



IFA Annual Report 2024

"For IFA, 2024 was the year of innovation. Recognizing the need for innovative approaches in the industry, we began building the cornerstone of a new startup program that will enhance and grow our mission."

Alzbeta Klein, CEO, Director General



IFA Annual Report 2024

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The International Fertilizer Association (IFA) was founded in 1927 and is the only global fertilizer association, with around 500 members from more than 80 countries and a mission to promote the efficient and responsible production, distribution and use of plant nutrients. This mission plays a critical role in helping to feed the world sustainably. IFA represents providers of plant nutrition solutions. Members include fertilizer producers, traders and distributors, as well as their associations, service providers to the industry, research organizations, startups and non-governmental organizations.

From the CEO / Director General



Alzbeta Klein

For IFA, 2024 was the year of innovation. Recognizing the need for innovative approaches in the industry, we began building the cornerstone of a new startup program that will enhance and grow our mission – helping to feed the world sustainably. With startups building new products and solutions, we are joining forces with the best and the brightest to improve production of plant nutrients and their use on the farm.

Making sense of the world around us and what it means for the production and use of plant nutrients is the specialty of IFA's market analysts, and this year we introduced an exciting new analytical product, the Fertilizer Market Update. This analysis consolidates our data and provides a more sophisticated and nuanced market understanding for our members.

On the global stage, IFA gained two new 'seats at the table' that will enhance our industry's profile and further our mission. Firstly, IFA was granted consultative status with the International Maritime Organization (IMO). Fertilizers are one of the most traded goods across the world's oceans and ammonia, as a potential shipping fuel of choice, occupies a particularly important position in these discussions. With this new partnership, IFA is ready to contribute to the work of IMO, to help feed, and potentially even power, the world sustainably.

We also joined the leadership council of the recently formed Industrial Transition Accelerator, a global multi-stakeholder

"Making sense of the world around us and what it means for the production and use of plant nutrients is the specialty of IFA's market analysts."

collaboration that aims to fast-track decarbonization efforts across heavy-emitting industries. This year, I was honored to attend two high-level meetings of this council. Our seat on this council brings a unique level of visibility and industry exposure to our members.

During 2024, we continued to develop our existing workstreams. This year we celebrated the second anniversary of the Sustainable Fertilizer Academy, the industry's foremost e-learning experience. We also celebrated the Year of the Benchmark and published position papers on biodiversity, soil health, and water management. In Amsterdam, in March 2024, industry leaders gathered at the Global Sustainability Conference to discuss how innovation can serve as a catalyst for transformative change. I invite you to explore the attached Sustainability Annex that outlines more comprehensively the work of the Association.

In our science work, we partnered with supply chain decarbonization startup Proba to support the development of a new quantification and verification standard to incentivize the wider adoption of enhanced-efficiency fertilizers, specifically nitrogen fertilizers stabilized with inhibitors. Looking to the future, this project could evolve towards a broader link of farmers to carbon finance.

Our industry faced challenges this year amid trade disruptions, increased protectionism, and shifts in decarbonization efforts. And yet, within these challenges lie exciting opportunities. Opportunities to embrace innovation to move our sustainability agenda forward. Opportunities to forge new partnerships with global stakeholders to advocate for responsible plant nutrition. Opportunities to transition to a lower carbon economy while ensuring global food security.

We thank each and every one of our members for your dedication and support. Together, alongside IFA Chair, Tony Will, our Executive Committee, Board of Directors, and nearly 500 members, we are on a journey. The destination is clear – feeding the world, today and tomorrow.

From the Chair



"This year, we have embraced innovation, shaping new alliances with cutting-edge startups who share our vision for a world free of hunger and malnutrition."

Tony Will, President and Chief Executive Officer, CF Industries

On behalf of the nearly 500 members of the International Fertilizer Association (IFA), I am pleased to share our 2024 Annual Report.

The accomplishments outlined in this report are a testament to IFA's mission of helping to meet the world's food needs, today and tomorrow. Thanks to the approval of IFA's Fertilizer Industry Ambitions at our Board Retreat in London at the beginning of the year, we are confident in our direction as a world-class association for years to come.

This year, we have embraced innovation, shaping new alliances with cutting-edge startups who share our vision for a world free of hunger and malnutrition. We have forged new partnerships with leading international stakeholders, using our voice to reinforce the essential role that our industry plays in food security and the energy transition. Around the world, but particularly in Sub-Saharan Africa, we have helped farmers by improving the availability of fertilizers and precision agriculture and elevated the importance of soil health. We continue to work closely with members who are playing a pivotal role in helping to feed and fuel the world.

The fertilizer industry makes a difference in the lives of billions of people every day. It is estimated that mineral fertilizers are responsible for 50 percent of the world's food, helping lift millions out of food insecurity. At the same time, fertilizer allows more food to be grown on fewer acres, reducing the amount of land cleared for

agriculture, preserving carbon-sequestering forests and protecting biodiversity. This year, in support of this mission, our members produced and distributed over 193 million tonnes of plant nutrients and raw materials, despite global supply chain constraints and logistical challenges.

As IFA approaches the milestone of its 100th anniversary, I am proud of the legacy that the fertilizer industry has created by feeding the crops that feed the world. We are even more excited by the opportunity ahead of us to build on this legacy as we expand and enhance our focus on the innovation that will carry us forward.

I look forward to working with each of you and sharing our progress in the year ahead.

A handwritten signature in black ink that reads "Tony Will". The signature is fluid and stylized, with the first and last names clearly legible.

Membership

At the end of 2024, the number of members of the Association reached 495 covering 84 countries. The various categories of membership were represented as follows:

- 176 Ordinary members
- 92 Affiliate members
- 193 Associate members
- 34 Correspondent members

New members

During 2024, 53 new members were elected as follows:

Ordinary Members

- Agropolychim AD (Bulgaria)
- Grupo Fertinal S.A. de C.V. (Mexico)
- Henan Xinlianxin Chemicals Group Co. Ltd (China)
- Kropz Elandsfontein (Pty) Ltd (South Africa)
- OCP Nutricrops SA (Morocco)
- Togliattiazot, Joint Stock Company (Russian Federation)
- Weifang Kangmei Biotechnology Co. Ltd (China)

Associate Members

- Adani New Industries Limited – ANIL (India)
- Alphamar Shipping Agency (Brazil)
- Al Safy Group/Horizons for Mining (Egypt)
- Amufert SA (Angola)
- Atlas Agro Holding Ag (Switzerland)
- AXSMarine SAS (France)
- Ballestra SpA (Italy)
- Best Sign Asia Chemical Pte. Ltd (Singapore)
- Black & Veatch (United States of America)
- Chemical Market Analytics (United Kingdom)
- Datai Group Ltd (China)
- Farphos Cyprus Ltd (Cyprus)
- Fert Agro Côte d'Ivoire (Ivory Coast)
- FertigHy SL (Spain)
- Fertino DMCC (United Arab Emirates)
- Fertistream DMCC (United Arab Emirates)
- GG Trading DMCC (United Arab Emirates)
- Iterum Internacional Ltda (Brazil)
- JAS Global Industries (United Arab Emirates)
- Jyoti Trading Corporation (India)

- Kayan for International Trade (Egypt)
- Lucky Grace International Singapore (Singapore)
- Madar Holding (Algeria)
- McKinsey & Company Inc. (United States of America)
- Mega Agro Sejahtera Sdn Bhd (Malaysia)
- NetZeroNitrogen (United Kingdom)
- Orcom S.A. (Switzerland)
- Petrochemical Industries Company (Kuwait)
- Pinnacle Green Enterprises DMCC (United Arab Emirates)
- Pivot Bio Inc. (United States of America)
- Proba World BV (The Netherlands)
- Qinhuangdao Wuxianweiai Technology Development Co. Ltd (China)
- Tidal Vision Products DBA Tidal Grow AgriScience (United States of America)
- Trex for Trading and Exporting (Egypt)
- Triangle Commodities Trading LLC FZ (United Arab Emirates)
- Tsubame BHB Co. Ltd (Japan)
- Wilson Sons Shipping Services Ltda (Brazil)
- Wuwei Jincang Bioscience Co. Ltd (China)

Affiliate Members

- Fertilizer Association of Kenya (Kenya)
- Serve the People Inc. (United States of America)
- The Global Phosphorus Institute (Morocco)
- The Ohio State University (United States of America)

Correspondent Members

- Mr. Sameer Goel (India)
- Mr. Mondher Maaref (Tunisia)
- Mr. Larry Taylor (United States of America)
- Mr. Prem Warrior (United States of America)

Membership Continued

Resignations

There were 26 resignations during the year:

Ordinary Members

- China Coal Energy Co. (China)
- CMOC International Brasil (Brazil)
- Petrovietnam Fertilizer and Chemicals Corporation (PVFCCO) (Vietnam)
- Ukrainian Mineral Fertilizers (Ukraine)

Associate Members

- Aayansh Trading (United Arab Emirates)
- Amvac (Costa Rica)
- Anhui Huilong Agricultural Group (China)
- Cotecna Inspection (Switzerland)
- Jyoti International (India)
- King Philanthropies (United States of America)
- Lhoist EU (Belgium)
- Lushbury Fertilizer Corporation (United States of America)
- Osterwald Rathbone & Partners (United Kingdom)
- Prony Resources (New Caledonia)
- Rawfert Offshore (Lebanon)
- Rodeva SAS (France)
- Shandong Jinshifeng Agricultural Science and Technology (China)
- Tosyali Gubre (Turkey)
- Verdesian (United States of America)
- Xiamen Xiangyu Chemical (China)

Correspondent Members

- Mr. Henry Boucheny (France)
- Mr. Kais Daly (Tunisia)
- Mr. Sunil Gupta (India)
- Mr. Roger Larson (Canada)
- Dr. Amit Roy (United States of America)
- Mr. Khaled Tatai (Algeria)

Name Changes

Ordinary Members

- Xinyangfeng Agricultural Technology Co. Ltd becomes Yonfer Agricultural Technology Co. Ltd.

Associate Members

- Aries Fertilizers Group Pte Ltd becomes

Hexagon Fertilizers Asia Pte Ltd.

- Mediterranean Fertilizers Ltd becomes **Mediterranean Fertilizers DMCC**.
- OAN Industries Private Limited becomes **OAN Industries Limited**.
- SGS Group Management becomes **SGS Société Générale de Surveillance SA**.

Other Changes

Ordinary Members

- Following the sale of OCI fertilizers' assets to ADNOC, **Fertiglobe PLC** becomes Ordinary member.
- **Ruwais Fertilizer Industries** becomes Fertiglobe PLC subsidiary.

Associate Members

- **BCInsight** is now part of CRU.
- **Fertistream** has acquired Nutrisource Pte Ltd (Singapore).
- **Haifa Group** has acquired Agri I.O.T. (Israel).
- **Hexagon Fertilizers Asia Pte Ltd** is now part of Hexagon Group AG.
- End of free membership offered by IFA to the two startups finalists at the Africa Agtech Startup Showcase 2023: **Agricolleges International** (South Africa) and **Capsber Global Agro Private Ltd** (India).

Membership Termination

Ordinary Members

- JChemplex Corporation Ltd (Zimbabwe)
- Innophos Fosfatados de Mexico (Mexico)
- Philphos - Philippine Phosphate Fertilizer Corporation (Philippines)
- Shenzhen Batian Ecotypic Engineering Co. Ltd (China)
- STO Mandencilik Tarim Ithalat Ihracat Sanayi Ve Ticaret Ltd. Sti (Turkey)
- Windmill (Zimbabwe)

Associate Members

- Campo Rico Brasil Commercial de Fertilizantes SA (Brazil)
- Cenchem International LLC (Switzerland)

Correspondent Members

- Dr. Robert J. Rennie (Canada)

Financial Overview – 2024



Total operating income rose to €12.26 million in 2024, up from €11.68 million in 2023.

The income from subscriptions increased by 6.4% to €7 million, driven by contributions from 53 new members who joined in 2024, as well as the reactivation of previously inactive members. Conference revenues remained stable at €4.66 million, supported by the strong performance of key events such as the Annual Conference and the Crossroads Asia-Pacific Conference. Other revenues, including special projects and the Sustainable Fertilizer Academy, contributed an additional €0.58 million.

Total operating expenditure rose by 11.4%, from €10.98 million in 2023 to €12.24 million in 2024. This increase was mainly attributable to a 36% rise in science program spending, a 25% increase in conference-related organizational costs and external consultancy fees, and a 5.6% increase in staff costs.

Expenditures related to the science program reached €1.05 million, up from €0.77 million in 2023. Of this amount, 30% was covered by a dedicated fund derived from the IPNI,

recorded under “other reserves” in IFA’s accounts.

The financial activity generated a surplus of €658,120, compared to a surplus of €556,084 in 2023, supported by resilient financial markets and a favorable short-term interest rate environment.

The year ended with a surplus of €0.59 million, down from a surplus of €1.21 million in 2023. After allocating 30% of the Scientific Panel expenses to “other reserves”, the comprehensive income of the year amounted to €0.86 million, compared to a comprehensive income of €1.53 million in 2023.

No corporate tax is payable for 2024. Under French GAAP, the taxable result for 2024 amounts to €0.35 million, which was fully offset by €0.67 million in tax loss carryforwards from prior years.

Further details of the Association’s financial situation in 2024 are provided in the “Audited Accounts at 31 December 2024” attached to the Annual Report.

Deputy Director General Office



Elevating Innovation within the Fertilizer Industry

Startups, Accelerating a New Frontier for Fertilizers

More than a hundred years ago, two German scientists, Fritz Haber and Carl Bosch, revolutionized the world, and modern agriculture, when they devised a way to transform nitrogen from the air into fertilizer.

This year, IFA reawakened that century-old spirit of innovation to initiate the first steps of a new IFA Innovation Program that it hopes will transform plant nutrition, accelerating the sustainability transformation and placing innovation at the heart of our industry.

Led by IFA Deputy Director General, Patrick Heffer, the initiative kicked off early in 2024 following the endorsement of the Startup Strategy by IFA's Board of Directors. Numerous building blocks were immediately put in place, including an operational plan for 2024-25, the creation of an Advisory Group comprised of eight heads of corporate venture units or innovation departments within IFA member companies to provide strategic guidance, and the search for new talent to lead the initiative. In August, Jack Keays, a global agri-food specialist (and extreme marathon runner), joined IFA as the

new International Program Manager for Innovation & Startups. Throughout the year, the team enthusiastically reached out to the global startup ecosystem, encouraging more startup businesses to connect with, and potentially join, IFA. Today, IFA has more than 20 pioneering startup members. In addition, the team identified more than 80 plant nutrition startups with technologies encompassing low-carbon fertilizer production, nutrient recovery and recycling, novel fertilizer products, plant biostimulants (including microbials) and precision farming, among others, that will form the basis of a new startup database to be launched in April 2025.

Throughout 2024, IFA's innovation team finetuned its operational plan that is built around three essential pillars: firstly, connecting sustainability and innovation through a new conference in 2025, Cultivating Tomorrow, to showcase groundbreaking startups and emerging innovations; secondly, the launch of an innovation online platform that will allow IFA members and startups to research and connect with each other; thirdly, an innovation competition – based on relevant topics chosen by IFA members – that will be launched in 2025. IFA looks forward to working with its members through this landmark program to foster more innovation in the industry and find solutions to major sustainability challenges.

"This year, IFA reawakened a century-old spirit of innovation to initiate the first steps of a new IFA Innovation Program that we hope will transform plant nutrition."

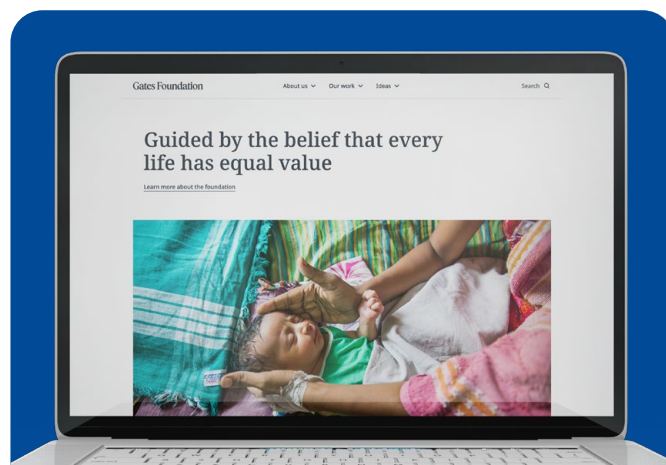


Africa Fertilizer and Soil Health Summit Charts a New Course

Eighteen years since the signing of the 2006 Abuja Declaration, that aimed to boost fertilizer use in Africa, the [Africa Fertilizer and Soil Health Summit](#) successfully concluded on May 9 in Nairobi, Kenya. IFA played a significant role before the Summit by acting as a focal point for collaboration and the unified voice of the fertilizer industry, and during the Summit by organizing side events and other activities in support of the Summit's objectives.

Organized by the African Union Commission and hosting 6,000 international delegates over an intense three-day period, the Summit concluded with the adoption of an ambitious 10-Year Action Plan that calls for increased investment to produce both organic and chemical fertilizers locally and triple their use for doubling crop productivity. This new roadmap, unlike the 2006 Declaration, calls for the more prominent participation of the fertilizer industry, especially in terms of fertilizer supply and outreach to African farmers.

Working alongside the African Fertilizer & Agribusiness Partnership (AFAP), IFA represented the industry in a well-coordinated and influential manner across the Summit, culminating in the enhanced role of the industry in the 10-Year Action Plan. IFA facilitated industry coordination and positioning, co-organized two side events and a site visit, and moderated a session. Now, together with IFA's key partners on the ground in Sub-Saharan Africa, the association is considering how to best support implementation of the new ambitious continental roadmap.



Partnering with the Gates Foundation to find Workable Solutions for African Smallholders

In February 2024, IFA and the [Gates Foundation](#) convened in Marrakech, Morocco, to assess the potential of decentralized low-carbon nitrogen fertilizer production models. The aim of this collaboration is to help improve fertilizer access across Sub-Saharan Africa, particularly for smallholder farmers in remote areas.

The gathering brought together a wealth of expertise including experts from IFA, the Gates Foundation, technology providers and startups, scientists, financial institutions, investors and fertilizer companies. Particular attention was paid to the latest low-carbon nitrogen fertilizer technologies, including green ammonia, plasma technologies and electrochemistry, that have the potential to be used at different scales.

IFA is working with the Gates Foundation to assess the status of these technologies and to consider what technological developments and financial instruments are needed to make these emerging technologies a workable, affordable alternative in the future for African smallholder farmers.

Market Intelligence Service

Transforming Data to Bring Deeper Analysis to IFA Members

In 2024, the fertilizer industry faced significant global bottlenecks, including trade disruptions, increased protectionism, and shifts in decarbonization efforts.

From the outset of the year, disruptions in global trade and shipping – from changing export routes out of Russia and Belarus, events in the Red Sea and low water levels in the Panama Canal – made it harder to ship fertilizers around the world. However, the industry also experienced a recovery in fertilizer demand as affordability significantly improved and supply chains and global integration remained resilient overall. Throughout all these challenges, IFA's growing Market Intelligence (MI) Service provided in-depth, critical and timely analysis to members on evolving global disruptions, fertilizer, energy and agricultural market drivers, and emerging themes for the industry.

Building upon the successful data transformation project delivered in 2023, this year the service launched a highly anticipated new product designed to consolidate IFA's recently published statistics and analysis, present data about key fertilizer drivers, and to highlight topical third-party resources to support the market understanding of IFA's members. This new report, the Fertilizer Market Update, was made possible by IFA's more efficient, secure database and revamped surveying tools, allowing MI staff more flexibility to explore new areas of research and bringing deeper analysis to all members. Moving forward, the Update will be made available on a quarterly basis and is already receiving positive reviews from IFA members. As with the launch of any new product, IFA always welcomes member feedback and suggested means of improvement.

In July, the service published the [Medium-Term Fertilizer Outlook](#) in both English and [Chinese](#), highlighting how fertilizers remain exposed to global risks spanning geopolitics, conflict, economics and climate. Several reports and data updates were also made available to members throughout 2024 including the Short-Term Fertilizer Outlook, global capacity reports, detailed annual statistics and updated historical fertilizer consumption data. In addition, throughout the year, MI team members continued to closely track and monitor global low-carbon investment projects, including green and blue ammonia projects.



Images: **Top:** Laura Cross presents at the Fertiliser Association of India (FAI) Annual Seminar in New Delhi, India **Middle:** Armelle Gruère visits the Indonesian fertilizer supply chain with Petrokimia Gresik **Bottom:** José de Sousa, Hanna Chtioui and Étienne Achard visit phosphate production sites in Morocco with OCP Group

Leaving the office behind, Market Intelligence team members and senior IFA staff also conducted several successful research trips in 2024 to build market analysis and expertise, and to develop member and non-member engagement. Highlights included a crop tour in Spain, a visit to palm oil plantations in Indonesia and to fertilizer producers in south Vietnam and Laos, an exploration of phosphate mines and processing plants in Saudi Arabia and Morocco, and an agricultural research trip in the Indian states of Uttar Pradesh and Rajasthan. Relationships were strengthened at [IFA's Global Markets Conference](#) in London in July, where over 170 delegates came together to understand an in-depth analysis of market drivers, from agriculture and energy dynamics to geopolitical tensions and economic shifts. IFA's Market Intelligence Committee met during this highly successful event and agreed to reconvene the conference again in London in 2025.

While plans are underway to redesign and upgrade the popular [IFASTAT](#) website, the team encourages members to continue to visit IFASTAT to read IFA's 2024 Short- and Medium-Term Outlook reports, and other key presentations and reports.



[Image](#) Laura Cross at the IFA Global Markets Conference 2024

Key Market Intelligence Takeaways from 2024



Global fertilizer demand continued to recover at diverging rates with potash consumption recovering strongly, followed by resilient nitrogen consumption but with phosphate demand lagging due to affordability.



Instability in the Red Sea, Gulf of Aden, and low water levels in the Panama Canal put continuous pressure on the global supply chain and increased freight costs.



The market adjusted to reduced fertilizer export supply from China driven by the country's domestic market focus.



Macroeconomic drivers underpinned the fertilizer market, with high interest rates and low working capital affecting companies and farmers alike.



Throughout 2024, the decarbonization agenda remained highly complex but investment continued in low carbon fertilizer capacity.

"Depending on regional, crop, and soil conditions, inhibitors can cut GHG emissions by 30 to 50 percent."

Science Program

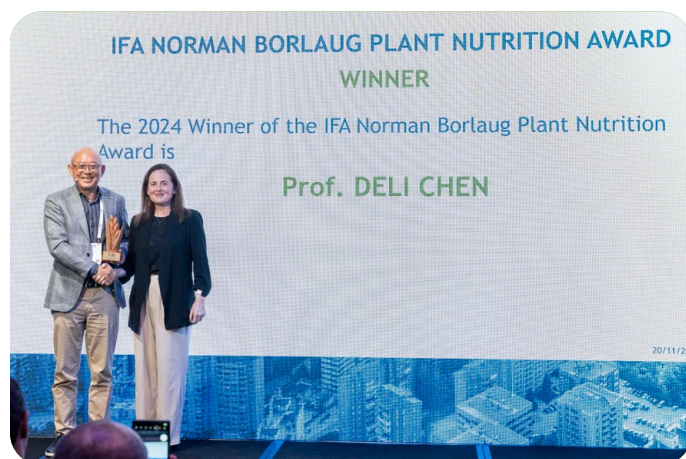
Growing the Future: IFA's Science Drives Fertilizer Innovation



At IFA, the Science Team is continuously striving to improve the performance and sustainability of fertilizers and their application.

This year, in an exciting development for the membership, IFA partnered with supply chain decarbonization startup [Proba](#) to support the [development of a new quantification and verification standard](#) to incentivize the wider adoption of enhanced-efficiency fertilizers, specifically focusing on nitrogen fertilizers stabilized with nitrification and urease inhibitors. These inhibitors are compounds that can be added to inorganic or organic fertilizers to reduce nitrogen losses, including greenhouse gas emissions (GHG) such as nitrous oxide, by slowing down specific biological processes in the soil. Depending on regional, crop, and soil conditions, inhibitors can cut GHG emissions by 30 to 50 percent.

Carbon finance is crucial for the success of this initiative. By working with the voluntary carbon market, this [two-year project](#) aims to create a powerful mechanism to share costs and de-risk the adoption of inhibitors across the fertilizer supply chain, using inseting strategies to drive both innovation and sustainability. By using an inseting approach – where emissions reductions are accounted for within the supply chain itself – and leveraging carbon finance, IFA can help support fertilizer companies and



farmers in this transition. Downstream participants in the value chain, such as food producers and retailers, can also report reduced scope 3 emissions and market greener products. Looking to the future, the project with Proba could evolve towards a broader, sectoral decarbonization program linked to carbon finance. IFA is excited to make this vision a reality and is grateful to the 14 IFA members, who are generously sponsoring this pioneering project.

Images: Deli Chen receives the 2024 IFA Norman Borlaug Plant Nutrition Award from Alzbeta Klein at the IFA Strategic Forum in Madrid



New Data to Measure Global Cropland Nutrient Budgets

In November 2024, a [new update](#) of the global [Cropland Nutrient Balance](#) database was released, in collaboration with the FAO, academia, and other organizations. These critical statistics show global impacts of fertilizer use in relation to the needs of crop production. This latest release followed a comprehensive update of the database to include data on nitrogen, phosphorus and potassium inputs, outputs, balance and use efficiency by countries for the period 1961 – 2022. In associated research, IFA has also developed a detailed framework for quantifying nutrient inputs from manure application to cropland, which is expected to be added to the database in 2025, along with other improvements.

IFA Contributes to Influential Scientific Briefs

In 2024, IFA's Chief Scientist, Achim Dobermann, as a member of the [Scientific Panel on Responsible Plant Nutrition](#) (SPRPN), helped issue two influential new scientific briefs on [fertilizer and soil health in Sub-Saharan Africa](#) and [mitigating GHG emissions through responsible plant nutrition](#). As an independent panel comprised of active researchers in the field, the SPRPN synthesizes scientific evidence, examines controversial issues, and advises on research, outreach and policy needs. This year, Achim was also a guest on two episodes of the popular SPRPN [Podcast](#) where he discussed, alongside other experts, how the care of soils ensures planetary and human health.

Scientific Breakthroughs Recognized



Professor Deli Chen
University of Melbourne
2024 IFA Norman Borlaug Award



Dr. Tan Zou
University of Maryland
Emerging Scholar Award



Dr. Hari Sankar Nayak
Cornell University
Emerging Scholar Award

Renowned soil scientist Professor Deli Chen was awarded the 2024 IFA Norman Borlaug Award for excellence in crop nutrition research.

The prestigious award, presented at IFA's Strategic Forum in Madrid in November, recognizes exceptional contributions to plant nutrition science and sustainable agriculture. Professor Chen was selected for his groundbreaking research in managing reactive nitrogen for sustainable food production and the environment.

Based at the University of Melbourne, Professor Chen's 30-year research career has focused on the efficiency of nitrogen fertilizer use and its impact on global food security, the environment, and climate change. He is the Director of the [ARC Research Hub for Smart Fertilisers](#) – a multidisciplinary program involving soil science, plant science, chemistry, chemical engineering and industry – where he leads a team developing the next generation of high efficiency 'smart' fertilizers. You can watch an IFA video of Professor Chen's impressive achievements [here](#).

IFA's Emerging Scholar Award recognized two outstanding early-career scientists. Dr. Tan Zou, from the University of Maryland's Center for Environmental Science, was recognized for advancing nutrient management strategies that enhanced agricultural sustainability, food security and ecosystem health on both regional and global scale.

Dr. Hari Sankar Nayak with affiliations at Cornell University, and the International Rice Research Institute in the Philippines, was awarded for his research on leveraging data-driven approaches to enhance sustainable rice production and optimize nitrogen use efficiency.

Public Affairs Service



IFA's Thought Leadership and Advocacy in Action

Putting the Seal on IFA's Industry Ambitions

IFA's Public Affairs Service kicked off the new year in 2024 with the finalization and approval of the Fertilizer Industry Ambitions, setting the strategic direction of the Association for the coming years. Available on the [IFA website](#), the ambitions were finalized following a thoughtful discussion at IFA's Board Retreat in January in London. The ambitions are rooted in the industry's aim to improve food and nutrition security by enhancing crop yield and the nutritional quality of plants while protecting the environment. In this changing, complex world, the ambitions also provide a useful tool to help members communicate our industry's priorities to external stakeholders.

Industry Ambitions

By 2050, we aim to reduce the industry's direct greenhouse gas emissions associated with nitrogen fertilizer production by an average of 70%.

We continue to work towards increasing nutrient use efficiency in crop production.

We continue to work to close the nutrient and yield gaps and to help eliminate hunger worldwide.

Without Water, there's no Food

Recognizing that water security and food security are closely interconnected, the Public Affairs Service developed an [Industry Position on Water Resilience](#). The position represents a decisive approach by the industry to address global water security challenges, a topic of increasing relevance, while ensuring sustainable agricultural production for future generations. The position establishes the inextricable link between nutrient and water management and demonstrates the role of innovative fertilization techniques - including fertigation and precision farming systems - in maximizing water resource efficiency.

IFA joins Influential Leadership Council

This year IFA was invited to join the leadership council of the recently formed [Industrial Transition Accelerator](#) (ITA), a global multistakeholder collaboration that aims to fast-track decarbonization efforts across heavy emitting industries. In March, IFA CEO and Director General, Alzbeta Klein, attended ITA's first-ever leadership council meeting to discuss ITA's three-year action plan to unlock investment in commercial-scale low- and zero-carbon projects. Later in the year, during Climate Week in New York City, Alzbeta again attended another leadership meeting. By bridging the gap between industry, government, and finance, ITA is set to accelerate solutions in high-emission sectors. Membership on the leadership council brings a unique level of visibility and industry exposure.

Throughout 2024, IFA's Public Affairs team elevated the industry's thought leadership at major conferences.



Leading the Way: IFA's Global Thought Leadership

Throughout 2024, IFA's Public Affairs team elevated the [industry's thought leadership at major conferences](#) including Climate Week in New York, Biodiversity COP16 in Cali, Colombia and Climate COP29 in Baku, Azerbaijan. These high-profile events emphasized the industry's influential convening power on issues including innovation, environment, nature, and the transformation of food systems.

At UN Climate Week in New York City in September, IFA hosted three notable events addressing scalable solutions to the global challenges of transforming food systems and climate change. Once again, IFA joined forces with the [World Business Council on Sustainable Development](#) (WBCSD) to convene a high-level roundtable among agri-food sector CEOs and business leaders committed to advancing positive change in the agri-food value chains. This was the second dialogue in a series that was first launched at

the COP28 in Dubai in late 2023, when food companies recognized the need for enhanced collaboration to achieve the sustainability change required for the agri-food sector. Through both events, IFA and other stakeholders have developed a shared understanding of the main hurdles and levers to scale up sustainability in agri-food value chains, including consumer behavior, financial barriers, data-sharing needs, and a deeper form of collaboration. At this year's roundtable, more structured solutions were proposed such as building consortia that include farmers, NGOs, and private-public partnerships to push for favorable policies and create joint certification programs for sustainable practices. Given the demonstrable progress underway, IFA proposes continuing this dialogue on behalf of its members to identify concrete actions to build on our shared understanding of the agri-value chain.

At UN Climate Week, IFA also partnered with leading global advisory and advocacy firm, [APCO](#), to convene a moderated dialogue focusing on the role of innovation to address the twin challenge of climate change and food



systems transformation. High-level C-suite guests were invited to share their perspectives on the most significant breakthroughs that they felt would deliver on these challenges, and where they could have the most impact. It was agreed that while technology serves as a powerful catalyst for change in agriculture, the path to more genuine progress lies in a multifaceted approach that encompasses strategic investments, new mindsets, forward-thinking policies and meaningful consumer engagement.

Thanks to IFA's pioneering thought leadership on the importance of biodiversity loss, the Association played a prominent role at the Biodiversity COP16 in Cali. Promoting key messages defined by members in the [Industry Position on Biodiversity](#), IFA organized a high-level roundtable, bringing together business representatives and leadership from UN Environment, the Global Environment Fund (GEF), WWF, and the World Farmer Organization to discuss game-changing approaches for the implementation of the Global Biodiversity Framework. IFA was pleased by the inclusion of the [Cropland Nutrient Balance Database](#), a joint FAO-IFA initiative, as an official indicator for the Global Biodiversity Framework's Target 7 on nutrient loss reduction.



At the Climate COP29 in Baku, IFA focused on sustainable intensification, and what is needed to meet the growing demand for food on available arable land, at a panel featuring the US Dairy Export Council and the Coalition of Action for Soil Health. IFA also co-organized a well-attended panel with the CGIAR on the recommendations of CGIAR's 2024 Breakthrough Agenda Report. Finally, an official UNFCCC side event with IRRI and the Australian Forest Products Association was dedicated to the commitments and investments needed to reach net-zero agriculture.

Controlled-release Fertilizers

Controlled-release fertilizers are an important player in decarbonization of agriculture, and over time, in reduction of agricultural plastics. This year, IFA's prior advocacy efforts to advise and educate the Food and Agriculture Organization (FAO) on the environmental and economic benefits of Controlled-Release Fertilizers for the development of a Code of Conduct for Sustainable Management and Use of Plastics in Agriculture, bore fruit. The current version of the Code of Conduct recognizes not only the important role of these technologies for certain crops but also reflects IFA's advocacy by acknowledging that substitution with biodegradable solutions will take time.



From Ship to Farm, Sharing our Expertise with the IMO

In November, following engagement by the Public Affairs team, IFA was granted [consultative status](#) with the International Maritime Organization (IMO). This new status allows IFA to play an active role in discussions related to sustainable shipping and the transport of fertilizers across the oceans.

The intersections of the two industries, combined with IFA's scientific and data-backed approach, make this an ideal and natural partnership. IFA looks forward to sharing member's expertise in the potential of using ammonia as a low-carbon shipping fuel of the future, contributing to the IMO's mission of reducing emissions from global shipping.

Conference Service



A Year of Connection and Impact

In 2024, IFA's Events Service crisscrossed the world to find the perfect locations for the Association's high-profile events and conferences, once again setting a new benchmark for attendance, sponsorship engagement, and revenue generation. Highlights included a welcome return to Asia for IFA's Annual Conference following a 15-year hiatus, and record attendance at IFA's Global Markets Conference in London. This year IFA's five signature annual events offered members exclusive opportunities to exchange resources, strategies, and solutions with industry stakeholders, and to gain new knowledge and expand their professional network.

IFA Global Sustainability Conference, Amsterdam

In March, Amsterdam, played host to IFA's [Global Sustainability Conference](#), bringing together over 160 industry leaders, experts, and stakeholders from around 30 countries to chart a path towards a more sustainable future for the fertilizer sector. With a strong emphasis on innovation, collaboration, and environmental stewardship,



Highlights included a welcome return to Asia for IFA's Annual Conference following a 15-year hiatus



the conference featured a multitude of discussions and insights from a series of expert speakers. With the fertilizer industry standing at a critical juncture, and with innovation and sustainability as guiding principles for future growth, the insights shared at this year's conference will serve as catalysts for transformative change.

91st IFA Annual Conference, Singapore

In May, for the first time since 2009, [IFA's Annual Conference](#) returned to Asia with a three-day event in the multicultural city of Singapore. More than 1,260 delegates gathered from May 20 – 22 under the theme, Nourishing the Planet, Powering the Future, to examine the challenges of achieving global food security in parallel with the transition to a lower carbon economy. Over the course of the conference, many events fostered active networking between participants. Among many highlights was a keynote address on the potential of AI to change the fertilizer industry by Caroline Yap, Managing Director, Global AI Business and Applied Engineering at Google Cloud. IFA is grateful to its many conference sponsors and members, including the host sponsor, AAA Holding Group, for making this event so productive and memorable.

Global Markets Conference, London

Back on home turf, in London, where IFA reestablished an office in 2023, IFA held its popular [Global Markets Conference](#) on July 9 – 10, 2024. With the global fertilizer market influenced by a myriad of global forces – from agriculture and energy markets to geopolitical and economic opportunities and challenges – this conference sought to provide members and stakeholders with a sound understanding of these wide-ranging issues. Almost 30 speakers shared their expertise with delegates on topics such as changing land use, evolving agricultural practices, fertilizer shipping disruptions, and volatile energy markets. Looking ahead, speakers also addressed new trends including decarbonization opportunities, new demand centers, and the role of data automation and artificial intelligence. Given the high demand for this conference – this year saw an increase in participation of nearly 70 percent – and recognizing that the city of London is proving to be a convenient choice for market analysts, IFA looks forward to [repeating this conference there in 2025](#).

Images: The IFA team hosted events in Amsterdam, Singapore, London, Hong Kong and Madrid in 2024.

Crossroads Asia-Pacific Conference, Hong Kong

Focusing on the pivotal Asian region and Pacific basin, IFA's Crossroads Asia-Pacific Conference is, by tradition, a popular highlight on the IFA calendar of events. This year, in another first for the association, IFA held its Crossroads event in Hong Kong, a Special Administrative Region of the People's Republic of China (PRC), from October 8 – 10. Organized under the close guidance of IFA Board Members in the region, this year's Crossroads focused on the role of innovation and startups to help accelerate the transformation of the fertilizer industry. As in previous years, this conference was very well attended with plenty of productive discussions.

IFA Strategic Forum, Madrid

Spain's capital, Madrid, was the backdrop to IFA's 2024 Strategic Forum, held from November 19 – 21. Held under the theme of 'Navigating the Evolving Commodity Landscape', an essential exploration of fertilizer industry dynamics, attendance at this high-level conference was significantly higher than the previous year, with nearly 180 delegates, and with robust sponsorship. Conference sessions covered a variety of relevant topics, including the commodity super cycle, nutrient supply chains, and the challenges of cybersecurity.



IFA SPONSORS



Communications & Marketing Service

Shining a light on the industry



In 2024, IFA's Communication Service adopted a new strategic approach through a targeted campaign and theme-based direction.

The themed approach began in the first quarter with a focus on the Year of the Benchmark in support of IFA's Sustainability Service. It continued with a campaign for Fertilizer 101, involving the launch of a new interactive microsite that elevates the work of the industry, educates, and challenges misconceptions that exist around fertilizers. Towards the end of the year, the themed approach culminated with a focus on Biodiversity in support of IFA's Public Affairs outreach and engagement during three major UN conferences. Amid continuing geopolitical challenges and public misconceptions about the industry, this new approach is helping to maximize the impact of IFA's communications support to important initiatives within the Secretariat, as well as amplifying IFA's position on issues of strategic importance to the industry.

Our Communications team embraced an experimental and adventurous spirit this year, taking to the streets of London in search of public attitudes towards fertilizers. On a rainy July

afternoon, the team conducted a series of lively videotaped 'vox pops' to gauge a better understanding of the attitudes and knowledge levels of the UK public about fertilizers and the fertilizer industry. The results, overwhelmingly, showed that most of those interviewed were inclined to think negatively about the industry, that mineral fertilizers are harmful to people and the environment, and that they prefer a world in which they are not used. The communications team then packaged and analyzed these vox pops, using them to guide a thoughtful session at IFA's Strategic Forum in Madrid in November to help members explore how the fertilizer industry can positively reinvent its public image, given the industry's critical role in food security. Moving forward, the Communications Steering Group and Communications team will use these strategic assets to determine what needs to change in the Association's communications strategy to help generate positive shifts in attitude and public awareness.

As the influence and sophistication of Artificial Intelligence (AI) grows, IFA's Communications Director provided guidance on the use of AI to the Communication's Steering Group. This guidance included information on the various

applications of AI in PR and Communications, ethical and reputational considerations and some helpful tips and resources for members of the group to use.

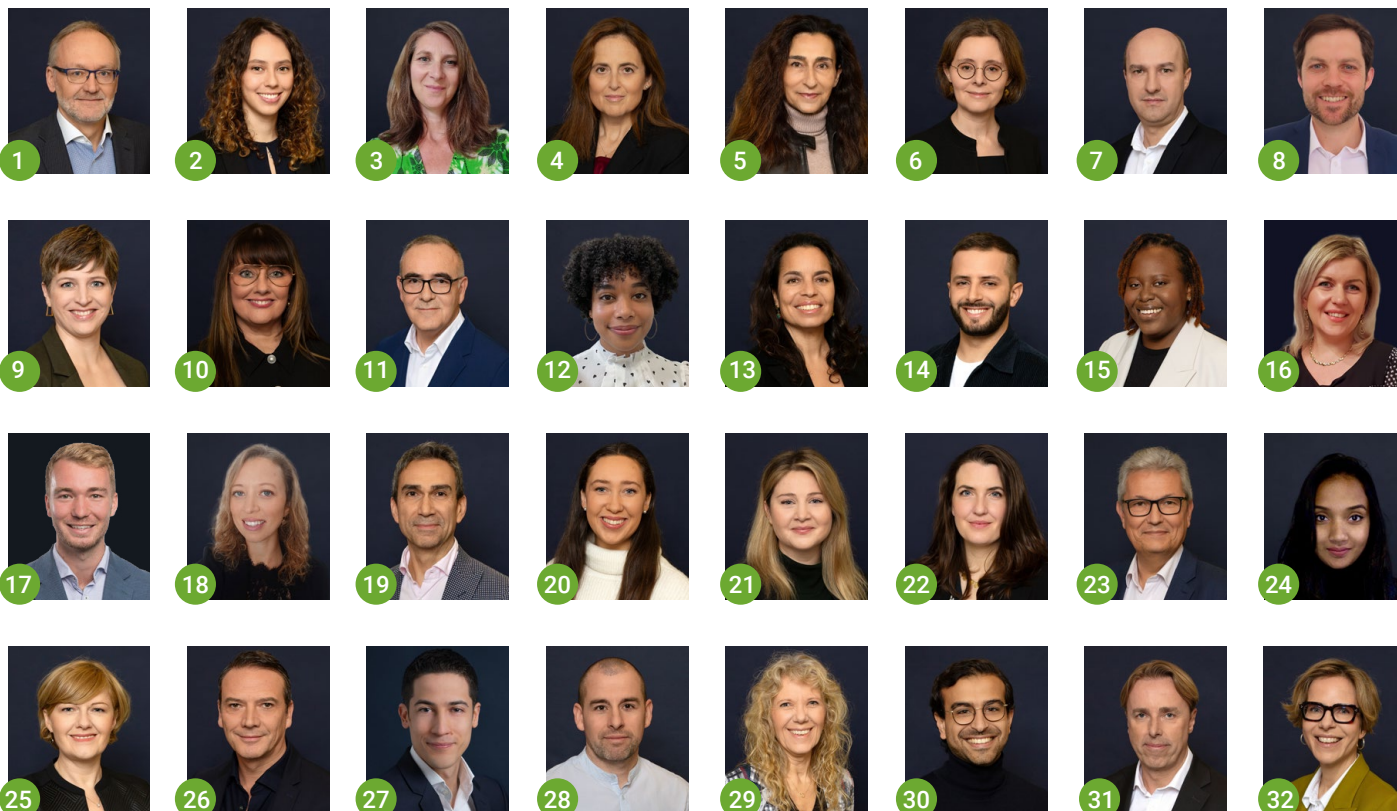
IFA's social media presence continued to thrive and grow throughout 2024. The Association's LinkedIn page continues to draw impressive engagement, with a 15 percent increase in followers this year. The team maintained strong activity on X, with a nearly 35 percent boost in engagement and 45 percent increase in reposts over a six-month period.

This success is, in part, thanks to IFA's story-telling approach with the popular 'Where in the World Wednesday' country check-in, and the 'IFA on the Road' series that showcases member visits around the globe. IFA will continue to experiment with new post formats, such as embedded video and carousels, in addition to its regular content and engagement with tier one media outlets and international trade press, continuing to further establish IFA as a trusted voice for the industry.



Images **Top:** Africa Fertilizer & Soil Health Summit, **Bottom:** Alzbeta Klein and Patrick Heffer visiting PVFCCo Vietnam.

IFA Secretariat*



1	Achim Dobermann	Chief Scientist	18	Jessica de Lafargue	Conference Planner
2	Alexandra Dorison	Sustainability Education Coordinator	19	José de Souza	Programme Manager - Supply
3	Aline Bortot	Webmaster	20	Kate Ashby	Conference Planner
4	Alzbeta Klein	CEO & Director General	21	Laura Cross	Director, Market Intelligence
5	Annie Cohen	Membership Manager	22	Margot Clifford	Senior Analyst Public Affairs
6	Armelle Gruère	Program Manager – Demand	23	Patrick Heffer	Deputy Director General
7	Aurélien Palaric	Chief Financial Officer	24	Sally Ekanayaka	Communications Manager
8	Cameron Ludemann	Data Scientist	25	Sandie Bouttemy	Conference Planner
9	Claire Newell	Director, Communications & Marketing	26	Stéphane Leleu	Director, Events
10	Dana Taylor	Executive Assistant to the DG	27	Stephen Bell	Sustainability Analyst
11	David François	Director, IT	28	Sylvain Riviere	Senior Accountant
12	Déborah Ragal	Junior Accountant	29	Sylvie Monnier	Project Coordinator
13	Elif Oguz	Lead Designer	30	Taha Abdelmoula	Data Engineer
14	Etienne Archard	Market Analyst Phosphates	31	Volker Andresen	Director, Sustainability and China Initiative Leader
15	Grace Chilande	Market Analyst Demand	32	Yvonne Harz-Pitre	Director, Public Affairs
16	Hanna Chtioui	Phosphate and Potash Market Analyst			
17	Jack Keays	International Program Manager for Innovation & Startups			

*As of 31 December 2024

INTERNATIONAL FERTILIZER ASSOCIATION LIMITED

Sustainability Annex



SUSTAINABILITY ANNEX

From the CEO/ Director General



Alzbeta Klein

Sustainability is a journey with a complex and winding roadmap. As a global industry, we are not just feeding the world, we are focused on doing so sustainably and profitably. Our mission is to help IFA members navigate the balance of meeting the nutritional demands of a growing global population, while also maintaining the health and biodiversity of our fragile planet.

That is why it gives me great pride to present IFA's 2024 Sustainability Annex. So many of the accomplishments and progress outlined within this report have been achieved thanks to the dedication and innovation of our members. You are helping us realize the best way forward towards a low-carbon economy, while also turning sustainability into a competitive advantage.

While 2024 brought several geopolitical and logistical challenges, IFA kept sustainability at the forefront of its mission. At IFA's Board retreat in January, we finalized and approved the Fertilizer Industry Ambitions, setting the sustainability trajectory of the industry for years to come. We also celebrated the second anniversary of the global Sustainable Fertilizer Academy (SFA), the industry's engaging and e-learning experience. In just two years, IFA's own startup has grown from 200 fully enrolled students to more than 2,600, from countries including Brazil, Turkey, China, Argentina, the United Arab Emirates, Spain, and the United States of America.

We also celebrated a record-breaking 'Year of the Benchmark', with 68 fertilizer companies from 42 countries participating

in our three independently-managed benchmarks for safety, health and environment (SHE), embodying a collective effort to raise sustainability standards across the industry.

As global policymakers navigate the transition to a low-carbon future, IFA's Sustainability team worked hard behind the scenes to best represent our members in decisions that impact the decarbonization of our production processes. Following the success of the Ammonia Technology Roadmap with the IEA, our Sustainability Service has been working with global stakeholders, including in Egypt and Turkey, to develop national low-carbon pathways and drive green investment. The IFA team also reactivated IFA's influential Decarbonization Working Group (DWG) to ensure that the industry's challenges and opportunities are properly reflected in new science-based resources for corporate climate action.

On top of that, after intensive collaboration with members and stakeholders, we reached the final stages of a landmark new report that positions phosphogypsum (PG) management and utilization as a cornerstone of the circular economy. This third report in our PG series will be published in April 2025 and makes a compelling business case for using PG by highlighting innovative applications and business models. We are very proud of IFA's leadership in this space.

Over 160 industry leaders, experts, stakeholders and start-ups discussed the above issues, and more, at the IFA Global Sustainability Conference in March 2024 in the Dutch capital, Amsterdam. With a strong emphasis on innovation, collaboration, and environmental stewardship, the conference offered members exclusive opportunities to exchange sustainability resources, strategies, and solutions with industry stakeholders.

Thanks to the work of IFA's Sustainability team, led by Director Volker Andresen, our industry is now positioned as a critical player in the transition to a nature-positive economy. Our focus is to feed the world while leaving the ecosystems from which we draw natural resources, as good or healthier than when we found them. This requires innovation, ambition, and resilience. As we move forward, together, we remain your partner in sustainability.

Celebrating Two Years of IFA's E-learning Academy



IFA's highly successful **Sustainable Fertilizer Academy (SFA)** celebrated its second anniversary in 2024, expanding its reach and impact across the world while maintaining a primary focus to educate the industry on the sustainable management of fertilizers.

What began as a novel approach to maintain a virtual connection with our members during the height of the Covid-19 crisis, has transformed into a structured e-learning platform with partnerships in Brazil, China, Turkey and West Africa. Since its inception, the Academy has empowered thousands of professionals from both within, and outside, the industry. In just two short years, the SFA's student body has grown from 200 fully enrolled students to more than 2,600, from countries including Brazil, Turkey, China, Argentina, the United Arab Emirates, Spain, and the United States of America.

In 2024, more than 1,600 students and professionals registered for an educational initiative through a unique partnership between the SFA, the Brazilian government and the Federal University of Mato Grosso (UFMT). This program provided a selection of classes subtitled in Portuguese from the SFA curriculum for university students and sustainable agronomy professionals that aligned with their specific educational and professional backgrounds.

In China, the SFA collaborated with IFA member, Sino-Agri, reach more than 1 million agronomists through a live-



streamed program. In West Africa, through a collaboration with the West African Fertilizer Association (WAFA), over 1,000 students engaged in hybrid workshops delivered at leading universities in Nigeria, Liberia and Ivory Coast.

The Academy now offers tailored learning experiences across two levels, covering both introductory and advanced topics such as product and nutrient stewardship, with subtitles available in multiple languages including Arabic, English, Portuguese, Spanish and Turkish. The Academy's 'Company Access' feature also continues to support member organizations in embedding sustainability training into their internal workforce development programs.

The SFA will continue to expand its reach, including the development of e-learning activities in China, India, and Turkey, as well as continued work across West Africa. With this growth comes the opportunity to focus on more region-specific challenges in sustainable farming practices. In addition, more subtitles, including French and Hindi are planned to be added to all SFA classes. A major redesign of the Academy's website is currently underway to enhance the user experience and support the adoption of mobile-friendly, microlearning formats. Looking ahead, IFA is excited to build upon the success of the Sustainable Fertilizer Academy with members by developing more specific courses, in direct response to their needs.

Helping Members Reach Operational Excellence and Sustainable Growth

A Record-Breaking Year of the Benchmark

In 2024, IFA celebrated its “Year of the Benchmark” by conducting all three benchmarking programs for fertilizer producers simultaneously for the first time since 2018.

A record-breaking 68 companies from more than 40 countries participated in IFA's independently audited benchmarks: the annual Safety Performance benchmark, the biennial Energy Performance benchmark, and the triennial Energy Efficiency & CO² Emissions benchmark. These companies were able to measure, compare, and improve their individual SHE performance, embodying a collective effort to raise sustainability standards across the industry.



Protect and Sustain Certification

Combining multiple certification criteria into one tailored industry standard, IFA's [Protect and Sustain](#) (P&S) certification reached a milestone in 2024, with 70 fertilizer production units from 32 companies in nearly 40 countries achieving accreditation.

The Protect & Sustain initiative is a core component of the IFA's strategy to enhance safety and sustainability in the industry. Since its launch in 2012, Protect & Sustain Certification has become the de facto global product stewardship standard for the fertilizer industry. This recognition allows producers, distributors, traders, and transporters to publicly and credibly prove their commitment to reaching the highest levels of safety, security and sustainability.



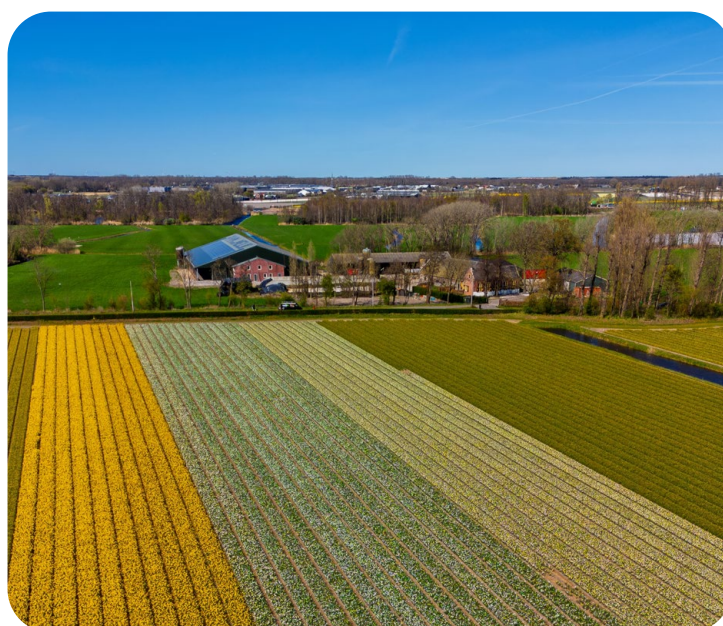
International Fertilizer Association Industry Stewardship Champions Class of 2024



Industry Stewardship Champions

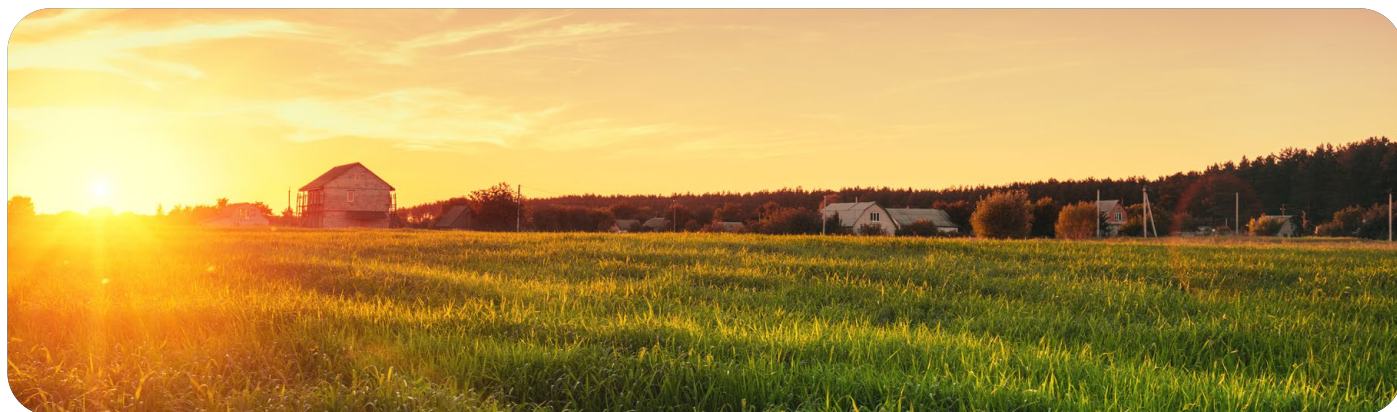
This year also saw the recognition of 30 IFA Industry Stewardship Champions (ISCs), including six first-time winners.

Companies can become ISCs by participating in all three benchmarks and holding either IFA's Protect & Sustain certification or an approved equivalent certification. We congratulate these 30 members from 23 countries who have set the bar high in Safety, Health, and Environment standards.



IFA Shapes the Circular Economy

From Waste to Inventory: The Business Case for Sustainable PG Use



Over the past decade, IFA has played a pivotal role in the global discussion about repositioning phosphogypsum (PG) as a valuable byproduct for the circular economy.

This year, IFA neared completion on a landmark publication that underscores the global shift towards sustainable practices and positions PG as a cornerstone of the circular economy. The report, *From Waste to Inventory. Phosphogypsum – The Business Case*, will be published in April 2025 and is the third installment in IFA's influential series on PG management and utilization.

This powerful call to action was created with input from 28 companies and organizations across 18 countries. Together, these contributors represent over 85 percent of global PG output, amounting to an estimated 245 million tonnes annually. The report makes a compelling case for the sustainable use of PG in a diverse range of applications, from agriculture to construction, and even in other sectors such as packaging, where it already helps to replace plastic. It demonstrates that full utilization of current production is feasible by 2035.

The report is based on the pioneering work of IFA's Naturally Occurring Radioactive Materials (NORM) Working Group, established to make the business case for PG use, detailing successful examples from around the world. In 2024, the Working Group, which now encompasses more than 100 experts, held a meeting at IFA's Global Sustainability Conference in Amsterdam in March to lay the groundwork for the report. The following month, the Working Group held a workshop on PG use at the Chinese Phosphate Association (CPFIA) in Beijing to continue to gather use cases, expert feedback and data insights for this one-of-a-kind global resource.

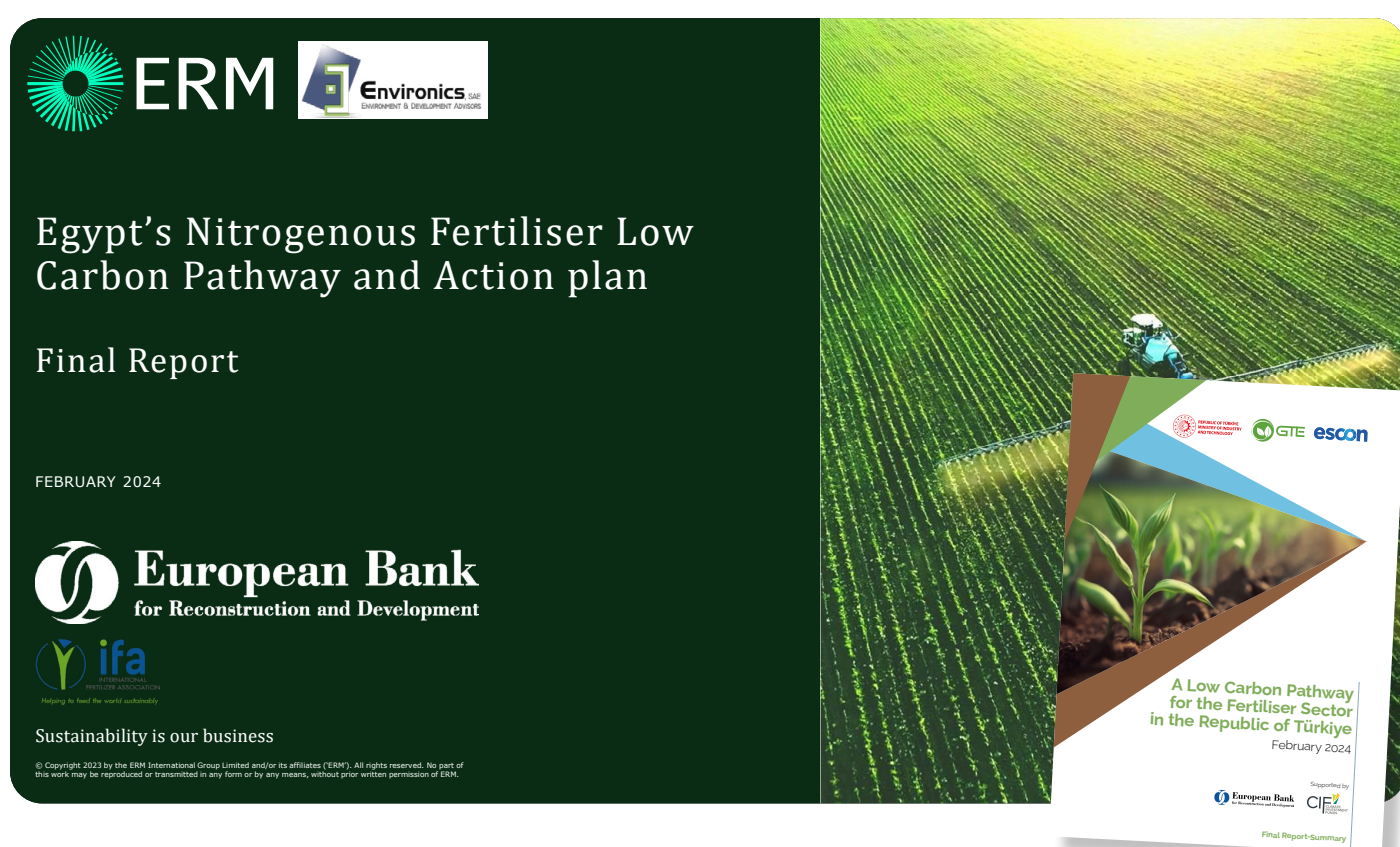


"Phosphogypsum represents an untapped resource with immense potential to drive sustainability in agriculture and other sectors. This report demonstrates how industry collaboration can lead to innovative solutions that benefit both the economy and the environment. At IFA, we are committed to advancing initiatives that turn challenges into opportunities for a more sustainable future."

Alzbeta Klein, CEO and Director General of IFA.

Creating Pathways to a Low Carbon Economy

IFA Helps Develop Global and National Sustainable Fertilizer Production Roadmaps



In 2021, the European Bank for Reconstruction and Development (EBRD) in collaboration with IFA and the International Energy Agency (IEA) developed the Ammonia Technology Roadmap (ATR), a groundbreaking global low-carbon map for ammonia production.

Since then, the ATR has been instrumental in supporting the development of national low-carbon pathways and driving investments in sustainability. In 2024, alongside EBRD and local governments, IFA participated in the launch of national strategies for decarbonizing nitrogenous fertilizer production in both [Egypt](#) and [Türkiye](#). In June 2024, IFA attended the launch event of the Egyptian Low-Carbon Pathway (LCP) and Action Plan in Cairo, together with its Steering Committee partners from the EBRD, the Egyptian fertilizer industry, and the national government.

In Turkey, IFA provided essential guidance to the government in the implementation of an LCP for the industry. At the close of 2023, IFA participated in the inaugural Steering Committee Meeting for the Turkish LCP hosted by the Ministry of Industry and Technology in Ankara and attended by representatives from Turkish Ministries, major fertilizer producers, EBRD, and other stakeholders. In March 2024, the government announced the completion of “Türkiye Sectoral Low Carbon Pathways”, a crucial initiative in achieving the country’s 2053 Net Zero Emission target.

Building on this work, in late 2024 IFA and EBRD agreed to continue to develop technical resources for decarbonizing global fertilizer production, expanding from ammonia to phosphate and potash fertilizer production. The EBRD, in partnership with IFA, agreed to develop a global [phosphate and potash low carbon technology roadmap](#) in 2025.



SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Supporting Science-Based Resources for Decarbonization

The upcoming publication of a [Sectoral Decarbonization Approach \(SDA\)](#) for chemicals, including nitrogenous fertilizers, by the Science Based Targets initiative (SBTi) has significant implications for how IFA's members' decarbonization efforts will be evaluated and recognized. The SDA is a method for setting emission reduction targets for companies, aligning them with climate science and global mitigation pathways.

To ensure that the fertilizer industry's perspectives, challenges, and opportunities are accurately represented in the SDA, in 2024 the Sustainability team reactivated IFA's Decarbonization Working Group (DWG). This working group, which consists of more than 70 experts, held three workshops throughout the year to gather feedback on the first and second SDA drafts. These workshops served as a critical element for helping IFA members prepare for the SBTi's public consultation periods, enabling a timely industry response and encouraging high participation among the membership. IFA's Sustainability team carefully synthesized the feedback from these workshops and submitted it on behalf of the industry to the SBTi.

Thanks to the active involvement and feedback of IFA's members, the draft SDA for chemicals has been improved by SBTi in some respects. However, there are several notable fertilizer-specific deficiencies which remain due to the lack of scientific resources to help inform the SDA. Examples include the lack of specific pathway for setting targets on N₂O emissions from the use of fertilizers in the field, and the lack of sufficient modelling resources to inform specific targets for fertilizer products other than ammonia derivatives.

Moving towards the release of the final SDA draft, expected in the second half of 2025, IFA has formed a dedicated taskforce to develop a specific emissions scenario on which to model near-term and net-zero targets for N₂O emissions from fertilizer use. In parallel, IFA has formed another taskforce to support the development of a Low-Carbon Roadmap for the Global Potash and Phosphate Fertiliser Industry with the EBRD. This project will enable organizations like SBTi to better feature the fertilizer industry within chemical sector decarbonization resources, which typically only include ammonia derivatives.

In August 2024, in response to the growing number of decarbonization challenges and opportunities for fertilizer companies, IFA leadership established an industry decarbonization support strategy. Later in the year, at IFA's Strategic Forum in Madrid, Spain, IFA's new Fertilizer Industry Decarbonization Initiative (FIDI) was approved by the IFA Board of Directors. Through strategic scientific resource development and stakeholder engagement, this new initiative aims to support decarbonization frameworks like SBTi to better understand the unique business challenges and opportunities of the fertilizer sector. In doing so, FIDI will help provide fertilizer producers more flexibility in designing, implementing, and tracking their decarbonization strategies while ensuring business sustainability.





A Partnership to Spur Industry Innovation

This year, IFA and the Rocky Mountain Institute (RMI) signed a Memorandum of Understanding (MoU) outlining our twinned ambitions to collaborate in areas related to fertilizer industry innovation and decarbonization.

The partnership between IFA and RMI focuses on innovation that will enable the production and use of low-carbon fertilizers. It complements our industry's activities in the areas of innovation and startups, as well as the most recent developments in blue and green ammonia/hydrogen.

By investing in innovation today to improve our agricultural systems, the industry is poised to transform how we produce fertilizers and dramatically reduce production-linked emissions while supporting global food security in the future.

2024 IFA Green Leaf Award

Recognizing Excellency in Safety, Health and Environment in the Fertilizer Industry.



Maintaining excellence in safety, health and environment (SHE) is a top priority across the global fertilizer industry. To honor those who exemplify the best in environmental sustainability and safety management, IFA grants the prestigious Green Leaf Award (GLA) every two years to deserving member companies.

At IFA's 2024 Annual Conference in Singapore in May, the 2024 GLA for outstanding SHE practices was presented to [Engro Fertilizers](#) in Pakistan for nitrogen production, and to IMACID (a joint venture of OCP, CFCL Group, and TATA Chemicals) in Morocco for phosphate/potash production. Applicants for the GLA undergo an extensive evaluation of performance indicators by an independent panel of judges. This year, IFA received a record 47 eligible applications from 27 member companies.

Engro Fertilizers was recognized for its comprehensive SHE management and sustainability efforts, including the ECO-GREEN project, which improved energy efficiency, reduced emissions, and enhanced operations by inspecting and repairing equipment and installing low NOx burners. IMACID was honored for its integrated ISO certifications and proactive safety culture, utilizing the Bird pyramid approach to engage employees in hazard prevention and enhancing subcontractor management through the GEEX standard.

Fauji Fertilizer Company's Goth Macchi plant in Pakistan earned first runner up in the nitrogen production category for environmental initiatives such as ammonia and hydrogen recovery, nitrogen plant replacement, and solar power installation. Pakphos Maroc Phosphore (PMP) secured first runners up in the phosphate/potash production category, including digitalizing safety management and conducting a comprehensive carbon footprint study.

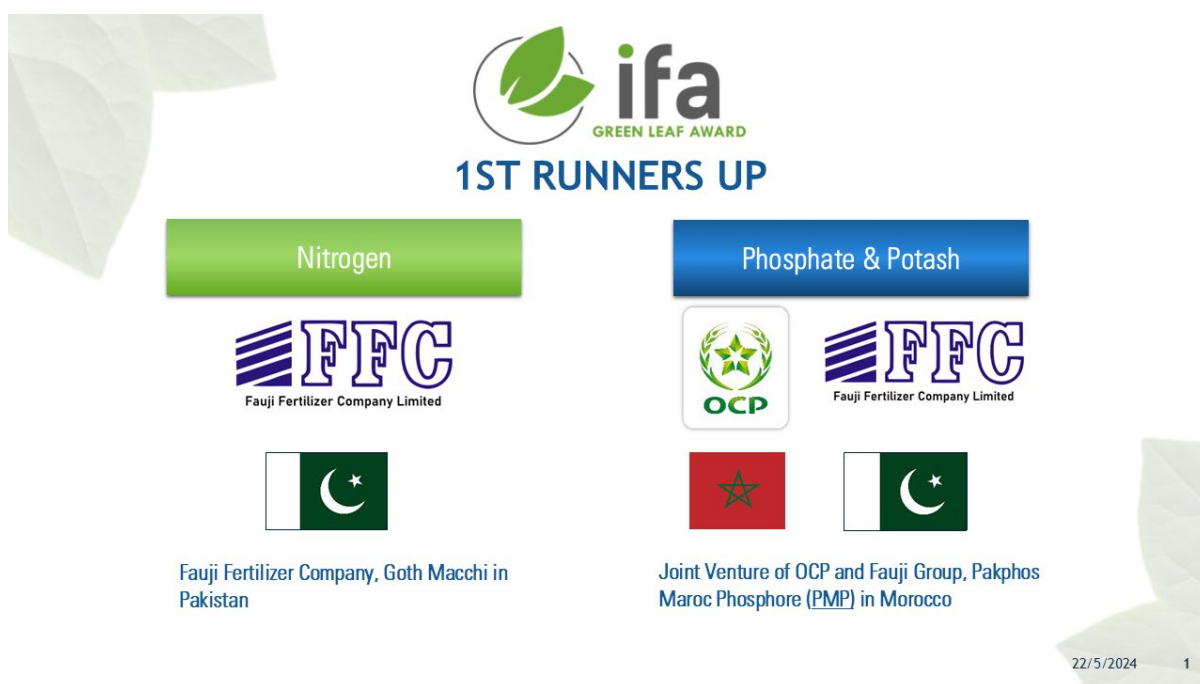
In June, IFA hosted a webinar where the two GLA winners presented their submissions and company best practices. This event provided a unique opportunity for members to gain insights into the award-winning projects and initiatives.



Images This page: Alzbeta Klein, CEO & Director General, IFA, Tony Will, President & CEO, CF Industries and Chair of IFA, Ali Rathore, CEO, Engro Fertilizers, Youssef Boulahya, CEO, IMACID




"It is the right thing to do, and it makes sound business sense to reach for the highest standards of safety and health in the workplace and to protect the environment,"

Alzbeta Klein, IFA CEO and Director General.



ifa
GREEN LEAF AWARD

1ST RUNNERS UP

Nitrogen	Phosphate & Potash
 FFC Fauji Fertilizer Company Limited 	  FFC Fauji Fertilizer Company Limited  
Fauji Fertilizer Company, Goth Macchi in Pakistan	Joint Venture of OCP and Fauji Group, Pakphos Maroc Phosphore (PMP) in Morocco

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ifa
GREEN LEAF AWARD

THE 2024 WINNERS

Nitrogen	Phosphate & Potash
 engro fertilizers 	   Chambal Fertilisers and Chemicals OCP TATA   
Engro Fertilizers, Manufacturing Division in Pakistan	Joint Venture of CFCL Group, OCP and TATA Chemicals, Indo Maroc Phosphore (IMACID) in Morocco

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FERTILIZER 101

A New Interactive Webpage takes Users on a Fertilizer Sustainability Journey



In October 2024, on Global Fertilizer Day, IFA launched its interactive, web-based resources **Fertilizer 101** web page, providing an accessible and comprehensive overview of the fertilizer value chain. The platform offers users an immersive and engaging look at the lifecycle of fertilizers and everything in between, from production and use efficiency, to safety, biodiversity, water management and human nutrition. It also includes key topics related to sustainable farming and its processes.

As part of IFA's commitment to promote sustainable practices in agriculture and to educate stakeholders across the industry, this user-friendly tool is designed to be an evergreen resource that IFA members can contribute to with insights, data, and case studies. The platform will be updated to reflect advancements in technology, best practices in fertilizer production, and the latest industry sustainability initiatives.

Fertilizer 101's launch was highly successful, with IFA's LinkedIn post gaining over 12,000 impressions. As an

"Fertilizer 101 was developed with the aim of providing an engaging, fun way for IFA's audiences to find out more about the role that fertilizers play in feeding and nourishing the world. The platform is designed to grow and evolve, so that it remains a useful resource for members and non-members alike for years to come."

Claire Newell, Director of Communications & Marketing, IFA

evergreen resource, Fertilizer 101 serves as a platform to showcase innovations, foster collaborations, and feature exciting updates as they arise. Designed in collaboration with UK-based web design agency, MTM Group, IFA looks forward to maintaining this page as a resource that reaches beyond our association and supports our global industry.

Global Sustainability Conference 2024

Where Industry Leaders Learn how to Cultivate Change



In March 2024, Amsterdam, the capital of the Netherlands, hosted IFA's Global Sustainability Conference (GSC). The first in-person GSC since the pandemic, the conference brought together over 160 industry leaders, experts, stakeholders, and start-ups from around 30 countries to chart a path towards a more sustainable future for the fertilizer industry.

With an emphasis on innovation, collaboration, and environmental stewardship, the conference featured a multitude of discussions and insights from a series of expert speakers, covering topics such as low-carbon technologies, decarbonization, agtech startups, sustainable finance, circular economy, biodiversity, plastics management, and more.

Highlights from the conference included an opening plenary session on March 6 that emphasized the fertilizer industry's role in balancing global food security and environmental responsibility. With the industry positioned at a crossroad and facing geopolitical volatility, participants agreed that sustainability has become not just a goal, but an imperative for survival and growth in these complex circumstances. Another inspiring session on biodiversity featured representatives from member organizations who

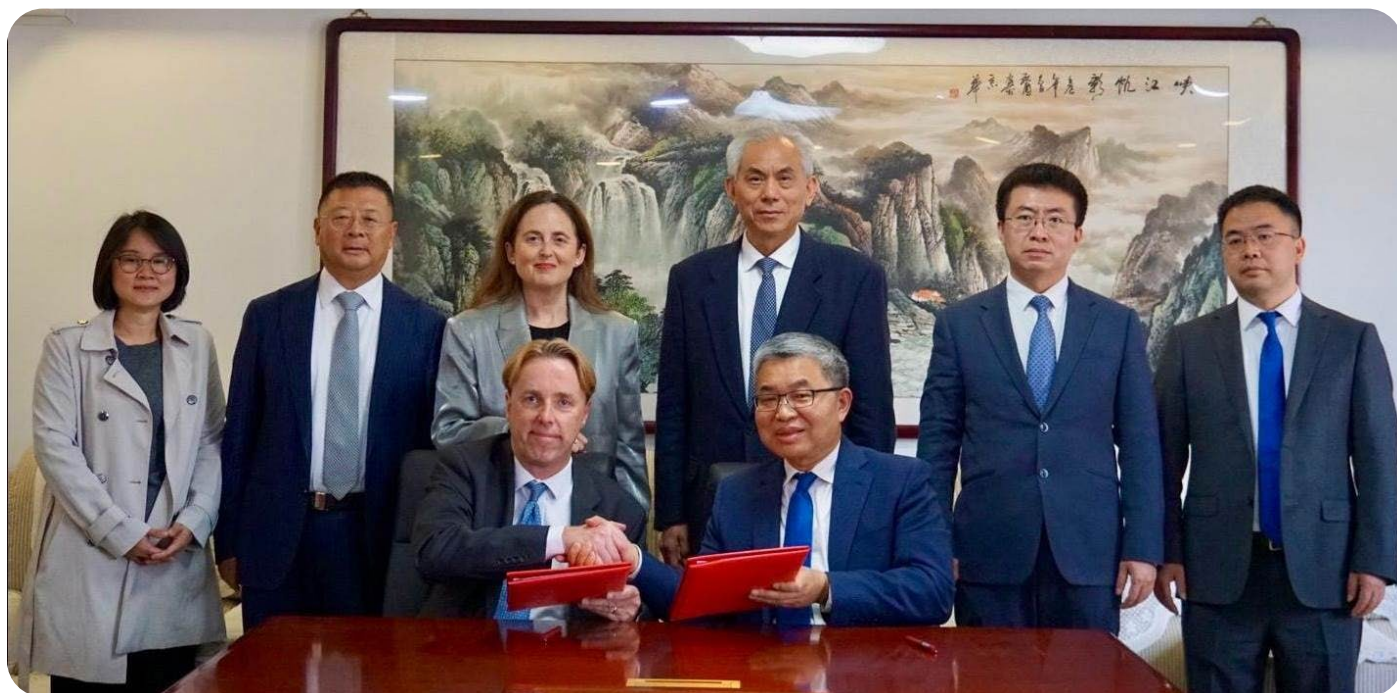


shared their experiences in tracking and assessing their impacts and dependencies on nature.

Participants agreed that the insights shared at this year's conference will serve as catalysts for positive change. Based on the positive feedback and demand for another event, moving forward an innovation and sustainability-focused conference will be included in IFA's annual calendar of events.

[Images](#) IFA's Global Sustainability Conference 2024 in Amsterdam, the Netherlands

Advancing Sustainability



Deepening Collaboration with IFA's Chinese Partners to Advance Sustainability

With China accounting for approximately 30 percent of global fertilizer production and use, IFA's 60 member companies from China represent a critical pillar of our association's global strength and knowledge exchange.

This year, in a move that underscores our shared commitment to environmental stewardship and innovation with our Chinese partners, IFA renewed our Memorandum of Understanding (MOU) with the China Petroleum and Chemical Industry Federation (CPCIF).

Signed a decade ago, the original memorandum with the CPCIF focused on the mutual exchange of fertilizer production and use statistics. In 2024, the renewal was significantly expanded to include the regular exchange of best practices in sustainability. Moving forward, IFA will share a wide range of resources with the CPCIF, including global decarbonization roadmaps, sustainability certifications, and benchmarking frameworks, guidance from various Working Groups, and access to IFA's recognition programs.

CPCIF, which oversees around 100 Chinese industry associations – including those focused on nitrogen, phosphorus, potassium, and mining – is ideally positioned to review these resources and guide their implementation

within a local context. In a reciprocal approach that ensures that best practices flow in both directions, CPCIF will also actively contribute to the global knowledge pool by sharing China's innovations in sustainable fertilizer production and use. Chinese industry innovations will inform global strategies, while international insights will enhance local efforts.

As sustainability becomes an ever-greater priority across agriculture and fertilizer industry, this partnership between IFA and CPCIF is a timely strategic contribution to cross-border collaboration. It lays the groundwork for continuous improvement, global alignment, and mutual recognition in the journey toward a more sustainable future.

In September 2024, at the Chinese Chemical Federation's Annual Conference, in Yantai, China, IFA organized a successful '[Fertilizer Day](#)'. IFA's delegation, which included the CEOs of Aleff Group, IFA and Stamicarbon, delivered three impactful presentations. These were complemented by eight contributions from Chinese experts, all of which focused on sustainable fertilizer production and use.

[Image](#) IFA & CPCIF MOU signature ceremony, Beijing, April 2024. In the back IFA CEO, Alzbeta Klein, stands next to CPCIF Party Secretary Li Yunpeng while IFA Sustainability Director, Volker Andresen, shakes hands with CPCIF Deputy Party Secretary Pang Guanglian.

Integrating Biodiversity into our Industry



Biodiversity is fundamental to the well-being, nutrition and health of people, and the future of our planet. It is also the bedrock of the fertilizer industry's mission to help feed the world sustainably. Ahead of other sectors, IFA has been at the forefront of placing a priority on the importance – and resulting impact – of biodiversity loss.

In recent years, IFA has helped its members get in front of the issue, providing guidance on how the industry should align itself with the Global Biodiversity Framework. Thanks to the work of the Biodiversity Taskforce and, based on the outcomes of two workshops with Eurasia Group and McKinsey, in December 2023 IFA published an important [industry position statement on biodiversity](#). The statement sets out the industry's commitment to responsible environmental stewardship in nature protection. The first time the industry had released such a statement, it signals our strong leadership on the issue.

Since the publication of this statement, IFA's Public Affairs and Sustainability teams have doubled down on biodiversity work, helping members fine tune their sustainability operations and integrate biodiversity considerations into their corporate strategies. In March 2024, IFA distributed a comprehensive Biodiversity Starter Pack that provides members with a practical roadmap for a nature positive foundation for their business operations. Numerous IFA members have since integrated biodiversity considerations into their corporate sustainability reporting.

IFA's Public Affairs team continues to represent the industry at high-level events, including the 2024 UN Biodiversity COP in Cali, Colombia, where key messages defined by members in IFA's biodiversity industry position were shared.

[Image UN Biodiversity COP Cali 2024](#)



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