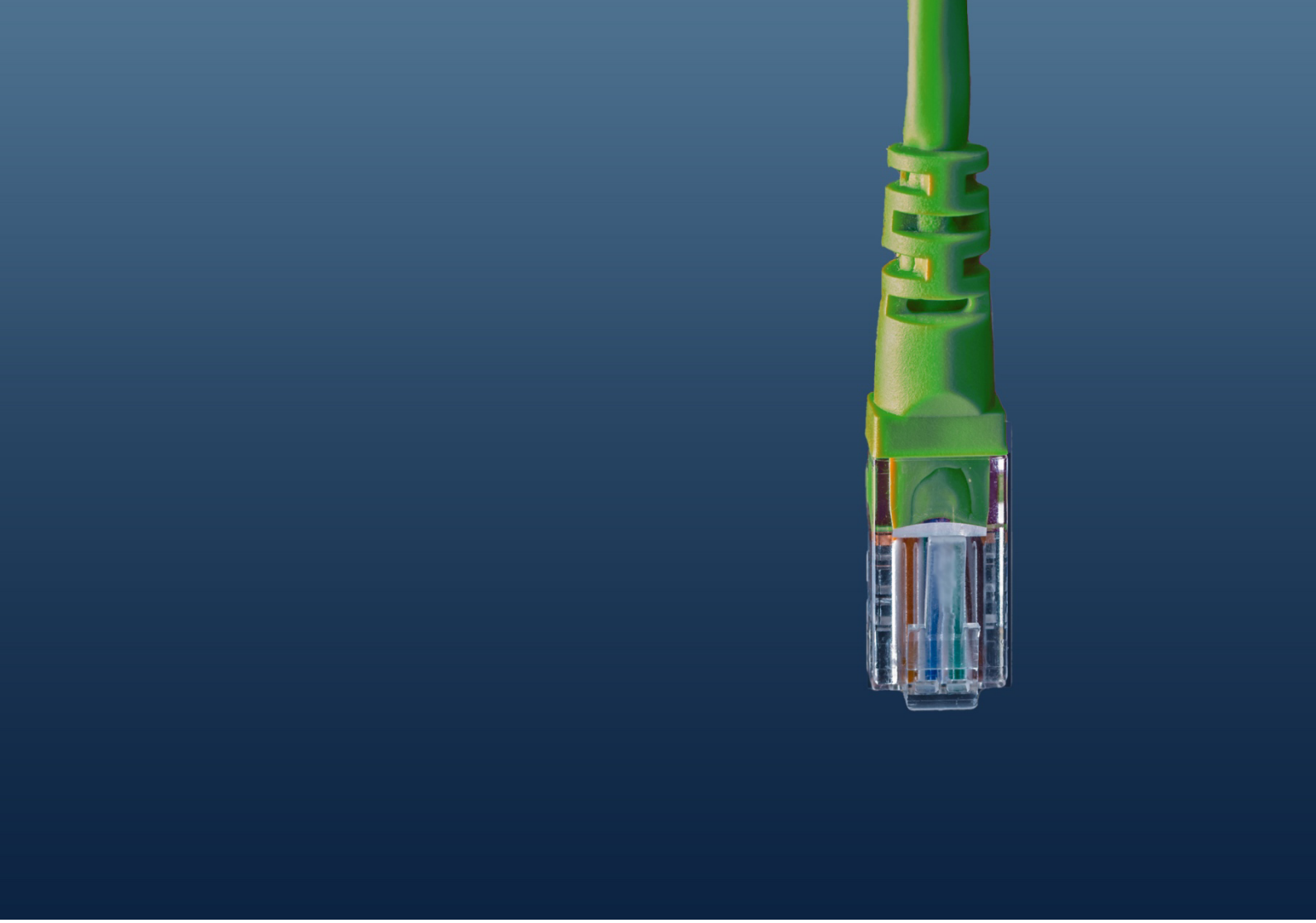


ALE Network Solutions Sustainability Statement

This document shares ALE ESG Sustainability initiatives for network products, and how the company solutions can help businesses achieve their sustainability goals.

Edition H1 2024

Alcatel·Lucent Enterprise

ALE solutions: Tech for Good

Alcatel-Lucent Enterprise has committed to a **proactive Environmental, Social and Governance (ESG) program**, in line with the Corporate Sustainability Reporting Directive.

ALE conducted in 2023 a double materiality assessment, utilizing the Corporate Sustainability Reporting Directive (CSRD) methodology, resulting in selection of materiality domains that **ALE will focus on in 2024 and further**:

- Greenhouse Gas Reduction (scopes 1, 2, and 3)
- Product Environmental Footprint
- Sustainable Procurement
- Diversity, Equality, Inclusion
- Labor Practices & Employee Development
- Privacy & Data Security
- Risk Management
- Human Rights

The targets ALE has established for these domains are shown in the figure below.

	Environmental Sustainability		Social Responsibility			Corporate Governance		
Topics	Climate Change Mitigation	Product Environmental Adaptation	Human Rights	Labor Practices and Employee Development	Diversity, Equity and Inclusion	Business Ethics, Transparency and Compliance	Data Privacy and Security	Strategy and Risk Management
Ambition	Reduce GHG emissions across Scope 1,2, and especially Scope 3 following science-based targets.	Design, manufacture and deliver products and services with the least planetary impact.	Safeguard human rights principles by embedding human rights across our value chain.	Provide a safe, flexible, and rewarding work environment that supports talent growth.	Ensure all employees feel valued and respected and are provided with equal opportunities for growth and success.	Uphold the highest standards of business ethics and comply with all regulations.	Establish digital trust with customers, suppliers and partners.	Ensure business resilience and sustainable growth in the ever-evolving telecommunications landscape.
2030 Targets	< 1.5°C Contribute to limit global warming following science-based target.	80 % Products having a sustainable passport available.	100 % Commitment to protect human rights at ALE and only partner with companies expressing the same commitment	<6% Employee turnover rate (resignations)	+30 % DEI Progression Index, reflecting advancements in diversity, equity, and inclusion.	100% Compliance rate and zero tolerance towards any unlawful or unethical behavior .	100 % Compliance rate with security & data privacy regulation.	+ 30 % Sustainable and responsible business.
Tech for Good	Optimize resources and energy for our customers while ensuring communications and network services.		Provide users with robust and resilient communications services and solutions to support employee development. Enhance and serve the communities where employees, partners and customers live and work.			Deliver the highest level of security and privacy services. Deliver solutions working in extreme conditions to support vital connection services.		

As part of the ESG targets on Environmental Sustainability, ALE is working on improvements in areas such as sourcing and the manufacturing of hardware to **reduce the impact on global warming and to report regularly and publicly on the progress**.

This is done, for instance, by decreasing **water and energy consumption** and reutilizing the heat produced. The amount of packaging used and substituting cardboard for plastic is also minimized. As well, ALE is carefully considering the most energy-efficient means of **transportation**.

ALE adopts an eco-design approach to conceive new solutions by **optimizing product performance**, reducing environmental impact, and promoting the circular economy. This leads to including more repairable components, for example.

Eco-design also aims to facilitate the reconditioning, refurbishment, and reuse of products for a second life.

In addition, ALE invests to maximize the **lifespan of the equipment.** With ALE's hybrid and openness strategy, while guaranteeing an optimal level of cybersecurity, the lifespan of systems is optimized. This approach aims to bring new dematerialized services so that existing customers can benefit from the best of innovation without needing to change their system, protecting their investments in the process while limiting their carbon footprint.

ALE has been recognized for its sustainability efforts by receiving the **EcoVadis Silver Medal** in 2019, 2021, 2022 and 2023.

💡 EcoVadis is an external assessment, focused on 21 sustainability criteria, grouped into the categories of Sustainable Procurement, Environment, Labor & Human Rights, and Ethics.

Based on our most recent assessment, **ALE has been awarded a Silver Medal rating**, in the area of manufacturer of communications equipment, **ranking in the** top 11% **of participants across the industry**.

Download ALE EcoVadis 2023 certificate here

ALE ESG Initiatives & examples

At the time of writing this document, several significant initiatives in the areas of Greenhouse Gas Reduction and Product Environment Footprint can be shared:

Developing energy-efficient products and solutions

ALE is committed to the design and development of energy-efficient products. ALE products – particularly OmniSwitches, as PoE hardware - are designed to **minimize energy consumption during operations and to provide energy-efficient solutions**.

Use of raw materials for hardware design

ALE OmniSwitches & OmniAccess Stellar access points comply with the following regulations:

- **CE standards**
- **RoHS (Restriction of Hazardous Substances)** directive - Limits the use of hazardous materials in electrical equipment. *This regulation is designed to reduce pollution, prevent environmental damage, and promote recycling*.
- **REACH** (Registration, Evaluation, Authorisation and Restriction of Chemicals). The overall aims of this regulation are to *provide a high level of protection of human health and the environment from the use of chemicals.*

Recycling & Waste reduction

ALE is implementing a dedicated **Product Lifecycle Process (PLP)** that guides product development from requirements through the development cycle, transition to manufacturing, sales, product shipment, end-of-life and end-of-support as the final phase.

Packaging materials used in product shipment comply with current regulations:

- European Packaging Directive (94/62/EC)
- US Toxics in Packaging Restrictions (Consolidation of state regulations)
- ALE products comply with the **WEEE (Waste Electrical and Electronic Equipment)** directive, which aims to reduce waste electrical and electronic equipment by encouraging recycling and reuse. ALE network equipment in question is designed to facilitate disassembly and recycling. ALE take care of their disposal and recycling, in compliance with the directive 2012/19/EU

- ALE also provides its partners and users in France with **free collection and processing services for discarded equipment**.

These services are provided by the Ecologic & Screlec eco-organizations in mainland France and the French Overseas Departments and Regions (DROM).

- **OmniSwitches** packaging **contains 70% recycled content for corrugated cardboard** and **20%+ recycled content for foam**.
- The chassis and lids of all OmniSwitch products are now made with **over 90% recycled content**.
- **OmniAccess Stellar** access points packaging **contains over 80% recycled content for corrugated cardboard**.

Supplier collaboration and guidance

To ensure that the procurement of components or systems is compliant with regulations (and within the framework of the environmental strategy), ALE issues specifications for its suppliers to require compliant materials and relevant declarations.

Alcatel-Lucent Enterprise specifications on restricted materials includes details about:

- Legislation applicable to restricted materials
- Restrictions applicable to materials
- Applicable material disclosure requirements

These **requirements and restrictions are mandatory** for components and materials supplied to Alcatel-Lucent Enterprise for use or integration into products and solutions.

Manufacturing partners

Our manufacturing partners are required to adopt similar standards as ALE regarding environmental practices and regulations. We require and control on a yearly basis that they hold the **ISO14001 certification** (which specifies the requirements of an environmental management system).

Transportation

In 2024, ALE will implement a new packaging policy that will **eliminate all foam and plastic**.

- This new packaging **reduces the weight of the packaged product by 31%**
- And the **size of the package by 17%.**

💡 *These efforts improve efficiency and reduce the environmental impact of product transport.*

Energy efficiency

- ALE OmniSwitches support **Dynamic Power Allocation over Ethernet (PoE)** which ensure that PoE usage on the network consumes only the required energy by the devices being powered. This functionality enables **smart management of the PoE budget of OmniSwitches** to allocate specific power level to a connected device and define **PoE budget priorities** by type of devices (list of critical devices for example).
  💡*This feature maximizes the efficiency of product power consumption.*

- Wherever possible, ALE OmniSwitches are equipped with an **adaptive active cooling system** that varies the fan speed according to the actual operating temperature, thus reducing energy consumption.

- Power supplies of OmniSwitches are designed to be **over 85% energy efficient**, which involve **minimal energy loss and heat dissipation**.

💡*This level of energy efficiency means less wear and tear on switch components, and a more moderate load on the cooling system.*

- ALE OmniSwitches comply with the **Energy Star 80Plus requirements – Gold or Platinium level** depending on hardware model.

- ALE OmniSwitches comply with **IEEE 802.3az Energy Efficient Ethernet (EEE) requirements**. EEE reduces the energy consumption associated with Ethernet links during periods of low data activity.
  💡*This can participate to reduce power consumption by 50%.*

- **OmniAccess Stellar Access Points**:

  - Are compliant with specific requirements from **Loi Abeille in France** requiring to be able to turn off completely the Wi-Fi access points on demands, in schools or in buildings by users themselves.

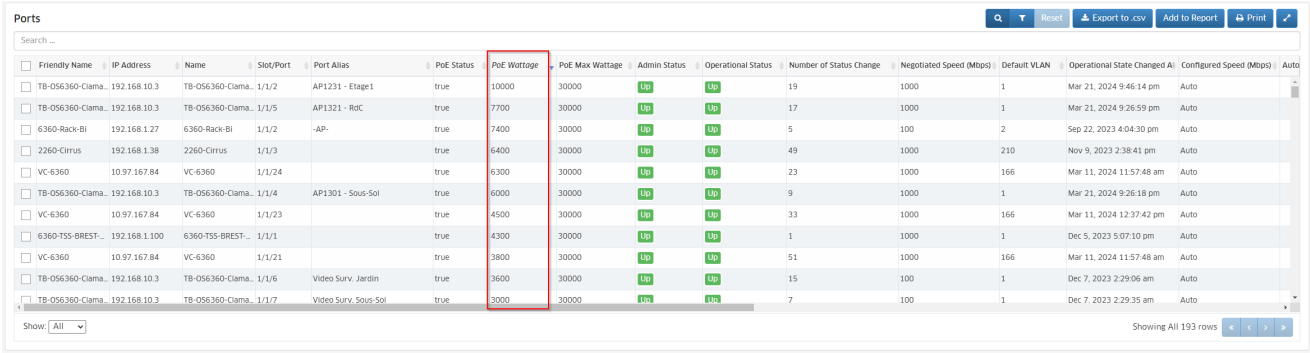
  - Enable the use of the WMM **Automatic Power Save Delivery** (APSD) feature to allow connected devices to save battery life. Connected devices (especially devices running real time applications) can save battery while connected to the WLAN network by entering **standby or sleep mode**. The WMM APSD feature allows **smooth transition in and out of sleep mode.**

💡*Whenever the device enters power saving mode or "sleep" mode, the Access Point can buffer data and hold it. The device chooses the time to wake up and receive data packets to maximize power conservation without sacrificing the quality of service*

- On OmniVista, ALE Network Management platform, network administrators are able to **schedule specific slots on which AP radios are turned off** (can be done for each specific SSID) and therefore reduce energy consumption.

💡 *Example: on Fridays afternoon, when the physical presence is limited into the building administrators can turn off guest SSID or some AP radios (2,4 GHz, 5 GHz and/or 6GHz) to limit energy usage*

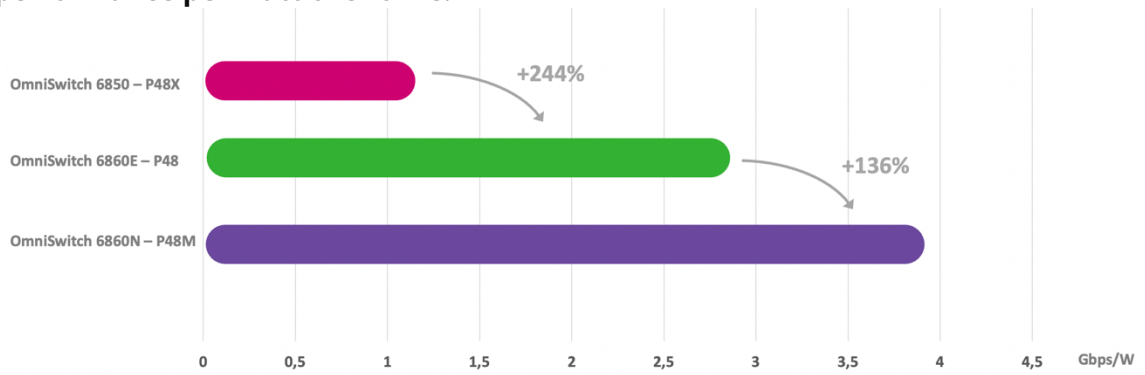
- From OmniVista Network Management platform, administrators can get **visibility on OmniSwitch PoE budget consumed in real time**.



Throughput efficiency

By focusing on incorporating the latest advancements in hardware, software, and design methodologies, ALE Network division teams are able to **design network products with a significantly improved throughput efficiency in terms of Gbps/W year over year**.

By comparing the throughput efficiency of these three generations of products, it becomes evident that the ALE Network division team has made significant strides in improving **performance per watt over time**.



💡 *This improvement is likely to continue we are committed to stay at the forefront of technological innovation and continue to incorporate the latest advancements in hardware, software, and design methodologies into our product development process.*