Powering Digital Experiences with Sustainability

The digital world runs on Adobe products and as a technology leader, we have an opportunity to scale our sustainability efforts and impact by innovating the way we design and deliver those products.

Through purposeful product design, efficient engineering and operational processes, and by choosing partners who share our aspirations for corporate responsibility, we can continue to reduce our own environmental footprint while helping customers advance their own sustainability goals. In fact, given the number of brands and individual customers we serve, we see this as our largest contribution to sustainability.

Building Sustainability into Our Products

Our product sustainability efforts come to life through our three clouds: Adobe Creative Cloud, Document Cloud, and Experience Cloud. Together, they empower customers to express their creativity, efficiently manage digital document processes and deliver exceptional customer experiences — while also enabling paperless workflows and virtual collaboration that help reduce physical waste and cut emissions from manufacturing, transportation and shipping.

Document Cloud

The majority of the Fortune 500, hundreds of government organizations, thousands of small businesses and millions of individuals use Document Cloud's digital document solutions to replace paper-based processes every day, helping organizations like TSB Bank and NatWest Group reduce their environmental impact and operate their businesses more efficiently.

- Last year alone, more than 400 billion PDF documents were opened in Adobe products and more than 8 billion electronic signature transactions were processed through Adobe Document Cloud.
- Documents created, signed, shared, and stored in Adobe Document Cloud drive a 90% cost savings and a 95% reduction in environmental impact compared to paper-based processes.
- Every 1 million Adobe Sign transactions save 105 million liters of water, 31,000 trees, and the equivalent of taking 2,300 cars off the road for a year—plus reducing costs by more than $7.2 million.

Our Carbon Footprint and Resource Saver calculators help organizations quantify the impact of switching from paper-based to digital document processes and better understand how making these changes can advance their sustainability objectives.

Creative Cloud

With Adobe Creative Cloud, brands can leverage 3D and Augmented Reality (AR) tools for digital prototyping and photorealistic content. Adobe customers who use Substance 3D Stager reduce the carbon footprint of physical photoshoots by an average of 98% -- while also saving time and money. A free online calculator helps organizations estimate their own environmental outcomes.

Adobe customer Hugo Boss is using Substance for high-quality 3D modeling, creating 360-degree views of products for e-commerce sites. Marketers and product teams are using Substance 3D Stager to create lifelike visuals customized to specific regions and customer segments instead of conducting multiple in-person photoshoots. With Substance, Hugo Boss' design teams are able to experiment with a much wider variety of designs, while at the same time cutting the number of physical samples the company makes by 30%. This reduces the operating costs and the environmental impact of materials used and transported while producing better outcomes for consumers.

Experience Cloud

Since its release, Adobe Experience Cloud has enabled thousands of B2B and B2C brands to deliver impactful customer experiences through a suite of platforms and tools for work management, ecommerce, content management, data and analytics. With these tools, brands around the world are engaging customers via digital channels, reducing the need for paper communications and travel and further reducing their carbon footprint.

With the exploding demand for content, Experience Cloud applications are critical in streamlining brands' content supply chains – helping them work faster and more efficiently by reusing assets, reducing waste and facilitating virtual collaboration.

Developing More Efficient Engineering Strategies

In addition to purposefully designing products that help our customers reduce their environmental impact, we're also working to reduce the impact of developing and running those products themselves.

Decreasing product-related energy use requires a holistic consideration of the full computing ecosystem. Sustainably running our tools does not mean looking at our software and hardware separately, but instead, understanding how they work together, and rightsizing them together to consume the least amount of energy.

Our product development teams have implemented strategies to enhance efficiency across their operations:

1. Utilizing low energy chips and employing storage devices with intelligent data tiering to minimize idle storage resources

2. Optimizing processing workloads to consume the least amount of energy by considering server locations and workload timing, so that they draw the smallest possible carbon load through our operations

3. Making it a priority to store and cache the minimum amount of data on our physical infrastructure while utilizing the most efficient coding languages

Optimizing Our AI Architecture

Artificial intelligence (AI) / machine learning (ML) – and especially generative AI – are transformative technologies evolving at incredible speed. As any new technology, AI raises environmental, ethical, and social concerns, which we are committed to addressing with accountability, responsibility, and transparency to ensure that we can harness its power for the good of technology and society. At Adobe, we've been thoughtful and deliberate in developing and deploying our models to guard against harm and while ensuring that we're providing our customers with the most innovative tools possible.

Over just a few months, Adobe Firefly, our family of creative generative AI models, became the most successful beta in our 40-year history. We recognize that training and using generative AI products requires a significant amount of energy. Therefore, we are actively seeking new ways to deliver this technology faster and even more responsibly. For example, our training model optimization focuses on minimizing two primary variables: energy consumption and computing time.

By investing in code optimization, minimizing redundant steps, avoiding unnecessary content generation, and implementing efficient scheduling and batching strategies, we can significantly reduce the required training and increase training velocity.

These developments are just the beginning of our journey to decrease the footprint of generative AI. It is our intent to consistently focus on energy efficiency and emissions reduction as an integral part of our AI innovations.

An Ongoing Commitment

No single organization can hope to address global sustainability challenges on its own. At Adobe, we aspire to continue to scale our own environmental impact through advocacy, collaboration and by building products that help our customers to achieve their sustainability objectives through digital transformation. By joining with others to build an infrastructure to solve problems through products, people and invention, we hope to create an enduring legacy of innovation and impact.