CONTRIBUTE TO CLIMATE-NEUTRAL LIVESTOCK & AQUACULTURE PRODUCTION THROUGH FEED

FOSTER SUSTAINABLE FOOD SYSTEMS THROUGH INCREASED RESOURCE & NUTRIENT EFFICIENCY

PROMOTE RESPONSIBLE SOURCING PRACTICES

CONTRIBUTE TO IMPROVING FARM ANIMAL HEALTH & WELFARE

ENHANCE THE SOCIO-ECONOMIC ENVIRONMENT AND RESILIENCE OF THE LIVESTOCK & AQUACULTURE SECTORS

FEED SUSTAINABILITY CHARTER 2030
The sustainability of livestock and aquaculture production is a key business driver for the European feed industry. FEFAC has been assisting its members in providing animal nutrition solutions that help to increase the sustainability of livestock farming operations, from the respective environmental, economic and social perspectives. Substantial progress has been achieved already over the past decades, but clearly, there are still many challenges for the livestock sector that require the continued European feed industry involvement and support.
farmers in reaching higher levels of sustainability in accordance with the ambitions. In the road towards 2030, FEFAC will publish annual Feed Sustainability Charter progress reports to follow up on how FEFAC and its members are advancing on the specific ambitions. This should also include the progress made on certain key indicators described in this publication, such as the share of human inedible feed and EU crude protein use in industrial compound feed recipes.

This publication intends to give a common view on what the feed industry believes are important objectives when it comes to feed sustainability. There is a need to go into the details, steering away from a ‘black and white’ discussion about sustainable feed vs non-sustainable feed or animal production vs arable farming. Different choices can be considered sustainable by their own merit and all production systems have room for improvement (including organic livestock farming).

It is clear that trade-offs often occur in the search for more sustainable livestock production systems while meeting specific consumer demands. It needs to be acknowledged that optimising all parameters of feed sustainability may just not be possible. Slower growing farm animals and mandatory grazing periods may meet aspirations for improved animal welfare, but it also means lower feed conversion ratio (i.e. lower resource efficiency) and higher GHG emissions. Striving for a maximum share of human inedible feed can negatively affect nutrient leakage and vice-versa.

FEFAC believes that current diversity of EU livestock production systems, with their ability to adopt different elements of feed sustainability, should be regarded as an indicator of a sustainable food system itself. The same more or less applies to the relationship between the feed sector and (predominantly) plant-based food production. Synergy is created thanks to our use of co-products that result from their manufacturing processes, making both our industries more sustainable.

The state of the ‘feed sustainability journey’ in a given country must be considered and respected as well. In one country the sustainability priorities may be significantly different from other countries. For FEFAC, feed sustainability is about setting a path for continuous improvement and measuring meaningful progress. It is not about forcing all FEFAC members across Europe to meet the same thresholds.

FEFAC members are therefore invited to develop their Charters or Sustainability Roadmaps at national level, such as the four examples included in this publication, to show their feed sustainability journey. FEFAC and its members can take this publication as a starting signal and initiate measurable actions that will contribute to livestock production and aquaculture sectors in 2030 that will have made significant progress on the five ambitions of the FEFAC Feed Sustainability Charter.
The European aspiration to become a climate-neutral continent by 2050 is a significant challenge for all economic activities and perhaps even more so for the livestock and aquaculture sectors. Animal nutrition science and feed processing technology have been key assets of the European feed industry in the past decades, which has taken a global leadership role helping to reduce the carbon footprint and environmental impacts related to feed production. The initial objective to increase resource efficiency remains fully valid within the Circular Economy context. Beyond the carbon footprint, innovations in animal nutrition have also allowed for other reduced environmental impacts, such as nitrogen and phosphorous surplus emissions, concentrated in manure.

It is well-known that when considering the carbon footprint of an animal product, the feed ingredient production stage represents the largest share of the GHG emissions. This is particularly the case for pork, poultry meat, eggs and farmed fish, where the share ranges between 70-80%. There lies a responsibility and opportunity for the European feed industry to deliver the solutions that allow the livestock and aquaculture sectors to contribute to the climate change and zero-pollution requirements. Innovations in feed formulation, precision feeding and processing technology are crucial assets here. Another key strategy to lower the environmental footprint is the increased incorporation of co-products from the food industry, such as former foodstuffs, which benefit from a methodological advantage in terms of life cycle assessments.
Key public attention on GHG emissions in livestock farming is linked to methane emissions from cattle farming, resulting from the digestion of grass and forage cellulose in the rumen. It can first of all be argued that the methane emissions from cattle are biogenic and a part of a circular system that doesn’t contribute to additional heating of the atmosphere, when herd sizes remain stable. Nevertheless, the reduction of methane emissions in cattle farming remains a key target for animal nutritionists, as it contributes to increased resource efficiency and reduced nutrient leakage. While the feeding of ruminant animals remains mostly reliant on pasture and forage feeding systems, the feed sector is leading research that could provide innovative solutions included in concentrate feed delivered to the farm to help further mitigate methane emissions in cattle farming.

This research is still fully ongoing and a large range of ingredients and substances are considered as promising candidates for their potential to reduce methane emissions. Examples of such ingredients being tested are algae, seaweed, lemongrass, spices, herbs, organic acids, essential oils, prebiotics, probiotics, tannins, saponins and other botanical compounds, as well as certain minerals. A number of these ingredients are already used for other purposes (e.g. prebiotics as digestibility enhancers), but some qualifying legally as feed additives require a specific authorisation. It is the ambition of the Farm to Fork Strategy to encourage operators to request authorisations for such products that may be delivered within the next years. The challenge for an ingredient or substance to have a sustained effect on limiting methane emissions remains significant, while also not negatively impacting the feed intake or animal product quality.

As highlighted, the feed ingredient production stage is also essential to achieving lower climate footprints in farmed fish. In aquafeed production, with its specific challenges, an important part of the climate footprint strategy is to reduce the use of traditional oils and protein meals. There will be an increased use of marine by-products, with harvesting of alternative marine ingredients also from lower trophic levels (i.e. not directly consumed by humans), as well as feed materials derived from ingredients such as microorganisms and/or insects. In terms of farmed animal production, salmonids, bass and bream have their particular role in upgrading the biomass from the oceans for food production, while reducing the need for land to grow crops to feed them.

To achieve climate-neutrality in livestock farming and aquaculture, there is a need for harmonised, robust and reliable measurement and calculation tools. In April 2018 the European Commission published the PEFCR Feed for Food-Producing Animals, to which FEFAC significantly contributed. The PEFCR (Product Environmental Footprint Category Rules) Feed is an EU-harmonised methodology to comprehensively measure the environmental performance of feed on 16 impact categories (including climate change), for which the foundation was laid with the publication of the FAO-LEAP Feed LCA Guidelines in 2015. FEFAC is a member of the Technical Secretariat of the PEFCR Marine Fish, which will deliver the methodological calculation rules for fish for human consumption (wild fish as well as farmed fish) in the EU by June 2022.

FEFAC and its members are committed to facilitate the uptake of the PEFCR Feed and the GFLI Database through the creation of educational material and the organisation of webinars.

At the same time, FEFAC has invested in the establishment of the GFLI (Global Feed LCA Institute) Feed LCA Database, which will provide primary and secondary life cycle data on the environmental performance of key feed ingredients that feed
manufacturers can make use of. The GFLI Database was developed together with IFIF, AFIA (US), ANAC (Canada) and NSF (Norway) and is compliant with the rules for data management in the PEFCR Feed for Food-Producing Animals. The aim for the GFLI Feed LCA Database is to continuously expand and improve its quality, providing a key service to feed manufacturers who rely on robust aggregated and disaggregated LCA datasets for all major feed materials and additives to measure the environmental performance of the large range of compound feed formulations.

In combination, the PEFCR Feed and the GFLI Database allow feed manufacturers to demonstrate their capacity to formulate ‘low emissions feeds’ in a transparent, reliable and credible way, meeting customer demand, which can hopefully make a contribution to animal products with lower emissions. FEFAC is aware of the steep-learning curve for people in and outside the feed sector to get a good understanding of both tools. Together with its members and GFLI partners, it will be of key importance to make information about the use of the PEFCR Feed and the GFLI Database readily and publicly available.
Belgium

In Flanders, the government and the agri-food industry are committed to reducing methane emissions from cattle by 26% by 2030 compared to 2016. The Belgian animal feed sector will reduce this by half (13%) by 2025 by applying specific feed measures.

In 2021, 2025 and 2029, we will analyse the energy consumption of animal feed manufacturers. The results of this study will be the basis for a covenant. The study will be repeated in 2025 and 2029. The results of this study will serve to draft best practices with regard to energy savings which we will communicate to the animal feed sector.

France

EUROFAC is committed to developing a voluntary scheme for the collection and recycling of feed packaging, which should be fully operational by 2024.

Italy

Assalzoo is committed to present its first Environmental Report in 2021. The report will focus on the carbon footprint of feed for different animal species as well as the feed industry solutions that are put in place to reduce the footprint.

Norway

The Norwegian Seafood Federation is a driving force in the development of the PEFCR Marine Fish as chair of the Technical Secretariat. This is a key element in the objective to significantly reduce the climate footprints of compound fish feed, and thus for farmed fish, in Norway by 2030.

United Kingdom

AIC has a mechanism to deliver on-farm advice via qualified feed advisers to help farms improve productivity and reduce their environmental impact. The Feed Adviser Register (FAR) was set up in response to the UK Governments’ commitment and industry and customer demands to reduce emissions from farmed livestock. Feed advisers transfer knowledge to farmers on environmental policy, measures to mitigate emissions and the role played by nutrition and feeding management.

Netherlands

Nevedi is committed to improve market access of internationally agreed tools on calculating environmental footprint such as the PEFCR Feed and the GFLI database. We will also encourage individual companies to get started with this. Nevedi joined a research project “Climate monitor Dutch agri-production”. With supply chain partners and WUR, we aim to link LCA approaches (PEFCR and GFLI) with the Paris Agreement demands, to measure, monitor and reduce the climate impact of the livestock production chain.
AIC sets out the way forward with its first Sustainability Roadmap

Together with our partners in the food chain, AIC wants to build a more resilient future and we have committed to a Sustainability Roadmap that will deliver. It is to inform members, policy-makers and stakeholders, of where we have come from but more importantly what our 2050 goals are. We have aligned our thinking with those sustainability goals which we can influence. The Roadmap is a live document, and we would welcome input into its successful implementation.

Feed Production
Looking ahead, feed mill engineers are confident that a combination of green energy solutions will be employed to decarbonise the energy consumption at feed mills. A zero-carbon goal can be achieved through site energy generation (CLP, wind, solar, hydro, bioenergy etc) and access to green energy through the grid.

The relationship between feed formulation and quality and emissions reduction potential on-farm is key to achieving the lowest possible environmental footprint.

Circular Economy
We are committed to a sustainable protein strategy for the UK considering the ideal proportions of feed protein imported and home-produced. Currently, 47% of feed materials that are incorporated into compound animal feeds are imported, with 53% home produced. We will also increase the rates of incorporation of former foodstuffs and co-products of food and bio-fuel processing into animal feeds to maximum possible levels. We will establish a UK protein balance sheet for animal feeds and rank feed materials/crops based on sustainability criteria to support the making of trading decisions.

Training and Social
New Environmental Land Management policies in the UK will mean our advice will be extended into new and different areas. Farmers and growers will be considering their role in providing carbon storage and encouraging biodiversity and potential new markets will develop to achieve net zero carbon and biodiversity net gain by 10%.

Our farm advisers, who are already familiar with advice linked to soil, water and air quality, and greenhouse gas emissions, are likely to be increasingly required to specialise in offering farmers more integrated advice packages.

Our advisers will further improve on the delivery of high quality integrated nutrient management plans, farm nutrient budgets, and integrated pest management plans.
Foster Sustainable Food Systems Through Increased Resource & Nutrient Efficiency

Resource and nutrient efficiency are core elements of modern animal nutrition science. Assessing the nutrient availability in the wide range of potential ingredient resources is an essential step. The true animal nutrition science expertise is displayed by the ability and capacity to extract the nutrients from that particular resource and combine them in an optimal way with those from other resources to supply a diet that meets the physiological needs of a farm animal. In the transfer of nutrients from feed to animals, the concept of limiting the nutrient losses as much as possible has increasingly been embedded into feed formulation thinking in the past decades.

This optimised resource and nutrient efficiency includes the subsequent nutrient transfer that takes place into the consumer’s animal product and the excess nutrients run-off into manure. Precision feeding and optimised nutrient density, in particular when it comes to the inclusion of highly digestible protein sources, are key feeding strategies that are applied. FEFAC considers that resource efficient nutrient management should be part of the holistic “One Nutrition” approach, linking plant nutrition, animal nutrition and human nutrition crucial to deliver sustainable food systems.

A major opportunity for the livestock and aquaculture sectors is to further improve optimal nutrient use efficiency, as increasing attention is put on the environmental impacts of surplus nutrients lost through manure.
Particularly the nitrogen balance is becoming a key focus area in several countries, as ammonia emissions in manure resulting from undigested protein or imbalances in amino acids composition are having measurable effects on the biodiversity around livestock farms. The emissions of phosphorus are another key concern that the livestock sector needs to tackle.

It is the compound feed manufacturer’s task to formulate the feed beyond just meeting the animal’s physiological needs, for example also taking into consideration the nutrient loss ratio (or leakage). Scientific research on optimized nutrient balance in animals diets and the ability to supplement the diet with feed additives (e.g. amino acids, phytase) or mineral feed materials have resulted in significant improvements of this ratio, making the European feed and livestock industry a global leader in nutrient efficiency. Further substantial improvements of this ratio are expected with the uptake of digitalization and sensor technology at farm level, supporting the development and implementation of precision feeding systems providing the optimum nutrient balance to food producing farm animals during all physiological stages.

The traditional key performance indicator for resource efficiency in animal production is the feed conversion ratio (FCR). This is the amount of feed needed for the animal to grow by one kg or to produce one kg of milk or egg. The FCRs for all farmed animals have improved over the past decades, with farmed fish and poultry known as highly efficient feed converters. An improving FCR is also an indication of precision feeding, whereby the right amount of nutrients are delivered to a farm animal at the right time. In general, the FCRs in Europe are the best at global level for all farmed animal species.

**FEFAC remains committed to reporting on the FCRs for all farm species at EU-aggregated level as a key indicator to measure environmental performance.**

The FCR remains a reliable, robust resource efficiency indicator, however there are also indicators to provide a qualitative interpretation of the sustainability of feeding systems. In 2017, the FAO highlighted the need to consider the use of ‘human inedible feed’ as a key indicator of resource efficiency, and therefore feed sustainability. This is the content of the feed that is not in competition with direct food consumption, although it indirectly contributes to food availability.

Particularly ruminants are often singled out for having a “substandard” FCR, meaning the amounts of feed input per animal product are considerably higher than other farm animals. Ruminants however have the biggest capacity to consume human inedible feed, including the digestion of cellulose, with forages as the main source but also feed materials such as sugar beet pulp, citrus pulp and brewers’ grains. Their unique ruminant digestive system allowing them to convert “low value” fibre rich feed components into “high value” animal proteins (milk and meat) not in competition with human foods, goes largely unnoticed.

In addition to having the best FCR in animal food production, farmed fish also have the capability to consume raw materials that are not in competition with direct food consumption (e.g. trimmings, and other co-products of marine origin). The ratio of human inedible feed use in aquaculture can be further improved with the increased use of co-products from the fish processing industry and the use of marine species of the lower trophic levels (e.g. marine algae, zooplankton and/or phytoplankton). Innovation in this area will be driven by developing sustainable and scientific methods for harvesting new marine raw materials, growing alternative ingredients as feed components and increased use of marine, animal and plant-based by-products.

**FEFAC is committed to measure and report on the share of human inedible feed use in the European compound feed industry in the first FEFAC Feed Sustainability Charter Progress Report in 2021.**

Linked to this approach on human inedible feed, FEFAC has highlighted the role of the compound
feed sector in the circular economy thanks to the use of co-products, as a key feature of its contribution to sustainable food systems. Co-products are the resulting feed materials derived from a process where the main activity is geared towards the production of a different consumer product, such as beverages, food, biofuels or other industrial applications. Their existence is an unavoidable consequence of the lead process, but they are nonetheless extremely valuable in animal nutrition. Through the use of co-products, the compound feed sector makes a considerable contribution to the prevention and reduction of food waste along the supply chain. In 2019 FEFAC published a brochure showcasing the large range and diversity of co-products that are used in the European feed industry.

There is still great potential for the European feed industry to look at what feed-grade resources could be extracted from the ‘local’ bio-economy and which ones could be upgraded to feed via ‘intermediate organisms’. The uptake of safe alternative feed materials, particularly the ones that can contribute to the supply of proteins, is a key strategic objective for the European feed industry. FEFAC welcomes the drive to foster EU-grown plant proteins as well as alternative feed materials such as insects, marine feed stocks (e.g. algae), microbial biomass and by-products from the local bio-economy in order to boost the circular economy and reduce needs for imports. Insects, but also microbes, single cell-proteins and fungi, can play an interesting role here. It should be possible to reach a situation whereby these ‘intermediate organisms’ consume biomass from waste streams (i.e. biomass not considered suitable as feed for food-producing animals), which are subsequently consumed by food-producing animals. This would greatly contribute to the ambition to reduce nutrient losses, in particular nitrogen. Of course, any new feed material with potential use in feed manufacturing must be processed and managed in a way that doesn’t compromise the European feed industry’s commitments on feed and food safety.
Belgium

By 2030, 50% of the raw materials used in the Belgian animal feed industry are co-products of the food and biofuel industries. Each BFA member receives an overview of its use of co-products compared with the sectoral average.

The (standardised) feed conversion (= amount of concentrated feed per kg of meat production) of pigs and poultry will improve by 10% by 2028 compared to 2018.

France

EUROFAC aims to better identify the flows of raw materials to livestock and to this end is participating in the setting up, by 2022, of an inter-professional database and the development of related relevant indicators.

Italy

Assalzoo will implement a collection data system to evaluate the use of co-products and former foodstuffs in feed formulation.

Denmark

The Danish Feed industry is committed to increase knowledge on nutrition through improving the evaluation of feeding systems. Quick implementation of new knowledge at feed manufacture and farm level – including increasing Nitrogen and Phosphorus use efficiency.

Germany

DVT closely cooperates with the scientific and consultancy environment, allowing for the development of new standards in the DLG-Working Groups on Feed & Feeding and delivering in practice. This has for example led to guidance on the handling of Nitrogen and Phosphorus reductions in feed.

Ireland

In 2020 a government/IGFA national survey concluded that protein levels in animal feed have been following a positive environmental downward trend since 2015. IGFA is committed to continuing to ensure accurate data is available for our sector in the future and to promoting best environmental practice while optimising nutrient usage.

Netherlands

Nevedi engages in public private research projects which aim to increase the safe use of well-known and new co-products. Doing so, we contribute to the growth of co-products in pig feed by 10% (80% > 90%) by 2030. We are aware for threats to feed use of co-products as they are a major part of sustainable biomass, a valuable raw material for bio-energy or chemistry.
Norway

**SjømatNorge**

The Norwegian Seafood Federation has the objective that the share of human inedible feed material in fish feed in Norway shall have increased significantly by 2030.

Portugal

**IACA**

IACA is a partner to the COLAB FeedInov project, which aims to stimulate more sustainable livestock production. Amongst other objectives, the project has the ambition to increase the feed valorisation of food industry by-products and other currently unused biomass.

IACA is the leader of a project called SANAS, which among other things aims to reinforce sustainable feed production in the Alentejo region. The project foresees to evaluate the potential of using new and alternative protein sources (e.g. protein crops, insects, algae) and stimulate their use through technical manuals and raw material factsheets.

Spain

**CESFAC**

CESFAC collaborates with FEDNA, the Spanish Foundation for the Development of Animal Nutrition, to improve formulation systems to minimise the protein content in feed formulation. The aim of the project is to reduce Spanish dependence on protein imports from third countries as well as promote sustainability with raw materials from non-deforested areas.

United Kingdom

**AIC**

AIC is engaged in stimulating the safe use of former food products in feed formulations through its support of the UK Former Foodstuffs Processors Association. UKFFPA represents, defends and promotes the interests of the former foodstuff processing industry to UK institutions and stakeholders. The organisation also lobbies for a legislative framework and implementation, without discrimination, within the UK so as to maximise the use of food.
Belgian Feed Association

BFA Sustainability Charter brings its vision to life

The Belgian Feed Association (BFA), which represents the animal feed manufacturers in Belgium, has already been a sustainability champion for a long time.

Back in 2006, BFA initiated the Platform for responsible sourcing of raw materials which contributed to developing a soy sourcing standard. BFA also published an action plan on alternative sources of proteins with the Flemish government. Other key focus areas are for example: the reduction of the use of antibiotics, the use of co-products, avoiding leakage of nutrients to the environment, being a founding partner of Feed Design Lab.

Since 2018, BFA has been developing a long-term vision and involved its key stakeholders in a survey to determine sustainability priorities for the animal feed sector. This was the foundation for the 12 objectives which BFA detailed in its Sustainability Charter for the next 10 years.

The BFA Sustainability Charter not only demonstrates BFA’s continuous engagement towards sustainability, but it also fits perfectly with FEFAC’s Sustainability Charter 2030 and its 5 key ambitions.
For numerous years, there have been societal and political concerns that the use of soy in feed for farm animals is the cause of negative environmental impacts, in particular deforestation. Already since 2006, FEFAC is involved in facilitating responsible sourcing practices of soy to tackle these concerns. A milestone was reached in 2015 with the publication of the FEFAC Soy Sourcing Guidelines. The Guidelines represent a professional recommendation for feed operators and chain partners who wish to source their soy in accordance with the European feed industry’s requirements of responsible production. The Guidelines are FEFAC’s biggest asset in the way forward to tackling soy-related deforestation, implementing good agricultural practice and social standards as well as a means to create transparency in a fragmented market. The main objective is to contribute to the transformation of the mainstream market supply of responsible soy for the European feed and livestock sector.

FEFAC is currently in the process of upgrading its Soy Sourcing Guidelines. There will be a general overall increase in the requirements for responsible soy production with more essential and desired criteria that need to be met. The upgrade will also include a mechanism to deliver on FEFAC’s commitment to market transparency for deforestation-free soy sourcing. For FEFAC it is clear that the challenge to assure a deforestation-free supply chain depends on the sourcing region and the verification requirements should be risk-proportionate. It must be highlighted that the FEFAC Soy Sourcing Guidelines from 2015 already adequately targeted the tackling of illegal deforestation.
FEFAC is committed to upgrading its Soy Sourcing Guidelines by January 2021, thereby contributing to the mainstream market transformation of a responsible, deforestation-free soy supply chain.

FEFAC supports the concept of ‘deforestation-risk exposure analysis’ when it comes to soy sourcing. Despite different media interpretations, it is a fact that the large majority of soy cultivated in the world is not linked to any deforestation concerns. Using TRASE data, the IDH Soy Monitor Report 2018 also supports the view that the share of soy imported to Europe that holds a risk exposure of driving deforestation is fairly low (19%). It is common knowledge that the exposure to deforestation risk is concentrated in certain South American biomes, which require targeted supply chain action to effectively delink the soy sourcing from deforestation. For the moment, FEFAC considers that soy sourced from within Europe or from countries such as the United States, Canada, Ukraine and India is ‘deforestation-free’ due to negligible associated risk, whereas for countries such as Brazil, Argentina and Paraguay additional reassurance, monitoring and verification systems about the absence of a link to deforestation is needed. Contrary to public belief, soy sourced from the Amazon Biome should be considered as having a low deforestation exposure rates, thanks to the Soy Moratorium.

FEFAC is committed to collecting data from the FEFAC membership on the amount of soy used in the feed industry that can be considered responsibly produced and deforestation-free.

FEFAC accepts that the reality of European market demands to deliver deforestation-free supply chains goes beyond compliance with the legal requirements of a producing country. It must be stressed however that requiring legal compliance can be the more valuable strategy to tackle deforestation in a particular region, or even stimulate reforestation. FEFAC highlights that impacts on the ground as regards tackling deforestation fall or stand with the involvement and cooperation of governments and the whole supply chain sector in the producing countries. Many FEFAC members are involved in national round tables to streamline national cross-sector actions to ensure the uptake of responsibly produced soy.

### Responsible Soy Declaration

Since May 2019, the possibility exists for feed companies & national associations to state their voluntary commitment to the Responsible Soy Declaration (facilitated by FEFAC and ITC). As part of their commitment, feed companies agree to take specific actions regarding the sourcing of responsible soybean meal, both from European production and imports from other soy producing countries, for animal feeding purposes at individual company level, meeting the criteria laid down in the FEFAC guidelines. The objective is to contribute to mainstream market transformation of responsible soy products used in compound feed produced in the EU by 2025. As of September 2020, the Responsible Soy Declaration has been signed by AB AGRI, CARGILL Animal Nutrition Europe, Danish Agro, Deutsche Tiernahrung Cremer, DLG, FORFARMERS, SANDERS, NEOVIA, NUTRECO, ROYAL AGRIFIRM, ROYAL DE HEUS, VERONESI and the entire memberships of BFA, DAKOFO and Nevedi.
SKK represents the biggest animal feed producers and traders in the Czech Republic. The organisation is a pioneer in sustainable feed production in Central & Eastern Europe. Inspired by FEFAC, SKK communicates its sustainability goals to its members and prepared its own initiative and national charter on sustainable feed production.

“Countries in central and eastern Europe can only benefit from sustainable feed production. We have a long-standing tradition of tying world-known food production sites such as beer breweries or sugar factories with local agriculture. Local farmers, short distances, optimal by-products usage and circular economy are our attributes we can further exploit. We are at a perfect starting point to move the sustainable feed production even further. SKK works together with the Czech Federation of the Food & Drink Industries as well as with the Ministry of Agriculture to implement various structures of sustainability into the core of our business.”

Mgr. Vladimir Mraz - SKK Representative in the FEFAC Sustainability Committee

SKK recognizes the feed business is at the beginning of a new era of sustainable production. By creating the Czech national charter of sustainability, the participating members and companies are joining forces in order to set a “point zero” from which they can follow leads, inspired by and designed in the FEFAC Feed Sustainability Charter 2030.

The Czech Republic’s beer industry annually produces over 400 000 tons of brewers’ spent grains which are used in the feed industry.

Examples of commitment to action:

- Gather data on sustainable feed production in the Czech Republic
- Evaluate the data and set a standard of sustainable production
- Follow the FEFAC Charter of sustainable production leads
- Regularly evaluate and monitor the development of sustainable feed production in Czech Republic

“It is important we motivate our members to follow these principles of sustainable feed production. Therefore we work closely together with the Federation of the Food and Drink industry on linking feed sustainability with the highly popular system “Produced according to the Czech good manufacturing practices”. This way, the final customer knows that the product he buys was produced in accordance with sustainable production principles.”

BC. Carla Cizova, MBA - Executive Director of SKK
**FEFAC MEMBER ACTIONS**

**Ambition 3**
Promote Responsible Sourcing Practices

**Belgium**
By 2030, all soy used by Belgian animal feed manufacturers (60% in 2022 and 75% in 2025) will comply with the FEFAC Soy Sourcing Guidelines and will meet the FEFAC criteria for ‘deforestation-free’.

**Denmark**
DAKOFO has recently joined the Danish Initiative on Ethical Trade (DIEH) as associated member. DAKOFO is thereby raising awareness of ethical issues related to trading including being a member of the national round table on responsible soy under DIEH.

**France**
EUROFAC is a signatory of the Duralim Charter, which commits French feed companies to reach 100% sustainable supplies for their raw materials, with a deforestation-free target by 2025.

**Germany**
DVT is member of the Sustainable Palm Oil Forum (www.forumpalmoel.org) and is committed to increase the shares of sustainable palm oil used in the German feed industry significantly, starting with milk replacers through company commitments. DVT is also committed to increase the shares of sustainable soy used in the German feed industry by 2025 through signed company commitments.

**Spain**
In June 2020 CESFAC signed a co-funding agreement with IDH (the Sustainable Trade Initiative) to improve the traceability of soy used in the Spanish feed industry. This exercise should facilitate future responsible soy and deforestation-free sourcing strategies.

**Sweden**
F&S is, together with its members, highly committed to work towards a secure, resilient and sustainable supply of soy and palm products. Together with different stakeholders in the food chain we have established “The Swedish Soy dialogue”, with a clear goal that all soy used in the feed and food industry shall be compliant to approved schemes. In the course of the next year, an F&S working committee has a mission to establish a recommendation to the Swedish feed industry regarding the use of sustainable palm products. Of the next year, an F&S working.

**Netherlands**
Nevedi remains a promotor of sustainable sourcing of necessary 3rd country raw materials like soy and palm oil. Committed to 100% conversion-free supply chains, we’ll will work together with the Dutch dairy sector, towards the use of 100% sustainable palm kernel expellers. To broaden market access of sustainable soy, Nevedi engages in developments that value the reduced CFP of conversion-free soy. We are an active member to the Dutch Soy Platform and the Dutch Alliance Sustainable Palm Oil.
AIC promotes the development of deforestation free supply chains in the UK. Representing the UK feed industry, AIC was one of the founding members of the UK Roundtable on Sustainable Soya. The Roundtable brings together significant players in the UK soya market, providing a pre-competitive space for parties to work together to achieve a shared goal of a secure, resilient, sustainable supply of soya to the UK.

AIC is committed to assuring that the use of soybean meal in feed production is in line with the criteria of the FEFAC Soy Sourcing Guidelines. AIC are actively involved in the development of the FEFAC Soy Sourcing Guidelines and support the introduction of voluntary deforestation free sourcing criteria. The FEMAS Module for Responsible Procurement of Agricultural & Natural Products and associated schedules is a standard successfully benchmarked to the current FEFAC Guidelines and we will continue to ensure the standard complies with the FEFAC Guidelines to be introduced in 2021.
Ambition 4

Contribute to Improving Farm Animal Health & Welfare

Antimicrobial Resistance (AMR) is of high societal and political importance due to its significant impacts on human and animal health and well-being. Animals are recognized in the “One Health” concept as one of the reservoirs of antimicrobial resistance, which justifies a prudent use of antimicrobials. In this light, an aspirational target of reducing overall EU sales of antimicrobials for farmed animals and in aquaculture by 50% by 2030 is included in the EU Farm to Fork Strategy Communication. FEFAC supports the “One Health” strategy of the EU and participates proactively in initiatives aiming at reducing the use of antibiotics in livestock and companion animals along the principle “as much as needed, as little as possible”. In line with this slogan, FEFAC is an active member of the European Platform for the Responsible Use of Medicines in Animals (EPRUMA). It should also be highlighted that the EU ban of the use of antibiotics for growth promoting purposes in 2006 does not allow the use of any antibiotic growth promoters in feed.

In the first instance, all factors that can compromise the health of a farm animal need to be neutralised. Provision of safe and appropriately formulated feed is, together with controlled farm housing conditions and hygiene management, a prerequisite that contributes already to a minimization of the need for antibiotics. To this end, FEFAC and several members have developed tools for the collective monitoring of feed contaminants. The spread of animal diseases such as African Swine Fever and Avian Influenza have also put a focus on the need to further strengthen biosecurity measures along
Nevedi 2020-2025 vision for a sustainable and competitive Dutch feed industry

In November 2019, Nevedi published its vision 2020 – 2025; “Feed for supply chain co-operation”. Nevedi has 92 members, producing 12 million tonnes of compound feed annually, representing 95% of the Dutch compound feed market.

Built around four major themes, ‘sustainable food chains’, ‘animal feed production for healthy and safe food’, ‘circular agriculture’ and ‘labour’, sustainability is at the heart of our vision. Together with our upcoming position on circular agriculture, which we developed as reaction to our Ministry’s vision on circular agriculture “Agriculture, nature and food: valuable and connected”, it serves as a solid foundation for our national commitments.

“The Dutch Feed industry is going to play an important role the coming years to achieve circular agriculture in The Netherlands, in close cooperation with chain partners, governments and civil society. We strive for circular agriculture that in practise must be competitive and reinforces the innovation potential of the Dutch feed industry.”

Henk Flipsen
Director Nevedi
the whole livestock chain. Also here many FEFAC members already have developed detailed guidelines, in this case to ensure pathogen control at feed factory level and when feed visiting farms.

**FEFAC is committed to continue stimulating the uptake of Good Hygiene Practice all along the feed chain and to keep its guidance on biosecurity updated with a view to assist operators in the feed industry to set up a biosecurity plan.**

There is an increasing body of scientific literature pointing to the role of animal feed to improve the animal’s readiness and resilience to cope with microbiological challenges and thereby reduce the need for antibiotic treatments. The European Food Safety Authority and the European Medicine Agency in their RONAFA report from 2016 emphasise that the interaction of nutritionally-balanced feed with the gut is a key factor for animal health and can, therefore, impact the need for veterinary treatment with antibiotics. This was also acknowledged by the European Commission in its AMR Action Plan.

By no means is animal nutrition meant to treat or cure sick animals and the veterinarian should always remain the primary advisor assisting livestock farmers in the management of the health status of the animals. However, adequate animal nutrition strategy, combined with good hygiene practices on the farm and proper housing are key elements to increase the ability of animals to cope with external stressors (so-called tertiary prevention). FEFAC seeks therefore for a multidisciplinary approach involving in particular the animal nutrition expertise in the design of the farm health management plans.

Enhanced animal nutrition is part of the equation. Innovative feeding strategies involving new nutritional approaches and/or functional (macro and micro) nutrients are highly effective to support the animal resilience to stressors. The interaction of feed with the gut microbiota is a key factor for maintaining animal health. Already today, a growing number of publications demonstrate that the ability of the animal to control pathogens in the gut is enhanced thanks to specific constituents with effect on microbiota or specific processes: it has been shown that moderate amounts of fibre in poultry feed improves enzyme production and nutrient digestibility. Likewise, specific products like organic acids, probiotics, prebiotics and trace-elements have proven to exert a positive effect on the intestinal microbiota. Feed processing technology, with its impact on the particle size of feed, can influence gut microbiota and the coarse grinding of cereal feed is known as a way to control the multiplication of Salmonella in the gut, via the competitive microbial exclusion mechanism.

There is still need to further study the interlinkages between feed and the animal’s microbiome, gut and immune function. Animal health and well-being (and as a result, animal performance) is related to a proper balance of those domains. This new paradigm, often referred to as ‘eubiosis’, implies that no intervention can be effective without attempting to understand the interactions between them.

Next to genetics and housing, feed can also have a positive impact. Animal welfare challenges, such as tail-biting in pigs and the feather pecking in chickens are problems that can arise for livestock farmers. Research into existing and new feeding strategies is ongoing to tackle these issues. FEFAC provides, for example, its expertise as an adviser to EU authorities concerning feeding strategies to mitigate the impact of the non-castration of piglets as a member of the Advisory Group of the EU Reference centre for the Welfare of Pigs.
By 2030, we strive to reduce the production of antibiotic-medicated feed to 0%. This will be achieved thanks to the step-by-step plan: 65% by 2022 and 75% by 2024. This compared to reference year 2011. All BFA members will implement the biosafety protocol for poultry and pigs evaluated annually. BFA will produce a brochure for all employees of the animal feed industry, from drivers to representatives.

Animal health and welfare is of utmost importance. No later than 2022 the use of Zinc oxide for the weaning of piglets must be phased out. The Danish feed industry is committed to develop and implement feed solutions that support healthy weaning of piglets – without the use of Zinc oxide and without increased use of antibiotics (at weaning).

EUROFAC takes an active part in the French reduction plan of the use of antibiotics in livestock farming, ECOANTIBIO. This has helped to decrease the exposure of farm animals to antibiotics via medicated feed by 72.5% since 2011. The French Scientific Council will publish by the end of 2020 a summary of the main contributions of animal nutrition to the fight against antibiotic resistance.

EUROFAC, for its dietetic feed sector, supports and coordinates working groups in charge of drafting the dossiers of several dietetic feed (particular nutritional purpose); specific feeds for animals whose process of assimilation, absorption or metabolism is, or could be, temporarily or irreversibly impaired and who can therefore benefit from the ingestion of feed appropriate to their condition.

NEVEDI supports the responsible use of veterinary medicine, so that the route to reduction of the use of veterinary medicine can continue. We aim to make the best feed possible, with the best ingredients possible. We commit to realistic frameworks for the development and (re-)authorisation of essential feed additives and contribute to research that will lead to progress in the field of animal health and welfare.

AIC is taking action to highlight the need to include a “feed chapter” in the national AMR action plans. In late 2021, AIC is launching a set of CPD modules for Feed Adviser Register members to complete in order to maintain their FAR professional qualification.
Compound feed and premixtures manufacturers are an integral part of the rural landscape, in the close presence of livestock and fish farmers. Feed producers share the same socio-economic environment with them, and these areas often offer few job opportunities. The compound feed sector is an input provider to the livestock farmers, but in essence there is a mutual dependence as regards resilience and competitiveness. In this context, it is vital for operators along the livestock production chain to be profitable while producing for the mainstream market. Organic and other niche markets can allow for diversity and a better return on investment in innovative solutions, but modern, technology-driven livestock production meeting generally accepted sustainability criteria must have its place in today’s and the future’s consumer society.

The COVID-19 crisis that we have been enduring this year, with its particular challenges to supply food to shops and supermarkets for the consumers, has shown the importance of safeguarding food security. Feed producers and the supply chains they are connected to have shown strong resilience and an impressive ability to adapt to the new public health challenges. Vital feed supplies to farms as well as affordable foodstuffs of animal origin to consumers were secured. Livestock farmers and final consumers were able to rely on an uninterrupted access to healthy, affordable, safe feed and food supply, preventing any serious stockpiling or panic buying. We are proud to pay tribute to all workers, whether operating in feed mills or drivers, for their commitment and application of the additional safety requirements. It is partly thanks to our experience in the implementation of biosecurity measures...
that has helped with managing successfully some of the difficult logistic supply chain and processing conditions at feed mill level, showing the importance of maintaining this.

While the COVID-19 crisis showed some of the food and feed supply chain’s strengths, it also laid bare some systemic weaknesses in terms of assuring the strategic raw material supply for the European livestock sector. The import dependency, particularly on vitamins and amino acids, shows that efforts need to be made to boost production in Europe of these compounds that are essential for animal welfare, as a means to better ensure the livestock sector’s resilience. Decreased reliance on imports for the feed sector’s protein needs is also a key element here. FEFAC supports the efforts to make EU-based alternative protein ingredients available (when authorised), such as single cell proteins, algae, insects, yeasts, biomass or processed animal proteins of porcine and avian origin (no BSE risk). For the competitiveness of the livestock sector, it is also key for the sector to be able to benefit from what the most innovative science has to offer, such as new genomic techniques in plants to help improve competitiveness and availability of plant-based sources in the EU with high protein (30-50%) content.

The European feed industry wants to take good care of its employees, providing a safe, attractive and pleasant working environment. A core activity of FEFAC members is the development and dissemination of training and guidance. The industry’s ability to handle and manage risks, which would not need to be managed by the livestock farmer, is a crucial service of added value. For example, for the handling of particular substances, the livestock farmer is able to count on the feed manufacturer’s advanced processing technology. Guidance on managing occupational hazards at feed manufacturer level is therefore key.

In November 2019 the European Commission published the Best Available Techniques for the Food, Drink and Milk Industry (BREF - FDM), which requires compound feed manufacturers that process more than 300 T of vegetable raw materials or 75 T of animal raw materials per day to by December 2023 implement a certain set of techniques to in particular control for dust emissions and energy efficiency.

Working in the feed industry provides an opportunity to blend science, care for the environment, be on the edge of digitalisation and data management and manage global impacts, whilst providing food for the population of tomorrow. It is key to openly promote working in the feed industry as a good career choice for young people. FEFAC members and feed companies work with universities to offer opportunities for students to opt for studying animal nutrition science. At the same time, several FEFAC members have an active work plan to engage with the young feed professionals that are active in the sector, for example by involving them actively in the work of the trade associations.

Improving the resilience of a sector remains a joint private/public responsibility. Professional sectors must to be able to draft a vision and identify research gaps to achieve their objectives, so public authorities can bring their support to generate the missing knowledge. The Animal Task Force is highly effective in bringing together scientific experts in many different zootechnical disciplines from the industry and research institutes across the EU to define the roadmap and propose concrete research topics to the European Commission. As a member of the Animal Task Force, FEFAC will keep contributing to the necessary knowledge generation on behalf of the European feed industry that is essential to support a scientifically sound transition towards more sustainable food safety systems.

FEFAC is committed to communication initiatives to counter misinformation about the livestock sector, in particular untruths about animal feed production.

The social environment of the livestock sector and the people who are employed in it, is also determined by society’s perception. In this sense, the livestock sector, at global level, has been suffering from sustained ‘agri-bashing’, with certain social movements steadfast on placing the sector in a negative light through unconstructive public campaigns. A key communication initiative FEFAC has been involved in is the European Livestock Voice, launched in 2019 to tackle misinformation about livestock farming. It is up to all actors in the livestock production chain to prove their value to society and show their ambitions for continuous improvement, such as FEFAC is doing now with its Feed Sustainability Charter 2030.
Belgium

Occupational Safety objective: BFA will update the occupational safety manual (2021) and organize training for its members. By 2022, BFA will develop a system to monitor the number of accidents at work. By 2030, the Belgian animal feed industry will reduce the number of accidents at work in the sector by 10% compared to 2022.

The members of BFA remain committed to reducing annual emissions of nitrogen (N) and phosphorus (P2O5) in the environment. They will achieve this by producing a minimum of 3 million tons of feed for pigs and poultry in line with the low-nutrient covenant. The agreement with the Flemish government limits the amount of N and P2O5 in feed.

France

EUROFAC has developed in partnership with TECALIMAN an observatory of occupational health in order to better identify the risks for employees and develop prevention tools. A first kit to raise drivers’ awareness of safety during deliveries to livestock farms is already operational.

EUROFAC supports the development of initial and continuing training programmes adapted to the needs of the livestock industry and its farmers. An innovative training programme for technical sales representatives was launched in September 2019. An ongoing training programme for employees aimed at facilitating worker’s mobility within the company is currently being developed.

Ireland

IGFA recently launched an accessible, affordable, online training course on Feed Legislation and HACCP that was made available through the Irish Young Farmers learning and training network. We will develop similar courses on Feed labelling, Climate Change and Animal Nutrition throughout 2020 and 2021.

Italy

Assalzoo actively works on attracting young people to work in the feed industry. Assalzoo each year gives awards to a Bachelor thesis and a Doctorate thesis that have shown to be of value to the interests of the feed sector.

Assalzoo also launched the “WeFeed” project to attract students to embark on a career in the feed industry. Assalzoo signed a protocol with the Agricultural Confederation to foster the cultivation of Italian maize in order to reduce the dependence from imported raw materials.

Germany

DVT gives free lectures at universities on topics such as feed safety, climate protection and sustainability to stimulate the dissemination of necessary practical knowledge.

DVT has launched the website Futterfakten to provide factual information about how compound feed is produced and what kind of feed ingredients are used.
Netherlands

The animal feed sector is an important factor in the livelihood of rural areas. We therefore put effort into strengthening the image of the feed industry as an attractive and committed employer. Nevedi sponsors the BSD foundation that provides scholarships for students who choose a study in animal nutrition.

Portugal

IACA has been developing feed regulation courses together with Portuguese control authorities (DGAV) since 2018, aimed at training all employees in the feed sector as well as agri-stakeholders on the fundamentals of feed legislation. Four editions of the course have already been given and another edition is programmed for 2021.

Spain

CESFAC has developed guidance to stimulate occupational risk prevention, with the goal to minimise risks related to working in feed mills and promote an overall safer working environment. CESFAC also wants to provide educational material that appeals to all feed mills to stimulate the promotion of good working practices in occupational risk prevention.

United Kingdom

AIC has established a forum for younger professionals to engage in executive decisions surrounding proactive and positive industry messaging, education about food production, the use of social media platforms to disseminate positive messages and key facts and to take a lead in demonstrating how a sustainable feed industry can be delivered.

AIC is committed to stimulating the professional knowledge in the feed sector by making training courses available. The Feed Adviser Register (FAR) provides a framework for the professional development of advisers and gives independent assurance to farmers and customers that they are receiving high quality advice from a competent professional.
FEFAC MEMBERS SIGNATURES TO THE FEED SUSTAINABILITY CHARTER 2030

ZFÖ (Austria)
Verband der Futtermittelindustrie Oesterreichs
Katharina Kossdorff, Director

BFA (Belgium)
Belgian Feed Association
Dirk Van Thielen, President

BFMA (Bulgaria)
Bulgarian Feed Manufacturers Association
Atanas Bozhkov, Chairman

CAFM (Cyprus)
Cyprus Association of Feed Manufacturers
George Katodritis

SKK (Czech Republic)
Commodities & Feed Association of the Czech Republic
Zdeněk Kubiska, Chairman of the Board

DAKOFØ (Denmark)
Danske Korn- og Foderstof- IM- og Eksportørers Fællesorganisation
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HGFA (Hungary)
Hungarian Grain & Feed Association
Zsofia Potsa, Secretary General

IGFA (Ireland)
Irish Grain & Feed Association
Maeve Whyte, Environment Adviser

ASSALZOO (Italy)
Associazione Nazionale tra i Produttori di Alimenti Zootecnici
Lea Pallaroni, Secretary General

LGPA (Lithuania)
Lithuanian Grain Processors and Traders’ Association
Dalia Ruščiauskienė, Director

Nevedi (Netherlands)
Nederlandse Vereniging Diervoederindustrie
Henk Flipsen, Director
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