



Sustainability — The New Critical Success Factor

Life Is On

Schneider
Electric

At Schneider Electric, our mission is to serve our customers by developing innovative products and solutions that simplify the lives of those who use them. We bring together our expertise and solutions to drive new possibilities for efficiency and savings.

As the global specialist in energy management and automation, we are committed to worldwide improvement in connectivity, sustainability, efficiency, and reliability and safety in five primary areas: in our homes, cities, industries, buildings and in the cloud

Sustainability as a global economy growth engine

Myths about sustainability abound: it's too expensive, there's no quantifiable return on investment (ROI), it's only for big companies, or it's a type of philanthropy. In the recent past such views were justifiable. But now, technology advancements that leverage the power of the 'Internet of Things' and Big Data have changed everything. Not only can energy and water consumption now be measured with a high degree of precision but the *financial impact* of efficiency projects can also be measures with greater precision. Increasingly, consumers are demanding insight into a company's sustainability initiatives. A bottom-line reality today is that sustainability influences purchasing decisions.

Through robust smart monitoring of facilities and assets, a baseline can be established to track down how resources are consumed. Improvements to efficiency can also be simulated, tested, and measured. With accurate measurement comes the ability to facilitate change and to engineer real (and financially quantifiable) improvement. The resulting modifications to business processes then dramatically reduce operating costs.



The sustainability challenge that lies before all of us includes a mix of important global issues: social and environmental commitments, CO₂ emissions, the search for efficiency, energy poverty, responsible governance and corporate citizenship, and enablement of a circular economy (where reuse / recycling takes on a much bigger role).



It is estimated that 1.3 billion people on the planet still have no access to electricity. The International Energy Agency (IEA) has estimated that \$750 billion is the amount of investment needed to achieve universal access to modern energy services by 2030. This is the equivalent of 1% of the GDPs of the 20 most advanced economies. In addition, for those who do have access to electricity in these developing 'bottom

of the pyramid' countries, households are spending up to 30% of their incomes on energy each month. This is five times more than the average in western countries.

And there lies the energy paradox: balancing our planet's carbon footprint with the irrefutable human right to quality energy.

Schneider Electric is committed to bringing modern and sustainable energy to everyone. Our involvement in global energy access initiatives includes collective solutions for electrification featuring renewable energy sources, solar home systems and charging infrastructure, pre-payment systems for houses, mobile phone charging solutions, and adapted business models to help support these initiatives at the local level.

In the more developed countries, we support our customers in their efforts to conserve resources both at home and at work. On the home front, electric vehicle charging boxes, solar panels, and inverters for smart home solutions help homeowners monitor and manage energy consumption making everyday life more sustainable.

On the corporate front, our Green Premium program is one example of how Schneider Electric is leading the global effort to make energy use more efficient. It is an eco-mark that guarantees our products and services are compliant with international standards and regulations. The idea of the program is to take into account the sustainability needs of the customers who purchase our products. A Green Premium product allows customers to calculate carbon footprint, anticipate and ensure full regulation compliance, and reduce the end-of-life decommissioning cost. Our products are built from environmentally friendly materials and are easily recycled and repurposed.



But at Schneider Electric, sustainability isn't just about manufacturing sustainable products. Our expertise involves working with customers in order to extract sustainability benefits throughout the entire business value chain, from design and development to go-to-market. We support energy-saving programs with centralised management systems that provide real-time data on consumption, power loss, and quality issues. We also leverage our sustainability experts to consult with companies around the world to advise them on developing sustainability goals and action plans including compliance and risk mitigation.

Our years of expertise in sustainable energy management, automation, software and consulting services allow us to integrate and connect operational technologies in ways not possible just a few years ago. We harness the ecosystem of connected things in our lives to facilitate efficiency and sustainability in a safe, secure, and reliable way.

Sustainability: The Triple Bottom Line

Profit: the business you do and the way you do it — your solutions and your ethical framework

People: the interaction with your stakeholders wherever you operate, whether your employees, society at large, or underprivileged communities

Planet: your impact on the planet and that of your business

Monetising sustainability

In a recent survey of corporate CEOs commissioned by the Carbon Disclosure Project (CDP), it was determined that sustainable brands perform better and that 93% of CEOs say sustainability will be a critical factor to the future success of their company. In addition, 61% of companies surveyed who have added sustainability to their management agenda say they have added profit through sustainability. Also, 66% of executives report having received inquiries from investors regarding sustainability initiatives in the last year (see 'Facts about Sustainability' sidebar for additional corporate benefit information).

Field experience has shown that the impact of a sustainability program is often much greater and widespread than conceived at the outset. Benefits include long-term cuts in energy usage, waste-reduction cost savings, increased efficiency, and better utilisation of resources. There are often unforeseen side benefits to sustainability programs. These include cost avoidances, strengthened customer and community loyalty, increased innovation, and shifts toward sustainability in supply chains.



Although some of the sustainability momentum is driven by regulation, businesses seeking competitive advantage are recognising that sustainability-focused companies outperform their peers and enjoy greater appeal and consumer loyalty. Sustainability resonates with consumers who value environmental friendliness, philanthropy, and corporate social responsibility. From a branding perspective, companies committed to sustainability build long-lasting, beneficial relationships with those kinds of loyal customers

Consider an example in the retail industry. A retailer's typical energy expenses are 5.5% of operating costs. Most retailers operate at a 4% profit margin. A 15% reduction in energy consumption (which is easily attained with today's technologies) will increase profit margin from 4% to 4.75%, which represents an 18.7% increase.

The concept of sustainability is here for the long term. The benefits are real and permanent, and if we value the quality of life of our children and grandchildren we have no choice but to embrace sustainable business practices. Companies have a far greater impact on a sustainable future and therefore bear a heavier

responsibility. At heart, sustainability is about mitigating risk in a world of depleting resources. Schneider Electric acts as a guide, or navigator, to help companies become more sustainable and profitable.

Building an impactful sustainability program

Schneider Electric has a proven record of leading organisations to thriving sustainability programs across a variety of economic, environmental, and social dimensions. We have studied and field-tested every phase of the sustainability journey. We offer expertise in sustainability strategy, technology, and implementation. Our goal is to accelerate business performance, while saving resources.

Strategy Schneider Electric provides high-impact strategic sustainability planning to properly position and accelerate a business. No two companies approach sustainability from the same perspective, start in the same place, or have the same destination in mind. No matter where a company is in the process or where it does business in the world, Schneider Electric Sustainability Services can guide a company along a successful sustainability journey.

Technology Schneider Electric solutions enable our clients to track, manage, and forecast key sustainability metrics such as carbon, water, waste, and corporate social responsibility. Technology is a key lever for accelerating an organisation's global sustainability program (see 'Resource Advisor' sidebar).

Implementation A global team of Schneider Electric sustainability professionals ensures that our clients attain their business goals. Once a business knows where it is and where it wants to go, the hard part is to start making the investment decisions that will help realise their goals.

From evaluating clean-tech options, buying renewable energy, meeting compliance requirements, to calculating an organisational footprint and submitting CDP reports, experts deploy projects that help clients reach their sustainability goals.

Facts about Sustainability

It's good for profitability.

Harvard Business Review cites more sustainable companies as outperforming their peers on net margin (+6%), return on assets (+3%), and return on equity (+11%) for the past eight years.

It drives growth.

According to Accenture, 78% of companies agree that sustainability is vital to the future growth of their business.

It cuts costs.

In an Ernst & Young / GreenBiz Group survey, 74% of respondents cited cost reduction as the principal driver of their company's sustainability agenda.

It delivers superior stock performance.

Since 2006, companies listed on the Carbon Disclosure Leadership Index (CDLI) delivered returns of 67.4%, more than double the 31.1% return of the Global 500.

Shareholders expect it.

In an Ernst & Young / GreenBiz Group survey, 66% of sustainability executives report an increase in inquiries from shareholders and investors regarding sustainability-related issues.

Customers expect it.

According to Accenture, consumer demand is the primary driver of investment in sustainable initiatives at 62% of companies.

The competition is doing it.

51% of companies surveyed by the Carbon Disclosure Project say they have a dedicated budget for energy efficiency programs; according to an Ernst & Young report, 70% of billion-dollar companies in the United States are implementing renewable energy integration and procurement strategies.

Facilitating change

Schneider Electric applies sustainability program expertise across the key environments that drive economic development. These environments include buildings, cities, industries, the cloud, and homes.

Buildings Buildings consume 40% of global energy today — and that consumption will soon climb to 60%. Many owners and facility managers are struggling to make their buildings smarter and more efficient. For older or outdated building systems that are the cause of large-scale inefficiencies, Schneider Electric solutions update ageing infrastructure to monitor, measure, and optimise energy consumption throughout the lifecycle of a building, an important step towards sustainability. Eco-responsibility programs can help to remind people that, in smart buildings, they have control over their own consumption, even down to the zone or individual room level



Cities Traffic congestion, increased air and noise pollution are all issues that will get worse unless new approaches and technologies are applied. We support sustainable cities by providing electric vehicle recharging, whether in the garages of private homes, in public lots, or even in seaports. Marine vessels that come to shore must adhere to codes for reduced fuel consumption and low emissions, noise, and vibrations. Our solutions address ship-to-shore power distribution so that ports are cleaner and safer.

Industries The industrial sector is the largest user of energy. Industries are under increasing pressure to reduce their CO₂ emissions, comply with increasing legislative requirements, and operate in an eco-responsible manner. Schneider Electric's integrated, data-driven energy and process efficiency solutions not only reduce a company's carbon footprint but provide greater transparency when it comes to sustainability.



Cloud Schneider Electric builds sustainable data centres to address the challenges of a world where natural resources are shrinking. The very nature of energy-intensive data centres dictates that CO₂ emissions are now a top priority of data centre owners. Schneider Electric's modular approach reduces a data centre's carbon footprint by eliminating unnecessary energy use from oversized equipment. Innovative

technologies allow cloud and colocation centres to utilise outside air to cool their data centres. Precision airflow solutions that provide in-rack and in-row precision cooling further reduce energy consumption.

Resource Advisor

Schneider Electric's award-winning technology solution, Resource Advisor, provides secure access to data, reports, and management tools to drive sustainability and energy programs.

Resource Advisor is an SaaS-based energy and sustainability management platform, which includes footprint calculation and enterprise-to-detailed-facility sustainability metrics. This technology is a critical component within Schneider's StruxureWare™ software applications and suites.

Resource Advisor users from across a company can review progress toward goals, analyse resource costs and analyse usage data with interactive graphs, and evaluate potential project impacts before initiating new actions, in their local language and currency.

Resource Advisor enables our clients to benchmark their progress against budget, historical data, and other variables, and to stay informed about changing market conditions to help anticipate and reduce their impact upon the environment.

Utilities Smart Grid solutions offer the opportunity to combine established power sources with alternative energy in order to lower the impact on the environment and to secure additional energy for the future. Utilities are struggling to find effective ways to combine traditional power sources with renewables without compromising the way the network is managed. Schneider Electric helps utilities to modify network architecture designs in order to accommodate the new world of dispersed and diversified production and bidirectional distribution.

Homes Together with partners, Schneider Electric is introducing new ways for people to interact with their home environments — simply and sustainably, no matter where they are. Schneider Electric solutions help homeowners to conserve resources. From electric vehicle charging boxes, solar panels, and inverters to smart home solutions that monitor electrical usage, Schneider Electric helps homeowners exercise more control over how they manage their energy consumption.

Throughout human history, economic growth has always been accompanied by an increase in energy consumption. In fact, the IEA predicts that by 2050, worldwide energy consumption will grow by 50% if current consumption trends persist. At the same time scientists who have studied the growing global warming problem tell us that CO₂ emissions will need to be cut by 50% by 2050 if we are to avoid an increase in weather-related catastrophes (i.e., violent storms, droughts, floods). This dilemma poses a complex challenge.

Schneider Electric and its customers and partners are addressing this problem directly through the development and deployment of 'smart' technologies and sustainability programs that enable conservation while growing global business.





Sustainability Case Study

Sustainable Apparel Coalition

The Sustainable Apparel Coalition (SAC) represents more than one-third of the global apparel and footwear industry. Popular brand names such as Patagonia and Nike, and retailers such as Walmart, are members of the coalition and look to SAC to provide them with sustainability data and guidance. A critical SAC mission is to build a common approach for measuring and evaluating the social and environmental sustainability impact of apparel manufacturing and distribution. By creating a propriety self-assessment tool, called the Higg Index, SAC was able to offer the industry a common platform of measurement. The tool started out as a spreadsheet. As the popularity of the tool grew, SAC searched for a partner that could transform the tool into a web-based, user-friendly platform, thus encouraging greater adoption of common sustainability practices throughout the industry.

SAC decided to bring in Schneider Electric as that partner. Using the Resource Advisor tool, Schneider experts were able to translate the Higg Index's complex spreadsheets into an online solution that encourages retailers, manufacturers, and suppliers to participate in the program. Today, the web tool interfaces with hundreds of brands and thousands of facilities who now accurately track their sustainability efforts.

'Finding the right software solution and sustainability partner were critical in our pursuit in taking the Higg Index to the next level. Schneider Electric displayed a firm understanding of our goals and mission for the Higg Index 2.0', says Jason Kibbey, Executive Director of the Sustainable Apparel Coalition.