We are accelerating our sustainability-related R&D efforts and collaborating with other companies and stakeholder groups to advance net-zero industries.

In this section:

2021 progress

- Invested in sustainability-themed hackathons and academic partnerships

- Launched our Sustainability Customer Advisory Board and joined WEF 2030Vision

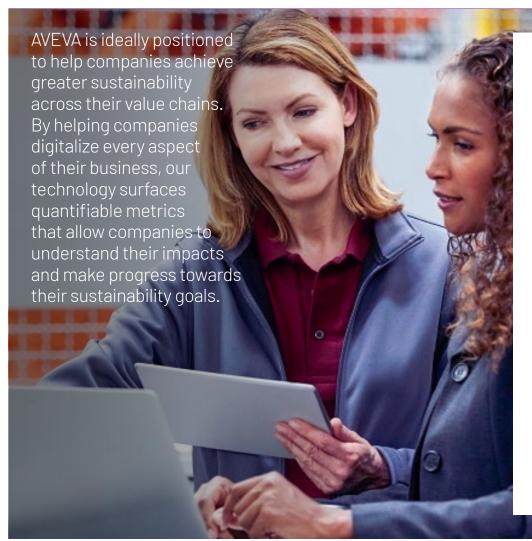- Secured key security and privacy program accreditations

2022 priorities

- Establish a baseline and goals for measuring the sustainability impacts of our software

- Leverage learnings from our external partnerships and collaborations to grow our impact

- Engage with R&D to embed principles of responsible design and use throughout the product lifecycle

- Continue to invest in enhanced cybersecurity, physical security and privacy training for employees

Enabling the Sustainable Industries of the Future

AVEVA is ideally positioned to help companies achieve greater sustainability across their value chains. By helping companies digitalize every aspect of their business, our technology surfaces quantifiable metrics that allow companies to understand their impacts and make progress towards their sustainability goals.

As a software leader, we help thousands of customers through our pioneering engineering and operations technology. Our solutions provide real-time data, overlaid with AI and predictive analytics that can support industries in improving efficiency, circularity, traceability and resilience. This impact is what we call our technology handprint and it is where we believe we have the biggest opportunity to make a positive global impact.

To help continue to embed sustainability in our business strategy, we are developing a consolidated enterprise-wide sustainability solutions roadmap. In FY21, we also launched our Sustainability Customer Advisory Board as an open forum to connect with sustainability leaders from across our customer base, to facilitate leadership discussions and help gather input for our strategy and approach, from some of the world's most widely recognized corporate sustainability leaders.

This advisory board brings together Chief Sustainability Officers from the energy, power, utilities, chemicals, food and beverage and consumer packaged goods sectors. We see it as an opportunity to catalyze fresh thinking and better understand the opportunities we have to support our customers on their sustainability journeys.

As part of our evolving disclosure strategy, we are also looking into developing better qualitative and quantitative metrics to measure the impact we are having through the outcomes we are enabling for our customers. We are partnering to understand the sustainability impact data they have and developing joint case studies.

Powering the Energy Transition

Our strong presence in the energy sector provides us with a significant opportunity to help accelerate the global transition to a lower-carbon energy system. From design to operations and analytics, industrial software has a role to play in the energy transition across many industries.

Our customers are using AVEVA software for many aspects of the energy transition, including emissions reductions, carbon capture and storage, advancing the hydrogen economy, optimization of biofuels production and supporting renewable energy generation, transmission and management.

Our Role in Driving an Accelerated Energy Transition

Spotlight on Green Deployments of our Software

Keeping the Lights On:
How data and AI can help optimize green power networks

Ontario Power Generation (OPG) is one of the largest clean power producers in North America, responsible for approximately 50% of the electricity generation in the province of Ontario. The OPG team uses AVEVA PI System combined with AVEVA Asset Performance Management, to optimize efficiency at its hydroelectric power (HEP) network.

In under two years, OPG's program has delivered over CAD$5 million in savings, and enabled better collaboration through the cloud. In one single "catch" on a major HEP plant near Niagara Falls, AI-infused pattern recognition identified a drop in air cooling performance before it triggered an alarm, enabling the team to intervene and rectify a fault in the temperature control system. Had it gone undetected, the fault would have caused the entire plant to fail, putting lives at risk and disrupting a critical sustainable power supply for the whole province.

Watch more here

Daniel Foster-Roman of Ontario Power Generation explains their sustainability focus.

Net-zero for Breakfast:
How creating a digital ecosystem can reduce cost and emissions

US-based food producer Kellogg made its first sustainability commitments in 2008, and in 2015 was one of the first companies to set science-based targets to help limit global warming to below 1.5°C. The team wanted to reduce energy consumption, in order to meet their ambitious carbon neutrality targets and drive net-zero throughout operations.

Kellogg installed AVEVA PI System to track and manage energy data in its factories, creating a digital ecosystem that benchmarked usage and identified opportunities for savings. As a result, Kellogg saved US$3.3 million each year, identified an additional US$1.8 million in rebates, and optimized abatement measures, such as the optimal use of HVAC units across plants. The system is now being rolled out across the company's global manufacturing fleet.

In addition to driving energy efficiencies and low-carbon innovation, our customers also rely on AVEVA software to tackle other sustainability challenges, from cleaner air and water to worker safety.

Next Generation Sustainability

Green R&D in Action

At AVEVA, we are committed to nurturing early-career talent, building on our team's creativity and collective passion for sustainability. We invest 14% of our revenues in R&D. Our regular sustainability-themed hackathons have inspired several new product features we are looking to bring to the market. In FY21, we also deployed a net-zero webinar series to support R&D learning and development on the scale and scope of the global climate challenge, and our opportunity to help customers through our sustainability solutions.

Go Green with Schneider Electric

As part of our committment to fostering the engineers of the future, we were delighted to support the Schneider Go Green student competition in FY21. We received over three hundred ideas from budding sustainability innovators around a new competition category called Decoding the Future, which focused on envisioning future approaches to the design, engineering and operation of critical infrastructure. Over the course of the competition we engaged more than 700,000 future engineers, all of whom wanted to learn about how AVEVA software can support sustainability.

Academic Programs and Collaborations

We also provide complimentary software to schools across the world, through our partnerships with more than 400 academic institutions, helping to train more than 20,000 students as part of our commitment to equip the next generation of experts with the technology skills they need

to advance sustainable industries. These partnerships are important, with many of these universities acting as innovation incubators. For example, our partnership with West Virginia University led us to develop new emissions tracking software and we are proud to support the work of the University of California's Davis to achieve a net-zero campus as outlined below.

From Campus to Living Lab

The University of California Davis campus (UC Davis) is on track to be carbon-neutral by 2025, using AVEVA System Platform combined with AVEVA PI System to optimize energy use and performance across the campus. In 2013, UC Davis had an ambitious goal: net zero greenhouse gas emissions from the campus's building and vehicle fleet by 2025, making it the first major university to pledge carbon neutrality. With more than 1,000 buildings comprising a total of 11.3 million square feet, it's a high bar to clear. In early steps toward carbon neutrality, UC Davis embarked on a few large projects with clear benefits, but when these had been realized, turned to the PI System to help identify opportunities for using data to drive more efficient use of resources, using the campus as a living lab. Using real-time data and dashboards from AVEVA, the UC Davis team can more efficiently schedule heating and cooling using wi-fi traffic as a proxy for building occupancy to drive decisions. As a result, gas use has fallen by 62% and students now also utilize the system during internships, using it for various engineering exercises and case studies.

Water, Water Everywhere

The northeastern US city of Salem in Oregon, uses the AVEVA PI System to monitor the quality of water in lakes and rivers around the state, to predict and prevent outbreaks of toxic algae. Blending historical data with live information from thousands of sensors, civic authorities can predict when the next outbreak is likely to happen. This allows them to take the preventative action necessary to preserve water quality, safeguard ecosystems and ensure the city's five million residents enjoy efficient and safe water for drinking, leisure and agribusiness.

Watch more here

See the team at City of Salem explaining the solution here

Farther south in Gwinnett County Georgia, water authorities combine live sensor data with pattern recognition AI from AVEVA, to optimize water purification across hundreds of collection points across a network of almost 5000 miles. By monitoring the data, authorities prevent outages before they occur, ensuring safe, sustainable drinking water for local people.

Another US city, Boise in Idaho, commissioned an innovative phosphorus removal facility for the Boise and Snake rivers, with AVEVA System Platform providing valuable visualization and control for the city's water purification system. Deployed in weeks, the system is easy to maintain with templates replicated across multiple sites, helping Boise protect the environmental integrity of the rivers and deliver clean water fast.

Recognizing our Responsibility for our Technology's Design & Use

At AVEVA, we understand that our solutions hold great potential to drive industry toward a more sustainable and just future. This potential comes with great responsibility to ensure that AVEVA's products are designed and used ethically.

At AVEVA we recognise the importance of defining and aligning on a shared understanding of responsible technology design and use, as a critical first step to building an internal program and contributing to a broader dialogue. While still early in this journey, we have started to bring together key subject matter experts from across the business to have this discussion and explore how to define the topic and organize around next steps.

We expect these next steps to build on our existing responsible technology practices, which include a strong focus on respect for privacy, human rights and environmental stewardship. Preliminary activities planned are:

- Working with our R&D team to better understand and formalize green architecture principles for software development. Adopting these types of principles will set efficiency and reduced energy use as primary targets when developing new solutions and product updates.

- Engaging our specialist AI teams to evaluate the applicability and potential adoption of frameworks already in the marketplace, that could enhance transparency and strengthen our commitment to responsible use of AI for the industrial sector.

- Continuing to educate our sales teams on our 'Know Your Customer' requirements for both direct and indirect customers, including advanced screening protocols for entities operating in high-risk countries and industry sectors.

- Exploring learning opportunities with other companies to better understand and manage potential human rights impacts related to technology design and use.

Earning and Retaining Digital Trust

In a world that increasingly demands a work-from-anywhere culture, how companies approach security and privacy has never been more important to ensuring business operations are resilient and compliant.

At AVEVA we are committed to earning and retaining the digital trust of our customers, employees and business partners through our data security and privacy policies, processes and practices. As a software company that serves an increasingly connected and complex industrial world, we take security and privacy seriously and strive to ensure alignment with the highest standards.

Our Security Program
Our Strategy

AVEVA approaches cybersecurity as a multifaceted discipline that requires a proactive approach across the business. We take a layered approach aimed at efficiently integrating people, process and technology across the enterprise. We place a strong emphasis on making security a foundational component of organizational culture. We use components that meet recognized standards and include encryption by default. By design, we seek to address cybersecurity in all relevant processes, including both our software products and day-to-day corporate business activities.

Our Framework

AVEVA's risk-based security framework is informed by globally-recognized third-party standards, including the US National Institute of Standards and Technology's Cybersecurity Framework (NIST) and ISO 27001.

Our Training

We maintain a robust security training program that is mandatory for all employees. Training addresses fundamental security risks and controls, including reporting of information security concerns.

Our Performance Measures

We closely monitor security training data to support achieving 100% employee training on data security and privacy compliance. We track our performance in external cybersecurity rating platforms, with a goal of ranking within the top quartile for our sector. As part of our commitment to building trust with our stakeholders and ensuring the effectiveness of our internal systems and control procedures, we have also been audited by the American Institute of CPAs (AICPA) for SOC 2 compliance.

We occasionally, albeit rarely, receive information requests from law enforcement authorities in the jurisdictions in which we do business. We respond to lawful requests from such authorities in compliance with applicable legislation.

AVEVA Product Security

Taking a Lifecycle Approach

We incorporate security protection into our system design and development process, including rigorous testing and validation. The safety and security of our customers' infrastructure and data is a top priority. All product teams have assigned security advisors and team members have annual cybersecurity training goals aligned with product technologies. We have also implemented an incident response and management process that is aligned with ISO/IEC 30111 standards. All notifiable data security incidents are reported to relevant authorities.

AVEVA's cybersecurity team manages a Secure Development Lifecycle process (SDL), governing the practices and procedures for all solution and service development efforts that have achieved ISASecure SDL certification. This multi-phase process is based on IEC 62443 standards and includes cybersecurity monitoring of AVEVA's solutions and penetration testing to identify vulnerabilities.

We successfully supported over 1,000 cloud deployments and achieved 99.95% uptime across our cloud offerings in FY21. Steps taken to increase security measures as a result of remote work during COVID-19 are now permanent, complementing longstanding network security, disaster recovery and systems measures at AVEVA that support business continuity.

Ensuring Cloud Security

Secure Development

Certifications
- ISASecure SDL
- ISO 9001
- SOC-2

Industry Bodies
- Cloud Security Alliance
- Center for Internet Security

AVEVA Global Cloud DevOps provides 24x7 monitoring of all AVEVA solutions and services. Cloud solutions are instrumented for automated deployment and monitoring whenever possible.

Training
Security Requirements and Risk Assessment
Threat Modelling in Architecture
Static Code Analysis Secure Code Review

Security Design Requirements
Verification Testing
Security Review Release Gate
ISO 30111 for Incident Response

Secure Deployment

Alliances
- Microsoft©
- Amazon©
- Auth0©
- Center for Internet Security©
- Cloud Security Alliance©
- Various security research organizations

Network and Domain Monitoring
Security Policies
Security Monitoring and Alerting
Security Logging Digital Tracing

Protecting Privacy through Policies and Practices

Data protection and privacy, including compliance with the EU General Data Protection Regulation (GDPR) and other applicable data privacy laws, are part of AVEVA's overall Business Ethics program. We believe in the importance of strong governance to ensure resilient data handling and storage processes, in strict compliance with laws, regulations and standards.

Our Privacy Program

Policies and Procedures

"Our Group Data Protection Policy includes test criteria and specific examples to help our employees in understanding their responsibility to safeguard personal data".

Tim Grieveson,
AVEVA Chief Information Security Officer

AVEVA uses compliance policies and guidance materials to ensure consistent and clear communication across the business and to third parties regarding privacy controls and how we enable individuals to exercise their rights concerning personal information. Our Group Data Protection Policy includes test criteria and specific examples to help our employees in understanding their responsibility to safeguard personal data. Templates for key topics, such as appropriate record keeping, are included, as well as links to reference materials on encryption, document storage, document sharing, data classification and handling. In FY21, AVEVA did not incur any monetary losses as a result of legal proceedings related to user privacy.

Training and Awareness

All AVEVA employees are required to complete annual training on key data protection principles. Legal information on AVEVA's data privacy arrangements is available online as part of AVEVA's public-facing legal resources page. This information includes key third party privacy notices, like our Privacy Policy and Customer Privacy Policy. These communications help external stakeholders understand how AVEVA seeks to ensure protection and processing of personal data in accordance with applicable data privacy laws, and whom to contact if they require further information or wish to make a complaint. Our Cookie Policy is also available on our website and includes guidance to help website visitors control use of their cookies.

Oversight and Compliance

AVEVA's Group General Counsel and Company Secretary holds global responsibility for data privacy compliance. We have dedicated compliance resources, including software and people, to enhance the management and monitoring of data protection and privacy risks. We carry out risk-based due diligence on contractual counterparties, including suppliers, customers, advisers, intermediaries and counterparties to corporate transactions. AVEVA's legal and compliance functions collaborate with our internal audit function and external advisers, in connection with risk-based monitoring to ensure compliance with our policies and general procedures across our global compliance program.