Strong Sustainability by Design

FAQ

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Frequently Asked Questions
Learn more about Planet Positive 2030 and *Strong Sustainability by Design*

What is the Planet Positive 2030 Initiative and what is *Strong Sustainability by Design*?
Planet Positive 2030 is an initiative supported by IEEE Standards Association (IEEE SA) that brings together a global, diverse, open community of experts to chart a path for planet positivity for 2030 and beyond. The deliverable for this initiative is a compendium document, *Strong Sustainability by Design: Prioritizing ecosystem and human flourishing with technology-based solutions,* written by our twelve committees. It represents the first deliverable by the Planet Positive 2030 community.

What does the name "Planet Positive 2030" mean?
- **Planet**: Our focus. The earth we must heal, protect, and sustain for humans and nature to flourish for seven generations[1] and beyond.

- **Positive**: Our purpose. The design to give back more to the planet with technology than is removed and not to harm the biosphere/planet[2].

- **2030**: Our urgency. The timeframe guiding our work inspiring responsible, bold, systems thinking to inspire accountable contextualized solutions, standards, policy, and pragmatic change.

What is "Planet Positivity?" What are the specific Goals you're trying to achieve with this program and document?
"Planet Positivity" is defined as the process of [transforming society and infrastructure by 2030 to](#):

- Reduce GreenHouse Gas (GHG) emissions to 50% of 2005 emissions[3]

- Significantly increase regeneration and resilience of earth's ecosystems[4]

- Be well on the path to achieving net zero GHG emissions by 2050 and negative GHG emissions beyond 2050

- Continue to widely deploy technology as well as design and implement new technological solutions in support of achieving "Planet Positivity"

What is *Strong Sustainability by Design*?
Strong Sustainability by Design (SSbD) is a compendium document written by our twelve committees that represents the first deliverable of the Planet Positive 2030 community - currently in draft form. The final

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[1] [Seventh Generation Principle](#). When involving Indigenous communities, it is recommended to consider and prioritize the rights of Indigenous peoples such as the idea of [Free, Prior and Informed Consent](#).

[2] Versus a 'climate neutral' mindset

[3] As described in the [United Nations Climate Change Conference (COP 21) Paris Agreement of 2015](#).

[4] *According to the [High Ambition Coalition for Nature and People](#), "In order to address both the biodiversity crisis and the climate crisis, there is growing scientific research that half of the planet must be kept in a natural state….experts agree that a scientifically credible and necessary interim goal is to achieve a minimum of 30% protection by 2030." Protection for land and water of "30 x 30 by 2030" was recommended during COP15 United Nations [Convention on Biological Diversity (CBD)](#).*

document will provide hundreds of insights and actionable recommendations to inspire business, policy, academia, community leaders and stakeholders to implement responsible innovation and transformation prioritizing the long-term flourishing of the planet and people. It is similar to IEEE's Ethically Aligned Design (EAD) document in that it provides a framework to guide readers in their pursuit of sustainability actions.

How should I use the SSbD document?

The compendium is designed as a resource to help readers better address the urgency and specifics of their own sustainability journeys by identifying key Issues and recommendations from a set of interdisciplinary thought leaders as part of a request for input process. While the draft version is already an in-depth and thorough compendium, it is the process of receiving and implementing global feedback that provides a consensus driven process that is a key value of this work supported by the IEEE Standards Association.

You are invited to not only read the document but to contribute and provide feedback, join committees, and be a part of our growing community that is already recommending ideas for sustainability-oriented standards and envisioning pragmatic projects utilizing *Strong Sustainability by Design* oriented solutions to create and advance "Planet Positive" technology.

How is IEEE Standards Association (IEEE SA) supporting this initiative and bringing the community together?

IEEE SA brings together and facilitates a global, open, diverse community of experts to chart a path for all people to achieve a flourishing future for 2030 and beyond.

Why focus on 2030? There is so much to be done right now in terms of climate change and sustainability.

Part of what is often lacking in climate and sustainability narratives is a specific picture of the flourishing planet supporting all people that needs to come to fruition, hence, the tagline, "Imagine the Future We Can Build Together." The specifics of the future we're working towards are outlined in the goals for "Planet Positivity" (see above). While these may seem like impossible goals, they're not fantasy or science-fiction. They're very difficult to achieve, and it is *difficult to imagine* how they could be achieved.

Picking 2030 as an intermediate goal post on the timeline to 2050 and the goal of achieving net zero greenhouse gas emissions by that time, allows the setting of metrics for key performance indicators and the measurement of progress against these indicators. The result can then lead to revisions of pathways, approaches and decisions on the path to 2050.

Why Years in the Future?

Futures Methodologies focus on time horizons years out into the future. For many, envisioning the future on a multi-year time horizon is an intellectually freeing experience, allowing the imagination a broader range of futures beyond the current state. Typically, a future time horizon is freeing because it is past the duration of:

- current governments;
- current corporate leaders;
- the life cycle of most projects; and
- the current career or life position.

The seven-year time horizon of Planet Positive 2030 is also a helpful guide as it is near enough that current research applies and not so far away that the plans are implausible. This seven-year time horizon can help decision-makers and planners "leapfrog" their current planning activities, expanding the range of possible and probable futures. Thus, seeing what needs to happen, planning for actions and working toward 2030 from today forward.

Why are there "Visions of 2030" opening each chapter of *Strong Sustainability by Design*?

As it turns out, all people need the help of their "left brain to engage their right brain." Vast concepts including areas like climate change can oftentimes be better addressed via positive stories or narratives versus lists of facts. As Rebecca Solnit notes in her article for The Guardian[5]:

> In order to do what the climate crisis demands of us, we have to find stories of a livable future, stories of popular power, stories that motivate people to do what it takes to make the world we need. Perhaps we also need to become better critics and listeners, more careful about what we take in and who's telling it, and what we believe and repeat, because stories can give power – or they can take it away…What the climate crisis is, what we can do about it, and what kind of a world we can have is all about what stories we tell and whose stories are heard.

But why do you have these *specific* Visions or Stories at the beginning of each Chapter?

We want to put readers in a positive state by envisioning an actual future that could happen by 2030 based on the overall subject matter of each chapter. The Visions represent committees composed of multiple subject matter experts who weren't just saying, "how can we use technology to help sustainability?" They were tasked with trying to identify specific, time-sensitive ways to address our Planet Positivity Goals (above). These are two different design challenges, where it is also recognized that existing societal systems may need to adapt and evolve to achieve our goals.

Once a reader has a specific image of the 2030 envisioned by the committee in their "Visions," then they'll read the Issues and Recommendations committees have provided that must be started today to achieve a positive future. In other words, the scenario planning provides a form of backcasting, As The Natural Step, a national charity in Canada focused on sustainability notes in this excerpt from their website:

> The concept of "backcasting" is central to a strategic approach for sustainable development. It is a way of planning in which a successful outcome is imagined in the future, followed by the question: "what do we need to do today to reach that successful outcome?" This is more effective than relying too much on forecasting, which tends to have the effect of presenting a more limited range of options, hence stifling creativity, and more importantly, it projects the problems of today into the future.

> In the context of sustainability, we can imagine an infinite number of scenarios for a sustainable society – and 'backcasting from scenarios' can be thought of as a jigsaw puzzle, in which we have a shared picture of where we want to go, and we put the pieces together to get there. However, getting large groups of people to agree on a desired future scenario is often all but impossible. Further, scenarios that are too

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[5] '[If you win the popular imagination, you change the game': why we need new stories on climate](). " Rebecca Solnit, The Guardian, January 12, 2023.

specific may limit innovation, and distract our minds from the innovative, creative solutions necessary for sustainable development.

So strategic sustainable development relies on 'back casting from 'sustainability principles' – which are based in science, and represent something we can all agree on: if these principles are violated, our global society would be unsustainable. To achieve a sustainable society, we know we have to uphold the principles – we don't know exactly what that society will look like, but we can define success on a principle level. In that way, backcasting from principles is more like chess – we don't know exactly what success will look like, but we know the principles of checkmate – and we go about playing the game in strategic ways, always keeping that vision of future success in mind.

Why do you have portions of all Chapters in Red?
In every chapter, after every Recommendation, you'll see the following language in red / bolded font:

Technological Insights and Recommendations
This space is intentionally left blank to encourage technically oriented feedback for public Request for Input.

Our Planet Positive 2030 community is interdisciplinary in nature, composed of over 400 experts from many professions and backgrounds. While there is already a great deal of technological insight in the document, we are the engineering and scientific communities around the globe) to provide their ideas, comments, and contributions in these areas. Specific comments and contextualized insights are very welcome.

Why do some chapters appear to comment on the same things and don't always seem to directly align with each other?
Based on the language of different chapters, some recommendations may appear similar in scope but may vary in context (region, stakeholders involved, etc.). That said, as a key part of our process is in receiving feedback during our Request for Input (RFI) period (June, July, August 2023), the choice was made to not focus much on coordination between committees for each issue and recommendation, but let the RFI process help expedite others providing feedback to help all committees recommend where a certain issue may eventually only be a part of one chapter versus many, or where two committees would have to have joint meetings to come to specific recommendations via consensus. The feedback and the process of reviewing and incorporating the feedback will encourage all committees to get more familiar with the work overall as we progress the entire document forward.

How do I submit feedback to Strong Sustainability by Design?
If you read this during any of our Request for Input timeframes, please do so! You can click here for our submission guidelines and further information.

I'd like to join the Planet Positive 2030 community. How do I join?
We'd love that!

- Get in touch at: PlanetPositive2030@ieee.org to get connected to a committee or any other reason.

- You can also subscribe to our newsletter here.

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