BSA's Global Sustainability Principles

The global impact of climate change is mobilizing communities around the world to establish ambitious objectives to mitigate its effects and invest in resources to reduce its impact. BSA | The Software Alliance and its members are fully committed to contributing to the fight against climate change and are attuned to the responsibility that global companies have to advance sustainability while supporting communities in their efforts to do the same. Although the way that these objectives are designed, measured, and tracked will vary depending on specific communities and companies, BSA and its members have worked to develop Global Sustainability Principles that outline how the enterprise software industry is working on sustainability and climate resilience. This paper showcases how BSA members operationalize sustainable practices by establishing ambitious climate targets and supporting communities, governments, and other companies as they do the same.

Set Ambitious, Transparent, and Accountable Climate Targets

Advocate for Policies to Create a More Resilient and Inclusive Society

Harness the Power of Digital Transformation to Improve Sustainability

Set Ambitious, Transparent, and Accountable Climate Targets

The challenge of climate change is shared globally, but each individual, company, and government should strive to set ambitious objectives to limit global warming to well below 2°C—preferably 1.5°C—compared to pre-industrial levels. The practical operationalization of these objectives will differ depending on many variables and local circumstances. BSA member efforts lead the way in scope, transparency, and accountability, leading by example.

BSA members strive to ensure that their climate targets are clear and measurable. This remains a foundational aspect of sustainability policies, as it ensures that companies can work as one in achieving more sustainable outcomes, and each individual is empowered to understand their impact and role.

Set Clear and Measurable Climate Targets

Although no globally recognized standard exists for measuring the impact of climate policies, BSA members strive to ensure that their climate targets are clear and measurable. This remains a foundational aspect of sustainability policies, as it ensures that companies can work as one in achieving more sustainable outcomes, and each individual is empowered to understand their impact and role.

In 2021, **Salesforce** achieved net-zero residual emissions across its full value chain and achieved 100 percent renewable energy for its operations.[1]

In September 2021, **Cisco** pledged to reach net zero across its value chain by 2040, and in July 2022 it became one of the first technology companies to have its net zero goal validated under the Science Based Targets initiative (SBTi) Net-Zero Standard, which is the world's first framework for corporate net-zero target setting in line with climate science. Cisco also committed to reduce supply-chain–related Scope 3 GHG emissions by 30 percent absolute by fiscal 2030 (fiscal 2019 base year). To support Cisco in meeting this goal, suppliers are expected to report GHG emissions and energy consumption to CDP on an annual basis.

Atlassian has achieved its goal to run operations on 100 percent renewable electricity, starting in 2020. Atlassian also set science-based targets (SBTs) to limit warming to 1.5°C and achieve net-zero emissions by no later than 2040.[2]

Splunk became a signatory of the Business Ambition for 1.5°C campaign in November 2021, and over the course of 2022, is developing a comprehensive Global Climate Resilience and Innovation Strategy that incorporates global climate risk assessments, scenario analyses, a net-zero transition plan, and a suite of science-based climate targets.

Okta set SBTs for absolute emissions reductions aligned with limiting global warming to 1.5°C, which were verified by SBTi in 2022.

Workday has provided its customers with a carbon-neutral cloud since 2017, and in 2020 Workday reached its goal of achieving net-zero carbon emissions across its offices, data centers, and business travel, a year earlier than targeted. Then, in 2021, Workday mitigated its historical emissions to achieve a lifetime net-zero carbon footprint. In 2022, Workday also set science-based emissions reduction targets across its entire value chain, approved by the SBTi and aligned with keeping global warming to 1.5°C across all three scopes of emissions—the most ambitious designation available through the SBTi process.[3]

Autodesk is committed to enabling a low-carbon, inclusive future.[4] For the second year in a row, it neutralized its GHG emissions across its operations and entire value chain, through the deployment of the Autodesk Carbon Fund. The company recently doubled its internal price on carbon to align with market pricing. Autodesk is already using 100 percent renewable energy to power its facilities, its cloud services, and all employees working from home. The company is working across its value chain to cut its footprint further, in order to achieve 50 percent minimum reduction in Scope 1 and 2, and 25 percent minimum per dollar of gross profit in Scope 3 by fiscal year 2031.

Support Reporting and Transparency to Track Progress Toward Climate Targets

As individuals, companies, and governments work to mitigate climate change, they can learn from each other's successes and challenges. The ability to understand what kind of challenges many diverse stakeholders face—and how they address them—is key to convening a cohesive global effort on climate change.

Reporting on sustainability efforts is key to tracking progress toward ambitious climate action, and digital tools and technologies can play a key role to ensure transparency, accuracy, and accountability in this regard. As individuals, companies, and governments work to mitigate climate change, they can learn from each other's successes and challenges. The ability to understand what kind of challenges many diverse stakeholders face—and how they address them—is key to convening a cohesive global effort on climate change.

Splunk supports the Financial Stability Board's Task Force on Climate related Financial Disclosures (TCFD), a global set of reporting guidelines that foster transparent and comparable climate reporting. Splunk's first annual Global Impact Report, published December 2021, generally aligns with TCFD recommendations for best practices in climate disclosures, and its financial filings incorporate TCFD-aligned climate risks. In 2022, Splunk's climate data will undergo external assurance and verification in preparation for the range of current and future climate-related voluntary and regulated disclosure requirements anticipated worldwide.

Salesforce has been reporting sustainability initiatives and metrics the same as its financial reporting since 2011. In 2021, Salesforce launched Net Zero Cloud to help businesses and customers quickly track, analyze, and report reliable environmental data, and in 2022 introduced its Net Zero Marketplace as a hub for organizations to purchase carbon credits.[5]

IBM has been one of the first multinational companies to produce a corporate environmental report, dating back in 1990, and has also led the creation of the first cross-industry guidelines for voluntary corporate environmental reporting. For more than 30 years, IBM has published an annual *IBM and the Environment* report without interruption, demonstrating its commitment to and leadership in practicing transparency. In 2021, IBM announced an updated set of 21 comprehensive, voluntary environmental sustainability goals,[6] including a commitment to achieve NetZero Greenhouse Gas Emissions by 2030. The company has specifically established near-term goals that are transparent and authentic to drive real progress and accountability, and prides itself in avoiding opaque representations of achievement.

SAP believes that transparency and consistent reporting of a company's environmental impact is more important than ever. Given this, SAP publicly reports[7] on the status of its total net carbon emissions, energy consumption, handling of electrical and electronic equipment, employee health and satisfaction, diversity and inclusion, and its contribution to the United Nations Sustainable Development Goals yearly in addition to empowering customers to do the same.

Encourage Coordination on Sustainability Practices Throughout the Supply Chain

Sustainable practices do not end with one individual company's role in the supply chain. BSA members are committed to working together with the entities along their supply chain to push for ambitious targets and sustainability practices.

IBM requires all first-tier suppliers to maintain their own environmental management system; set goals regarding energy management, GHG emissions reduction, and waste management; and publicly disclose progress. Additionally, IBM requires key suppliers in emissions-intensive business sectors to set an emissions reduction goal by 2022, addressing their Scope 1 and Scope 2 GHG emissions, that is aligned with scientific recommendations from the UN IPCC to limit Earth's warming to 1.5°C above pre-industrial levels. [8]

MathWorks has committed to achieving carbon neutrality for its global Scope 1, 2, and 3 greenhouse gas footprint by December 31, 2023. The company will achieve this through programmatic initiatives to reduce energy consumption and waste; eliminate fossil fuels and transition to renewable energy sources, where feasible; and offset unavoidable emissions using high-quality Renewable Energy Credits (RECs) and carbon-removal focused Verified Emission Reduction (VER) credits that are aligned with the Oxford Offsetting Principles.

DocuSign has committed to being carbon neutral by 2022, and has reduced the use of paper throughout supply chains for companies globally. DocuSign for Forests, an initiative started in 2019, includes support for nonprofit organizations protecting the world's forests and the inclusion of an environmental impact calculator in DocuSign's core eSignature product so customers can see the environmental benefits of e-signature products.

Okta developed resources for its vendors to support them in reducing their emissions and setting their own SBTs. This effort was done in collaboration with the Business Council on Climate Change (BC3).

Advocate for Policies to Create a More Resilient and Inclusive Society

Sustainable policies play a fundamental role not only for individual companies, but for society at large in combatting the effects of climate change. Each BSA member is engaged locally and globally to improve and advocate sustainability policies that create a more resilient and inclusive society that addresses the challenges posed by climate change while ensuring that new approaches are beneficial for everyone, including marginalized communities.

Although sustainability principles have a global breadth, their application is unquestionably local. BSA members help local governments and organizations in designing policies that respond to local needs and sensitivities.

Promote the Adoption of Sustainability Policies and Objectives with Societal Impacts and Benefits

Although sustainability principles have a global breadth, their application is unquestionably local. BSA members help local governments and organizations in designing policies that respond to local needs and sensitivities.

In 2021, **IBM** became a founding member of the European Green Digital Coalition (EGDC). The EGDC is a group of companies committed to supporting the green and digital transformation of the European Union. In joining the coalition, IBM pledged to continue developing digital technologies and services that are more energy- and material-efficient, along with methods and tools to measure the environmental impacts of these technologies. IBM is also a founding member of the Climate Leadership Council (CLC), which advocates for global carbon pricing and carbon border adjustment mechanisms to incentivize emissions reduction and accelerate the development and adoption of more sustainable and efficient technologies.

Salesforce has long been committed to setting ambitious climate targets and advocating for cutting edge public policy changes to drive climate action. In March 2021, Salesforce codified that work by officially including climate as a part of the company's public policy platform, joining priorities like equal rights, privacy and security, and others.

It's clear that the scale of the challenge posed by rising global temperatures demands comprehensive, system-wide action, elevating the importance of public policy as a tool to respond. That's why **Workday** published a position on climate policy in 2021, affirming its support for science-based policies that aim to limit the rise in average global temperatures to well below 2°C, with the goal of limiting increases to 1.5°C and advancing progress towards a more sustainable, equitable, and low-carbon future.[9]

The **Cisco** Foundation in 2021 made a 10-year, $100 million commitment to support promising climate change and regenerative solutions through grants and impact investments. The Foundation has already disbursed more than $10 million to organizations around the world. One recipient is Nia Tero, a nonprofit that exists to ensure that Indigenous peoples have the economic power and cultural independence to steward and protect their livelihoods and the territories they call home. The Cisco Foundation supported Kara Solar, Nia Tero's community enterprise initiative that trains Indigenous community members as technicians who build, operate, and maintain solar electric shuttle boats in rainforest communities. These boats reduce deforestation by removing the need for roads to be created, linking numerous communities across various Indigenous territories, all while creating economic opportunity for the community members. Its current phase of deployment encompasses 70 villages. Additionally, Cisco's support enables Nia Tero, Conservation Strategy Fund, and Kara Solar to conduct an analysis on the impact of electric river transportation on the incursion of new roads and deforestation.

Okta works with community-based climate justice organizations, such as CLIMA Fund and GRID Alternatives, to incorporate the voices of our communities into how we identify and implement solutions to address climate change. An integral part of Okta's climate strategy is to provide economic opportunities for historically excluded communities. One way to do this is by purchasing renewable energy certificates (RECs) with a social benefit, such as education and community-based solar in low-income communities.

Create Sustainability Policies and Objectives That Aim to Further Strengthen an Inclusive Workforce

The workforce of BSA members is a key component in local sustainability practices. Their involvement, diversity, and activism drive the efforts to ensure a strong connection with local communities.

Microsoft pledged to become carbon negative, water positive, and zero waste by 2030, by improving efficiency in operations, devices, and supply chain, delivering technology to help customers measure and manage their carbon emissions more effectively.[10] Microsoft's employees are also committed to sustainability through the **Microsoft Sustainability Connected Community**, an employee-led group of 5,000 members and 32 regional chapters whose mission is to make sustainability part of everybody's job. The LinkedIn Go Green sustainability engagement program includes one out of every eight employees and its 26 chapters are focused on empowering employees to take green action at home, in the office, and in their communities. Both groups engage employees on sustainability commitments while using Microsoft and LinkedIn technology to innovate real-world solutions to the climate crisis through the following activities.

SAP's Sustainability Champions Network is an internal group that promotes and spreads sustainability; shares ideas on how to create positive social, environmental, and economic impact; and exchanges global best practices. More than 300 Sustainability Champions from various fields and SAP locations across the world engage to raise awareness for sustainability and sustainable practices within SAP. Together, they spread information and organize initiatives ranging from the development of smart IOT based gardening to volunteering events.

Develop Sustainability Policies That Foster Community Resilience

Climate change is going to affect our society in its entirety. At the same time, not all communities are affected equally, and a key objective in sustainability policies aimed at community resilience should be that the economic and social costs of climate change are not disproportionately borne by those least able to bear them.

Bentley Systems partnered with the public water supply and sewerage company Zagreb (ViO Zagreb), to work on the Croatian city's water supply network, one of the oldest in the world. ViO Zagreb implemented a water digital twin supported by hydraulic modeling to reduce significant water losses, which increased after earthquakes hit the area in 2020. The established model, using Bentley's solutions, is one of the largest digital twin models in Eastern Europe facilitating smart water solutions. The adopted strategy enabled a decrease in real water losses and water intake, as well as in electricity usage in pump stations, thus contributing to lowering carbon footprint.

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In 2019, **Salesforce** helped launch 1t.org to connect, empower, and mobilize a global reforestation community, with the goal of conserving, restoring, and growing one trillion trees by the end of the decade. In 2020, Salesforce built on this progress by supporting the launch of a regional 1t.org chapter in the United States, surfacing innovators dedicated to solving the toughest ecosystem conservation and restoration challenges. 1t.org's regional chapters connect key actors across stakeholder groups, spotlight innovations that are ready to scale, and unlock private sector partnerships and targeted investments. In 2021, Salesforce continued to grow the 1t.org global community. Since the launch of the corporate pledge process in September 2021, over 30 companies globally have committed to conserving, restoring, and growing more than 3.6 billion trees in more than 60 countries. This includes large, private sector commitments from industries as diverse as tech, finance, food, energy, and insurance. Throughout 2021, in collaboration with UpLink, Salesforce ran a total of six challenges, resulting in 81 winning cohort members, bringing Salesforce's ecopreneurship community to over 100 members. Salesforce's regional work expanded to include collaborations in the Sahel with the Great Green Wall Initiative, the Amazon Basin around the transition towards a sustainable bioeconomy, and laying the groundwork for 1t.org in India and China.

Zendesk partners with the Ecosystem Restoration Camps (ERC) to support the global group's mission to fight poverty, climate change, species extinction, and desertification by restoring degrading landscapes all over the world. ERC accomplishes it by creating collaborative living camps where local people and international volunteers come together to create and execute a plan to introduce regenerative practices that bring degraded areas back to life. ERC's small, global team is scattered around the world—from Amsterdam to Barcelona to Capetown and beyond. In 2021, ERC integrated Zendesk as part of Zendesk's Tech for Good[11] program, to amplify their knowledge-sharing platform, with Zendesk working as the conduit between the landscape and the people, helping connect those dots as ERC achieves its efforts to share their knowledge, globally.

The Wicklow Mountains National Park Blanket Bog Restoration Project Service, **Intel**'s first water restoration project in Ireland, is a pilot project that will re-wet close to 150 acres of degraded peat bog to increase water storage levels by an estimated 13 million gallons each year. These headwaters supply the Poulaphouca (Blessington) reservoir, a drinking water source for the greater Dublin area. The bog restoration will also protect biodiversity and improve carbon storage, and is likely to improve water quality. Upon completion of the pilot, the resulting data will be used to evaluate a full-scale peat bog restoration effort.

Harness the Power of Digital Transformation to Improve Sustainability

Digital transformation can bolster sustainability efforts both as part of government-led initiatives and through private sector adoption of tools that enhance their sustainable practices.

Digital transformation can bolster sustainability efforts both as part of government-led initiatives and through private sector adoption of tools that enhance their sustainable practices. Governments can incentivize digital transformation by digitizing government services and digital access to those services, through investments in digital identification, by fostering STEM education, and by modernizing infrastructure using digital tools and technologies.

Companies in all sectors of the economy are increasingly using digital transformation to implement sustainability and Corporate Social Responsibility (CSR) goals. Investments in digitalization, training, and education around sustainable principles and practices are helping reduce the environmental impact of business operations. BSA members provide technology tools that enable other companies to achieve their targets and implement sustainable practices.

Governments Should Invest and Incentivize Digital Transformation

Digital Transformation has the potential to significantly impact governments' and citizens' welfare, as it allows for cutting-edge solutions to many environmental problems. As governments around the world progressively grapple with increasingly complex challenges created by climate change, digital transformation tools will become the key element to respond to such challenges.

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By using deep learning methods, **Microsoft** helps predict carbon reduction and other climate-related outcomes with much faster turnaround times, and similar or better predictive accuracy, than using traditional physical simulation models. For example, Microsoft developed a neural network-based model with the University of Tokyo that can simulate physical and chemical processes critical to carbon storage, such as the formation of hydrates that can fill cracks between sand and rocks under the ocean floor, thus playing a critical role in ensuring safer thousand-year storage of carbon. With this model, Microsoft was able to accurately predict hydrate formation 1,000 times faster than with numerical models.

Autodesk provided design and building solutions that helped construction engineers deploy sensors to track large blocks used to restore the Afsluitdijk dam in the Netherlands.[12] The work involved placing many large off-site manufactured blocks. Each block was fitted with a chip so each could be tracked from the manufacturing facility to the site. Using the sensor data, it resulted an 80 percent reduction in design coordination time and an over 40,000 ton reduction in CO_2 emissions a reduction of no less than 56 percent compared to alternative solutions.

Bentley Systems partnered with Evides NV, which provides reliable and safe drinking water to 2.5 million people in the Netherlands and is aiming to become carbon-neutral by 2030. They integrated Bentley's hydraulic modeling software for optimizing pumps, covering a total of 110 million cubic meters pumped per year. As a result, Evides reduced energy costs by 33 percent and carbon footprint by 942 tons of CO_2 per year, while satisfying demand, pressure, and water quality requirements in the city of Rotterdam.

Through **Adobe**'s ongoing commitment to use creativity to educate, inspire, and advocate for a more sustainable future, Adobe partnered with the The Florida Aquarium (TFA), in collaboration with The Ocean Agency and UNESCO, to launch Adobe's first-ever digital Ocean Decade Exhibition. As the largest aquarium in the United States, TFA aims to educate and inspire the public about planet restoration and protection through informed and interactive exhibitions.

Companies Should Invest in Digitalization to Further Sustainability

Individual companies can greatly benefit from digital transformation. Although every sector is being changed and improved by increased digitalization, sustainability policies can be revolutionized by the deployment of cutting-edge technologies to help companies and individuals become more ambitious in their sustainability goals.

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Algo Engines and **Microsoft** helped Ørsted, the world leader in offshore wind energy, to optimize the performance of more than 1,300 turbines on its wind farms, enabling it to fully phase out coal by 2023 and increase offshore wind capacity to 15 GW (enough for 30 million people) by 2025. Ørsted uses Microsoft Azure AI to determine where new turbines should be deployed. Previously, the computations for the foundations alone took weeks. With the cloud, that time is reduced to four to eight hours. The company also uses drones to inspect equipment and predictive maintenance to ensure all equipment is running at peak performance.

Sustainable enterprises must holistically measure, manage, and optimize their sustainability goals spanning people, planet, and profit. **SAP**'s Cloud for Sustainable Enterprises helps clients deliver on their net-zero emissions goals; reduce and reclaim waste materials; empower a more diverse workforce; and achieve compliance with sustainability regulations. SAP has also launched a Waste Insights Project to unify and analyze data from consumer goods, retailers, waste managers, investors, NGOs, and local government. The showcase will demonstrate the power of innovative technologies in unlocking value from over nine billion tons of waste produced globally.

Using plant simulation software from **Siemens Digital Industries Software**, BMW Group was able to improve the overall energy efficiency of car engines by lowering the energy required for its production. To produce an energy simulation, Siemens' technology mapped the power consumption of each machine in line with the production stages in the process control system. The resulting energy savings are predominantly achieved by reducing energy supplied during non-productive phases.

To minimize climate impact, it's important to first understand the impact of business strategies on emissions. **Workday** and integrated solutions enable companies to analyze and act on data about their material emissions and supply chains. These solutions help customers understand where material emissions come from, model the impact of emissions reduction initiatives, analyze the impact of climate change on business operations, and incorporate key sustainability metrics when making supplier selections—an important step to support progress towards a company's climate goals.[13]

As one of the leading suppliers of home and personal products, Unilever faced a major challenge as it looked to reduce the environmental impact of their need to deliver high-quality goods to the consumers who need them. Unilever turned to **Oracle**'s automated transport planning software to help them optimize vehicle use, reduce the number of trucks required, cut carbon outputs, and shrink inventory requirements. As a bonus, the company was even able to minimize invoice paperwork and free up IT staff for other priorities.

Intuit hosts the Intuit Climate Action Marketplace,[14] an online destination that provides resources to small businesses to reduce their carbon emissions at scale, while also helping them save money and grow their business. With this marketplace, small businesses can find more sustainable choices to replace high carbon emission activities with no extra hassle, time or cost.

Creating agile, sustainable, and safe workplaces with digital building technology that transforms workspaces through retrofits or new builds in support of today's priorities—hybrid work, sustainability, digital real estate, and employee well-being—is top of mind for many companies. **Cisco**'s cloud-native Meraki platform delivers energy savings, can reduce waste such as loss of business assets by 35 percent, and reduces the need to travel for IT implementation and operations. Reducing power consumption through intelligent Power over Ethernet energy budgeting and port scheduling features reduces the annual energy costs of running switches and powered devices like phones and access points by up to 60 percent.

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