



The Stocktake Series

January 2024

TransMedics – Investing for the future of organ transportation

In the latest of our ongoing Stocktake series, we look at the Sustainable Investment theme 'Enabling innovation in healthcare' and examine how a US company TransMedics is changing the face of organ transplants.

Organ transplants are often referred to as 'the gift of life'. For patients with end stage organ failure, an organ transplant is often the last solution to both saving their life and restoring a decent quality of life. Unfortunately, the demand of organs vastly outstrips supply. It is estimated that in the US, roughly 17 patients die on the waiting list each day¹.

For decades the standard of care in organ transportation was cold storage, involving placing the organ in an ice box. Cold storage is literally a race against time – it preserves the organ to allow transport between donor and patient within a timeline of 6-12 hours depending on the organ. Outside of this range, the organ degrades due to a lack of oxygen and can no longer be transplanted.

Thankfully companies across the world are increasingly looking at new ways to bring innovation into healthcare, and one in which we invest through our innovation in healthcare investment theme is TransMedics, a US-listed company pioneering organ transportation modules in hearts, lungs, and livers.

TransMedics has 15 years of innovation in 'warm perfusion' – when an organ is kept functioning in a near physiologic state. The TransMedics Organ Care System (OCS) Console allows transportation of organs and keeps the heart beating, the lungs breathing, and the liver producing bile throughout the journey.

The OCS console also enriches organs with nutrients, including oxygen. This slows the degradation of organs and extends the time period in between donor and recipient. In a procedure that is very time and resource intensive on the transplant hospital, this buys the surgery team valuable time to ensure the patient is ready for transplant.

In 2022, an estimated 40% of donor livers, 72% of donor hearts, and 82% of donor lungs were not transplanted in the US². However, TransMedics contributes to expanding this pool by allowing doctors to assess organ viability – seeing the organ's function and vital signs gives surgeons the confidence to transplant organs that previously would have been outright rejected due to strict health criteria. These organs are called 'extended criteria' organs.

¹ Organ Procurement and Transplantation Network, 'Organ Donation Statistics', Health Resources and Services Administration, March 2023

² TransMedics Investor Presentation 2023, Organ Procurement & transplant Network (OPTN) Data 2022

As a result of this, we rate the company highly on product sustainability, giving it an A rating.

TransMedics is in its early stages as a public company and growing incredibly quickly. It released its inaugural ESG Report in 2022, in which some important ESG factors were disclosed. The company still has more to do, however, and we therefore rate it a 3. The SF team has engaged with TransMedics on further impact metrics, with more to do on management incentive structure and product lifecycle actions.

Within business fundamentals, TransMedics has a unique business model that also serves as its competitive advantage. It operates a logistics network called the National OCS Program (NOP) – where it effectively manages the organ retrieval process on behalf of a transplant hospital customer. This means once a donor organ has been matched, a hospital can call TransMedics to retrieve the organ, plug it to an OCS system, fly the organ to the hospital and wait until the surgery team is prepared and the patient is ready. This significantly streamlines the organ retrieval process for transplant hospitals and minimises the resources needed.

To bolster this over the long term, TransMedics announced an acquisition of Summit Aviation, a private jet operator. Management's intention is to remove the bottlenecks in the organ transportation system that exist in hiring expensive and often unavailable jets at short notice. The company will absorb the jets and operate them solely for organ retrieval out of the existing TransMedics hubs in the US.

This NOP model has unlocked huge growth for TransMedics. In 2022, the company grew revenues at 209%³, with market consensus forecasting 144% in 2023⁴. As the company continues to build out its NOP at scale and meet the demand from hospitals, we expect to see the company head towards profitability as it manages its capacity constraints and unlocks more of the organ market.

Risks

TransMedics operates in a new market – it is unlocking a segment of organs previously not utilised. It is therefore difficult to quantify the size of the market and how many organ transplants would be enabled as a result. Further, the company is pioneering a new business model. We have seen the company be quite volatile due to its early stage, growth characteristics, and uncertainty around the business model as management strives to complete its logistics build out. Given its uncertainty in market size and nascent position, we have sized our entry into TransMedics accordingly.

Despite this, we are investing for the long term. We believe the benefit TransMedics is providing for patients, for hospitals, and for the healthcare system should outweigh uncertainty in its logistics model. TransMedics will likely become a crucial and efficient part of the US organ transportation system in the future.

TransMedics Summary

- TransMedics is a \$1.4 billion US-listed company pioneering organ transportation technology and logistics that the SF team hold within the US Sustainable Growth Fund.
- With its innovative transportation module, the company is unlocking an expanded pool of organs previously not transplanted. As donor organs are underutilised in the US (ranging from 40% of livers to 82% of lungs) alongside a large waiting list, TransMedics is enabling more organs to be transplanted. This is an incredible innovation and fits within our theme of enabling innovation in healthcare.

³ Company accounts, *TransMedics Annual Report 2022*

⁴ Factset market consensus for TransMedics revenue 2023, 4th January 2024

- TransMedics also streamlines the organ retrieval process by completing the entire retrieval for transplant hospitals. The company's growth reflects its impact – revenue grew 209% in 2022 as hospitals started utilising its logistics offering.
- As the company continues to build out its network at scale and meet the demand from hospitals, we expect to see the company head towards being EBIT positive within the next three years as it manages its capacity constraints and unlocks more of the organ market.

Sarah Nottle, Investment Analyst, Sustainable Investment team

Key Risks

Past performance does not predict future returns. You may get back less than you originally invested. We recommend this fund is held long term (minimum period of 5 years). We recommend that you hold this fund as part of a diversified portfolio of investments.

The Funds managed by the Sustainable Future Team:

Are expected to conform to our social and environmental criteria.

May hold overseas investments that may carry a higher currency risk. They are valued by reference to their local currency which may move up or down when compared to the currency of a Fund.

May hold Bonds. Bonds are affected by changes in interest rates and their value and the income they generate can rise or fall as a result; The creditworthiness of a bond issuer may also affect that bond's value. Bonds that produce a higher level of income usually also carry greater risk as such bond issuers may have difficulty in paying their debts. The value of a bond would be significantly affected if the issuer either refused to pay or was unable to pay.

May encounter liquidity constraints from time to time. The spread between the price you buy and sell shares will reflect the less liquid nature of the underlying holdings.

May invest in companies listed on the Alternative Investment Market (AIM) which is primarily for emerging or smaller companies. The rules are less demanding than those of the official List of the London Stock Exchange and therefore companies listed on AIM may carry a greater risk than a company with a full listing.

May invest in smaller companies and may invest a small proportion (less than 10%) of the Fund in unlisted securities. There may be liquidity constraints in these securities from time to time, i.e. in certain circumstances, the fund may not be able to sell a position for full value or at all in the short term. This may affect performance and could cause the fund to defer or suspend redemptions of its shares.

May, under certain circumstances, invest in derivatives, but it is not intended that their use will materially affect volatility. Derivatives are used to protect against currencies, credit and interest rate moves or for investment purposes. There is a risk that losses could be made on derivative positions or that the counterparties could fail to complete on transactions. The use of derivatives may create leverage or gearing resulting in potentially greater volatility or fluctuations in the net asset value of the Fund. A relatively small movement in the value of a derivative's underlying investment may have a larger impact, positive or negative, on the value of a fund than if the underlying investment was held instead. The use of derivative

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