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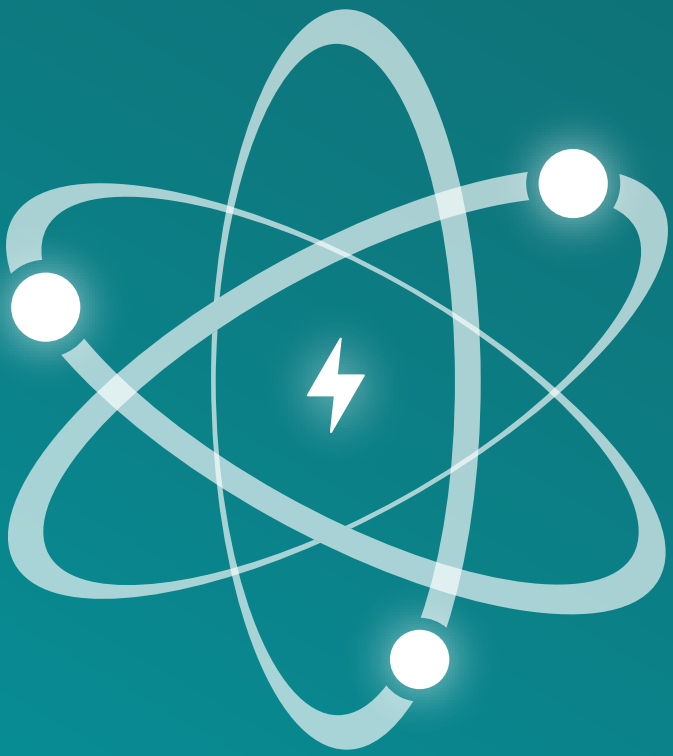
Magazine, Volume 3

FUTURE PERFECT



Advancing the path to energy independence.

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THE NEXT CHAPTER OF BIOECONOMY

01

The global energy landscape is undergoing a profound shift. What began as a quest for energy security has evolved into a broader transformation — toward sustainability, circularity, and long-term resilience. At the heart of this transition lies the bioeconomy.

The next chapter of the bioeconomy will not be defined by ambition alone, but by execution at scale. Around the world, blending mandates are strengthening, Sustainable Aviation Fuel is moving from demonstration to deployment, and integrated bioenergy hubs are becoming operational realities. In India, this momentum aligns closely with national priorities of energy independence, rural prosperity, and climate responsibility.

Recent perspectives from NITI Aayog further reinforce this direction. Its latest work on advancing India's biomanufacturing and bioeconomy ecosystem highlights the transformative potential of biotechnology and bio-based industries in strengthening economic growth, sustainability, and technological leadership. Such policy clarity provides an important framework for accelerating innovation and scaling bio-based solutions across sectors...

MESSAGE FROM THE CHAIRMAN

...However, the future extends beyond fuels. Biomanufacturing, biopolymers, and green chemistry are expanding the scope of the bioeconomy into new sectors — from sustainable materials to advanced industrial solutions. As global industries seek lower-carbon pathways, the convergence of biology, engineering, and digital precision will shape the next wave of innovation.

At Praj, our journey has always been rooted in building indigenous, scalable technologies that translate vision into impact. From first-of-its-kind ethanol complexes to advanced biofuels, from bioplastics to next-generation energy platforms, our focus remains steadfast: disciplined execution, engineering excellence, and long-term value creation.

Scaling the bioeconomy requires more than technology. It demands reliable infrastructure, policy alignment, industry–government collaboration, and operational maturity. When these elements come together, ecosystems flourish — creating opportunity for farmers, industry, and communities alike.

As we look ahead, we remain confident that the bioeconomy will play a defining role in shaping a more self-reliant, sustainable, and prosperous future. The foundation has been laid. The technologies are ready. The partnerships are strengthening.

The next chapter has begun — and we are committed to helping write it with purpose, responsibility, and resolve.

Dr. Pramod Chaudhari

INDUSTRY HIGHLIGHT

Biofuel policies are moving from Ambition to Implementation

As 2026 unfolds, biofuel policies across major economies are moving from targets to implementation. Strengthened blending mandates and carbon-intensity regulations are creating structural, compliance-driven demand for ethanol, biodiesel, renewable diesel, and Sustainable Aviation Fuel (SAF).

02 INDUSTRY HIGHLIGHT

United States

The U.S. is set to finalize Renewable Fuel Standard (RFS) volumes for 2026–27 in Q1 2026, defining blending requirements for conventional and advanced biofuels. Updated Renewable Volume Obligations (RVOs) will significantly influence demand in one of the world's largest transport fuel markets.

European Union

From 2026, ~2% SAF blending becomes mandatory, with progressive increases aligned to 2030 and 2050 climate targets. This marks a structural shift toward regulated adoption of sustainable aviation fuels.

United Kingdom

The UK's SAF mandate begins at ~2%, rising toward ~10% by 2030, supported by sustainability criteria and long-term production incentives.

Global Biodiesel & Renewable Diesel

Multiple countries across the Americas and Asia are maintaining or increasing blending mandates in the 5–20% range, reinforcing low-carbon fuel demand through 2030.

Canada

Canada's Clean Fuel Regulations target a ~15% reduction in lifecycle carbon intensity by 2030 (vs. 2016 levels), incentivizing biofuels through a credit-based compliance framework.

The Signal:

With mandates tightening and carbon-intensity frameworks gaining ground, 2026 represents a pivotal year for biofuels — strengthening their role in energy security and transport decarbonization worldwide.

BUSINESS FOCUS

The first tanker is more than a shipment — it is a signal that India's bioenergy ecosystem is operational, integrated, and ready to scale.

BUSINESS FOCUS 03

First Commercial Ethanol Shipment from Bargarh: A Milestone for India's Bioenergy Journey

A defining moment for India's ethanol ecosystem was marked with the flag-off of the first commercial ethanol shipment from the Bargarh Bio-Refinery — India's first standalone bioenergy complex developed by an Oil Marketing Company.

Bharat Petroleum Corporation Limited achieved this milestone as Sanjay Khanna, Director (Refineries), with additional charge of Chairman & Managing Director, flagged off the first-ever tanker carrying BPCL's own 1G bio-ethanol to the IOTL Raipur Depot under India's Ethanol Blended Petrol (EBP) Programme.

The Bargarh complex represents a fully integrated bioenergy hub, combining 1G and 2G ethanol technologies, grain-based production, and an end-to-end execution model. Beyond infrastructure, it reflects ecosystem readiness — where logistics, quality assurance, reliability, and sustained operations become as critical as installed capacity.

This milestone reinforces BPCL's commitment to Atmanirbhar Bharat and India's ethanol blending roadmap, while enabling rural employment and local feedstock value creation.

Praj Industries is proud to have contributed to this landmark project by supplying both 1G and 2G technologies and supporting operations and maintenance — helping build a scalable, future-ready bioenergy platform.

As India advances toward #ViksitBharat2047, integrated bioenergy hubs like Bargarh will play a central role in strengthening energy security, farmer prosperity, and a resilient low-carbon economy.

AROUND THE WORLD

A standout achievement: the tallest column supplied for the project measures an impressive 78 metres, reflecting Praj's capabilities in large-scale fabrication, structural precision, and advanced manufacturing. From detailed engineering and fabrication

AROUND THE WORLD 04

Engineering at Scale: Praj Contributes to Europe's Largest Blue Hydrogen Project

Praj is proud to have successfully supplied multiple large process columns and a CO_2 absorber for Europe's largest Blue Hydrogen project — marking a significant milestone in our journey of delivering complex, high-precision equipment for global energy infrastructure.

A standout achievement: the tallest column supplied for the project measures an impressive 78 metres, reflecting Praj's capabilities in large-scale fabrication, structural precision, and advanced manufacturing.

From detailed engineering and fabrication to stringent quality checks and inspections, every stage of execution was carried out with disciplined project management and an uncompromising focus on safety and quality standards.

This milestone underscores Praj's growing role in enabling next-generation energy projects worldwide — combining engineering excellence with reliable execution at scale.

05

PRAJ'S POWER MOVES

Participation in the Hon'ble Prime Minister's Roundtable at India Energy Week 2026

Mr. Ashish Gaikwad, Managing Director, Praj Industries, had the honour of participating in the Hon'ble Prime Minister's Roundtable at India Energy Week 2026 — a proud and meaningful moment for the entire Praj family.

The dialogue, led by Priem Minister Shri. Narendra Modi and Hon'ble Minister of Petroleum and Natural Gas, Shri. Hardeep Singh Puri, reaffirmed India's decisive shift from energy security to energy independence. Biofuels and the broader bioeconomy were recognised as powerful enablers in this journey — capable of strengthening rural economies, reducing imports, and contributing to India's USD 5 trillion growth ambition.

For Praj, being part of this distinguished forum is a heartfelt affirmation of the founding vision of Pramod Chaudhari — to develop indigenous, scalable bioenergy solutions that serve the nation and create long-term value.

The opportunity to engage, share perspectives, and contribute to shaping India's clean energy roadmap reflects Praj's enduring commitment to building a self-reliant and sustainable energy future.

Milestone for India's SAF Journey at Wings India 2026

A significant moment for the global sustainable aviation ecosystem was marked at Wings India 2026, with the successful demonstration of Ethanol-to-Jet (EtJ) technology for Sustainable Aviation Fuel (SAF).

The milestone was announced during the SAF Roundtable by Mr. Maneesh Kumar, Joint Director General, in the presence of Mr. Faiz Ahmed Kidwai, Director General, Directorate General of Civil Aviation, and chaired by Mr. Samir Kumar Sinha, Secretary, Ministry of Civil Aviation. The announcement underscores India's growing momentum in advancing indigenous SAF capabilities.

Representing Praj Industries on the occasion were Atul Mulay, President – Bioenergy, and Gaurav Goyal, Joint Vice President – SAF, alongside industry partners — reflecting the strength of collaboration across policy, technology, and industry.

From demonstration to deployment, this achievement marks a strong step toward scaling SAF production and enabling a lower-carbon pathway for global aviation.

AI Transforming Life Sciences Manufacturing

In life sciences, precision isn't optional — it's mission-critical.

At #IIOTM, a distinguished panel explored how AI is reshaping pharma, biotech, and medical device manufacturing — from intelligent validation systems and predictive quality to compliant, data-driven production environments.

We are proud to share that Mihir Mehta, Whole-time Director, Praj HiPurity Systems, represented our organization in this important dialogue. The discussion highlighted how AI-led compliance, digital integration, and operational intelligence are enabling more agile, resilient, and innovation-ready manufacturing ecosystems.

As regulatory expectations rise and product complexity increases, digital transformation is no longer incremental — it is foundational to the future of life sciences manufacturing.

A powerful exchange of insights on building smarter, future-ready facilities.

Know more:
https://www.linkedin.com/posts/praj-hipurity-systems_iiotm2026-indiainconthemove-smartmanufacturing-activity-7429806503445852160-_fiV

Celebrating Excellence at the Weldfab Tech Awards 2026

A proud moment for Praj GenX as Team Rani Chennamma shines at the 4th Edition of the Weldfab Tech Awards 2026 in Bengaluru.

We are delighted to share that Soumya has been recognised as Best Woman Welder of the Year — a prestigious national-level honour that reflects excellence in high-precision fabrication and advanced manufacturing skills.

At Praj GenX, we manufacture critical systems for process plants serving biofuels, low-carbon solutions, and energy efficiency initiatives worldwide. Women under the Rani Chennamma initiative are actively contributing across robotics, welding, and other highly skilled operations within our world-class manufacturing set-up.

The initiative draws inspiration from Rani Chennamma of Kittur — a symbol of courage, leadership, and resilience. With our mega manufacturing facility in Mangaluru, the programme pays tribute to Karnataka's rich legacy while creating new pathways for women in advanced manufacturing.

This recognition reinforces a simple belief: the future of energy is built by skilled hands, inclusive workplaces, and fearless intent.

Kudos to Soumya and to all the Women in Pink at Praj GenX — setting new benchmarks, breaking barriers, and shaping a sustainable future.

Industry–Government Collaboration Key to Scaling Biomanufacturing

At the Pune Public Policy Festival, discussions around Bio-E3 reinforced a clear message: the direction is set — but the pace and scale of India's biomanufacturing growth will depend on strong industry–government partnership.

During the panel, Atul Mulay, President – Bioenergy at Praj Industries, emphasised that true scale and speed are delivered by industry — through scale-up expertise, project execution capability, and operational discipline. He highlighted the importance of leveraging industry pilot and demonstration facilities to translate government-funded research into commercial reality, supported by clear market signals such as blending mandates and bio-preferred procurement policies.

Infrastructure, he noted, is a critical enabler — from reliable feedstock supply to utilities such as steam, power, water, and effluent treatment. Getting first-of-its-kind scale-ups and core utilities right can unlock the broader ecosystem.

Moderated by Dr. Shambhavi Naik of The Takshashila Institution, the session brought together voices from research, entrepreneurship, and public policy, underscoring the shared commitment to building India's bioeconomy.

The key takeaway: Bio-E3 provides the strategic direction. A ready, execution-focused ecosystem will determine how far and how fast India scales biomanufacturing.

Making Bioplastics Commercially Viable - Discussion with Ashvini Shete

What will make bioplastics truly competitive?

Often, the answer lies beyond fermentation — in downstream processing.

In a recent discussion, Ashvini Shete, Business Head – Biopolymers at Praj, highlighted how advanced separation, purification, and heat transfer technologies are critical to improving recovery, reducing energy consumption, and strengthening process economics in PLA and PHA production.

As demand for sustainable materials grows, optimizing downstream efficiency will be key to scaling green chemistry solutions and accelerating commercial adoption.

A must-watch conversation for anyone invested in the future of bioplastics and circular materials.

Watch the video here :
https://www.youtube.com/watch?v=7Tmv29V0cjE

Praj Foundation

Journey of Transformation: From Drought-Prone to Water-Resilient

The recent Jalpoojan ceremony in Beed district marked a powerful and symbolic celebration of water, resilience, and community ownership. Representing Praj Foundation, Karthik Ranganathan – Joint Vice President and Vaibhav Dhonsale – Head Admin joined villagers to commemorate this remarkable transformation.

Over the past three years, Praj Foundation's flagship initiative, Sustainable Water Resource Development, has been driving meaningful change in the Wadwani block of Beed district. In close partnership with local farmers and NGO partner Vivekanand Youth Welfare Society, the initiative has focused on restoring water security through community-led action.

Key outcomes of the initiative include:

- 1,235 hectares of land brought under irrigation
- Protective irrigation ensuring crop security against drought
- 317 million litres of groundwater recharged
- Year-round access to drinking water
- Reliable water supply for households, livestock, and agriculture

What was once a drought-prone region is steadily moving toward becoming water-resilient. Beyond the numbers, this transformation represents restored confidence, strengthened livelihoods, and a renewed sense of dignity for the community.

This journey underscores a simple truth: sustainable water management is not just about conservation — it is about empowering people and securing the future for generations to come.

Fostering Dialogue on Mental Health and Resilience

The book release event jointly organised by Eklavya Foundation for Mental Health and Praj Foundation was a deeply meaningful gathering that encouraged open conversations around mental health, recovery, and resilience.

The launch of “आत्मभान जागताना” and “Chaos to Calm” brought forward powerful personal narratives of recovery from mental illness. By sharing lived experiences, the session helped normalise dialogue, reduce stigma, and create a safe space for reflection and understanding. The courage and authenticity of the individuals who shared their journeys added emotional depth and strength to the event.

The programme was graced by Dr. Mohan Agashe, eminent psychiatrist and actor, and Mr. Anant Barve, Trustee, Praj Foundation, whose insights enriched the discussion. Senior mental health professionals Dr. Ulhas Luktuke, Dr. Vidyadhar Watve, Dr. Vasudev Parlikar, and Mr. Amrut Bakshi (Former President, SA) further strengthened the conversation by underscoring the importance of empathy, awareness, and sustained community support in mental healthcare.

Heartfelt appreciation to all speakers, contributors, organisers, and participants for making the event impactful. Initiatives like these play a vital role in building a more compassionate, informed, and inclusive approach to mental well-being.

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