

Aerospace chemicals initiative takes off

Companies want to make regulatory compliance more efficient and predictable

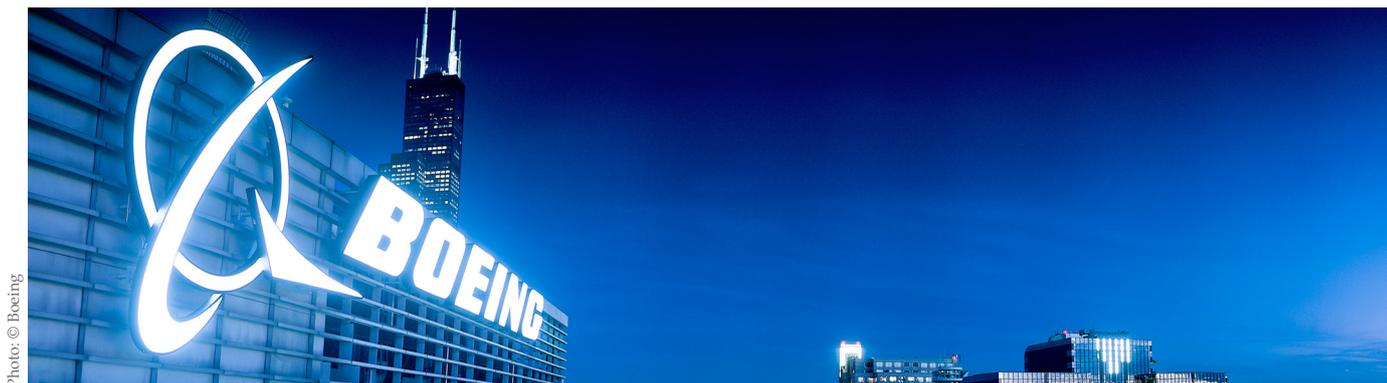


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Could common systems for identifying possible alternatives to substances facing restrictions help the aerospace sector?



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Editorial director

Just five years ago, says Christer Hellstrand, chairman of the International Aerospace Environment Group (IAEG), regulatory requirements for the use of chemicals by aerospace companies emerged at a pace that gave the sector a chance to adjust and manage them alongside the many other safety and performance specifications it had to meet. But all that has changed, says Mr Hellstrand, who is also EHS director at The Boeing Company. "Where the focus [of health and environmental legislation] was once on permits and plants, now it is on products, and the pace of regulation is accelerating. Not only do we have legislation in Europe, but also similar regulations around the world. Now, the pace is very fast."

The aerospace sector has been heard to shout many times in recent years that rapid regulatory change affecting their product design is anathema. Speaking at ChemCon The Americas in New Orleans last November, Boeing international policy analyst Sophia Danenberg made fresh pleas to regulators for sufficient notice, predictability and time to adapt to new chemicals laws. To illustrate her argument, she pointed to the long life span of the 747 aeroplane, which was first conceived in the early 1960s and is still in use more than 50 years later, with new models based on the same core design. Production, technical support and service needs for the product line, she said, are expected to continue for decades more.

Aerospace companies recognised that to cope with this common pressure it made sense to pool resources, so in 2011 they officially inaugurated the IAEG. While each has its own diverse portfolio of products, there is not much difference in company supply chains, making it logical for them to work together. The automotive sector came to a similar conclusion several years earlier, and Mr

Hellstrand says the aerospace industry has modelled much of its thinking on initiatives such as the Global Automotive Declarable Substance List (Gadsl) and the International Material Data System (IMDS), already put in place by motor firms ([GBB October 2007](#)).

The aerospace sector has also taken stock of thinking in other areas, and initiatives by the Electronics Industry Citizen Coalition, the European rail industry association (Unife) and the UN Environment Programme were discussed at the IAEG's first annual meeting last year.

There have been previous aerospace projects aimed at raising awareness among its companies and trying to implement agreed measures. The Aerospace and Defence Industries Association of Europe (ASD) published a first declarable substance list in 2008 ([CW 2 October 2008](#)). And in 2006, the US-based Aerospace

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Christer Hellstrand, Boeing

Industries Association (AIA) formed a REACH working group, followed in 2011 by a technical working group entitled the "Chemical Restrictions and Bans Rapid Response Network".

The IAEG is not related to these previous initiatives but was created as an independent, non-profit, non-advocacy group that aims to flexibly share costs between its members in managing the multitude of emerging health and environmental regulations. From 11 founding members some 18 months ago, the group has

now spread its wings to include 25 companies (see box), most of which are full members. A few are “liaison” members, enabling them to participate, but not vote, on changes to the group’s bylaws. In total, Mr Hellstrand estimates, the group represents more than 50% of total aerospace market revenue. Its modus operandi is to create common standards that each member company can then choose whether, and how, to apply to its products as suits its own business needs.

The group’s aims and expected initial deliverables are now “100% determined” says Mr Hellstrand. They are divided between four working groups; one covers the reporting of greenhouse gas emissions by the industry, while another aims to establish a standard environmental vocabulary that can be easily related to the sector-specific jargon used by its supply chain. Alongside these, another body – Working Group 1 – is charged with developing an industry “voluntary consensus” standard for the reporting of chemical content. The aim is that once the bulk of the groundwork has been done on the standard, the IAEG will approach independent standards organisations to ask them to continue to develop the standard and adopt it according to their own processes, which will make it more accessible and credible for use by a wider range of companies.

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Christer Hellstrand, chairman IAEG

Working Group 2, meanwhile, is making headway in developing a methodology to help the sector identify and manage priority chemicals, including the creation of a declarable substance list for the global aerospace sector. More specifically, its charter gives it a mandate to develop a methodology to enable companies to:

- » identify and select hazardous substances that are in the process of being (or are likely to be) banned or restricted in a way that would cause direct impact on common aerospace industry or manufacturing processes;
- » identify and evaluate the availability and feasibility of alternative materials or processes, or the need for further development of such alternatives; and



Hellstrand: IAEG’s aims and expected deliverables are “100%” determined

- » allow IAEG members to use such findings in determining their own commercial strategy and response to regulatory constraints and societal needs.

While the working group will develop the tools, companies need to have complete flexibility on how to use them, says Mr Hellstrand: “There is a lot of proprietary information in the recipes for certain products. One of our real challenges is to handle issues of intellectual property and also patents.” It plans to figure out how to manage such challenges through two pilot trials based on chemicals that are considered unlikely to be very sensitive, given that patents on them are said to have expired:

- » chromium trioxide and chromic acid in chromic acid anodising without sealing process; and
- » sodium dichromate in stainless steel passivation.

Each of these substances was prioritised by ECHA in 2011 for authorisation under REACH and, following a favourable opinion from the REACH comitology committee, is expected to be listed in REACH Annex XIV in March. Once this happens, companies in Europe will have 21 months to apply for continued use of the substances in their applications or will have to stop using them by a “sunset date” a further 18 months later ([CW 20 December 2011](http://www.chemicalwatch.com/2011/12/20/cw-20-december-2011/)).

Progress on the four working group’s activities will be assessed at the IAEG’s second annual meeting in March, in Seattle.

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