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## Foreword - President

FERTILIZERS EUROPE IS THE VOICE OF THE FERTILIZER INDUSTRY IN EUROPE AND A TRUSTWORTHY PARTNER FOR EU POLICY MAKERS. LAST YEAR FERTILIZERS EUROPE CELEBRATED ITS 30<sup>TH</sup> ANNIVERSARY PROVING THE VALUE OF THE ASSOCIATION. WHILE WE CAN BE PROUD OF THE ASSOCIATION'S ACHIEVEMENTS, IT'S THE CHALLENGES AHEAD OF US THAT CONTINUE DRIVING FERTILIZERS EUROPE FORWARD.

With this in mind, the Association developed the industry vision entitled "Feeding Life 2030: The European Fertilizer Industry at the Crossroads between Nutrition and Energy".

On the production side, as Europe is forging ahead with the transition to a net zero emission economy, we aspire to be part of this future by possibly using ammonia as a carbon-free energy storage medium. The industry will also continue to be an important part of the circular economy by transforming by-products into high quality fertilizers. On the fertilizer use side, advancement in products, increased knowledge among farmers and advisors, and precision farming/big data create immense potential for further progress in nutrient management in Europe and thereby for European agriculture to become more economically viable and environmentally friendly.

The pathway for the mineral fertilizer industry projected in "Feeding Life 2030" is ambitious. It can only become a reality if we achieve the right level of commitment from all industry, farmers, stakeholders and legislators.

The industry's vision for 2030 has parallels to the EU climate agenda, which has been dominating the Brussels debate in the past months. EU's vision to decarbonise the EU economy and transform energy intensive industries will have a substantial impact on



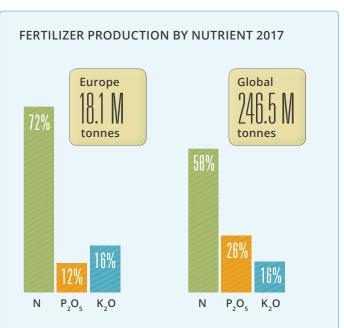
# **C** To tackle challenges of tomorrow, the industry will need to be fit to invest today. Only in this way can we ensure a strong and innovative production base and supply of quality mineral fertilizers in the EU.

the very nature of our industry. While very challenging, this transition can also become an opportunity for the fertilizer sector. The key will be to retain the industry's economic viability amid ever growing global competition. A close dialogue between the industry and policy makers will be key in coming years in order to establish a viable way forward.

In economic terms, 2018 proved to be very challenging for the European fertilizer industry. Unusually high gas prices in combination with sky-rocketing prices of EU ETS allowances made it very difficult for many of our members to remain competitive. While the price of gas has eased the last few months, carbon leakage protection and other measures that will restore a level playing field is what energy intensive industries, including the fertilizer industry urgently call for.

The dialogue between industry and policymakers is on-going, but optimal solutions are yet to be found. One thing is clear - Europe needs a balanced system that will allow European energy intensive industries to thrive.

To tackle the challenges of tomorrow, the industry will need to be fit to invest today. Therefore, we continue advocating for a framework that will maintain a competitive European fertilizer industry. Only in this way can we ensure a strong and innovative production base and supply of mineral fertilizers in the EU and, thereby, an economically and environmentally successful agriculture in the EU.



In Nitrogen fertilizers, EU has 9% share of global production, while in phosphate its 3%, and potash: 7%.

Source: Fertilizers Europe/IFA

# Foreword -Director General

WRITING THIS IS IN MAY 2019, I LOOK BACK AT THE PAST TWELVE MONTHS AND SEE A VERY INTENSIVE BUT REWARDING YEAR. I WANT TO THANK MEMBERS FOR THE SUPPORT TO THE SECRETARIAT IN ANALYSING PROPOSALS IMPACTING OUR INDUSTRY AND IN DEVELOPING NEW SOLUTIONS AND POLICIES.

> In May 2019, the EU concluded a long-lasting negotiation on the Fertilizing Products Regulation. While this legislation is not perfect, it allows European manufacturers to continue supplying European farmers with quality mineral fertilizers in order to optimize yields.

The new framework will make it possible for the fertilizer industry to use by-products and it will open access to new resources of recycled material, which will help closing the resource loop in our society. While the limit on contaminants creates a challenge for the European phosphate industry, the industry does recognise the need to seek compromise and keep the balance between environmental, health, economic and supply security aspects.

Air quality in cities became an important issue in 2018. Part of the solution relates to curbing ammonia emissions from agriculture, including those arising from fertilizer application. In order to rise to the challenge, we put forward a series of best practices that can be applied to improve air quality in Europe while retaining the viability of farming.

JACOB HANSEN, DIRECTOR GENERAL

Throughout 2018, we intensified our efforts to communicate with farmers on the benefits of European fertilizers. To this end, we actively participated in the COPA-COGECA Congress of European farmers in Austria as well as CEJA's 60th anniversary conference in Ypres.

2019 is a year of change in Brussels. A new Parliament was elected in May, whereas a new Commission will be formed later in the year. While the work programme of the newly appointed institutions will only be unveiled by end-2019, the political parties already set the tone for the discussion during the election campaign, focusing to a large extent on the climate change agenda and decarbonisation.

With Feeding Life 2030 report presented in November 2018, our industry aspired to position itself as a forward-looking and constructive actor in the debate on the future of Europe and on the role the fertilizer industry could play in addressing some of the societal challenges. In our Vision, the European Fertilizer industry sits at the cross roads between nutrition and energy. We will be playing a major role in feeding Europe's population of the future, but also acting as a missing link in Europe's decarbonisation efforts.

The Vision report lays the foundation for a constructive dialogue with the EU institutions and Member states on the current state of fertilizer industry in Europe. The dialogue should go beyond fertilizers to include aspects of how industry can contribute to addressing wider EU society challenges in the lead up to 2030.

In our Vision, the European Fertilizer industry sits at the cross roads between nutrition and energy. Fertilizer industry will be playing a major role in feeding Europe's future, but also acting as a missing link in Europe's decarbonisation efforts."

The dialogue will also be about the policy framework that in the long run will enable our industry to continue excelling in both the production and use of fertilizers while maintaining its competitive edge against international competition.

Looking ahead, the challenges faced by the industry are substantial. Only by remaining united as an industry and having a constructive dialogue with key stakeholders, can we make our voice heard in Brussels and advocate successfully in the pursuit of fair and positive outcomes for the fertilizer sector in Europe.

# The European Fertilizer Industry at a Glance

# <complex-block><text>

- \* EU-28
- \*\* total including supply chain (average last 5 years)
- \*\*\* in 2015 (members only)



### Feeding Life 2030: The EU fertilizer industry at the crossroads between nutrition and energy

In our Vision to 2030, the European fertilizer industry will be at the crossroads between nutrition and energy. Under the right legislative framework, the industry can play a vital role in the context of the EU's ambition to lead sustainable agricultural production and maintain a strong industrial base, while at the same time shifting towards a decarbonised economy."

Fertilizers Europe vision for 2030 is an attempt to answer the question of how to produce enough nutrients so that farmers and growers can meet the food needs of a growing global population in a more energy and environmentally efficient way. At the same time, the fertilizer industry can play an important role in storage and transportation of green energy. Finally, the industry will continue as a key contributor to the circular economy.

The European mineral fertilizer industry will be at the crossroads where the two challenges meet. Fertilizers Europe vision "Feeding Life 2030" highlights how the sector can contribute to addressing them.

JACOB HANSEN, Director General

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#### **Feeding the World**

Today, fertilizers help feed almost 50% of the global population. Meanwhile, the UN estimates that the world's population will continue to grow, reaching 8.6 billion by 2030 (up from 7.6 billion today). In other words, we need to find a way to feed an extra population the size of Germany every year.

While food supply shortage is not a major concern in Europe, more sustainable food production certainly is. In order to provide European consumers with high quality, nutritious, diverse and sustainably produced food, the highest quality plant nutrients are required.

'Applying more knowledge per hectare' should be the mantra for the future of farming in Europe. Better fertilizer products, precisely targeted to specific crops, combined with new tools and real time data open up a new range of exciting possibilities.

The greater application of knowledge is expected to improve quality and yields and provide farmers with a higher return on investment. It will also have a very positive effect on the environment, as better and more targeted fertilization will maximize plant growth and so diminish losses to the environment.

#### Producing and storing energy

As the EU progresses towards decarbonising its energy supply and relying more on renewable energy such as wind and solar power, as well as the production of hydrogen, the question of hydrogen storage becomes more pressing. As a producer of ammonia, the nitrogen fertilizer industry offers the key to unlocking clean energy potential by acting as a carbon-free energy carrier. It is the missing link in making decarbonisation a reality.

At the same time, the industry will continue to play an important role in encouraging industrial symbiosis in Europe and promoting the principles of a circular economy and resource efficiency.

#### From vision to reality

Feeding Life 2030 offers a forward-looking and ambitious vision of the future of the fertilizer industry in Europe. The report is aimed at initiating discussions with stakeholders on the future role of mineral fertilizers in the EU.



European mineral fertilizer producers operate in a global market. Ensuring a level playing field on fertilizer, energy and carbon costs must be the first priority. It is imperative that

the EU continues to develop and uphold effective trade defense instruments to underpin fair trade.



As the European Commission moves ahead with its decarbonisation plans for the EU economy, it is essential that the policies proposed include the potential role ammonia

could play in the decarbonisation effort. Support for research and pilot projects and the implementation of necessary standards for energy infrastructure and transportation are needed.



While the fertilizer industry is already recycling a wide range of by-products and uses surplus energy and raw materials deriving from other production processes,

the full potential of the circular economy and industrial symbiosis is far from being reached. New policies and R&D&I programmes should incentivize circular thinking to ensure further optimisation of resource use, closing material loops, and minimizing environmental impacts.

To download the full report visit www.fertilizerseurope.com/feeding-life-2030 and the second

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# Our policy priorities



STRENGTHENING EUROPEAN INDUSTRY: FAIR COMPETITION 16 CLIMATE CHANGE, ETS AND ENERGY

AGRICULTURE AND ENVIRONMENT





# Strengthening European industry: Fair competition

**The EU's industrial strategy** should aim at making its industry more competitive, recognising its strategic value for jobs and growth, and ensure that it is fit to compete globally on both short and a long-term basis. It should aim at creating an attractive environment for investment, so laying the foundations of its future competitiveness and prosperity.

#### **Industrial competitiveness**

The European fertilizer industry advocates a coherent, long-term policy and legislative framework that balances the EU's climate ambitions with its industrial competitiveness. Together with 146 other industry organisations, the Industry4Europe coalition is actively calling on the EU institutions to commit to a new and ambitious industrial strategy for energyintensive industries.

Specific support should be considered for these industries, in order to protect strategic

industrial sectors and foster innovation whilst ensuring competitiveness for the benefit of jobs and growth.

The European Commission's High-Level Expert Group on Energy-Intensive Industries (HLG EII) was set up to discuss with key stakeholders the most pertinent issues currently faced by energy-intensive industries. Fertilizers Europe is a member of this group.

Since the publication in November 2018 of the Commission's Strategic Vision for 2050 "A Clean Planet for All", the work of the HLG EII has focused on the preparation of an "Industrial Transformation Master Plan for Climate-neutral Industry 2050".

The analytical work of the subgroups is led by the Alliance of Energy-Intensive Industries in which Fertilizers Europe actively participates. The energy-intensive industries' input builds on the report prepared by the VUB Institute for European Studies which outlines the Europe's Energy-Intensive Industries contribution to the EU strategy for long-term GHG reductions.

#### Trade

European fertilizer manufacturers operate in a global marketplace and advocate fair and open trade. However, recent developments have undermined free and fair global trade.





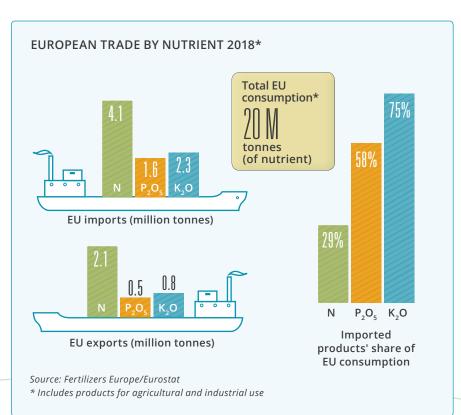
Due to the artificially low prices of dumped imports, the European fertilizer industry has faced severe and ever-growing difficulties over the 2017-2018 period. Trade defence has therefore emerged as a dominant activity during that time span. Notably, two interim reviews on ammonium nitrate were concluded in November 2018. Moreover, in August 2018 a new EC anti-dumping investigation started on UAN originating in Russia, Trinidad & Tobago, and the USA.

In November 2018, the European Commission concluded in the interim review on dumping that there are no changed circumstances in the Russian gas market where state fixed pricing dominates gas price formation. Despite recognizing structural dumping, the Commission took the decision on the injury review to reduce by one third the anti-dumping duty on ammonium nitrate originating from Russia.

By April 2019 provisional anti-dumping duties on UAN were applied and the proceedings are due to end in October 2019, normally with definitive measures applicable for the next 5 years. With the provisional anti-dumping measures, Europe's UAN industry is expecting relief from the proven and severe injurious dumping.

As national populism around the world has strengthened over the past year, the European Union has continued to use Free Trade Areas (FTAs) to open up and liberalise trade relations. Most notable was the start-up of FTA negotiations with Australia and New Zealand - two major agricultural exporters which are expected to challenge EU farming. Equally significant was the conclusion of the mega FTA between Japan and the EU - real proof of the EU's intent to make tangible trade liberalisation moves.

As far as European fertilizers are concerned, the most significant development is the EU-USA July 2018 start-up agreement to create a limited mini-FTA on industrial tariffs and regulatory co-operation. Going forward into 2019-2020, negotiations are set to become material. As with the now lapsed TTIP negotiations, Fertilizers Europe has called on the European Commission to make UAN and urea EU industry sensitive products.



#### EU gas market

In economic terms, 2018 proved to be very challenging for the European fertilizer industry. Unusually high gas prices in combination with increased prices for EU ETS allowances made it very difficult for European producers to remain competitive globally.

As the single largest industry consumer of natural gas, EU fertilizer producers acknowledged the commitment announced by the European Commission's competition authority in May 2018 to continue to assure Gazprom's free and fair pricing of gas sales into the Internal Market. However, the antitrust case does not provide for the correction of Russian gas dual pricing and equally competitive gas price conditions.

Russian industry continue to gain competitive advantage using artificially low domestic gas prices. Fertilizers Europe has therefore called on the EU to insist that Russia meets its WTO Accession gas commitment, whereby local gas must be priced to cover total costs of production, a normal profit and a future investment allocation.

#### BREXIT

BREXIT has so far proved to be an insoluble problem, with the UK parliament unable to agree on the Withdrawal Treaty. This foresees a single customs territory including all of the UK, but internal UK divisions on the "backstop" insurance policy provisions designed to maintain a soft border and peace in Northern Ireland has produced a stalemate.

However, it has emerged from the hard Brexit crash-out contingency scenario that the UK would apply a 6.5% ad valorem border tariff on EU ammonium nitrate and NPK, which would be of serious concern to the industry.

BREXIT is now set for new deadline end of October 2019. As with the past negotiations, Fertilizers Europe will continue to intervene with the Commission negotiators to argue for the "closest possible cooperation".

However, it has emerged from

# Climate change, ETS and energy

**By publishing "A Clean Planet for all** - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy" in November 2018, the EU has upheld its ambition to remain a world leader in combating climate change. For Europe to succeed all sectors of the economy will have to play their part in the decarbonisation effort.

#### **EU ETS**

The EU's Emission Trading Scheme (ETS) is the cornerstone of its climate policy. But, with the price of carbon allowances reaching  $\leq 25/t \text{ CO}_2$  in 2018, energy-intensive industries such as fertilizer producers called for urgent discussion on carbon leakage protection and possibly additional measures to restore a level playing field. Since the fertilizer industry is among the sectors most exposed to carbon leakage, with limited technical opportunities to significantly further reduce its emissions, the evolution of EU climate policy is a key priority for Fertilizers Europe and its members.

The rules for ETS phase IV accepted that some energy-intensive sectors cannot achieve further significant emissions reduction and, therefore, agreed on a lower automatic annual benchmark reduction rate of 0.2%, thus implicitly recognizing the physio-chemical limitations of the ammonia process.

A CONTRACTOR

Ensuring a level playing field for fertilizer production, energy and carbon costs must remain a main priority. Only then will the European fertilizer industry be in a position to evolve in the direction set out in the EU's long-term decarbonisation vision.

#### What role for the European fertilizer sector?

Meeting future food needs, at the same time as limiting greenhouse gas emissions to reach carbon neutrality by 2050, and moving towards a circular economy are among the most critical challenges of our time. The European fertilizer industry can effectively contribute to address these issues.



The European fertilizer industry continuously strives to curb emissions in both fertilizer production and use through new technologies and best management practices.

In order to provide European consumers with high quality, nutritious, diverse and sustainably produced food products, the highest quality plant nutrients are required. Fertilizers produced in Europe offer farmers product quality, innovation and security of supply. Each year the European fertilizer industry transforms million tonnes of raw materials - air, natural gas, phosphate and potash ore - into safe, high quality, practical products.

#### GHG emissions from nitrogen fertilizer production

By publishing its long-term vision entitled "A Clean Planet for All" in November 2018, the European Commission set an ambitious objective of a net zero-emissions economy by 2050. Such a level of ambition is a huge challenge for the mineral fertilizer industry, given the natural gas-based, energy-intensive nature of nitrogen fertilizer production. To comply with current EU ETS policy the EU's flagship climate change tool - the European fertilizer industry has invested heavily in its production processes and achieved GHG emission reduction of more than 40% since 2005. As a result, modern fertilizer ammonia plants are now close to the theoretical minimum in terms of energy consumption, making further improvements more challenging and costlier.

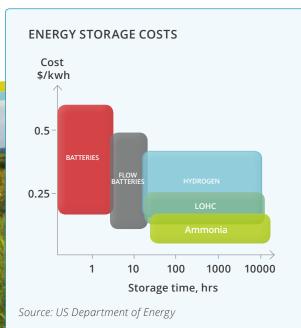
However, the European fertilizer industry continuously seeks innovative solutions to address the challenges of decarbonising fertilizer production. For example, some of the  $CO_2$  currently emitted from the production process is already used to make other chemicals such as melamine and calcium carbonate through carbon capture and utilization.

The  $CO_2$  is also used in other industries, for example carbonated drinks, while the remainder is released into the atmosphere or permanently stored underground via carbon capture and storage. Provided suitable systems are put in place to maintain a level playing field, the European ammonia industry can become an important player in the low carbon transition ahead. This is the conclusion of the European Fertilizer Industry Vision, developed by the industry last year.

#### Green ammonia

A climate-friendly, but currently not economically viable, way to produce the hydrogen needed for ammonia production is through electrolysis. If renewable electricity is used to split the water molecules, the process can be practically carbon-free. This is known as "green" ammonia.

In the decarbonised economy of the future, green ammonia has another very important role to play - it is the safest and most efficient method of long-term energy storage. When excess renewable electricity is available, it can be turned into hydrogen and then ammonia, and easily stored. In this way, an ammonia storage tank can be seen as a huge battery.







#### Carbon Footprint Calculator

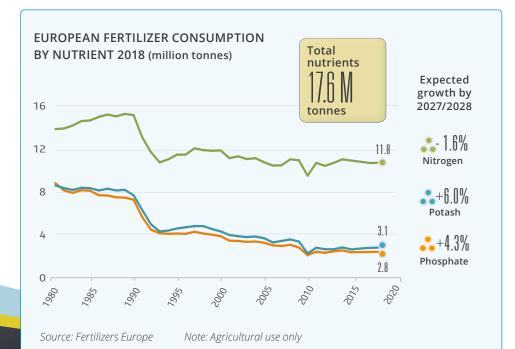
In our efforts to help the decarbonisation of the agricultural sector,

Fertilizers Europe has developed a Carbon Footprint Calculator (CFC) for the production of fertilizers.

This tool is available on-line free of charge. It has a worldwide coverage and wide acceptance within the industry, making it a real global tool for footprinting fertilizers. Together with the Carbon Trust, Fertilizers Europe have also developed a certification scheme to ensure that anyone wishing to publish results obtained with the CFC tool can get a stamp of approval.

Calculations and comparisons with the tool show that, thanks to the continuous efforts of the industry, EU-made fertilizers have a generally lower footprint than those originating from other parts of the world.

For downloads from the Carbon Footprint Calculator please visit: www.fertilizerseurope.com/index. php?id=137



CGOL FAIDY TOOL

#### Cool Farm Alliance

The Cool Farm Alliance continuously works on improvement of its farm

level sustainability footprint tool - the Cool Farm Tool (CFT).

The CFT quantifies multiple metrics from several agricultural practices and food products. Use of the Cool Farm Tool creates incentives towards climate-smart agriculture and supply chain efficiencies.

Ultimately, the tool can contribute to the transformation of the agriculture and agrifood sector value chain towards resource efficiency and climate mitigation, important policy goals for Fertilizers Europe and its membership.

The launch of the tool's new improved web page has greatly upgraded its usability, offering services in several languages, providing better results visualisation and the release of key performance metrics to feed into farmers' decision processes and improve their resource efficiency.

The main crops for which the CFT has been used in 2018 are potatoes, maize, vegetables, coffee and winter wheat.

The CFT strives for integration and synergies with other farm management systems or data collection platforms. Fertilizers Europe is committed to contributing to this scaling up of CFT use by growers, supply chains and agri-businesses, not only in Europe but also in North America.

For downloads from the Cool Farm Tool please visit: www.fertilizerseurope.com/ get-to-know-us/cool-farm-tool

# Agriculture & environment

**Major initiatives** such as the European Union's Fertilizing Products Regulation and Clean Air Outlook, the EU Nitrogen Use Efficiency Panel and CAP reform are all playing their part in encouraging a more efficient and environmentally-friendly agriculture in Europe. With mineral fertilizers a major part of the story, Fertilizers Europe is working closely with stakeholders involved to continue developing practical, sustainable and economically viable solutions.

#### Fertilizer use

With a growing world population and decreasing arable land, global food production continues to be a major challenge. The world will need to farm more efficiently to produce sufficient food to meet its needs.

Thanks to modern fertilizers, Europe is largely able to feed itself. Its main challenge is how to meet future food needs in a more sustainable way. A series of innovative solutions and best practices can be applied to address this challenge.

#### The role of CAP post-2020

Fertilizers Europe believes that the EU's Common Agricultural Policy should support the increasing availability of decisionsupport tools for farmers, giving them access to high quality information and enabling them to make informed farm management decisions. CAP post-2020 should also encourage precision plant nutrition by supporting the existing development of a broader range of fertilizer products to boost yields.

Better formulations, use of micronutrients and agronomic additives (such as inhibitors), combined with the knowledge-based application of mineral fertilizers, will contribute to a more resource-efficient farming sector.

Our sector's competence in crop nutrition will allow us to transform data gathered from sensors, satellite images or drones into accurate and crop-specific recommendations for farmers and farm advisors, as well as to develop sustainable crop nutrition solutions tailored to specific farm needs.



Digital Farming enables farmers to fertilize their crops even more precisely and thus brings several benefits to the farming community:

- > Higher yield, as inputs are used to their full potential.
- > Higher crop quality to meet the demands of the food value chain.
- > Less losses, as only the nutrients needed by plants related to farmspecific conditions are applied.
- > Higher value for growers, as a result of optimized operations.

The Commission's proposal to provide EU growers with access to a Farm Sustainability Tool for Nutrients as part of the next CAP reform is a good opportunity to improve farm nutrient management in an environmentally friendly, cost-effective and practical way.

#### **Fertilizing Products Regulation**

Approved by the European Council in May 2019, the Fertilizing Products Regulation provides the opportunity for the plant nutrition industry to use some specific, recycled former waste products as raw materials for fertilizers. This gives the industry access to new sources of recycled materials, which will increasingly contribute to closing the nutrient loop.

The new Regulation also recognizes that current practices within the mineral fertilizer industry are in line with the principles of the circular economy.

This is a win-win situation for the environment and industry, with more than 10 million tons of industrial by-products

fertilizers

continuing to be used annually as raw materials by mineral fertilizer manufacturers.

Fertilizers Europe has always insisted on the need to promote high quality mineral fertilizers to support growers in optimizing crop yields and quality of produce. But, under the new Regulation, many of the product types that farmers know today will disappear, with nutrient levels for some types of mineral fertilizer also being downgraded.

This is a drawback for European agriculture, since farmers rely on efficient fertilization to boost yields and quality. European mineral fertilizer producers remain committed, however, to maintaining current standards and continuing to provide products with a high nutrient content. Other provisions within the Regulation will further safeguard the quality of mineral fertilizers.

The Regulation sets new maximum limits for contaminants such as heavy metals, thus recognizing current industry efforts to ensure quality. For instance, a single limit of 60 mg Cd/kg  $P_2O_5$  in phosphate fertilizers, to be implemented after the transition period of three years starting in summer 2019, strikes a balance between health and environmental protection and availability of raw materials to the industry.

An eventual further reduction of the limit will be assessed after seven years in order to recognize technical progress and any advances in scientific knowledge. Manufacturers will also have the possibility of voluntary labelling products containing less than 20 mg Cd/kg  $P_2O_5$  with the phrase "low cadmium content".

Transition from the current 2003 Regulation will require a great effort from mineral fertilizer producers. The industry looks forward to close cooperation with the European and national regulators to facilitate this and ensure its compliance with the new complex rules.

Fertilizers Europe organised on 28 May 2019 a conference dedicated to the implementation of EU Fertilizing Products Regulation. Around 140 participants debated the challenges and opportunities stemming from the new Regulation.

#### New Fertilizer Regulation: Where do we go?

28 May 2019 Residence Palace Brussels







#### Farming and Air Quality

The European Commission has recently published the "First Clean Air Outlook"

which identifies the efforts needed in the run up to 2030. Agriculture is responsible for 92% of volatile ammonia emissions, with livestock and manure management and application being the major contributors (64%) followed by the use of nitrogen fertilizers (17%). The remaining 19% of emissions are caused by other sources.

The agricultural sector is experiencing mounting pressure to deliver on these environmental challenges. The fertilizer industry will continue supporting farmers in addressing the issue by providing them with improved products and knowhow that enable them to improve air quality while remaining economically efficient.

It is essential to stress that various nitrogen fertilizers do have different environmental impacts, with directly available nitrogen fertilizers such as CAN ensuring a better environmental profile.

#### Assessing side effects of nitrogen use in the environment and seeking solutions

A strong increase in nitrogen fertilizer and manure inputs in the EU agriculture has driven agricultural growth in the EU, but also caused unintended side effects impacting the environment.

Seeking solutions, a team led by Prof. Wim de Vries from Wageningen University has been working on a study to calculate critical nitrogen inputs.

The study is based on a nitrogen concentration in runoff to surface water related to protection of aquatic ecosystems and an ammonia ( $NH_3$ ) emission rate related to critical N inputs for protection of biodiversity in the wild.

Ultimately, the goal of this study is to revise the concept of the Planetary Boundaries as developed by Johan Rockström from the Stockholm Resilience Centre as far as nitrogen is concerned, and to bring it closer to reality. Using the Nitrogen Use Efficiency concept developed by the EU Nitrogen Expert Panel in 2015, the study shows that at EU-27 level critical N inputs are approximately 30-35% lower than actual N input (year 2010) when respectively using the criterion of critical N concentration in runoff or critical N deposition. When using the minimum of both criteria, critical N inputs are even 40% lower than actual N inputs.

Inversely, required Nitrogen inputs to attain target crop yields are approximately 40% higher. When the nitrogen use efficiency is increased, the actual crop yield or even the target crop yield can be reached with less N fertilizer due to an enhanced N uptake fraction, while the critical load increases since a lower fraction of N is lost to the environment.

## **Circular Economy**

**The Circular Economy Action Plan** is a cornerstone of EU policy towards a more resource-efficient economy in Europe. The approach lays the foundations for accelerating the transition from a linear to a circular economy. The Fertilizer industry is a leader in the circular economy, converting every year millions of tonnes of valuable by-products into raw materials for the production of high-quality mineral fertilizers.

#### **Circular Economy Action Plan**

The 2015 EU Circular Economy Action Plan aimed at facilitating the move to a more circular economy. The plan set out measures to 'close the loop' in the circular economy in Europe by addressing all phases of the product lifecycle, from production and consumption to remanufacturing and waste management.

#### The Fertilizer industry - leader in Circular Economy

For many years, fertilizer industry adopts the principle of industrial symbiosis, using various by-products derived from related processes to produce high quality finished mineral fertilizers.

The EU fertilizer industry is leading the way towards a fully circular economy, building synergies with sectors such oil refineries and nylon producers. Already today, fertilizer sector converts around 10 million tonnes a year of ammonium sulphate and sulphur into basic fertilizers. Other examples include use of CO<sub>2</sub> for green houses or beverages such as sparkling water.

#### A European strategy for plastics

Use of plastics has increased twentyfold since the 1960s reaching 49 million tonnes in 2015. Early in 2018, the European Commission adopted a European Strategy for Plastics in a Circular Economy in which plastics have been identified as a key priority.



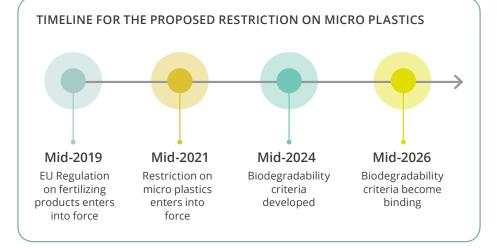
The reduction in plastics use and waste and improvement in the reuse and recycling of plastics remain a major objective for the upcoming years.

#### **Micro plastics in fertilizers**

Reduction in micro plastics is part of this scheme. Within its framework, the European Commission has therefore put forward a proposal to restrict by 2021 some microplastics that are intentionally added to products, including polymers used in fertilizers.

Fertilizers Europe advocated for an alignment with the New Fertilizing Products Regulation which already sets the rules for controlled-released fertilizers.

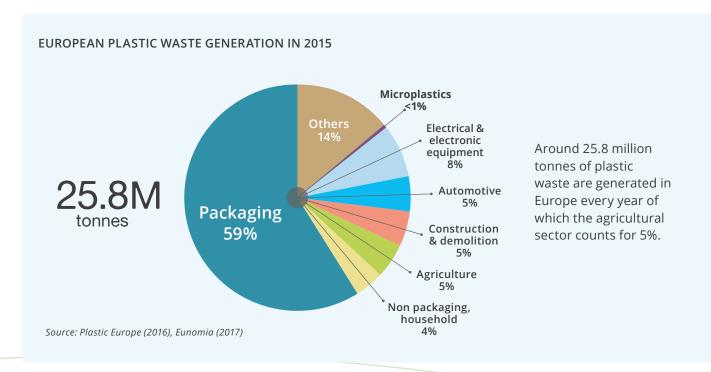
As such, polymer encapsulation systems for fertilizers and anti-caking/anti-dust additives in fertilizers for agricultural use currently fall within the scope of future restriction but will be outside it if suitable biodegradability criteria were to be



developed by the industry by 2026. The timeline applies to technical additives in fertilizers since controlled-release fertilizers are exempted from the restriction, being covered by the New Fertilizing Products Regulation.

A transition period of 5 years will apply after the entry into force of the micro

plastics regulation. From 2026 onwards, only polymers meeting the biodegradability requirements laid down in the new Fertilizing Products Regulation will be allowed on the market.



# Effective dialogue

**Engaging in an open dialogue** with EU institutions, industry and the agriculture sector on today's agricultural, environmental and economic challenges is a priority for Fertilizers Europe. Its active organization of and participation in events such as its 30<sup>th</sup> Anniversary Conference, COPA-COGECA Congress, Forum on the Future of Agriculture, MEP Awards, Agri-food Chain Coalition, EU Nitrogen Expert Panel and Global Fertilizer Day enables the association to promote the Europe industry's standpoint among a wide variety of stakeholders.

#### Collaboration with stakeholders

The fertilizer industry strives to provide solutions to societal challenges and understands that joint efforts and dialogue with various stakeholders is key. In the past 12 months, Fertilizers Europe held and participated in several events with the aim of establishing new relationships and reinforcing current ties with key European stakeholders.

#### 30<sup>th</sup> Anniversary conference

The 30<sup>th</sup> Anniversary conference took place in Brussels in November 2018. In the presence of 120 high-level participants, the industry unveiled its long-term strategy "FeedingLife 2030 - The European fertilizer industry at the crossroads between nutrition and energy". The conference saw the participation of key stakeholders from the agri-food sector, NGOs, academia and European institutions. It provided a platform for open discussions on solutions to society's most pressing challenges and the role of the fertilizer industry.

#### **COPA-COGECA** Congress

The bi-annual Congress of European Farmers took place in Linz, Austria in October 2018. Entitled "Feeding Europe's Future", the focus of the event was on the future of farming, sustainability and the new Common Agricultural Policy.

The event provided a platform to discuss farm management, the integration of new technologies and future agronomic practices. Fertilizers Europe Director-General, Jacob Hansen took part in a panel debate on key challenges related to precision farming, and the role disruptive technologies can play in helping farmers improve profitability and increase resource efficiency.



#### Forum on the Future of Food 2019

FFA is one of the most established agricultural

events in Brussels, gathering key EU and global stakeholders to debate on the future of European and world agriculture.

Participating as an exhibitor at the event, Fertilizers Europe had the opportunity to engage with many stakeholders on topics such as integrated plant nutrient management, crop nutrition, digital farming and tailored fertilizer products.



Jacob Hansen, MEP Marijana Petir and host MEP Seb Dance during the MEP Awards, March 2019, Brussels

Jacob Hansen taking part in the panel debate at the COPA-COGECA Congress, October 2018, Linz





FFA 2019 - The next generation, April 2019, Brussels

#### **MEP Awards**

The annual MEP Awards were held in March 2019, in Brussels. Fertilizers Europe sponsored the award for "Agriculture and Rural Development", with Director General, Jacob Hansen, presenting it to this year's winner, Ms. Marijana Petir from Croatia.

In his speech, Jacob Hansen challenged MEPs and urged them to focus their forthcoming election campaigns on their visions for the future and the need for a broader debate. He promoted Fertilizers Europe vision "Feeding Life 2030" showing how the fertilizer industry can help Europe to decarbonise energy production, promote, circular economy and support the professional farmer of the future.

#### **Agri-food Chain Coalition**

Fertilizers Europe is part of the Agri-Food Chain Coalition (AFCC) formed by 12 leading agri-food sector associations in Europe with a vision to unlock the potential of agriculture and the food industry in Europe. In 2018, the AFCC published a brochure, "How innovation contributes to the sustainable development goals", which showcases the innovative steps that AFCC partners have taken to help addressing some of the key global challenges world face.

Fertilizers Europe Director General, Jacob Hansen, was appointed as chair of the coalition for 2019 and will continue to lead this multi-stakeholder group to enhance EU policy-makers' understanding of the important role of the agri-food sector in contributing to a sustainable EU.

#### **EU Nitrogen Expert Panel**

EU Nitrogen Expert Panel brings together experts from academia, EU institutions, industry and other stakeholders to work on the improvement of nitrogen use efficiency (NUE) in the food chain. The Expert Panel has held bi-annual meetings since 2014 and it has published a nitrogen use indicator to encourage efficient use of nitrogen. The indicator can be used to demonstrate how different farming strategies can contribute towards improved NUE.

The European fertilizers industry actively supports use of the indicator as good practice to improve nitrogen use in food production and it has been put forward as one of the metrics of the Farm Sustainability tool for Nutrients (FaSt) by the European Commission in its proposal for new Common Agricultural Policy.



#### Global Fertilizer Day

Global Fertilizer Day is a campaign, established in 2016 with the objective of raising awareness of

the crucial role fertilizers play in feeding the world - today and in the future. In 2018, the

campaign focused on the role of fertilizers in food production and the commitment of the European mineral fertilizer industry to work hand in hand with European farmers in finding solutions to the many challenges agriculture faces in meeting future food needs.

The positive involvement of Fertilizers Europe Members and other international associations in the social media campaign resulted in very high engagement levels among social media users following #FertilizerDay hashtag.

> EU Nitrogen Expert Panel meeting, 6-7 May 2019, Budapest

> > rgazdasági

tó Intéz

Nitrogen is e

xpert

Representing European fertilizer producers

# Fertilizers Europe 2018-2019

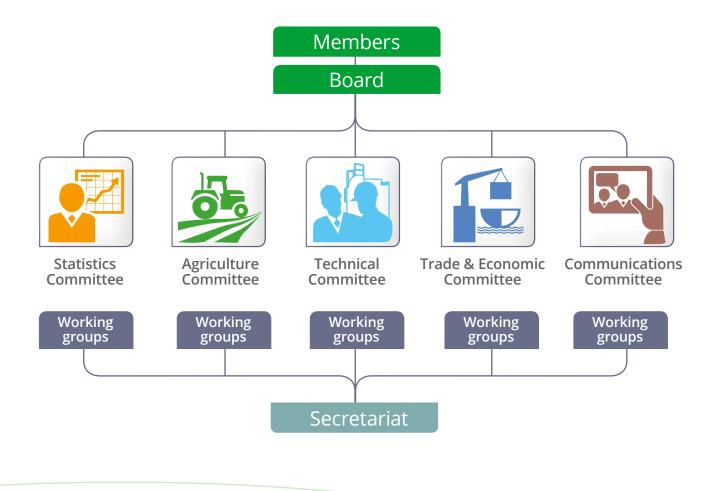


# Our Structure

Fertilizers Europe represents the interests of the majority of mineral fertilizer manufacturers in the European Union. The association's membership comprises 17 fertilizer manufacturers from countries across the Union and eight national fertilizer associations.

The association communicates with a wide variety of stakeholders, institutions, European and national policy-makers and members of the general public who seek information on fertilizer products and application technology, and topics relating to today's agricultural, environmental and economic challenges. Fertilizers Europe's activities are directed by its President and Board, who are elected by its General Assembly of members. Its day-to-day business is primarily carried out through five committees and various working groups and task forces.

The secretariat in Brussels supports the association's committees and working groups under the guidance of the committee chairmen and vice-chairmen and manages Fertilizer Europe's activities. It also acts as its main interface with stakeholders.



# Our Members





# **Our Board**



Javier Goñi del Cacho Fertiberia President



Bartolomeo Pescio YARA Vice-President



Paweł Łapiński Grupa Azoty Vice-President



Jacob Hansen Fertilizers Europe Director General

**Statistics Committee** 



Andreas Steinbuechler Borealis Chairman



Frank De Vogelaere YARA Vice-Chairman



Mindaugas Liaukonis Achema Vice-Chairman



Krzysztof Homenda Grupa Azoty Chairman





Radomir Věk Lovochemie Chairman



János Szilágyi Nitrogénmuvek Vice-Chairman



Theodora Kouloura New Karvali Fertilizers Vice-Chairman



Gert Jan de Geus OCI Nitrogen Chairman



David Hopkins **CF** Industries Vice-Chairman (Until March 2019)

Observers



Mihai Anitei Azomures Chairman



Terje Bakken Eurochem Vice-Chairman (Until March 2019)



Jacek Mendelewski Anwil Vice-Chairman



Florence Nys UNIFA Observer



Dietrich Pradt IVA Observer

# Our team



Javier Goñi del Cacho President



Jacob Hansen Director General

Tiffanie Stephani

Senior Agriculture &

Elisabeth Bömcke

Agriculture Policy Advisor

**Environment Manager** 



**Antoine Hoxha Technical Director** 



Sean Mackle Trade & Economic Director



Michał Wendołowski Market Analysis Manager



Gábor Marton Senior Data & Statistics Analyst



Sofia Tsaliki **Communications Officer** 



Jenny Wahlman Senior HR & Administration Manager



Leondina Della Pietra Senior Regulatory Officer



**Nathalie Williams** Office Assistant



Lukasz Pasterski **Communications Manager** 





Laura Casuscelli Trade & Business Analyst



Fertilizers Europe represents the majority of fertilizer producers in Europe and is recognised as the dedicated industry source of information on mineral fertilizers. The association communicates with a wide variety of institutions, legislators, stakeholders and members of the public who seek information on fertilizer technology and topics relating to today's agricultural, environmental and economic challenges. The Fertilizers Europe website provides information on subjects of relevance to all those interested in fertilizers contribution to global food security.

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