



Direção Geral de
Energia e Geologia

Statistical Information

Mining Industry - Portugal

N.º 17

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SPECIAL POINTS OF INTEREST:

- Statistical elements
of the extractive
industry in the
period from 2010 to
2014;

- Data production
and international
trade by sectors

Introduction

This paper contains the mining industry statistical data, both in volume and value, related to 2014. These data are based on the results reported by mining companies through an annual questionnaire. The methodologies used to report the data production and the list of commodities are compliant at EU level.

Additionally it is reported sales data by sub-sector, international trade (exports), active concessions and number of employees in the mining industry.

The data refers to all mining companies (mines and

quarries) and hydrogeological resources in Portugal main land (Azores and Madeira islands not included).

The source for the data production is DGEG's responsibility and the international trade data are from the Portuguese Statistical Institute (Instituto Nacional de Estatística).

Data from 2014 are definitive and data from 2010 to 2013 are reviewed data.

SUMMARY:

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Abstract

Although the territorial dimension of Portugal is small, the country has a very diverse and complex geology, being very rich for mineral resources. Beyond the world-known deposits of Neves-Corvo (Copper and Zinc) and of Panasqueira (tungsten), there are multiple occurrences of feldspar, quartz, kaolin, halite, ornamental stones, aggregates, natural mineral waters and spring waters. In fact, Portugal has several geological resources of world class deposits, critical minerals and others, which need to be researched and explored also in the maritime area (deep seafloor) which is one of the largest in the world corresponding to about 18 times the terrestrial surface of Portugal.

The mining potential of Portugal allied to the dependence of the EU on certain raw materials which occur in our country, is an opportunity to, through the extractive industry development, help to enhance national endogenous resources, and contribute to the development of national economy, through the services involved, distribution and sale of products, job creation and other positive impacts in portuguese society.

It's important to increase the expression of extractive industry in the national GDP value, adding value to raw materials, through, for example, rocks processing and developing ceramic and cement industries.

In this context, mineral resources also assume importance in the growth of exports and decrease in imports, of both raw materials and manufactured products.

The further disclosure of geological resources and their sustainable exploitation, taking into account the values of transparency in attracting investment, a legal framework which are taken into account other land uses and environmental and territorial policies, are necessary conditions for the development of this sector.

In 2014, the value of the national mining and quarrying output has declined 3,5% when compared to the year before, being of about 939 million euros. In this value, 44% correspond to the production of metallic minerals and 33%.

In the subsector of metal ores, copper continues to represent about 85% of production value, however is not to disregard the growing trend that has been observed over the past 3 years, in zinc ores, from the mine of Neves Corvo, with a production value, for 2014, of about 63 million euros.

Regarding to minerals related with construction industry,

values, compared to last year, in the overall context of the sector, have not changed significantly, recording a value in 2014 of about 372 million euros. Looking more in detail, we find in production values, a slight decrease (8%) in the subsector of aggregates, an increase of about 14% in the cement and lime subsector, and there are no relevant changes in the ornamental stones values, compared to last year.

The sector of mineral and spring waters remained unchanged, compared to last year, with a production volume of 1.129 million liters.

As regards exports, the mining industry plays an important role at national level, reached in 2014 a value of 833 million euros. Being the sector of ornamental stones, with 368.003 million euros and metal ores sector, with 411.847 million euros, that dominates the overall exports in this industry representing, respectively, 44% and 49% of them. The main destination countries are, in descending order of export value, China, Finland, France, Spain and Germany.

If we analyze in terms of substances, we see that the copper concentrates contributed the largest share, about 40% of the total of exported substances, followed by marble and limestone, which account for about 25% of this total.

With regard to the export of mineral and spring waters, Portugal has an important position due to our production capacity and diversity of supply, which vary from the low mineralized still waters to natural carbonated and carbonated water, exporting to over 50 countries in five continents. The international demand of Portuguese waters continues in countries and regions as diverse as Angola, Mozambique and Guinea in Africa, Europe to the UK, France or Switzerland and also on the American continent to the United States and Canada. About 48.4 million liters were exported with a value of 12 million euros, meaning a decrease of about 20% compared to last year.

Imports totaled a value of 400 million euros, that did not vary significantly compared to last year, with Colombia being the main country of origin. The coal was once again the main substance imported, accounting for 60% of the total value of imports of mining and quarrying.

The number of production units and the number of persons employed, did not change significantly compared to last year, totaling 10.666 employees spread over 832 production units (mines, quarries and hydrotherapy/bottling).

Summary - 2014

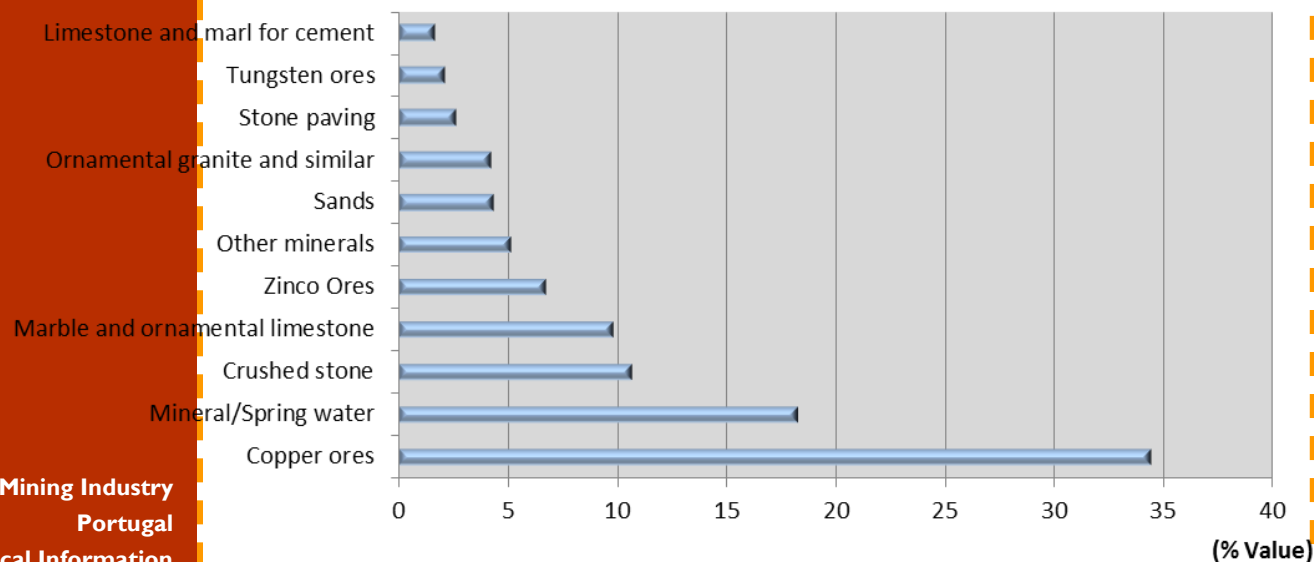
Subsector	Direct employment	Production			Departures		Weight of Sub-sectors in Total (value)
		Unit	Quantity	Value (10 ³ €)	Quantity	(10 ³ €)	
Metallic Ores	2.891	Ton	473.926	411.694	482.475	411.847	44%
Construction minerals	4.987	Ton	45.335.088	309.496	1.989.764	371.544	33%
Industrial Minerals	739	Ton	5.067.862	46.309	1.010.233	48.985	5%
Min/Spring Water ⁽¹⁾	1.963	(10 ³) L	1.129.464	171.371	48.448	11.996	18%
Total	10.580			938.870		844.372	100%

Source: DGEG and INE - International Trade

(1) Value obtained based on national bottled water sales and Hydrotherapy

Summary

Principal commodities produced, 2014



Production

Evolution of production, 2010-2014

Subsectors	Value of production (10 ³ €)					2014/13 (%)
	2010	2011	2012	2013	2014	
Metallic Ores	427.604	449.478	462.681	435.987	411.694	-5,6
Construction minerals	445.075	407.997	330.472	317.915	309.496	-2,6
Industrial minerals	57.224	55.460	45.361	45.891	46.309	0,9
Mineral/Spring Water	276.400	237.383	203.935	172.693	171.371	-0,8
TOTAL	1.206.303	1.150.318	1.042.449	972.486	938.870	-3,5

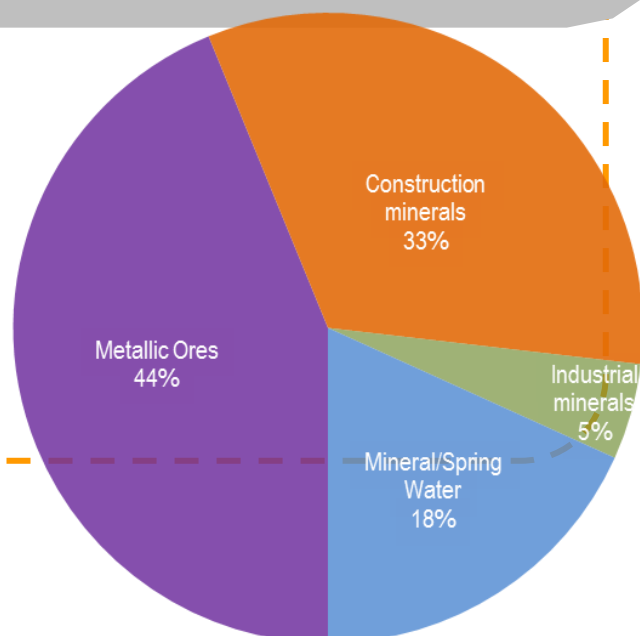
Note: Mineral and spring water - Value obtained on the basis of national bottled water sales and Hydrotherapy

Evolution of production



Evolution
of
production
by
Subsectors

Value (%) of production by subsectors, 2014

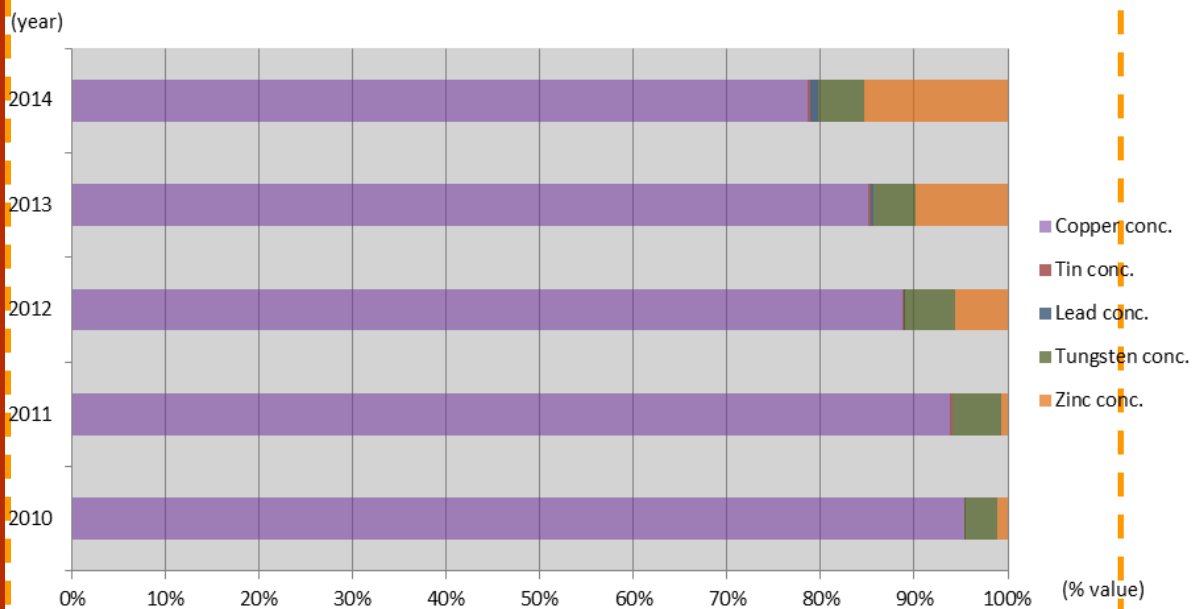


Metallic Ores

Evolution of production

Commodities	2010		2011		2012		2013		2014	
	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)
Copper conc.	308.186	407.676	328.216	421.859	310.316	410.401	326.276	370.934	315.984	323.544
Tin conc.	31	263	53	769	58	695	114	1.246	103	1.238
Lead conc.	-	-	-	-	243	78	4.011	1.404	9.856	3.455
Tungsten conc.	1.364	14.580	1.399	23.361	1.303	25.513	1.174	19.574	1.131	19.990
Zinc conc.	14.439	5.064	9.127	3.462	63.482	25.972	107.040	42.821	146.838	63.354
Other	10	20	14	28	18	23	15	8	14	111
TOTAL	324.031	427.604	338.809	449.478	375.420	462.681	438.630	435.987	473.926	411.694

Evolution of value production of metallic ores



Evolution of production

Subsetors	2010		2011		2012		2013		2014	
	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)
AGGREGATES	59.140.489	248.282	56.372.440	235.287	38.744.856	162.790	29.328.416	133.609	32.507.198	122.855
MINERALS TO CEMENT AND LIME	10.825.612	20.564	9.860.250	20.037	8.193.847	17.089	9.401.222	18.475	9.997.073	21.044
ORNAMENTAL STONES	2.816.732	176.229	2.618.333	152.672	2.743.506	150.593	2.918.199	165.831	2.830.818	165.597
TOTAL	72.782.832	445.075	68.851.023	407.996	49.682.209	330.472	41.647.837	317.915	45.335.088	309.496

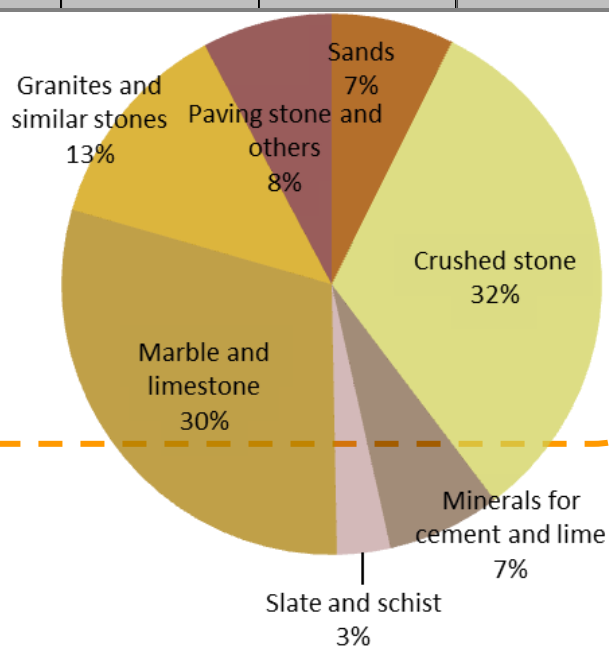
Production by commodities in 2014

Aggregates	2014		variation 2014/13 value (%)
	(ton.)	(10 ³ €)	
Sands	5.974.553	22.724	5,7
crushed stone: limestone	9.665.830	30.259	-6,9
crushed stone: siliceous	16.866.814	69.872	-12,2
TOTAL	32.507.198	122.855	-8,0

Min. for cement and lime	2014		variation 2014/13 value (%)
	(ton.)	(10 ³ €)	
Minerals for cement	9.488.129	18.748	17,4
Minerals for lime	508.944	2.295	-8,4
TOTAL	9.997.073	21.044	13,9

Ornamental stones	2014		variation 2014/13 value (%)
	(ton.)	(10 ³ €)	
Marble and limestone	820.586	92.098	-9,5
Granites and Similar stones	1.152.301	39.525	19,3
Paving stone	708.779	17.879	-12,6
Others	109.021	6.188	132,7
Slate and schist	40.130	9.907	26,2
TOTAL	2.830.818	165.597	-0,1

Value (%) of
production by
subsetors, 2014



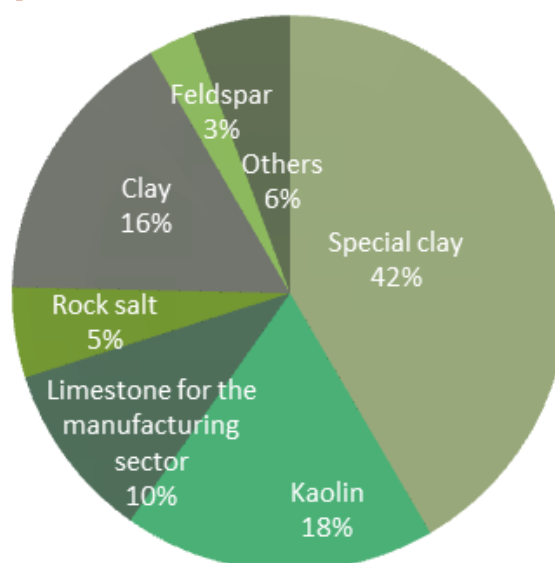
Industrial minerals

Commodities	2010		2011		2012		2013		2014	
	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)	(ton.)	(10 ³ €)
Clay and kaolin	2.575.573	16.827	2.568.994	18.055	1.751.616	14.263	1.306.624	14.279	2.067.321	15.957
Rock salt	618.961	11.410	631.295	11.271	520.284	4.651	473.095	4.639	2.930.839	27.920
Other industrial minerals	3.069.965	28.988	3.238.000	26.134	3.238.326	26.447	3.161.668	26.972	69.702	2.432
TOTAL	6.264.499	57.224	6.438.289	55.460	5.510.226	45.361	4941386,62	45.891	5.067.862	46.309

Production by commodities in 2014

Industrial Minerals	2014		Variation 14/13 value (%)
	(ton.)	(10 ³ €)	
Common clay	1.505.353	3.889	0,8
Special clay	292.895	3.654	40,8
Kaolin	269.073	8.414	7,5
Special sand	1.404.101	19.253	14,3
Limestone for the manufacturing sector	1.261.706	4.792	-31,0
Feldspar	70.865	1.244	7,0
Feldspathic sands	65.575	787	-0,8
Talc	14.942	891	30,8
Pegmatite with lithium	17.459	278	-10,3
Rock salt	69.702	2.432	-47,6
other	96.192	676	177,9
Total	5.067.862	46.309	0,9

Structure of value of production, 2014



Mineral and spring waters

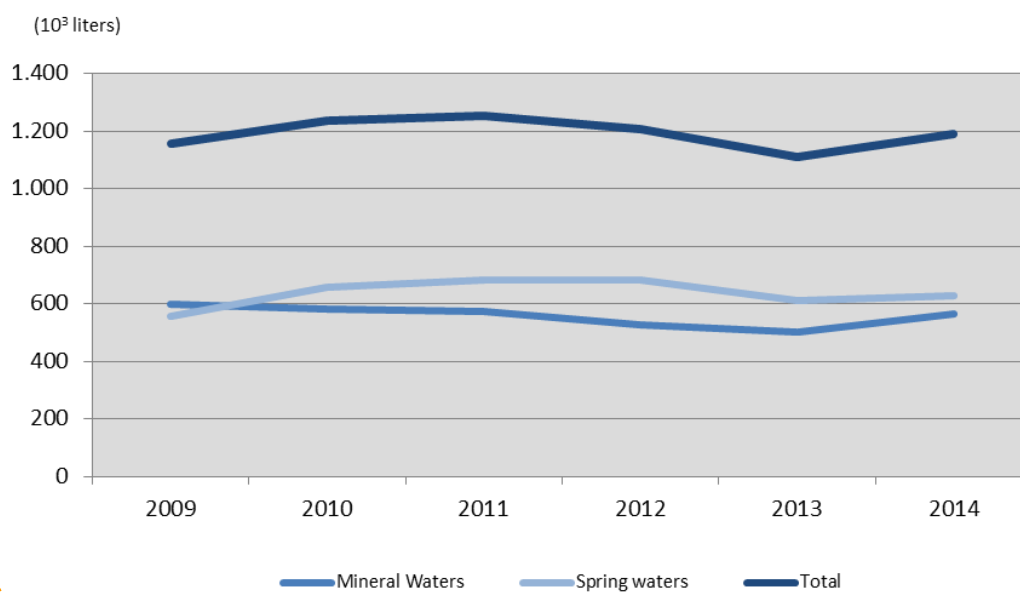
Evolution of production

Type of water	2010		2011		2012		2013		2014		Variation 14/13
	(10 ³ L)	(10 ³ €)	(10 ³ L)	(10 ³ €)	(10 ³ L)	(10 ³ €)	(10 ³ L)	(10 ³ €)	(10 ³ L)	(10 ³ €)	Value (%)
Spring waters	656.469	86.324	683.334	81.856	683.126	76.156	610.832	68.055	628.578	67.363	-1,0
Mineral Waters	582.115	190.076	571.771	155.527	526.072	127.780	500.252	104.638	563.218	104.008	-0,6
Bottling	582.115	171.780	571.771	141.417	526.072	114.223	500.252	91.831	536.866	92.376	0,6
Hydrotherapy	-	18.296	-	14.110	-	13.557	-	12.807	-	11.632	-9,2
TOTAL	1.238.584	276.400	1.255.105	237.383	1.209.198	203.936	1.111.084	172.693	1.191.796	171.371	-0,8

Production of various types of bottled water, 2014

Type of water	carbonated	natural carbonated	lisa	TOTAL
	produced volume (10 ³ L)			
Spring waters	2.483		626.095	628.578
Mineral Waters	16.606	31.034	515.578	563.218
TOTAL	19.089	31.034	1.141.673	1.191.796

Evolution of water produced



Sales for consumer industry

Consumer industry	CAE	2013	2014	Variation 14/13 (%)
		Value (1000 €)		
Collection and primary processing of precious metals and other non-ferrous metals	244	428.879	409.639	-4,5
Bottling of mineral and spring waters	11071	159.886	159.739	-0,1
Cutting, shaping and finishing of ornamental and building stone	237	114.640	123.121	7,4
Civil engineering	42	98.488	93.807	-4,8
Manufacture of concrete, gypsum and cement	236	3.007	2.745	-8,7
Manufacture of glass and glass products	231	12.226	16.515	35,1
Manufacture of tiles, tiles, mosaics and ceramic plates	2331	9.698	9.766	0,7
Manufacture of cement, lime and gypsum	235	907	743	-18,1
Specialised construction activities	43	4.906	5.381	9,7
Manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in primary forms	201	4.470	3.367	-24,7
Manufacture of refractory ceramic products	232	3.354	5.055	50,7
Manufacture of bricks, tiles and other ceramic products for construction	2332	2.503	2.965	18,4
Manufacture of abrasive products and other non-metallic mineral products	239	1.761	529	-69,9
Iron and steel and of ferro-alloys	241	886	1.177	32,9
Manufacture of pulp, paper, paperboard and articles thereof	17	622	374	-39,9
Fabricação de artigos de borracha e de matérias plásticas	22	570	546	-4,1
Other cleaning activities	81292	317	237	-25,4
Manufacture of paints, varnishes and similar mastics, inks	203	275	296	7,6
Manufacture of animal feed	109	150	157	4,3
Manufacture of pesticides and other agrochemical products	202	59	101	70,9
Manufacture of cement	2351	6.241	5.542	-11,2
Manufacture of lime	23521	1.496	1.746	16,7
Manufacture of concrete products for construction	2361	3.519	3.559	1,1
Manufacture of concrete	2363	8.217	8.594	4,6
Manufacture of concrete products for construction	2364	2.384	3.267	37,0
Other activities	S	937	332	-64,6
Other extractive industries		852	456	-46,5
Total		871.245	859.755	-1,3

International trade

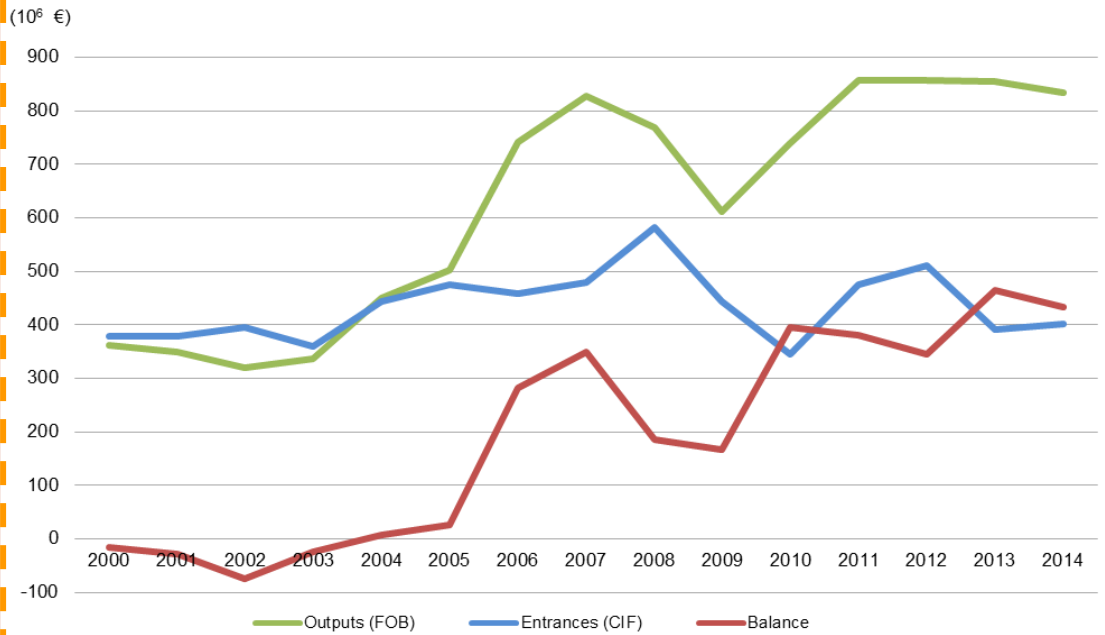
(Value: 10 ⁶ euros)		Evolution of international trade, 2000 - 2014														
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Outputs (FOB)	362	350	320	336	449	502	741	827	768	610	740	857	857	855	833	
Entrances (CIF)	378	378	394	361	443	475	458	479	582	444	345	476	511	391	401	
Balance	-17	-28	-74	-25	6	26	282	348	186	167	395	381	346	464	433	
Coverage Rate (%)	96	93	81	93	101	106	162	173	132	138	214	180	168	219	208	

Source: DGEG and INE - International Trade.
Entrances not included "oil"; Departures included "waters".

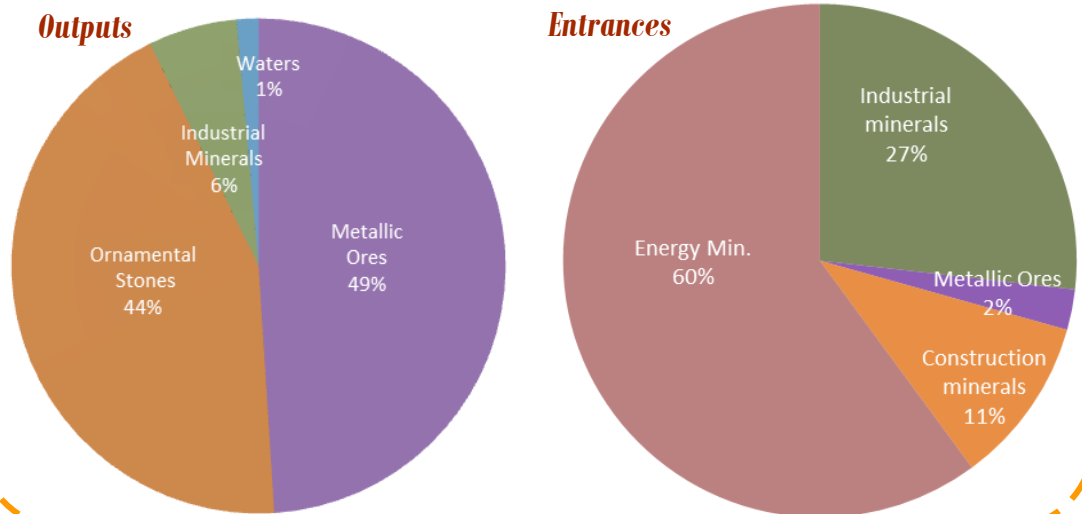
The output of mineral substances (including water) recorded in 2014 shows a slight decrease of its value over the previous year, reaching 833 million euros. Metal ores, which represent about 50% of the total value of output, showed a decrease of 5.5% on the value of outputs. The sector of ornamental stones, compared to last year, does not register significant changes in output values, totaling in 2014, 368 million euros.

The entrances, not including oil, recorded in 2014, shows a total value of about 401 million euros, compared to last year, does not register significant changes in output values.

With the stagnation of the total value of the outputs and the significant decrease in entrances, the rate of coverage of the inputs by the outputs stands at 208% in the year 2014 and the balance maintained a positive value of 433 million euros.



Structure of value of outputs and entrances, 2014



Outputs

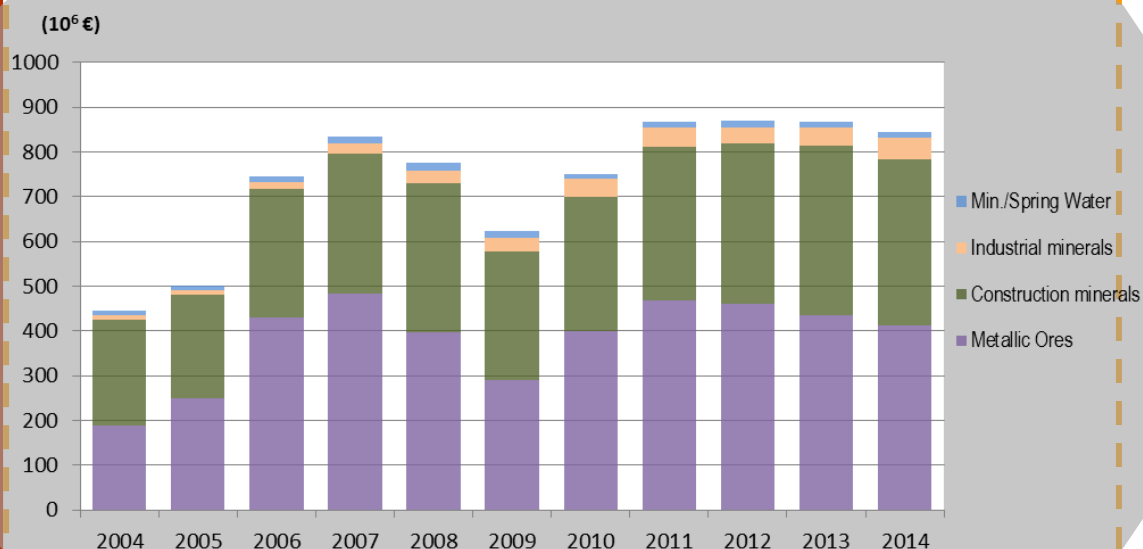
Evolution of value outputs

Subsectors	2011	variation (11/10)	2012	variation (12/11)	2013	variation (13/12)	2014	variation (14/13)
	(10 ³ €)	(%)	(10 ³ €)	(%)	(10 ³ €)	(%)	(10 ³ €)	(%)
Energy Min.	2.901	164,2	2.046	-29,5	1.601	-21,8	1.110	-30,7
Metallic Ores	469.100	17,8	461.368	-1,6	436.043	-5,5	411.847	-5,5
Construction minerals	340.834	12,8	356.829	4,7	376.875	5,6	371.544	-1,4
Industrial minerals	44.069	15,0	36.847	-16,4	40.450	9,8	48.985	21,1
Min./Spring Water	14.326	20,3	14.553	1,6	14.940	2,7	11.996	-19,7
TOTAL	871.231	15,9	871.643	0,0	869.909	-0,2	845.482	-2,8

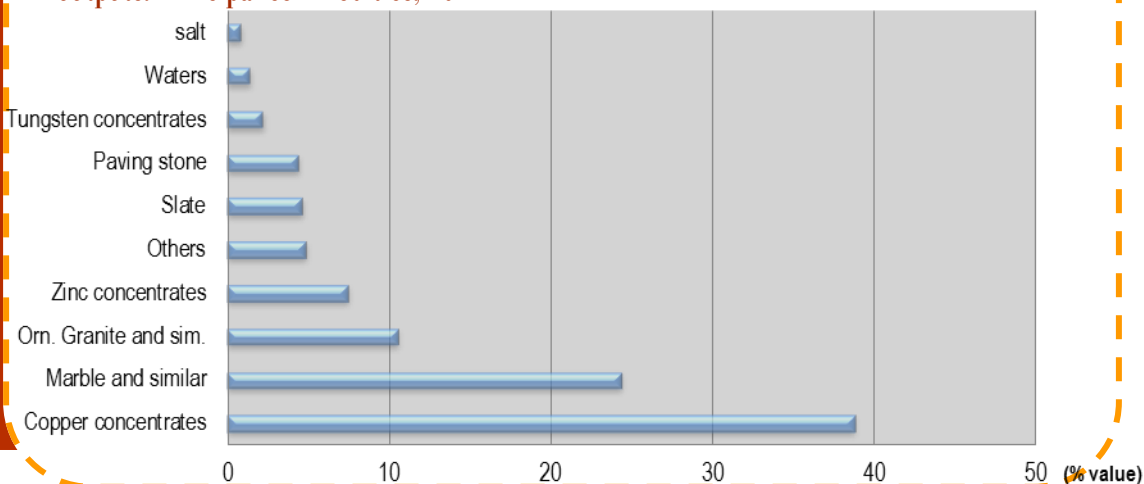
Source: DGEG and INE - International Trade. FOB values

Note:

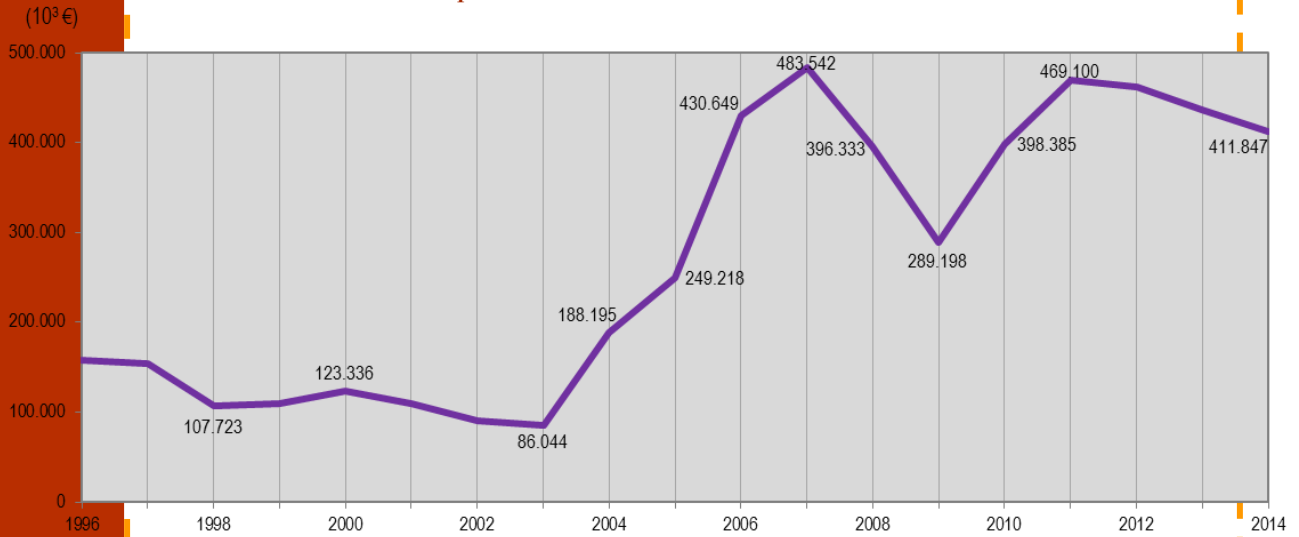
The designation "outputs" reflects the sum of "dispatches" into statistical territory of the Member States with the "exports" to a non-Member State.



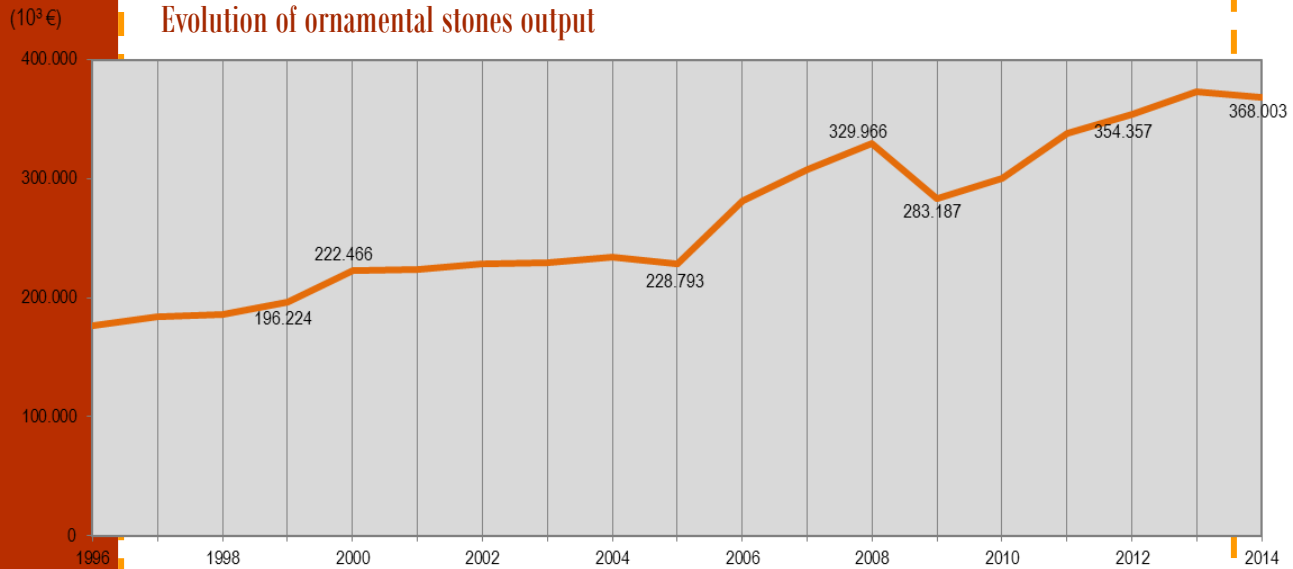
Outputs: Principal commodities, 2014



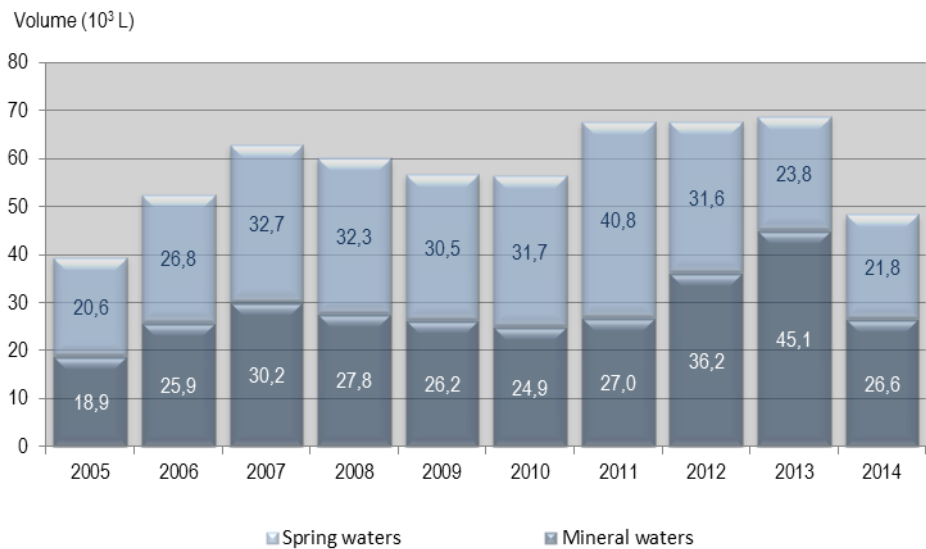
Evolution of metal ore output



Evolution of ornamental stones output



Evolution of bottling waters output



Entrances

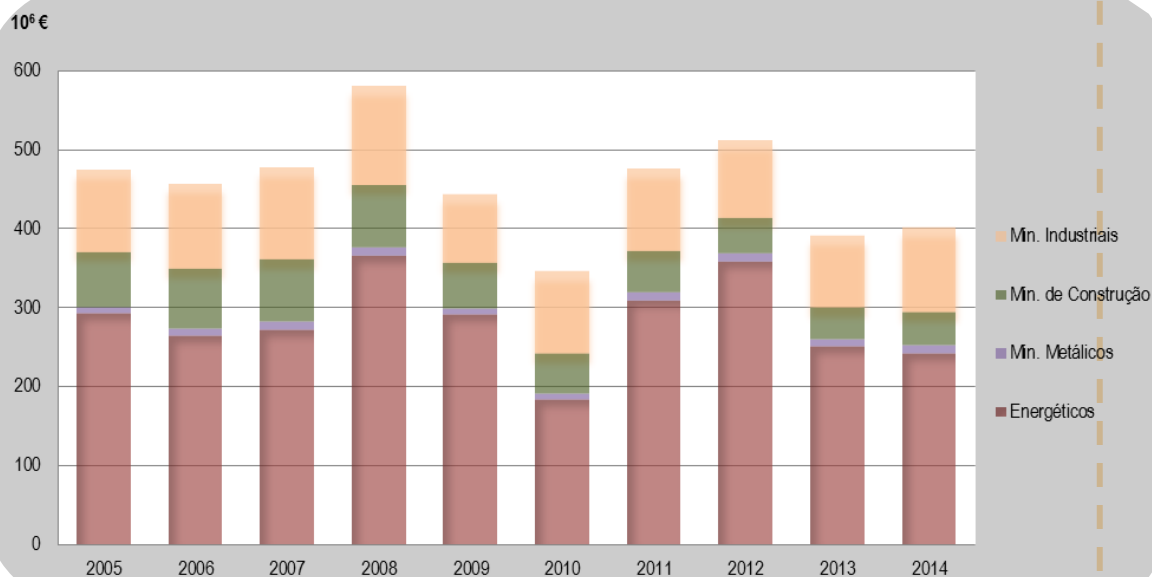
Evolution of value entrance

Subsectors	2011	variation (11/10)	2012	variation (12/11)	2013	variation (13/12)	2014	variation (14/13)
	(10 ³ €)	(%)	(10 ³ €)	(%)	(10 ³ €)	(%)	(10 ³ €)	(%)
Energy Min.	308.811	68,4	358.248	16,0	249.702	-30,3	240.834	-3,6
Metallic Ores	10.686	42,4	10.275	-3,8	9.251	-10,0	10.209	10,4
Construction minerals	51.103	1,6	44.640	-12,6	40.562	-9,1	42.369	4,5
Industrial minerals	105.125	1,1	98.263	-6,5	91.756	-6,6	107.396	17,0
TOTAL	475.724	37,8	511.425	7,5	391.271	-23,5	400.808	2,4

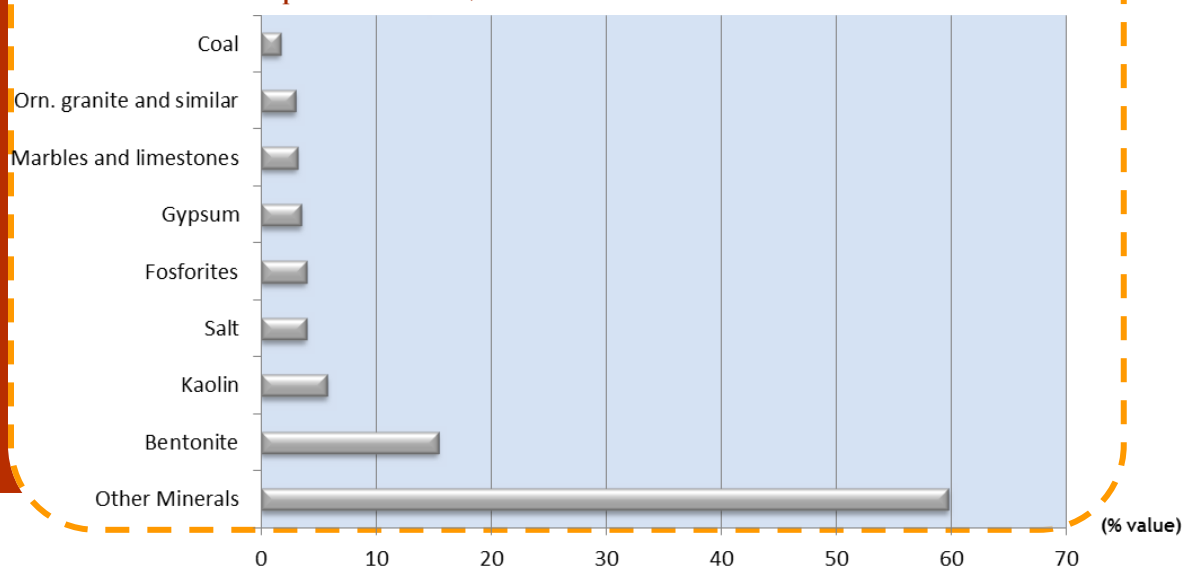
Source: DGEG with INE data base - International Trade. CIF Value (excludes oil).

Note:

The designation "Entrances" reflects the sum of the "Arrivals" of Member States with the "imports" from a non-Member State.



Entrances: Principal commodities, 2014

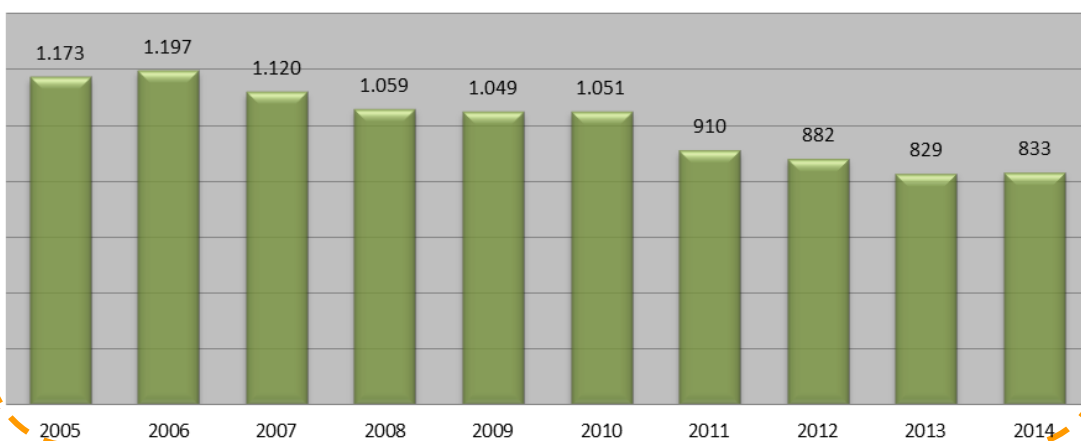


Production units

Number of production units in activity

SUBSECTORS	2010	2011	2012	2013	2014
METALLIC ORES	5	5	5	5	5
Non Ferrous Metallic Minerals	5	5	5	5	5
CONSTRUCTION MINERALS	826	687	666	623	637
Aggregates	325	282	276	261	272
Sands	82	65	66	64	68
Crushed stone: limestone	77	74	68	61	66
Crushed stone: siliceous	166	143	142	136	138
Minerals for Cement and Lime	18	17	18	17	16
Minerals for lime	4	3	4	4	2
Minerals for cement	14	14	14	13	14
Ornamental Stones	483	388	372	345	349
Slate	10	11	11	12	14
Granite and similar stones	124	108	107	104	106
Marble and limestone	161	144	133	123	132
Paving stone	162	102	100	87	78
Others	26	23	21	19	19
INDUSTRIAL MINERALS	154	148	147	130	121
Clay and Kaolin	97	91	86	79	77
Other industrial minerals	54	54	58	48	41
Rock salt	3	3	3	3	3
MINERAL AND SPRING WATER	66	70	64	71	69
Hydrotherapy	38	37	36	38	40
Bottling	28	33	28	33	29
TOTAL	1.051	910	882	829	832

Evolution of production units (number)



Employees

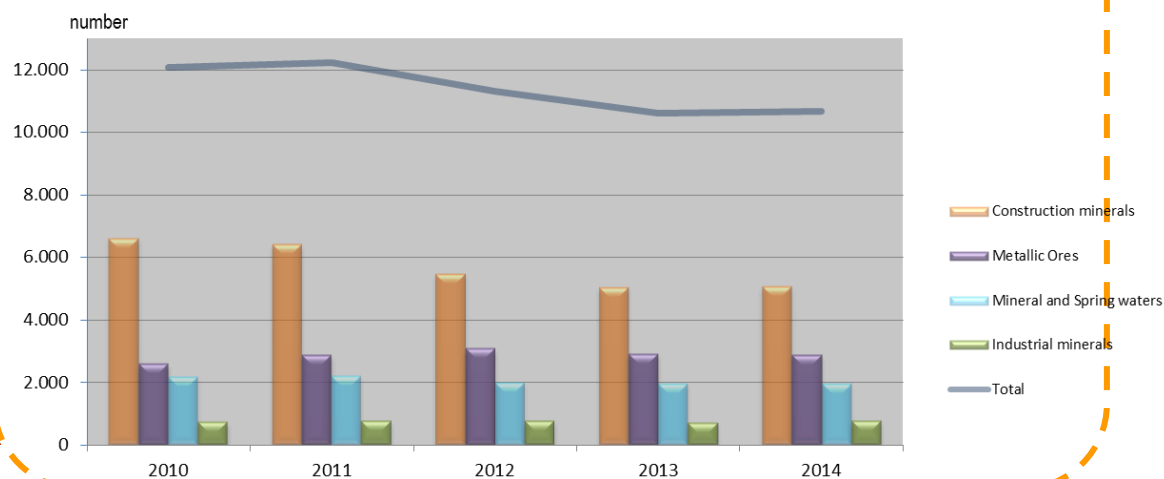
Number of persons employed

Note:

The number of employee only concerns the direct employment per production unit declared. Includes staff labor, technical and administrative staff assigned exclusively to units.

SUBSECTOR	2010	2011	2012	2013	2014
METALLIC ORES	2.587	2.866	3.070	2.891	2.870
Non Ferrous Metallic Minerals	2.587	2.866	3.070	2.891	2.870
CONSTRUCTION MINERALS	6.690	6.528	5.560	5.087	5.119
Aggregates	3.475	3.273	2.690	2.429	2.412
Sands	421	440	379	351	369
Crushed stone: limestone	1.164	1.044	761	673	638
Crushed stone: siliceous	1.890	1.789	1.550	1.405	1.405
Minerals for Cement and Lime	270	153	134	129	117
Minerals for lime	17	18	17	28	16
Minerals for cement	253	135	117	101	101
Ornamental Stones	2.945	3.102	2.736	2.529	2.590
Slate	142	176	191	170	191
Granite and similar stones	729	829	774	767	771
Marble and limestone	1.158	1.182	1.012	965	1.037
Paving stone	762	751	630	544	489
Others	154	164	129	83	102
INDUSTRIAL MINERALS	745	768	784	739	780
Clay and Kaolin	441	453	435	417	471
Other industrial minerals	253	261	298	278	268
Rock salt	51	54	51	44	41
MINERAL AND SPRING WATER	2.171	2.185	1.987	1.963	1.961
Hydrotherapy	962	910	871	879	817
Bottling	1.209	1.275	1.116	1.084	1.144
Total	12.193	12.347	11.401	10.680	10.730

Evolution of persons employed





Direção Geral de Energia e Geologia

Edition:

Direção de Serviços de Estratégia e Fomento dos Recursos Geológicos

Colaboration:

Direção de Serviços de Recursos Hidrogeológicos e Geotérmicos

Sources:

Direção Geral de Energia e Geologia (DGEG) - General Directorate for Energy and Geology

Mining and quarrying production data: Direção Geral de Energia e Geologia (DGEG) - Direção de Serviços de Estratégia e Fomento dos Recursos Geológicos

Data mineral waters and spring: DGEG -Direção de Serviços de Recursos Hidrogeológicos e Geotérmicos (Hydrogeological resources department)

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Obtaining quality of official statistics depends on the accuracy of the response to our inquiries. To this end, the cooperation of the companies in the filling of statistical surveys is essential.

The DGEG guarantees the confidentiality of all data for the production of official statistics, in accordance with the provisions of the National Statistical System Law.