



2014 Minerals Yearbook

BELGIUM AND LUXEMBOURG

THE MINERAL INDUSTRIES OF BELGIUM AND LUXEMBOURG

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BELGIUM

In 2014, Belgium was a significant processor of minerals in the European Union (EU), producing cobalt, primary and secondary copper, lead, pig iron, steel, and zinc. Belgium also produced industrial minerals and petroleum refinery products. The city of Antwerp was the leading trading center for the diamond industry in the world (table 1).

Belgium's economy depended considerably on trade, both for domestic consumption and for exporting goods and services from its industry. In 2014, Belgium received 3.5% of all imports of mineral fuels, lubricants, and related materials from the EU, and it accounted for 12.6% of all exports to countries outside of the EU. Belgium also accounted for 7.6% of imports and 5.6% of exports of raw materials from the EU. In 2014, Belgium traded mostly with its EU partners, as 75.9% of all Belgium's exports went to EU members and 72.2% of its imports came from EU members. In 2014, trade between Belgium and the United States amounted to \$20.9 billion in imports and \$34.8 billion in exports, principally as chemicals, machinery, miscellaneous manufactured goods, petroleum and coal products, and transportation equipment (European Commission, 2015a–e; U.S. Census Bureau, 2015).

Minerals in the National Economy

The metal-processing industries, and in particular steel production, were significant to the Belgian economy. Belgium was the 22d-ranked steel producer in the world in 2013, measured by tonnage of production (World Steel Association, 2014, p. 9).

Umicore Group, which was one of Europe's leading metal recyclers and processors, was headquartered in Brussels, Belgium. Nyrstar N.V., which was headquartered in Balen, Belgium, was a leading producer of zinc, by tonnage of output, in the world (Umicore Group, 2013; Nyrstar N.V., 2015, p. 81).

According to the Antwerp World Diamond Centre, Antwerp was the center of the world's open rough diamond market; 84% of all rough diamond and 50% of all polished diamond pass through Antwerp. Diamond represented 5% of all Belgium's exports worldwide and 15% of all Belgium's exports outside the EU in 2014 (Antwerp World Diamond Centre, 2015).

According to the Environment, Nature and Energy Department of the Flemish region, Flanders produces principally industrial minerals, such as clay, loam, and sand and gravel, and these industrial minerals are the only mineral resources that are exploited and commercialized in the Flemish region. The mineral extraction industry in Flanders directly employed about 3,500 people (Flemish Department of Environment, Nature and Energy, 2014).

Government Policies and Programs

Belgium is a Federal state with a Federal legislature, divided into three linguistic communities, and three geographic regions, all with their respective legislatures. Flanders is the sole exception within this legal framework where the two levels of government (the Flemish language community and the Flemish region legislature) united in 1980. After 1980, the general laws regarding mineral exploitation and administration have been administered under the legislative powers of each region. These regions are Flanders (Vlaanderen), Wallonia (Wallonie), and the Brussels-Capital Region. The main mining law dates from 1810 with modifications in 1914, 1920, and 1929. In 1980, each region became responsible for its own mineral resources, and each region has its own laws and regulations regarding concessions, exploitation, and all matters related to mineral exploitation and extraction (European Union Committee of the Regions, 2014; Service Géologique de Wallonie, 2014).

Production

In 2014, Belgium's production of cobalt increased by 8%, total production of crude steel (4%), total production of zinc (3%), and secondary lead production (2%). Belgium's production of secondary smelter copper decreased in 2014 by 2%, refined primary and secondary copper decreased by less than 1%, and the production of pig iron remained about the same. Belgium mined only industrial minerals. The refining of copper and such minor metals as cadmium, cobalt, germanium, selenium, tellurium, tin, and zinc, and the production of steel were the leading mineral industries in Belgium (table 1).

Structure of the Mineral Industry

Belgium had cement plants, petroleum refineries, and steel mills, making Belgium a significant processor of raw mineral materials. Although the country's industrial production had shifted from manufactured goods to a service economy, mineral processing and manufacturing remained relevant to the Belgian economy.

The principal mining and mineral-processing facilities in Belgium, with their locations and capacities, are listed in table 2. Most facilities were privately owned, either by Belgian companies or other EU companies. Of these companies, Umicore and Nyrstar, in terms of the value of production, were the most prominent. Umicore had a catalysis division, an energy materials division, a performance materials division, and a recycling division. Nyrstar operated the Balen/Overpelt smelter and zinc alloy facility. Nyrstar also owned smelters in Aubry, France; Budel, Netherlands; Clarksville, Tennessee; and Hobart and Port Pirie, Australia (Umicore Group, 2013; Nyrstar N.V., 2015).

Commodity Review

Metals

Cobalt.—N.V. Umicore S.A. increased its cobalt production in 2014 to 5,850 metric tons (t) from 5,415 t in 2013, according to the Cobalt Development Institute (CDI). The increase followed a trend of worldwide cobalt production increases. World consumption seemed to have increased by 8% compared with that of the previous year, however, the CDI reported the increase in consumption in China and Asia was more than 10% (Cobalt Development Institute, 2015).

Zinc.—In 2014, Nyrstar N.V. reported that the Balen/Overpelt smelter had increased zinc metal production by 4% to 262,000 t compared with that of the previous year, despite the fact that it had halted production for planned maintenance of its F4 roaster and acid plant in the second quarter of 2014. The company also reported that these operations were both completed in the expected timeframe and within budget (Nyrstar N.V., 2015, p. 24).

Industrial Minerals

Cement.—In April, Lafarge S.A. (Lafarge) of France announced its merger with Holcim S.A. of Switzerland, a project that was expected to be finalized in the first half of 2015. In December, Lafarge announced the composition of the executive committee of the new combined company would be composed of equal numbers of Lafarge and Holcim directors and that its central corporate functions would be distributed in France and Switzerland.

After a strategic optimization of the portfolio through a divestment process, Lafarge announced that while the companies awaited regulatory approvals, the new company, LafargeHolcim, would combine operations, and that its production sites would be located in 90 countries across all continents. Lafarge also stated that no country would account for more than 10% of the combined revenues of the newly created company. Lafarge declared that LafargeHolcim would be listed on the SIX stock exchange in Zurich and the Euronext exchange in Paris; however, the new entity would be domiciled in Switzerland and would operate under the Swiss local governance rules. Prior to the merger, the Holcim Group owned and operated the cement plant in Obourg, Belgium, which had a capacity of 2.2 million metric tons per year (Mt/yr) (Lafarge S.A., 2014a, b).

Italcementi S.p.A of Italy announced in June that it would purchase the remaining stock from Société des Ciments Français, and would absorb the company completely and delist it from the Euronext stock exchange in Paris. On July 15, Société des Ciments Français was officially delisted and incorporated into Italcementi. The company announced that it was exploring its options as the cement industry seemed to be consolidating. Italcementi was the fourth-ranked producer of cement in the world after LafargeHolcim, and it owned and operated several plants in Belgium, including those in Ghent, Hermignies, Lixhe, and Mons, which had a combined capacity of 4.4 Mt/yr (Les Echos, 2014a, b).

Diamond.—In 2014, the net trade of rough diamond in Belgium increased by 10%, and that of polished diamond increased by 4%, for a total (combined) trade value of

\$58.8 billion, which surpassed the previous all-time record high of \$56.5 billion in 2011. In 2014, Antwerp's most active trading partners of polished diamond exports, measured in carats, were Hong Kong, the United Arab Emirates, and the United States. In terms of value, the leading export partners were the United States, Hong Kong, and Israel (Antwerp World Diamond Centre, 2015).

Outlook

Belgium will continue to be a leading mineral processor and major diamond trader. Although it is likely that production of some commodities, such as steel, could decrease as demand diminishes in the world markets, it is also likely that production of other commodities, such as cobalt and zinc, could increase as the demand for these commodities increases. Belgium is also expected to remain important in international and intra-European cargo handling of mineral products through its major ports of Antwerp, Ghent, Ostend, and Zeebrugge.

References Cited

- Antwerp World Diamond Centre, 2015, Record figures confirm leadership Antwerp diamond industry: Antwerp World Diamond Centre. (Accessed May 12, 2015, at [https://www.awdc.be/sites/awdc/files/statistics/Record figures confirm leadership Antwerp diamond industry.pdf](https://www.awdc.be/sites/awdc/files/statistics/Record%20figures%20confirm%20leadership%20Antwerp%20diamond%20industry.pdf).)
- Cobalt Development Institute, 2015, Cobalt news—2014 production statistics—Production: Cobalt Development Institute, Cobalt News, April, 8 p. (Accessed May 12, 2015, at http://www.thecdi.com/cdi/images/news_pdf/15-2_cobalt_news.pdf.)
- European Commission, 2015a, Extra-EU28 trade of mineral fuels, lubricants, and related materials, by member state—Exports: European Commission. (Accessed May 12, 2015, at <http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tet00056&language=en>.)
- European Commission, 2015b, Extra-EU28 trade of mineral fuels, lubricants, and related materials, by member state—Imports: European Commission. (Accessed May 12, 2015, at <http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tet00056&language=en>.)
- European Commission 2015c, Extra-EU28 trade of raw material, by member state—Exports: European Commission. (Accessed May 5, 2015, at <http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tet00064&language=en>.)
- European Commission, 2015d, Extra-EU28 trade of raw materials, by member state —Imports: European Commission. (Accessed May 12, 2015, at <http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tet00064&language=en>.)
- European Commission, 2015e, Share of trade with the EU—Exports: European Commission. (Accessed May, 12, 2015, at <http://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tet00037&language=en>.)
- European Commission, 2015f, Share of trade with the EU—Imports: European Commission. (Accessed May 12, 2015, at <http://ec.europa.eu/eurostat/tgm/printTable.do?tab=table&plugin=1&language=en&pcode=tet00036&printPreview=true#>.)
- European Union Committee of the Regions, 2014, Division of powers—Belgium: European Union Web page. (Accessed June 10, 2014, at <http://extranet.cor.europa.eu/divisionpowers/countries/MembersLP/Belgium/Pages/default.aspx>.)
- FEBELCEM A.S.B.L., 2014, Rapport annuel de l'industrie cimentière belge [Annual report of the Belgian cement industry]: Fédération de l'Industrie Cimentière Belge, 40 p. (Accessed June 11, 2014, at http://www.febelcem.be/fileadmin/user_upload/rapports_annuels/RA13docFR.pdf.)
- Flemish Department of Environment, Nature and Energy, 2014, Mineral resources in Flanders: Flemish Department of Environment, Nature and Energy Web page. (Accessed June 11, 2014, at <http://www.lne.be/en/earth-and-soil/mineral-resources-in-flanders/1.-mineral-resources-in-flanders>.)
- Lafarge S.A., 2014a, A merger of equals to create LafargeHolcim, the most advanced group in the building materials industry: Lafarge S.A. press release, April 7. (Accessed January 8, 2016, at http://www.lafarge.com/mergerproject/04072014-press_finance-LafargeHolcim-merger-project-announcement-uk.pdf.)

Lafarge S.A., 2014b, Holcim and Lafarge select the future executive committee to head the combined company after closing: Lafarge S.A. press release, December 23. (Accessed January 8, 2016, at <http://www.lafarge.com/en/holcim-and-lafarge-select-future-executive-committee-head-combined-company-after-closing>.)

Les Echos, 2014a, Italcementi—Retrait obligatoire sur Ciments Français après l'OPA [Italcementi—Mandatory withdrawal over Ciments Français after their PMO]: Les Echos, Paris, July 4. (Accessed January 8, 2016, at <http://investir.lesechos.fr/actions/actualites/italcementi-retrait-obligatoire-sur-ciments-francais-apres-l-opa-984422.php>.)

Les Echos, 2014b, Italcementi s'apprête à absorber entièrement Ciments Français [Italcementi ready to totally absorb Ciments Français]: Paris, France, Les Echos Web page, June 30. (Accessed January 8, 2016, at http://www.lesechos.fr/30/06/2014/LesEchos/21718-081-ECH_italcementi-s-apprete-a-absorber-entierement-ciments-francais.htm.)

Nyrstar N.V., 2015, Annual report 2014: Nyrstar N.V., 189 p. (Accessed November 14, 2017, at <http://www.nyrstar.com/~media/Files/N/Nyrstar/results-reports-and-presentations/english/2015/nyrstar-ar14-en-planche.pdf>.)

Service Géologique de Wallonie, 2014, Octroi des concessions: Service Géologique de Wallonie. (Accessed October 31, 2017, at https://web.archive.org/web/20160912090122/http://geologie.wallonie.be/site/geoprod/soussol/exploitations/ssol_expl_mines/ssol_mines_concessions/ssol_conc_octroi.)

Umicore Group, 2013, Fact sheet—Umicore S.A.: Umicore Group. (Accessed October 31, 2017, at <https://web.archive.org/web/20140301161225/http://tools.euroland.com/factsheet/b-unim/factsheethtml.asp>.)

U.S. Census Bureau, 2015, Trade in good with Belgium: U.S. Census Bureau. (Accessed May 12, 2015, at <https://www.census.gov/foreign-trade/balance/c4231.html>.)

World Steel Association, 2014, World steel in figures 2014: Brussels, Belgium, World Steel Association, 31 p. (Accessed June 8, 2014, at <http://www.worldsteel.org/dms/internetDocumentList/bookshop/World-Steel-in-Figures-2014/document/World%20Steel%20in%20Figures%202014%20Final.pdf>.)

LUXEMBOURG

In 2014, the iron and steel industry was Luxembourg's most economically important mineral industry sector, and steel was the country's main export commodity.

Production

Mining in Luxembourg consisted of small industrial mineral operations that produced mineral commodities only for domestic consumption. These minerals included dolomite, limestone, sand and gravel, and slate. Information on these operations was not readily available. Some commodity production data are in table 1.

Structure of the Mineral Industry

The principal mineral facilities in Luxembourg, with their locations and capacities, are listed in table 2. Most facilities were privately owned.

Commodity Review

Metals

Iron and Steel.—ArcelorMittal, which was headquartered in Luxembourg, was the world's leading steel manufacturer. It was more than two times larger, in terms of volume, than its main competitor, Hebei Group of China (World Steel Association, 2014, p. 8).

Industrial Minerals

Cement.—In 2014, Buzzi Unicem S.p.A., the parent company of Cimalux S.A., reported that investments in the construction sector had begun to recover, when compared with those of the previous year, and that domestic cement consumption was increasing. In 2014, the company reported that its production had decreased by 1.6% compared with that of 2013, and its average unit revenues were marginally lower than the previous year. The company also reported that ready-mix concrete production posted a decrease of 6.6% in 2014 and that net production decreased by 3.2% from the previous year (Buzzi Unicem S.p.A, 2015, p. 14).

Outlook

Luxembourg is expected to continue to be a producer and exporter of steel. The country's industrial mineral production will likely continue to be limited to domestic consumption.

References Cited

Buzzi Unicem S.p.A, 2015, Annual report 2014: Casale Monferrato, Italy, Buzzi Unicem S.p.A., 124 p.

World Steel Association, 2014, World steel in figures 2014: Brussels, Belgium, World Steel Association, 31 p. (Accessed June 8, 2014, at <http://www.worldsteel.org/dms/internetDocumentList/bookshop/World-Steel-in-Figures-2014/document/World%20Steel%20in%20Figures%202014%20Final.pdf>.)

TABLE 1
BELGIUM AND LUXEMBOURG: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Country and commodity	2010	2011	2012	2013	2014
BELGIUM²					
Metals:					
Cobalt, primary ³	2,600 ^e	3,187	4,200	5,415	5,850
Copper:					
Smelter, secondary	118,600	112,900	118,000	150,600 ^r	148,000 ^e
Refined, primary and secondary	381,000	394,200	396,000	387,000 ^r	385,000 ^e
Iron and steel:					
Pig iron	4,688	4,725	4,072	4,343	4,335
thousand metric tons					
Steel:					
Crude	7,973	8,026	7,386	7,092	7,345
do.					
Hot-rolled products	9,649	10,012	8,917	8,293 ^r	8,300 ^r
do.					
Lead, refined, secondary	121,000 ^r	119,000 ^r	119,000 ^r	129,000 ^r	132,000 ^e
Zinc:					
Slab:					
Primary	260,000	282,000	250,000	252,000 ^{r,4}	262,000
Secondary, possibly remelted zinc ^e	51,000 ^r	50,000 ^r	47,000 ^r	48,000 ^r	48,000
Total	311,000	332,000	290,000	292,000	310,000
Industrial minerals:					
Cement	6,095	6,954	6,280	6,119 ^r	6,100 ^e
thousand metric tons					
Mineral fuels and related materials:					
Coke, all types	2,133	2,120	2,100	2,100	2,100
do.					
Petroleum refinery products:					
Liquefied petroleum gas	6,205	6,200	5,439	6,680 ^r	6,600 ^e
thousand 42-gallon barrels					
Naphtha and white spirit	14,300	NA	NA	NA	NA ^e
do.					
Gasoline	30,186	30,100	27,558	34,602 ^r	34,600 ^e
do.					
Kerosene	15,950	15,900	13,870	11,790 ^r	11,700 ^e
do.					
Kerosene, other	511	510	511	256 ^r	250 ^e
do.					
Distillate fuel oil	93,075	93,000	98,477	82,855 ^r	82,800 ^e
do.					
Refinery gas	3,800	NA	NA	NA	NA ^e
do.					
Residual fuel oil	35,150	35,100	37,449	32,193 ^r	32,100 ^e
do.					
Bitumen	8,600	NA	NA	NA	NA ^e
do.					
Total	207,777	180,000	183,304	168,376 ^r	168,000
LUXEMBOURG⁵					
Metals:					
Steel:					
Crude	2,563	2,521	2,232	2,100 ^r	2,200
thousand metric tons					
Hot-rolled products	1,941	2,220	2,000	2,000	2,100
do.					
Industrial minerals:					
Cement, hydraulic ^e	1,078,000	1,319,000 ⁴	1,217,000	1,200,000	1,100,000 ^e

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. NA Not available.

¹Table includes data available through May 11, 2015.

²In addition to the commodities listed, Belgium produced a number of other metals, alloys, and industrial minerals, such as aluminum (secondary), bismuth, dead-burned dolomite, kaolin, lime, nitrogen, quicklime, selenium, sodium sulfate, sulfur, sulfuric acid, tin (secondary), worked and natural stone, and zinc powder, but available information was inadequate to make reliable estimates of output.

³Production reported by N.V. Umicore S.A. includes production from China and South Africa.

⁴Reported figure.

⁵In addition to the commodities listed, Luxembourg produced phosphates (Thomas slag), for which only aggregate output figures were available.

TABLE 2
BELGIUM AND LUXEMBOURG: STRUCTURE OF THE MINERAL INDUSTRIES IN 2014

(Thousand metric tons unless otherwise specified)

Country and commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
BELGIUM				
Cadmium, metal	metric tons	N.V. Umicore S.A.	Hoboken	1,800
Cement		Major companies, of which:	Plants, of which:	9,000
Do.		Cimenteries CBR S.A. (HeidelbergCement Group)	Major plants at Lixhe, Mons/Obourg, Harmignies, and Ghent	(4,400)
Do.		Holcim (Belgium) S.A.	Plant at Obourg	(2,200) ¹
Do.		Compagnie des Ciment Belge (Ciments Francais S.A.)	Plant at Gaurain-Ramecroix	(2,400)
Cobalt	metric tons	N.V. Umicore S.A.	Refinery at Olen	500
Copper, secondary		Metallo-Chimique NV (Metallum Group)	Smelter at Beerse	80
Dolomite		SA Dolomeuse (Group Lhoist)	Quarry at Marche les Dames	500
Do.		do.	Plant at Marche les Dames	750
Do.		SA de Marche-les-Dames (Group Lhoist)	Quarries at Nameche	3,000
Do.		do.	Plant at Nameche	3,000
Do.		SA Dolomies de Merlemont (Group Lhoist)	Quarry at Philippeville	100
Lead, metal		N.V. Umicore S.A.	Smelter at Antwerp-Hoboken	90
Do.		do.	Refinery at Antwerp-Hoboken	125
Limestone		Carmeuse S.A. (privately owned)	Mines and plant at Engis	1,850
Do.		do.	Mines and plant at Frasnés	450
Do.		do.	Mines and plant at Maizeret	850
Do.		do.	Mines and plant at Moha	800
Do.		SA Transcar (Royal Volker Stevin)	Mines and plant at Maizeret	850
Petroleum, refined	42-gallon barrels per day	Total S.A.	Refinery at Antwerp	268,000
Do.	do.	ExxonMobil Petroleum & Chemical B.V.B.A. (ExxonMobil Corp., 100%)	do.	239,000
Do.	do.	Antwerp Processing Co. (Vitol Group)	do.	125,000
Do.	do.	Belgian Refining Corp. (Guvnor Group)	do.	107,500
Do.	do.	PRA NV (Vitol Group)	do.	22,300
Salt		Zoutman NV	Plant at Roeselare	200
Sand, silica		SRC-Sibelco SA	Mines and plants at Lommel, Mol, and Maasmechelen	500
Steel:				
Crude		ArcelorMittal Liege (ArcelorMittal)	Plant at Liege	3,000
Do.		ArcelorMittal Gent (ArcelorMittal)	Plant at Ghent	3,000
Do.		NLMK La Louviere S.A. (NLMK Group)	Plant at La Louviere	900
Manufactured		NMLK Clabecq S.A. (NLMK Group)	Rolling mill at Clabecq	750
Do.		Industeel Belgium S.A. (ArcelorMittal)	Rolling mill at Charleroi	600
Do.		ArcelorMittal Genk (ArcelorMittal)	Galvanizing plant at Genk-Zuid	360
Do.		Tubemeuse Industries S.A.	Tube mill at Flemalle	50
Tin		Metallo-Chimique NV (Metallum Group)	Smelter at Beerse	12
Zinc, metal		Nyrstar N.V.	Smelter and refinery at Balen/Overpelt	252
LUXEMBOURG				
Cement		Cimalux S.A. (Buzzi Unicem S.p.A.).	Grinding plant at Esch-sur-Alzette	850
Do.		do.	Clinker plant at Rumelange	1,000
Steel		ArcelorMittal Belval and Differdange S.A. (ArcelorMittal)	Plants at Differdange, Esch-Belval, and Esch-Schiffange	5,320

Do., do. Ditto.

¹Includes the capacity of the company SA Ciments de Haccourt.