

Invest in Portugal

Chemicals and Rubber & Plastic Industry Report

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AICEP
Portugal Trade & Invest



EY Parthenon

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A worker in a white uniform and hard hat is walking on a yellow staircase. The staircase has a green safety net below it. The background is a light blue sky.

1

Key Insights

Portugal offers a unique set of conditions in the chemicals and rubber & plastic industry...

For the purposes of this report, the scope of the Chemicals and Rubber & Plastic industry in Portugal encompasses:

Chemicals¹

Rubber & Plastic

The Chemicals and Rubber & Plastic industry in figures | 2021



1.997
Companies (3% of manufacturing industry)
▲ 0,9%² (2017-2021)



45.634
Employees (6% of manufacturing industry)
▲ 2,8%² (2017-2021)



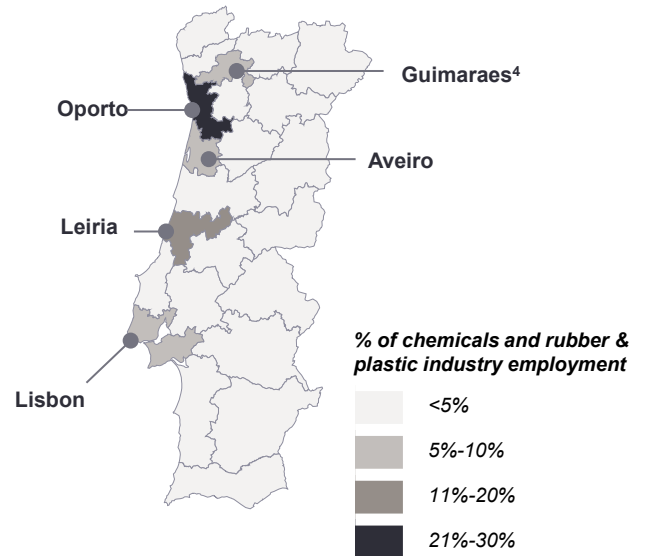
€2,8B
GVA³ (11% of manufacturing industry)
▲ 6,4%² (2017-2021)



€11,8B
Turnover (12% of manufacturing industry)
▲ 6,4%² (2017-2021)

Employment in the sector | 2021

The regions highlighted in the map comprise **69% of the total employment in the chemicals and rubber & plastic sector**



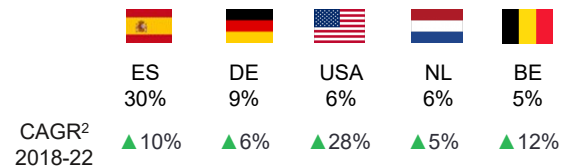
Industry exports | 2022

Exports of chemicals and rubber & plastic products in 2022



CAGR² 2018-22

Largest export markets:



The presence of advanced EU economies and the USA in this ranking reveals the high positioning of the chemicals and rubber & plastic sector in Portugal.

Export categories | 2022

Rubber tyres for cars, including station wagons and racing cars⁵



CAGR² 2018-22 ▲ 7%

Terephthalic acid and its salts⁶



▲ 24%

Articles of plastics and articles of other materials⁷



▲ 6%

Chemicals Rubber & Plastic

The top 3 main products exported by Portugal represent **23% of this industry's total exports.**

1. The analyzes for the chemicals sector does not include the manufacture of basic pharmaceutical products and pharmaceutical preparations.

2. Compound annual growth rate (CAGR).

3. Gross Value Added.

4. Sub-region Ave.

5. CN 4011.10.00: New pneumatic tyres, of rubber, of a kind used for motor cars, incl. station wagons and racing cars.


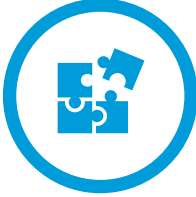


6. CN 2917.36.00: Terephthalic acid and its salts.

7. CN 3926.90.97: Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s.

8. Weight on total Portugal Chemicals and Rubber & Plastic exports (%).

... that translate into an innovative ecosystem with multiple attractiveness factors

Chemicals and Rubber & Plastic industry ecosystem

 Education	 Innovation and Technology Centres	 Companies	 Industry Associations
<ul style="list-style-type: none"> ▶ Several Portuguese universities have earned global recognition for their undergraduate and postgraduate programs in areas related to this sector. ▶ The EngIQ includes a doctoral program managed by a consortium of top Portuguese universities and industry leaders. 	<ul style="list-style-type: none"> ▶ R&D investment in the chemicals and rubber & plastic sector grew by 136% from 2014 to 2021. ▶ Between 2016 and 2020, Portugal was above the EU average in scientific production indexed in the Web of Science, in the Chemicals area. 	<ul style="list-style-type: none"> ▶ The top 10 foreign companies in Portugal impact diverse sectors, contributing to the country's global exports and technology transfer. ▶ In 2021, a significant number of chemicals (69%) and rubber & plastic (68%) companies were engaged in innovation activities. 	<ul style="list-style-type: none"> ▶ Associations like APQuímica and APIP serve as unified platforms, connecting stakeholders on a national and international level, while collaborating closely with the Portuguese government.










Foreign investors in Portugal

Portugal has been chosen as an investment location by several multinational companies.



FDI attractiveness factors

 Highly skilled talent	 Presence of chemical and petrochemical clusters
 Friendly business environment	 Strong R&D system
 Adoption and exportation of cutting-edge technology	 Strategic location
 Maritime infrastructures	 Dynamic chemicals hubs
 Strong orientation to greener processes	

A laboratory setting with a pipette and test tubes. The background is a solid blue color. A pipette is positioned diagonally from the top left towards the center. Below it, several test tubes are visible, some containing liquids of different colors (green, purple, blue).

2

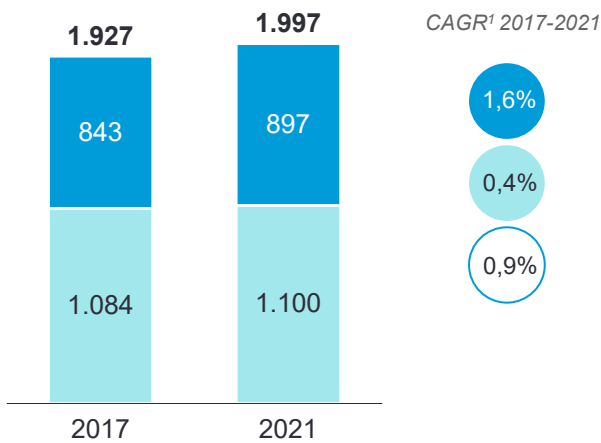
Chemicals and
Rubber & Plastic
industry in
Portugal

Portugal's chemicals and rubber & plastic industry has experienced growth, offering investment opportunities

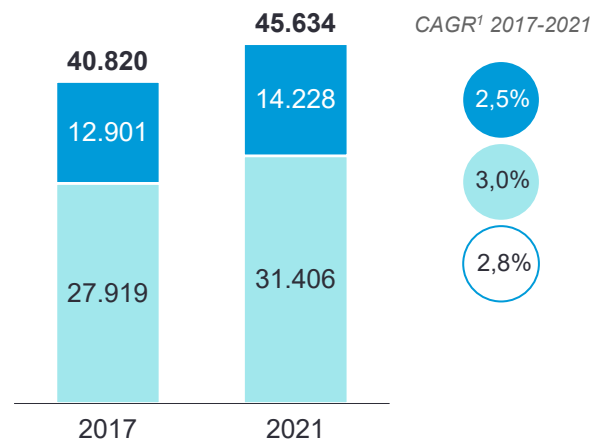
- ▶ **The chemicals and rubber & plastic industry is a cornerstone of Portugal's industrial sector.** It achieved a turnover of approximately €11,8B in 2021, representing 12% of manufacturing and 3% of the overall economy.
- ▶ **This industry stands out for its high labour productivity,** surpassing the manufacturing sector's average and the overall national economy.
- ▶ Moreover, **Portugal is home to chemical industry hubs, such as Sines and Estarreja,** renowned for their strategic locations and modern infrastructures, **which have gathered the interest of multinational corporations.**
- ▶ **With this dynamic ecosystem, this industry serves multiple sectors,** including automotive, construction, packaging, electronics and textiles, **offering essential products and solutions.**

■ Chemicals
 ■ Rubber & Plastic
 Total

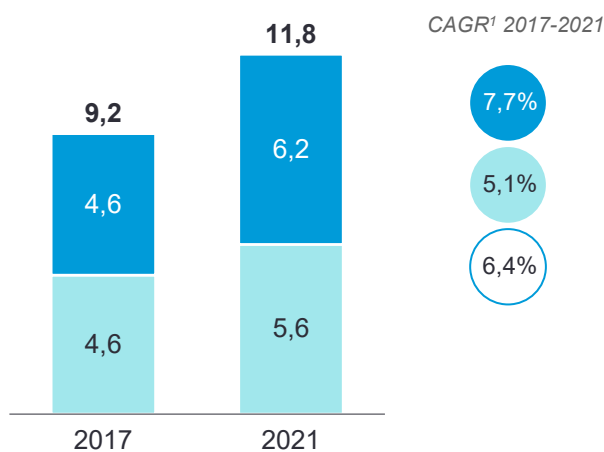
Companies



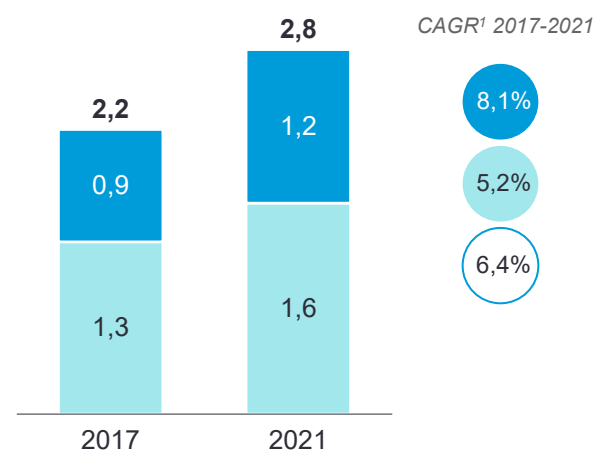
Employees



Turnover (€B)



Gross Value Added (€B)



1. Compound annual growth rate (CAGR).

The chemical and rubber & plastic industry is pivotal in the country's exports, holding a high positioning within Europe

- ▶ **The chemicals and rubber & plastic sector in Portugal exported €9,2B of products in 2022, showing a positive steady growth since 2018 (10% CAGR) and a relevant weight in total exports in Portugal (11%).**
- ▶ **Note that more than half (58%) of the chemicals and rubber & plastic industry's production is exported, highlighting the significant global footprint of the national industry.**

Main export indicators

€9,2B

Exports of Chemicals and Rubber & Plastic products, 2022

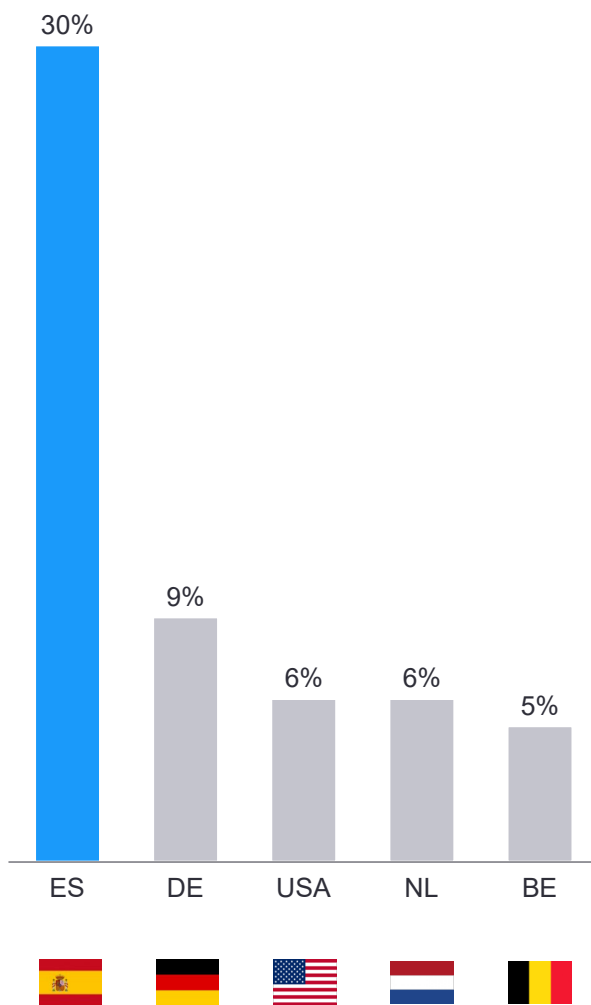
▲ 10%

CAGR¹ 2018-22 of Chemicals and Rubber & Plastic industry's exports

11%

Weight of Chemicals Rubber & Plastic exports in total Portuguese exports of goods, 2022

Largest export markets | 2022



- ▶ **Spain was the main destination market in 2022, exporting mainly “unmixed primary forms of poly(vinyl) chloride²”.**
- ▶ **With the presence of advanced EU economies in this ranking (e.g., Spain, Germany and Netherlands) and the USA, Portugal underscores the sophistication of its products and target markets within this sector.**

CAGR¹ 2018-22

▲ 10%

▲ 6%

▲ 28%

▲ 5%

▲ 12%

1. Compound annual growth rate (CAGR).

2. CN 3904.10.00: Poly(vinyl) chloride, in primary forms, not mixed with any other substances.

This industry supplies a wide variety of sectors and rubber pneumatic tyres is the top export product

Top exported products in the chemicals and rubber & plastic industry in Portugal | 2022

	Product name	Chemicals and Rubber & Plastic subsector	Exports in 2022 (€M)	CAGR ¹ 2018-22 (%)	Weight on total Portugal Chemicals and Rubber & Plastic exports (%)
1	4011.10.00: New pneumatic tyres, of rubber, of a kind used for motor cars, incl. station wagons and racing cars	Rubber & Plastic	1.196	▲7%	13%
2	2917.36.00: Terephthalic acid and its salts	Chemicals	509	▲24%	6%
3	3926.90.97: Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s.	Rubber & Plastic	349	▲6%	4%
4	3920.20.21: Plates, sheets, film, foil and strip, of non-cellular polymers of propylene, not reinforced, laminated, supported or similarly combined with other materials, not further worked or only surface-worked and not cut to shapes other than rectangular "incl. square" of a thickness of <= 0,10 mm, biaxially oriented ²	Rubber & Plastic	293	▲21%	3%
5	3909.31.00: Poly(methylene) phenyl isocyanate (crude MDI, polymeric MDI), in primary forms	Chemicals	282	▲5%	3%
6	2901.22.00: Propene "propylene"	Chemicals	198	▲16%	2%
7	2707.50.00: Aromatic hydrocarbon mixtures of which >= 65% by volume, incl. losses, distills at 250Å°C by the ASTM D 86 method ³	Chemicals	186	▲23%	2%
8	3904.10.00: Poly(vinyl) chloride, in primary forms, not mixed with any other substances	Chemicals	172	▲14%	2%
9	3901.20.90: Polyethylene with a specific gravity of >= 0,94, in primary forms ⁴	Chemicals	153	▲2%	2%
10	3920.62.90: Plates, sheets, film, foil and strip, of non-cellular (poly)ethylene terephthalate, not reinforced, laminated, supported or similarly combined with other materials, without support, unworked or not further worked than surface-worked or merely cut into squares or rectangles, of a thickness of > 0,35 mm ⁵	Rubber & Plastic	153	▲28%	2%

1. Compound annual growth rate (CAGR).

2. Excl. self-adhesive and wall or ceiling coverings of chapter No 391813

3. Excl. chemically defined compounds

4. Excl. polyethylene in blocks of irregular shape, lumps,

powders, granules, flakes and similar bulk forms, of a specific gravity of >= 0,958 at 23Å°C, containing <= 50 mg/kg of aluminium, <= 2 mg/kg of calcium, of chromium, of iron, of nickel and of titanium each and <= 8 mg/kg of vanadium, for the manufacture of chlorosulphonated polyethylene

5. Excl. such self-adhesive products, and floor, wall and ceiling coverings of heading 3918

Portugal has been selected as an investment destination by several multinational companies

Most recent investments undertaken by foreign companies in Portugal

- ▶ In 2022, **SCG Chemicals** completed the acquisition of a 70% stake in Sirplaste, which is based in Porto de Mós.
- ▶ **SCG Chemicals** plans to expand the capacity of its Portugal-based subsidiary **Sirplaste** by 25% in response to the strong demand for recycled plastics in Europe.



- ▶ In 2021, **Repsol** has announced a €657M investment to expand the company's **Sines Industrial Complex**, which started in 2023, involving the construction of two new plants for high-value-added 100% recyclable polymeric materials for use in the pharmaceutical, automotive, and food industries.

- ▶ **Dow's** plant in Estarreja is responsible for producing a crucial raw material for polyurethane manufacturing called **MDI**.
- ▶ In 2019, **Dow** invested €5,9M in modernizing the plant's technology to meet new market needs and improve production processes.



- ▶ In 2019, **Continental Mabor** has announced a €100M investment to expand its unit in Vila Nova de Famalicão, signalling a strategic effort to enhance and diversify their tyre product offerings.
- ▶ The group also enhanced the R&D Centre to evaluate the performance and quality of agricultural, port, and earthmoving vehicle tyres.

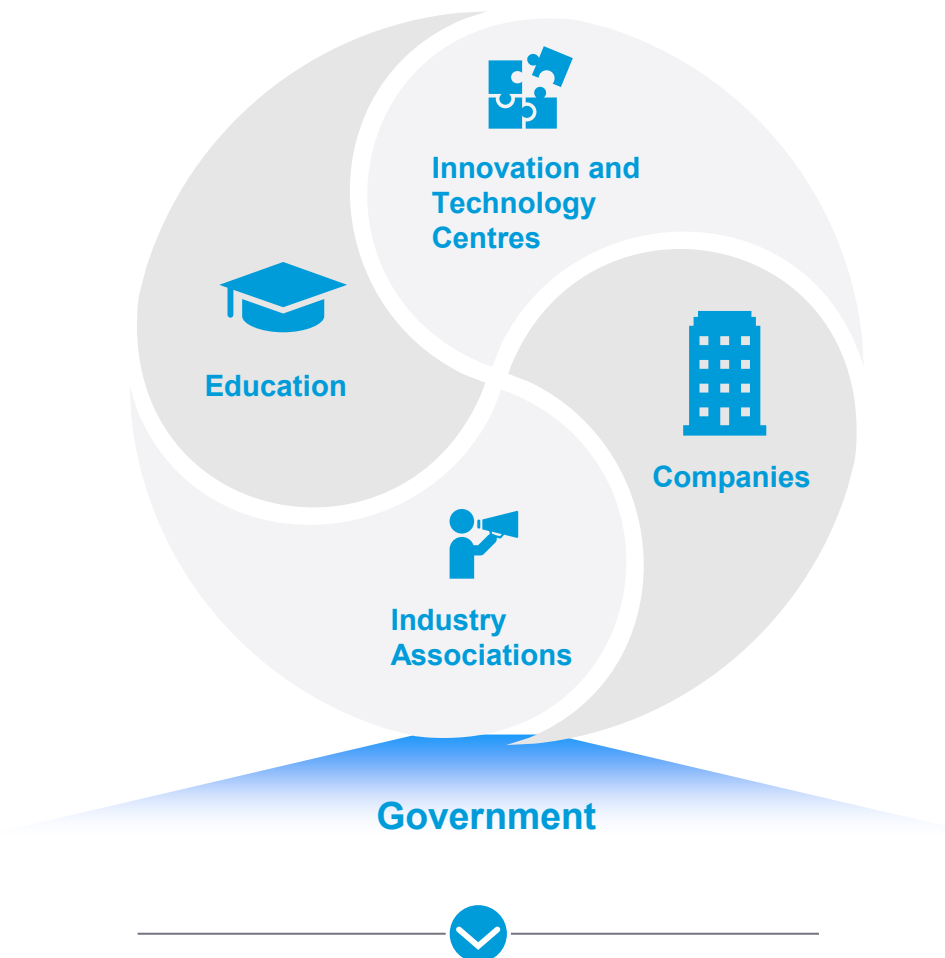


3

Chemicals and
Rubber & Plastic
industry
ecosystem in
Portugal

The thriving chemicals and rubber & plastic ecosystem in Portugal fosters competitiveness and sustainability

The Chemicals and Rubber & Plastic ecosystem in Portugal



In general, the **chemicals and rubber & plastic ecosystem in Portugal** comprises four main axes, connected with each other and the **Government**, a key stakeholder in facilitating its growth.

- ▶ The **Portuguese government** is focused on initiatives to support future industrial investments in the **chemicals and rubber & plastic industry**. These efforts are aligned with the **European Commission's strategy for (re)industrialisation and the European Green Deal**.
- ▶ Portugal has a firm commitment to embrace more sustainable processes, foster recycling, and promote bio-based materials, as outlined in the **National Energy and Climate Plan 2021-2030** and the **Roadmap for Carbon Neutrality 2050**. Additionally, the **National Hydrogen Strategy (EN-H2)** and the **Circular Economy Action Plan (PAEC)** align with both national and European priorities for the chemicals and rubber & plastic industry, contributing to Portugal's development in this industry.



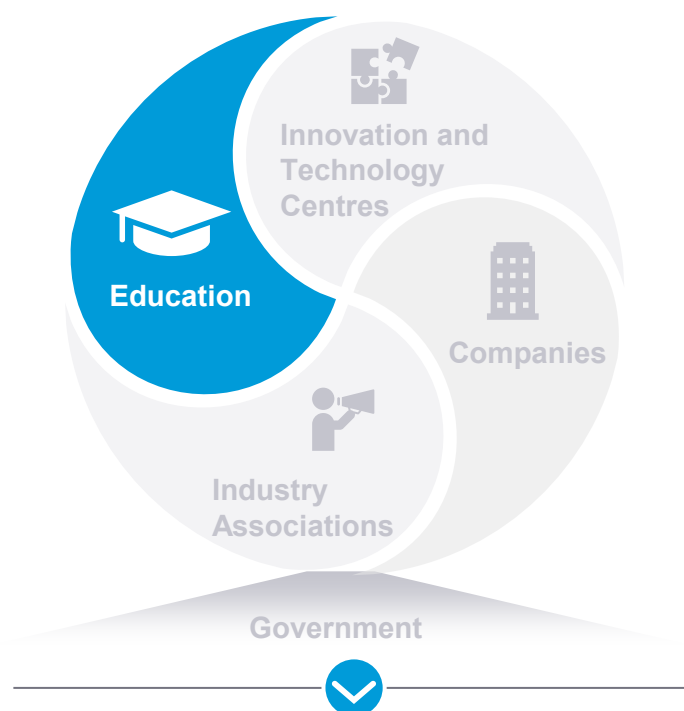
“ The €100 million investment to expand our industrial unit in Famalicão, reflects once again the trust the shareholders have in the team working in Lousado and confirms our corporate sustainability strategy (...) this investment wouldn't be possible without the support of the Portuguese government”

Pedro Carreira, Chairman

Continental (German Company) was established in Portugal in 1990

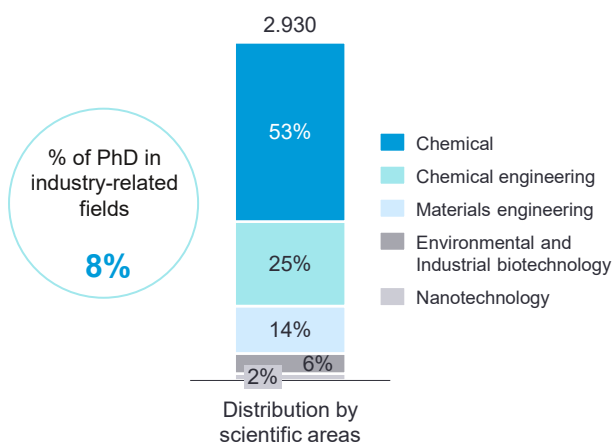
Portugal presents a highly educated and skilled workforce, supported by well-ranked universities

The Chemicals and Rubber & Plastic ecosystem in Portugal | Universities



- ▶ Portugal has a well-educated and skilled workforce, particularly in the fields of chemical, chemical engineering, biochemical and materials – representing more than 4.000 higher education graduates in 2021/22¹.
- ▶ Furthermore, several prominent Portuguese universities, including Oporto, Aveiro and Minho, have earned global recognition for their undergraduate and postgraduate programs.
- ▶ In this regard, the EngIQ program, a pioneering initiative, includes a doctoral program and a post-graduation managed by a consortium of top Portuguese universities and industry leaders, such as Galp Energia, Bondalti, CIRES and Hovione.
- ▶ Participating universities include the University of Aveiro, the University of Coimbra, the University of Lisbon, the NOVA University of Lisbon, and the University of Porto, with associated research units actively contributing. APQuímica plays a vital role in engaging its members.

Total number of PhD's in areas related to the sector | 2020²



Portuguese Universities in the European ranking of the best programs | 2023

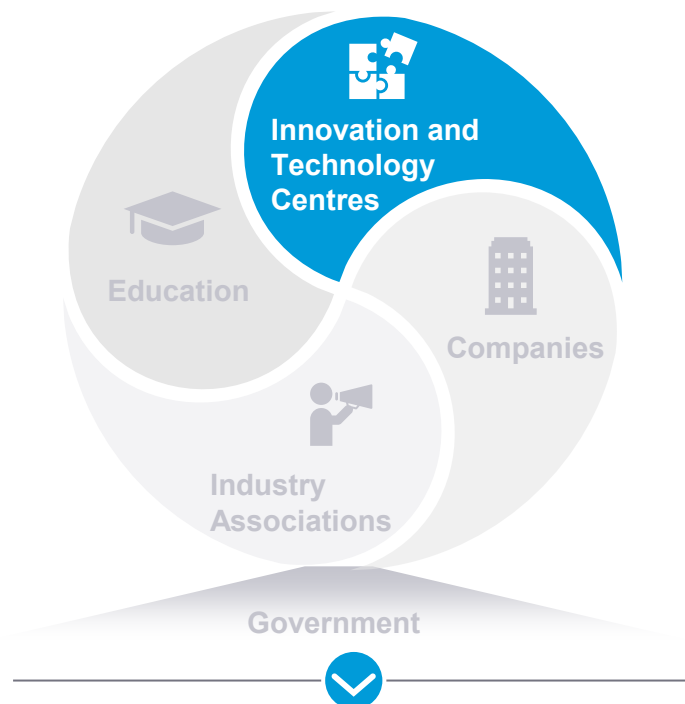
	University of Porto 11 th in Europe (out of 100 th) For Biochemical Engineering
	University of Aveiro 17 th in Europe (out of 100 th) For Environmental Chemistry
	University of Minho 52 nd in Europe (out of 100 th) For Polymer science and Plastics engineering

1. Includes bachelor's, master's and PhD's graduates.

2. Estimated number of persons resident in Portugal with a PhD obtained anywhere in the world.

The Innovation and Technology Centres have garnered international recognition for their exceptional contributions

The Chemicals and Rubber & Plastic ecosystem in Portugal | Innovation and Technological Centres

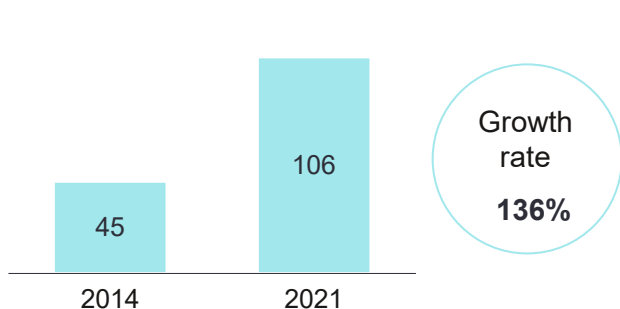


- ▶ Portugal's commitment to R&D in the chemicals and rubber & plastic industry is supported by a **collaborative network involving academic spin-offs, technological startups and renowned R&D centres**, such as CIQUP - Research Centre in Chemistry at the University of Porto and CENTIMFE - Technological Centre for Mouldmaking, Special Tooling and Plastic Industries. These centres are pioneers in advancing technology, refining processes, and developing sustainable solutions for the industry.
- ▶ **The research unit i3N has secured a prominent status internationally in the field of Materials Science and Nanotechnologies.** From 2007 to 2022, i3N achieved global recognition with over **3.600 publications in international journals, garnering 64.000 citations. 62% of these works**

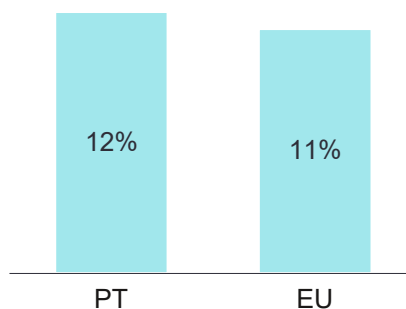
involved international collaborations across 51 countries. i3N also secured over **60 international patents** and experienced substantial funding growth. **In the last five years, funding for approved projects, both national and international, reached €76,9M.** Noteworthy is the attainment of 11 European Research Council (ERC) grants by researchers, totalling over €11,6M during this period.

- ▶ **With 12% of publications in the field of Chemicals, Portugal has also kept up an above-average level of scientific production across the EU,** according to the Web of Science in the 2016-2020 period.

Sector R&D investment (€M) | 2014-2021

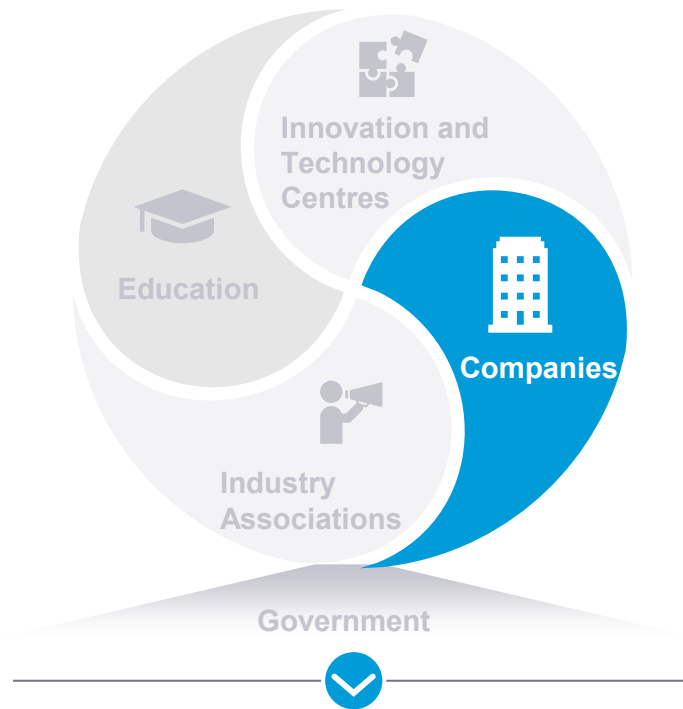


Scientific production indexed in the Web of Science in Chemicals (%) | 2016-2020



The chemicals and rubber & plastic industry shows impressive investment track record

The Chemicals and Rubber & Plastic ecosystem in Portugal | Companies



Largest companies in Portugal (in turnover) | 2021

- ▶ **The chemicals and rubber & plastic sector, with its economic and entrepreneurial performance,** has conquered **an international dimension**, as evidenced by the presence of international multinational companies.
- ▶ **These companies play a crucial role,** impacting various sectors and contributing to Portugal's exports and technology transfer on a global scale.
- ▶ In Portugal, **companies' commitment to R&D investment keeps them at the forefront of global progress,** with a substantial percentage of **chemicals (69% of total) and rubber & plastic (68% of total) companies actively engaging in innovation activities¹.**

Company	Subsector
	Rubber & Plastic
	Chemicals
	Chemicals
	Chemicals
	Chemicals
	Chemicals
	Chemicals
	Chemicals
	Rubber & Plastic
	Chemicals



“ The fact that Repsol Polimeros Industrial Complex is in Sines Industrial and Logistics Zone offers us competitive advantages in terms of location and space, as well as opportunities for infrastructure development”

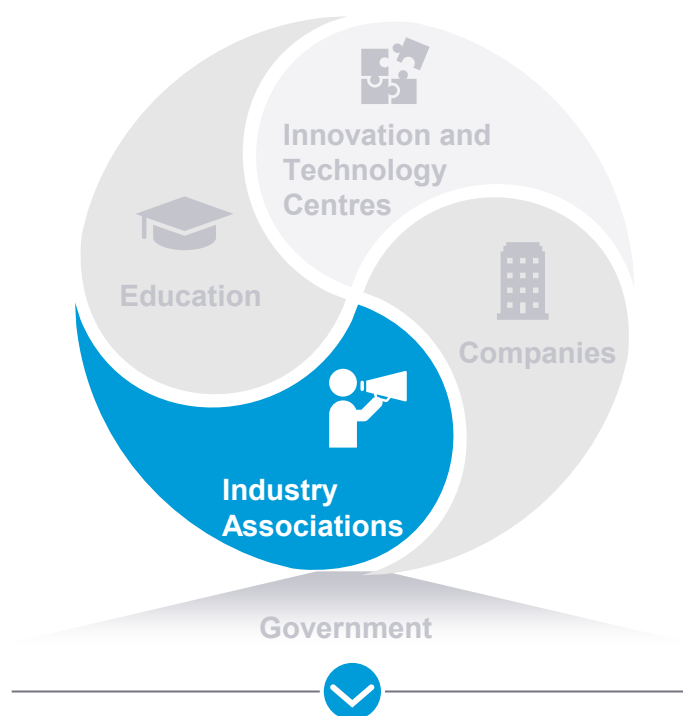
Arsenio Salvador, General Director

Repsol (Spanish Company) was established in Portugal in 1990

1. Includes R&D activities, engineering and development projects, feasibility studies, industrial design, acquisition of machinery, equipment, software and licenses, intellectual property rights, buildings, training, when carried out specifically to develop and/or implement a product innovation and/or process innovation.

The industry associations in this industry play a pivotal role for sector's growth as they act as unified platforms

The Chemicals and Rubber & Plastic ecosystem in Portugal | Industry Associations



- ▶ In Portugal, **well-established industry associations** play a pivotal role in fostering a growth-oriented, innovative and responsible business environment for this sector.
- ▶ **Associations such as APQuímica and APIP are crucial hubs for fostering collaboration** between companies, universities and R&D centres, as well as **across different stages of value chains, promoting knowledge exchange and cross-fertilization.**
- ▶ Furthermore, these associations **extend their reach beyond national borders, establishing vital connections with stakeholders on an international scale.** They facilitate communication within the industry and **collaborate closely with the Portuguese government.**
- ▶ They **advocate for policies aligned with the industry's needs, offer expertise and share valuable industry insights.**



APQuímica
Química para a vida

+

APQuímica is the national association for the Chemical, Petrochemical and Refining sectors.

It is involved in several projects and initiatives within its Cluster, aiming to enhance competitiveness and facilitate interactions among its members and various stakeholders, both national and internationally.



apip

+

The Portuguese Plastics Industry Association (APIP) actively promotes the growth and sustainability of the plastic industry in Portugal.

APIP recently organised, in cooperation with its congeners from Brazil, Spain and Mexico, the Plastics Summit 2022, in Lisbon, a global event that brought together specialists and companies to discuss a sustainable future for plastics industry.



PACTO PORTUGUÊS PARA OS PLÁSTICOS

+

The Portuguese Plastics Pact, launched in 2020, is led by Smart Waste Portugal, with the support of the Ministry of Environment and the General Directorate of Economy.

The Pact is a collaborative agreement signed by various stakeholders to promote a circular economy approach and tackle plastic pollution. It focuses on areas such as eco-design, waste prevention, recycling and consumer awareness.

An aerial photograph of a large cargo ship sailing on a deep blue ocean. The ship is heavily loaded with multi-colored shipping containers in shades of blue, yellow, and red. A smaller tugboat is visible in the distance, connected to the cargo ship by a rope. The overall scene is captured from a high angle, looking down at the vessel.

4

Chemicals and
Rubber & Plastic
industry
subsectors in
Portugal

Portugal's growing chemicals industry prioritises high-value and niche chemicals production, centred around key hubs

Chemicals

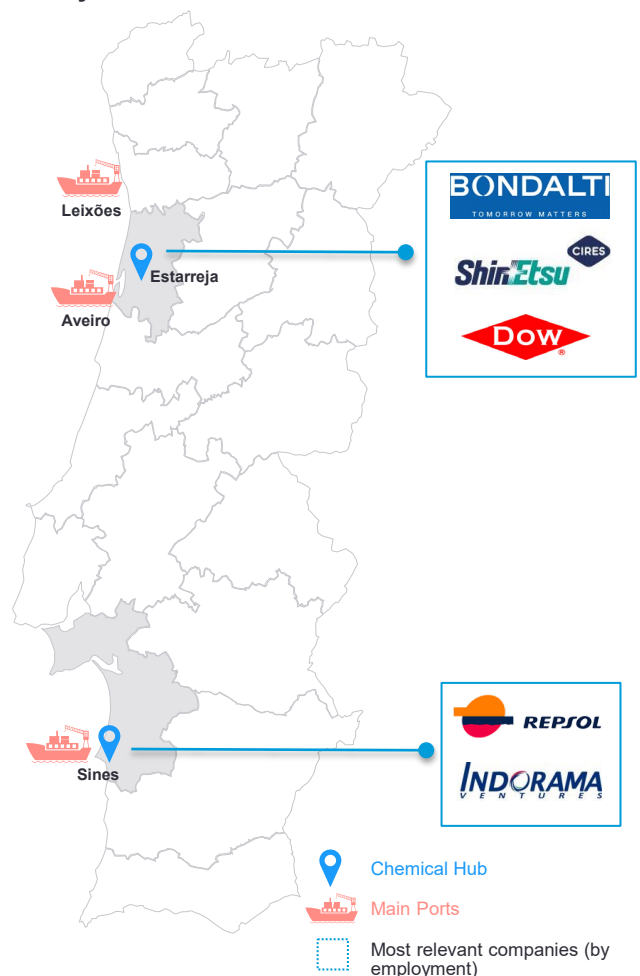
- ▶ Portugal's chemicals industry attracts multinational companies due to its **strong logistical infrastructure, skilled workforce, strategic location and connectivity**.
- ▶ **The chemicals industry hubs in Sines and Estarreja**, housing major global international players, **are pivotal in driving the growth of national value chains**.
- ▶ The hub at **Sines produces a diverse range of products**, including petrochemicals, polymers (and recyclable ones) and refined petroleum products. The **Estarreja hub** specialises in MDI¹ production, urea-formaldehyde resins and PVC, primarily for export.
- ▶ **Sines Port's deep-water harbour** is the **country's leading energy supplier** (crude, refined products and natural gas). **The site features railway connectivity and an extensive pipeline network**.
- ▶ **These hubs are becoming increasingly diversified, as new industrial projects related to green hydrogen are emerging**, for example, Bondalti's H2Enable project (€2,4B investment) and HyChem's Green Hydrogen project (€12M investment).
- ▶ **Several R&D centres**, such as **CIQUP** (University of Porto), **CICECO** (University of Aveiro) and **ITBQ Nova** (Nova University of Lisbon), act as innovation hubs, **fostering collaboration among skilled researchers and experts across diverse fields of chemistry**.

€4,9B
(▲ 56%)

Chemicals products' exports | 2022
(growth 2018-2022)

€1,2B
(42%)

Gross value added (weight on chemicals and rubber & plastic industry) | 2021



... **Repsol's**² €657 million investment in expanding the **Sines Industrial Complex** represents one of the largest industrial investment in Portugal in the last decade. This project involves the construction of two new plants dedicated to the production of high value-added 100% recyclable polymeric materials.

1. Methylene Diphenyl Diisocyanate
2. Company presented has the highest turnover in the subsector
Source: Statistics Portugal; Eurostat

Portugal's innovative profile, driven by ambitious sustainable goals, strengthens its global competitive positioning

Rubber & Plastic

- ▶ **Portugal's rubber & plastic sector is known for its innovation, sustainability, and alignment with global trends.** It significantly contributes to the economy and supports various industries, playing a crucial role in the country's industrial and economic development. In 2021, it generated a **€5,6B turnover and employed 69%** of the workforce (31.406) in the chemicals and rubber & plastic industry.
- ▶ According to the Community Innovation Survey (2020), **nearly one-third of the companies** located in Portugal, **operating in this sector actively participate in innovation activities¹ and solutions that bring environmental benefits.**
- ▶ Portugal has embraced the **Portuguese Pact for Plastics**, a collaborative agreement signed by various stakeholders to **promote a circular economy approach and tackle plastic pollution.**
- ▶ Portugal hosts top-tier R&D centres, such as **PIEP - Centre for Innovation in Polymer Engineering and CENTIMFE - Technology Centre for Mouldmaking, Special Tooling and Plastic Industries**, oriented to companies' research and innovation needs. Additionally, several Portuguese **universities offer undergraduate and postgraduate programs in polymer engineering**, fostering collaboration between students and industry through research projects.
- ▶ **The Portuguese Plastics Industry Association (APIP)** plays a vital role in fostering close relationships with these stakeholders and actively promotes the growth and sustainability of the plastic industry in the country.

▶ **Main foreign companies in terms of employment** : Continental Mabor, Novares Portugal, Hutchinson Borrachas de Portugal, Uchiyama Portugal, Amcor Flexibles

€4,3B (▲ 33%)

Plastic products' exports | 2022 (growth 2018-2022)

€1,6B (58%)

Gross value added (weight on chemicals and rubber & plastic industry) | 2021



...Operating in Portugal since 1990, **the German company Continental²** has already invested more than €800M into the Lousado unit through a series of expansions. In 2023, Continental opened its new Solution Centre in Lousado boosting expertise in digital business models and tyre solutions.

...Founded in 1981, **the Portuguese company Casfil²** has made an investment of €35 million to expand its production capacity for more recyclable packaging. Casfil aims to double its output and meet the growing demand for sustainable packaging solutions.



... The **Sustainable Plastics consortium**, a €39 million investment involving 51 entities, **aims to develop and promote more sustainable plastic materials and products**, enhancing their circularity and resource efficiency.

1. Includes R&D activities, engineering and development projects, feasibility studies, industrial design, acquisition of machinery, equipment, software and licenses, intellectual property rights, buildings, training, when carried out specifically to develop and/or implement a product innovation and/or process innovation

2. Companies presented have high turnover and relevant international investors in the subsector

Source: Statistics Portugal, Eurostat.

A young girl with curly hair, wearing safety goggles and a dark blue lab coat, is smiling and looking at a beaker she is holding. In the foreground, a large Erlenmeyer flask contains a bright blue liquid. The background is slightly blurred, showing other people in a laboratory setting.

5

FDI attractiveness
factors in the
Chemicals and
Rubber & Plastic
industry

Portugal holds several favorable factors that enhance the country's attractiveness to FDI...



Highly skilled talent

Portugal offers a highly skilled and multilingual workforce, particularly in the fields of technology and engineering. This skilled workforce facilitates global collaboration and communication, making it easier for foreign companies to operate in Portugal.



Presence of chemical and petrochemical clusters

Estarreja and Sines chemical and petrochemical clusters are pivotal contributors to Portugal's chemical industry, collectively comprising a substantial share of the sector's output. Beyond fueling economic growth and exports, these hubs promote diversification and innovation.



Friendly business environment

Portugal offers an attractive and stable political and business environment with a strong infrastructure and affordable living costs that reduces the risk of long-term investments.



Strong R&D system

Portugal has world-class research institutions, universities and innovation centres that collaborate with the industry to boost innovation. This context, promotes the development of new technologies and products within this industry, while also fostering a thriving ecosystem for startups and academic spin-offs.



Adoption and exportation of cutting-edge technology

The Portuguese chemicals and rubber & plastic industry not only embraces world best practices but also actively exports its own technology. This includes both intangible assets and product innovations resulting from in-house developments.



Strategic location

Portugal's strategic location, excellent transport infrastructure and ports make it an ideal destination for international trade. With strong logistics, railway connections to Spain, and a strategic position in the Africa-Europe-America axis, Portugal is particularly appealing for businesses in this sector.



Maritime infrastructures

Sines Port is Portugal's main energy hub and has a railway connection to Spain. These strategically located ports streamline international trade, with Portugal's maritime infrastructure making them attractive for extra-EU shipments, including the USA.



Dynamic chemicals hubs

Sines and Estarreja, as main chemicals industry hubs, have been transformed into modern and sustainable hubs through recent investments. Portugal leverages these investments to strengthen both downstream and upstream segments of the value chain.



Strong orientation to greener processes

Circular economy principles, such as CO₂ reuse and process innovations (e.g., Power-to-X) have been widely introduced in Portuguese chemicals' hubs, such as Sines and Estarreja, and as outlined in the National Plans (e.g., Circular Economy Action Plan).



External challenges to which the Chemicals and Rubber & Plastic in Portugal is responding



- ▶ **Biochemistry/biotechnology is growing**, gaining scale and reinforcing its links to existing chemical companies.
- ▶ **Energy transition/ decarbonization and circular economy.**
- ▶ Growth in **innovative materials, by nanotechnology**, like lightweight composites and high-performance polymers

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Appendix



Combined Nomenclature and Economic Activity codes¹

NACE	Description	Subsector
20	Manufacture of chemicals and chemical products	Chemicals
22	Manufacture of rubber and plastic products	Rubber & Plastic

NC	Description	Subsector
4011.10.00	New pneumatic tyres, of rubber, of a kind used for motor cars, incl. station wagons and racing cars	Rubber & Plastic
2917.36.00	Terephthalic acid and its salts	Chemicals
3926.90.97	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s.	Rubber & Plastic
3920.20.21	Plates, sheets, film, foil and strip, of non-cellular polymers of propylene, not reinforced, laminated, supported or similarly combined with other materials, not further worked or only surface-worked and not cut to shapes other than rectangular "incl. square" of a thickness of $\leq 0,10$ mm, biaxially oriented (excl. self-adhesive and wall or ceiling coverings of chapter No 391813)	Rubber & Plastic
3909.31.00	Poly(methylene) phenyl isocyanate (crude MDI, polymeric MDI), in primary forms	Chemicals
2901.22.00	Propene propylene	Chemicals
2707.50.00	Aromatic hydrocarbon mixtures of which $\geq 65\%$ by volume, incl. losses, distils at 250°C by the ASTM D 86 method (excl. chemically defined compounds)	Chemicals
3904.10.00	Poly(vinyl) chloride, in primary forms, not mixed with any other substances	Chemicals
3901.20.90	Polyethylene with a specific gravity of $\geq 0,94$, in primary forms (excl. polyethylene in blocks of irregular shape, lumps, powders, granules, flakes and similar bulk forms, of a specific gravity of $\geq 0,958$ at 23°C , containing ≤ 50 mg/kg of aluminium, ≤ 2 mg/kg of calcium, of chromium, of iron, of nickel and of titanium each and ≤ 8 mg/kg of vanadium, for the manufacture of chlorosulphonated polyethylene)	Chemicals
3920.62.90	Plates, sheets, film, foil and strip, of non-cellular poly(ethylene) terephthalate, not reinforced, laminated, supported or similarly combined with other materials, without support, unworked or not further worked than surface-worked or merely cut into squares or rectangles, of a thickness of $> 0,35$ mm (excl. such self-adhesive products, and floor, wall and ceiling coverings of heading 3918)	Rubber & Plastic

1. The combined nomenclature codes mentioned in the table above are exclusively the ones referenced in this report in page 9. For the purposes of computing the industry's overall figures, the list available at the excel file that can be consulted in the Invest in Portugal site was used.

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