SAS CORPORATE
SOCIAL RESPONSIBILITY

# Environmental Program

## Strategic growth through innovative sustainability practices

A sustainable future requires developing solutions grounded in science and data to address climate change mitigation and adaptation. Reducing environmental impacts and ensuring continued availability of natural resources is a shared responsibility that starts with intentional and ambitious goals and actions.

To implement these green business strategies and develop smarter operational models, leading organizations have relied on SAS' renowned analytic expertise and powerful software solutions. As an unwavering supporter of the Paris Climate Accord, SAS not only has a long-standing reputation advocating for clean energy but also uses its own analytics to support environmental initiatives across its operations. As a corporate sustainability leader and advocate, SAS works closely with employees, suppliers and customers to reduce its environmental footprint with programs focused on energy conservation, emissions management, pollution mitigation, water conservation, green building and other programs. From streaming data to improve operations through its smart campus project to powering office buildings with clean energy from its solar farms, the company uses SAS® Visual Analytics to collect, manage, calculate and report its environmental performance.

***GREENHOUSE GAS***

**42%** Absolute greenhouse gas reduction from 2018 base year

***ENERGY EFFICIENCY***

**38%** Energy use intensity improvement for office buildings

***CARBON EFFICIENCY***

**60%** Carbon use intensity improvement for office buildings

***BUSINESS TRAVEL***

**80%** Business travel emissions reduction

***LEED CERTIFICATION***

**82%** LEED-certified office space at headquarters

| CATEGORY | TARGET | TARGET YEAR | BASE YEAR | 2021 PROGRESS | STATUS |
|---|---|---|---|---|---|
| Emissions | Net-zero emissions for scopes 1, 2 and 3. | 2050 | 2018 | Global emissions increased 10.49% in 2022 from 84,212 to 93,048 MTCO2e. This is a 41.7% reduction across all scopes from 2018 base year. | On target |
| Emissions | 25% greenhouse gas (GHG) emissions reduction | 2025 | 2018 | Despite the 10% increase in emissions in 2022 due to increased post-pandemic operations, and a restated 2018 base year inventory, emissions are down 41.7% since 2018. | Achieved |
| Emissions | *Updated*<br>52.6% greenhouse gas (GHG) emissions reduction | 2030 | 2018 | Updated 2030 target from 50% to 52.6%. SAS emissions are 41.7% below the 2018 base year inventory for scopes 1, 2 and 3. | On target |
| Emissions | 75% greenhouse gas (GHG) emissions reduction | 2040 | 2018 | SAS emissions are 41.7% below the 2018 base year inventory. | On target |
| Emissions | 50% office building carbon use intensity (CUI) improvement | 2025 | 2010 | Global CUI improved 60% from 2010 base year – down 19% the past year to 8.1 CO2 pounds per square foot. | Achieved / On target |
| Emissions | 50% scope 3 reduction in business travel related greenhouse gas (GHG) emissions | 2022 / Ongoing | 2018 | Despite expected post pandemic increases in business travel, emissions are down 79.8% (14,171 T CO2e) compared to the 2018 base year. | Achieved / On target |
| Emissions | Annually increase the percentage of renewably sourced electricity used across operations | 2022 | 2018 | The percentage of renewables from sourced electricity globally increased slightly in 2022 (>1%). | Achieved |
| Emissions | Achieve SBTi validation for 2025 | 2021 | 2018 | Achieved for 2025. See SBTi validation updates below for the 2030 and net-zero updates. | Achieved |
| Emissions | *New*<br>Achieve SBTi revalidation for 2030 interim target reduction of 52.5% | 2023 | 2018 | Expanded GHG emissions inventory to include all scopes material to SAS global operations. Request for revalidation is consistent with SBTi recalculation criteria and SAS policy to resubmit if base year variance is 5% or greater. The 2025 target was not included because SAS already achieved the goals for both the original and new target inventories. | Achieved |
| Emissions | *Updated*<br>Achieve SBTi validation for 2050 net-zero target | 2023 | 2018 | Received SBTi validation for SAS' 2050 net-zero target to reduce absolute scope 1,2 and 3 GHG emissions 90% by 2050 from a 2018 base year. SAS is also committed to offset residual emissions by 2050 to achieve its net-zero commitment. | Achieved |

| CATEGORY | TARGET | TARGET YEAR | BASE YEAR | 2021 PROGRESS | STATUS |
|---|---|---|---|---|---|
| Energy | 40% office building energy use intensity (EUI) improvement | 2025 | 2010 | Global EUI increased 14% the past year to 12.7 kWh per square foot. Despite the expected increase, EUI has improved 38% from the 2010 base year. | On target |
| Energy | Achieve 1.35 power usage effectiveness (PUE) rate for data centers | Annual | N/A | Achieved for 12th consecutive year. | Achieved |
| Energy | Generate 3.5M kWh from solar installations | Annual | N/A | Renewable energy generation from solar installations totaled more than 3.4 million kWh in 2022. Generation was down slightly due to maintenance repairs. | Below target |
| Governance and Policy | Support the Paris Climate Agreement | Ongoing | 2016 | SAS is committed to supporting the aim of the Paris Agreement, to limit global temperature rise to 1.5°C above preindustrial levels and reach net-zero by 2050. | On target |
| Governance and Policy | Achieve ISO 14064 certification and external assurances for scope 1 and scope 2 GHG emission calculations. | 2023 | N/A | Earned ISO 14064-3 limited assurance from LRQA for SAS 2018 base year and 2022 calendar year GHG emission inventories. | Achieved |
| Governance and Policy | Support the NC Clean Energy Plan development | Ongoing | 2017 | Participated in stakeholder meetings to help develop Plan recommended clean energy and carbon policy designs. | Completed |
| Green Buildings | LEED Gold minimum for all new construction projects | Ongoing | N/A | Achieved LEED Platinum for 1 existing building in 2022. | Achieved |
| Green Buildings | Energy Star certification for all primary office buildings (HQ Only) | 2025 | N/A | Achieved Energy Star certification for 11 primary office buildings at SAS HQ. | Achieved |
| Paper | 75% employee paper use rate reduction | 2025 | 2009 | Print on demand and digital document delivery technologies has helped reduce the employee paper use rate by more than 93% since 2009. | Achieved |
| Paper | 30% average post-consumer recycled content for all purchased paper | Annual | N/A | Average recycled content for all purchased paper was 57% for 2022. | Achieved |
| Paper | 70% absolute paper use reduction | 2025 | 2009 | Globally, paper use for 2022 continued its downward trend, 15.6% better than 2021 and a 94% improvement from 2009. | On target |
| Transportation | 50% increase in electric vehicle charging stations | 2020 | 2017 | No activity | Achieved |

| CATEGORY | TARGET | TARGET YEAR | BASE YEAR | 2021 PROGRESS | STATUS |
|---|---|---|---|---|---|
| Waste and Recycling | 50% landfill diversion rate for waste from operations | Annual | N/A | Diverted 68.3% of operational waste from landfills - 672 metric tons. | Achieved |
| Waste and Recycling | 100% e-waste diversion rate from landfills | Annual | N/A | Diverted 100% of e-waste from landfills by repurposing equipment, recycling through certified vendors and donations to educational institutions. | Achieved |
| Waste and Recycling | 50% reduction of operational waste processed for disposal | 2025 | 2012 | Waste volumes increased 410 metric tons in 2022. Despite the 71% increase, volumes are still down 67% from base year. | Achieved |
| Waste and Recycling | 75% paper and commingled volume reduction | 2025 | 2012 | Since 2012, paper and single-use plastics volumes have decreased from 442 to 67 metric tons – an 85% improvement. | Achieved |
| Waste and Recycling | 70% of construction waste diverted from landfills | Annual | N/A | 99.9% of approximately 4,651 metric tons of construction waste was diverted from landfills in 2022. | Achieved |
| Waste and Recycling | 0% hazardous waste spills | Annual | N/A | SAS did not have any hazardous material spills or environmental compliance fines in 2022. | Achieved |
| Water | 20% Water Use Efficiency (WUI) improvement | 2030 | 2011 | Office building WUI increased to 5.57 gallons per square foot. The 27.2% increase was due to increased operational activities from more employees returning to normal work schedules. SAS is still on target for its 2030 goal. | On target |
| Procurement | At least 30% of Strategic Sourcing and Procurement training will address sustainable procurement | Annual | N/A | Anticipating impacts from emerging global ESG regulations, sustainable procurement training jumped to approximately 64% of total training hours in 2022. | Achieved |

## Environmental Achievements

While accomplishments in 2022 continue to demonstrate a sustained commitment to reducing SAS environmental impact, they are also reflective of the global transition to post-pandemic increases in business activity. Doing everything possible to keep employees safe, the company learned to work smarter and discovered new ways to conduct business that are better for the environment. Insights gained by working from home helped SAS to question business-as-usual practices such as air travel to conduct in-person meetings and daily office commutes. Given the urgency of addressing climate change, many pre-pandemic practices are no longer sustainable. SAS continues to explore options and implement new business models to help the company reduce its impact and achieve environmental goals.

For 2022, SAS continued building on its corporate sustainability leadership and IoT technology prowess by progressing on its smart campus project at Cary, NC, headquarters. The use of SAS advanced, real-time analytics is improving energy usage while proactively monitoring equipment performance to boost operational longevity. Starting with a handful of buildings and on-site solar installations, the project will eventually span across most of the 25 buildings on campus. By using analytics to help SAS operate more efficiently and identify ways to make improvements on campus, the company can pass on the first-hand insight of products and best practices to customers for their smart initiatives.

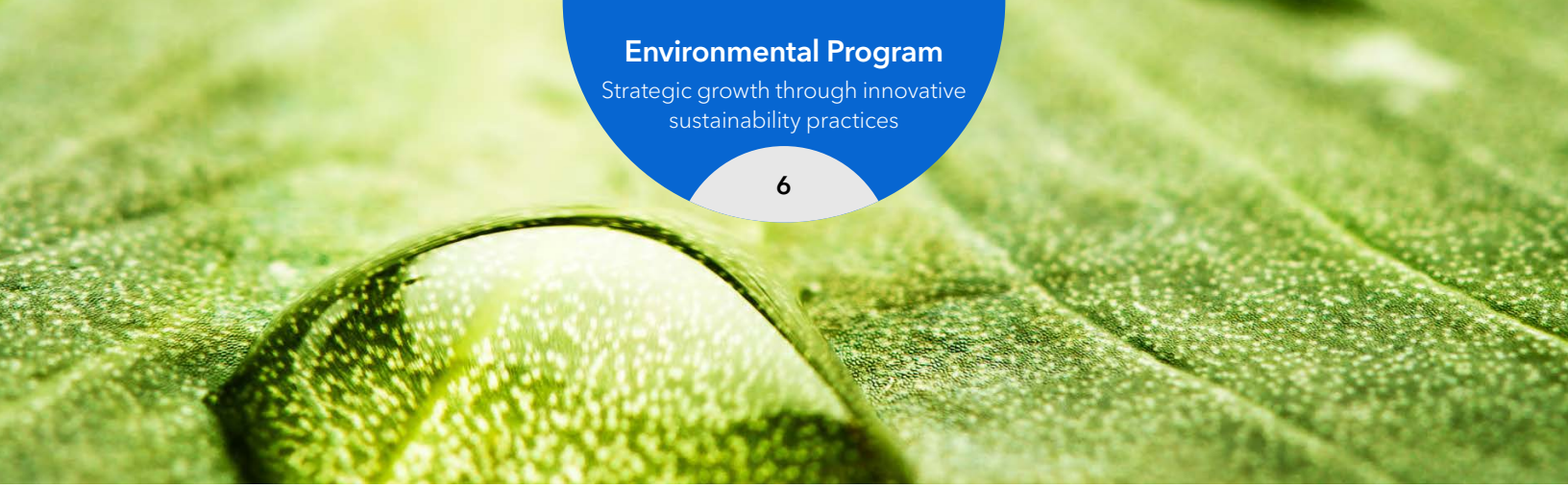
This past year, SAS did an analytic deep dive into how SAS conducts business and improved processes for collecting reliable data in support of the company's GHG inventories. Working with the Science Based Targets initiative (SBTi) and external consultants, SAS improved methodologies for calculating inventories across all scopes. As part of this process SAS received ISO14064-3 limited assurances for its scope 1 and scope 2 inventories. SAS also submitted and received SBTi validation for more comprehensive scope 1, 2 and 3 baseline inventories to the company's 2030 and net-zero targets.

SAS' top 2022 environmental program achievements include:

- Earned ISO 14064-3 limited assurance for 2018 base year recalculation and 2022 calendar year GHG emission inventories.
- Awarded LEED Platinum existing building recertification for SAS Building Q. This is the third SAS building to earn the US Green Building Council's highest performance award.
- Expanded baseline GHG inventory to include emissions across all scope 3 categories material to the way SAS conducts business including:
    - o Category 1: Purchased Goods & Services (PG&S) – identified additional supplier activities.
    - o Category 2: Capital Goods – added.
    - o Category 3: Fuel and energy activities (not included in scopes 1 and 2) – added.
- Increased 2030 target from 50% to 52.6% as part of SBTi target revalidation.
- Received SBTi validation for SAS' 2050 net-zero emission reduction target.
- As expected, expanded post pandemic operations increased emissions across all scopes in 2022 (10.5%). Emissions are still down 41.7% from the 2018 base year.
- Despite expected post-pandemic increases in business travel, emissions are down 79.8% (14,171 T CO2e) compared to the 2018 base year.
- Achieved 60% carbon use intensity (CUI) from base year - down 19% the past year to 8.1 CO2 pounds per square foot.
- Diverted 68.3% of operational and an astounding 99.9% of construction waste from landfills globally (5,323 metric tons).
- Generated 3.4 million kWh of clean, renewable energy from rooftop and ground-mounted solar systems.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

BUSINESS AMBITION FOR 1.5°C



## Environmental Governance

SAS' environmental performance is reviewed by executive leadership to provide guidance on conducting global operations in a sustainable manner.

Implementing environmental goals and strategies is largely the domain of the SAS Environmental Management Program and Chief Environmental Sustainability Officer (CESO). The program facilitates environmental efforts at company headquarters in the US, collects and reports key environmental performance indicators for global operations, conducts environmental risk and impact assessments and provides guidance and support to all offices worldwide. Offices around the globe have personnel who manage site-specific environmental initiatives.

SAS' CESO is responsible for managing climate change issues for SAS. This position addresses ongoing matters related to climate change, identifies risks and opportunities, calculates and reports SAS' global carbon footprint, and surfaces key environmental performance (against targets) for executive review. The CESO collaborates with the SAS Business Continuity Management (BCM) program and staff from key operational departments at SAS to ensure that risks are assessed for short-, medium- and long-term impact and consider existing and emerging regulations, technological advancements, acute and chronic physical impacts and more. Climate risk and opportunity disclosures are detailed in annual CDP reports.

**Environmental Policy**

SAS recognizes that its most material environmental issues are related to the use of energy and related greenhouse gas emissions from site operations, data centers and the development of software solutions.

SAS requires its operations around the world to support corporate environmental goals and to minimize environmental impact by conducting business in a manner that continually optimizes operational efficiencies, reduces harmful emissions and air pollutions, responsibly sources materials, reduces waste, increases recycling, and complies with all environmental regulations. Employees are additionally asked to abide by the following mandates.

**Environmental Mandates**

SAS conducts business in accordance with the Ten Principles of the United Nations (UN) Global Compact and supports their Sustainable Development Goals. The following corporate mandates provide guidance for adhering to policy and establishing priorities for environmental initiatives.

- **Corporate priority:** Establish policies, goals, programs and practices for conducting operations in an environmentally sound manner while ensuring environmental equity remains a key consideration in the transition to a net-zero carbon future.
- **Integrated management:** Integrate environmental policies, programs and practices into all functions, business units and global office locations.
- **Assessment:** Conduct impact assessments of existing and planned operations to understand environmental impact.
- **Continual improvement:** Continue to raise the bar on performance, aligning with technological developments, scientific understanding and stakeholder expectations.
- **Facilities and operations:** Conduct business operations with ongoing consideration for minimizing resource consumption, environmental pollution and other adverse environmental impacts, and ensuring waste is handled responsibly.
- **Products and services:** Provide products and services with processes that support a circular economy and have no undue environmental impact throughout the product life cycle – from

material sourcing, product development and delivery, to ensuring responsible use and disposal.

- **Employee education:** Educate, train, motivate and empower employees to conduct activities in an environmentally responsible manner.
- **Customer support:** Advise and help educate customers, distributors and the public in the safe and environmentally responsible use, transportation, storage and disposal of SAS products.
- **Suppliers and contractors:** Promote the SAS principles of sustainable procurement to all suppliers and contractors – encouraging and (where appropriate) requiring improvements.

**ISO Compliance**

The Environmental Management Program applies best practice ISO 14001 Environmental Management System processes and structure to drive continual improvement across business operations, and in the development of solutions and services to address its environmental impacts. These include:

- Using SAS software solutions and other tools to measure, report and improve environmental performance.
- Ensuring environmental affairs are addressed by executive management.
- Addressing immediate, short- and long-term impacts of products, services and processes on the environment.
- Providing global direction about addressing environmental concerns through the allocation of resources, assignment of responsibility, and ongoing evaluation of practices, procedures and processes.
- Enabling continual improvement of environmental processes.

SAS applies the ISO 14064 standard methodology for calculating the company's global carbon footprint and determining the impacts of business processes and mitigation initiatives. SAS is committed to reporting scope 1 and scope 2 base and current year GHG inventories validated by external auditors to the 14064-3 limited assurance standard. SAS uses its own technology to measure and analyze the performance of its sustainability initiatives. SAS solutions also support the application of global standards such as the Greenhouse Gas Protocol and the Global Reporting Initiative.

**Precautionary Approach**

Aligning with UN Global Compact Principle 7, SAS supports a precautionary approach to environmental challenges and minimizing anthropogenic impacts from business operations. This aligns with SAS' philosophy in five meaningful ways:

1. To ensure business operations do not expose the public and environment to harm.
2. To comply with all environmental regulations.
3. To encourage the development and diffusion of environmentally friendly technologies.
4. To promote environmental awareness via increased transparency and access to meaningful data so analytics can be used to make intelligent and responsible decisions.
5. To show that environmental responsibility is not just about goodwill; it makes good business sense.

**Energy and Emissions**

In 2022, SAS received Science-based Targets initiative (SBTi) validation for its 2050 net-zero commitment and its 2030 interim reduction target which increased to a 52.6% reduction from its 2018 base year.. These targets reflect a more ambitious path to net-zero by expanding GHG inventories to include fugitive refrigerant emissions from global offices, all scope 3 emissions from operational and capital spending with suppliers, energy-related transportation and distribution, well-to-tank emissions from direct and indirect energy sources, and more comprehensive methodologies to account for emissions across all scopes. SAS remains committed to the goals of the Paris Climate Accord and the Business Ambition for 1.5°C.

To achieve its net-zero ambitions, SAS assigns top priority to minimizing energy consumption and related emissions from its operations. Key energy and emissions mitigation initiatives include establishing aggressive energy and emission reduction goals, building and maintaining facilities to LEED® guidelines, installing electric vehicle charging stations, investing in renewable energy, pursuing smart energy-efficient technologies for office buildings and data centers, encouraging telecon-

ferencing to limit travel, and developing analytic tools to help employees understand the environmental impacts of their business decisions.

SAS is also using its own software to improve processes for collecting, understanding and managing energy and emissions requirements for facilities worldwide, increasing the ability to report and proactively influence consumption trends. The environmental program uses SAS software to identify reduction strategies; develop and monitor performance indicators; understand relationships between measures; determine initiatives with the greatest effect; and communicate strategy, goals and objectives to facilitate execution. Click here to access dynamic environmental reporting using SAS Visual Analytics.

In support of UN Sustainable Development Goal 7: Affordable and Clean Energy and Goal 13: Climate Action, SAS actively advocates for the deployment of renewable energy and the economic and environmental benefits of clean energy. After the SAS

**SAS IS COMMITTED TO REDUCING ABSOLUTE SCOPE 1, 2 AND 3 GHG EMISSIONS 25% BY 2025, 52.6% BY 2030 AND ACHIEVING NET-ZERO EMISSIONS BY 2050.**

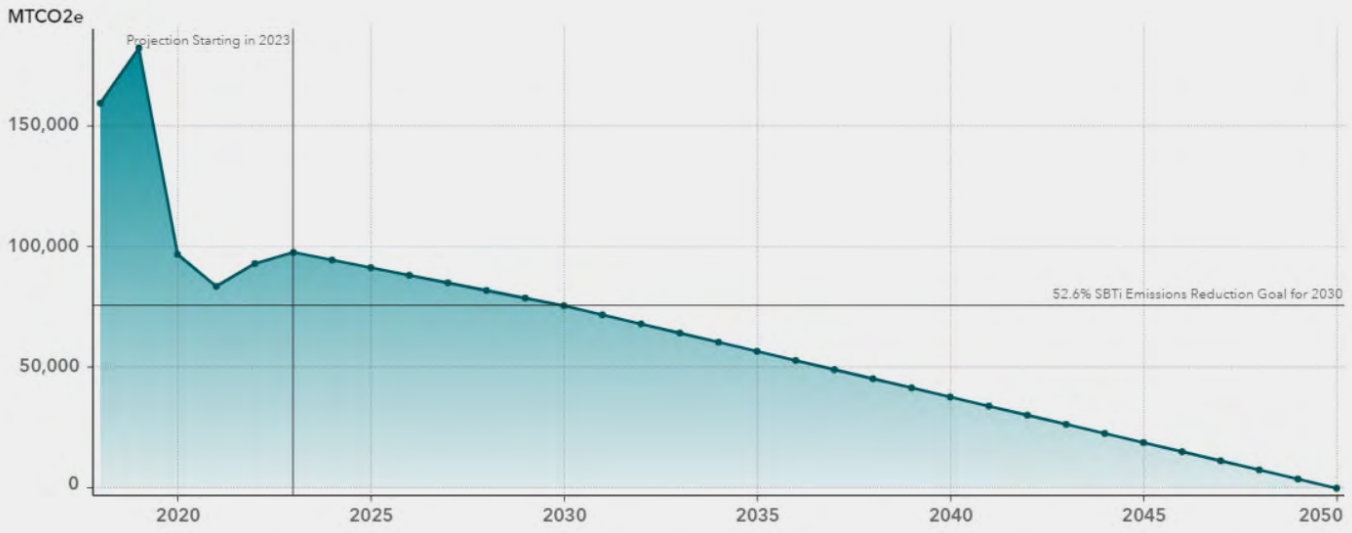
solar farm was selected as the site for North Carolina Governor Roy Cooper to sign an Executive Order for a clean energy economy and support for the Paris Agreement, SAS has continued to participate in stakeholder meetings to help develop clean energy and carbon policy designs as recommended in the state's Clean Energy Plan. Stakeholder participation and bipartisan support led to the signing of House Bill 951 and creation of a clean energy law for the state of North Carolina in 2021. The new law requires NC to cut emissions 70% by 2030 and achieve carbon neutrality by 2050.

Aligning with UN Sustainable Development Goal 11: Sustainable Cities and Communities, SAS also partners with organizations such as the Smart Cities Council and the Research Triangle Region Cleantech Cluster to help municipalities become smarter by harnessing the explosion of data sourced from connected devices, social media and the Internet of Things (IoT). Increasing the understanding of interdependent technologies such as artificial intelligence (AI), broadband wireless, cloud computing and IoT networks will help improve efficiencies, reduce costs, identify opportunities and mitigate the impacts of climate change.

## Global Greenhouse Gas Emissions by Scope

| Scope | Categories | 2022 (MTCO2e) | 2018 Base Year (MTCO2e) | Base Year Reduction | Base Year Variance % |
|---|---|---|---|---|---|
| Scope 1 | Diesel | 532 | 1,056 | -524 | -49.6% |
| | Gasoline | 260 | 375 | -116 | -30.8% |
| | Jet Fuel | 2,217 | 4,961 | -2,744 | -55.3% |
| | Natural Gas | 1,417 | 1,592 | -175 | -11.0% |
| | Propane | 227 | 180 | 47 | 25.9% |
| | Refrigerants | 333 | 1,317 | -984 | -74.7% |
| **Subtotal: Scope 1** | | **4,986** | **9,481** | **-4,495** | **-47.4%** |
| Scope 2 | Electricity | 23,765 | 36,153 | -12,388 | -34.3% |
| | Solar RECs (Retired) | -240 | 0 | -240 | 100.0% |
| **Subtotal: Scope 2** | | **23,525** | **36,153** | **-12,628** | **-34.9%** |
| Scope 3 | Business Travel | 3,582 | 17,753 | -14,171 | -79.8% |
| | Capital Goods | 4,313 | 10,964 | -6,651 | -60.7% |
| | Employee Commute | 3,783 | 10,166 | -6,383 | -62.8% |
| | Fuel & Energy not Scope 1&2 | 9,862 | 13,869 | -4,007 | -28.9% |
| | Purchashed Goods & Services | 41,584 | 58,390 | -16,807 | -28.8% |
| | Upstream T&D | 1,153 | 2,326 | -1,173 | -50.4% |
| | Waste from Operations | 261 | 521 | -260 | -49.9% |
| **Subtotal: Scope 3** | | **64,537** | **113,988** | **-49,451** | **-43.4%** |
| **Total** | | **93,048** | **159,623** | **-66,574** | **-41.7%** |

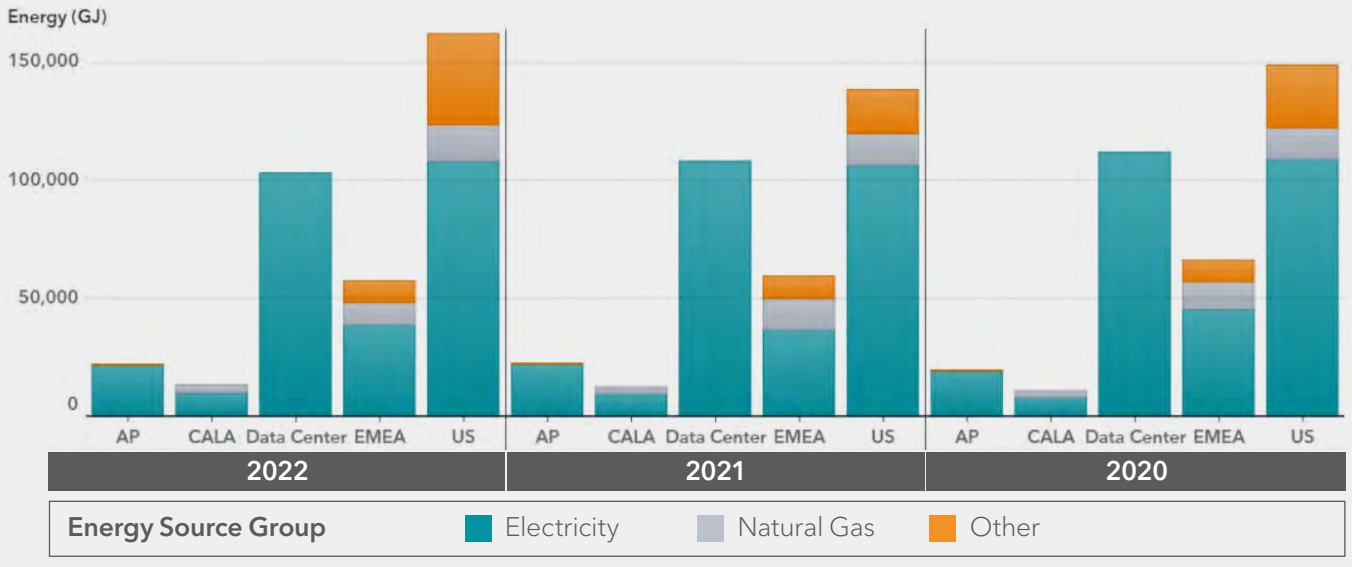
## Greenhouse Gas Emissions Trend Scope 1,2 and 3



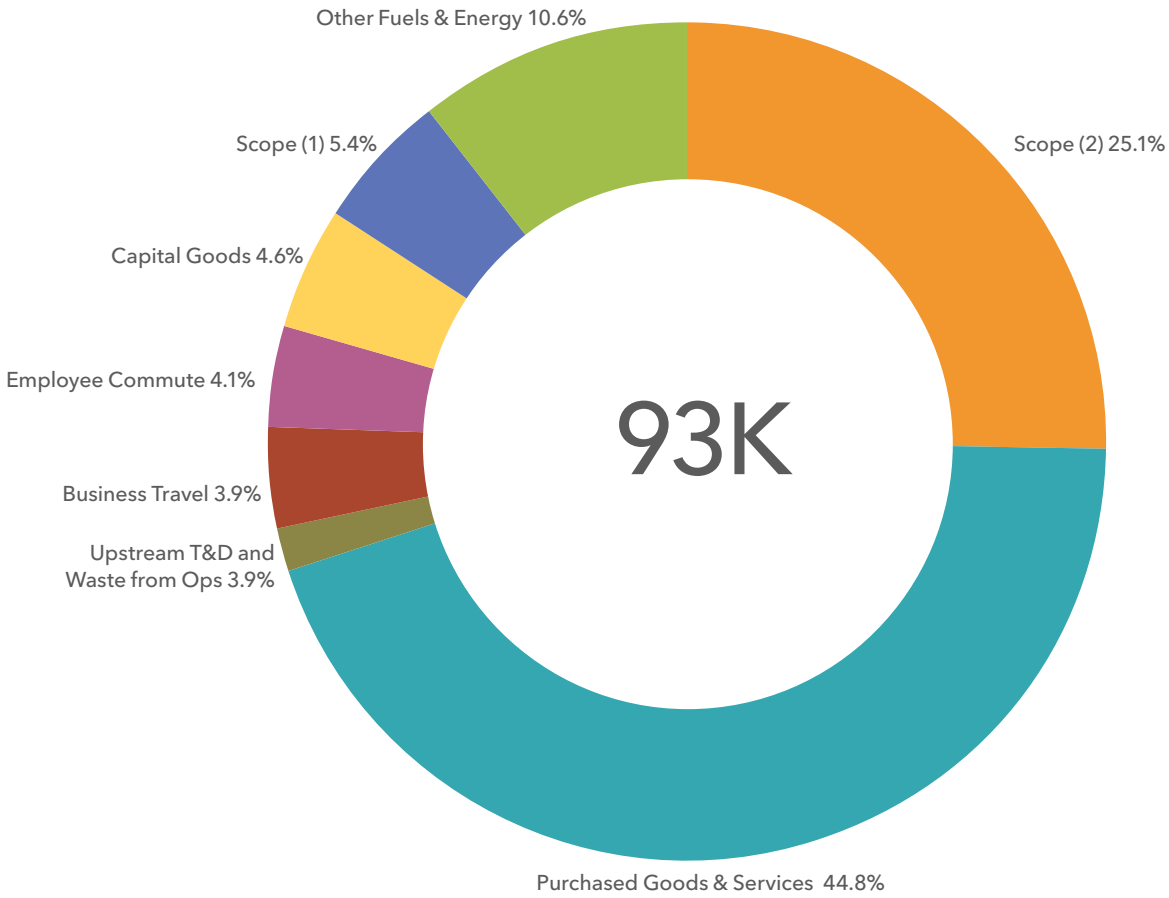

## Global Energy Use and Variance by Region

| Regions Group | 2022 (GJ) | 2021 (GJ) | 2020 (GJ) | 2022-21 Variance | 2022-21 Var. % |
|---|---|---|---|---|---|
| AP | 21,874 | 21,045 | 21,000 | 828 | 3.9% |
| CALA | 13,601 | 12,095 | 11,522 | 1,506 | 12.5% |
| Data Center | 103,130 | 107,932 | 111,564 | -4,802 | -4.4% |
| EMEA | 58,078 | 58,217 | 68,773 | -139 | -0.2% |
| US | 161,305 | 136,338 | 148,455 | 24,968 | 18.3% |
| Total | **357,987** | **335,626** | **361,315** | **22,362** | 6.7% |

## Global Energy Use by Region and Source



## Global Greenhouse Gas Emissions by Scope




**Emissions management and mitigation**

Despite increased demand for resources from anticipated post-pandemic return to work schedules, SAS limited energy use increased to 5.0% and emission increased across all scopes to 10.5% (market-based approach). In 2022, an estimated 70% of employees returned to working primarily at SAS maintained facilities, up from 25% in 2021.

SAS' use of advanced, real-time analytics helps to improve energy usage while proactively identifying ways to make improvements. Operational efficiencies, investments in renewable energy and numerous emission reduction initiatives have helped SAS achieve its 25% by 2025 absolute emissions reduction target ahead of schedule and stay on track to reach its 2030 52.6% target. Since 2018, scope 1, 2 and 3 emissions are down 41.7%. While it is expected that SAS' emissions will increase slightly in the next few years due to the post-pandemic resumption of more typical business activities, SAS is well positioned to achieve and exceed its net-zero target ahead of schedule.

| EMISSION TRENDS BY SCOPE AND MATERIALITY | | | | | | | |
|---|---|---|---|---|---|---|---|
| Scope (MTCO2e) | 2018 (BASE) | 2019 | 2020 | 2021 | 2022 | BASE YEAR REDUCTION | VARIANCE % |
| Scope 1 | 9,481 | 9,801 | 4,753 | 3,915 | 4,986 | (4,495) | -47.4% |
| Scope 2 | 36,153 | 32,093 | 25,850 | 23,449 | 23,765 | (12,388) | -34.3% |
| SRECs (Retired) | - | - | - | - | (240) | (240) | 100.0% |
| Scope 3 | 113,988 | 140,951 | 66,991 | 56,848 | 64,537 | (49,451) | -43.4% |
| **Totals** | **159,623** | **182,845** | **97,594** | **84,212** | **93,048** | **(66,574)** | **-41.7%** |

| SCOPE 3 | | | | | | | |
|---|---|---|---|---|---|---|---|
| CATEGORIES | 2018 (BASE) | 2019 | 2020 | 2021 | 2022 | BASE YEAR REDUCTION | VARIANCE % |
| **Cat 1** *Residual Purchased Goods & Services* | 58,390 | 57,096 | 40,294 | 40,305 | 41,584 | (16,807) | -28.8% |
| **Cat 2** *Capital Goods* | 10,964 | 38,810 | 5,669 | 2,695 | 4,313 | (6,651) | -60.7% |
| **Cat 3** *Fuel & Energy not in Scopes 1&2* | 13,869 | 12,962 | 10,495 | 9,347 | 9,862 | (4,007) | -28.9% |
| **Cat 4** *Upstream Transportation & Distribution* | 2,326 | 2,105 | 1,322 | 976 | 1,153 | (1,173) | -50.4% |
| **Cat 5** *Waste from Operations* | 521 | 734 | 272 | 153 | 261 | (260) | -49.9% |
| **Cat 6** *Business Travel* | 17,753 | 19,281 | 5,545 | 1,022 | 3,582 | (14,171) | -79.8% |
| **Cat 7** *Employee Commute* | 10,166 | 9,963 | 3,396 | 2,350 | 3,783 | (6,383) | -62.8% |
| **Totals** | **113,988** | **140,951** | **66,991** | **56,848** | **64,537** | **(49,451)** | **-43.4%** |

| NET ZERO FORECAST (MTCO2e) | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2018 BASE YEAR | 2022 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 NET ZERO |
| 159,181 | 93,048 | 103,468 | 75,452 | 57,305 | 39,795 | 27,857 | 15,918 |
| **Reduction %** | **(42%)** | **(35%)** | **(52.6%)** | **(64%)** | **(75%)** | **(82.5%)** | **(90%)** |

°Note: Using the operational control approach, SAS includes emissions from leased office spaces in its scope 2 inventory instead of detailing separately in scope 3, Category 8: Upstream Leased Assets. Emissions are based on actual resource data collected from owned offices and averages are applied to leased space square footage.

**Energy efficiency**

SAS analyzes operational data to optimize development and delivery of its products and services to customers. The efficiency charts below highlight a sustainable trend of decreasing energy growth against increasing revenues. In 2022, SAS' revenue was about the same as 2021 while overall energy consumption increased 5.0%. SAS' long-term progress is resulting in a reduced environmental impact for the solutions it provides to customers. SAS' office energy use intensity improved by 38% from its 2010 base year – an increase of 10% this past year to 12.7 kilowatt hours per square foot. Emissions per square foot decreased 60% from the base year – down to 8.1 CO2 pounds per square foot. Efficiencies, regardless of the pandemic impact, helped SAS stay on pace to achieve its 2025 targets of 40% energy use efficiency and 50% carbon use intensity per square foot improvement for office buildings.

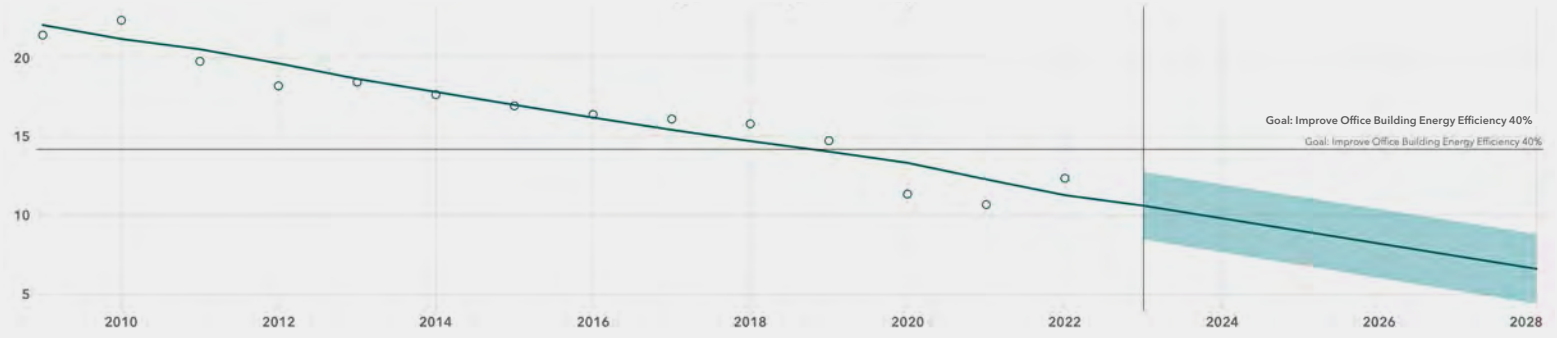
**Environmental surveys**

SAS annually completes the CDP and EcoVadis Supply Chain surveys to show its customers how environmental and social responsibility is incorporated across operations. In 2022, SAS achieved a CDP performance score of A for supplier engagement, ranking the company on CDP's leadership board and in the top 8% of all respondents. SAS achieved a B rating for climate change and ranks in the top 27% of companies reaching the management level. SAS achieved Gold recognition and is ranked in the 93rd percentile of all suppliers on the EcoVadis supplier assessment.

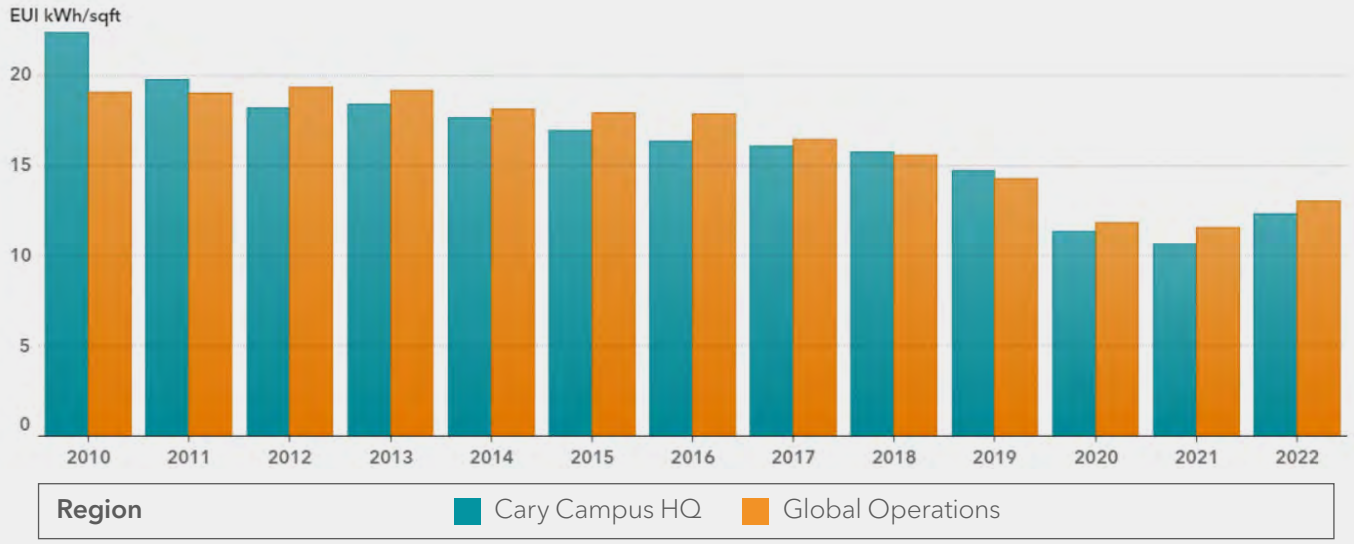
**Data center operations**

Energy for data center operations is the largest contributor to SAS' environmental footprint. A core growth area for SAS is its cloud and managed hosting business. SAS is deploying software for its customers in a variety of cloud-friendly configurations. This entails hosting data and solutions for those customers on infrastructure in its data centers, as well as on public cloud infrastructure. SAS invests in the highest-efficiency technologies in its dedicated computing facility at its world headquarters – emphasizing efficiency, flexibility and sustainability. SAS data center operations regularly achieve an average power usage effectiveness (PUE) of 1.35 or better. A PUE closer to 1.0 indicates greater efficiency – as every watt above 1.0 is consumed in support of the IT equipment – for cooling and power distribution.

**Energy Use Intensity (EUI): kWh/sqft**



## Office Space Energy Use Intensity (EUI)




**Solar and renewable energy**

Since 2008, when SAS broke the solar energy 1 megawatt barrier for the southeast US, the capacity of solar installations in North Carolina has grown to 8,179 MW – ranking the state No. 4 nationally. The clean energy industry in North Carolina now boasts more than 15,000 renewable energy systems and provides more than 100,000 jobs. SAS proved solar was viable, and the community responded.

SAS' nine global solar installations generated 12,111 gigajoules of clean renewable energy. Since 2008, SAS has generated more than 174,000 gigajoules of solar energy; approximately 57% was sold to North Carolina utilities in support of the state's Renewable Energy Portfolio Standard.

At a combined 2.3 MW in capacity, SAS' solar farms are located on 12 acres at world headquarters in Cary, NC. The photovoltaic (PV) solar arrays generate up to 3.4 million kilowatt-hours of clean, renewable energy each year.

**Electric vehicle support and the eco-commuter program**

The SAS Eco-Commuter Parking Program encourages employees to mitigate the environmental impacts of their daily commute by providing specially marked preferred parking spaces for plug-in electric vehicles (PEVs), low-emission vehicles and active carpool participants.

Eco-Commuter parking globally includes designated PEV spaces with access to 120 charging stations. SAS provides free charging for all employees and visitors at most of its buildings at headquarters and many global office locations.

Employees share the charging station infrastructure by following the SAS Electric Vehicle Supply Equipment Use Policy and Guidelines.

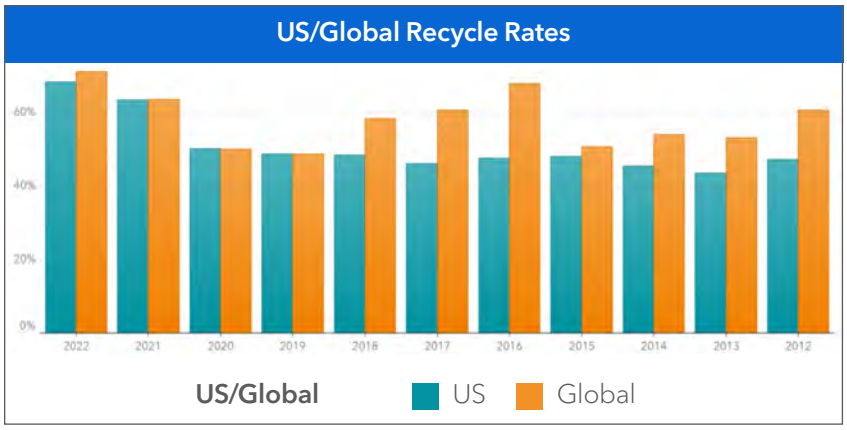
The SAS Eco-Commuter Program also provides subsidized employee vanpools and bike racks at all office buildings. SAS Belgium has free electrical bikes for employee use to either commute or run errands during the workday.

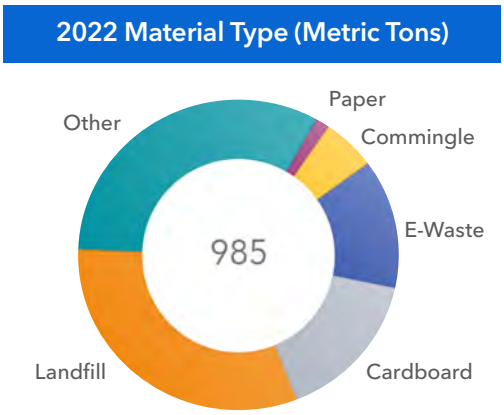
## 2022 DATA

- SAS' environmental footprint was mitigated by ongoing investment in energy-efficient technologies, smart energy sensors, solar, retro-commissioning of primary office buildings, and adoption of LEED best practices.
- Expanded baseline GHG inventory to include emissions across all scope 3 categories material to the way SAS conducts business. Base year emissions adjusted 44.5% from 110,467 to 159,623 T CO2e.
- Increased 2030 target from 50% to 52.6% and received target validation from SBTi.
- Received SBTi validation for SAS' 2050 net-zero target.
- As expected, expanded post-pandemic operations increased emissions across all scopes in 2022 (10.5%). Emissions are still down 41.7% from the 2018 base year.

- Despite expected post pandemic increases in business travel, emissions are down 79.8% (14,171 T CO2e) compared to the 2018 base year.
- SAS data centers decreased energy consumption by 4.4% down to 28.6 million kWh.
- Data center PUE improved 7.4% the past year, from 1.35 to 1.25.
- Achieved 60% carbon use intensity (CUI) target - down 19% the past year to 8.1 CO2 pounds per square foot.
- On track for 40% by 2025 energy use intensity target for office buildings - 38% base year improvement.
- Achieved ISO 14064-3 certification and limited assurance for scope 1 and scope 2 GHG emission calculations.
- SAS renewable energy generation from solar installations totaled approximately 3.4 million kWh, providing more than 5% of electricity needs for campus HQ office buildings.
- SAS continued support for plug-in electric vehicles and now has 120 electric vehicle charging stations with plans for more.
- In 2022, 79% of SAS energy consumption was sourced from electricity suppliers and on-site solar generation. Approximately 34% was used for building heating, ventilation and cooling.

| Regions | 2022 (Metric Tons) | 2021 (Metric Tons) | 2020 (Metric Tons) | 2022-21 Var. | 2022-21 Var. % |
|---|---|---|---|---|---|
| AP | 113 | 36 | 135 | 77 | 215.7% |
| CALA | 14 | 16 | 42 | -2 | -12.5% |
| EMEA | 294 | 142 | 205 | 152 | 106.9% |
| US | 564 | 380 | 383 | 184 | 48.3% |
| Total | 985 | 574 | 766 | 410 | 71.5% |




## Landfill Diversion

SAS is careful to operate its business in alignment with UN Sustainable Development Goal 12: To ensure sustainable consumption and production. The company's Waste Management Program measures and monitors the waste stream, with significant environmental benefits resulting from efforts at individual and local levels. For example:

- SAS provides on-site recycling for aluminum, batteries, cardboard, electronics, magazines, glass, newspaper, pallets, paper, plastic bottles, printer cartridges, scrap metal and more.
- SAS strives for 100% e-waste recycling from landfills.
- While SAS software is primarily delivered online, physical product deliveries are packaged with recyclable materials.
- Polystyrene-based disposables have been replaced with compostable options.
- Cafeteria food waste is composted and used by SAS landscapers; waste vegetable oil is recycled and converted into biodiesel fuel.
- Online resources significantly reduce paper consumption globally.
- SAS strongly encourages the use of biodegradable, compostable and recyclable materials, and minimizing single-use plastics.
- Building construction projects regularly exceed 85% waste diversion from landfills.
- Grassroots programs for employees reduce waste and encourage recycling efforts.
- Since 2009, operational waste diverted from landfills has increased from 26% to better than 68%.

**Paper consumption**

Like most businesses, SAS depends on paper products to conduct business operations, but SAS embraces the three R's – reduce, reuse and recycle – to help minimize impact of paper consumption.

**Reduce.** SAS has significantly reduced print volumes by delivering less physical media to customers. This includes reducing inventories and increasing efficiencies by using a print-on-demand model, convenient access to online documentation, education and awareness campaigns, and personal choices. SAS has also greatly reduced the number of physical printers in office buildings as an additional measure to limit printed materials. Since 2009, the average annual pages of paper used per employee has dropped from 2,526 to less than 200 – a 93% decrease. Globally, paper use for 2022 was 15.6% or 5.9 MT lower than 2021.

**Reuse.** When SAS does print, employees are encouraged to find creative ways to reuse scrap paper. Ideas include using scrap paper for notes, reprinting, packaging material for shipping and on-site composting.

**Recycle.** SAS recycled 13.3 metric tons of paper materials in 2022 – the 9% reduction from 2021 was largely due to employees using less paper while working from home. In 2021, the average recycled content for all paper used at SAS headquarters was 57%.

## 2022 DATA

Globally, SAS disposed of 985 metric tons of operational waste, including paper, food, cardboard, composting, aluminum and plastic, and other non-construction waste material. This amount is 71%, or 410 metric tons more than 2021 due to increased site activity from a transition back to normal operations.

Highlights from 2022 include:

- The SAS Print Center maintained FSC, SFI and PEFC certifications.
- SAS used 2% more paper compared to 2021 due to more employees returning to SAS offices. Despite the increase, SAS is still 81% below base year volumes.
- SAS diverted 68.3% of operational waste (672.3 metric tons) from landfills through recycling and waste management worldwide.
- For construction projects at campus headquarters, SAS diverted 99.9% of 4,650.5 metric tons of waste from landfills.
- SAS diverted 100% of e-waste from landfills by repurposing equipment for internal use, recycling and donating to educational institutions.
- The SAS café's composted more than 22 metric tons of food waste that was used as soil amendments and gardens at campus headquarters.
- When the sphagnum moss used by Facilities as a chemical-free cooling tower water treatment needs replacement, it is repurposed by landscaping as a soil amendment and grass seed topdressing.
- Click here to access dynamic environmental reporting using SAS Visual Analytics.

## Hazardous Materials

As a software company, SAS does not handle raw materials, conflict minerals, hazardous wastes or related supplies typical of traditional manufacturing. While risks are minimal, SAS places the utmost importance in abiding by industry best practices and governing regulations, including:

- Compliance with all Occupational Safety and Health Administration regulations for handling hazardous materials.
- Plans for the Spill Prevention, Control and Countermeasure rule that meet US Environmental Protection Agency regulations.

## 2022 DATA

- SAS did not have any spills of hazardous materials, oil, fuel, waste or chemicals, and did not have any fines for noncompliance with environmental legislation. SAS is very careful to minimize environmental impact as the company continues to grow. The company strictly adheres to environmental regulations.
- All reports are based on actual resource data collected from owned and leased offices, and intensity metrics applied to approximately 25% of leased office space that does not have access to actual data.

## Water Conservation

Water conservation is of paramount importance to SAS, with many facilities operating in communities where water shortages and water use restrictions are standard. SAS strives to operate its business in alignment with UN Sustainable Development Goal 6: Ensure access to water and sanitation for all. At SAS headquarters, coupling water-saving technologies and practice with increased employee awareness has resulted in significant savings. For example:

- Low-flow and electronically activated plumbing fixtures greatly reduce employee water consumption, saving 63% more compared to standard fixtures.
- Sphagnum moss, a naturally replenishable water treatment option for building cooling towers, increases equipment efficiency and reduces potable water consumption.
- Rooftop rainwater collection systems capture water for use in bathrooms.
- Cooling towers are replaced with high-efficiency models that use reclaimed water.
- Wastewater options, such as reclaimed and gray water, lower potable water consumption.
- Reducing and customizing irrigation schedules avoids overwatering plants.
- Collecting rainwater in retention ponds and cisterns minimizes stormwater runoff and provides water for landscape irrigation.
- Native and drought-resistant plants and warm-season grasses require less frequent irrigation.
- Timely repair of leaking pipes and the installation of low-flow toilets, shower heads and faucet aerators save at least 1 million gallons each year.

**Water discharge management**

Preservation of ecosystems in proximity to its operations is standard business practice for SAS and common across all operations. Facilities staff work closely with local water utilities to ensure compliance with all environmental regulations and are trained to manage stormwater runoff and pollution prevention. The Neuse River Basin is the primary water source for SAS headquarters and has the greatest risk of impacts from discharges and storm water runoff.

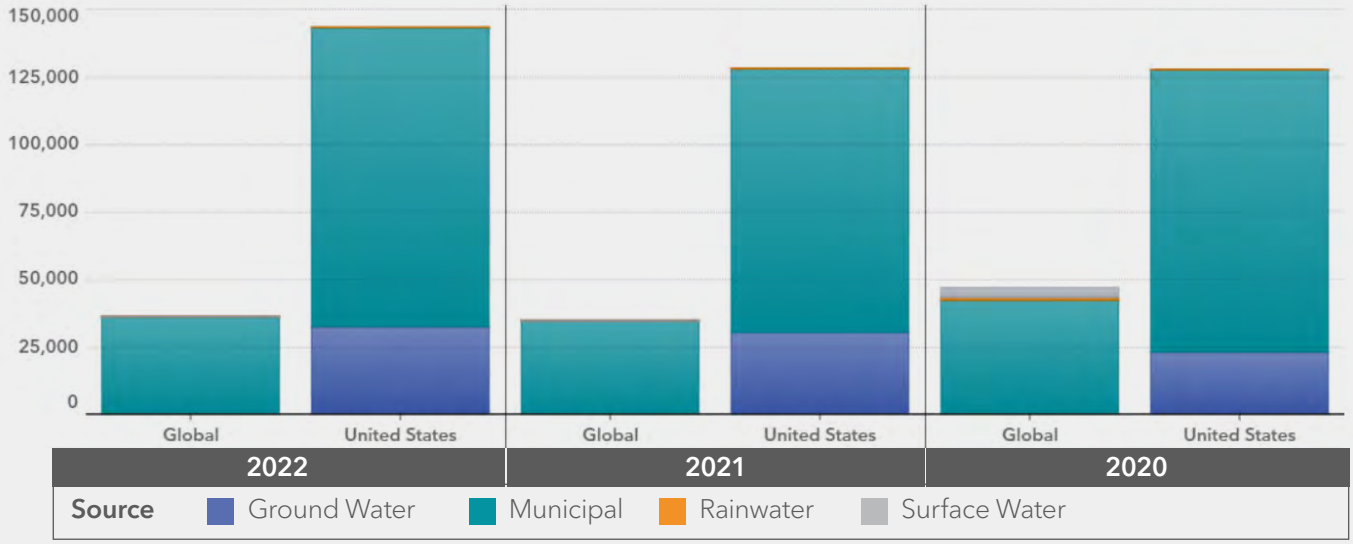
## 2022 DATA

- SAS used 172,133 cubic meters of water globally in 2022. The 12% increase from 2021 is primarily due to post pandemic return to work schedules.
- Despite increased operational schedules, ongoing efficiency improvements helped keep the employee water use intensity rate at 5.57 gallons per square foot.
- Returned 39% (54,970 cubic meters) of municipal water for treatment by local utilities.
- Expanded the use of sphagnum moss as the primary water treatment option in building cooling towers at campus headquarters. Data from its pilot project indicated this solution improved overall water quality, increased equipment efficiency, removed corrosive organic material, reduced potable water consumption, and minimized the need for chemical treatments.
- Click here to access dynamic environmental reporting using SAS Visual Analytics.

## Global Water Use by Region

| Regions | 2022 (Cubic Meters) | 2021 (Cubic Meters) | 2020 (Cubic Meters) | 2022-21 Variance | 2022-21 Var. % |
|---|---|---|---|---|---|
| AP | 9,555 | 9,681 | 10,166 | -126 | -1.3% |
| CAN | 2,905 | 2,542 | 3,564 | 363 | 14.3% |
| EMEA | 22,020 | 21,264 | 31,768 | 756 | 3.6% |
| LA | 1,478 | 1,323 | 1,477 | 156 | 11.8% |
| US | 143,392 | 128,074 | 127,983 | 15,319 | 12.0% |
| Total | 179,350 | 162,883 | 174,957 | 16,467 | 10.1% |

## Global Water Use by Region and Source




## Green Building Practices

SAS strives to be a leader in environmental sustainability and is committed to making a difference around the world. To achieve this goal, SAS embraces Leadership in Energy and Environmental Design (LEED®) guidelines for new construction, and remodeling and retrofitting existing buildings. SAS holds a Silver level national membership with the US Green Building Council (USGBC). Since 2005, all new office buildings and data centers at world headquarters have achieved LEED certification. For offices located in countries that do not use LEED, SAS is incorporating country-specific best practices and pursuing equivalent certifications for new construction and maintenance.

SAS has 11 LEED certified buildings, including:

**World headquarters: Building A – LEED Gold certified office building**

- At 419,924 square feet, Building A is SAS' largest building. It has 999 offices, a Global Education Center and a 700-seat capacity café with a bakery. Approximately 50% of its electricity needs are supplied by a 1 MW capacity on-site solar farm. It has 17 electric vehicle charging stations providing free electricity. Building A uses an innovative smart building analytics software solution co-developed by SAS to optimize building performance and improve energy and water efficiencies. The solution streams live data from equipment and sensors connected to the building management system to provide insights into how the building is performing. The USGBC Sustainable Business Awards recognized SAS Building A as the Most Innovative Project in the Carolinas in 2018.

**World headquarters: Building C – LEED Platinum certified office building**

- Building C includes an Executive Briefing Center, café and office tower for employees. Building C achieved LEED Platinum certification for water and energy conservation, the first for any building in Wake County and only the fifth in North Carolina in 2011. The building consumes 40% less energy and 50% less water by integrating highly efficient technologies and sustainable features such as photovoltaic panels that generate 100,000 kWh annually to support lighting and building

systems; solar thermal panels to provide hot water for the café; thermal slab floor cooling using water cooled in off-peak hours by building chillers to help maximize air conditioning efficiency; and a rainwater collection system with two 20,000-gallon cisterns that captures water for use in bathrooms.

**World headquarters: Building Q – LEED Platinum certified office building**

- The 220,660-square-foot office building features rooftop solar photovoltaic panels; highly insulated exterior wall and roofing systems; highly efficient heating and air conditioning; mechanical systems; energy recovery units and a water-side heat exchanger; extensive use of LED lighting; and reclaimed water use for cooling towers, irrigation and toilets. The parking lot has 12 spaces designated for plug-in electric vehicles with access to electric vehicle charging stations.

**Solna, Sweden: LEED Gold certified office building**

- Sweden's newest office building was awarded LEED Gold certification. The facility features geothermal energy wells for efficient heating and cooling, rooftop solar photovoltaic panels, a sedum-covered green roof and even on-site beehives, which provide natural honey for the cafeteria.

**Toronto: LEED Platinum certified office building**

- Toronto was the first LEED-certified new office building in Canada. With rainwater harvesting and energy conservation measures saving more than 6 million kWh of energy per year, the SAS building has served as an inspiration for many other new buildings in Toronto. In 2020, SAS Toronto was awarded LEED Platinum certification for Existing Buildings: Operations & Maintenance, by the USGBC.

## 2022 DATA

- Achieved LEED Platinum existing building recertification for SAS Building Q. This is the third SAS building to earn the US Green Building Council's highest performance award.
- The SAS Italy office in Milan installed a geothermal HVAC system expected to achieve energy savings of 35% and reduce emissions by 48%.
- SAS has Energy Star certifications for 11 of 13 core office buildings at campus headquarters.
- Approximately 1.9 million square feet (82%) of office and data center space at campus headquarters is LEED-certified.

## Biodiversity

SAS is careful to minimize impact on biodiversity and surrounding habitats as it grows and expands its operational footprint. Aligning with UN Sustainable Development Goal 15: Life on Land, SAS adheres to the US Green Building Council LEED guidelines for protecting natural environments and promoting biodiversity in areas where the company operates. Of approximately 900 acres at SAS headquarters, about 150 acres feature buildings, roads or other impervious surfaces. The remaining 750 acres are retained as old-growth woodland, lakes and streams, farmland, natural areas and approximately 60 acres of maintained lawns, primarily for employee recreation and landscaping.

The company applies LEED best practice guidelines for new and existing building projects, smart land use planning and campus landscaping, such as:

- Preserving large areas of open space in construction projects to minimize disruption to local ecosystems.
- Reducing the heat island effect by installing white reflective materials and planting sedum, grasses and various plant types on rooftops. Roof plantings increase insulation, minimize stormwater runoff and provide habitats for wildlife.
- Collecting rainwater from rooftop systems, retention ponds and cisterns to minimize stormwater runoff and provide water for restrooms and landscape irrigation.
- Restoring land disturbed by construction projects with native and adaptive drought-tolerant plants that help local ecosystems thrive and reduce dependence on water and chemicals.
- Growing local produce for SAS cafeterias in organically maintained on-site gardens.
- Hosting on-site apiaries at several SAS office locations to help promote the repopulation of bees in urban locations.
- Using sheep to naturally control vegetation growth under the company's solar panels.
- Planting pollinator-friendly plants as a source of food for local honeybees and other insects and preserving local milkweed and nectar plants to help migrating monarch butterflies.

With the world currently facing an unprecedented rate of extinction, SAS also helps NatureServe, an organization focused on protecting biodiversity, to use analytics and AI to measure the degree of imperilment for plants and animals. With SAS, NatureServe will be able to make its assessments more automated and reliable while gaining significant efficiencies and cost savings to the complex task of analyzing over 7 million known species of plants and animals on Earth.

SAS has also publicly committed to supporting the United Nations' Decade on Ecosystem Restoration.

## 2022 DATA

- SAS continued its nonprofit partnership with the International Institute for Applied Systems Analysis (IIASA), an international research institute known for its expertise in providing policy solutions on pressing concerns for humanity, with an artificial intelligence model that recognizes signs of deforestation. In 2022, SAS was recognized with a Gold Honor in Environment for using crowdsourced data helped to train deforestation recognition AI models.
- SAS was recognized by Fast Company for its commitment to making a difference in its rainforest protection through its work with the nonprofit Amazon Conservation. This work expands the scope and efforts for identifying and tracking illegal deforestation and expediting intervention by monitoring key parts of the Amazon.
- SAS was also recognized by Fast Company for using AI technologies and analytics to protect koalas by measuring and mitigating the effects of climate change such as bushfires and floods, and developing strategies to sustain Koala populations.
- SAS teamed up with North Carolina State University and several multinational companies to collaborate with researchers to drive innovation and address the most perplexing plant science challenges. Collaboration with researchers

on the university's NC Plant Sciences Initiative (NC PSI) will focus on the grand challenges facing food, health and agriculture.

- The SAS Environmental Program sponsored a three-week EcoPassport journey with EarthShareNC. The journey provided numerous activities for employees to learn more about climate change and how it's affecting biodiversity in North Carolina.
- At its headquarters in Cary, NC, SAS continued work with the local municipality to develop a floodwater predicting solution using sensor data, IoT analytics, artificial intelligence, machine learning and data visualization. The system provides real-time alerting and visualization of rising stormwater levels, allowing for automated response and citizen notification, data sharing with regional partners and prediction of future events.
- SAS continued its work with the World Wildlife Fund to improve DataOps, ModelOps and multichannel marketing to iteratively improve direct-response tactics to more effectively engage with donors.

## Awareness and Engagement

In addition to employing sustainability measures globally, SAS promotes environmental education and awareness. Activities include advocacy for clean energy, educational campaigns, speaking engagements, SAS solar farm visits, companywide Earth Day activities, articles on the internal green website, white papers and webcasts. By engaging with customers, employees, industry and world leaders, SAS seeks to extend the reach of its sustainability initiatives. SAS believes ongoing advocacy for sound climate policies resulting from unbiased data, research and collaboration will help establish a course of action that benefits sustainable, long-term health.

SAS works with leading international organizations to apply technology to address greenhouse gas emissions, as well as other environmental and social concerns. Customers use SAS software to generate power efficiently, promote better use of critical resources, minimize waste, assist environmental protection agencies, and improve the production and delivery of goods.

### 2022 DATA

- On June 5, World Environment Day, SAS was added as a signatory to the Carbon Call. The Carbon Call is an initiative that mobilizes collective action, investment and resources to strengthen a more reliable and interoperable carbon accounting for the planet.
- Initiated SBTi validation for SAS' net-zero commitment.
- Participated in NC's Clean Energy stakeholder meetings to help develop clean energy and carbon policy designs as recommended in NC's Clean Energy Plan.
- For Earth Day, employees participated in physical on-site tours of the apiary to learn more about beekeeping and the importance of pollinators in the ecosystem. SAS has 50 beehives including on-site apiaries at its Cary, Australia, Canada, UK, France, Sweden and Netherlands offices.
- Harvested 208 pounds of honey from the SAS HQ apiary. Jars of honey were available for employees in the SAS cafés for the holiday season.
- SAS also celebrated a variety of climate-related awareness dates with social promotions and communication stories including Climate Week, Global Goals Week, National Clean Energy Week, World Cleanup Day, Zero Emission Day and World Environmental Health Day.
- Advocated for the use of analytics to improve climate resiliency in an Earth Day blog with SAS domain experts.
- SAS is a regular participant in the EarthShare NC annual Corporate Earth Day Challenge. This year, the team spent an afternoon volunteering at the Kramden Institute inspecting donated equipment and installing software to support a charity esport gaming event which raised money for the American Cancer Society. After the contest, the computers were donated to underserved communities.
- Competed against other NC-based companies in an Earth Day activities challenge. Employees from various companies earned points for their teams using a Joulebug app

that logged daily environmental actions. Who won? Everybody who participated in the earth-friendly challenge!

- Recognized as a clean energy leader at the annual Conservatives for Clean Energy awards ceremony.
- Hosted the Research Triangle Cleantech Cluster (RTCC) 2022 Cleantech Innovation Awards and shared the importance of innovation to help keep the planet healthy.
- Sustainability was front and center at the IoT Slam Conference hosted by SAS. SAS' Chief Environmental Sustainability Officer (CESO) helped kick off the event by talking about the potential of IoT technologies in the fight to combat climate change.
- The CESO participated in an Environmental Social and Governance (ESG) panel at the Raleigh Chamber Annual Leadership Conference in Pinehurst, NC. The panel shared the impacts of emerging global ESG regulations and the growing business necessity for reporting ESG-related performance data with area leaders.
- The CESO also presented the business importance of reporting ESG data at the North American manufacturers conference hosted at SAS.
- In late summer, the SAS CESO was nominated to serve on a Federal Electric Vehicle Working Group Committee and help develop recommendations to improve the adoption and integration of electric vehicles, and related energy systems for the United States.
- SAS country offices participated in several initiatives including:
    - SAS Australia installed a beehive at its Sydney office, with the intent to monitor the health and behavior of the bee colony, specifically using deep learning with SAS® Viya® and Python to classify images of the hive's frames to monitor for diseases. The office is also using a non-invasive beehive monitoring system and SAS to understand the population trends and behaviors of the bees.
    - SAS Denmark has several sustainability initiatives including:
        - EV charging stations.
        - Company bikes for nearby work meetings.
        - District cooling produced from seawater intake as well as absorption and compression chillers that use surplus energy from the district heating in the summer months. This results in a highly efficient cooling production, far more climate-friendly than traditional air conditioning.
        - Recycling efforts including used IT equipment.
    - SAS Germany received a GoGREEN certificate by DHL for lowering its shipping carbon footprint.
    - SAS R&D India participated in several initiatives including:
        - Tree Planting Drive with Vasundhara Swachata Abhiyan (VSA) to plant and maintain trees in the locality of Pashan. The office contributed 12,500 to buy, plant and take care of trees in Pashan Hills, Pune.
        - Festive Fair to encourage usage of eco-friendly and sustainable products where eight NGOs hosted stalls during the festive season to sell products from sweets to decorative items, used in festivals like Diwali.
    - SAS Italy had several sustainability initiatives including:
        - Installed a geothermal heating system that will reduce CO2 emissions by about 67%.
        - Removed plastic packaged products from its vending machines.
        - Installed water bottle refill stations on every floor.
        - Installed three charging stations.
        - Partnered with Fondazione Sostenibilità Digitale, which to contribute to the achievement of the goals set by the UN 2030 Agenda for sustainable development, seeking to make technology a tool in the service of sustainability, and to develop a structured reflection on how digitization should be implemented on the basis of criteria of sustainability.
    - SAS Netherlands organized a litter pickup event around the SAS office for employees to walk during their lunch break to help clean the local office area.
    - SAS Singapore partnered with Habitat for Humanity Singapore with the Unlitter Red Dot activity in November for environmental cleanliness. With this

community cleanup program, employees cleaned an urban environment at Tanjong Pagar vicinity.

- SAS Spain collaborated with the Foundation Juan XXIII, where the office worked on the vegetable garden and composting efforts.
- SAS beehives across the world produced honey, include the Swedish office amount of 60 kg.
- SAS United Kingdom and Ireland started to develop a Carbon Management Plan (CMP), designed to set out and meet carbon reduction and CSR objectives and targets. The office has set 2018 as a baseline and is working on analyzing data from 2018 to 2021 for scope 1,2 and 3 emissions. The office has also completed several office waste audits in Marlow this quarter to gain better insight into staff recycling habits and to help identify more recycling opportunities. SAS United Kingdom launched its beehive tours in Marlow HQ, allowing small groups of employees to put on a bee suit and get some hands-on experience of beekeeping. More tours and education will continue in 2023. Jars of SAS honey were also available for employees to contribute to the Talent Foundry, including some specially branded SAS festive honey for Christmas.