



Workflow of the Future: Standards & Sustainability

Guest speakers

- [Holly Elwood](#), Office of Pollution Prevention and Toxics, [EPA](#)
- [Maike Luiken](#), Ph.D., Chair, [Planet Positive 2030 Initiative \(IEEE\)](#)
 - [Holly Neber](#), CEO, AEI Consultants

[Jonathan Clark](#), program moderator

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ROBINSON: My name is Andrew Robinson, and on behalf of Copyright Clearance Center, or CCC, it's my job to welcome everyone to this, the fourth event on our series on workflow of the future, where we will focus on standards and sustainability. This is a hugely important topic for all of us, our companies, professionally and personally. Climate change is affecting everyone. We are impacting the environment, and the environment is impacting us. Standards help solve problems, make us safer and reduce barriers to trade. They can also help us with the complexity of sustainability and make measurable differences.

I'll now hand over to my colleague and facilitator for the event, Jonathan Clark, to introduce the panel and start the conversation. Jonathan, please take it away.

CLARK: Yeah, thank you very much, Andrew. And we've got three just fantastic, amazing panelists for you today. It really is a pleasure and an honor to introduce them, and we'll go straight on. So we've got Holly Elwood, Maike Luiken and Holly Neber.

And I will waste no time in going on to introduce Holly Elwood. Holly is a Senior Advisor for the EPA. And she works in the Environmentally Preferable Purchasing Program, and that's a program that helps federal agencies factor in the environment into their purchasing decisions, and you'll hear a lot more about that from her. And

she also coordinates input from the EPA into sustainability standards and helps shape and maintain their own recommendations of standards.

ELWOOD: Thank you so much, Jonathan, and thank you for inviting me here to speak with you all today, CCC.

As Jonathan mentioned, I'm part of our Environmentally Preferable Purchasing Program. And as part of our work to help federal purchasers in the US government procure more sustainable products and services, we conduct a number of different major activities. One is that we help to create and to update key product sustainability standards and ecolabels for use in federal purchasing that address product and service categories with high federal spend and with known significant environmental impact during their production, their use and/or their disposal phases. We also recognize that there are just a host of private-sector standards and ecolabels in the market that are available for us to utilize to help assist in our sustainable procurement efforts, so we also assess and recommend private-sector standards and ecolabels for use in federal purchasing.

We've been in existence since 1993 and were put in place in order to harness the power of the federal pocketbook, as the largest purchaser in the world, with over \$650 billion in sales of products or in purchases of products and services last year alone, to try to use our pocketbook signal to be able to shift towards a more sustainable marketplace for us all.

The Biden-Harris administration and several statutes guide is in terms of what we should be thinking about and doing around sustainable purchasing. And Executive Order 14057 was issued by the Biden administration, which sets a very ambitious goal of net-zero emissions procurement by 2050. And it also directs purchasers to procure products and services that meet the EPA-recommended standards and ecolabels.

So why do we focus on sustainability standards and ecolabels? First of all, because they really do help give us a tool to communicate more effectively to the vendor community about what we would like to see, as far as more sustainable products and services. We also are directed to do so by another policy document called OMB Circular A-119, which directs the federal community to use standards in order to meet our policy and our procurement objectives as much as possible, to try to utilize the existing resources in the market as opposed to developing another set of criteria to meet any particular policy or procurement goal.

We've found that it's really not enough to just tell federal purchasers that they need to go buy more sustainable products and services. They really do need some help in figuring out which tools they should use and how to find them and how to get to the products that meet those standards and ecolabels. And we know that most purchasers are in that boat with federal purchasers as well.

Today, there's over 460 sustainability standards and ecolabels that are available in the marketplace today. And sifting through these to determine which ones apply to which product and service category, and which ones really are environmentally effective and credible and have good, solid conformity assessment to make sure that products, in fact, do meet the criteria set in those standards can be very daunting for purchasers, who already have a whole host of other responsibilities that they need to meet and are not going to become environmental experts in order to make sustainable procurement happen for their organizations.

So our recommendations are really intended to address that issue and give purchasers one place to go to see a set of recommended standards and ecolabels that have already been vetted by the Environmental Protection Agency and our sister agencies. And so I'll put the link in the chat for that, but for those who want to take a look, it's epa.gov/greenerproducts.

And then you can see what we have. We've got 48 different standards and ecolabels that we recommend today and 30 different product categories. And we are planning to expand our recommendations and have just launched a new expansion process, so if you are aware of a sustainability standard or an ecolabel that applies for your product or service category that you sell or you're interested in purchasing a product that might need a particular standard or ecolabel but you're not sure about the credibility of that standard, please let us know, because we have the opportunity right now, and are in the process of selecting standards and ecolabels that we will be assessing in the future. And I'll put the link in the chat as well too, where you can go to apply to be considered to be assessed, if you're a standard developer and you have a standard that you'd like us to consider reviewing and/or an ecolabel owner.

So that's it for me. And I'm just very much looking forward to the discussion that we have today. Thank you.

CLARK: Great. Thank you very much, Holly. So let's move on to our second panelist, Maïke Luiken. Maïke is chair of the Planet Positive 2030 Initiative.

LUIKEN: Thank you very much, Jonathan, and it's a great pleasure to be here.

Sarnia was, is located 30 kilometers away from the birthplace of the North American oil industry. It still has major refineries and so on in this location. But it also changed itself greatly. A few years ago, it was the host of the lightest solar plant, solar power generation plant in the world, at 80 megawatts, for I don't know how many months or a couple of years. Then it started to look at – while we are having a sustainability initiative in the city – looking at how we can transform the chemical industry from a fossil-based feedstock to bio-based feedstock, essentially called it bio-innovation. So as you may imagine, this small town of roughly 80,000 people really transformed itself, first with the oil industry inventing a safety culture that has been exported around the globe. And then trying to change to add to the

safety culture a sustainability culture, where the companies and the municipality and the education sector all work together to really push sustainability a notch forward. So that's why I'm bringing this up, to show you the development from safety culture to sustainability culture. Thank you.

So let's come to talk about IEEE. IEEE's core mission is to foster technological innovation excellence for the benefit of humanity. And that, of course, means engagement around climate change and sustainability. IEEE is the leading authority in ICT power and energy and different disciplines that are all based on the electron and the photon, essentially. And the members share their expertise by working applications into different sectors, from transportation to energy to health care.

And you see this reflected in the expanding activities of the IEEE Standards Association, where a lot of standards originally were around, say, energy and communications sectors. Today, the standards activities are branching, along with the application of digital technology and different technologies, into different sectors, like agriculture, for example. And with the advancement of AI, the – actually, it started probably with drones – but with the advancement of these technologies, there has been a stronger focus on the impact, the societal impact, of the use of technology and what type of standards need to be developed around there – around that in order to ensure safe and sustainable use of technology. Next.

And here are some examples of standards that are related to social impact, like ethical AI systems, data governance, child on-line rights, dignity and agency and identity and, of course, the continuance of clean and sustainable energy, looking at minimal energy use connectivity and mobility.

And furthermore, out of the Standards Association comes this initiative that Jonathan was referring to earlier that I share and that we started this year, which is called Planet Positive 2030. And this is essentially an initiative to pull together experts from many different professions from around the globe to engage in a back-casting exercise and then, of course, the writing of recommendations to figure out how we can use technology and other approaches to come to what we call Planet Positive 2030. The aim is to look at how do we get to reducing the greenhouse gas emissions below 50% of 2005 by 2030, and how we can use major efforts of regeneration to come to what we call planet positive, in other words, give back more than we take out.

So we've stated this as a couple of impossible goals, because, in IEEE, we pride ourselves or taking the I-M out of the word impossible to make things possible. And so the first one is really to transform society and infrastructure, and the second one is to identify the technological gaps and solutions that we need to deploy in order to achieve planet positivity.

Why IEEE? IEEE has lots of strengths. It's a trusted source of curated technical information. I already mentioned standards. IEEE is great at convening at all levels, from local to global, and the facilitation of communities like the Planet Positive community. Next slide, please.

At a glance, it has global reach, with many members and 160 countries. And it's built on 46 societies and councils with different focus areas, from robotics to vehicular technology to the impact of technology on society and, of course, energy.

I mentioned the technical depth to a certain extent with the curated materials, so the true technical breadth here from 2,000-plus conferences, an electronic library that is approaching six million technical documents, 200 top-cited periodicals and, of course, the standards. And, most recently, the impact on the social side, with global public policy, humanitarian efforts and ethics and technology as the newest effort. I think that the IEEE standards efforts around ethics and technology are the first ones that have been undertaken by any standards organization, but I stand corrected.

So let's go back to Planet Positive, in a sense, so the contributors I mentioned, so right now we've got about 400, and I invite you to participate, anybody who is on this call to join us. We have about 400 from 20-plus countries. And you can see the bios and the involvement at the link that's posted.

So what is the outcome that is expected? It's a compendium we call strong sustainability by design, and an assessment framework that looks at accountability and call it accountable sustainability by design. The idea being that, like we have designed projects and products for a long time with safety first, we now want to look at designing of whatever we design with sustainability in mind first, rather than as an afterthought.

And here is one piece that I'd like to share. It's on the assessment framework. We have one tool that we are evaluating right now that is an open-access tool that looks at assessing sustainability for – or progress toward sustainable behavior, sustainable action by small and medium size companies. And if this works, then we would like to work forward to put this into a standard to help with such a tool that is not too expensive to use for smaller companies, to then give them a way to work within the sustainability or sustainable supply chain that Holly was mentioning earlier for product. Right now, we have many tools that work for large companies, but we need to work on standardized ways of reporting for smaller companies.

And with that, thank you very much. Join us. We are open to work with everybody.

CLARK: Wonderful. Thank you very much, Maiké.

It's interesting, so I think our two panelists concentrated very much on our impact, as humans, on climate and on the planet and the environment. We're switching gears slightly with our final speaker, Holly Neber. She's really looking at how the climate will affect us, as humans, and in particular our buildings. Holly is CEO of AEI Consultants, and they provide sustainability assessment and consulting services for things like the assessment of physical climate risk and other natural hazards. So I'll hand over to Holly, and I'll run your slides for you as well.

NEBER: Thanks very much. Thanks very much, it's great to be here. So yeah, I'm coming here as the CEO of AEI Consultants, a private-sector firm that does property consulting but also a volunteer, who is – I'm chairing a task group developing a standard for ASTM International regarding the assessment of natural hazard and physical climate risk at the property level. ASTM has standards covering many areas.

But the perspective I'm coming from today is really from the perspective of the commercial real estate industry, and all the parties involved with that, people that own, finance, manage and assess commercial real estate, which is pretty much everything outside of the single-family-home world. So from that perspective, we are looking at what are the ways in which we can assess the impact of natural-hazard risks, including those made more extreme by climate change, to the property level? And we know that this is interacting with, as you see on this graphic here, existing due diligence and assessment practices, many of which are covered by ASTM International standards that have been developed. It's also interconnected with risk management and underwriting practices.

You can see it's also connected with community resilience, and there's a lot of efforts underway to improve community resilience and how communities are prepared to handle natural disasters. And certainly, properties are so interconnected with the community at large. But we're looking at what can the property owner, investor or lender do to really understand, what are the vulnerabilities at the property level itself, and how can we make this property more resilient, so that it can withstand those stresses in a better way and come out with less damage, quicker recovery time, and so on?

Just a little bit about ASTM International. They have over 12,000 standards covering many different things. It's a consensus-based process, and so what we're working on in our group is we have over 120 members from banking, property development, consulting firms, engineers, architects, a lot of folks from the climate-modeling side, the ESG and sustainability reporting side. Thank you. I know you're like, what side is she on right now? Yeah, so we are part of this consensus-based process that ASTM International fosters. So there are over 12,000 standards across the globe.

ASTM processes are open and transparent. And one of the main points I want to make today is that the power of standards is exhibited through ASTM. Thank you.

So ASTM is this open, transparent process. And you see on this list a number of different standards that are utilized in the commercial real estate transaction and finance space.

And if you're not from that world, you might feel that this is a very, I don't know, mundane topic. But the point I want to make today is standards are powerful, especially when they're adopted at scale, so in the case of the environmental site-assessment standard that you see listed there, this was developed around 30 years ago, and it was recognized by EPA as a methodology to disclose environmental impairment in a property-transaction situation. And because it was recognized by EPA, it is used across the US and internationally as well for buyers, sellers, lenders to understand, what is the environmental condition at a property?

That may also sound kind of mundane, if you're not in that world. However, if you think about the power of that, and think about all of the environmental impairments that have been discovered and dealt with, and the impacts to human health – positive impact to human health as a result of the use of this standard in property transactions daily across the US and internationally compared with what had happened before that, which was that a regulatory agency needed to identify that there was a risk at a property, require the owner to clean it up. Now this type of information is coming up in a property transaction, and it's dealt with before the property can be sold or finances.

So it's very powerful that these types of assessment are utilized in a property transaction and that they're generally accepted by all the parties involved in a transaction. From the buyers to the sellers to the lenders to the rating agencies, everyone can agree on what an environmental site assessment is, what a seismic risk assessment is, and so on. So it provides this common language that people can use in a property transaction. It reveals what impairments might exist at the property, so they can be dealt with. And that is what we're working on with our new standard.

The reason why we feel this is really necessary is that the pressure to disclose physical climate risk at the property level, and up through an organization, is growing. And yet there is no globally recognized consensus-based standard on how to assess that risk at the property level. There are many standards that have been developed for portfolios to identify the physical risk within a portfolio or to identify the risk at the community level. But there are not so many for the property level. So we're looking at, how can we assess this at that real-estate, kicking-the-tires level? We also, as I said, want to provide this common language, so within this context of property transactions and financing, that common language can be provided.

And we'll also see, similar to the ESA, Environmental Site-Assessment standard was created about 30 years ago, and it has been revised numerous times. The standard we're working on, on physical risk, this is just the first effort. And we are

pulling together from over 120 different individuals involved in the task group – we’re pulling together best practices from many other associations and industry organizations that have prepared guidance. So ours is going to be an umbrella. We’re not trying to create another one to compete but to be an umbrella under ASTM to live alongside those other ASTM standards that are typically used in those real estate transaction scenarios. And through that, we know that we’re just starting this process, that it’ll be an iterative process of updating the standard, probably pretty frequently at first and then, over a few-year period of time, these standards get renewed, because the practice is evolving.

So the two main points that I would like to make today about ASTM International and my experience with them is that they’re so important because they do have power in terms of, for example, the ESA and identifying those environmental impairments and making our communities safer. And they are also this guidepost, the starting place from which an industry consensus can be gained and we can evolve from there. So thanks very much.

ROBINSON: Yes. Thank you, panel. Thank you Maike Luiken and thank you, Holly Neber, thank you, Holly Elwood, for sharing your time and your expertise with us. It’s really interesting conversation. Over decades, we’ve created a safety culture, and now we need to develop a sustainability culture, that was a lightbulb moment for me, really was.

So thanks again, and thank you to the panel. Thank you, Jonathan. And good afternoon, good evening, good morning. Thank you.

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