

Sustainability White Paper Add something new

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"The greatest threat to our planet is the belief that someone else will safe it." **Robert Swan**

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"If you look at the state of our planet, the next generations won't be around if we consider sustainability as a gimmick."

Jochen Zeitz. Former CEO of PUMA

Executive summary

Life on earth is changing. Natural resources are getting scarcer, sea levels are rising and the planet is warming up. We have to rethink the way we work, live and consume. Taking into consideration the positive correlation between sustainable decisions and business success, the right way forward is to conduct business in an ethical and environmentally friendly way, for now and for every future generation to come.

To reach environmental goals, Atos & Google have included sustainability as a key topic within their corporate responsibilities.

At Google, this includes challenging ourselves to put sustainability into everything that we do. Raising the bar means making smart use of the Earth's resources, expecting the highest ethical standards throughout the supply chain, and creating products with people and the planet in mind.



At Atos, the most advanced technologies are enablers for people to get new services in health, agriculture, cities and more. We all have a role to play in facing sustainability challenges. Atos is working together with the United Nations on major sustainable development goals. Technological solutions are plentiful, but not always being used yet. The cloud, for example, can help minimize your environmental footprint; and biodata can help protect biodiversity.

Please continue reading about sustainability in this white paper and learn more about the contributions being made by Google and Atos with regards to the challenge of sustainability.

To achieve even more, at Atos and Google we have joined forces on multiple other issues, ranging from sustainability to innovation to security. Read more about collaborative initiatives our addsomethingnew.com.

> "Sustainability has to be a way of life to be a way of business."

> > Anand Mahindra, Chairman Mahindra Group



Tackling Climate Change

Scientific evidence for climate warming is unequivocal. The global temperature is rising, our oceans are getting warmer, the ice sheets are shrinking, sea levels are rising, and more extreme weather events are occurring everywhere on earth.

Environmental business initiatives are in full progress. Think about striving for carbon neutrality, where we see a balance between emitting carbon and absorbing carbon from the atmosphere. Or achieving the lowest Power Usage Efficiency (PUE) possible and therefore increasing the energy efficiency of our datacenters. These initiatives contribute to a better, more sustainable world. At Google and Atos we are taking responsibility when it comes to problems and initiatives concerning climate change. Please continue reading to learn more about what we are doing.

At Atos we are fully committed to tackling climate change. We are continuously working hard to reduce our environmental footprint. Our environmental program addresses four challenges: improving energy efficiency, reducing carbon emissions, driving innovative technologies and solutions and reducing the impact of travel.

Improve energy efficiency. Between 2008 and 2015, we reduced our CO2 emissions by 50%. In addition, we are committed to reducing our CO2 intensity by another 20% for the period between 2016-2021. Solutions include the 100% offset of the CO2 emissions from residual data centers, offices, and business travel through a dedicated wind-farm program located in India, and delivering fully compensated hosting services to our clients.

Atos we deliver solutions that are eco-designed and energy-efficient. This can be seen in the low Power Usage Effectiveness (PUE) (1.12) of our best datacenter. Reducing the PUE of all our data centers and improving the energy efficiency of our digital solutions is an important commitment that we have made for the future.

Drive innovative technologies and solutions. At

Reduce carbon emissions. We are already optimizing our energy consumption in Atos offices and data centers. Currently, 95% of the energy consumed in our datacenters is generated by renewable or low-carbon energy sources. Globally, we are striving to increase this figure to 100%.

Reduce travel impact. By Introducing and favoring new ways of working and traveling, Atos has reduced its travel intensity impact down from 23.04 in 2016 to 18.62 (tCO2/M€ revenue). Our commitment to the future is to progressively reduce even more of our travel needs and impact through additional new working methods and dedicated solutions.

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At Google we love putting technology to work in order to save sustainability challenges. And getting the most out of technology without using more resources is quite a challenge in itself. To ensure a healthy and cleaner future for the next generations, we are taking action. Currently, our environmental mission focuses on four main areas: data centers, carbon-free energy, workplaces, and technology.

Data Centers. For us to better serve our users in a more sustainable way, efficient data centers are a necessity. For a long time, we have worked on making our data centers some of the most efficient in the world by designing, building and operating each one to maximize the efficient use of energy, water, and materials. This way, even as demand for our products increases. our environmental performance improves.

Workplaces. Creating sustainable workplaces is good for both people and the environment. When designing products, we focus on our users' wishes. When creating the healthiest workplaces possible, our focus shifts to the wishes of our employees. Currently, we are focussing on ecological interiors for our cafés, the use of food waste in our restaurants, and a journey towards using healthier, more sustainable materials in our building projects.

"On average, a Google datacenter is twice as energy efficient as a typical enterprise data center."

Carbon-free Energy. By buying renewable power and high-quality carbon offsets and improving the efficiency of our operations, Google has maintained its status of being carbon neutral for over a decade. Our projects to maintain this course range from advising on renewable energy policies in Taiwan, capturing value from waste in upstate New York as well as our initiatives to emphasize the importance of continuous carbon-free energy.

Technology. Great things can be achieved by empowering users with technology. We aim to meet the challenges posed by climate change by working to empower businesses, governments, nonprofit organizations, communities, and individuals to use our technology to create a more sustainable world. Take Nest for example, our smart thermostat with technology that relieves the energy burden for those with low-incomes. This is a perfect example of turning environmental insights into action.







Responsible Supply Chain

Sustainability is not only about energy, it is also about having an impact by means of a responsible supply chain. For Google, this means putting inclusion, equality and technology in the core of our supply chain. By setting an example with the sustainable production of our products, we acknowledge our responsibilities as leaders in our respective fields. At Atos and Google, we understand that a responsible supply chain is not only good for people and the planet, but also for business. We recognize that high ethical standards are important throughout the supply chain and we promote meaningful social change at supplier sites. To meet our commitments, here are some of our projects:

Atos. At Atos we encourage our partners to follow the UN Global Compact principles. We have our own specialist partner assessor 'Eco Vadis', which evaluates and monitors the performance of our top suppliers in four key areas: environment, labor practices, fair business practices, and their supply chain. Last year, we were awarded a gold status for our corporate responsibility and sustainability assessment by 'Eco Vadis' and we reached the top 1% of the most advanced companies in three categories (environment, labor practice & supply chain management).

"Our challenge is that as Atos grows through acquisitions, we need to ensure that vendors of the companies we acquire meet our high standards when it comes to corporate responsibility and sustainability."

Enguerrand de Pontevès Group Chief Procurement Officer, **Atos**

Google. At Google we aspire to create a supply chain model for the future that accomplishes the following goals:

- Inclusion. We want to collaborate with suppliers and peers across industries and service sectors to create a safer. fairer, and more equitable supply chain.
- **Improving.** We want to ensure that we leave every supplier workplace. community and ecosystem that we touch better than we found it.
- **Transformation** with Technology. Investing and building technologies to create the world's most trusted supply chain network.

On the next page, we present two examples of sustainable responsible supply chain projects we are currently running at Google:

clean energy-momentum in Gathering Congo. As part of our aspiration to end our reliance on raw minerals, we started the Congo Power program. This program is built on the foundation that renewable energy can be a building block for resilience in the Congo, which has an electrification rate of only 9% across the nation. In 2018, we began laying the first bricks of this project and. together with the community, installed solar installations in multiple places to increase power access. For the future, the ultimate question is how to ensure that the project has a multiplying impact over time.

Building an energy-efficient, low-carbon supply **chain.** Google is the world's largest corporate buyer of renewable power, having procured more than three gigawatts of wind and solar energy in 2018. To help our suppliers increase energy efficiency and adopt robust energy management systems, we are starting a pilot program for our partners. The objective: to help develop strategies manufacturing companies to embrace energy management best practices and encourage the adoption of robust energy management systems. The long-term vision: to ensure 100% of our suppliers have access to clean, carbon-free energy sources. New partnerships and more knowledge sharing can speed up this process and improve sustainable business performance.

Curious to learn more about our take on a responsible supply chain? Take a look at our responsible supply chain report published in 2019.





To help people understand the planet, improve environmental impact, and take sustainable action, at Google & Atos we have developed sustainability tools. Take a look at some examples:

Environmental Insights Explorer

The Environmental Insights Explorer (EIE) was founded on the idea that data and technologies can help accelerate the actions required to enable the world's transition to a low-carbon future. Using the EIE, city data can be explored to make more informed decisions about sustainable initiatives and opportunities. Information such as transportation and building emissions can be presented to measure, plan and act in accordance with specific climate goals. Get more insight about your city here.



Project Sunroof

Discover your solar savings potential with Project Sunroof. Search for an address and get an immediate overview of what is possible with solar in your community. Making use of Google Earth imagery, roof shapes and local weather patterns are analyzed to create a personalized solar plan. Adjust your electric bill to fine-tune your savings estimate and the number of solar panels for your home. Based on your results, compare loan, lease and purchase options. For more information about Project Sunroof, please continue reading here.

Your Plan, Your Planet

We all want a healthy planet for today and tomorrow. The small choices we make each day can help us get there. 'Your Plan, Your Planet' can provide some small tips to help people and the planet thrive together. The project is based on four main pillars: stuff, water, food, and energy. Each of them is based on important sustainability topics, such as the circular economy to improve the re-use of stuff. Learn more about this practical initiative on this website.





Codex Al Suite

The introduction of artificial intelligence and cognitive computing is fostering a new generation of applications capable of understanding like a human, to develop more and more expertise with a non-stop self-learning capability. Codex Al Suite is an application toolset. It provides all the tools needed to scope, develop, roll-out and manage Al applications. By using Machine and Deep Learning principles, we can use the power of artificial intelligence to reduce human biases in the elaboration of sustainable solutions for the future. Read on about Codex Al Suite. Take a look here for more information.

Quantum Learning Machine

The sustainability challenge is a mathematical one. Many issues in terms of, for example, the sharing economy relate to optimization challenges. The Atos Quantum Learning Machine is a complete on-premise environment designed for quantum software developers. It is dedicated to the development of quantum software, training and experimentation. By training new developers and learning how to improve our software, we can better connect data in the future. To strive for a more sustainable world, there has to be a strong software foundation in software that continuously analyzes, optimizes and improves. Read on about the current developments on this website of Atos.





The role of Nest

Many people take for granted that their lights will turn on when it's dark, and their heat will kick in when it's cold. But for low-income families, the winter often brings a hard choice between buying groceries or keeping the lights and heat on. This makes sustainability a prosperity syndrome. Regardless of motivation, people with high-incomes have more financial means to invest in sustainable solutions. This makes the Nest Smart Thermostat particularly interesting, because it is not only for the rich, it is for everyone. It is a perfect example of a tool which, because it can pay for itself, is widely accessible.

The numbers are sobering. There are 35 million low-income households in the USA. Many of these spend three times as much of their income on energy as higher-income Americans. Also, many of these families live in older (more affordable) homes with inefficient heating, ventilation and air conditioning (HVAC) systems, drafty windows, and poor insulation — compounding their financial burden. The effects are clear: lower incomes and inefficient homes in some parts of the USA. often force families to put up to 50% of their monthly income toward utilities.

Poor access to energy can lead to poor health and getting sick can exacerbate a household's struggle to make ends meet because up to 80% of low-income workers in the USA do not have paid sick leave. In the USA, the energy burden for low-income households is heavy.

Nest and the Power Project

Saving energy is at the core of Nest's mission to create a home that cares for the people inside it and the world around it. Since 2011, the innovative manufacturer of smart home products has helped save more than 22 billion kilowatt-hours of energy — roughly equivalent to the annual consumption of electricity in Ireland. Independent studies have proved that it saves 10-12% on heating bills and 15% on cooling bills. Based on typical energy costs, that's an estimated average savings of \$131 to \$145 a year. So, in under two years, it can pay for itself.

From the beginning, Nest has been concerned with bringing energy efficiency to everyone. Since Nest joined the Google family in 2014, our shared vision to empower people through technology has expanded to help reduce the energy burden affecting low-income households.

Launched on Earth Day 2018, the Power Project is a platform to bring energy-saving technology to those who need it most, to help families struggling with high energy costs, and raise awareness of the gap in access to affordable home energy. So far, the project has donated over \$800,000 to nonprofits like United Way and Habitat for Humanity who are helping low income families with energy costs. Over the next five years, Nest and Google are committed to working closely with partners to install one million energy-saving and money-saving Nest thermostats in homes across the USA.

A coalition of help

Nest realized from the beginning that easing the energy burden us a huge challenge to tackle alone. For this reason, the Power Project is creating a of collaborators network including energy companies, housing agencies, and non-profit organizations to provide energy-saving technology and utility assistance to those who need it. You can read more about the Nest and Google Power Project here.

