



MARKET INSIGHTS

Spanish ports showcase their advantages to the competitive fruit and vegetable industry¹

Spanish ports strengthen their role as strategic allies of the competitive fruit and vegetable industry, consolidating themselves as essential links in the export logistics chain. With more than 100 million square meters of land area, nearly 2 million cubic meters of refrigerated storage capacity, and 395,000 linear meters of quays, the national port system offers top-tier infrastructure for the international trade of perishable goods.

In 2024, Spanish ports handled 11.3 million tons of fruits and vegetables, mainly concentrated in Algeciras, Valencia, and Las Palmas. In addition to their operational capacity, the ports are advancing in sustainability through the electrification of docks, the implementation of Onshore Power Supply (OPS) systems, and the improvement of energy efficiency, reinforcing their commitment to decarbonization and the European Green Deal.

These investments consolidate Spain's position as a Mediterranean and Atlantic logistics platform serving the agri-food sector.

Analysis by the Fundación Valenciaport

The Agricultural Sector in the European Union: Characterization and Foreign Trade

The European agri-food sector constitutes a strategic pillar for the economic stability, social cohesion, and environmental sustainability of the European Union. It encompasses everything from agricultural and livestock production to industrial processing and distribution, forming an integrated value chain that ensures a stable supply of safe and high-quality food. In addition to its economic weight, it acts as a driving force for territorial and demographic cohesion, sustaining much of the employment and activity in rural areas.

In recent years, European agriculture has undergone a profound transformation driven by digitalization, technological innovation, and the ecological transition. In this regard, the modernization of production systems, the efficient management of natural resources, and adaptation to climate change have become strategic priorities within the framework of the European Green Deal and the "Farm to Fork" Strategy.

By way of context, in 2024, agriculture and the agri-food industry of the European Union generated around €234.1 billion, equivalent to 1.3% of the bloc's total GDP, according to Eurostat. This performance consolidates the sector as a key player on the international stage. In the same year, the bloc exported €496.776 billion in agri-food products and imported €487.543 billion, resulting in a trade surplus of €9.233 billion. However, in terms

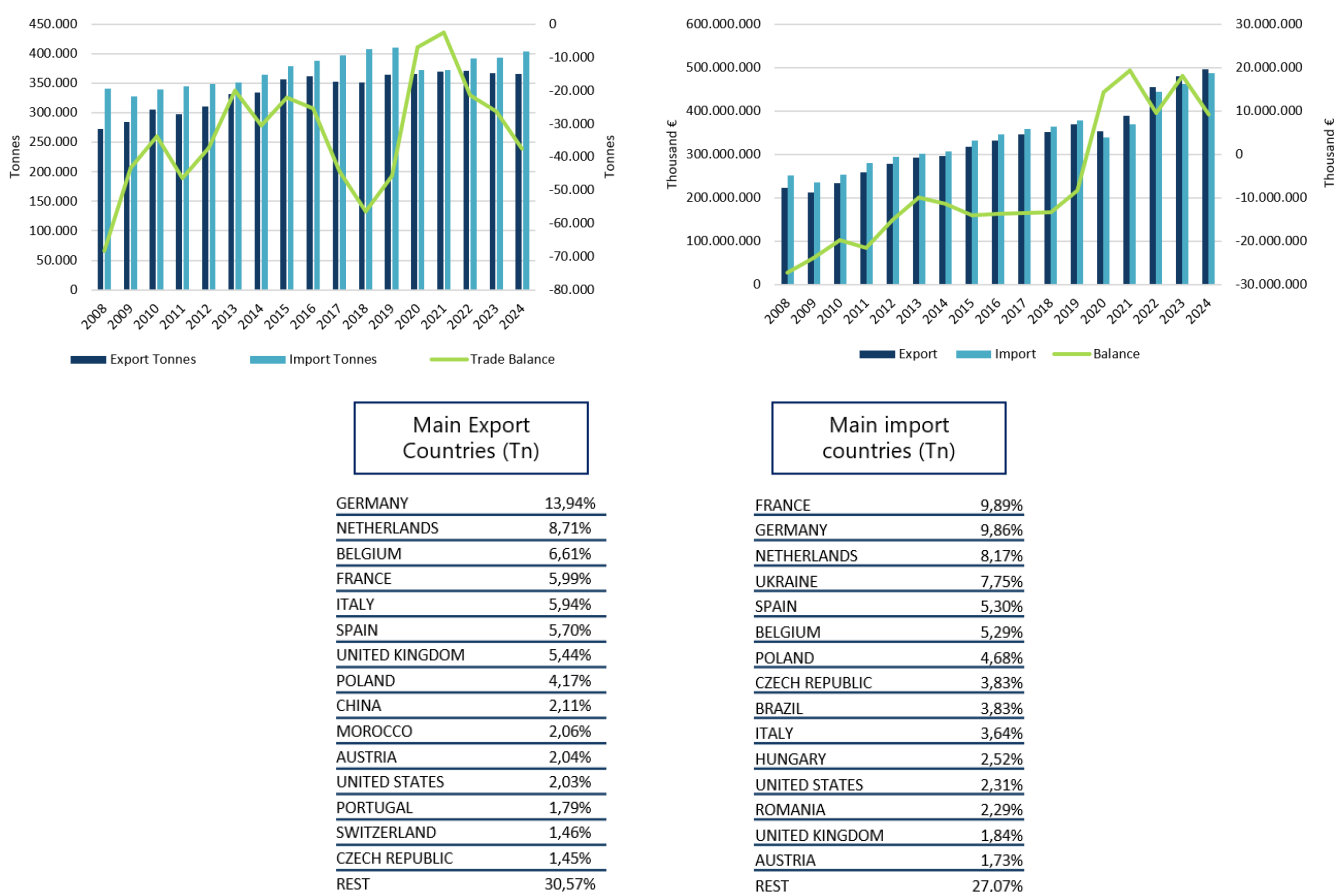
¹ Original news published by "El Canal Marítimo y Logístico" and available at: <https://www.diarioelcanal.com/los-puertos-espanoles-presentan-sus-ventajas-a-la-competitiva-industria-hortofruticola/>

of volume, the EU exported 365.6 million tonnes and imported 403.1 million, which translates into a physical deficit of 37.5 million tonnes.

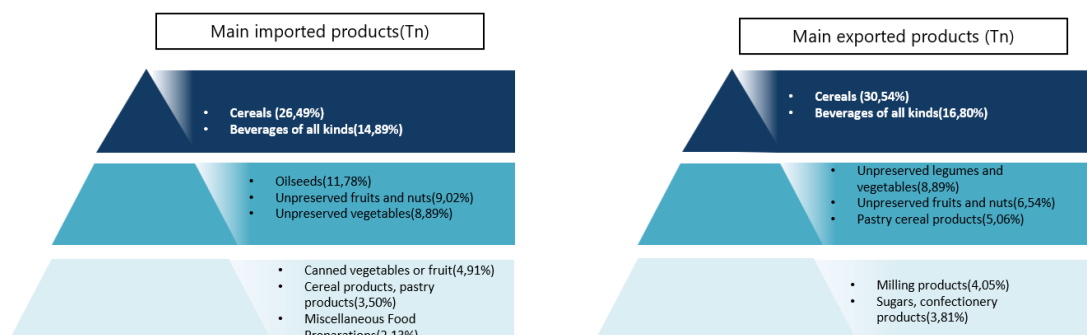
This duality—surplus in value and deficit in quantity—reflects Europe’s specialization in exporting higher value-added products (beverages, prepared foods, dairy products) while importing lower unit-value agricultural raw materials. Specifically, cereals stand out among imports and beverages and spirits among exports, accounting for a significant share of the EU’s agri-food trade.

The main trading partners on the export side are mostly EU Member States—led by Germany—while France and Germany stand out on the import side, along with Ukraine (Infographic 1). This configuration reflects the strength of intra-European trade, which enhances the resilience of the agri-food system against external disruptions and supports the continuity of supply chains.

Infographic 1: Characterization of Foreign Trade for the European Union as a Whole²



² The agri-food aggregate includes sectors 13, 14, 15, 16, 17, 18, 19, 1B and 1C (agricultural, livestock, fishery, food and beverage products, in both primary and processed form).



Fuente: Elaboración propia en base a los datos de la Agencia Tributaria

The Agricultural Sector in Spain: Characterization and Foreign Trade

Following the analysis of agri-food trade at the EU level — characterized by the predominance of intra-European exchanges and a high concentration of flows among the main Member States — the Spanish case stands out for its strategic weight within the EU agri-food system and for its strong export capacity.

The Spanish agri-food sector has a diversified and highly integrated structure, encompassing primary production, industrial processing, and distribution. In 2023, its gross value added (GVA) reached €119.14 billion, equivalent to 8.9% of the national total, a share higher than the EU average (6.4%). Within the productive structure, marketing accounted for 44.1% of the GVA, followed by agriculture, livestock, and fishing (28.7%), and the food and beverage industry (27.1%).

With these results, Spain has consolidated its position as one of the main agri-food powers in the EU-27, contributing 11.9% to the EU's total GVA — behind only France, Germany, and Italy. Its specialization in Mediterranean products — such as citrus fruits, olive oil, fresh fruits, vegetables, and wine — reinforces its status as a leading exporter within the European single market.

The business fabric remains highly fragmented, with over 29,000 companies, three out of four of which are microenterprises or have no salaried employees. Despite this, the sector's productivity is 22% above the European average, and unit labor costs are 15% lower, factors that strengthen its competitiveness in foreign markets.

From a territorial perspective, the sector maintains a strategic presence throughout the country. Andalusia, Castile and León, and Catalonia lead the contribution to national agri-food GVA, while Extremadura, La Rioja, and the two Castiles stand out as key economic and social drivers. In recent years, the trend toward industrialization has intensified, with a growing weight of food processing compared to the primary sector, especially in Madrid, Catalonia, and the Valencian Community.

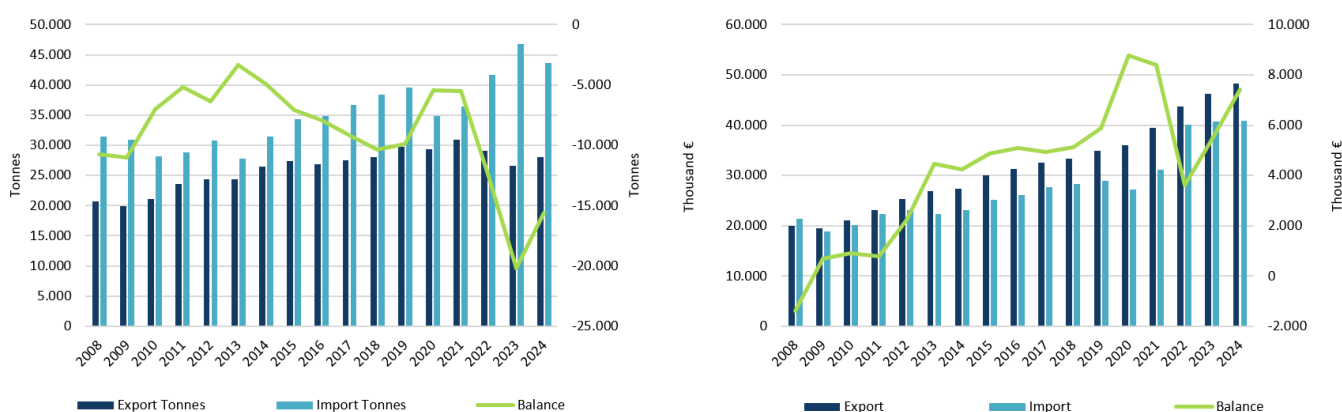
At the cyclical level, the agricultural sector showed particularly favorable performance in 2024. According to preliminary data from the Ministry of Agriculture, Fisheries and Food (MAPA), agricultural income reached €37.76 billion, up 14.2% from 2023, while total agricultural production hit a record value of €68.43 billion (+4.3% year-on-year). Estimates point to 8% growth in the agricultural branch (agriculture, livestock, forestry, and fisheries), consolidating its role as one of the main drivers of the primary sector.

In terms of foreign trade, Spain mirrors the general EU pattern, characterized by a surplus in value and a deficit in volume. In 2024, agri-food exports amounted to €48.3 billion, compared with imports of €40.87 billion, generating a positive balance of €7.43 billion. In physical terms, the country exported 28 million tonnes and imported 43.6 million, resulting in a deficit of 15.6 million tonnes.

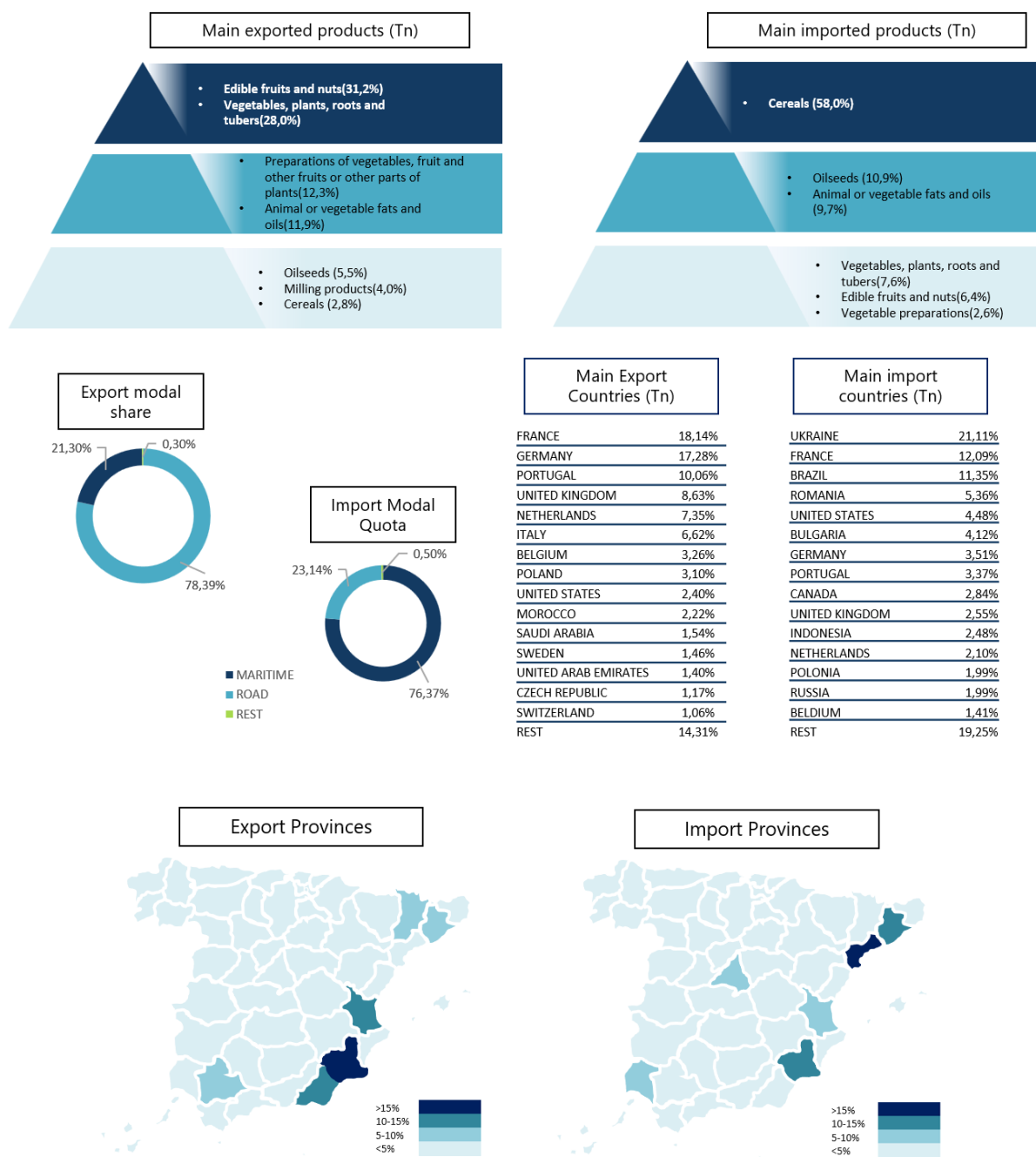
These results — illustrated in Infographic 2 — reflect the structural strength of Spain's external agri-food sector and its ability to maintain a positive balance despite international pressures. Exports of fresh fruits and vegetables stand out, followed by olive oil, wine, and meat products, consolidating Spain as one of Europe's leading agri-food suppliers. On the import side, cereals and oilseeds carry significant weight, revealing dependence on raw materials used for animal feed.

European countries continue to be the main export destinations, explaining the predominance of road transport given the short distances involved. In contrast, imports show a greater diversification of origins — with a notable presence of South America and North Africa — highlighting the growing role of maritime transport in Spain's agri-food logistics.

Infographic 2: Characterization of Spain's Agri-food Foreign Trade, 2024³



³ The agri-food aggregate includes sectors 13, 14, 15, 16, 17, 18, 19, 1B and 1C (agricultural, livestock, fishery, food, and beverage products, in both primary and processed form).



Source: Own elaboration based on data provided by the Spanish Tax Agency.

summary, the combination of a nearby export market (EU, with a predominance of road transport) and diversified, long-distance imports (mainly by sea) shifts the focus toward cold-chain logistics and, in particular, toward the Spanish port system as a lever for competitiveness and food security.

Agri-food Logistics and Transport: The Cold Chain

The configuration of European and Spanish agri-food trade — characterized by a nearby export market and long-distance imports — gives logistics and transport a decisive role within the production system. In this context, the cold chain acquires central importance, as it ensures the integrity and quality of perishable products during storage, transport, and distribution. Its role is particularly crucial in the inflow of raw materials and the outflow of higher value-added products — key elements that sustain the sector's external competitiveness.

Indeed, cold-chain logistics represents a strategic link in the agri-food system, essential for the preservation and transport of products such as fruits, vegetables, dairy, meat, fish, and even pharmaceuticals. As highlighted by the publication *Transporte XXI – Logística del Frío* (2025 edition), the main actors in the supply chain agree that “sustainability is non-negotiable” and point to technological innovation and digitalization as the pillars for advancing toward smart and sustainable logistics.

The sustained growth in demand for fresh and frozen foods, both domestically and internationally, is driving a structural transformation in the temperature-controlled supply chain. This process is supported by the modernization of logistics infrastructure, process automation, digital traceability, and energy efficiency, all of which contribute to improving competitiveness and reducing the sector's environmental footprint.

Digitalization plays a key role in this evolution. The integration of technologies such as the Internet of Things (IoT), artificial intelligence, thermal sensors, and blockchain allows real-time monitoring of temperature, location, and product condition throughout the cold chain. This ensures food safety, reduces waste, optimizes routes, and increases operational efficiency, while also strengthening consumer and distributor confidence in product traceability.

At the same time, the sector has increased investment in automation and robotization of refrigerated platforms, incorporating automated guided vehicles (AGVs), robotic picking systems, and smart warehouses capable of operating in low-temperature environments. These innovations respond to two major challenges: the shortage of skilled labor and the need to improve efficiency and operational precision in a context of high quality standards and tight delivery schedules.

The rise in energy costs represents one of the most significant structural challenges for the sector. Since the continuous operation of refrigerated chambers and vehicles involves intensive electricity consumption, several industry representatives have called for cold logistics to be recognized as an electro-intensive activity, which would allow access to more competitive energy tariffs and compensation mechanisms similar to those available to other strategic industries. Such recognition would encourage investment in self-consumption energy systems, the use of renewable energy sources, and the adoption of low-impact refrigeration technologies.

As a result, cold-chain logistics is consolidating itself as a key driver of competitiveness and sustainability for the Spanish and European agri-food sector. Its ability to integrate technological innovation, energy efficiency, and operational resilience is essential to maintaining the agri-food industry's leadership in international markets and reinforcing its commitment to the European Green Deal and the "Farm to Fork" Strategy.

Spanish Ports: Strategic Nodes in Refrigerated Traffic

Spanish ports are consolidating their position as critical nodes in the cold chain, concentrating the bulk of maritime agri-food imports and connecting domestic production with the main European and extra-European markets. The national port system thus functions as a strategic infrastructure for the export and import of perishable and high value-added products, driven by digitalization, intermodal connectivity, and energy sustainability.

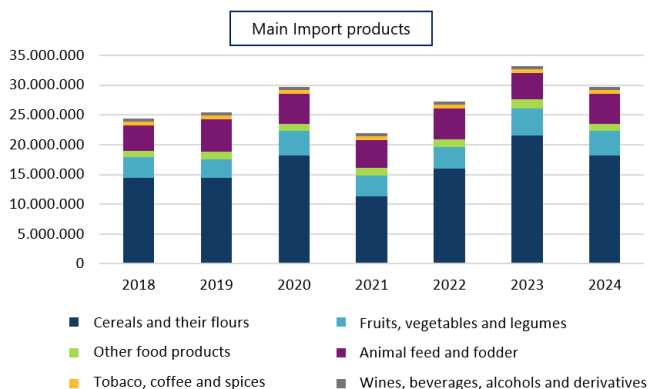
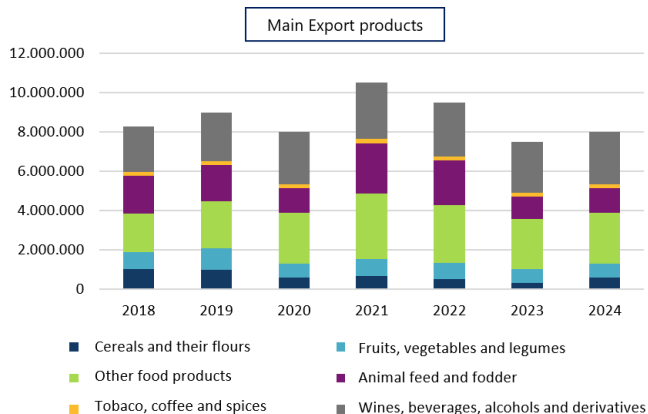
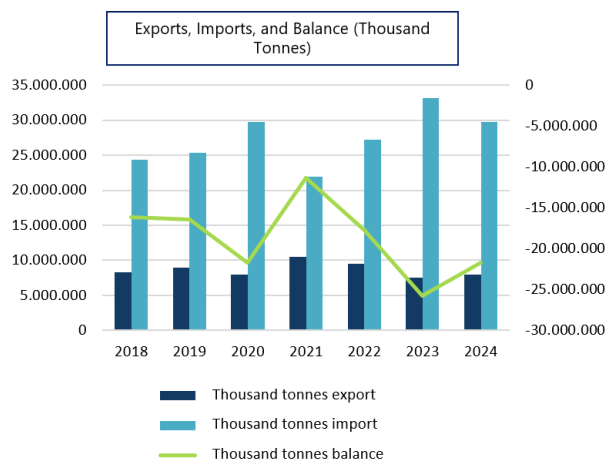
In this context, Spanish ports are moving toward a more competitive and climate-responsible cold logistics system, supported by efficient port infrastructure, dock electrification, use of renewable energies, and digital traceability. These actions position them at the forefront of maritime transport decarbonization and the implementation of smart thermal management and energy efficiency technologies, which are fundamental pillars of sustainable and resilient agri-food logistics.

Beyond their logistical role, ports serve as key entry points for the European Union's agri-food imports, playing a crucial role in complying with inspection and phytosanitary control standards for agricultural products from third countries. This work is carried out in close collaboration with the competent food safety and plant health authorities, ensuring the traceability and quality of goods that supply the European internal market.

The Spanish port system has made significant progress in efficiency and operational agility, thanks to the automation of inspection processes, document digitalization, and the use of remote temperature control technologies. These advances have reduced waiting times, increased competitiveness, and strengthened the reliability of the agri-food export and import chain.

In line with this strategic function, the maritime modal share of agri-food trade highlights the growing importance of ports as entry channels for agricultural raw materials and exit points for processed products. As shown in Infographic 3, maritime imports far exceed exports, reflecting the structure of Spain's trade balance. While exports display a diversified composition — led by fruits, vegetables, wines, and other high value-added products — imports are mainly concentrated in cereals, feed, and fodder, essential raw materials for animal feed and the agri-food industry.

Infografía 3. Caracterización del comercio exterior del Sistema Portuario Español⁴



MAIN PORT AUTHORITIES EXPORT		
Port Authority	Tons	%
Bahía de Algeciras	6.707.705	29,06%
Valencia	6.664.980	28,87%
Barcelona	5.269.882	22,83%
Las Palmas	1.836.974	7,96%
Bilbao	709.849	3,07%
Tarragona	343.075	1,49%
Málaga	264.190	1,14%
Bahía de Cádiz	222.131	0,96%
Sevilla	210.699	0,91%
Vigo	199.031	0,86%
Rest	657.128	2,85%
Total	23.085.644	

MAIN PORT AUTHORITIES EXPORT DIRECT SHIPMENT		
Port Authority	Tons	%
Valencia	3.400.795	35,79%
Barcelona	3.097.663	32,60%
Bahía de Algeciras	827.073	8,71%
Bilbao	707.352	7,44%
Tarragona	322.638	3,40%
Sevilla	210.699	2,22%
Vigo	190.203	2,00%
Santander	148.745	1,57%
Huelva	117.376	1,24%
Bahía de Cádiz	113.133	1,19%
Rest	365.440	3,85%
Total	9.501.117	

MAIN PORT AUTHORITIES IMPORT		
Port Authority	Tons	%
Bahía de Algeciras	8.339.683	19,00%
Valencia	5.991.645	13,65%
Tarragona	5.816.771	13,25%
Barcelona	4.781.438	10,89%
Cartagena	4.630.552	10,55%
A Coruña	2.608.082	5,94%
Las Palmas	2.042.153	4,65%
Huelva	1.586.410	3,61%
Bilbao	1.403.664	3,20%
Bahía de Cádiz	1.267.281	2,89%
Rest	5.435.714	12,38%
Todo	43.903.393	

MAIN PORT AUTHORITIES IMPORT DIRECT SHIPMENT		
Port Authority	Tons	%
Tarragona	5.796.287	19,02%
Cartagena	4.630.552	15,20%
Valencia	2.738.759	8,99%
Barcelona	2.645.244	8,68%
A Coruña	2.608.082	8,56%
Bahía de Algeciras	2.424.565	7,96%
Huelva	1.581.410	5,19%
Bilbao	1.399.515	4,59%
Bahía de Cádiz	1.256.689	4,12%
Santander	1.065.470	3,50%
Rest	4.323.908	14,19%
Total	30.470.481	

Source: Own elaboration based on data from Puertos del Estado.

Spanish agri-food trade shows a strong concentration along the Mediterranean arc, where the three main ports by traffic volume and specialization in refrigerated products are located: Bahía de Algeciras, València, and Barcelona. These hubs account for nearly three quarters of Spain's total maritime agri-food traffic, forming a key logistics corridor

⁴ The agri-food aggregate includes the categories corresponding to cereals, fruits, vegetables, processed food products, animal feed, tobacco, cocoa, coffee, spices, wines, beverages, alcohols, and derivatives, in accordance with the commodity classification established by Puertos del Estado for agri-food traffic.

for the export and import of perishable goods and ensuring the efficiency, traceability, and sustainability of the cold chain.

The Port of Bahía de Algeciras leads Spain's total export and import traffic of agri-food goods, with a share of 29.06% in total exports and 19.09% in total imports. Its strategic location in the Strait of Gibraltar and its powerful refrigerated infrastructure consolidate it as the country's main logistics hub for perishable products. Furthermore, it maintains a strong international orientation thanks to its role in the Europe–Latin America corridor, driven by digitalization projects such as the Digital Interoperability Plan between its Port Community System (PCS) and the Central American Digital Trade Platform (PDCC). This initiative, part of the European Union's Global Gateway strategy, enhances traceability, document efficiency, and security in agri-food trade flows.

The Port of València stands as the second major reference within Spain's port system, accounting for 28.87% of total exports and 13.65% of imports. When transshipment traffic is excluded, València becomes Spain's leading port for direct exports (35.79%), consolidating its position as the main operational hub for Spain's agri-food trade with Europe. Its specialized infrastructure — more than 3,000 reefer connections, a high-capacity border inspection post, and an integrated cold-storage facility — ensures product traceability and preservation.

The Valencia Port Authority (APV) continues to promote projects aimed at energy efficiency, digitalization, and intermodality, focusing especially on the Logistics Activities Zone (ZAL) and the future North Terminal, which will enhance its competitiveness and sustainability in the coming years.

The Port of Barcelona, with a 22.83% share of total exports and 10.99% of imports, holds a strategic position in agri-food traffic, particularly in processed products and beverages. In direct exports, it reaches 32.60%, ranking as Spain's second port for direct agri-food trade, reflecting its key role in Mediterranean high-value trade flows.

Its alliance with Mercabarna, Catalonia's main wholesale food market, reinforces its role as a logistics hub for fresh products, connecting port operations with regional food distribution. In addition, the port is advancing projects focused on maritime and land connectivity, digitalization of customs and sanitary processes, and energy sustainability, through dock electrification, renewable energy use, and operational emission reductions.

Overall, the Spanish port system is advancing toward a more sustainable, digital, and efficient cold logistics model, supported by Onshore Power Supply (OPS), the use of clean energy, and smart management of traceability and thermal control. These actions strengthen the reliability, sustainability, and leadership of Spain's agri-food trade, consolidating the country's position as a global logistics platform for perishable goods transport.