

Changing lives around the world

How we can make the cold chain more sustainable

In a previous article, we introduced the four main focus areas that can help the cold chain industry —and the pharma and biotech customers we serve — become more resilient, efficient, profitable and sustainable. And turn the vision of true global and local access to life-changing medicine into reality.

Here we take a closer look at sustainability, an area that is already a focus for many of us, and quite rightly as it is also a pressing issue for the wider world.

Sustainability is no longer an option but a necessity, and we have a duty to do all we can to mitigate the negative effects and footprint of our daily operations.

At the same time, when we improve our operations and increase affordable access to medicines for patients all around the world, we improve more people's health and well-being. Taking on the social aspect of sustainability, there is an opportunity for us to be better for both people and the planet and it's an opportunity we need to seize.

So, how do we make the transport of temperature-sensitive medicine more sustainable? Let's start with the biggest step of all.

Make sure products arrive intact and ready for use

For pharma and biotech products, the majority of their environmental impact occurs during manufacturing. These production processes take a lot of water and energy, often from fossil fuels rather than renewables,



plus there can be significant and hazardous waste that needs to be handled and safely disposed.

The cold chain industry certainly needs to take responsibility for working to minimize the remaining environmental impacts within its control. But if we fail to successfully deliver shipments and they need to be scrapped, re-manufactured and re-shipped then that effectively doubles the total impact and makes all our other sustainability efforts fairly irrelevant. Not to mention adding to the total landed cost.

Choose the right partners and solutions

Clearly, the biggest step towards an environmentally and socially sustainable industry is to make sure as many life-changing products as possible are delivered to the right people at the right time and in the right condition. Which means no damage during handling or irregularities in the temperature that jeopardize the integrity of the products. Not to mention demanding high availability of suitable containers across a large global network. As a result, choosing the most reliable packaging solutions and shipping partners is the key to greater sustainability.

Measure what we want to improve with LCAs

As the saying goes, you can't manage what you don't measure. That is certainly true with sustainability that needs to take into account all the small details to see the total impact of products and, indeed, the entire supply chain. Within the cold chain industry and as supply chain partners who can have a positive effect overall, we need to embrace the scope and detail of Lifecycle Assessments (LCAs) that map and measure the real-life impact and give sustainability the attention it demands if we're serious about making improvements. Not least because LCAs give us the valuable insights and targeted strategies for further emission-cutting improvements throughout the supply chain.

Be data-driven. In real time.

Many sustainability gains and cost savings can be made by having and making use of detailed, up-to-date information. This data is necessary to inform your work with an LCA and indicate improvements, as well as to minimize risk and ensure compliance with environmental regulations. But also to make daily operations more efficient and sustainable. For example, with real-time monitoring of temperature and other parameters during storage and shipment, you have the opportunity to greatly reduce the risk of product waste and its major environmental impact. Not to mention the risks and costs of supply chain

disruption when deliveries fail and vital medicines need to be re-shipped, and as well as the potential risks to patients and their well-being.

Take the most obvious steps

Meeting your sustainability goals can be most easily achieved by looking for the most sustainable path when exploring different options when you design or update your processes, technology and use of resources. Cost can never be ignored but sustainable solutions can frequently be more cost-efficient over time, and also make your operation future-proof against ever-tightening environmental regulations.

You can find the biggest sustainability gains in the areas of energy use and your choice of packaging:

More sustainable energy

- Energy-efficient cold storage greatly reduces energy use — not to mention lowering costs during a time of higher energy prices.
- Switch to renewable energy sources where possible and you will dramatically shrink your CO2 footprint. As well as staying ahead of the curve on the global transition to renewables.
- Choose eco-friendly transport options such as Sustainable Aviation Fuel, electric trucking etc.

Low-emission packaging

- Opt for lower-weight packaging that is designed to still meet quality and safety needs but uses fewer materials.
- Pack goods with higher volume efficiency – “shipping air” adds significantly to the total impact of shipments, not to mention the total landed cost.
- Think circular by focusing more on reusable instead of single-use solutions. This lowers the environmental impact from building more containers and using more materials than needed as well as minimizing waste that can end up in landfills.



How can we help?

At Envirotainer, we talk the talk about sustainability. But we also walk the walk, and it informs our discussions with colleagues and customers as well as being a main driver of our R&D and our offering of products and services.

Below, you can explore our most sustainable solutions as well as read the facts and figures in our latest Sustainability Report that shows how we commit ourselves to people and the environment wherever we can.

We know what we are doing and we're here to help. So, don't hesitate to get in touch to discuss your sustainability challenges and get expert advice and support to help overcome them. Because if there is one thing for certain on the path to greater sustainability and indeed the ambition of true global and local access to life-changing medicine, it's that we can all get there faster if we share knowledge and work together.



Webinar now available

You may also be interested in watching our webinar, *Innovating the Pharma Cold Chain for a Sustainable Future*.

In this panel discussion, three experts from United Airlines, DHL Global Forwarding and Envirotainer tackle some of the difficult questions about sustainability, assess the future for airlines, forwarders and packaging solution providers, and try to answer the ultimate question: is a net-zero cold chain achievable?

Resources

Envirotainer Sustainability Report

<https://www.envirotainer.com/sustainability/sustainability-reports/>

LCA example

<https://www.astrazeneca.com/sustainability/environmental-protection/product-sustainability.html>

Contributors

Nadja Lourenço - Head of Sustainability and Governance, Envirotainer