EFG
European Fermentation Group
A sector group of Cefic

Position Paper
April 2025

Sky-high EU sugar import tariffs and their negative impact on the EU fermentation industry

Summary

The European Fermentation Group (EFG) highlights the critical role of the fermentation industry in producing essential bio-based chemicals, including enzymes, vitamins, amino acids, and Active Pharmaceutical Ingredients (APIs) such as antibiotics (e.g., penicillin) necessary for both human and animal health. Fermentation primarily utilises sugars[1] as a raw material.

Despite its importance, the international competitiveness of the EU fermentation industry is severely jeopardised by exorbitant EU MFN import tariffs on sugar, amounting to 419 €/ton[2] for raw sugar not used for refining. These tariffs, combined with high production costs, stricter environmental regulations, and less favourable climate conditions, nearly double the price of European sugar compared to the global market. This lack of competitive sugar supply has led to reduced capacity and closures of fermentation plants, with no new investments being made within the EU.

Consequently, the EU has become increasingly dependent on imports of fermentation products from countries such as China, the US, Canada, and Brazil, thereby threatening the domestic supply of critical ingredients like penicillin and vitamins. Addressing these sugar supply challenges is crucial for maintaining the competitiveness and sustainability of the European fermentation industry and scaling up the bioeconomy.

To resolve this issue, the EU should consistently remove import tariffs on sugar designated for fermentation feedstock. EFG's proposal:

- Negotiate a specific duty-free tariff rate quota (TRQ) for sugar intended for the fermentation industry in all ongoing trade agreement negotiations with countries capable of providing a consistent and stable supply of sugars, such as Ukraine or Thailand.
- The TRQ should total a minimum of 400 kton[3] of raw sugars per year to consistently cover the demand for the EU fermentation industry.

[1] Sugars = White and raw sugar (from beet or cane), molasses, and glucose (hydrolyzed starch from cereals and other crops)
[2] COMMISSION IMPLEMENTING REGULATION (EU) 2024/2522 of 23 September 2024 amending Annex I to Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff– Chapter 17
[3] Based on fermentation industry demand in 2022.

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Fermentation is one of the key biotechnological processes for the bio-based industry. It offers sustainable, versatile, and scalable solutions to produce key bio-based chemicals, including enzymes, vitamins, amino acids, and APIs like antibiotics. These products are vital for both human and animal health and underpin many industrial value chains. Additional examples of important applications can be found in Annex I.

Fermentation processes require a suitable feedstock as a substrate for microorganisms. Although various feedstocks can, in principle, be used, including agricultural waste and industrial by-products, sugars (mostly raw sugar) are commonly chosen due to their availability, established supply chain, cost-efficiency, yield potential, effective metabolization by microorganisms, and compatibility with different industrial processes. These factors make sugar the preferred choice for large-scale fermentation.

To meet the increasing demand for fermentation products and raw materials supporting biomanufacturing, the EU must urgently address the pressing issue of sugar supply, as the availability is currently limited, and price levels are not internationally competitive. Production costs, environmental regulations, and climate conditions also influence the competitiveness of the fermentation industry. Competitively priced sugar imports could therefore help address the critical situation. However, the sky-high EU MFN import tariff for sugar (419 €/ton[4] for raw sugar not used for refining) restricts the sourcing from other regions. As a result, as shown in Annex II, sugar and glucose prices in the EU are consistently higher than those on the global market. The level of EU sugar tariffs is therefore a key driver for the EU's fermentation industry competitiveness on the EU market, especially as it competes against third countries' imports of final products that benefit from lower sugar and energy costs and, as summarised in Annex III, face very low or no import tariffs in the EU.

Consequently, the EU fermentation industry is facing significant challenges. Several plants have already reduced their production capacity or closed entirely. Additionally, the EU faces a shortage of new investments, which further jeopardizes the long-term viability of this key industrial sector. This is leading already today to increased dependence on imports of fermentation products and bio-based chemicals from third countries such as China, the US, Canada, and Brazil. A detailed overview of the trade balance for key fermentation products, illustrating the scale of the issue, can be found in Annex IV.

While short-term solutions may offer temporary relief, long-term strategies are required to ensure business stability and predictability. Addressing these sugar supply challenges is therefore essential for maintaining the competitiveness and sustainability of the European fermentation industry. To this end, the EFG proposes the following policy options.

Remove import tariffs for sugar that is imported for use as fermentation feedstock. To this end, negotiate a specific duty-free tariff rate quota (TRQ) reserved for the EU fermentation industry in all upcoming trade agreements with countries capable of providing a consistent and stable supply of sugars, such as Ukraine or Thailand. Further details of relevant countries are reported in Annex

[4] Ibid 2

V. The quota should total a minimum of 400 kton[5] of raw sugars per year. This would consistently cover the minimum demand for the EU fermentation industry. We would, however, like to note that this consumption could significantly increase in case industrial fermentation capacity is again ramped up or reopened in the EU. EFG would also highlight the precedent of the TRQ for sugar refining, which amounts to approximately 370 kton (for 2025/2026) at 98 €/ton[6].

Reducing the import duty on raw sugar when used as feedstock for fermentation will allow the creation of a level playing field with third countries, trigger investments in the EU for new production plants and/or extension of existing capacities, and ultimately contribute to the growth of the EU Bioeconomy and the resilience of EU industry.

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About the European Fermentation Group (EFG)
EFG is the voice of the European fermentation industry vis-à-vis EU institutions, national governments, and civil society. The main objective of the EFG is to ensure that EU policies promote the competitiveness of the fermentation industry contributing to the development of a sustainable European bioeconomy. Our companies mainly produce citric acid, lactic acid, vitamins, amino acids for animal feed and penicillin for antibiotics.

[5] Ibid 3

[6] Commission implementing regulation (EU) 2020/761 of 17 December 2019 laying down rules for the application of Regulations (EU) No 1306/2013, (EU) No 1308/2013 and (EU) No 510/2014 of the European Parliament and of the Council as regards the management system of tariff quotas with licences.

Annex I – Examples of key molecules obtained via fermentation and their use

Essential amino acids

Essential amino acids, such as lysine, are produced through fermentation and are crucial dietary nutrients since they cannot be synthesised by mammals. The European Union currently experiences a protein deficit, and as emphasized in the EU protein strategy[7], addressing this issue requires reducing the livestock sector's reliance on imported soybean protein from non-EU countries. This objective can be accomplished by increasing the supply of amino acids produced via fermentation.

Organic acids

Organic acids produced by fermentation play a major role in several applications like food processing (e.g., as anti-oxidants), pharmaceutical applications (e.g., in effervescent tablets), and packaging (lactic acid is the monomer yielding the biodegradable bio-based plastic Polylactic acid (PLA).

Enzymes

Enzymes are produced via microbial fermentation and have countless commercial applications. Examples include enzymes like protease, used in the dairy industry (e.g., curdling milk); lipase, used in detergents; streptokinase, used in the pharmaceutical sector as an anti-blood clotting; and glucose isomerase, used to manufacture fructose syrups.

Without them, industrial processes would be far less efficient, lead to a greater environmental impact, or even become impossible altogether.

[7] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - Safeguarding food security and reinforcing the resilience of food systems - COM(2022) 133 final – 23.03.2022

Annex II - The European sugar market

The current EU sugar trade architecture is the result of a complex series of previous agreements made by the EU and its Member States that include Tariff Rate Quotas (TRQ) resulting from agreements under WTO rules (EU Schedule), Free Trade Agreements (FTAs) signed by the EU and the European Partnership Agreements with ACP Countries (EPA) as well as the "Everything but Arms" (EBA) initiative for Least Developed Countries. For all other imports, the EU's Most Favoured Nation (MFN) duties apply. These are 419 €/ton for raw sugar for uses other than refining (the import duty on the latter is 339 €/ton), which de facto limits imports.

When tracking sugar market prices of relevance for the fermentation industry, two different benchmarks are of importance:

- White sugar. The reference price is represented by the so-called London #5
- Raw sugar. The reference price is represented by the so-called New York #11.

Industrial sugar prices are no longer tracked after the end of the sugar regime in 2017.

The difference between white sugar and raw sugar is that the latter is not refined and contains a variety of nutrients that are beneficial for the fermentation process.

While raw sugar is the preferred feedstock, the fermentation industry can also use glucose (hydrolysed starch). This is common in the US, Canada, China, and Thailand. Prices for these alternative feedstocks are considerably lower outside the EU.

The plot in Figure 1 shows the evolution of sugar prices in the EU and on the world markets from 2006 until February 2025 and highlights the price difference between the EU and world market prices, which has been at least 200 €/ton over the last 3 years.

It is important to note that fermentation facilities in countries such as Brazil benefit from nearly continuous access to raw sugar from sugar factories, as well as reduced feedstock prices. This advantage arises from the differing harvest seasons between sugar cane and sugar beet; sugar cane is harvested almost year-round, while the sugar beet harvest season is comparatively shorter.

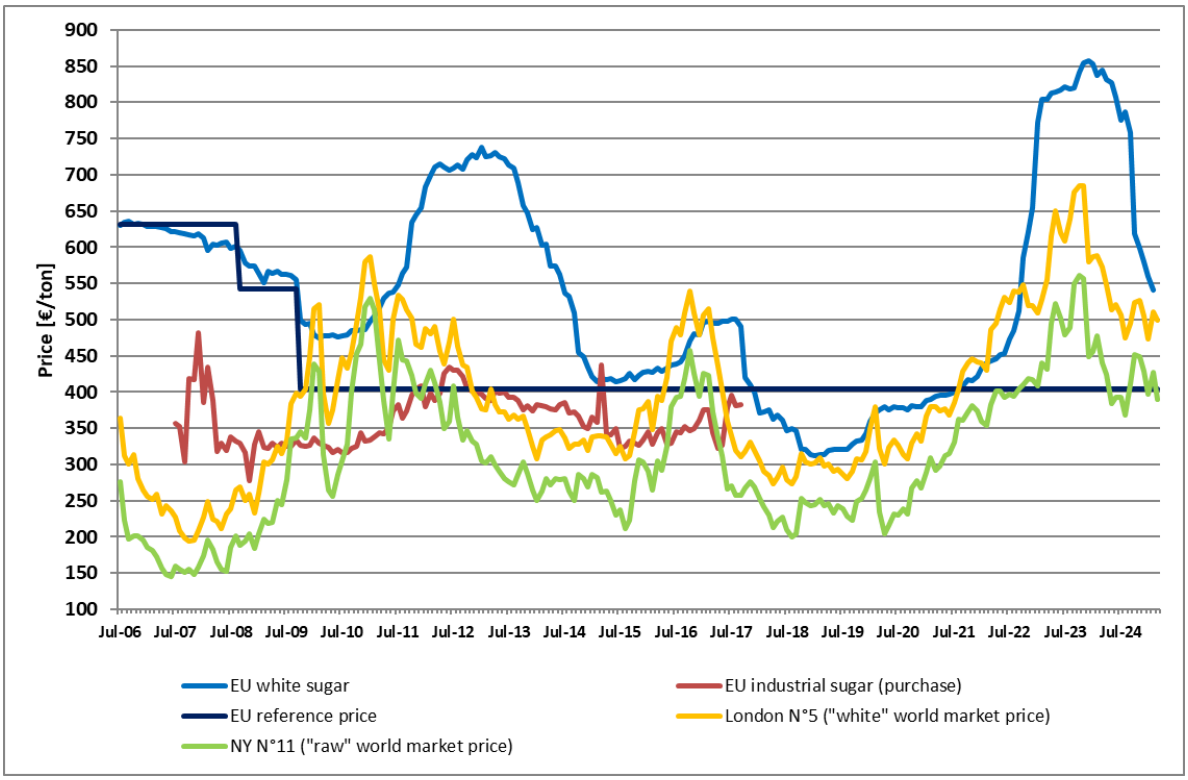

Figure 1 *– Comparison of EU sugar prices with world market prices. EU industrial sugar is not tracked after 2017. Cefic elaboration of data based on DG Agri and USDA data. Prices are in €/ton.*

Annex III – Overview of custom codes for key molecules made by fermentation of sugars

Table 1 presents the conventional rate of duties for importing relevant finished products of the fermentation industry [8], represented by EFG. Other products are also manufactured by fermentation, but are not reported here since they are not represented by EFG.

Table 1 *- Overview of relevant products of the fermentation industry along with their CN codes, and conventional rate of duties for imports in the EU.*

CN Code	Description	Conventional rate of duty (%)
1302 31 00	Agar-agar, whether or not modified	Free
2918 11 00	Lactic acid, its salts and esters	6,5
2918 14 00	Citric acid	6,5
2918 15 00	Salts and esters of citric acid	6,5
2922 41 00	Lysine and its esters; salts thereof	6,3
2922 42 00	Glutamic acid and its salts	6,5
2922 49 85	Amino-acids and their esters; salts thereof (excl. those containing > one kind of oxygen function, lysine and its esters, and salts thereof, and glutamic acid, anthranilic acid, tilidine (INN) and their salts and beta-alanine)	6,5
2925 29 00	Imines and their derivatives; salts thereof (excl. chlordimeform (ISO))	6,5

[8] COMMISSION IMPLEMENTING REGULATION (EU) 2024/2522 of 23 September 2024 amending Annex I to Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff

2933 99 80	Heterocyclic compounds with nitrogen hetero-atom[s] only (excl. those containing an unfused pyrazole, imidazole, pyridine or triazine ring, whether or not hydrogenated, a quinoline or isoquinoline ring-system, not further fused, whether or not hydrogenated, a pyrimidine ring, whether or not hydrogenated, or piperazine ring in the structure, lactams, alprazolam (INN), camazepam (INN), chlordiazepoxide (INN), clonazepam (INN), clorazepate, delorazepam (INN), diazepam (INN), estazolam (INN), ethyl loflazepate (INN), fludiazepam (INN), flunitrazepam (INN), flurazepam (INN), halazepam (INN), lorazepam (INN), lormetazepam (INN), mazindol (INN), medazepam (INN), midazolam (INN), nimetazepam (INN), nitrazepam (INN), nordazepam (INN), oxazepam (INN), pinazepam (INN), prazepam (INN), pyrovalerone (INN), temazepam (INN), tetrazepam (INN), triazolam (INN), salts thereof, indole, 3-methylindole "skatole", 6-allyl-6,7-dihydro-5H-dibenz"c,e"azepine "azapetine", phenindamine (INN) and their salts, imipramine hydrochloride "INNM", 2,4-di-tert-butyl-6-"5-chlorobenzotriazol-2-yl"phenol and azinphos-methyl (ISO))	6,5
2936 21 00	Vitamins A and their derivatives	Free
2936 23 00	Vitamin B2 and its derivatives	Free
2936 24 00	D-Pantothenic or DL-pantothenic acid "Vitamin B5" and its derivatives	Free
2936 27 00	Vitamin C and its derivatives	Free
2936 29 00	Vitamins and their derivatives, used primarily as vitamins, unmixed (excl. vitamins A, B1, B2, B3, B5, B6, B12, C, E and their derivatives)	Free
2936 90 00	Other provitamins and mixtures of vitamins, of provitamins or of concentrates, whether or not in any solvent, and natural concentrates	Free
3203 00 10	Dyes of vegetable origin, incl. dye extracts, whether or not chemically defined; preparations based on dyes of vegetable origin of a kind used to dye fabrics or produce colorant preparations (excl. preparations of heading 3207, 3208, 3209, 3210, 3213 and 3215)	Free
3913 90 00	Natural polymers and modified natural polymers (for example, hardened proteins, chemical derivatives of natural rubber), not elsewhere specified or included, in primary forms, excl. alginic acid, its salts and esters	6,5

Annex IV – Trade balance for key molecules produced by fermentation of sugars (amino acids, organic acids, vitamins)

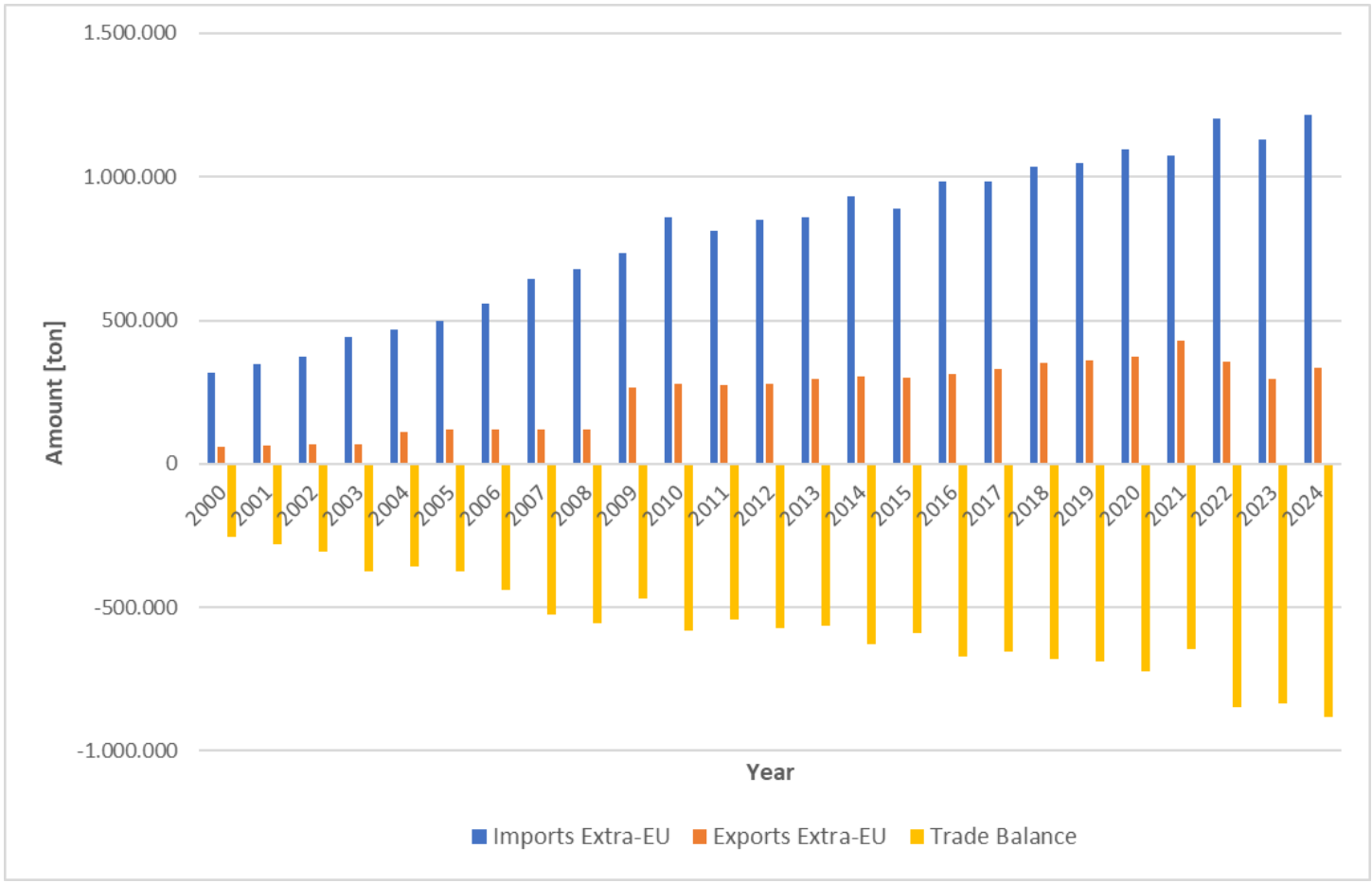

Figure 2 *– Overview of the trade balance evolution from 2000 to 2024 for key fermentation molecules: amino acids, vitamins, and organic acids. Data are aggregated for the 3 molecule classes. Cefic own elaboration of data based on the EuroStat database.*

Annex V – Overview of custom codes and conventional rate of duties

Table 2 presents the conventional rate of duties for importing raw materials used in the fermentation industry. To provide context, Regulation (EU) 2020/761 sets forth certain community tariff quotas in the sugar sector. Under order number 09.4318—WTO sugar quotas in the TRQ periods from 2025/2026—a quota of 364.000 tons of sugar imports designated for refining is set at a rate of 98 €/ton.

Outside of this quota, the refining tariff increases to 339 €/ton, which is still lower than the tariff applied to sugar intended for other uses, such as those required by the fermentation industry, at 419 €/ton.

Table 2 *– Overview of relevant raw materials for the fermentation industry, along with their CN codes, conventional rate of duties, and relevant countries capable of supplying them consistently. Raw materials in bold font represent the ones most frequently used for fermentation.*

CN code	**Description**	**Conventional rate of duty (%)**	**Relevant countries** with significant export capacities to the EU
1005 90 00	**Maize (corn), other**	**94 €/t**	**US, Brazil, Argentina**
1108 11 00	Wheat starch	224 €/t	
1108 12 00	**Maize (corn) starch**	**166 €/t**	**US, Ukraine**
1108 13 00	Potato starch	166 €/t	
1108 14 00	**Manioc (cassava) starch**	**166 €/t**	**Thailand**
1108 19 10	Rice starch	216 €/t	
1108 19 90	Other starches	166 €/t	
1701 12 90	**Beet sugar**	**419 €/t**	**Ukraine**

1701 13 90	**Cane sugar**	**419 €/t**	**Brazil**
1701 14 90	**Other cane sugar**	**419 €/t**	**Brazil**
1701 99 10	**White sugar**	**419 €/t**	
1701 99 90	**Other sugar**	**419 €/t**	
1702 30 50	**Glucose & glucose syrup, not containing fructose or containing in the dry state < 20% by weight of fructose & in the form of white crystalline powder, whether or not agglomerated**	**268 €/t**	**US, China**
1702 30 90	**Other glucose and glucose syrup, not containing fructose or containing in the dry state less than 20% by weight of fructose**	**200 €/t**	**US, China**
1702 40 90	**Other glucose & glucose syrup containing in the dry state at least 20% but less than 50% by weight of fructose, excluding invert sugar**	**200 €/t**	**US, China**
1702 50 00	Chemically pure fructose	16% + 507 €/t	
1702 60 80	Inulin syrup	40 €/t	
1702 60 95	**Other fructose & its syrup, containing in the dry state > 50% by weight of fructose, excluding invert sugar**	**40 €/t**	
1702 90 10	Chemically pure maltose	12.80%	
1702 90 50	Maltodextrine and maltodextrine syrup	200 €/t	
1703	**Molasses**	**3,5 €/t**	**Brazil, Thailand,**