



Fall 2019 Newsletter

December, 2019

Two emerging topics that are becoming highly relevant to the aerospace industry are circular economy and sustainable finance, and they will undoubtedly require an industry-wide approach to addressing them. While the trend towards a circular economy may have implications for design and end-of-life management, the latter is just as critical, as classifications of the sustainability of services and activities occurring within the sector will affect the way in which investors choose to channel capital. Recognized experts in these topics addressed IAEG members at the plenary session in Prague in September to provide context to how companies will be affected by these trends, and what they mean for IAEG and the industry as a whole. The ability of member companies to come together to discuss these topics and potential solutions is an illustration of the unique value IAEG can provide.

What's New in IAEG

Introduction to WG10

Environmental Qualification Program for Suppliers

The International Aerospace Environmental Group (IAEG) recently formed a new working group to develop a concept and business case for an aerospace and defense industry standard environmental

qualification program for suppliers. Given the importance of sustainability, growth of environmental regulations posing production continuity risk, and inefficiency of customer unique supplier assessments, there is a clear opportunity to align on an industry approach, for voluntary and unilateral consideration and use by companies, to holistically address environmental aspects pertinent to the supply chain.

The envisaged supplier environmental qualification concept has three major components:

1. Environmental performance requirements for management systems, handling global chemical regulations and environmental performance reporting. Each requirement category has gradations of rigor designed to accommodate various supplier sizes, differences in supplied goods and services, and level of risk;
2. Audit scheme to validate that requirements have been met for the level specified by a customer;
3. An IT system repository for customers to access audit results and track changes over time.

Development of the supplier environmental qualification concept and business case will use a gated process to ensure oversight and industry support before investing in implementation.

By choosing to leverage the results of an industry recognized supplier certification, companies will be able to make informed sourcing decisions from an environmental and production continuity risk management perspective, and to demonstrate supply chain environmental due diligence to external stakeholders. Efficiency gains at all levels of the value chain can also be expected by utilizing a standard qualification methodology, while also maintaining flexibility for suppliers that are smaller in size or level of risk.

The group had its initial working meeting at the Prague Face-to-Face in September, where it harmonized the overarching vision, established a gated approach to concept development, created a project plan leading up to the first gate review, and launched execution of work packages.

For further information, or to get involved, please [contact IAEG WG10 co-leads](#) Fabian Marion and Dave Graeber.

By Dave Graeber and Fabian Marion

IAEG Annual Meeting



Keynote Speakers

Prague, Czech Republic

Current State of Climate Change and Biodiversity



David Laurent is the Head of Climate & Resources department at the French business association [EpE](#) (Entreprises pour l'Environnement / Companies for Environment), where he led a number of collaborative projects such as the ZEN2050 study on France Carbon neutrality in 2050. He has 7 years of experience in Business Strategy and Sustainable Transformation at Accenture Strategy.

Science has spoken, and the latest reports from the main international bodies ([IPCC](#) for Climate Change, [IRP](#) for Resources, [IPBES](#) for Biodiversity) have strong convergences: the pressure on our environment puts the present and future generations at high risk. In order to mitigate these impacts, significant actions must be taken by organizations. Actions planned for 2020 include the Kunming conference in October, which shall define the new global biodiversity preservation goals and framework, and national governments will submit to the UN their long-term low-carbon development strategies following the Paris Agreement.

Through an 18-month collective effort by its 40+ members, the French business association EpE (*Entreprises pour l'Environnement / Companies for Environment*) published in May 2019 the [ZEN 2050 study](#), a cross-sector exploration of success factors for conducting the transformation needed of society and the economy to reach carbon neutrality in France by 2050. Key results were clear: dramatic mobilization from all actors - including public authorities, businesses from all sectors, and consumers - is required; such a goal is possible while maintaining economic activities and an attractive lifestyle.

Like everyone, the aerospace sector has its part to play - all the more since it is marked by strong growth and excluded from most national climate policies. However, the industry is committed to carbon-neutral growth and a 50% reduction of GHG emissions from 2005 levels by 2050, [as stated by the International Air Transport Association \(IATA\)](#).

Since offset solutions will be limited in time and space, and [incremental gains in energy efficiency are inadequate](#) on their own to achieve the required reduction levels, to meet its sectoral targets the industry must be extremely reliant on speedier development and larger-scale production of break-through technologies (e.g. fuels meeting ICAO sustainability criteria, electric propulsion, hydrogen aircraft).

The ability of the sector to mobilize its resources and attract investments to support the required break-through technologies will thus be critical, as will the implementation of ambitious and internationally compatible national public policies pointing in the same direction.

By David Laurent

Sustainable Finance: Context, Current, and Future Developments, and Implications for Companies



Pierre Ducret is Special Advisor for climate change at Caisse des Dépôts Group and Chair of the [Institute for Climate Economics \(I4CE\)](#). Until March 2015, he was Chairman and CEO of CDC Climat, a Caisse des Dépôts subsidiary dedicated to supporting the transition to an ecological and low-carbon economy. He is also the acting Chair of [Finance for Tomorrow \(F4T\)](#).

Following the central role the financial sector was given in the Paris Agreement (as one of three main goals), and the acknowledgement by the sector that there are financial risks associated with climate change, financial actors such as investors, banks, and insurers are creating climate policies with the mindset that climate change related risks can affect financial stability.

One of the first major steps taken by international financial authorities was to develop the Task Force on Climate Related Financial Disclosure (TCFD), a market-based solution to increasing transparency to investors and stakeholders. By exposing this information into the market, companies will be better able to evaluate climate related risks, and will ideally be pushed to manage those risks accordingly.

European companies are ahead on this trend, as European financial actors (especially investors) are more demanding of climate related financial information and the EU creates an action plan on sustainable finance. Their key proposal is to establish a classification system, or a taxonomy, to create a common language on what is considered a sustainable activity and identify areas where sustainable investment can make the biggest impact. The Commission will put a framework into place by the end of 2019; over time it will be broadened and evolve into a permanent sustainability platform. The transportation industry is currently referenced in the taxonomy; however, this does not yet extend to aviation.

A simple way for financial actors to deal with risks associated with climate change is to exclude sectors and companies from their portfolios. Exclusion, divestment, and portfolio decarbonization are gaining ground and is a risk to high emitting sectors. To date, divestment is mainly focused on the fossil fuel sector, and mainly on coal. The oil & gas industry is now considering itself at risk of divestment, and economist observations show that the sector may already be gathering less capital flows than usual.

The aviation industry must consider their role in reducing greenhouse gas emissions and where climate change poses risk to the industry. Short distance flights may be a risk area, as they are in competition with other, less emitting means of transport, and it is where countries can suppress fossil fuel subsidies or put in place carbon and transport taxes. The sector has a major opportunity to play a positive role by helping to bring new offsetting technologies (such as carbon capture and storage) to market.

*By Nikki Micelotta
Editor-in-Chief, LIFT Newsletter*

Status of Play on Circular Economy Standardization



[Myriam Tryjefaczka](#) is the Director of Sustainability and Public Affairs at Tarkett's EMEA division. Myriam is involved in the activities of several European associations and think tanks. She chairs the EuPC Building and Construction Division, as well as the AFNOR X30M mirror Commission to new ISO TC323 on Circular Economy.

Being committed to sustainability and circular economy, [Tarkett](#), a worldwide leader in flooring surfaces, has developed an ecodesign approach based on Cradle to Cradle principles to close the loop for floorcoverings. This includes thorough product material assessments and optimization, design for recycling, and the development of ReStart® take back programs, recycling technologies, and new business models. Collaboration and transparency in the value chain are key elements supporting Tarkett's sustainability strategy.

Today, the circular economy has emerged as a means of addressing the many challenges our society is facing regarding resource scarcity, climate change, and growing population and urbanization.

It is time to establish a common understanding and tools for designing and implementing operational circular business strategies. Indeed we need to create coherent standards and a common approach within circular value chains, for companies' consideration and use. In addition, common metrics and indicators for circularity and the recycling of materials are needed to ensure the quality of material flows. Robust circular value chains will be built upon trust.

The European Commission states that [circular economy is top priority for the European Green Deal](#). Hence, the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC) [are committed to developing a strategy](#) on circular economy standardization to support European ambitions.

The AFNOR XP X30-901 standard on circular economy project management, published in 2018 and followed by the creation of ISOTC 323 in 2019, paves the way for accelerating the shift of our societies towards a truly circular economy, matching the need for social and economic sustainability while protecting the environment. The first meeting of ISOTC323 was organized in Paris in May 2019, gathering experts from more than 50 countries.

The new [ISOTC 323](#) on Circular economy scope covers the standardization in the field of Circular Economy to develop frameworks, guidance, supporting tools and requirements for the implementation of activities of all involved organizations to maximize the contribution to Sustainable Development.

More than ever standardization supporting environmentally ambitious policies is key. Who still thinks that standardization is boring and a matter for old experts?!

By Myriam Tryjefaczka

Upcoming Events

Save the Date:

Spring 2020 Face-to-Face Meeting



Montreal, Canada

[REGISTER](#)

Voluntary Carbon Offsetting Available

IAEG is offering member companies the opportunity to offset greenhouse gas emissions for attendees of the spring Annual Meeting in Montreal. For \$35 per attendee, unavoidable emissions from air and ground travel, hotel space and waste will be offset by [Verified Carbon Standard](#) certified emissions credits promoting conservation of the [Darkwoods Forest](#) in British Columbia, Canada. This project supports carbon sequestration and habitat restoration of former timber logging land, managed by the Nature Conservancy of Canada. For additional information, contact [Christer Hellstrand](#).

IAEG In Action

WG7: ISO 14001 & EMS Implementation

Who We Are and What We Do

Work Group 7 was formed in response to the release of the third edition of the ISO 14001 Environmental Management Systems (EMS) standard to help companies transition to the new requirements. The 2015 revision of ISO 14001 has an increased focus on leadership, taking a life cycle perspective, placing a greater emphasis on 'opportunities' (in addition to risks) and encouraging a more integrated approach to the supply chain. In order to support companies who chose to transition to the new standard, WG7 published the [IAEG Transitioning to ISO14001:2015](#) document, along with examples and awareness solutions.

An effective Environmental Management System is extremely valuable in keeping abreast of regulatory requirements, improving environmental performance, managing risk, supporting business continuity and quality, and reducing costs. However, many small and medium sized suppliers may not feel prepared, or have the level of resources necessary, to establish an effective EMS that conforms to the new Standard. Therefore, it is a goal of WG7 to provide resources to support implementation of a cost-effective and conforming EMS based on the size and level of risk for a given company.

WG7 recently released its [EMS Maturity Framework](#) to support the implementation and maturity of Environmental Management Systems with four levels of requirements – Foundation, Advanced, Leading, and Word Class. Companies can evaluate which maturity level their EMS corresponds to, or can use the framework to establish EMS requirements for themselves or their suppliers.

At the recent Face-to-Face in Prague, WG7 presented the Maturity Framework Document to the new WG10, 'Environmental Qualification Program for Suppliers', who will use the document as a framework for the development of the EMS requirements and assessment criteria. While WG7 will continue its work on '*Resources and Examples*' to further support EMS implementation and maturity, the framework is currently published and ready for use by companies and WG10.

For more information on WG7, click [here](#) or [contact Cindy Kloehn](#), WG7 Team Lead.

By Nikki Micelotta



WG2: Replacement Technologies

Hard Chrome Plating

As regulations place an increasing constraint on the supply of chemical substances utilized in the aerospace and defense industry, substitutes must be developed and certified to ensure continued delivery of safe, competitive, and high performing products. Work Group 2 (WG2) helps manufacturers collaborate to reduce the cost and risk of investigating alternatives to the affected technologies. WG2 currently has six projects ongoing that are looking into technologies affected by REACH and assessing potential alternatives that could be introduced to the industry.

One project, led by Wilfried Michaelis of AIRBUS Operations GmbH, carried out a screening activity to look at products currently existing in the supply chain as potential alternatives to hard chrome plating. This work led to an internal publication of a report that summarizes the reviewed technologies and their limitations and provides specific recommendations.

This report is currently only available to members of the Hard Chrome Plating project team. However, recognizing the potential benefit of sharing information that has been uncovered through the team's work, WG2 is looking at publishing a report that can be shared externally.

The Hard Chrome Plating project team is now focusing on suppliers offering new potential alternatives, or upcoming technologies, in the area of hard chrome plating. Several supplier presentations have been held on this topic with more scheduled to follow. A report on upcoming technologies will be published internally in 2020.

For more information, contact [Laura Wilkinson](#).

By Laura Wilkinson
WG2 Team Lead



WG5: REACH Authorization

BPA, HHPA, & MHHPA Survey Results

IAEG's Work Group 5 (WG5) assesses the risks posed to member companies by the inclusion of substances on REACH Annex XIV (Authorisation list), and tracks the progress of substances as they proceed from the Candidate list through Recommendations for inclusion and eventual inclusion on Annex XIV. WG5 worked with its consultants, Risk & Policy Analysts (RPA) and Anthesis, to complete in-depth risk assessments for closely related substances Bisphenol-A (BPA) and two anhydrides, known as HHPA and MHHPA, in September.

Regulatory pressures surrounding use of Bisphenol A (BPA), HHPA, and MHHPA have recently intensified, with these three substances being included on ECHA's 9th draft recommendation (2018), which is currently under consideration. Relevant uses of these substances within the aerospace and defense (A&D) sector are multifaceted and involve several supply chains. The vast majority of A&D uses of BPA is in epoxy resins and polycarbonate that have been identified as intermediates. Though there is some uncertainty in implications for 'unreacted' and/or 'residual' BPA, its use within hardener formulations for the accelerated curing of epoxy resins falls within the scope of authorization, in accordance with Article 2(8)(b) of REACH.

HHPA and MHHPA are used as curing agents (hardeners) for epoxy, and in many instances their use serves a critical function. Although the current understanding is that A&D relevant uses of HHPA/MHHPA would fall within the scope of authorization, ongoing efforts are being made by the Anhydrides Joint Industry Taskforce (AJIT) to obtain or verify a broader scope of exemption for certain uses of the substances. These exemption arguments, if accepted, may be applicable to A&D uses of the anhydrides that take place under similar conditions.

The [final report](#) for these substances provided to WG5 members, following a detailed survey of members, formulators, and suppliers, has saved individual companies the time and resources of conducting this research on their own, and has helped companies gain insight into their own risk. WG5 members will now take an even closer look at these risks to determine which, if any, will require companies to apply for Authorisation - either on their own or collaboratively by forming an independent consortium - if any of the substances are prioritized onto Annex XIV. In the meantime, companies have significant information from the WG5 activities to help them consider their risk mitigation

plans, potentially including substitution activities, changes in supply chain, or Authorisation.

For more information, click [here](#) or contact [Erin Yaeger](#), WG5 Team Lead.

*By Dave Pinsky
WG5 Member*



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