

PSTC Tape Week 2025: Real shifts, real questions

PSTC Tape Week 2025 marked a turning point for the pressure-sensitive adhesive (PSA) industry, as discussions shifted from marketing claims to genuine progress in sustainability, circularity and advanced applications. From debonding-on-demand adhesives to smart security systems and EV-driven innovations, the event showcased both the industry's technical strides and the strategic challenges it must navigate in a changing global market. Afera President Evert Smit reflects on the North American PSA industry's premier gathering in Chicago.



The Pressure Sensitive Tape Council's (PSTC) annual gathering brought together over 400 industry professionals for four days of technical sessions, market insights and strategic discussions. This year's event felt markedly different, not because of flashy product launches or breakthrough prototypes, but because several long-overdue conversations finally made it to the main stage.

Sustainability comes of age

Perhaps the most significant shift was in how sustainability is being addressed. The industry is moving beyond surface-level green marketing toward more rigorous assessment and genuine innovation. Natural rubber's traditionally "green" reputation is now being reassessed in light of its full ecological and social footprint, reflecting a more mature understanding of environmental impact.

Product Carbon Footprint (PCF) measurement has evolved from a "nice-to-have" to an essential foundation for responsible product development. [The growing interest in standardised PCF calculation tools reflects broad recognition that transparency is now a baseline expectation for industry participation.](#)

Particularly promising were presentations on debonding-on-demand technologies, which offer a glimpse of what practical circularity might look like beyond high-level sustainability slogans. These smart adhesives can be triggered to separate, enabling true recyclability — a tangible step toward closing material loops.





Innovation beyond incremental improvements

The technical sessions revealed encouraging progress in formulation science that goes well beyond incremental tweaks. Biomimetic dual-network adhesives, advances in LED-based UV curing systems and robust hybrid water-based formulations all point toward a next phase where performance and

sustainability are no longer treated as competing priorities.

Medical applications saw particularly interesting developments, with temperature-responsive adhesives designed to reduce skin irritation by displaying optimal adhesion at body temperature and easy removal with slight heat of 45°C. Meanwhile, latent crosslinking strategies are expanding how the industry defines functionality, with applications in graphics and repositionable adhesives offering elegant solutions to complex challenges.

Security systems also emerged as a rapidly expanding segment, with smart adhesive materials incorporating marker systems and laser-engravable features. The versatility demonstrated in hotmelt adhesives for security applications suggests significant untapped potential in specialised markets.

Market forces and strategic challenges

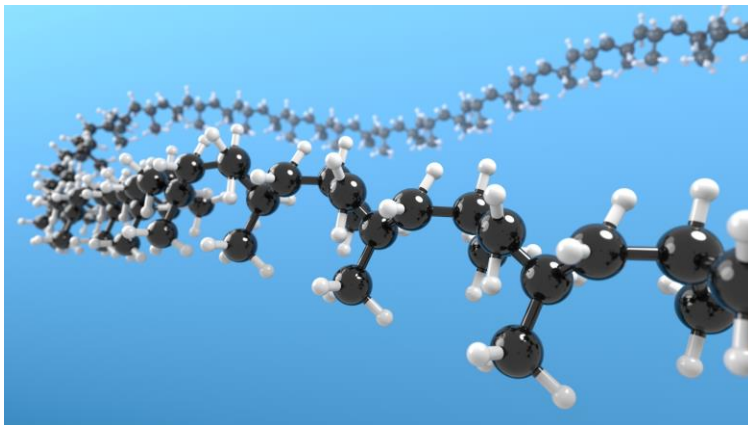
Despite technical progress, strategic challenges remain substantial. Tariff regimes continue to distort markets and inhibit collaboration, creating artificial barriers that complicate global supply chains and innovation partnerships.

Electric vehicle (EV) applications are accelerating rapidly, pulling tapes into increasingly structural and safety-critical roles. This shift demands enhanced thermal management, vibration dampening, and integration capabilities — requirements that are pushing the boundaries of traditional PSA design.

Meanwhile, manufacturing automation continues to lag behind broader industrial trends. Although case studies demonstrate significant potential for tape-line automation, integration hurdles remain substantial — suggesting the industry still has considerable work to do in modernising production capabilities.

The human element

Two initiatives stood out for their emphasis on the human dimension of industry development: medical application panels and women in tape initiatives. Both demonstrated refreshing candour and clarity in recognising that innovation is not solely technical, but also human, contextual and collective.



These discussions served as important reminders that behind every technical advancement are people working to solve real problems — and that diverse perspectives are essential to addressing the industry's complex challenges.

Looking forward

The overarching message from this year's gathering was clear: Stop assuming continuity and start preparing for actual change. The PSA industry stands at an inflection point, where traditional approaches are being challenged by sustainability requirements, evolving applications and shifting market dynamics.

The most successful companies will be those that embrace uncertainty as opportunity, investing in genuine innovation rather than innovation theatre, and building capabilities that address real market needs instead of perpetuating outdated assumptions.

The industry still walks a fine line between authentic innovation and performance theatre, but the conversations taking place now suggest a growing commitment to substance over style. True circularity remains underdeveloped — often blocked by short-term economics or legacy product design thinking — but the foundation for meaningful progress is being laid.



As global trade patterns continue to shift and new applications emerge, the PSA industry faces both significant challenges and unprecedented opportunities. The key will be maintaining focus on real solutions while building the collaborative relationships necessary to navigate an increasingly complex landscape.

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