

IONX™ makes plastic packaging 100% recyclable

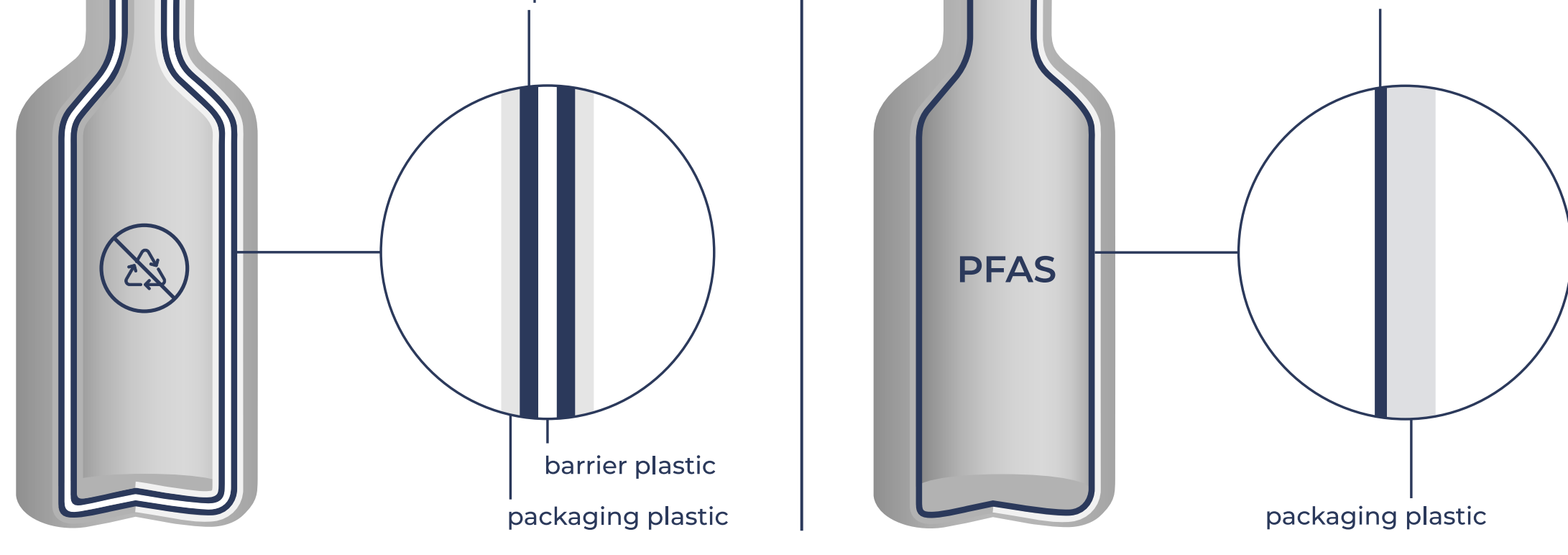
For several years, IonKraft has been developing and refining its plasma-based barrier coating technology. It has already proven its effectiveness in protecting products while enabling recyclability. This technology has been integrated into the company's brand and is called IONX. With IONX, our coating has a clearly defined identity, facilitating communication across industries and applications in a more straightforward, transparent, and consistent manner.

“IONX is more than a name. This represents a significant milestone in enhancing the visibility and comprehensibility of our coating technology to partners, customers, and regulators.”

Dr. Montgomery Jaritz

The challenge with conventional barrier technologies

Traditional barrier packaging solutions have long required a trade-off between performance and sustainability. Multilayer packaging provides reliable protection but cannot be recycled. Fluorination, while adding chemical resistance, releases PFAS, which face increasing restrictions due to their associated health and environmental concerns.



What IONX stands for

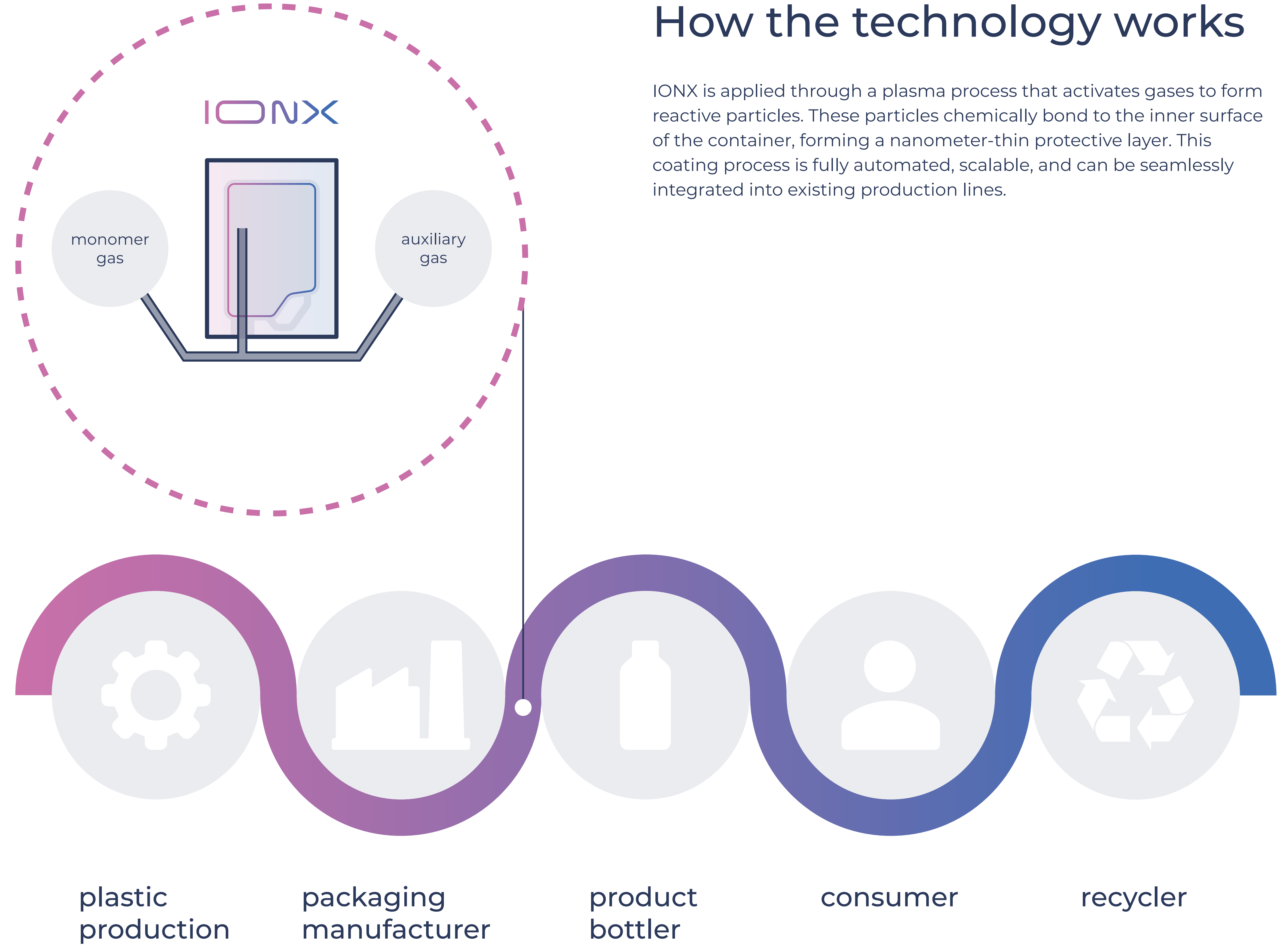
IONX is our SiO_x plasma-based coating technology. A refined plasma-enhanced chemical vapor deposition (PECVD) process is utilized to apply an ultra-thin, glass-like barrier layer to the inside of plastic containers. This nanocoating reliably prevents substance migration, enabling the use of mono-material packaging solutions.

- Fluorine-free and PFAS-free
- Ultra-thin (below 80 nm)
- Chemically stable and food-safe
- Validated as recyclable by RecyClass



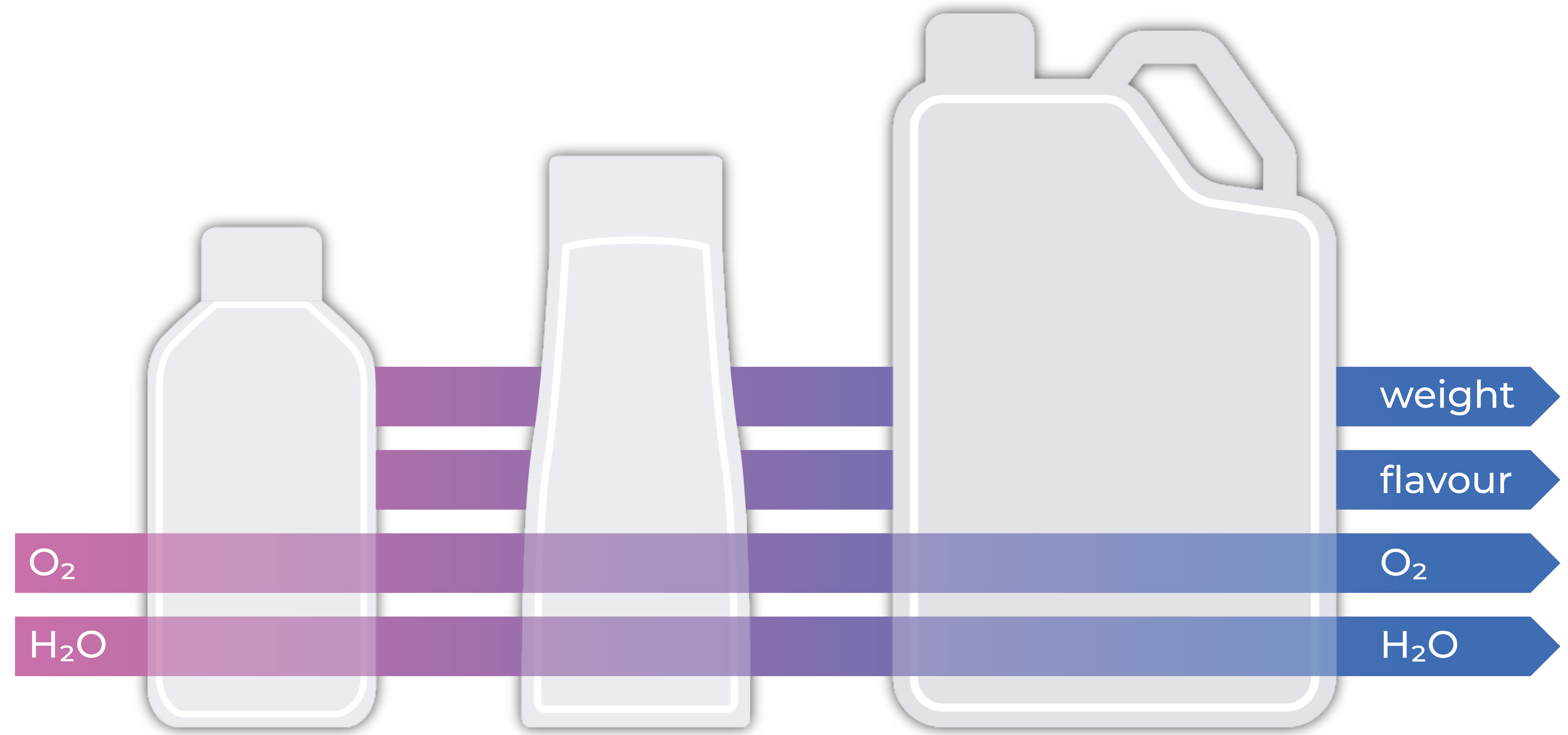
How the technology works

IONX is applied through a plasma process that activates gases to form reactive particles. These particles chemically bond to the inner surface of the container, forming a nanometer-thin protective layer. This coating process is fully automated, scalable, and can be seamlessly integrated into existing production lines.



Proven performance and application

- Gas barrier protecting against O₂, CO₂ and vapor
- Migration barrier preventing penetration of solvents, toxic or aromatic substances
- Corrosion protection ensuring resistance against acidic or alkaline substances



Recyclable packaging in various applications

IONX is suitable for bottles, jerry cans, and containers ranging from 0.2 to 20 liters. Its versatility extends across a broad range of applications, from industrial chemicals where barrier protection is essential to household products that require durability and safety. It also supports packaging for cosmetics and personal care, while offering strong benefits for food, beverages, and pharmaceuticals where maintaining product integrity and recyclability is crucial.



Why IONX Matters

IONX is not a new technology, but rather a name given to a proven solution. With its own brand identity, it becomes easier to differentiate, communicate and scale across industries.

“By introducing the IONX brand, we make our technology more accessible and create a common language for partners, regulators, and customers worldwide.”

Benedikt Heuer

Contact