterprise view of sustainability that is necessary for true leadership in the field.



*[Assent is] a low touchpoint program with very high results and program growth, year in and year out.*

— Ryan Zelhofer, Former Product Compliance Manager, Plexus

Over **200,000** parts managed

**80%** reduction in staff management hours

# The Assent Solution

The journey toward sustainability demands a new way of thinking about supply chains. Assent turns your supply chain data into a critical tool to make safe, sustainable, and ethical products by providing:

- Clean data collected from the source using automated engagement techniques that dive deeper into supply chains
- Crucial, at-a-glance supply chain sustainability data through streamlined dashboards
- An adaptable program that evolves alongside regulations and industry trends

People are the beating heart of any sustainability program. Assent combines its leading technology with expert guidance, ensuring each program is tailored to your specific needs. Dedicated customer success managers make sure you have a familiar face to speak to about changing program goals or enhancements.

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