The world as we know it today is changing rapidly. The decarbonization and digitalization of our sector may induce deep changes to our production methods, in our habits and in our mobility in the future.

Many member companies are investing to reduce the environmental impact of industry activities and of products throughout their life cycle. We therefore believe, more than ever, in a sustainable aviation and space industry that is both clean and carbon neutral.

The COVID-19 crisis has severely limited our activity. However, due to the regular and active participation from each of its members, IAEG has now become the essential forum for sharing good practices and developing tools and guidance, for voluntary consideration and use. This forum remains key to support this ecological and societal transition.

IAEG was initially focused solely on the environment, but the Board of Directors agreed to a scope extension to Environmental, Social and Governance (ESG) this year. We will ensure greater effectiveness in addressing these business-critical topics throughout the aerospace value stream. The commencement of a new working group dedicated to risk assessment and ESG engagement of suppliers in the sector appears also to be a new key step in our journey towards sustainability.

Nothing that has been achieved this year could have been accomplished without the outstanding mobilization of our many members. We thank you
for your continued support and for your participation in the Working Groups. We must also thank the members of the Strategic Planning Committee (SPC), the Executive Committee (EC) and the Board of Directors. Special recognition must go to Sally Gestautas, our former Chair, for what she has achieved for IAEG - thank you. But above all, a huge thank you to Christer Hellstrand, our Program Director, for his relentless involvement and supervision of our operations.

Today we are counting on you, our members, even more than before, to be pioneers of sustainable aviation for a safe and united world.

CONTENTS

IAEG Revised Certificate of Incorporation

Work Group 1 Update - Materials and Substances Declaration

Work Group 3 Update - Greenhouse Gases (GHG) Management and Reporting

Work Group 9 Update - Impact Analysis of Global Environmental & Chemical Regulations
A STEP FURTHER FOR IAEG

An Amendment to the Certificate of Incorporation

In 2021, IAEG has been true to its slogan ‘We’re just getting started’ by taking a crucial step and amending its certificate of incorporation, bringing the wider Environmental, Social, and Governance (ESG) issues in scope. IAEG is getting ready this year to open up new forums for dialog and information exchange on ESG requirements and expectations. Stay tuned!

For more information, see the press release on IAEG website.

Back to Contents
Follow IAEG Vision 2025 through the featured work groups.

Work Group 1 - Materials and Substances Declaration for Aerospace and Defense

Declaration Development Support Tools

Work Group 1 (WG1) develops and maintains tools and information in support of the declaration process for voluntary use by the Aerospace and Defense (A&D) industry’s companies and in line with IPC-1754 (Materials Declaration Standard for Aerospace and Defense). Key deliverables include the Aerospace and Defense Declarable Substances List (AD-DSL), the Substance Reporting Tool (AD-SRT), and supporting lists, instructions, training, and more. Tuned for
A&D industry, the AD-DSL represents the currently regulated hazardous substances of interest for the industry. This tool helps companies focus their declaration efforts on product-related uses of those specific substances.

WG1 has achieved a multitude of impressive accomplishments during 2021, including:

- Published [Aerospace and Defense Declarable Substance List (AD-DSL) v4.1](#)
- Published [Aerospace and Defense Declarable Substance List (AD-DSL) v5.0](#)
- Published [Aerospace and Defense Substance Reporting Tool (AD-SRT) v1.2.1](#)
- Completed Materials and Substances Declaration Contract Terms v1.0
- Completed Materials and Substances Declaration Process Considerations v1.0
- Published [Declaration Development Support Document v2.1](#)
- Conducted webinar to promote "Materials and Substances Declaration Development."

One of the notable achievements above involved the publication of a 53-page, comprehensive document entitled “Declaration Development Support”. This resource is intended to support increased capability and quality in the development of materials and substances declarations in the A&D industry and its global supply chain.

This document includes:

- information on methods and considerations that companies may use to develop substance content estimates for their hardware (article) products, including applied materials, such as coatings or adhesives.
- ways of estimating substance losses associated with volatile material evaporation and examples of geometric calculations for common parts (e.g. washers, rivets and screws) as well as related sources of data.
• a list of common reportable substances encountered in A&D applications, as well as a list of pertinent military standards and industry surface finish/treatment specifications for reference.

To promote this new declaration development tool, WG1 hosted a webinar on December 7th 2021, for which there were over 150 attendees, including members of the A&D supply chain and the US Department of Defense.

WG1 seeks to carry this momentum into the new year, during which it will host another webinar in Q1 on “WG1 and Work Product Connectivity”. WG1 also plans to publish version 6.0 of the AD-DSL, version 2.0 of the AD-SRT, a “Materials and Substances Declaration Process Considerations” document and release the (internal) “Materials and Substances Declaration Contract Terms”.

**A Wider Perspective on WG1**

WG1 was the first work group established in 2011 to institute and promote a materials and substances declaration process globally for the A&D industry and its supply chain. WG1 maintains a productive working environment in which A&D industry companies and their suppliers bring product- and process-related knowledge, expertise and experience in developing and supporting declaration efforts within the industry and its global supply chain.

WG1 deliverables and associated development work are aligned with the IAEG 2025 vision pillars of *Championing Chemical Stewardship* and *Engaging the Supply Chain*.

Through the development of declaration development support tools, information resources, training content and webinars, WG1 strives to enable and support the voluntary use of data exchange on materials and substances in hardware products in the A&D industry and its supply chain. WG1 also endorses the development of IPC-1754 to promote the data exchange standard for use in the A&D industry, its supply chain, and possibly in other hardware-producing industry sectors. Further, WG1 utilizes a Change Management Board (CMB) process to evaluate impacts of emerging and changing regulations and
standards on its deliverables to support their continued accuracy and currency.

WG1 is actively engaging the A&D supply chain and other stakeholders through regular offerings of webinars and solicitation of feedback on its various work products, external presentations at trade association events, and a strong presence on social media platforms such as LinkedIn. As an example of that engagement, WG1 continues to seek input from suppliers and other hardware manufacturing industries in addressing the challenges in developing accurate substance content estimates for hardware products, a critical issue in declaration development efforts.

For more information, please visit the WG1 webpage or contact Mussie Pietros, WG1 Team Lead, or Lucine Reinbold, WG1 Deputy Lead.

Work Group 3 - GHG Management and Reporting

Achievements

There is an industry-wide goal for Aerospace and Defense (A&D) companies to reduce greenhouse gas (GHG) emissions as reflected in the Air Transport Action Group (ATAG) commitment for net zero in 2050. The first step to reducing GHG emissions is calculating the current emissions. Using the greenhouse gas accounting standards of the Greenhouse Gas Protocol as a basis, WG3 took on the task to customize methodology and tools for the A&D industry with the aim of promoting consistent and accurate reporting within the industry.
Work Group 3 (WG3) efforts led to the publication of the GHG Reporting Guidance for the Aerospace Industry, covering Corporate (Scope 1 and 2) and Value Chain (Scope 3) greenhouse gas emissions.

This document has been recognized as being in conformance with GHG Protocol standards.

In 2021, WG3 focussed on developing an Aerospace Industry tool for calculating Scope 3 GHG emissions associated with Purchased Goods and Services (PG&S) and Capital Goods (CG).

The following tools and guidance are now available for voluntary use by all Aerospace companies and their suppliers. You may have seen our LinkedIn post recognising this achievement and more communications will follow in 2022.

- Methodology for calculating emissions from purchased goods and services and capital goods
- User guide for supporting calculation tool for purchased goods and services and capital goods
- Calculation tool for purchased goods and services and capital goods.
- Webinar on use of the calculation tool
WG3 will continuously improve the tool for faster computation or to respond to changes in the underlying assumptions.

**WG3 New Ambitions**

WG3 is not stopping there. Recognizing that the largest GHG emissions for the A&D industry occur during the use of the products, WG3 will next use its expertise to tackle Scope 3 emissions related to the use of sold products. 2022 ambitions are high with the publication of a guideline for reporting commercial aviation emissions for Q3 this year (military applications are out of scope).

**A Wider Perspective on WG3**

WG3 contributes to IAEG Vision 2025 pillars of *Tackling Climate Change* and *Engaging the Supply Chain*.

WG3’s main goal is to harmonize practices across the A&D industry in accounting for greenhouse gas emissions. The tools developed by WG3 allow companies, aiming to reduce greenhouse gas emissions, to report progress in a standardized manner.

The success of this endeavor relies on a global uptake throughout the supply
Work Group 9 - Impact Analysis of Global Environmental and Chemical Regulations, Policies, and Standards

2021 Achievements

Work Group 9 (WG9) had a very productive year in 2021 and has published something for everyone. The publications and deliverables fall into four categories: Regulatory Alerts, Fact Sheets, Newsletters and Webinars, which are all available on the [WG9 webpage](#).

Here is what to look for in each of these documents.

- **Newsletter**: The newsletter gives an overview of the latest updates on emerging regulations (final and proposed) in the top 50 countries of interest. The countries were selected based on a survey conducted late last year among member companies. Based on the results, emerging regulations from these countries will be reviewed for impacts to the Aerospace & Defense (A&D) industry. A total of seven newsletters were published in 2021.

- **Regulatory Alert**: This is a high-level summary of a regulation, highlighting the key compliance dates and outlining the risks and impacts to the A&D industry. References and relevant links are also provided as
a resource to conduct additional research as needed. A total of nine Regulatory Alerts were published in 2021.

- **Alert 11** - EU REACH Annex XVII - Diisocyanate Restriction
- **Alert 12** - Taiwan Toxic and Concerned Chemical Substances Control Act (TCCSCA)
- **Alert 13** - Chinese Ministry of Ecology and Environment Order 15
- **Alert 14** - Basel Convention Plastic Waste Amendment
- **Alert 15** - Stockholm Convention 2019 Amendment
- **Alert 16.1** - EPA Final Rules on Five PBT Chemicals
- **Alert 16.2** - EPA Final Rules on Five PBT Chemicals - Update
- **Alert 17** - Kigali Amendment and Global HFC Regulations
- **Alert 18** - EU Reach Annex XVII Entry 68 - PFCAs
- **Alert 19** - EPA issues final rule regarding the phasedown of hydrofluorocarbons

- **Fact Sheet**: The fact sheet gives an analysis of the potential impact of a regulation on the A&D industry and its supply chain. It is a communication tool with a professional look for briefing to executive leadership as well as sub-tier suppliers. Two fact sheets were published in 2021.

- **UK REACH Regulation**
- **TSCA PBT**

- **Webinar**: The webinar supplements the fact sheets, with knowledgeable presenters sharing their insights and answering questions. A key webinar on UK REACH was conducted and recorded in 2021.

With this wealth of information, the Aerospace and Defense industry is better prepared to evaluate the impact of emerging global environmental and
chemical regulations, and focus its effort on the relevant compliance topics. Potential operational risk mitigation activities at all level of the supply chain can also be evaluated.

The Process

Keeping a watch on the various global regulations and identifying the ones that are relevant to A&D industry and require further scrutiny is the role of the intake & prioritization sub-team. This sub-team developed a prioritization tool to assess the emerging regulations that are most relevant to member companies based on the country, risk and reputational impact of regulations. It also helps determine the type of communication required.

The communications sub-team then develops fact sheets, regulatory alerts and webinars as appropriate. This sub-team recognized the importance of the summary of regulations from the content provider and with continual improvement always being at the forefront, developed a monthly newsletter that summarizes global chemical and environmental regulations.

WG9 has used LinkedIn to increase visibility of the deliverables. Our most popular post in 2021 collected 826 impressions and 420 clicks.

A Key Work Group for IAEG

WG9 contributes to IAEG vision 2025 pillars of Championing Chemical Stewardship and Engaging the Supply Chain.

WG9 is a cornerstone to reaching the objective of championing chemical stewardship as it focusses on evaluating rapidly expanding global regulations and standards and summarizing their impacts. This is the first step in understanding the need for tools and risk mitigation strategies.

WG9's strength is in its wide reach through the Aerospace and Defense supply chain; the publications and deliverables developed improve education and
awareness at all levels.

For more information, please visit [WG9 webpage](#) or contact [Lisa Brown](#), WG9 Team Lead.

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**IAEG ONLINE**

**Liaison corner**

IAEG is pleased to announce a social media communication program to feature its liaison members on LinkedIn and in the LIFT Newsletter. Liaison members are looking to share posts relevant to IAEG:

- Events that liaison members host
- Educational and technical information generated by liaison members (papers, eBooks, case studies, end user experiences, blogs, etc.) avoiding sales content
- Spotlight of a liaison member (individual person or a company) with the message specific to IAEG member issues or concerns
- Awards or accolades of liaison members
- Podcasts (videos) from liaison members

**Call for input:** Liaison members interested in contributing, please contact [Elie Haddad](#) or [Richard Starkey](#).
2021 IAEG Guest Speakers

Here are all the guest speakers invited by IAEG in 2021 to present on a variety of topics and share their knowledge with its members.

Don’t miss out in 2022, IAEG is inviting more experts!

Valérie Masson-Delmotte, Co-Chair of Working Group I of the Intergovernmental Panel on Climate Change (IPCC), presents the latest report "AR6 Climate Change 2021: The Physical Science Basis".

Richard Starkey from SAFECHEM presents “Spotlight: The Shifting Regulation of Halogenated Solvents and the Search for Viable Alternatives.”
**Dr. Rich Engler**, Director of Chemistry for Bergeson & Campbell, P.C (B&C®) and The Acta Group (Acta®), shares his insights on the PFAS regulatory landscape: US and beyond.

**Lynn Bergeson** of Bergeson and Campbell shares her expertise in US EPA TSCA (Toxic Substance Control Act) Regulatory Activity, industry strategy and actions for 2021 and beyond.

**Jörg Palmersheim**, Secretary General of ISOPA and ALIPA - industry associations of the European di-isocyanates and polyols industry, provides an overview of the regulatory and mandatory training requirements associated with the REACH Annex XVII diisocyanate restriction.

**Joel Wolf** from the US Environmental Protection Agency (EPA) shares his knowledge of the US EPA TSCA (Toxic Substance Control Act) requirements for existing chemicals.
Overview of IAEG LinkedIn Presence in 2021

With the 10-year anniversary of IAEG, 2021 was a year to celebrate. Excited to share all the outstanding achievements of the Work Groups, the Communication Team expanded IAEG's online presence via 68 LinkedIn posts total throughout the year with 11 in June!

And there is interest! IAEG has now 769 followers and the rest of the numbers speak for themselves.

- 1269 Unique Visitors
- 3397 Page Views
- 10,800 minutes of Watch Time!
- Month with most views: June 2021
We are pleased to announce the release of our 2021 Annual Report. The report highlights our 2021 accomplishments and previews our 2022 plans.

UPCOMING EVENT

Virtual Face-to-Face Meeting

Due to the continued threat of the COVID-19 pandemic, the Spring 2022 Face-to-Face meeting will be held virtually.

The Work Group report-out will take place on Thursday April 14th.

For details on your Work Group’s meeting schedule, contact your Work Group Lead. There is no registration required to participate.
If you would like to attend the virtual meeting, but are not currently involved in a Work Group, contact Christer Hellstrand.

While you have your calendar out, take note of the Fall Face-to-Face meeting planned from September 26th to 29th.
Interested in becoming a member?

Complete the membership application or learn more about IAEG from the About Us video.

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For more info, please see IAEG® Website:

http://www.iaeg.com/