Sustainability Strategy

2024

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In this briefing, we share our achievements, milestones, and commitments in sustainability. Our emphasis is on transparency, responsibility, and a vision for a better future.

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At Alces Flight, our mission revolves around championing sustainable supercomputing.

Through a dedicated commitment to advancing sustainability and fostering diversity and inclusion, we aspire to catalyse transformative change within the HPC industry and our broader community.

Our goal is to pave the way for a future where environmental consciousness and inclusivity are integral to the technological landscape.

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Introduction

The IT industry, known for its voracious appetite for resources, sees HPC/AI systems as significant contributors to our customers' power consumption and carbon emissions. While Alces' stewardship represents only a fraction of the overall carbon footprint associated with deploying new systems, we recognise our duty to advocate for sustainability across the entire lifecycle of customer systems.

Our objective is to foster an alliance of conscientious partners, suppliers, and customers committed to sharing experiences and best practices for promoting sustainable computing. This brief underscores our current efforts and outlines our future plans to further integrate sustainability into our corporate identity.

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About Us

Alces Flight is a leading UK-based service and software company specialising in High Performance Computing (HPC), Artificial Intelligence and Machine Learning (AI/ML), and analytics. With a strong emphasis on cost-effectiveness and efficiency, Alces Flight provides innovative solutions for research and engineering across various industries.

Recognising the impact of our activities on the environment, Alces Flight is dedicated to promoting sustainability in all our projects. We have defined four pillars of sustainability that guide our approach:

- Environmental Impact
- Community Engagement
- Innovation for Sustainability
- Education and Advocacy

Alces Flight stands as a pioneer in delivering cost-effective, efficient, and sustainable solutions in HPC, AI/ML, and analytics. With a rich history of over 15 years, we continue to drive innovation, reduce environmental impact, and foster collaboration to meet the evolving needs of our diverse client base.

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Strategy Going Forward

Welcome to our Sustainability and Carbon Management Strategy. This marks our inaugural brief, encompassing the period from January 1, 2023, to January 1, 2024. Within these pages, we showcase our performance over the past year, detailing the interventions and initiatives we have undertaken. We remain committed to transparency and acknowledge areas where improvement is needed, dedicating ourselves to making progress in the coming years.

The years 2020 to 2022 were significantly impacted by the Covid-19 Pandemic, reshaping the way we live, work, and conduct business. Despite the challenges, we have made necessary adjustments and progressed in various areas since emerging from the pandemic. We are now intensifying our efforts to enhance sustainability.

A noteworthy milestone achieved in 2024 was the publication of our Sustainability Strategy for 2024 - 2030. This document outlines our long-term goals towards becoming a more sustainable company by measuring carbon usage and setting minimisation targets. Moreover, we anticipate the possibility of advancing this target as we leverage efficiencies and embrace new technologies. Our overarching responsibility is to manage the impact of our decisions, ensuring they neither harm the environment nor society while enabling Alces Flight to thrive in the future.

Another focal point during this period has been the review of our reporting methodology and metrics to ensure they are meaningful, clear, and aligned with best practices. This strategic effort allows us to effectively monitor progress, quantify the impact of our interventions, and benchmark ourselves against industry peers.

Founded in 2007, Alces has positioned itself as a champion for sustainable supercomputing. With an environmentally conscious executive team, Alces Flight has the opportunity to lead in reducing emissions, laying the foundation for a truly sustainable future and inspiring others to emulate our actions. This is the opportunity we aim to seize as we implement our sustainability strategy across the organisation in the years ahead.

Waste Management
Strategy

Our dedication to sustainability goes beyond simple compliance*, reflecting a deep commitment to responsible business practices through our comprehensive recycling and waste management procedures. The separation of recyclable and non-recyclable materials, as well as segregation of electronic waste to retrieve base components, demonstrates a responsible approach to environmental stewardship.

Sending scrap metal to local third-party sites for repurposing aligns with the principles of the circular economy, promoting the reuse of resources. Additionally, breaking down electronic components like servers and switches to recover inner components for use in new material fabrication showcases a commitment to reducing electronic waste and promoting a more sustainable production lifecycle.

By implementing these recycling practices, Alces Flight not only contributes to environmental conservation but also sets a positive example for responsible business operations.

*   Hardware images used on this page are from an April, 2024 HPC cluster recycling exercise held at the Alces Flight Test Facilities.

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At Alces Flight, we focus on more than just the technical aspects of High-Performance Computing, we understand the importance of making small but meaningful changes to improve our community.

"Our Money, Your Choice"

Our commitment to sustainability extends beyond basic corporate responsibility; it is ingrained in our mission to contribute to a better reality. One of the ways we actively pursue this goal is through the strategic utilisation of our conference stands. Recognising these platforms as powerful tools for influence, we leverage them to expose individuals to a diverse array of charities that are actively shaping the world we inhabit. We take pride in our support of the following organisations:

CURESEARCH
FOR CHILDREN'S CANCER

WORLD NEIGHBORS

SHELTER

BLUE MARINE FOUNDATION

ONE TREE PLANTED

WaterAid

BREASTCANCER.ORG

MEDECINS SANS FRONTIERES
DOCTORS WITHOUT BORDERS

"Our money, your choice*," is designed to unite the HPC community, emphasising the importance of collective action in creating positive change. We recognise that even small, meaningful changes can lead to a substantial impact.

* Our money, your choice is a simple concept where those who visit our trade show booths have a chance to earn "Flight Tokens" to put towards charities. Through game play, conversation, and engagement this event has been a hugely successful experience helping to showcase the work of organisations connected to our customers and raising over £1,500 since launching in Autumn of 2022.

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Sustainable Reality

We believe it is our role to raise awareness in High-Performance Computing and AI communities of the environmental and social impacts of this rapidly evolving field. Alces Flight's Sustainable Reality events aim to highlight the consequences of our choices when building HPC and AI systems and champion a more sustainable and inclusive approach within the HPC community.

These events delve into the substantial environmental footprint made by HPC and AI systems, particularly in energy consumption, which significantly contributes to greenhouse gas emissions. Additionally, the production and disposal of HPC hardware is becoming a big focus, with hazardous source materials exacerbating environmental concerns. Our events educate participants on these aspects to elevate and advocate for eco-friendly practices.

We have successfully collaborated with speakers from prominent institutions, including universities, data centers, and organizations of varying sizes within the HPC and AI sector. These experts offer insights into the challenges and opportunities in HPC, providing a comprehensive view of technology's impact on human life and the environment. Moving forward, our commitment to hosting more events remains strong, aiming to drive focus on sustainability and inclusivity within our industry, fostering a socially responsible and environmentally conscious HPC community.

The diverse topics covered by our speakers in 2023 include:

- Introduction to Carbon
- Accessibility in Computing
- Hardware Reuse
- Inclusive Hiring
- Achieving Net Zero
- HPC 2030: Opportunities Ahead

Community
Outreach

As integrators, we value collaboration for addressing challenges and fostering innovation. We've actively engaged with diverse local and global communities, renewable data centers, conference series, and open-source projects to promote inclusivity and diversity in HPC.

Local and Global Communities: We have fostered partnerships with organisations such as HPC SIG, N8 CIR, Society of Research Software Engineering (RSE), CompBioMed, and Women in HPC (WHPC). These collaborations have provided us with invaluable insights and opportunities to contribute to the advancement of workplace inclusion.

Renewable Data Centers and Hardware: Through our alliances with EcoDataCenter and Deep Green, we are committed to supporting sustainable infrastructure within the HPC ecosystem. By prioritising renewable energy sources and eco-friendly hardware solutions, we aim to minimise our environmental footprint while promoting responsible practices.

Conference Series Participation: Our active involvement in prominent conference series such as SC Conference Series (SC), International Supercomputing (ISC), and Computing Insight UK (CIUK) underscores our dedication to knowledge sharing and community engagement.

'Move the Needle' Project with WHPC: In collaboration with Women in HPC (WHPC), Alces have sponsored a dedicated 12-month project to actively address the persistent challenges of workplace inclusion in the HPC industry. This endeavour aims to identify and implement strategies for fostering equity, diversity, inclusion, and accessibility (EDIA) in our field. Our aim is to integrate lessons learned within core WHPC frameworks from 2025 onwards.

From left to right: CIUK Student Cluster Challenge, Women in HPC Poster Session at ISC, and site visit to EcoDataCenter, Sweden.

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Our sustainability efforts at Alces Flight are deeply intertwined with our commitment to community engagement and social responsibility. By actively collaborating with diverse stakeholders and supporting initiatives aimed at promoting inclusivity and diversity, we strive to create a more equitable and sustainable future for the HPC industry. Together, we can harness the power of community to drive positive change and shape a more inclusive tomorrow.

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