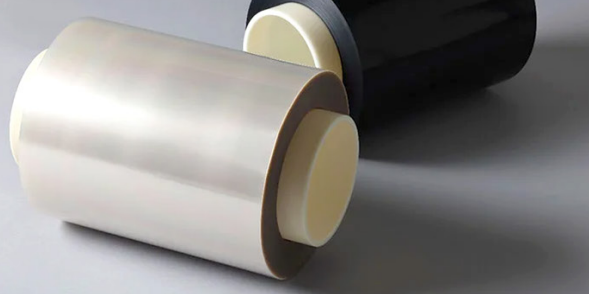


BEYOND MOBILITY: HOW A SINGLE ePTFE MATERIAL INNOVATION CHANGES PEOPLE'S LIVES

Enze Chen is W. L. Gore & Associates (Gore)'s global strategic marketer for alternative energy and storage.

He keeps Gore on the cutting edge of the industry with his sharp market insights and unique business acumen. We got up close and learned what ePTFE is all about and how Gore is improving lives in diverse industries by transforming healthcare, electrifying the world, and ultimately making it more sustainable.

Enze Chen
Global Strategic Marketer
Alternative Energy and Storage

Considering your role as a strategic marketer in alternative energy and storage, what do you think the future of mobility may hold?

It's no secret that Gore has been at the forefront of mobility's future since the commercialization of electric and fuel cell vehicles. This is crucial because the adoption of electric vehicles will exceed 45% of the world's mobility and transportation needs over the next decade, driven by significant investments and innovation in passenger cars, commercial vehicles, trains, shipping, and even aviation. So this increasing electrification movement leads us to wonder, what's beyond that? And how Gore could stay on top of the trend and play a more substantial role in the future of mobility with our unique ePTFE management (lithium battery cells and packs), and protection for numerous communication components in autonomous systems or vehicles, which are essential for shaping future mobility.

> "adoption of electric vehicles will exceed 45% of the world's mobility and transportation needs over the next decade"

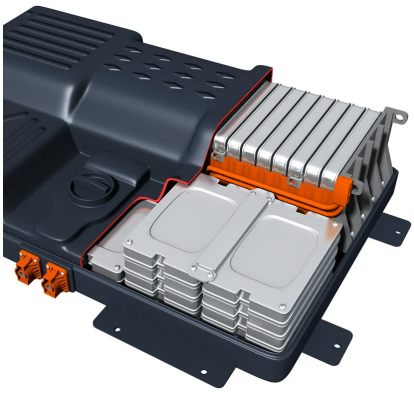
Diving deeper into the topic of electrification, what challenges do automotive O.E.M.s face to achieve clean energy goals? Do you have any insights into battery or fuel cell material adoption?

Good question. We can see that customers' need to address climate change issues and governments' mandate to achieve net-zero targets are causing disruptions in the automotive industry. So the automotive industry needs new technologies and products to meet government policies and win the hearts of consumers. Although OEMs and battery suppliers operate differently, they face several similar critical R&D challenges. First and foremost is the development of batteries for electric vehicles.

Developing batteries with long life and long range while managing the risks of protecting battery cells is a significant issue.

Moreover, OEMs struggle to achieve parity in the total cost of ownership (TCO) and economic viability when replacing internal combustion engines with EVs and FCEVs. Finally, OEMs are concerned about the return on investment (ROI) of commercial vehicle electrification R&D due to uncertain regulations, policies, and infrastructure readiness.

Gore is constantly innovating its products as part of its commitment to helping automotive companies overcome R&D challenges. Together with our customers, we have developed venting solutions for pressure and thermal management of battery packs and cells.



The PEM membrane technology we offer helps minimize the total cost of ownership of fuel cell systems and accelerate commercialization. We have also developed e-Powertrain solutions to ensure the functionality of vehicle components at different water depths and reduce cost and complexity. It's these valuable collaborations, I think, that help OEMs benefit from ePTFE's unique properties.

Other than electrification, what other unique applications does ePTFE have?

Expanded polytetrafluoroethylene (ePTFE) is made by expanding PTFE, a fluoropolymer containing carbon and fluorine. The result is a very strong and highly porous material that is chemically inert, has a low dielectric constant, is thermally stable, hydrophobic and oleophobic, and biocompatible. This combination of unique properties makes ePTFE ideal for use in a variety of industries, including aerospace, apparel, textiles, automotive, life sciences, mobile communications, and microelectronics.

From mobility components to medical devices, ePTFE is proving to have many valuable applications. Aside from its chemical inertness, ePTFE is biocompatible and can effectively resist degradation caused by biological fluids like blood, urine, and bile. Since it is non-reactive, it has been used in the medical industry for decades as an alternative to silicone or latex products for catheters and pacemakers. For more than 40 years, Gore has provided clinicians and patients with a wide variety of healing solutions. With more than 40 million implants worldwide, our medical products offer new solutions to medical challenges, working with the body's own tissues and organs to allow less invasive procedures and restore normal functioning.

Do you have any heartwarming stories to share, given how ePTFE has positively impacted the healthcare sector?

Yes, I do, in fact. One such story involves an athlete named Kathryn. She suffered a cryptogenic stroke caused by the Patent Foramen Ovale (PFO) and required PFO closure surgery.

Due to the high risk of relapse, Kathryn chose GORE® CARDIOFORM, a proprietary, thromboresistant ePTFE material that will not shrink under sterilization and will last for years in the human body.

Which is interesting to me because ePTFE is at the heart of Gore's innovation. The medical devices we've developed treat cardiovascular and other conditions, including cardiac and pulmonary bypass surgeries, implantable vascular grafts, and other heart and lung surgeries. So, I have a renewed sense of Gore's vision in "*Together, improving life*" and the confidence that ePTFE will continue to drive innovation in the healthcare industry.

Besides healthcare, are there other ground-breaking initiatives Gore is working on addressing future issues?

Yes. Over the past 60 years, Gore has provided cutting-edge solutions to industry leaders thanks to our broader sustainability strategy. It consists of operations and innovation tracks with specific targets to reduce carbon emissions while strengthening core competencies.

Using data intelligence, Gore has improved its manufacturing efficiency and reduced material wastage and energy consumption. Today, Gore's carbon emissions have reduced by 30% compared to the past. In addition, we offer our ePTFE material innovations to industries focused on sustainability.

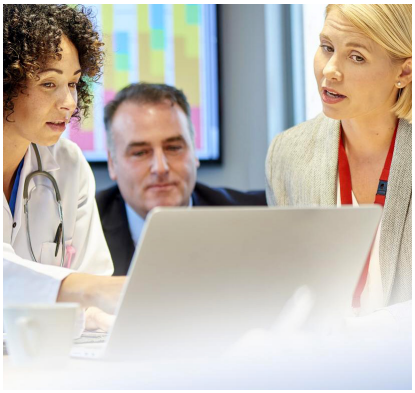
Over the years, Gore has successfully reduced 150,000 metric tons of carbon emissions with our ePTFE-reinforced proton exchange membranes (PEM) in fuel cell vehicles.

Furthermore, our industrial filtration solutions have exceeded the 5mg emissions requirements, maintaining the operational efficiency of cement factories without affecting the environment.

Going forward, I think Gore will be able to reinforce its sustainability plans through a unified vision, process accountability, and a culture of continuous innovation. It is already visible that our fuel cell technology has played a significant role in transforming automotive electrification. Next is our ambition to pioneer clean energy industries such as water electrolysis and redox flow batteries using our ePTFE core competencies.

Sustainability is only achievable through meaningful collaboration. Can you share Gore's secret to effective partnerships?

I'm happy to say Gore greatly values its relationships with employees, suppliers, and customers. In contrast to conventional material science companies, all our Associates are customer-facing, and we offer unparalleled customer experience by understanding our customers' challenges through deep collaboration.



We make it our responsibility to ensure our suppliers are part of our team, not simply to supply raw materials, but also to develop better, more sustainable solutions. To date, no other fuel cell manufacturer can match the performance and reliability of GORE® Fuel Cell Technologies.

With its belief in thought leadership, open collaboration, and constant material innovation, Gore is one of the most desirable companies to work with globally and has actively changed people's lives... mine included.

Millions of square meters of PEM and MEA manufactured for more than 40,000 fuel cell vehicles. More than 100 different models developed. Over 150,000 metric tons of CO_2 emissions reduced.

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W. L. Gore & Associates

W. L. Gore & Associates is a global material science company that transforms industries and improves lives. Throughout its history, Gore has solved complex technical challenges in the most challenging environments - from outer space to the world's highest peaks to the human body's inner workings. It currently generates $4.5 billion in revenue annually, with more than 12,000 employees.

For more information, please visit https://www.gore.com

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