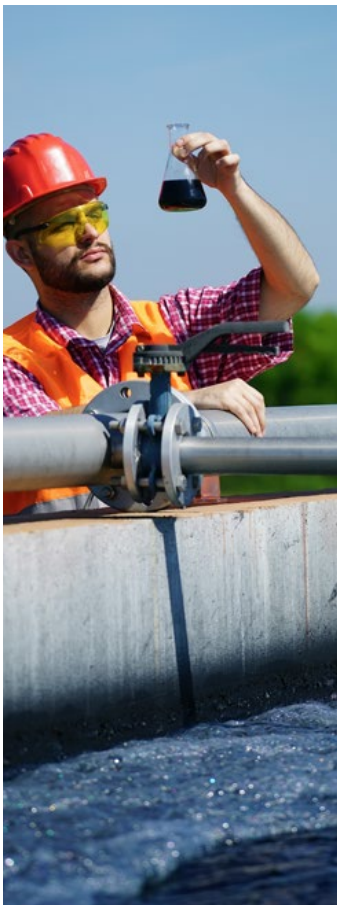
Clean Energy Transition: Pharmaceuticals

Can the industry improve the health of the planet?



While the pharmaceuticals industry doesn't pump out anywhere near the CO_2 volumes of industries such as energy, transport and the production of iron and steel, it still contributes close to 5% of global emissions. As an industry it is also still vulnerable to the economic impacts of climate driven adverse weather events, including supply chain interruptions and challenges to the production of some feedstocks.

According to the World Health Organization, climate change is the greatest threat to global health. Extreme weather events such as heatwaves and droughts can lead to illnesses and deaths through heat stress, dehydration, malnutrition, increased levels of food-borne pathogens and contaminated water supplies. Flooding can also result in an increase of water-borne diseases. Air pollution can cause or exacerbate illnesses such as asthma and cardiovascular disease.

Can pharmas reduce global greenhouse gases?

How can the industry cut its own emissions, and can such actions create opportunities for industry growth as well as improving the health of the planet?

This question much of the industry is already exploring. For some this is driven by legislative direction, such as the EU's Corporate Sustainability Reporting Directive and the Inflation Reduction Act in the US. For others, clean energy transition is the logical next step in response to the kind of price fluctuations seen in the recent energy crisis.

Many of the manufacturing processes used in the pharmaceuticals industry are energy intensive. Some require fossil fuel feedstocks, and many are part of long tailed supply chains that criss-cross the globe. Transitioning to clean energy will be a massive undertaking for the sector, potentially impacting production, ingredients and supply chains. However, it is one that our industry underwriters note is already underway in several markets and regions.

Scope 1, 2 and 3 refer to emissions created by a company during the process of its operations.

Scope 1
All greenhouse gas emissions that a company generates directly during the course of its operations.

Scope 2
Greenhouse gas emissions a company makes indirectly. For example, a company may buy electricity from an energy producer and emissions are created by the energy producer.

Scope 3
All other greenhouse gas emissions created up and down a company's value chain.

What do Atradius underwriters see as the primary issues for the sector?

Innovation
Our pharmaceuticals underwriters in China, the world's biggest producer of pharmaceuticals, point to the importance of innovation and note the potential of "new technology to improve efficiency and sustainability". This is a view echoed by all of the industry specialists we spoke to across the world.

In fact, all of the specialists answered "yes" in response to the question: "Do you expect the majority of pharmaceutical companies to implement innovative technologies such as smart logistics, machine learning, AI, digital platforms, IoT, etc. over the next three years?"

Costs
Some of the greatest risks and challenges facing the industry revolve around costs. R&D costs in the industry can be exceptionally high, often with long lead times between the initiation of research and a new drug or therapy coming to market. Adding the cost of regulatory compliance and the capital expenditure associated with clean energy transition to that is likely to put a squeeze on margins.

However, for an industry used to looking decades into the future as part of normal operational planning, most also note the potential long-term cost savings that clean energy transition could bring. This was articulated by our underwriters in Germany when they said: "Transitioning to clean energy often involves adopting innovative technologies and processes, which can improve overall operational efficiency and stimulate innovation within the sector."

Our sector specialists in France pointed to the importance of energy security and the threat to business that volatile energy costs can present. Our specialists in Belgium agreed and said: "Cost reductions will be a main driver of shifting to renewable energy, especially in view of the energy intensive character of the market." They added: "Clean energy might give more security over energy supply in periods of geopolitical tensions, where classic energy sources could be cut off, by making energy supplies more self-sufficient."

Collaboration
Our underwriters in Italy and Poland also acknowledged the importance of collaboration within the industry and pointed to the opportunities presented by being part of the EU bloc. Our colleagues in Poland said: 'Recent political changes in Poland have enabled the government to access national and EU funds for clean energy transition, which in turns has helped to increase investor confidence in the sector."

In Italy, our colleagues said: "Cooperation with public research centres and open collaboration with domestic and European peers present a major opportunity for the industry during the next few years." Our sector specialists in France also made this point and said: "Global cooperation can present opportunities for the pharmaceuticals industry."

Government support
Our colleagues in the UK, Ireland, the Netherlands and Hungary also acknowledge the important of government subsidies, particularly for helping make their markets more attractive for investors. Our pharma specialist in Indonesia said: "Government incentives for investing in the medical device industry can be applied to companies that support clean energy".

Challenges: What are the most urgent challenges for the sector over the next three years?

1. Squeezed margins
Transitioning to clean energy can involve high levels of capital expenditure, especially for companies with energy intensive processes. In addition, adopting new technologies for clean energy production is likely to require significant changes to infrastructure and processes, posing logistical and technological challenges. At the same time, pharmas are under increasing pressure to keep prices down, resulting in squeezed margins.

2. Regulation and compliance
Governments are increasingly imposing environmental regulations as they seek to achieve Net Zero targets. Achieving regulatory compliance, while competing on the uneven playing field created by different levels of regulation around the world, presents a challenge for many pharmaceuticals companies.

3. Supply chains
Many pharmaceuticals producers need to navigate long and complex supply chains. These are vulnerable to geopolitical uncertainties as well the challenge of sourcing materials vulnerable to extreme weather events and other issues such as recruiting skilled workers. In addition, producers are increasingly facing legislation over the disposal of waste materials.

Opportunities: What are the greatest opportunities for the sector over the next three years?

1. Innovation
When it comes to innovation, the industry has a strong track record that ranges from the development of new drugs to revolutionary technologies used in the delivery of health and social care. A push towards improved sustainability and innovations such as GenAI have the potential to improve operational efficiencies and unlock further opportunities for the industry. Recent research by PwC found that AI could deliver a reduction in operating costs of 30% or more.

2. Cost savings
While the capital expenditure associated with clean energy transition can be enormous, even prohibitively so for some smaller players, it also offers the chance for longer-term cost savings. This is particularly the case where businesses can generate their own power through solar PV or wind.

3. Reputation
Consumer-facing businesses may benefit from sustainability actions that deliver improved reputations. However, even wider than this, there is a growing global demand for better healthcare, including environmentally-friendly pharmaceuticals, which is also attracting green investors.

Where next?
For many, solutions may lie in a new way of working, such as the opportunities for collaboration presented by the Schneider Electric Energize programme. Among the approaches explored in this programme is the chance for pharmaceutical suppliers to collaborate on sourcing and pricing for renewable electricity.

Regulatory compliance is also likely to play an increasingly important role. The EU's Pharmaceutical Strategy, for example, is designed to promote greater transparency, environmental accountability and sustainability across global pharmaceuticals supply chains. Will this regulation and others like it across the world deliver improved sustainability? This remains to be seen.

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