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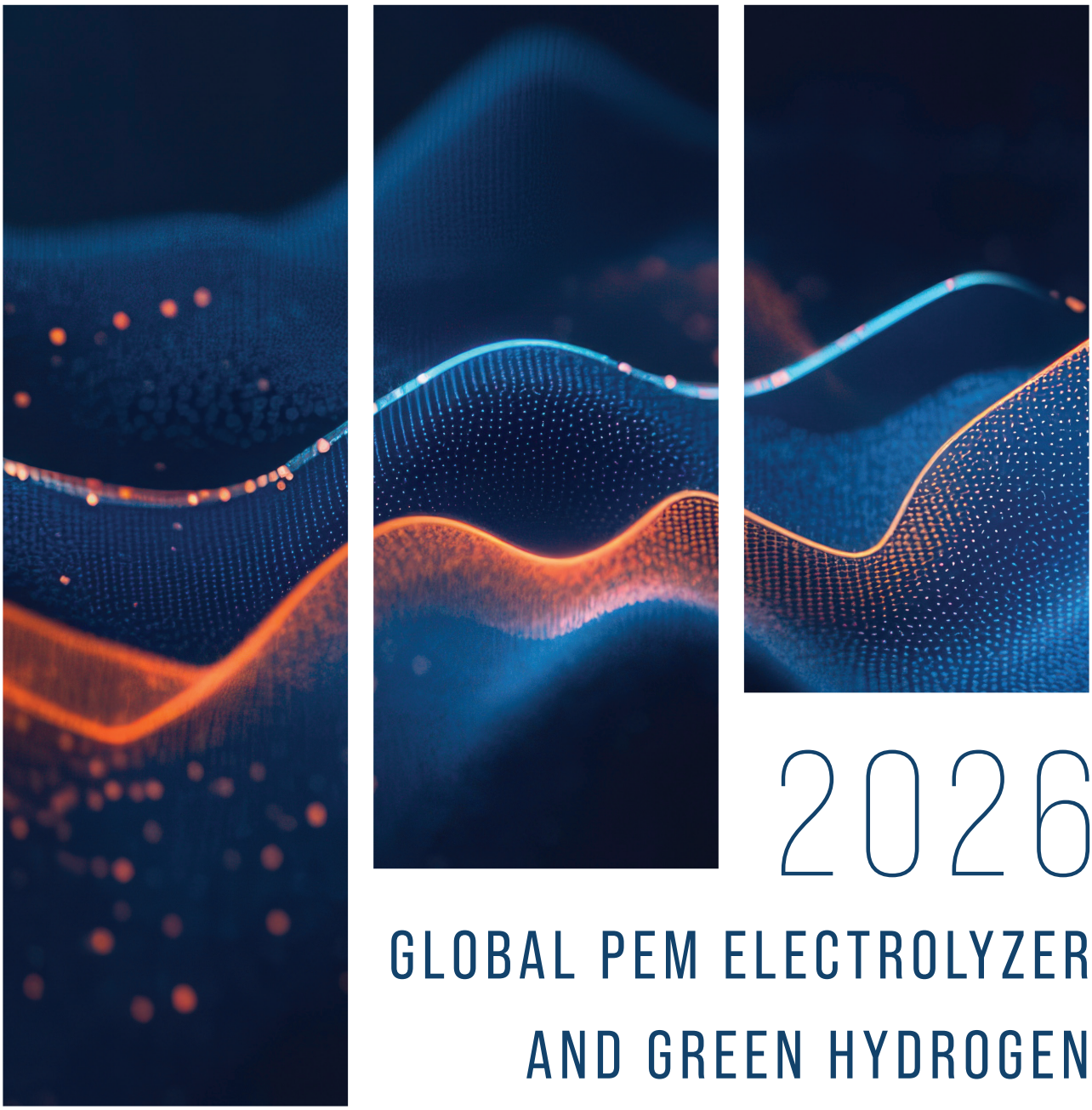
BEST PRACTICES



2026 GLOBAL PEM ELECTROLYZER AND GREEN HYDROGEN TECHNOLOGY INNOVATION LEADERSHIP

ohmium

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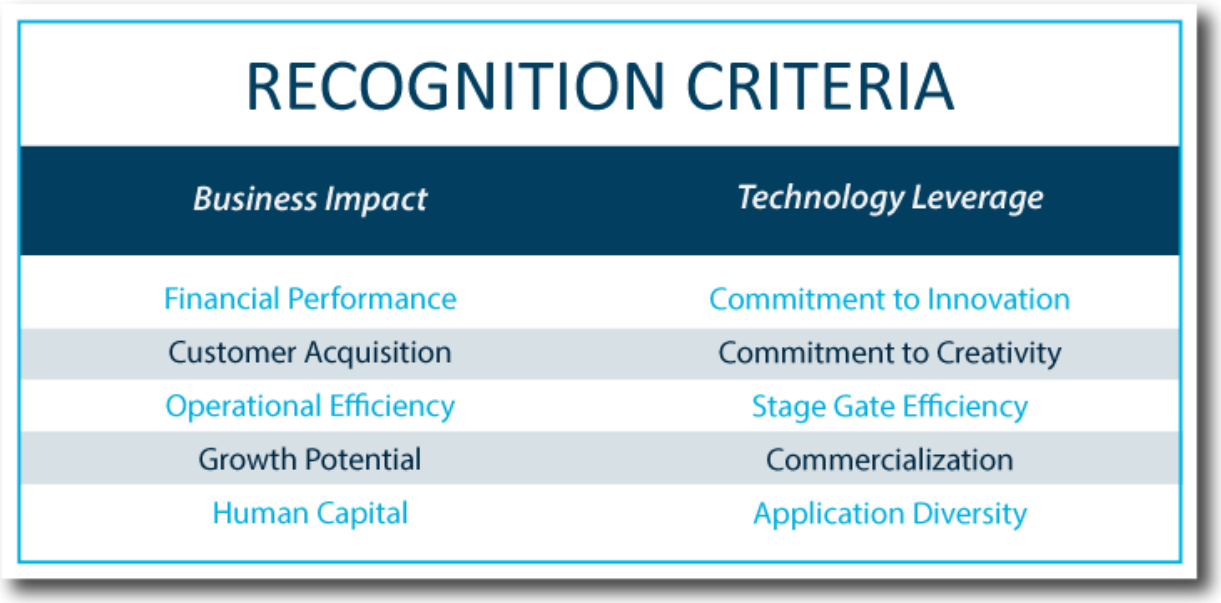
Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each recognition category before determining the final recognition recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Ohmium Internationals excels in many of the criteria in the global PEM electrolyzer and green hydrogen space.



The Transformation of the PEM Electrolyzer and Green Hydrogen Industry

The global proton exchange membrane (PEM) electrolyzer and green hydrogen industry is emerging as a central pillar of the energy transition, driven by the need to decarbonize hard-to-abate sectors like heavy industry, chemicals, and transport. PEM electrolyzers are gaining prominence within the broader electrolyzer landscape due to their ability to operate flexibly with intermittent renewable energy sources like wind and solar, making them particularly well-suited for green hydrogen production. As countries pursue net-zero targets, governments and corporations increasingly position green hydrogen as a scalable alternative to fossil-based hydrogen, accelerating interest in electrolyzer deployment and integrated hydrogen value chains.

At a global level, the market is characterized by strong policy support, rapid technological advancement, and expanding end-use applications. Regulatory frameworks, subsidies, and public–private partnerships are playing a decisive role in de-risking investments and enabling large-scale project development, particularly in Europe, Asia-Pacific, and North America. At the same time, improvements in electrolyzer efficiency, modularity, and durability are supporting broader commercialization across sectors such as energy storage, refining, mobility, and industrial feedstocks. PEM technology, in particular, benefits organizations via its high responsiveness and compatibility with decentralized and renewable-based energy systems, reinforcing its role in next-generation hydrogen infrastructure.

Despite this momentum, the industry remains in a growth and early-scaling phase, with structural challenges that continue to shape its trajectory. Key constraints include the limited development of

hydrogen transport and storage infrastructure, high production costs relative to conventional hydrogen, and uncertainty around long-term demand and project bankability. In addition, delays in project execution and uneven policy implementation across regions have slowed the transition from announced capacity to operational deployment.

Ohmium International: Next-Generation Electrolyzer Innovation

Ohmium International delivers an integrated PEM electrolyzer platform built around high system efficiency of approximately 48 kWh_{AC}/kg, alongside compact, containerized systems that integrate water treatment, power conversion, thermal management, and digital controls into a unified architecture. This integrated design supports scalable deployment, operational flexibility, and simplified system integration. Its Lotus series produces pressurized hydrogen at up to 99.99% purity (with optional system configuration to increase the purity to 99.999%), while embedded sensors and remote monitoring capabilities provide continuous performance visibility and predictive maintenance insights. This tightly integrated system design reduces operational interruptions and enables customers to maintain consistent output quality, which proves critical for industrial applications requiring high efficiency, reliability and product purity.

Beyond product architecture, Ohmium has strengthened its innovation leadership through external validation of safety and reliability. The company's electrolyzer has achieved industrial certification under globally recognized safety standards for hydrogen generation systems, reinforcing deployment readiness, regulatory compliance, and operational assurance for customers across industrial and energy applications.

The company advances technological performance through continuous improvements in stack engineering and system efficiency, allowing its electrolyzers to operate dynamically alongside intermittent renewable energy sources. These systems allow for dynamic ramping from minimum to full load in 8 seconds with solar pv, wind, or other renewable inputs maintaining stable hydrogen production without compromising efficiency. In addition, the architecture supports phased capacity expansion, enabling customers to align capital deployment with demand growth rather than committing to oversized

infrastructure upfront. A footprint of approximately 29.7 m² per megawatt[1] further enhances project economics by lowering land use requirements and associated balance-of-plant costs.

Ohmium's innovation stands out within the PEM electrolyzer landscape through its true modular, distributed architecture, which contrasts with the industry's conventional large-format, centralized electrolyzer systems. This enables granular, site-level deployment, faster replication, and reduced infrastructure dependency, fundamentally shifting hydrogen production toward a more distributed and scalable energy model. A distinctive design philosophy drives new deployment possibilities by prioritizing simplicity, portability, and resilience across operating conditions.

The plug-and-play configuration minimizes site preparation and eliminates the need for heavy installation equipment in many cases, while the rack-based structure allows fast component replacement using standard tools. Systems operate reliably across ambient temperature ranges from -40°C to 55°C[2], which enables deployment in harsh climates without extensive customization. This engineering approach allows hydrogen production to move closer to end-use locations, supporting decentralized models that reduce logistical complexity and infrastructure constraints.

> *"Ohmium's execution speed and development efficiency benefit from a highly standardized manufacturing and delivery model that streamlines every stage, from production to commissioning."*
>
> ***- Ana Dominguez,***
> ***Best Practices Industry Analyst***

Ohmium's execution speed and development efficiency benefit from a highly standardized manufacturing and delivery model that streamlines every stage, from production to commissioning. Factory-assembled and pre-tested units reduce on-site engineering requirements and compress installation timelines, allowing projects to transition to operation more quickly. In an industry where project delays are a critical bottleneck, this factory-built, pre-integrated approach significantly accelerates deployment timelines, enabling customers to achieve faster time-to-hydrogen and gain early-mover advantage in emerging markets. The company's vertically integrated gigafactory supports 2 gigawatts (GW) of annual manufacturing capacity, scalable to 4 GW[3], consolidating manufacturing, assembly, quality assurance, testing, warehousing, and shipping under a unified framework. Furthermore, rapid engineering-to-production feedback cycles ensure continuous performance improvements, strengthening reliability and reducing time-to-market.

A broad range of application scenarios underscores the versatility of this platform across industries and geographies. The same electrolyzer systems support hydrogen production for refining, ammonia, and steel manufacturing, while also enabling emerging applications such as energy storage, synthetic fuels, and heavy transport. Compatibility with both grid-connected and off-grid renewable configurations allows deployment in mature energy markets as well as regions with limited infrastructure. This flexibility aligns with the transition toward a decentralized hydrogen economy, where production is increasingly located

[1] https://www.ohmium.com/news/ohmiums-comprehensive-and-modular-hydrogen-solution-achieves-a-compact-horizontal-footprint-of-29-7-m2-mw-including-maintenance-and-access-areas Accessed April 2026
[2] https://www.ohmium.com/news/ohmiums-comprehensive-and-modular-hydrogen-solution-achieves-a-compact-horizontal-footprint-of-29-7-m2-mw-including-maintenance-and-access-areas Accessed April 2026
[3] https://h2-tech.com/news/2024/07-2024/ohmium-launches-newest-pem-electrolyzer-gigafactory Accessed April 2026

closer to consumption points, reducing dependence on underdeveloped transport and storage infrastructure.

Recent strategic engagements further validate Ohmium's real-world applicability and market traction. The company is actively collaborating with ecosystem partners to deploy green hydrogen solutions across industrial, mobility, and decentralized energy use cases, including microgrid-based hydrogen production and integrated clean energy systems. These deployments demonstrate the platform's adaptability across both centralized industrial operations and distributed energy environments.

Frost & Sullivan concludes that this combination of advanced system design, execution efficiency, and cross-industry applicability positions Ohmium as a key technology innovator driving scalable and economically viable green hydrogen adoption.

Strengthening Customer Impact and Operational Execution

Ohmium accelerates customer acquisition by removing many of the structural barriers that typically delay hydrogen project development. Its standardized, modular electrolyzer systems simplify the evaluation and procurement process, allowing customers to move from feasibility assessment to deployment without navigating complex, bespoke engineering cycles. The plug-and-play architecture, combined with factory pre-assembly and testing, reduces uncertainty around installation timelines and performance outcomes, two critical factors that influence purchasing decisions.

> *"Frost & Sullivan determines that Ohmium's ability to align customer-centric processes, operational discipline, scalable growth strategies, and an innovation-led workforce positions it strongly to capture long-term opportunities in the evolving green hydrogen market."*
>
> ***- Arun Prasath,***
> ***Principal Consultant***

The company's position is further reinforced by alignment with emerging policy ecosystems supporting green hydrogen adoption. Participation in national and regional hydrogen initiatives strengthens its credibility as a scalable PEM technology provider while enabling customers to benefit from supportive regulatory frameworks, incentives, and localized manufacturing ecosystems.

Operational efficiency emerges through a tightly coordinated manufacturing and delivery model that prioritizes speed, consistency, and quality across the value chain. The company's vertically integrated production approach enables precise control over component design and system assembly, while its gigafactory capacity supports rapid scaling without compromising reliability. Pre-configured units reduce on-site labor demands and limit integration risks, allowing teams to execute deployments with greater predictability and fewer delays. Internally, streamlined engineering workflows and rapid iteration cycles ensure that performance improvements translate quickly into production-ready systems, reinforcing a culture of execution discipline and continuous refinement. A strong emphasis on customer-centric design directly supports long-term growth potential by enabling clients to scale hydrogen production in line with evolving demand. The modular structure allows incremental capacity expansion, which lowers upfront investment risk and makes adoption more accessible across a wider range of industries and geographies.

An innovation-driven culture underpins the company's approach to human capital, where engineering, manufacturing, and deployment teams operate within a unified framework focused on solving complex

energy challenges. Employees engage directly with advanced electrolyzer technologies and participate in rapid development cycles that emphasize tangible impact and real-world application. This environment promotes technical skill development while reinforcing a shared sense of purpose tied to advancing clean energy solutions. By aligning workforce capabilities with cutting-edge technology and mission-driven objectives, the organization enhances employee engagement, supports talent retention, and sustains a high-performance culture.

Frost & Sullivan determines that Ohmium's ability to align customer-centric processes, operational discipline, scalable growth strategies, and an innovation-led workforce positions it strongly to capture long-term opportunities in the evolving green hydrogen market.

Conclusion

Ohmium International stands out for its ability to translate advanced proton exchange membrane (PEM) electrolyzer technology into scalable, real-world hydrogen solutions that address critical industry challenges. The company combines modular system design, rapid deployment capabilities, and strong manufacturing integration to reduce project complexity and accelerate time to operation. Its customer-centric approach simplifies adoption while enabling flexible growth aligned with evolving demand, strengthening long-term relationships and market trust.

With a growing global project pipeline and scalable manufacturing capabilities, Ohmium is evolving from an emerging innovator to a commercial-scale technology provider capable of supporting large hydrogen ecosystems. Supported by strong manufacturing scale, growing ecosystem partnerships, and alignment with global hydrogen policy initiatives, Ohmium continues to strengthen its position as a credible and scalable technology provider in the green hydrogen value chain.

By combining modular innovation, rapid deployment, and scalable manufacturing, Ohmium is redefining how electrolyzer systems are designed, deployed, and scaled, positioning itself as a key enabler of next-generation hydrogen infrastructure. At the same time, a disciplined focus on operational execution ensures consistent performance and reliability across deployments. An innovation-driven culture empowers teams enhancing both product performance and delivery efficiency continuously.

For its strong overall performance, Ohmium International is presented with Frost & Sullivan's 2026 Global Technology Innovation Leadership Recognition in the PEM electrolyzer and green hydrogen industry.

What You Need to Know about the Technology Innovation Leadership Recognition

Frost & Sullivan's Technology Innovation Recognition identifies the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

Best Practices Recognition Analysis

For the Technology Innovation Leadership Recognition, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Business Impact

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Leveraging innovative technology characterizes the company culture, which enhances employee morale and retention

Best Practices Recognition Analytics Methodology

Inspire the World to Support True Leaders

This long-term process spans 12 months, beginning with the prioritization of the sector. It involves a rigorous approach that includes comprehensive scanning and analytics to identify key best practice trends. A dedicated team of analysts, advisors, coaches, and experts collaborates closely, ensuring thorough review and input. The goal is to maximize the company's long-term value by leveraging unique perspectives to support each Best Practice Recognition and identify meaningful transformation and impact.

		VALUE IMPACT	
STEP		WHAT	WHY
1	**Opportunity Universe**	Identify Sectors with the Greatest Impact on the Global Economy	Value to Economic Development
2	**Transformational Model**	Analyze Strategic Imperatives That Drive Transformation	Understand and Create a Winning Strategy
3	**Ecosystem**	Map Critical Value Chains	Comprehensive Community that Shapes the Sector
4	**Growth Generator**	Data Foundation That Provides Decision Support System	Spark Opportunities and Accelerate Decision-making
5	**Growth Opportunities**	Identify Opportunities Generated by Companies	Drive the Transformation of the Industry
6	**Frost Radar**	Benchmark Companies on Future Growth Potential	Identify Most Powerful Companies to Action
7	**Best Practices**	Identify Companies Achieving Best Practices in All Critical Perspectives	Inspire the World
8	**Companies to Action**	Tell Your Story to the World (BICEP*)	Ecosystem Community Supporting Future Success

*Board of Directors, Investors, Customers, Employees, Partners

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Generator™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fueled by the Innovation Generator™.

Learn more.

Key Impacts:

- **Growth Pipeline:** *Continuous Flow of Growth Opportunities*
- **Growth Strategies:** *Proven Best Practices*
- **Innovation Culture:** *Optimized Customer Experience*
- **ROI & Margin:** *Implementation Excellence*
- **Transformational Growth:** *Industry Leadership*

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- Megatrend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)