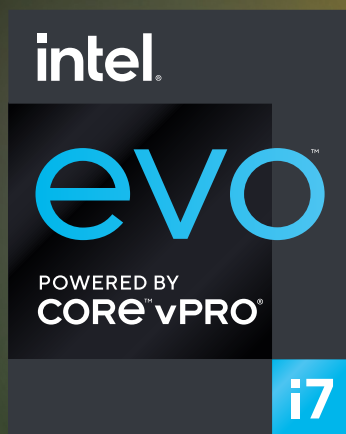


How making
eco-friendly
changes will
benefit your
business

Smarter
technology
for all

Lenovo



Intel® Evo™ platform



Summary of benefits

This document examines the benefits of adopting a more environmentally-conscious approach in every aspect of your operations.

It also highlights the advantages of choosing to partner with like-minded organisations, especially those that can help you develop your business in a number of key areas.

In brief, developing, implementing and championing environmentally-friendly strategies holds out the promise of:



Increased preparedness for future legislation and costs



Improved recruitment and retention of quality employees



Healthier work environment for employees



Enhanced brand image and increased competitive advantage



Overall positive impact for the environment



How did we get where we are today, and what can we do about it?

Speed matters

Global warming, climate change, increased pollution and emissions: technology, in one form or another, is held responsible for damage to the environment.

But here's the paradox. We demand ever-rising living standards, greater inclusivity and accessibility for all, throughout modern life.

And what enables us to be more innovative, more productive?
What allows us to make the giant leaps forward?

Technology

It has driven human advancement since the plough share elevated agriculture from slash and burn to settled farming; and accelerated progress since the dawn of the industrial age.

At the same time, consumers are becoming more and more aware of eco-issues, and organisations are striving to deliver against increasing rigorous environmental, social and governance goals.

So here's the second paradox. To mitigate the effects of all the technology we've been using up until now, we need more technology.

This new technology has to be smarter, more focused, and cleaner, adding to the credit side of the balance throughout its use.

Technology that is in the hands of talented, ambitious employees, collaborating from hybrid offices, homes and remote locations around the globe, brings innovative ideas to life.

Those ideas start with design, and extend through manufacturing and the supply chain.

Circular product design

Circular product design means recycled material content in manufactured products, material recycling after product usage, and products which are easily dismantled for recycling.

Product sustainability describes products that use less water or natural resources to manufacture. It also applies to products that are easier to make, are built from durable materials, and are simple to upgrade.

“Companies’ emissions don’t end at the factory door. In fact, CDP data shows a company’s supply chain emissions are over 11.4 times greater than its direct emissions on average. Meaningful corporate climate action means engaging with suppliers to reduce emissions across the value chain.”

Sonya Bhonsle
Global Head of Value Chains

¹ <https://www.globaldata.com/71-of-european-consumers-see-the-importance-of-living-an-ethical-or-sustainable-lifestyle/>

Manufacturing

Lean manufacturing success – removing waste from operations, fostering greater efficiency, and improving financials – has led to the emergence of ‘green’ manufacturing, where environmental considerations are integrated into lean initiatives.

These include maintenance, quality, and production processes to improve recyclability and reuse of materials, as well as the use of renewable power and a focus on energy efficiency.

Consumers and business buyers increasingly seek sustainable products and services. **According to one study, almost 75% of all Europeans recognise the importance of living an ethical and sustainable lifestyle¹.** Genuinely green policies and initiatives can put your organisation front of mind in competitive situations.

Supply chain

Extending sustainability to partners is key. According to Sonya Bhonsle, Global Head of Value Chains, at CDP, **“Companies’ emissions don’t end at the factory door. In fact, CDP data shows a company’s supply chain emissions are over 11.4 times greater than its direct emissions on average. Meaningful corporate climate action means engaging with suppliers to reduce emissions across the value chain.”**

Large e-commerce operations will likely take the next step by incorporating more stages of a product’s carbon footprint, especially if consumers are willing to absorb this cost.

Eco-issues matter to consumers and business purchasers

As well as existing and proposed legislation, the mood is changing in Europe and beyond. Citizens are convinced of the need for a more environmentally-friendly approach in every aspect of their lives.

That applies whether they are consumers buying goods and services; business purchasers sourcing solutions for their own organisation's use, or as a component in their output; or company staff seeking a better employee experience.





Research shows that 61% of European consumers are concerned about the state of the environment.

Global warming (50%) and reducing their carbon emissions (52%) are top of mind, and these issues have led to consumers actively looking to improve the wellbeing of the planet by changing the way they act¹.

Over three-quarters of respondents to a recent survey² agree that environmental issues have a direct effect on their daily life and health. They believe that the most effective ways of tackling environmental problems are to ‘change the way we consume’ and to ‘change the way we produce and trade’.

Individuals – in their personal or business lives – tend to equate ‘greener’ with ‘more trustworthy’ and ‘more desirable’ when making choices between products or companies. But they are quick to call out ‘greenwashing’ – any unsubstantiated claim that a company’s products are environmentally-friendly.

They are convinced by facts, not rhetoric. And it is preferable to be seen as a leader, anticipating and driving change, than a laggard, reluctantly complying.

¹ <https://fmcggurus.com>

² Source: https://data.europa.eu/euodp/en/data/dataset/S2257_92_4_501_ENG

Sustainable packaging

Recent years have seen an increase in the amount of reused and recycled packaging. In part, this is to meet the demands of social movements, consumer pressure, and regulation.

However, far-sighted organisations have realised that eco-friendly actions can help to reduce their carbon footprint, and increasingly encourage suppliers, contract packagers, and distributors to follow their example.

Reducing the weight and volume of packaging, and redesigning for minimal dimensions, has a positive effect on CO₂ emissions. So does the use of new, lighter bio-materials, such as bamboo, and bagasse – a fibrous material derived from sugarcane or sorghum stalks. **Lenovo achieved a 6.7% efficiency improvement in transportation CO₂ emissions using packaging made from these bio materials¹.**

Another way to reduce your company's carbon footprint is to cut out layers of distribution and transportation, through zero-touch deployment of computing devices to remote-working employees. Microsoft Windows Autopilot simplifies the Windows device lifecycle, for both IT and end users, from initial deployment to end of life.

¹ lenovo.com/esg



Energy conservation Carbon mitigation

Renewable energy


We're all familiar with the concept of renewable energy produced using sunlight, wind, water, heat from the earth's surface, or biomass. Renewable energy emits no net greenhouse gases, which is why it's also called 'clean energy'. This clean energy will play a major role in achieving the EU's energy and climate objectives. It has the potential to provide new jobs, create new industrial opportunities and contribute to economic growth.

In 1991, Denmark installed the world's first offshore wind farm. In the same year, Germany introduced Europe's first 'feed-in-tariff' for renewables; a policy mechanism designed to accelerate investment in renewable energy technologies. In data centre cooling, Lenovo has led the evolution from energy-saving concept to performance-enhancing and energy reuse reality. The company's Neptune™ solution utilises multiple liquid-based cooling technologies that efficiently extract heat from high performance computer (HPC) systems, to reuse it for heating elsewhere.

In 2008, Europe also became the largest market for solar photovoltaics, and the Olmedilla Photovoltaic park in Spain – a 60 megawatt power plant, the world's largest at the time – **generated enough solar energy to power 40,000 homes per year**. As the rest of the world increasingly uses and produces renewables, Europe has continued to be a frontrunner. **In July 2019, Portugal achieved the lowest cost of a solar photovoltaics park worldwide – a record which still stands.**¹

¹ https://ec.europa.eu/info/news/focus-renewable-energy-europe-2020-mar-18_en

² <https://www.epa.gov/greenpower/green-power-partnership-top-30-tech-telecom>



'Renewable' is also about 'reusable'. Intel®, a top EPA-ranked green power user,² returns 80% of the water it uses.

Carbon offsetting

Carbon offsetting is a method of compensating for greenhouse gas emissions from certain unavoidable emission-intensive activities. The organisation responsible for the emissions funds activities that lead to a reduction in greenhouse gas emissions elsewhere – for example, by co-funding the erection of a wind power station in a developing country, or creating carbon sinks by planting woodland. As the trees grow, they absorb and bind carbon dioxide (CO₂). Practically any activity that involves the release of greenhouse gases can be offset.¹

Lenovo's own CO₂ Offset Service helps organisations address social responsibility concerns. It assists customers to achieve their sustainability goals, offering a tailored approach to CO₂ compensation, based on realistic emission by product, covering production, shipment and a typical up-to-5-year lifecycle. Lenovo partners with leading certified providers of CO₂ Offset Services and the United Nations to provide a seamless process.

¹ https://www.dehst.de/EN/climate-projects_maritime-transport/carbon-offsetting/carbon-offsetting-node.html



Innovative use of recycled materials

It will surprise no-one to learn that industrial production generates a staggering amount of waste. 16 million tonnes are estimated to be generated each year by the EU textile industry alone, according to a 2017 statement by the European Commission.

In 1950, 1.5 million tonnes of plastic waste was produced around the world per year. By 2015, that number had shot up to 322 million tonnes¹; in the EU, only 30% of that plastic waste is recycled, the remainder incinerated or sent to landfill².

However, it's not all bad news. Computer manufacturer Lenovo was ahead of the curve in its use of recycled plastic³. In 2007, the company began using **30% Post-Consumer Recycled Content (PCC)** recycled plastic. By 2009, Lenovo was producing notebooks with **30% PCC recycled material** from end-of-life electronic equipment. And in 2010, **over 10% of all plastics purchased from suppliers contained recycled content**.

The company has since collaborated with a PCC supplier to develop closed-loop PCC (PCC sourced from end-of-life IT and electronics equipment), and introduced PCC and Post-Industrial Recycled Content (PIC) packaging materials. And in 2018, Lenovo expanded the use of closed-loop PCC to more products.

^{1,2} <https://www.europarl.europa.eu/news/en/headlines/society/20181212STO21610/plastic-waste-and-recycling-in-the-eu-facts-and-figures>

³ <https://www.lenovo.com/gb/en/sustainability-recycled-content>



Circular economy

Responsible organisations play a crucial role in developing a resource-efficient, circular economy where nothing is wasted. It's about maximising value throughout a product's lifecycle and keeping end-of-life products out of landfills.



For example, smarter design allows products to be repaired, re-used, remanufactured and then recycled. It's good for business, for citizens and for the environment.



Reverse supply chains repair, refurbish, and reintegrate products or parts that still have serviceable life. And many corporations offer 'take-back' programmes, for customers to recycle their old devices, batteries and packaging.

But these are not just admirable examples of innovation at work. A greener economy means new growth and job opportunities. Eco-design, eco-innovation, waste prevention and the reuse of raw materials can bring net savings for EU businesses of up to EUR 600 billion.

The Europe 2020 Strategy is the European Commission's plan for smart, inclusive and sustainable growth. The Commission actively supports businesses, administrations and consumers so that the Union becomes a resource-efficient, green, and competitive low-carbon economy¹.

¹ https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester_en

Social impact



Social impact is about how your organisation's actions affect individuals and groups within and outside your business.

That may be how accessible your products and services are to everyone, regardless of physical attributes or abilities. Or it may be a determined effort to make those products and services more environmentally-friendly – to contribute to the green economy. For example, Intel® Core™ vPro® processors are made with conflict-free minerals.

One definition of the green economy describes it as providing prosperity for all within the ecological limits of the planet; people-centred, designed to create genuine, shared prosperity; inclusive and non-discriminatory; safeguards, restores and invests in nature; geared to support sustainable consumption and production; and guided by integrated, accountable and resilient institutions.

While there's still a long way to go, it's obviously worth taking the green economy seriously. A GlobalWebIndex survey¹ found that over half of adults under 55 would be willing to pay more for environmentally-friendly products, a number rising to 61% for those aged 22-35.

Label Insights shows that 73%² of shoppers would be willing to pay more for a product that offers complete transparency about its manufacture. And a 2018 European Commission study³ revealed that transparency in product information made consumers almost three times more likely to engage in the circular economy by buying more sustainable goods.

It's not just consumers or business purchasers who have an interest in a company's Environmental Social Governance (ESG) success

– investors are also watching closely. Some screen out poor ESG performers, assuming that low ESG ratings will result in weak financial results. Some seek out high ESG performers, expecting exemplary ESG behaviours to drive superior financial results, or wishing, for ethical reasons, to invest only in 'green' funds⁴.

Of course, your own employees are critically important to any measure of social impact. Diversity and inclusivity are recognised as structural elements by forward-thinking organisations, with no less than 60% of Fortune 500 companies having a Chief Diversity Officer, or a leadership role with a similar title⁵.

But what does that mean in practice? Tasked with creating an environment where women and minorities can flourish, CDOs often have a job description that includes recruitment, human resources, marketing, ethics and legal compliance. They are responsible for facilitating and enabling an inclusive working environment – one in which all employees feel that they belong without having to conform, that their contribution matters, and that they are able to perform to their full potential, regardless of their background, identity or circumstances.

An inclusive working environment and a diverse workforce is a lot more than just window dressing. It can also affect a company's bottom line by reducing employee turnover, boosting innovation and attracting new business. In a broader context, social also includes human rights, labour standards in the supply chain, any exposure to illegal child labour, and more routine issues such as adherence to workplace health and safety. A social score also rises if a company is well integrated with its local community and has a 'social licence' to operate with consent⁶.

¹ <https://blog.globalwebindex.com/chart-of-the-week/green-consumerism/>

² <https://www.labelinsight.com/transparency-roi-study>

³ https://ec.europa.eu/info/live-work-travel-eu/consumers/sustainable-consumption_en

⁴ <https://hbr.org/2020/09/social-impact-efforts-that-create-real-value>

⁵ <https://www.wsj.com/articles/SB10001424052970203899504577129261732884578>

⁶ <https://hbr.org/2020/09/social-impact-efforts-that-create-real-value>

Conclusions, and next steps

It's clear that embracing more eco-friendly ideas is the right way forward for organisations throughout Europe and beyond. And that moving to more sustainable technologies can enable a raft of benefits for environmentally-aware businesses.



Socio-environmental responsibility means adopting resource efficiency measures, 'green' products and services, and as far as possible, moving to a circular economy.



Resource efficiency is the first step towards entering a circular model - increasing business revenue streams by lowering resource use, environmental impacts and operating costs.



Better environmental protection means better financial performance, a reduced risk of fines related to environmental legislation, access to public contracts, cost savings, and enhanced employee commitment.



The result can be a win : win for companies seeking to balance productivity, performance, and profits with environmental, social and governance objectives.

Learn more about these issues, and how you can participate in new initiatives.

Smarter technology for sustainable IT

Innovations built-in to Lenovo products and solutions, which feature the latest powerful Intel processors, can help you on the path to greener IT.

From more sustainable production methods to eco-friendly product design and responsible operations we'll make it easier for you to work more efficiently. Our technologies are designed to minimize your carbon footprint, maximise recycling and re-use, and last longer.

To find out more about how to work smarter and think green with Lenovo and Intel:

Visit: <https://www.lenovo.com/EnterpriseSolutions>

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