# Living with bionic limbs: Sarah de Lagarde's inspiring journey



In a compelling narrative of resilience and innovation, Sarah de Lagarde, the global head of corporate affairs at asset management firm Janus Henderson Investors, shares her experience of living with bionic limbs following a tragic accident in 2022. De Lagarde, now one of an estimated 60 million people worldwide living with amputations due to traumatic causes, suffered life-altering injuries when she fell onto the tracks of London's Northern Line, resulting in the loss of her right arm and severe damage to her leg.

De Lagarde returned to work facing immediate adjustments as she navigated her new reality. In an interview, she emphasised that the support from her employers was as critical as the technology that enabled her return to the office. Speaking to the Financial Times, she remarked, "We’re not done perfecting technologies or medical prosthetics", highlighting the nuances and challenges associated with modern prosthetics, which can often differ from the idealised versions portrayed in media and popular culture.

Her journey has unveiled the complexities associated with current prosthetic technology, which remains less advanced than many might assume. De Lagarde's experience with bionic limbs has been marked by trials, significant expenses, and the necessity of frequent clinical adjustments. The University of Utah published a report in 2022 pointing out that the market for bionic limbs is limited, in part due to insufficient user feedback and representation in the design process. Many users of prosthetics report dissatisfaction, often abandoning them because they find them cumbersome.

As she adapts to her bionic arm, which features a gel-lined socket and a pinlock system for better functionality, De Lagarde continues to seek improvements in prosthetic designs. She has proposed solutions to manufacturers based on her experiences—specifically regarding the shortcomings she faced with her initial devices, which included overheating and inadequate battery life.

Globally, the demand for assistive products is projected to rise sharply. The World Health Organization reported that more than 2.5 billion people require one or more assistive products, with that number expected to climb by another billion by 2050. In the United States alone, approximately 5.6 million residents deal with limb loss or differences, according to the Amputee Coalition, which underscores the significant market potential for advanced prosthetic technologies.

Despite the potential for innovation, the financial barriers remain significant. According to Coapt Engineering, a company specialising in control technology for upper limb prosthetics, the cost of a bionic hand can reach up to $45,000. Meanwhile, groundbreaking prosthetics, such as the “Luke” arm developed at the University of Utah's NeuroRobotics Lab, can cost as much as $200,000, which places advanced assistive technology out of reach for many prospective users.

Jacob George, director of the lab, is working on developing a motorised limb that not only enhances movement but also restores tactile sensation. However, the limited availability of these devices—only eight Luke arms have been deployed, with the Hannes hand similarly produced in small quantities—highlights the challenges in scaling up production to meet global needs.

While technological advancements hold promise, some experts caution about the imperfections of high-tech prosthetics. Britt H Young, a lecturer at the University of California, Berkeley, and a personal user of prosthetics, has expressed problematic experiences with advanced versions. She noted the challenges of adjusting to new devices and argues that the focus should not solely be on high-cost technology that may overlook more straightforward, cost-effective solutions.

For advocates like De Lagarde, who sees the intersection of assistive care and emerging technology as a fundamental necessity, the push for inclusive design processes is paramount. Gordon McCullough, chief executive of the Research Institute for Disabled Consumers, notes the critical need to involve disabled individuals in the early stages of technology development, stating, “involve disabled people at the start, not the end.”

De Lagarde's vision emphasizes the necessity for assistive technology to be viewed not as a luxury but as a vital resource that should be accessible to all, regardless of financial standing. She maintains, "These costs need to be democratised," reinforcing the idea that the progress made in technology must benefit a broader segment of society, ensuring that those who require assistance are prioritised in innovation discussions.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://impact-investor.com/impact-investor-conference-sarah-de-lagarde-on-healthtech-and-climbing-kilimanjaro/> - This URL supports Sarah de Lagarde's story as a double amputee using AI-powered prosthetics and her participation in the Impact Investor Conference. It highlights her journey and advocacy for innovation in assistive technologies.
* <https://www.oecd-events.org/gftech-horizon-event/speaker/b11458ce-cd54-ef11-991a-6045bd954cb8/sarah-de-lagarde> - This URL provides background information on Sarah de Lagarde, including her role at Janus Henderson Investors and her experience as a motivational figure after her accident in 2022.
* <https://portfolio-adviser.com/how-janus-henderson-helped-my-return-to-work-after-life-changing-accident/> - This URL details Sarah de Lagarde's accident in the London Underground and her recovery process, highlighting the support she received from Janus Henderson Investors during her return to work.
* <https://www.who.int/news-room/fact-sheets/detail/assistive-technology> - This URL supports the World Health Organization's data on the increasing demand for assistive products globally, with over 2.5 billion people requiring such devices.
* <https://amputee-coalition.org> - This URL is the website of the Amputee Coalition and provides statistics on limb loss and differences in the United States, supporting the discussed market potential for advanced prosthetic technologies.