

Sustainability series: what are the environmental and energy challenges in the Supply Chain?

Introduction

As Supply Chain professional, you might wonder what you can do about sustainability and how you can contribute. This series of four white papers is for you.

Starting with the environment, the first article reflects upon the energy challenges focusing on providing a global understanding of the situation and suggesting levers to act. A second article will explore the question of wastes and the scarcity of natural resources and highlight the opportunity of circularity. Followed by a whitepaper dedicated to Humans and the role a company can decide to play in Society. To finish the series, a summary of the challenges facing Supply Chain professional and paths to act will be published.

Before diving into the environmental challenges, what is sustainability?

To make it simple, sustainability considers long-term value creation. This means that the company not only focuses on profitability but also on the impacts it has and the perennity of its operations. Usually, the environmental and the societal/social impacts are considered as the key drivers in Sustainability while maintaining economic profitability.

With increasing sensibility from the public on those challenges, investors are bringing their focus on the so-called Environmental Social Governance (ESG) indicators. Meaning that founding will more and more be allocated considering the willingness to act on environmental challenges of a company.



Starting a transformation journey of your Value Chain is thus beneficial for the society at large, long-term profitability, capital allocation while preserving the Planet for the future generations.

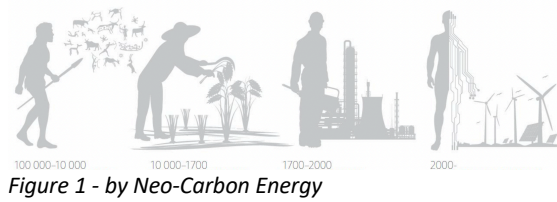
Environmental challenges

A lot of information around the environment such as energy shortage, pollution, CO2 emissions, global warming, and waste issues are shared daily in the news. Sorting those information, setting priorities and define how to act is not easy. Here is a couple of elements to reflect upon.

Historical background

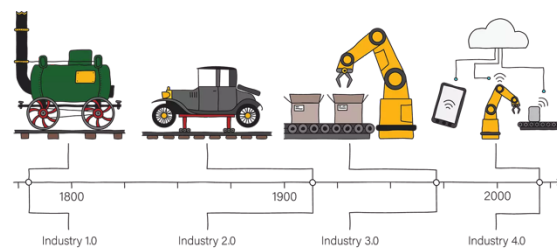
Our economy and society heavily rely on energy. It is interesting to take a step back and look at our history.

The first economic revolution came with the rise of agriculture when humans stopped being hunters-gathers. At first you may not consider this as energy related but it is. Interestingly, we started to use the power of our body for agriculture as well as animals allowing sedentarization and societal structuring (everyone has a well-defined role).



This lasted up to the first industrial revolution which boomed thanks to the arrival of machines powered by steam. Coal provided energy to have machines running instead of humans. Leading to the first economic boom and creating our expectations for growth which our society still relies upon.

It was then followed by the arrival of electricity and technology bringing more productivity as well as globalization fueled by petrol creating affordable movements of goods. The so-called second industrial revolution. Around 1969, the third revolution took place with the arrival of computers and even more energy thanks to nuclear electricity. Some may call for a fourth industrial revolution happening / happened related to the Internet. Whether it is the case or not, it is fueled by more energy consumption.



Our digitalized economy consumes significant amount of electricity and natural scarce resources to create technologies (reflect upon the car manufacturing frozen with electronic components shortages).

Coming back on our history, a key take-away to remember is the importance of

energy fueling our society and economies.

Energy and its shortages

Understanding our current dependency to energy is key to size the challenge we have in front of us. What scientists are working upon is to identify of much fossil fuel is left – the associated question is how much time do we have left before running out?

Interestingly, over the past months new energy challenges were popping across the globe. UK faced important shortage of fuel due to lack of truck drivers. European dependance on Russian gas was made public with the strong prices increases. Switzerland is facing key challenges in electricity sourcing. Finally, the leaders of the COP26 did not find an agreement to switch away from coal and did not commit in full to maintain the temperature levels. Those facts show that our society is steadily facing supply issues of fossil-based energy while alternative energy sources are slowly ramping up. This is particularly impacting since energy is fueling our businesses, our economies and thus our society. Transforming our business will not only require new sources of energies but the consumption of energy itself will have to diminish pushing Value Chain specialists to rethink their models.

What can Supply Chain professionals do?

As Supply Chain professionals we have a role to play.

Environmental concerns should be at the center of our attention to secure the perennity of our businesses.

As leaders, we should start by understanding the consequences of our operations on the planet. The

implementation of tools/indicators to measure and monitor environmental impacts giving you visibility and concrete data to act. Priorities can then be defined with action plans and objectives. In parallel, environmental impacts should become a decision metric putting in perspective other internal measures and financial ROI.

Deep reflections are ahead; shall we continue to operate a globalized Value Chain or shall we focus on local/regional productions?

Interestingly, transport availability and reliability are suffering severe challenges with a saturated market both for sea-freight and air-freight. Those factors will influence our future decision on how to produce and where to produce to offer resilience and environmental sound solutions while maintaining economic profitability. Alongside the Value Chain geographical questions, companies can set emissions reduction objectives to maintain the earth temperature under a certain level. The so-called Science Based Target (SBT) are providing a public framework for your company to set reduction objectives through your Value Chain. Reductions can be in absolute terms or as intensity of economic values. The journey has already been started by over 2'000 companies¹ contributing to limiting the global warming and its consequences.

Conclusion and key energy takeaways

As Supply Chain leaders, we have a role to play for the future of our planet. It starts by understanding our impacts and taking actions.

Developing relevant environmental indicators for your organization is the

first step of the journey. It helps to identify priorities and measure success vs the defined ambition. On top of that, why not integrate an environmental impact metric in all the decision-making process of your organization? By doing so you will take decisions considering all impacts. Keep in mind, investors are now also considering ESG to evaluate companies,

As Supply Chain leader, we can set ambitious target to tackle the energy challenge ahead of us all. From rethinking the production and distribution geography to more transport related actions, we can act concretely today to preserve tomorrow. High margin Industries such as Healthcare and Luxury shall lead the way and set new standards thanks to high profitability.

At Supply Chain Operations, we have the experience, the methodology and the expertise to support you in this transformation journey. From understanding the impacts of your Value Chain to action plan definition and execution, we have experts with fresh eyes to help you generate value, maybe a different type of value than financial ROI for once...

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...We do it for you...

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¹ <https://sciencebasedtargets.org/how-it-works>