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Two P&G alums are changing the aerosol category for good

FEA releases UK, Germany and France filling figures



Two P&G alums are changing the aerosol category for good

Alternative Packaging Solutions (APS) gives *World Aerosols* exclusive insight into twistMist™, a game-changing product that recently won the prestigious 2023 U.S. Plastics Pact Sustainable Packaging Innovation Award in the Refill category

twistMist™ is a new, continuous dispensing technology that eliminates the need for pressurised tinplate, aluminium or plastic cans and allows brands to switch to a reusable system with the bottle made of 100% recyclable plastics (HDPE, PET), metal, or glass bottles.

Its reusable head makes the system the only aerosol that allows refills and can be reused for up to 10,000 spray cycles.

The product has been created by Alternative Packaging Solutions (APS), a hybrid between an investment and technology development company, which identifies and purchases early IP for technologies that have a potential to positively impact very large categories – \$10 billion (€9.1 billion) or more.

“We are looking for tectonic rather than incremental shifts. After we buy the IP, we invest in developing those technologies to the point when the key players in the target category are willing to lease it from us. twistMist™ became

the first such technology that we acquired from the inventor and have been developing for the last several years,” the company told *World Aerosols*.

Experts in industry

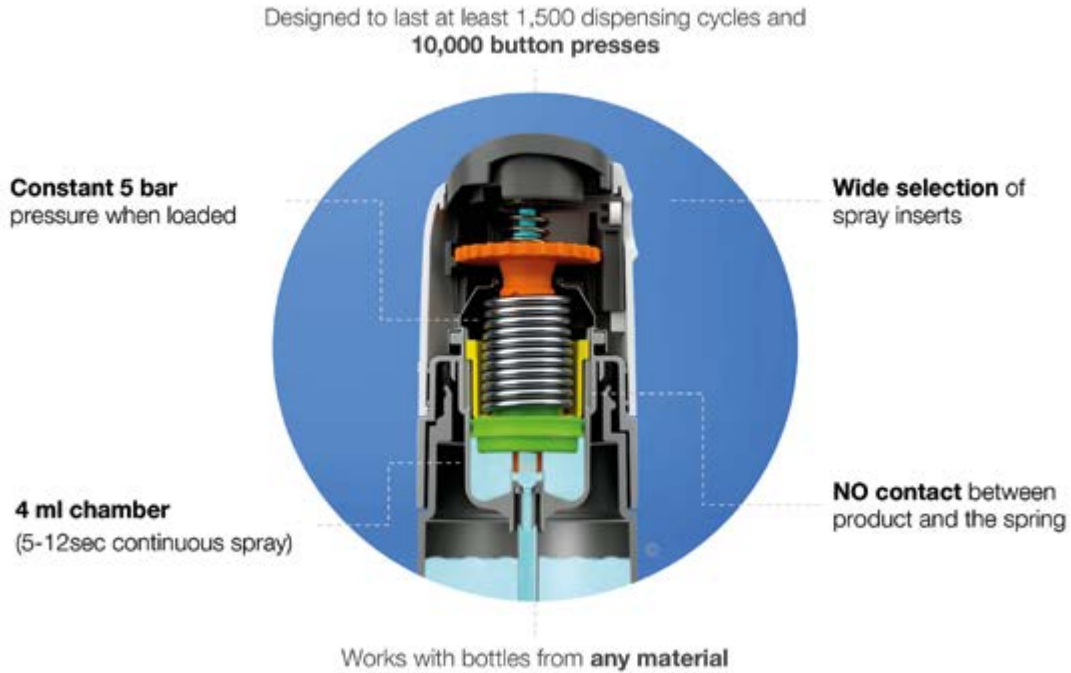
APS is led by two P&G alums – Brad Barron and Dennis Ossipov-Grodsky – each bringing almost three decades of technical and commercial experience respectively. Brad Barron, chief innovation officer, is responsible for all technical and IP aspects of the company’s works.

“My specialty has always been packaging development,” he said. “I spent most of my career at Procter & Gamble, I was there for 25 years. I led packaging development for Tide, Febreze and other brands in the Fabric & Homecare division.”

Brad has a strong pedigree in sustainability, having led the packaging sustainability effort

Dennis Ossipov-Grodsky (APS, CMO) and Brad Barron (APS, CIO)





twistMist™: Technology designed for reuse and refill

for the entire company. The last thing he did before leaving P&G was setting the 2020-2030 sustainability goals, which he said he was very proud of.

“When I left P&G, I really wanted to continue on the path of driving positive impact in the consumer packaged goods (CPG) industry. This led me to joining APS five years ago because of the enormous potential that our company has in changing large categories for good,” he added.

Chief marketing officer Dennis Ossipov-Grotsky represents the commercial side of APS.

“Similar to Brad, I’ve been in business for almost 30 years, ten of which I spent on the brand side of Procter & Gamble,” said Dennis.

The pair worked together on launching several Tide products in the US, and Dennis later led the global Tide franchise across the emerging markets. He also spent a few years in Switzerland, managing a portfolio of four P&G laundry brands in the 18 countries in Eastern Europe and the Balkans.

Dennis went on to lead US marketing for the iconic SodaStream brand, which was acquired by PepsiCo.

“When Brad reached out three years ago and said that he was looking for a commercial lead, it was an easy choice because of the unique nature of APS and the massive positive impact potential of twistMist™ technology that APS was developing,” added Dennis.

Experiencing innovation

With such a breadth of experience between the two, *World Aerosols* was curious as to how the pair’s time at P&G contributed to the development of twistMist™.

“While in P&G, we both had many instances

when we had to decide if a new technology or a new product was a good fit with the needs of our consumers, with P&G’s portfolio, with our sustainability aspirations, and with other operational KPIs,” said Dennis.

“Very frequently, we would have plenty of either technical- or commercial-type questions that were not answered by vendors who were bringing such ideas to P&G. Also, because of our personal experience of launching new products for P&G, we both know what companies like P&G, Unilever, Henkel, Rickett, SCJ and others will require to qualify and launch a new technology,” added Brad.

“Thus, we have decided to de-risk our technologies by providing the best IP protection and running all the necessary technical and commercial qualifications the way any large leading company would.”

This kind of work requires a significant level of investment and expertise, and APS said they are lucky to have both. The company is equipped with a group of long-term investors who believe in the vision and the model, and a pool of “the best in-class, legal, technical, design and R&D partners.”

“Is it a risky model? Yes. And that’s why we are very selective when it comes down to the technologies we invest in. We typically focus on one technology per category. Big bets. Long horizons,” said Dennis.

twistMist™ in depth

World Aerosols asked APS to introduce the product in their own words, and to explain how it revolutionises the industry.

“In a nutshell, twistMist™ is the first propellant-free, twist-activated technology that allows consumers to enjoy the aerosol

experience that they have come to love (e.g., a continuous spray at the press of a button) without all the negatives of traditional aerosols.”

The negatives for traditional aerosols include:

- **Consumer exposure to carcinogens:** in 2021-2023, a carcinogenic benzene contamination scare resulted in millions of aerosol units in sun care and deodorant categories being pulled off the shelves by all tier 1 CPG companies. As a propellant-free aerosol, twistMist™ brings this risk to zero.
- **Negative environmental impact:** despite some improvements, aerosols continue to be one of the most environmentally hazardous CPG technologies. 1.3 megatons of VOCs are produced by aerosols.
- **Not reusable or refillable, rarely recyclable:** because aerosols are always pressurised (traditional aerosols are little scuba tanks), it is impossible to refill or reuse them. For the same reason, many municipalities do not accept aerosol cans into the recycling stream.
- **Hazardous supply chain:** to produce traditional, pressurised aerosols, companies must employ rigorous Hazmat practices for filling, pressure-testing, storing and transporting, which increases the cost for manufacturers and consumers.
- **No 3D design innovation:** because aerosols are pressurised, they must be cylindrical. This dramatically limits the 3D design options resulting in uniform-looking rows of aerosols on the shelves lacking differentiation or brand identity. twistMist™ is able to address all of these risks while delivering three main benefits:



twistMist™: Best Sustainability Profile

of operation, twistMist™ offers another health benefit to consumers – no inhalable particles. The spray from traditional aerosols contains a significant number of particles that are so small that they can get into the human respiratory system. Because twistMist™ generates consistent 5-bar pressure, 100% of the particles fall outside of the inhalable size.

“Our target body-centric categories are deodorants, sunscreens, insect repellents, and hair treatments. Among the task-centric categories we are focusing on are disinfectants, surface cleaners, air care and cooking oils,” the company added.

The fact that twistMist™ has no propellant means it is not suited for products that require LPG propellants to mix with the product in order to deliver tiny droplets and prevent clogging.

“We are also not the right choice for categories with very sticky formulas. For example, extra hold hair sprays (fixatives) or spray paints or dry shampoos would not be a good fit for twistMist™ aerosols at this point.”

Independent verification

It was important to APS to receive external validation for the key elements of its de-risking mix.

“We’ve seen so many times when inventors get ‘blinded’ by their tech and fail to generate reliable answers to the most fundamental questions like ‘is there a real consumer need for this tech?’, ‘is your technology suited for mass production?’, or ‘is your tech truly good for the environment?’”.

To avoid falling into this trap, APS reached out to Leeds Beckett University, which is a known authority when it comes to running independent product sustainability assessments for the CPG industry.

The institution conducted a proper ISO LCA to assess where twistMist™ falls on the sustainability spectrum vis-à-vis other aerosol technologies currently on the market.

“The LCA studied impact of the aerosols along such vectors as global warming potential, ecotoxicity, photochemical ozone creation potential, acidification potential, and many others. The result was genuinely humbling for us. It turned out that twistMist™ helps reduce CO₂ footprint by 90% when compared to the traditional tinplate, LPG-powered aerosols,” said Brad.

“For an innovation to win at scale, it must improve the core consumer benefit of a category, be sustainable, and affordable. We’ve been laser-focused on ensuring that twistMist™ does exactly that”

Brad Barron (APS, CIO)

Better for consumers:

- **Improved product benefit:** because, unlike traditional aerosols, twistMist™ generates 5 bars of continuous pressure from first to last dose, the resulting spray pattern produces particles of the uniform size and distribution. This drives better surface coverage, potentially improving disinfecting or sun-blocking or hair product application results.
- **Better health & safety profile:** in addition to eliminating the benzene health risk because of the propellant-free mode

Better for environment:

- **90% lower CO₂ footprint:** because there is no pressure, twistMist™ bottles can be made from any fully recyclable material. Also, for the first time ever, it is possible to refill an aerosol bottle and to reuse the twistMist™ head. An independent Life Cycle Analysis (LCA) study conducted by Leeds Beckett University determined that twistMist™ can deliver up to 90% lower CO₂ footprint vs. today’s traditional tinplate aerosol with an LPG propellant.

Better for brands:

- **Design customisation:** twistMist™ offers five points of customisation: bottle, shroud, ring, button and spray nozzle. For the first time ever in the aerosol world, product designers will get an unprecedented freedom of expression and room for potential further innovations.
- **Margin neutral or accretive:** based on extensive modeling and material research, APS estimates twistMist™ to be margin neutral for customers as a single unit vs. larger tinplate aerosols and, potentially, margin accretive with the refills.

Best formulations

In terms of formulations, as twistMist™ sprays at 5 bar pressure, it is best-suited to any category that a traditional bag-on-valve (BOV) or compressed aerosol could spray today, APS told *World Aerosols*.



twistMist™: First Customisable Aerosol

Design, development and production

Brad said that, due to his and Dennis’s industry experience, they knew exactly the type of expert partners APS needed to engage. “We are fortunate to have DCA International and Lindal as our key partners helping bring twistMist™ to life,” he said.

Leading engineering design company DCA International did “absolutely incredible work on the initial – and several subsequent – evolutions of the twistMist™ design that made the product not only better looking, but also dramatically better for the end-user experience because of the improved technical parameters,” added Dennis.

Lindal, one of the world’s leading global actuator manufacturers, was attractive because it is unique in maintaining a competitive advantage via constant innovation.

“That’s why over the last 3 years, they worked relentlessly on bringing twistMist™ to life on the production side: building moulds, qualifying assembly equipment, testing and refining twistMist™ technology to make it ready for the large-scale production. Going forward, Lindal will be manufacturing twistMist™ units and supplying them directly to the customers,” said Brad.

Indeed, APS is seeing very strong interest from all leading CPG players across the entire spectrum of the company’s target categories. The next 12-18 months will be pivotal in determining twistMist™ technology’s success, and it is expected to be seen on shelves in early 2026.

“The base plan is to supply twistMist™ heads from Lindal’s plant in Columbus, Indiana. But the volume commitments will drive the final decision. Bottles will be produced locally by whatever vendor our customers are using today,” said Brad.

Award-winning product

The U.S. Plastics Pact is a solutions-driven consortium founded by The Recycling Partnership and the World Wildlife Fund, launched as part of the Ellen MacArthur Foundation’s global Plastics Pact network.

Its awards programme is one of the most prestigious in the industry, and *World Aerosols* asked APS how it felt to have twistMist™ named the winner of the ‘Refill’ category.

“Even though we knew intellectually, based on the LCA study, that twistMist™ is indeed a #1 sustainable aerosol delivery mechanism, emotionally we both were not ready for the news,” said Dennis.

“There is always a bit of a shellshock effect in moments like this. But after you come down from the stage, you quickly put yourself back into the ‘hey, this is just the very beginning of the journey!’ mode. Thanks to the award, we are a bit more confident now. But until the product is on a shelf in a store, our job is not yet done,” Brad added.

With such a successful beginning, *World Aerosols* was keen to know the next stage for APS and twistMist™.

“Today is a very important and exciting moment in the twistMist™ history: we are moving from technical to the commercialisation stage,” said the company.

“We have completed technical work on the unit and are sending the first real (automatically assembled) samples to our target customers



“Squares, grooves, waves, grips – for the first time ever, brand designers are not limited to the cylindrical shape for aerosols. twistMist™ is starting a design liberation movement in this category”

Dennis Ossipov-Grotsky (APS, CMO)

as we speak. By the end of the summer, we’ll complete full qualification of the automatic assembly line and will be able to supply thousands of units to our partners to run large scale consumer tests. We have several front runners in personal care as well as cleaning products who are actively working through the internal technical and commercial validation steps and are aiming to run consumer testing in early 2024,” concluded Brad and Dennis.

For more information
Visit: theapscompany.com



APS and Lindal Partnership (ADF’23). From left to right: Dennis Ossipov-Grotsky (APS, CMO), Francois-Xavier Gilbert (Lindal, CEO), Phil Lever (Lindal, Head of Sales), Brad Barron (APS, CIO)