2017/18
OVERVIEW

fertilizers europe

30 years
growing together

Cultivating our knowledge

The European Fertilizer industry

€ 10.9 BN*
turnover

€ 1.3 BN*
investment

78.500*
employees

120+
production sites

€ 66.2M
R&D 2015 (members only)

* average last 5 years

Contents

Foreword 4
Fertilizers Europe - 30 years of service 7
The EU fertilizer market, before and now 8
2030 study 9
Infinite Fertilizers 10
The value of EU-made fertilizers 12
Fertilizers Industry - Leader in Circular Economy 13

Committee Activities

> Statistics 17
> Agriculture 18
> Technical 20
> Trade & Economic 22
> Communications 24

About us

Our Structure 27
Our Members 28
Our Board 29
Our Team 30

Challenges & opportunities for the European agri-food sector

PROVIDING food security

ENSURING food safety from farm to fork

SAFEGUARDING the environment

HELPING create jobs and growth

IMPROVING competitiveness, productivity and sustainability today and tomorrow

The overall aim of the European fertilizer industry is to be a strong contributor to the European economy and a key player in its food production chain. We supply efficient and environmentally friendly fertilizers that help the farmer optimise his production. We also use industrial by-products and other recycled raw material in our production putting our industry in the forefront of Europe's drive towards circular economy.

Javier Goñi del Cacho, President

JAVIER GOÑI DEL CACHO, CEO OF FERTIBERIA AND PRESIDENT OF FERTILIZERS EUROPE, AND JACOB HANSEN, DIRECTOR GENERAL, EXPLAIN THE IMPORTANT ROLE THE ORGANISATION PLAYS IN SHAPING EU POLICY AREAS.

High quality fertilizers with the best environmental performance

Javier Goñi Del Cacho: At industry level 2017 has been challenging due to the global oversupply of fertilizers, partly brought about by new production capacity (installed outside the EU) now coming on-stream. The EU market is open and transparent, and we take in large quantities of imported fertilizer. These imports are growing and now represent over 30% of the EU total market. Despite a delayed beginning of the fertilizer season, we hope that market conditions will be more favourable in 2018.

"We expect the global demand for fertilizers to continue to grow and so in 2019/2020 we should see a better market balance, as from now on global capacity additions are expected to be limited".

Jacob Hansen: There is no question that we face increased competition from fertilizers produced abroad. The question is – how do we deal with this? The best way is to use every opportunity to underline that European fertilizers offer the best value for European farmers. We are also ready to act in our members' interests, for example by using trade defence instruments, when unfair competition is involved.

Javier Goñi Del Cacho: We believe that European-made fertilizers are the best in the world, in terms of their beneficial effects on plant growth, yield improvement and environmental impact. However, some farmers still aim simply at paying the lowest price per nutrient. The approach we advocate is for farmers to use products that represent the best value overall.

"European-made fertilizers are the best in the world, in terms of their beneficial effects on plant growth, yield improvement and environmental impact".

Jacob Hansen: We are communicating more than ever with farmers on the benefits of European fertilizers, and engaging in dialogue with farmer representatives.

For example we will be present at the bi-annual COPA-COGECA Congress of European farmers in Austria in October 2018.

Javier Goñi Del Cacho: Our raison d'être as an EU trade association is to try to shape our business environment in order that our industry is able to function profitably while meeting society's expectations.

> *"The fertilizers industry has been since its foundation a frontrunner in the Circular Economy, saving nutrients, energy, costs and precious resources".*

Our biggest regulatory challenge over the past year has been to achieve improvements to the draft EU Fertilizers Regulation. We have explained and emphasised our point of view with the European Commission, the European Parliament and member states, in various forums, and are hopeful that the end result will be a balanced set of rules.

Jacob Hansen: Throughout 2017 there have been a number of regulatory developments to manage, from amendments to the emissions trading rules to changes in agricultural policy. We are recognised as an organisation that has clear messages about its products, well-argued positions on regulatory issues, backed by data, and thus we are portrayed as a trustworthy partner in a dialogue with policy-makers.

In the exercise updating the EU's Emissions Trading System the industry' concerns to maintain competitiveness for our plants have been recognised by the EU institutions which resulted in changes that reduced the additional burden by hundreds of millions of Euros to our sector.

This outcome was the result of a wide stakeholder outreach. The Association have held many meetings and events (seminars, forums, workshops), involving European Commission officials, MEPS and member states, in addition to our regular contacts with all stakeholders.

A good example of our outreach work was the seminar 'Symbiosis and Circular Economy in Fertilizers' we organised in March 2018 that brought together industry experts, EU legislators and national authorities to exchange perspectives on how to improve the Fertilizers Regulation and ensure a continuation of good circular practices. One of our advantages will come from being part of the Circular Economy as we help solve problems to do with waste and resources.

Javier Goñi Del Cacho: We want to be part of the solution to any problems that occur in our area of business operations. We should not forget that a vital part of our work here at Fertilizers Europe is to act as a conduit for information about our industry to decision-makers and influencers.

Jacob Hansen: I want to spread more widely the message that the fertilizers sector, through its products and how they are used, is part of the solution to many challenges facing our society.

> *"I would like stakeholders to come to us to discuss how we can work together to help solve their problems. I want to get to the point where they see us as part of the solution - then we will have reached a milestone in terms of recognition of our industry".*

I am most proud of seeing how many key stakeholders such as the European Commission officials and Members of the European Parliament perceive us as the voice of the fertilizer industry and how they are ready to engage with us.

Jacob Hansen, Director General

Javier Goñi Del Cacho: Looking to the future, Fertilizers Europe is using the occasion of its 30th anniversary to analyse what the European fertilizer industry might look like in 2030. We will publish our thinking in a report to be presented at a Fertilizers Europe conference in November 2018.

The fertilizer industry will change. Farmers will be supplying foodstuffs to much more demanding final consumers in the future. Everyone in the agri-food chain will have to up their game.

Jacob Hansen: The fertilizer industry will need to innovate – it will need to provide solutions, not just products. These solutions will include nitrogen use efficiency guidance and generally more products whose environmental impact will have to be demonstrably beneficial.

Europe wants to be at the leading edge of sustainable agricultural production. That will influence all of us – at the factory, in transport, performance on-farm and in how farmers practice their profession.

"Europe has the ambition of being the frontrunner of the sustainable agricultural production".

Javier Goñi Del Cacho:

"We get a lot of commitment and support from many representatives of our member companies and organisations, and from our Board. Thanks to their commitment we are a much stronger organisation".

Jacob Hansen: We have put a huge effort into outreach. These activities have become the norm for Fertilizers Europe's members and staff. We are seeing the benefits as we are recognised, even more than before, as the source of reliable information, advice and opinion about plant nutrients.

The involvement of our members has been of vital importance. I want to thank them whole-heartedly as participating in Fertilizers Europe takes both time and effort. We will continue working closely with our members and with the national associations, at EU and national level.

Fertilizers Europe: 30 years of service

2018 is a momentous year for Fertilizers Europe as it has now represented the EU fertilizer industry for 30 years. Throughout this time, we have striven to promote the interests of European fertilizer manufacturers at EU-level. Among our most important activities are:

- Informing all stakeholders of the state of our industry, its role in agriculture and wider European society; its profitability and competitiveness; its main concerns about the future
- Identifying and analysing important issues affecting the fertilizer industry's business environment, whether coming from EU regulatory developments or external influences
- Emphasising the fertilizer industry's point of view in all EU debates; providing arguments, technical information and robust data to underline this
- Communicating the positions of the industry to the EU institutions, farmers, the media and the wider public
- Defending the EU fertilizer sector, when necessary, against unfair competition
- Working at all times with others in our sector, particularly our farmer customers, to build a common understanding on issues of importance to us all.

FERTILIZER IMPORTS

Fertilizers Europe has always defended the interests of its members when they are faced with unfair competition on the EU market from fertilizers imported from countries that provide subsidies, or other trade advantages, to their fertilizer industry.

PRODUCT STANDARDS

We have always been at the forefront of promotion of high quality products. We continuously strive to ensure that these are encouraged in both standards and regulations.

VOICE OF THE INDUSTRY

Over the years, the Association established its position in the EU policy-making sphere as a constructive contributor to the policy debate on relevant policy areas.

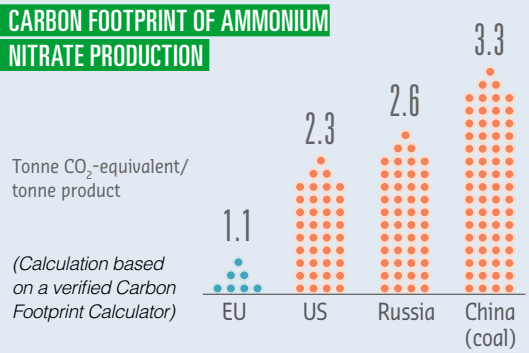
REGULATION OF THE EU FERTILIZER INDUSTRY

One of our major roles has always been to ensure that regulations governing the marketing of fertilizers in Europe are fair and realistic and that they allow the fertilizer industry to continue to be able to function economically while providing an excellent service to farmers.

EFFICIENT USE OF RESOURCES

The main resources for food production are finite. Pressure on them is increasing due to population growth and changing food consumption patterns. Advances in fertilizer technology have so far enabled productivity to keep pace with expanding food demand. The industry contributes through various initiatives such as the EU Nitrogen Expert Panel to help improve nitrogen use efficiency in agriculture and food production.

CARBON FOOTPRINT OF AMMONIUM NITRATE PRODUCTION



PUBLICITY - CHAMPIONING THE EU FERTILIZER INDUSTRY

Fertilizers Europe has earned a reputation as the producer of many useful publications on fertilizer products and their benefits. These publications aim at providing impartial scientific information to wide range of stakeholders including EU policy makers, farmers and a the general public.

The EU fertilizer market, before and now

The European fertilizer producers operate in a global market. The nature of the business environment means that our members are influenced by many strong forces at once: the availability and price of raw materials - from gas to phosphate rock; exchange rates; shipping/other logistics costs; state aid and other unfair subsidies in competing countries; energy prices; regulatory costs, and many more. One of the biggest features of the market over the last 30 years has been inevitable globalisation. International competition, and the installation of new capacity around the world, is now a permanent and crucial factor to be dealt with.

All of these driving forces influence the price and availability of fertilizer products.

RAW MATERIALS

The basic materials from which mineral fertilizers around the world derive are ammonia (from natural gas), phosphate and potash rock. EU fertilizer manufacturers rely on imports for most of these. Several suppliers offer gas to their domestic fertilizer industries at subsidised prices. This means that European producers face not just the usual volatility in the oil and gas markets, but also competition from providers of alternative fertilizer products that have benefited from those state subsidies.

Imports are more than double compared to what they were in the early 2000s and now take up over 30% of the EU fertilizer market. The completion of the pan-EU gas network in 2016 is expected to mitigate some of the effects of this by offering an alternative gas supply for EU fertilizer producers and thus more competitive prices.

FERTILIZER TRADE CONDITIONS

In addition, the rules under which EU fertilizer producers must compete are changing. Until now, China - a major supplier of urea fertilizers - has been considered a 'non-market economy', which allows its trading partners to impose anti-dumping duties on Chinese imports if they unfairly undercut domestic product. The EU has resisted China's attempts to win full 'market economy' status, which would preclude putting high anti-dumping duties on Chinese goods. Instead, China will have to show, on a sector-by-sector basis, that it merits market economy status.

OUR COMPETITORS

The EU's competitors in this global industry can be found in nearly all continents. Some face similar constraints to those faced in Europe, for example where environmental legislation is concerned. However, others operate in a business environment where not only are subsidies on offer but they are also far less regulated and therefore have a significant cost advantage. This makes life more difficult for European producers. It has been a key objective for the industry to argue for a level playing field and fair competition as the global conditions have developed.

OUR FERTILIZER PRODUCTS

Today we see more and more speciality fertilizer products on the EU market, supplementing and/or replacing straight NPK-style fertilizers. Our members now offer fertilizers containing nutrients, such as calcium, magnesium and sulphur, which provide specific benefits for farmers' crops. Fertilizers with sulphur as a micro-nutrient have, in particular, become more widely used.

Increasingly, the EU industry offers EU farmers tailor-made fertilizers, for example starter fertilizers with the sulphur content calibrated to enhance yield and protein content, to meet specific crop requirements and to suit different locations, soil types and climates.

2030 study

We are proud of our achievements in the past year and over the 30 years before that. But as a forward-looking industry we continuosly look for new ways to innovate in both the production and use of fertilizers.

That is why we took the decision in 2017 that Fertilizers Europe would conduct an in-depth analysis of the future of the European fertilizer industry. The report will seek to identify the opportunities and threats that will drive European business environment in coming years until 2030.

The exercise involves conducting an online survey to find out the views of a wide range of stakeholders, followed by interviews with selected key players, and internal analysis of the implications of what we were hearing from this consultation. This is all being put together in a detailed report that aims to shed light into the direction that our industry is taking, how it might look like in 2030 and how our members and customers the farmers will be affected.

The report is timed to be ready for the Fertilizers Europe conference planned for November 2018. That conference will give us a chance to present our vision for the future. We will cover many areas, including:

- **Societal challenges** such as increasing demand for more sustainable food
- Changes in **agricultural production** – what farmers grow and where
- At the **farm level** – the use of new precision-farming techniques
- **Fertilizer production** processes and new products/ combinations of products to help farmers
- **Regulatory** demands in areas related to fertilizer production and use
- **Trade** and other economic issues

Inevitably, given that Fertilizers Europe is an EU-level trade association, the regulatory aspect of our work will feature strongly. But we will not neglect our other responsibilities: to inform our EU audience about fertilizers; to reinforce the image of fertilizers; and, to promote the high-quality nutrients that mineral fertilizers provide and that are so valuable to EU farming and food.

We have already achieved much in the area of sustainable production, by reducing industrial emissions, lowering our carbon footprint and contributing to a European Circular Economy. We are continuously looking for ways to make further progress. We will continue to promote Nitrogen Use Efficiency. We have a good story to tell and we intend to tell it.

There is plenty to discuss and digest. We want to end up with a clear picture of what our farmer customers are going to need from mineral fertilizers manufacturers, and how best to deliver that. This may well mean changes from traditional fertilizer delivery models.

Fertilizer manufacturers are likely to concentrate, more than now, on new nutrient products and/or combinations of products, on services and advice linked to those products and a closer relationship with farmers even than they enjoy today.

INFINITE FERTILIZERS

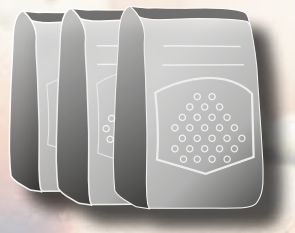
Continuing to feed the world

INFINITE FERTILIZERS GUIDES THE EUROPEAN FERTILIZER INDUSTRY'S PRODUCT AND NUTRIENT STEWARDSHIP ACTIVITIES. THESE ENSURE THAT EUROPE'S FARMERS HAVE UNINTERRUPTED ACCESS TO A VARIETY OF SAFE, HIGH QUALITY, LOCALLY PRODUCED PRODUCTS, AS WELL AS INFORMATION ON THEIR CORRECT USE, ENVIRONMENTAL IMPACT AND NUTRIENT RECYCLING OPPORTUNITIES.

Our Product Stewardship Program sets the highest global standards for quality, safety, security and environmental impact in fertilizer production and distribution.

product stewardship fertilizers

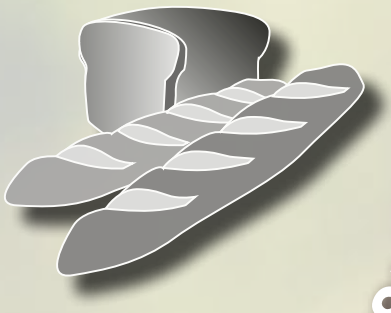
PRODUCT STEWARDSHIP



Our carbon footprint calculator allows fertilizer producers to measure and manage their energy use and emissions.

Fertilizer FOOTPRINT

Our information campaigns ensure the correct selection and use of fertilizers by Europe's farmers.



NUTRIENT STEWARDSHIP

The Cool Farm Tool enables farmers and food producers to calculate and evaluate environmental emissions.

The value of EU-made fertilizers

During the past year Fertilizers Europe took every opportunity to explain to our European farmer customers just why the mineral fertilizers our members provide are of such value. That value comes in many forms.

DELIVERY OF THE BEST NUTRIENTS

Our members offer farmers premium products that bring excellent yield results. They are easy to handle and store, providing clear value for money. European nitrate fertilizers, in particular, suit our soil and vegetation and our varied climate conditions. They help farmers to obtain the yield results and crop quality they want in the most efficient and sustainable way. Fertilizers are increasingly applied using precisely calibrated farm machinery to place only the necessary amount of fertilizer in different parts of the field. Such developments emerge from close cooperation between fertilizer producers, software designers, machinery manufacturers and farmers (to name just some).

SECURITY OF SUPPLY

Only European fertilizer producers can guarantee continuous supply at the time of the year when farmers need fertilizers. For European fertilizer producers Europe is their key market, one they would like to develop further. They are committed to providing a service to their farmer partners for the long term. Their fertilizers are produced in Europe and the industry has close links with the distribution chain to ensure that farmers have the products they need in a timely way. Imported fertilizers may not always be there when needed.

DEVELOPMENT OF NEW PRODUCTS

In addition to agronomic performance, European fertilizers come with accompanying advice and services which further help farmers meet EU regulatory requirements on clean air, soil protection, water quality and climate change mitigation. Technologies such as the use of inhibitors can further reduce emissions at farm level and minimise environmental footprint. European soils often require fertilizers with added sulphur to maintain a good nutrient balance.

MEETING SOCIETY'S NEEDS

The EU fertilizer industry has the lowest greenhouse gas emissions in the world. We have adapted our production systems to meet stringent legislation, for example in compliance with the EU's Emissions Trading System. And, using our fertilizers gives European farmers the best chance to meet society's needs, by farming more sustainably, helping mitigate climate change effects and providing abundant, safe, nutritious food. Fertilizer manufacturers and farmers now have tools (e.g. Fertilizers Europe's 'Carbon Footprint Calculator'; and, the 'Cool Farm Tool') to measure their environmental performance. Working together we have been able to reduce our environmental footprint at factory and on farm.

Fertilizers Europe's members' offer to farmers can be summed up by our golden rule for nitrogen fertilizers: apply the right product, at the right rate, in the right place, at the right time.

Fertilizer Industry Leader in Circular Economy

THE FERTILIZER INDUSTRY IS A LEADER IN CIRCULAR ECONOMY, CIRCULARITY IS ROOTED IN ITS DNA. EVERY YEAR, MILLIONS OF TONNES OF VALUABLE BY-PRODUCTS ARE USED BY THE FERTILIZER SECTOR AS RAW MATERIALS FOR MAKING HIGH QUALITY FINISHED MINERAL FERTILIZERS.

INDUSTRIAL SYMBIOSIS IN A NUTSHELL

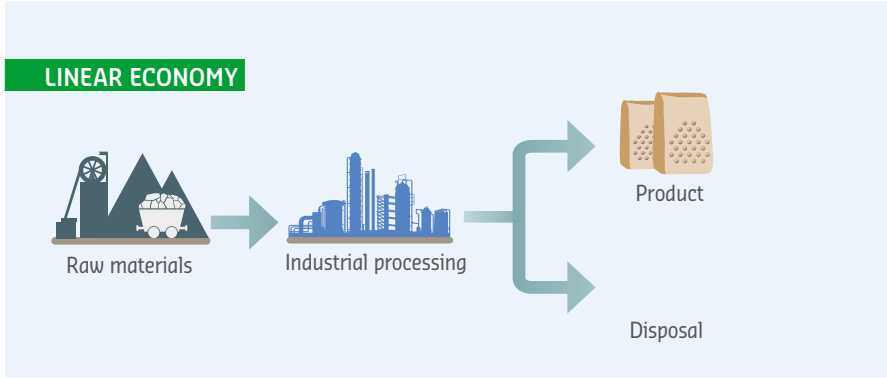
Industrial symbiosis consists in the reintegration of waste or by-products generated in production processes, where the waste of one process becomes the raw material for another one. Industrial symbiosis aims to imitate the natural eco-system where every resource is a valuable input that circulates in the system and there is no such thing as waste.

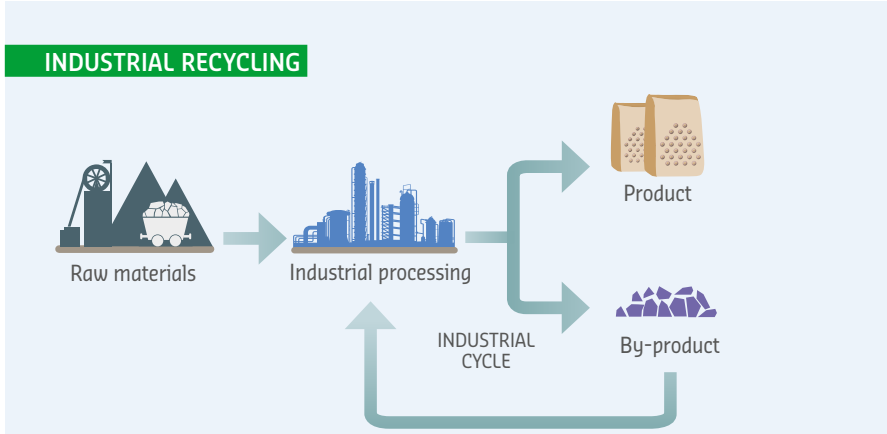
Symbiotic relationships between processes, companies and industries can be achievable by focusing on local, regional and European levels. By closing the loop of materials and energy flows, industrial symbiosis brings numerous benefits. It makes industry more efficient and less dependent on non-renewable resources, it reduces land-fill waste, it decreases emissions and it creates new business opportunities. By designing out waste, industrial symbiosis is a key contributor of the Circular Economy.

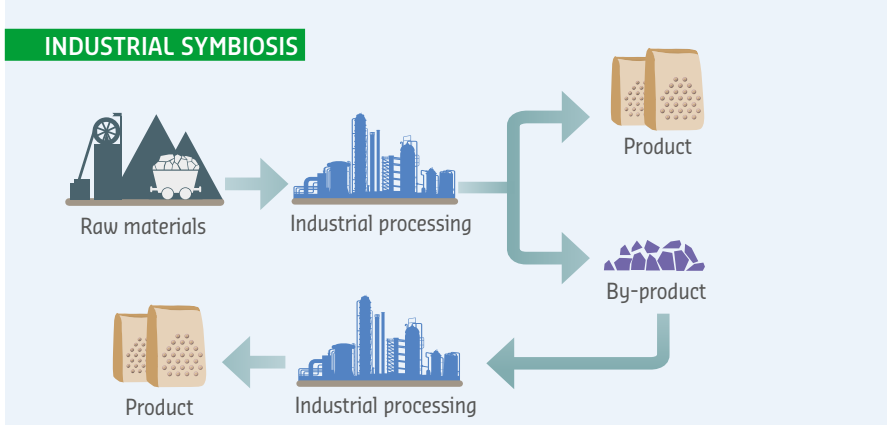
CIRCULAR ECONOMY AS A CORE PRIORITY OF THE EU

It is widely recognised nowadays that the Circular Economy is the best approach to ensure sustainability for both the environment and business. The growing global population is expected to put additional pressure on natural resources which cannot cope with the increasing demand. Therefore, resource efficiency will play a key role in minimizing the impacts on the environment.

The European Union has recognised Circular Economy as a key driver for the European Industry and has presented on 2 December 2015 a New Circular Economy Package that contains a series of actions to stimulate Europe's transition towards Circular Economy and ambitious targets to be achieved by 2030. Proposed measures cover a broad range of issues in the whole industrial value chain from production to consumption, remanufacturing, waste management and secondary raw materials.







THE FERTILIZER INDUSTRY AND INDUSTRIAL SYMBIOSIS

Since its foundation, the fertilizer industry has been circular, adopting the principle of industrial symbiosis and making use of by-products derived from related processes. Every year, millions of tonnes of valuable by-products are used by the fertilizer sector as raw materials for making high quality finished mineral fertilizers.

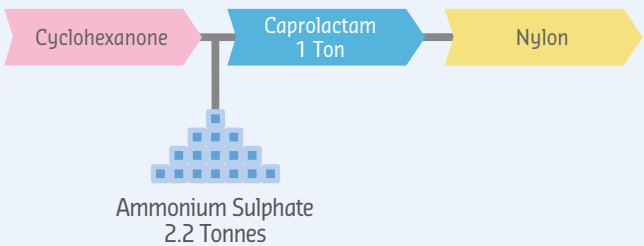
Modern chemical operations, as we know them today, began in the second half of the 19th century and were mainly fuelled by coal. During that time, coal was also used to produce town gas for street lighting purposes. The tar residue, or by-product, of this process was found to contain a range of chemicals that could be extracted to provide aniline, the basis for artificial dyes, and ammonia, which is the basic raw material for modern fertilizers.

Throughout time, the industry evolved greatly and the demand for ammonia to be used as a component in fertilizers substantially exceeded its availability, and thus the search began for an industrial route for ammonia production. This ultimately led to the Haber-Bosch process, which remains the most energy efficient production process in use today. The principles of recycling are deeply embedded in the very DNA of the fertilizer industry, which over the past 100 years, has continued to integrate a vast range of by-products from other industries for making high quality mineral fertilizers.

More recent examples of the by-products use in the industry include:

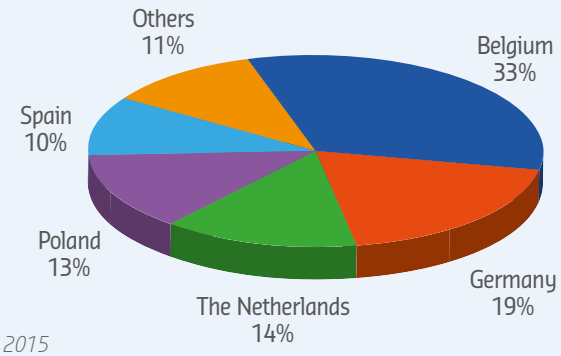
- Use of ammonium sulphate from nylon synthesis for making sulphate-containing mineral fertilizers. This represents 5.1 million tonnes annually, that are either used directly as fertilizer or included in multi-nutrient fertilizers as NPKs.
- Use of sulphur from oil and gas refining operations for making sulphuric acid.
- Application of used acids in dissolving insoluble rock phosphates for making water-soluble and therefore plant available phosphate fertilizers.

PRODUCTION OF NYLON



AMMONIUM SULPHATE PROVENANCES IN EUROPE

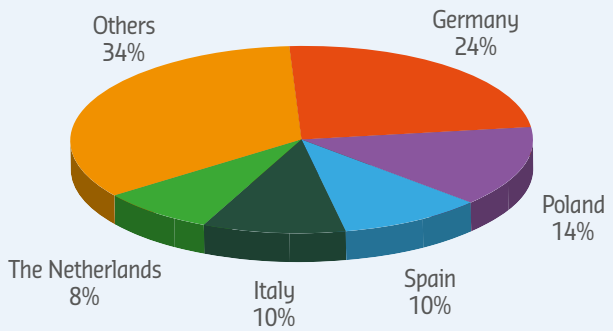
Total EU production of ammonium sulphate
5.1 M tonnes



Source: IFA 2015

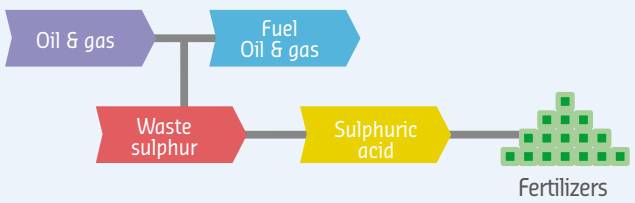
SULPHUR PRODUCTION IN EUROPE

Total EU production of sulphur
5.2 M tonnes



Source: IFA 2013

OIL & GAS



Chemical products are not the only type of recycled products in the fertilizer industry. Fertilizer manufacturing needs significant amount of energy (ammonia production) and produces large amounts of energy / heat (nitric acid production) as well. Energy and heat are needed in other manufacturing processes and all processes can be optimized for best energetic performance, reuse of energy and heat waste.

Fertilizer industry also recycles its own by-products such as carbon dioxide as a raw material for a range of applications such as sparkling water.

Carbon dioxide and residual heat from ammonia operations used in greenhouse horticulture is another successful example of industrial symbiosis with benefits to environment.

Sparkling water is made with CO_2 from ammonia production

Greenhouse in the Netherlands using CO_2 from a neighboring ammonia plant.

Fertilizers Europe

2017-2018 COMMITTEE ACTIVITIES

Statistics Committee

The Statistics Committee's main focus is to facilitate members' access to reliable market statistics and provide support for other Fertilizers Europe activities. It also supplies a variety of EU institutions with industry data on an ad-hoc basis. All statistics are produced in strict compliance with European competition law.

MEMBER SERVICES

Industry statistics have been regularly distributed to members throughout 2017/18. These included publications covering European fertilizer consumption, plant capacities, production, deliveries, exports and imports, as well as the "Industry Facts and Figures" which highlights industry turnover, investment and employment.

The committee also produced its annual survey of members' production costs for the main fertilizer products. The survey identifies trends within the industry as a whole and serves as a benchmarking tool for members.

INDUSTRY SUPPORT EXTERNAL AUDIENCES

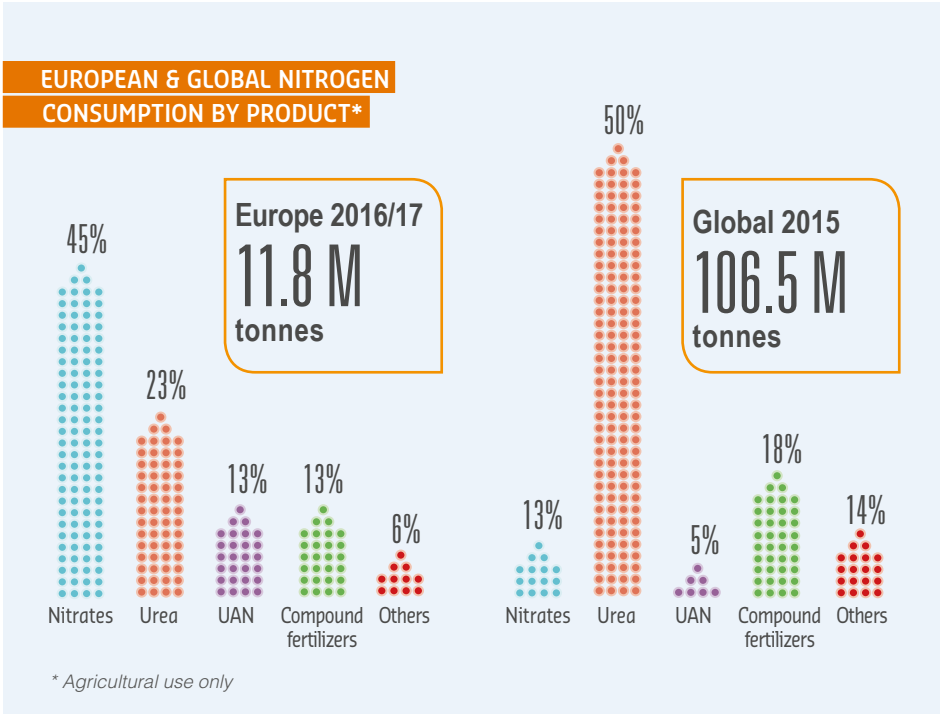
The main areas of activity in support of other Fertilizers Europe initiatives with external audiences have included:

- preparation of fertilizer consumption figures for the annual 10-year forecast of "Food, Farming and Fertilizer use in the European Union";
- provision of market data for trade defence cases at the European Commission;
- preparation of the production and other statistics for use in Fertilizers Europe's advocacy activities on ETS and the new Fertilizer Regulation.

DATA QUALITY

During 2018, the committee will focus on further strengthening the quality of reported industry data.

The annual meeting of the full Committee took place in Zurich in September. This gave members the opportunity to review the year's activities and discuss priorities for the 2017/18 period.



Agriculture Committee

In 2017, the Agriculture Committee actively contributed to the legislative debate around the New EU Fertilizer Regulation, supported new developments of the Cool Farm Tool and steered progress of the work being done by the EU Nitrogen Expert Panel.

NEW FERTILIZER REGULATION

Promoting the quality of mineral fertilizers

The potential impacts of the EU Commission proposal for a new Fertilizer Regulation, together with concrete suggestions to improve it, have been very much in the focus of the Agriculture Committee. The goal of Fertilizers Europe was to ensure the following:

- Today's quality of mineral fertilizers and their market value must be recognised and reflected in the new regulation;
- The future framework has to be workable and non-bureaucratic to facilitate the functioning of the Single Market;
- Essential requirements for mineral fertilizers must be based on sound science.

In 2017, both the EU Parliament and the Council of the EU have adopted their final position. The report of the European Parliament and the Common Position of the Council of the EU represent a good starting point for the trilogue negotiations on the new Fertilizer Regulation.

EU NITROGEN EXPERT PANEL

Create impacts with Nitrogen Use Efficiency indicator at farm level

Nitrogen experts are working on the closure of the first mandate of the EU Nitrogen Expert Panel (EU-NEP), whose aim was to develop an indicator for the utilization of nitrogen at the level of farms and the entire food system, like Nitrogen Use Efficiency (NUE). This was and will remain a key area of work for the Agriculture Committee of Fertilizers Europe.

Based on the draft Guidance document for assessing NUE at farm level, issued in 2016, regional case-studies in the different European countries and farm types were conducted in order to test the NUE concept at farm level. Those case studies have been done at the region level, in the context of several scientific publications, and in 2018 will be combined all together. The renewal of the membership of the Panel has also been decided.

The meeting of the EU-NEP, organized in Berlin (September 2017) was the occasion to say farewell to several members: Wiesław Oleszek (IUNG, Poland), David Powlson (Rothamsted, UK), Jan Willem Erisman (Louis Bolk Institute, The Netherlands), Wilfried Winiwarter (IIASA, Austria) and Hans van Grinsven (PBL, the Netherlands).

Some new members are joining the Panel in 2018. For 2018, the Panel will discuss how to create further impacts with the defined NUE, for example for Climate or Nitrogen Best Management Practices.

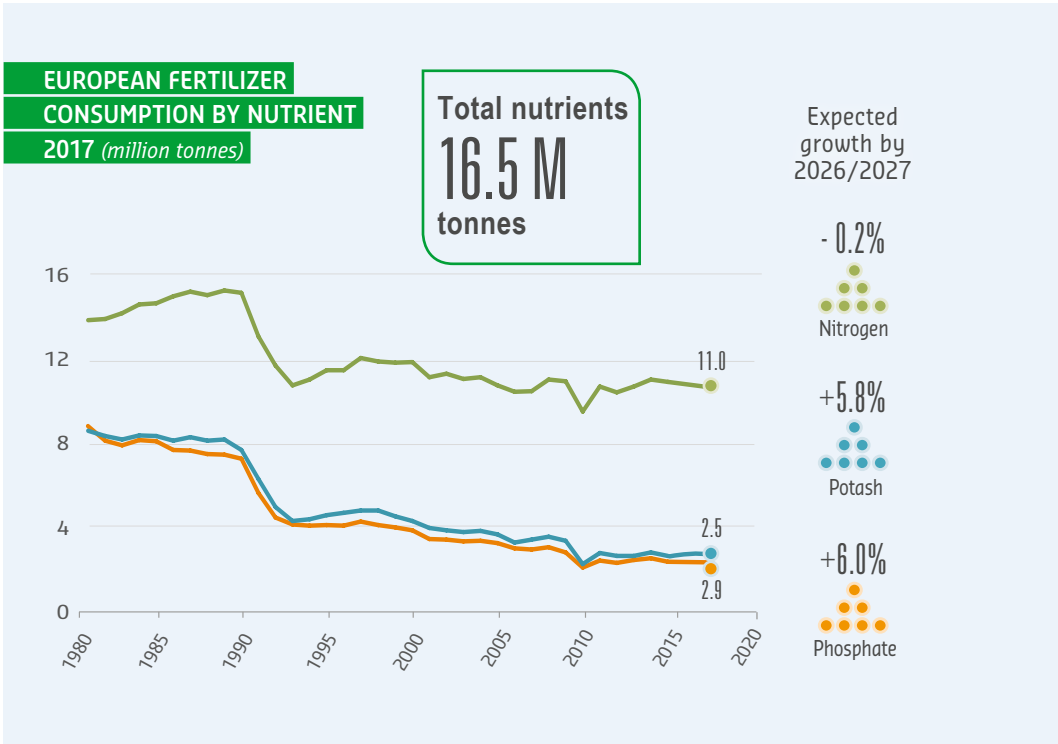
COOL FARM TOOL

Accelerated improvements of the Cool Farm Tool

Science and technology are getting more and more integrated in farms throughout Europe. Since 2016 and the launch of the online Cool Farm Tool (CFT), farmers have access to hard data that shows the effect of their farming practices and how to improve them. More specifically, the CFT enables farmers to measure emissions from agriculture production (kg CO_2/t produce), as well as food companies to evaluate emissions in their supply chains. It is also a great system helping to gain insights on hotspots at farm level.

The launch of the online version of the CFT was combined with the release of a new website: https://coolfarmtool.org, contributing in raising the profile of the tool to a broader audience. Since then, the Cool Farm Alliance is attracting new members every year, such as Agrible and McDonalds who joined in 2017, and totalizes now 51 members. In 2017, the operating budget increased by 50% compared to 2016. In this context a lot of improvements of the tools have been achieved such as:

- Release of new dairy module
- Release of water footprint metric for 25 major crops



- Integration between SAI Platform's Farm Sustainability Assessment with CFT
- French, Spanish, German and Dutch language version
- Integrations with Farm Management Software through a new API

In 2018, the NUE concept will be implemented in the CFT and a specific workshop on this topic has been organized during the 2018 Annual Meeting of Cool Farm Alliance.

EUROPEAN FERTILIZER CONSUMPTION

Slight rebound for phosphate and potash market

Fertilizers containing an average of 11.2 million tonnes of nitrogen (N), 2.6 million tonnes of phosphate (P_2O_5) and 2.9 million tonnes of potash (K_2O) were applied to 134.5 million hectares of farmland in 27 EU countries over the last three growing seasons (2014/2015, 2015/2016, 2016/2017).

Fertilizers Europe forecasters expect annual nitrogen, phosphate and potash fertilizer consumption to reach 11.1, 2.7 and 3.1 million tonnes respectively by the 2026/27 season, applied to 134.0 million hectares of farmland. Annual fertilizer consumption over the next 10 years will continue to remain below the levels recorded immediately prior to the 2008/2009 economic downturn.

The evolution in nitrogen consumption by country is similar to last year. Increased consumption is foreseen in Central and Eastern Europe (EU-12), while significant decreases are foreseen in the Western European countries, with the highest decrease in Germany, The Netherlands, France, Austria and Belgium.

For Western countries, the expected decrease of -5.7% is very similar to the forecast of 2 years ago (-4.9%) and is still driven by an expected increased pressure on the use of fertilizers in Germany. This decrease is compensated by the average growth in consumption in Central and Eastern European countries of 14.4 % (comparable to the last forecast). Therefore, a decrease of the nitrogen consumption of only -0.2% is expected.

For phosphate and potash, significant growth is reported in almost all Central and Eastern European countries, as well as in in Austria, Belgium, Luxembourg, Greece, Italy, Portugal, Spain and Sweden contributing to the recovery (+5.8% and +6.0%) foreseen for these nutrients in the European Union over the next 10 years.

As the forecasted yield increases are on a positive trends for all major crops (for example cereals +5% compared to +3% forecasted last year), the nutrient consumption (N+P+K) is expected to slightly increase (+1.8%). Except for potato where a decrease of 5% is forecasted, nutrient consumption will increase in all crops with for instance +6% for sugar beet and +4% for cereals. In fodder crops, the decrease foreseen in the last years because of the abolition of milk quotas, is now stabilized and a small recovery of +1% is expected. At the same time, the decrease for grassland is now foreseen at around -3%.

In conclusion, the fertilizer market seems globally stable with a slight rebound forecasted for phosphate and potash consumption. However, farmers are feeling the pressure coming from the current international and European context. Consequently, EU growers have become more cautious in their spending, even on essential inputs like mineral fertilizers.

Technical Committee

The EU European Trading Scheme (ETS), Climate Change policy, Best Available Technology References (BREFs), the new Fertilizer Regulation as well as REACH and classification related issues were the main focus among the many topics of the Technical Committee over 2017/2018.

ETS AND CLIMATE CHANGE

The fertilizer industry has a distinctive position in the context of the EU Emission Trading Scheme. On the one hand, it is the most exposed sector to the carbon leakage[1]. On the other hand, it has very limited technical scope for further significant reduction of emissions from their operations. Therefore, the evolution of the EU Climate Change policy is one of the key priorities of Fertilizers Europe and its Technical Committee.

In the past year Fertilizers Europe have been intensively involved in advocacy actions towards the European Parliament and the Council in order to make sure our specificities are known and recognised.

The final legislative text takes into account that some sectors cannot achieve significant emission reductions and therefore agreed on a lower automatic benchmark reduction rate of 0.2% annually, thus implicitly recognizing the physico-chemical limitations of our ammonia process. The implementation of the EU ETS phase IV (2021-2030) will remain an important element of the Association's efforts in 2018.

It is of the highest importance that our sector is recognised at very high risk and receives full protection from carbon leakage.

Carbon Footprinting

Carbon Footprint Calculator for the production of fertilizers has been made available on-line and and can be accessed free of charge on Fertilizers Europe website: www.fertilizerseurope.com. The Association have extended its geographical coverage thus making it a truly global tool for footprinting fertilizers. It shows that, thanks to the continuous efforts of our industry, the EU-made fertilizers have a sensibly lower footprint than those originating from other areas of the world.

Fertilizers Europe together with Carbon Trust have developed a certification scheme to ensure consistency and correct usage among all users who wish to publish results obtained with our tool.

Fertilizer BREFs

Fertilizers Europe welcomed the EU Commission decision to maintain to maintain a separate BREF for large volume inorganic chemicals (LVIC) including all fertilizer processes, whereas all other chemical sectors will be treated together in a horizontal Waste Gas Chemicals BREF.

Given the specificity of the fertilizer industry, it was of utmost importance not to keep 'one size fits all' approach and instead to have a dedicated BREF for our industry, separate from the horizontal Waste Gas Chemicals (WGC) BREF.

The timing for the development of the new BREF is also a point to be decided soon, and we are requesting an early start of the so-called "Sevilla Process" for setting our BREF.

Fertilizer Classification and REACH

Numerous issues related to the classification of fertilizers are being brought up by the European Chemical Agency (ECHA) and the international bodies. The Technical Committee and its workgroups devote a lot of efforts to ensure that, while assuring the highest safety standards, the burden on industry remains reasonable.

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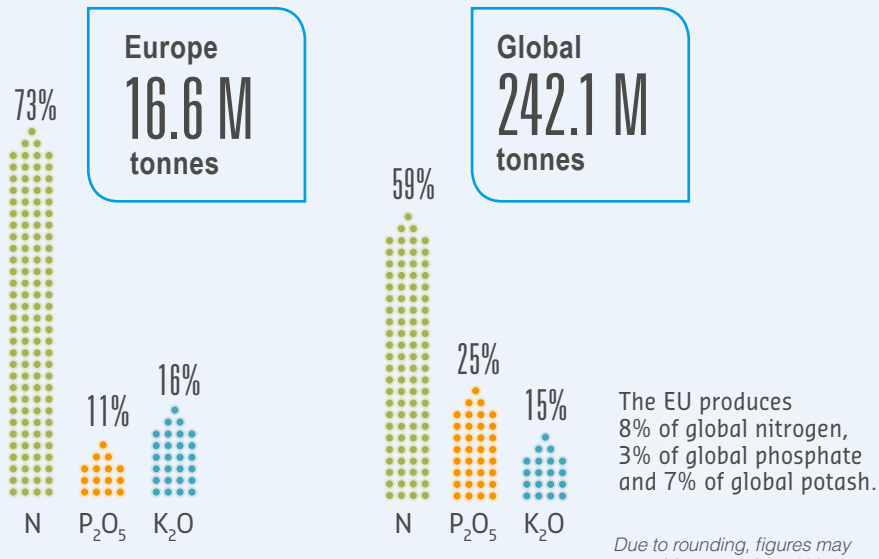
[1] *Carbon leakage refers to the situation that may occur if, for reasons of costs related to climate policies, businesses were to transfer production to other countries with laxer emission constraints. This could lead to an increase in their total emissions. The risk of carbon leakage may be higher in certain energy-intensive industries (source: European Commission, DG Climate Action).*

FERTILIZER PRODUCTION BY NUTRIENT 2016



Fertilizers Europe has also developed a "Fertilizer Use Maps package", that are tools helping industry evaluate the environmental impact of fertilizers usage.

The whole package will be made available on a dedicated website as well as on EChA's website. The tool is to be further developed in 2018 to include Fertilizers Environmental Exposure model for Greenhouse applications.

PRODUCT STEWARDSHIP

Product Stewardship is Fertilizers Europe's umbrella programme for the environment, safety and security activities since 15 years now. It is recognised by the International Fertilizer Association (IFA) as the highest level globally.

In 2017, all Fertilizers Europe members successfully passed an external audit (by DNV GL) and received the Product Stewardship Certificate in a ceremony organised in Madrid during the Annual General Assembly.

REVISION OF THE FERTILIZER LEGISLATION

Fertilizers Europe favours fully harmonized legislation that recognises the quality of our products. In cooperation with the Agriculture Committee, the Technical Committee has been actively involved in advocacy in the European Parliament, the Council and the Commission regarding the New Fertilizer Regulation.

Apart from contributing to the debate on the contaminants limits, the Technical Committee also organised a Seminar on the use of by-products in the production of fertilizers. Since its foundations the fertilizers industry has been a frontrunner in Circular Economy, and thus new regulation should ensure the continuation of good circular practices already in place.

SAFETY

Safety Seminar: Fertilizes Europe annual Safety Seminar is a platform for members to discuss safety and related issues in order to exchange best practices as well as learn from the past incidents. In April 2018, the Safety Seminar was held in Cluj, Romania and combined with a plant visit to Azomures in Targu Mures.

Incident Database: Fertilizers Europe maintains a database of some 850 incidents that have taken place since 1920. It is a very useful on-line tool for companies and the safety recommendations provided in the accident reports serve as a learning tool for members. We have also decided to help the International Fertilizer Association (IFA) develop and start it's own global database.

SECURITY

Fertilizers Europe closely follows the developments in the European and global scene regarding risk of terrorist misuse of fertilizers as explosives.

The Secretariat closely collaborates with the EU Commission in preparing the next update of EU legislation on explosive precursors which is under development. We advocate extending the suspicious transactions reporting to cover all nitrogenous fertilizers in the whole supply chain, as already in place in our Product Stewardship.

Fertilizers Europe also participates actively to several EU funded projects aiming at reducing the threat of misuse of fertilizers.

Trade & Economic Committee

While the regulatory scene in Brussels delivered two trade defence packages and an up-graded gas security of supply regulation and a full set of completed network gas codes, there was also the unexpected arrival of two new anti-dumping case reviews on ammonium nitrate.

The real fertilizer economy was equally eventful with market volatility characterising the scene. China's restructuring, the arrival of USA shale gas based urea and UAN capacity and continued turbulences found in Ukraine and North Africa were key shaping forces. All combined to make for near record high amount of imports reaching 4 million tonnes of nitrogen or 30% of the EU total N market.

TWO NEW ANTI-DUMPING REGULATIONS

Against a background of rising political populism in Europe, a steel crisis and an EC/EU policy review of China's Market Economy Status (MES), the EU institutions - notably the often splintered Council - agreed on a New Dumping Methodology in October 2017. This was swiftly followed by a Trade Defence Modernisation package in December 2017.

The New Methodology emerged from the MES China discussion because the EC/EU felt obliged to drop the "country analogue method" applied on China and other state trader nations. The root of this move rests in Section 15 of China's WTO Accession Treaty whereby 15 years after accession China can make claims that it should be treated as a "market economy'.

The end result is that the EU/EC has not recognised China as a market economy but has removed the country analogue method and replaced it with a "Factors of Production" method. This allows for a constructed value to be applied using external representative costs when there are proven 'significant distortions" arising from state intervention. This new method therefore is especially suited to addressing the state command and control nature of the Chinese economy.

The Trade Defence Modernisation (TDI-M) concerns the injury side of trade defence. Several long-standing goals of Fertilizer Europe on trade defence were achieved. First, the new law will make the "non-injurious" profit levels achieved in the absence of injurious dumping a legal reference - whereas in the past it was a practice / a convention not a law. In addition, the minimum level of profit that can be allocated will in future be 6%. In the past, EU fertilizer industry profit ratings were between 5 and 8%. Now 6% and higher profit ratings are set to prevail.

A second key new feature is the removal of the lesser duty rule when there are proven raw material and energy distortions. There will be a Union test on the actual removal but nonetheless it is clear that gas energy dual pricing practices are not acceptable and that this is due cause for the removal of the lesser duty rule.

Other new clauses include faster provisional measures at month 7 of the investigation and a pre notification of impending imposition of new anti dumping measures.

TWO NEW REVIEWS ON AMMMONIUM NITRATE FROM RUSSIA

On 17th August 2017 - two EU/EC interim review "changed circumstances" investigations were opened in the Official Journal of the European Union. One review on behalf of PJSC Acron is limited to the dumping rate only; and the second, opened at the request of 8 EU national farmers associations led by the Irish farmers addresses the EU injury levels.

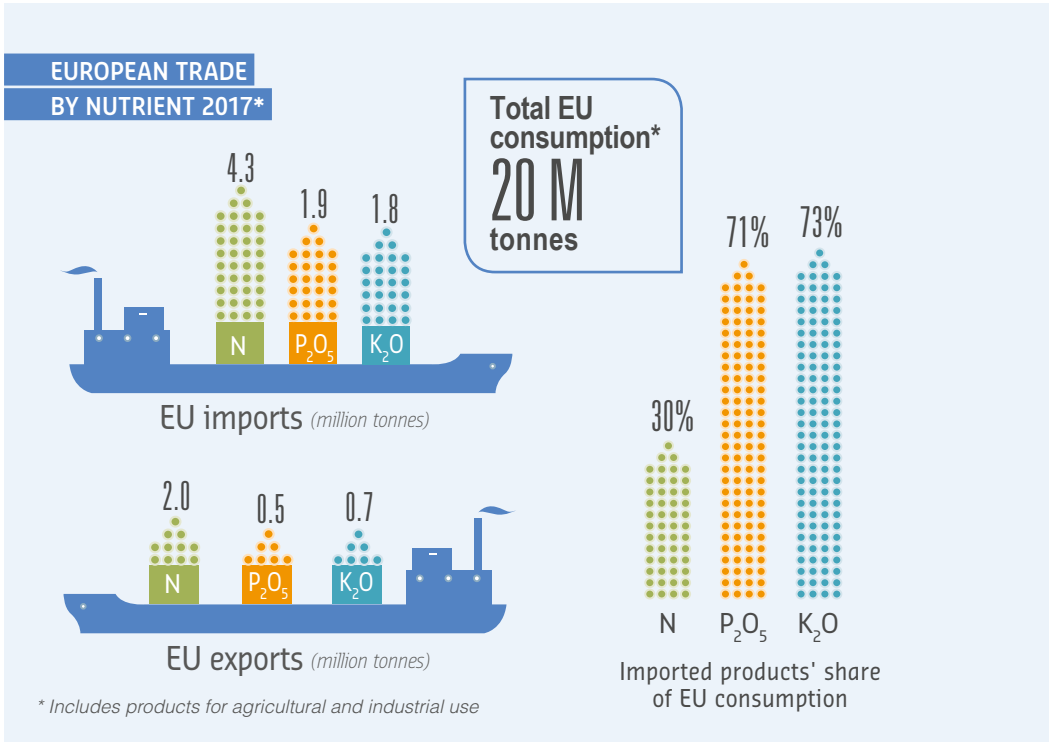
PJSC Acron review

PJSC Acron claims that circumstances have changed since the last investigation period and that they are of a lasting nature since they relate to:

- the withdrawal of the applicant's undertaking on 23 March 2016 and subsequent substantial changes in its EU sales structure, notably the re-direction of all direct sales to the EU via its related sales company, Agronova Europe AG, as well as changes to its corporate and domestic sales' structure;
- significant increases of the prices of the main raw material, namely natural gas, in Russia.

Farmer review

The farmers claim that circumstances have changed as compared to the market situation in 2002, as the current level of the measures was established in that year, and that the "changed circumstances" are of a lasting nature. These interim review



investigations typically take up to 12 months to complete but they can also run up to 15 months. Thus completion dates are either on 17th August 2018 or 17th November 2018.

Ammonium nitrate remains the core strategic production activity of the EU nitrogen fertilizer industry and as such members and the secretariat will continue to actively defend the existing anti-dumping measures.

Challenges to the EU conventional tariffs on fertilizers - typically 6.5% ad valorem on straight nitrogen

Farmer organisations also continued to request that the EU authorities reduce the conventional EU tariffs. A new alliance of blenders, granulators, farmers and exporters from the Gulf region and Russia emerged in the form of ABEAN - the Association for Better Access to Nutrients to advocate for the removal of fertilizer tariffs.

Fertilizers Europe and its members have resisted such calls and indeed the EC/EU institutions have maintained the standard conventional tariffs rejecting duty suspensions and maintaining that FTA agreements are the best way forward.

An exception was Ukraine where the EC/EU did approve an Autonomous unilateral package of 5 products for EU zero rating of the tariff. However, the EU authorities acknowledge Fertilizers Europe's request for sensitivity on urea - and this was granted.

STRONGER EU GAS SECURITY OF SUPPLY (SOS) REGULATION

A second and upgraded SOS Regulation entered into force on 1 November 2017.

The new rules go further than the previous Regulation of 2010 by requiring EU countries to work in regional groups to assess the potential for disruptions and to agree on joint actions to prevent or mitigate any damaging consequences.

In accordance with a new 'solidarity principle', Member States will also need to be ready to help neighbouring countries guarantee the provision of gas to vulnerable consumers in the event of an extreme shortage. It is very notable that Ukraine and other members of the European Energy Community can be included in the preventative and emergency programmes.

Furthermore, gas companies will also have to officially notify national authorities about major long-term supply contracts that may be relevant to security of supply. The Regulation also requires the European Network for Transmission System Operators for Gas (ENTSOG) to perform an EU-wide gas supply and infrastructure disruption simulation in order to provide a high level overview of major supply risks for the EU.

A particular win for industry consumers is the regulation's promotion of market-based demand side solutions allowing industry to get market compensations. Thus state interventions are considered last resort - but nonetheless necessary.

As ammonia plants are the first to be asked by national authorities to shut down in such emergency situations the EU's good order and planning is welcomed.Indeed in our bi-annual gas seminar held in Prague in 2017 we congratulated the EC and other institutions for their excellent collaboration on this legislation. We extend the congratulations again now that the regulation is in place and a full blown implementation programme is in place.

ALL GAS NETWORK CODES SET TO COMPLETE SINGLE GAS MARKET INTEGRATION

Another major landmark was achieved at the end of year 2017 with the entry into force of all the network codes – a key feature of the 3rd gas directive's implementation. These codes covering access to networks, congestion management, capacity allocations and cross border tariffs are vital for the true integration of markets and the achievement of a European market.

Here we wish to acknowledge the essential contribution of the IFIEC Gas Working Party and its chairman Steinar Solhiem, Yara. Steiner has now recently become the President of IFIEC Europe and we heartily congratulate him upon this well deserved appointment.

Communications Committee

The Communication Committee's primary objective is to provide guidance and strategic advice to the Secretariat with regards to the Association's communication strategy and outreach activities. This includes targeted communication aimed at reinforcing specific advocacy objectives as well as longer-term communication strategy focusing on the reputational aspects of the industry.

ENGAGING WITH KEY STAKEHOLDER

Throughout 2017 and 2018, the Association organised several events with the objective of providing the platform for discussion on key legislative files between fertilizer industry and relevant stakeholders from EU institutions and member states.

Symbiosis and circular economy seminar

The Seminar "Symbiosis and Circular Economy in Fertilizers" took place in March 2018 and attracted over 100 participants from industry, EU institutions and national authorities including all the key players in the ongoing trilogue discussions, such as the Parliament's Rapporteur MEP Turcanu.

The main discussion topic was the proposed Fertilizers Regulation in the frame of the Circular Economy Package. The industry representatives urged EU policy-makers to ensure a continuation of circular practices in the fertilizers industry to enhance saving nutrients, energy, costs and precious resources.

The industry underlined the importance of ensuring the coherence with other legislation in place such as REACH to avoid creating additional administrative burden for the industry.

Key EU nitrogen experts from the science, policy and industry communities across Europe met in October 2017 in Berlin for the 6th session of the EU Nitrogen Expert Panel Conference. This year's focus was primarily oriented on evaluating the progress made with regards to case studies on the application of the Nitrogen Use Efficiency Indicator at farm level throughout Europe.

Annual Forum for the Future of Agriculture and Environment (FFA)

The FFA 2018 Conference brought together some 1200 participants interested in the sustainable agriculture and related environmental challenges. Fertilizers Europe marked its presence as an exhibitor with the aim of raising awareness and building a positive image among the public about the role of fertilizers in ensuring food security, tackling common misconceptions about the industry as well as engaging in dialogue with relevant stakeholders.

President of Fertilizers Europe Javier Goñi del Cacho meets European Parliament Rapporteur, MEP Mihai Ţurcanu, during By-products Seminar in Brussels, 7 March 2018.

Jacob Hansen, Director General of Fertilizers Europe presenting the MEP Award for Agriculture and Rural Development to the 2018 winner, MEP Angélique Delahaye and MEP Eva Kaili, host of the event.

MEP AWARDS

The Association is continuously expanding its outreach to build recognition and reinforce its image in the EU community. By sponsoring the Agriculture Award at the 2018 MEP Awards Ceremony, Fertilizers Europe joined the European Parliament representatives, as well as the wider EU community to recognise the hard work of members of the European Parliament while at the same time celebrating their achievements in different policy areas.

Forum on Fertilizers and Nutrients for Growth Conference

The Forum organised by Fertilizers Europe and hosted by MEP Franc Begovic on 7 June 2017 gathered high-level participants including Members of the European Parliament, European Commission and industry representative. The two sessions were chaired by MEP Julie Girling and MEP Peter Jahr. The debates between prominent decision-makers and key stakeholders were primarily focused on efforts in Circular Economy and means of scaling up smart farming in Europe. The Forum once again proved to be a very engaging and fit-for-purpose platform allowing an informed dialogue between the policy-makers and the industry.

REACH WEBSITE

Fertilizers Europe launched a new website dedicated solely to the chemical management of fertilizers in the framework of REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals).

Given that REACH Regulation places responsibility on industry to manage the risks from chemicals and to provide safety information on the substances, the Association developed a tool to support registrants, formulators and downstream users with the goal of providing greater consistency in the information exchange on the safe use of fertilizers communicated in a harmonised way down the supply chain.

INTERNAL COMMUNICATIONS

The Secretariat is communicating on regular basis with its Members through its quarterly "LIFE" magazine as well as bi-weekly "LIFE in the bubble" digital newsletter. Both publications aim at informing Members about core advocacy and communication activities of the Association, past and upcoming events as well as offer a pre-selected overview of key developments in the EU policy-making sphere.

REACH website www.reachfertilizers.com

Fertilizers Europe

2017-2018

Representing European fertilizer producers

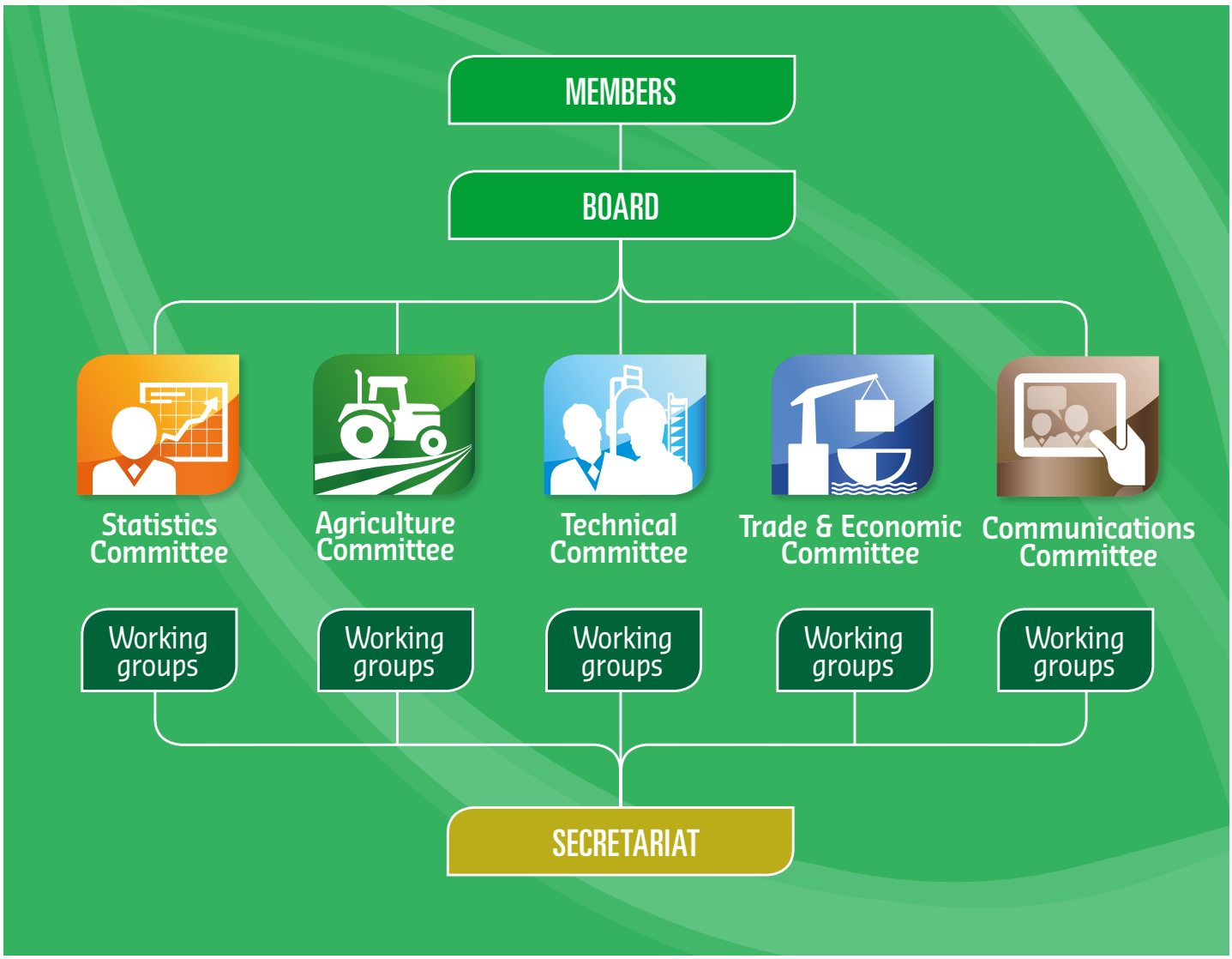
Fertilizers Europe Structure

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 small, professional 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.



Fertilizers Europe Members

CORPORATE

AB Achema
Lithuania

Borealis AG
Austria

Grupa Azoty SA
Poland

Anwil SA
Poland

CF Industries
United Kingdom

PFIC LTD
Greece

OCI Nitrogen BV
The Netherlands

Azomures SA
Romania

Eurochem Antwerpen BV
Belgium

ICL Fertilizers Europe BV
The Netherlands

Petrokemija Plc
Croatia

BASF AG/Fertilizer BU Europe
Germany

Fertiberia SA
Spain & Portugal

Lovochemie as
Czech Republic

Yara International ASA
Norway

Nitrogénmüvek Zrt
Hungary

NKF s.a.
Greece

ASSOCIATIONS

AIC
Agricultural Industries Confederation

ASSOFERTILIZZANTI
Associazione Nazionale Fertilizzanti

IVA
Industrieverband Agrar e.V.

PIPC
Polish Chamber of the Chemical Industry

ANFFE
Asociación Nacional de Fabricantes de Fertilizantes

BELFERTIL
Belgian Mineral Fertilizer Association

Meststoffen NEDERLAND
Fertilizers Netherlands

UNIFA
Union des Industries de la Fertilisation

Fertilizers Europe Board

Javier Goñi del Cacho
Fertiberia
President

Terje Knutsen
Yara
Vice-President

Paweł Łapiński
Grupa Azoty
Vice-President

Jacob Hansen
Fertilizers Europe
Director General

Trade & Economic Committee

Gerald Papst
Borealis
Chairman

Bartolomeo Pescio
YARA
Vice-Chairman

Mindaugas Balkus
Achema, Vice-Chairman
(until March 2018)

Statistics Committee

Krzysztof Homenda
Grupa Azoty, Chairman
(until November 2017)

Aviv Bar Tal
ICL Fertilizers
Vice-Chairman

Technical Committee

Radomir Vek
Lovochemie
Chairman

János Szilágyi
Nitrogénmuvek
Vice-Chairman

Theodora Kouloura
New Karvali Fertilizers
Vise-Chairman

Communications Committee

Marc Van Doorn
OCI Nitrogen
Chairman

David Hopkins
CF Industries
Vice-Chairman

Agriculture Committee

Mihai Anitei
Azomures
Chairman

Terje Bakken
Eurochem
Vice-Chairman

Jacek Podgórski
Anwil, Vice-Chairman
(until February 2018)

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UNIFA
Observer

Dietrich Pradt
IVA
Observer

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President

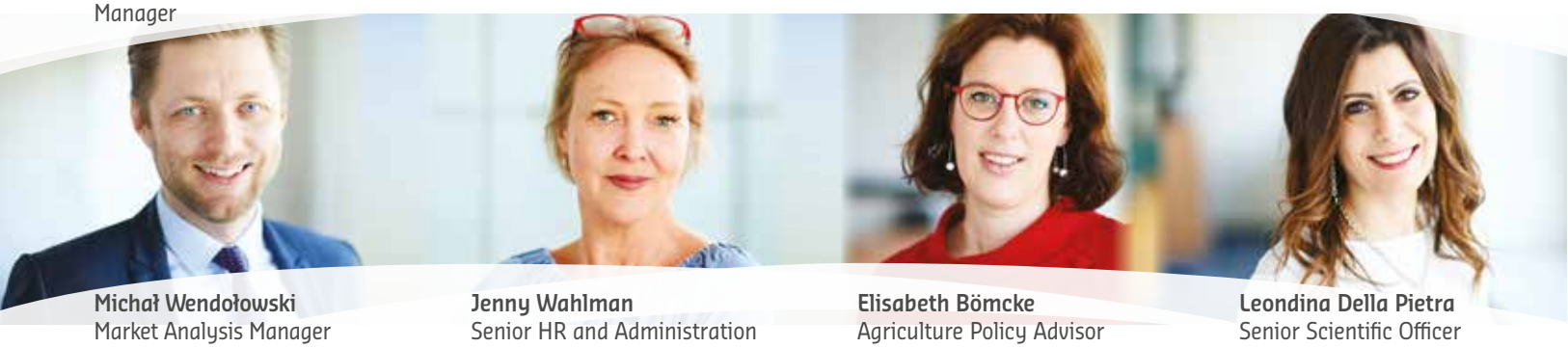
Jacob Hansen
Director General

Tiffanie Stephani
Agriculture & Environment Manager

Antoine Hoxha
Technical Director

Sean Mackle
Trade & Economic Director

Lukasz Pasterski
Communications Manager



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Trade & Business Analyst

Nathalie Williams
Office Assistant

fertilizers europe

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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