



# 2011 Minerals Yearbook

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## BELGIUM AND LUXEMBOURG

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# THE MINERAL INDUSTRIES OF BELGIUM AND LUXEMBOURG

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## BELGIUM

In 2011, Belgium's gross domestic product (GDP) was \$506.4 billion, which was a 1.7% increase compared with that of the previous year. The largest share of Belgium's GDP was that of services (77.6%) followed by industry (21.7%) and agriculture (0.7%).

Belgium's industry depended greatly on nondomestic markets, especially those of other European Union (EU) countries. Its main trading partners in 2011 were, in order of value, Germany, which accounted for 18.7% of Belgium's exports and 15% of its imports; France, 16.9% of exports and 10.8% of imports; the Netherlands, 12.5% of exports and 19.9% of imports; the United Kingdom, 7.2% of exports and 6% of imports; Italy, 4.6% of exports; the United States, 4.5% of exports and 5.3% of imports; Ireland, 4.5% of imports; and China, 4.2% of imports (U.S. Central Intelligence Agency, 2012).

Belgium is a participant in the Benelux customs unit, along with Luxembourg and the Netherlands. The Benelux customs unit is an economic union aimed at reinforcing cross-border cooperation between the three countries.

### Minerals in the National Economy

Trading of diamond and the processing of metals were the leading mineral industries in Belgium. The country had no economically exploitable reserves of coal or metallic ores in 2011.

The country imported substantial quantities of raw materials. The metal processing industries were significant to the Belgian economy, in particular, steel. Belgium was the 20th ranked steel producer in the world in 2011, measured by volume of production. Belgium produced 8.023 million metric tons (Mt) of steel in 2011 compared with 7.97 Mt in 2010 (World Steel Association, 2012a, p. 1–2; 2012b, p. 9).

Umicore Group, which was one of Europe's leading metal recyclers and processors, was headquartered in Hoboken, Belgium. Nyrstar N.V., which was headquartered in Balen, Belgium, was the leading producer of zinc, by volume, in the world (Nyrstar N.V., 2012a, p. 12; Umicore Group, 2012).

According to the Antwerp World Diamond Centre, Antwerp was the center of the world's open rough diamond market; that is, nearly all the uncut stones that were not handled through the De Beers Group's Diamond Trading Co. (DTC) passed through Antwerp. Antwerp was also home to the largest concentration of the De Beers Group's clients, and, as such, it also served as a center of operations for the rough diamond sourced through the DTC. The most valuable stones in the diamond trade were cut mainly in Antwerp; however, most manufacturing was performed in several other countries. Rough diamonds were sorted and planned in Antwerp, then dispatched from Antwerp

to cutting plants across the globe; later, these diamonds would return to the city as polished diamonds to be sold in the jewelry markets. Of Antwerp's four diamond exchanges, three served primarily the polished diamond trade (Antwerp World Diamond Centre, 2012).

### Production

Belgian production of cobalt, copper (smelter production), and zinc increased significantly, whereas lead production decreased. The demand for steel remained stable in 2011, and Belgian production of crude steel and pig iron remained at roughly the same levels as in 2010. In 2011, mining was conducted only for industrial minerals. The refining of copper, minor metals (cadmium, cobalt, germanium, selenium, tellurium and tin, among others), and zinc and the production of steel were the leading mineral industries in Belgium. Belgium's well-developed industrial minerals sector included the production of such industrial and construction materials as cement, dolomite, limestone, and silica sand (table 1).

### Structure of the Mineral Industry

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.

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 (Nyrstar N.V., 2012a, p. 12; Umicore Group, 2012).

### Commodity Review

#### Metals

**Iron and Steel.**—In October 2011, Reuters reported that ArcelorMittal planned to shut down its two blast furnaces in the city of Liege. One had been idled since 2008 and the other had been idled since August. The report indicated that the current economic conditions were to blame for the planned shutdowns (Thomson Reuters, 2011).

ArcelorMittal announced in November that it had inaugurated the new installations of Industeel Charleroi. The company declared that the new plant would have the capacity to produce 100,000 metric tons (t) of special plates for the oil and gas, mining, and other industries (ArcelorMittal, 2011).

**Zinc.**—Nyrstar reported that it was going to proceed with scheduled shutdowns at Balen in 2012. These shutdowns would be for an estimated 2 to 3 weeks and would reduce the smelter's

production of zinc metal by about 5,000 t for the year. The Balen smelter had been brought back to full production in the second quarter of 2010, and the company recorded its highest zinc metal production in the past 5 years by the end of 2011. The smelter had previously been on care-and-maintenance status from December 2008 to September 2009, and the shutdown in 2012 was to perform maintenance on the roaster and acid plant (Nyrstar N.V., 2012b).

### **Industrial Minerals**

**Diamond, Industrial.**—By November 2011, Belgium's polished and rough diamond trade ended the year with a turnover of \$491.8 million compared with \$563.6 million in 2010. In 2011, the exports of polished diamond increased in volume by 9.7% to 7.82 million carats (Antwerp World Diamond Centre, 2011).

### **Mineral Fuels**

**Natural Gas and Petroleum.**—The Antwerp Terminal and Processing Co. (ATPC), which was owned by Vitol Tank Terminals B.V. (VTTI) through its subsidiary Eurotank Belgium B.V. [part of the Vitol Group (Vitol)], announced that it planned to expand capacity after achieving positive results during the first 15 months of its acquisition by VTTI. This expansion would increase its capacity by 500,000 cubic meters; no date was given when the capacity expansion would be completed (Vitol Tank Terminals B.V., 2011).

### **Outlook**

Belgium is expected to remain a significant mineral processor and major diamond trader. Its steel production may decrease as demand diminishes. Labor disputes between ArcelorMittal and steelworkers may affect future production as the company prepares to shut down some of its operations in the country. Belgium is also expected to remain significant in international and intra-European cargo handling of mineral products through its major ports (Antwerp, Ghent, Ostend, and Zeebrugge).

### **References Cited**

- Antwerp World Diamond Centre, 2011, Antwerp facets—Antwerp's November imports and exports indicate higher per carat prices: Antwerp World Diamond Centre. (Accessed November 30, 2012, at <http://www.antwerpfacetsonline.be/nc/articles/single/article/antwerps-november-imports-and-exports-indicate-higher-per-carat-prices/>.)
- Antwerp World Diamond Centre, 2012, The industry: Antwerp World Diamond Centre. (Accessed November 28, 2012, <http://www.awdc.be/en/industry/>.)
- ArcelorMittal, 2011, ArcelorMittal invests at Industeel facility in Charleroi: ArcelorMittal news release, November 18. (Accessed November 30, 2012, at <http://www.arcelormittal.com/corp/news-and-media/news/2011/nov/18-11-2011>.)
- Nyrstar N.V., 2012a, Annual report 2011: Nyrstar N.V., 176 p. (Accessed November 30, 2012, at [http://nyrstar.annual-report.be/2011/files/original/pdf/Nyrstar\\_AR11\\_EN\\_full\\_report\\_300312\\_1500.pdf](http://nyrstar.annual-report.be/2011/files/original/pdf/Nyrstar_AR11_EN_full_report_300312_1500.pdf).)
- Nyrstar N.V., 2012b, Smelting—Operational review: Nyrstar N.V. (Accessed November 30, 2012, at <http://nyrstar.annual-report.be/2011/index.php?pageID=301>.)
- Thomson Reuters, 2011, ArcelorMittal closing two Belgian furnaces—Unions: Thomson Reuters. (Accessed November 30, 2012, at <http://www.reuters.com/article/2011/10/12/arcelormittal-belgium-idUSL5E7LC4MQ20111012>.)
- Umicore Group, 2012, Fact sheet—Umicore S.A.: Umicore Group. (Accessed November 30, 2012, at <http://tools.euroland.com/factsheet/b-unim/factsheethtml.asp>.)

- U.S. Central Intelligence Agency, 2012, Belgium, *in* The world factbook: U.S. Central Intelligence Agency. (Accessed November 30, 2012, at <https://www.cia.gov/library/publications/the-world-factbook/geos/be.html>.)
- Vitol Tank Terminals B.V., 2011, ATPC—The first 15 months: VTTI News. (Accessed November 30, 2012, at [http://www.vtti.com/news\\_01.php?id=56](http://www.vtti.com/news_01.php?id=56).)
- World Steel Association, 2012a, Steel statistical yearbook 2012: Brussels, Belgium, World Steel Association, 104 p.
- World Steel Association, 2012b, World steel in figures: Brussels, Belgium, World Steel Association, 26 p.

## **LUXEMBOURG**

In 2011, the iron and steel industry was Luxembourg's most economically important mineral industry sector, and steel was the country's main export commodity. Because it is a member of the Belgium Luxembourg Economic Union (BLEU), trade statistics for Luxembourg are inextricably linked with those of Belgium and, therefore, cannot be listed individually.

### **Production**

Mining in Luxembourg consisted of small industrial mineral operations that produced 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 in the world. It was more than two times larger, in terms of volume, than its nearest rival, Hebei Group of China (World Steel Association, 2012, p. 8).

ArcelorMittal spun off its worldwide stainless steel operations during the year and created a separate company called Aperam S.A. The company was registered and based in Luxembourg (ArcelorMittal, 2010).

Luxembourg's crude steel production remained at almost the same level in 2011 as in 2010. Its production of hot-rolled steel increased by 14.3% (table 1).

Acieries Réunies de Burbach-Eich-Dudelange (ARBED), which was a subsidiary of ArcelorMittal, dominated Luxembourg's mineral industry. ARBED was the major producer of crude steel, pig iron, and stainless steel, all of which were produced from imported material. The company produced large structural beams and specialized value-added products (ArcelorMittal, 2009).

### **Outlook**

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

## References Cited

ArcelorMittal, 2009, History of ARBED: ArcelorMittal. (Accessed November 30, 2011, at <http://www.arcelormittal.com/index.php?lang=en&page=548>.)

ArcelorMittal, 2010, ArcelorMittal to proceed with spin-off of stainless steel business: ArcelorMittal news release, December 8. (Accessed November 30, 2012, at <http://www.arcelormittal.com/corp/news-and-media/press-releases/2010/dec/08-12-2010>.)

World Steel Association, 2012, World steel in figures: Luxembourg, World Steel Association, 26 p.

TABLE 1  
BELGIUM AND LUXEMBOURG: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Country and commodity	2007	2008	2009	2010	2011 <sup>e</sup>
<b>BELGIUM<sup>2</sup></b>					
<b>Metals:</b>					
Aluminum, secondary including unspecified metals <sup>c</sup>	125	125	100	100	100
Bismuth, metal <sup>c</sup>	500	500	500	500	500
Cobalt, primary <sup>3</sup>	2,825	3,020	2,150 <sup>e</sup>	2,600 <sup>e</sup>	3,187 <sup>4</sup>
<b>Copper:</b>					
Smelter, secondary	115,200	115,900	117,400	118,600 <sup>r</sup>	147,000
Refined, primary and secondary	394,400	395,800	373,700	381,000 <sup>r</sup>	380,000
<b>Iron and steel:</b>					
Pig iron	6,576	7,125	3,087	4,688 <sup>r</sup>	4,725 <sup>4</sup>
thousand metric tons					
<b>Steel:</b>					
Crude	10,692	10,676	5,635	7,973 <sup>r</sup>	8,026 <sup>4</sup>
Hot-rolled products	11,450	11,792	7,172	9,649 <sup>r</sup>	10,012 <sup>4</sup>
Lead, refined, secondary	63,454	80,966	109,000	105,000 <sup>e</sup>	88,129 <sup>4</sup>
Selenium <sup>c</sup>	200	200	200	200	200
Tin, metal, secondary including alloys	8,400	9,200	8,700	8,700 <sup>e</sup>	8,700
<b>Zinc:</b>					
<b>Slab:</b>					
Primary	241,300	239,000 <sup>e</sup>	14,000	260,000 <sup>r</sup>	282,000
Secondary, possibly remelted zinc <sup>c</sup>	40,000	40,000	40,000	40,000	40,000
Total	281,300	279,000 <sup>e</sup>	54,000	300,000 <sup>r</sup>	322,000
Powder <sup>c</sup>	20,000	20,000	20,000	20,000	20,000
<b>Industrial minerals:</b>					
Barite <sup>c</sup>	28	28	28	28	28
Cement	6,930 <sup>r</sup>	6,969 <sup>r</sup>	6,113 <sup>r</sup>	5,990 <sup>r</sup>	6,844 <sup>4</sup>
Clay, kaolin <sup>c</sup>	460	460	460	460	460
Lime and dead-burned dolomite, quicklime <sup>c</sup>	2,400	2,400	2,400	2,400	2,400
Nitrogen, N content of ammonia	830	830	830	830	830
Sodium sulfate <sup>c</sup>	250	250	250	250	250
<b>Stone:<sup>c</sup></b>					
Worked	19,000	19,000	19,000	19,000	19,000
Natural (excluding slate)	340,000	340,000	340,000	340,000	340,000
<b>Sulfur:<sup>c</sup></b>					
<b>Byproducts:</b>					
Elemental	225,000	225,000	225,000	225,000	225,000
Other forms	175,000	175,000	175,000	175,000	175,000
Total	400,000	400,000	400,000	400,000	400,000
Sulfuric acid	1,400	1,400	1,400	1,400	1,400
thousand metric tons					
<b>Mineral fuels and related materials:</b>					
Carbon black <sup>c</sup>	1,000	1,000	1,000	1,000	1,000
Coke, all types	2,607	2,309	2,300	2,300	2,300
Gas, manufactured	463,659	463,000 <sup>e</sup>	463,000	463,000	463,000
thousand cubic meters					
<b>Petroleum refinery products:<sup>5</sup></b>					
Liquefied petroleum gas	5,370	5,946	5,289	6,205 <sup>r</sup>	6,200
Naphtha and white spirit	14,356	14,300 <sup>e</sup>	14,300	14,300	NA
Gasoline	42,664	34,257	32,338	30,186 <sup>r</sup>	30,100
Kerosene	13,806	14,758	16,294	15,950 <sup>r</sup>	15,900
Kerosene, other	261	283	466	511 <sup>r</sup>	510
Distillate fuel oil	95,815	96,425	88,289	93,075 <sup>r</sup>	93,000
Refinery gas	3,874	3,800 <sup>e</sup>	3,800	3,800	NA
Residual fuel oil	49,227	43,701	34,432	35,150 <sup>r</sup>	35,100
Bitumen	8,635	8,600 <sup>e</sup>	8,600	8,600	NA
Total	234,008	222,070	203,808	207,777 <sup>r</sup>	180,000

See footnotes at end of table.

TABLE 1—Continued  
 BELGIUM AND LUXEMBOURG: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Country and commodity	2007	2008	2009	2010	2011 <sup>e</sup>	
LUXEMBOURG						
Metals, steel:						
Crude	thousand metric tons	2,858	2,582	2,215	2,563	2,521 <sup>4</sup>
Hot-rolled products	do.	3,214	2,837	2,910	1,941	2,220 <sup>4</sup>
Industrial minerals:						
Cement, hydraulic <sup>c</sup>		1,081,000	1,091,000	1,000,000	1,078,000	1,319,000 <sup>4</sup>
Phosphates, Thomas slag: <sup>c</sup>						
Gross weight		475,000	475,000	475,000	475,000	475,000
P <sub>2</sub> O <sub>5</sub> content		70,000	70,000	70,000	70,000	70,000

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. <sup>1</sup>Revised. do. Ditto. NA Not available.

<sup>1</sup>Table includes data available through November 30, 2012.

<sup>2</sup>In addition to the commodities listed, Belgium produced a number of other metals and alloys, for which only aggregate output figures were available.

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

<sup>4</sup>Reported figure.

<sup>5</sup>Conversion factors from metric tons to 42-gallon barrels for petroleum refinery products are as follows: liquefied petroleum gas—11.6; naphtha and white spirit—8.5; gasoline—10; kerosene—7.75; distillate fuel oil—7.46; refinery gas—8.04; residual fuel oil—6.66; and bitumen—6.06.

TABLE 2  
BELGIUM AND LUXEMBOURG: STRUCTURE OF THE MINERAL INDUSTRIES IN 2011

(Thousand metric tons unless otherwise specified)

Country and commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
<b>BELGIUM</b>				
Cadmium, metal	metric tons	N.V. Umicore S.A.	Hoboken	1,800
Cement		Major companies:	Plants:	8,400
Do.		Cimenteries CBR SA (Heidelberg Cement Group)	Major plants at Lixhe, Mons/Obourg, Harmignies, Marchienne, and Ghent	(3,200)
Do.		Ciments d'Obourg SA (Holcim Group)	Plants at Obourg and Thieu	(2,800) <sup>1</sup>
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		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
Do.		Nyrstar N.V. <sup>2</sup>	Smelter at Balen/Overpek	450
Limestone		Carmeuse S.A. (Long View Investment NV)	Mines and plant at Engis	1,850
Do.		do.	Mines and plant at Frasnes	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	Companies: Total S.A.	Refineries, of which: Refinery at Antwerp	268,000
Do.	do.	Esso S.A. NV	do.	239,000
Do.	do.	Antwerp Processing Co. (Vitol Group)	do.	125,000
Do.	do.	Belgian Refining Corp. (Petroplus AG)	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		Various companies:	Which include:	14,000
Do.		ArcelorMittal Liege (ArcelorMittal)	Plant at Liege	(3,000)
Do.		Carsid S.A. (Duferco SIF S.A. NV)	Plant at Charleroi	(2,000)
Do.		ArcelorMittal Gent (ArcelorMittal)	Plant at Ghent	(3,000)
Do.		Duferco La Louviere S.A. (Duferco SIF S.A. NV)	Plant at La Louviere	(2,400)
Do.		Duferco Clabecq S.A. (Duferco SIF S.A. NV)	Plant at Clabecq	(750)
Do.		Industeel Belgium S.A. (ArcelorMittal)	Plant at Charleroi	(600)
Do.		ArcelorMittal Genk (ArcelorMittal)	Plant at Genk-Zuid	(360)
Do.		Tubemeuse Industries S.A. (Umrans Steel Pipe Inc.)	Plant at Flemalle	(50)
Tin		Metallo-Chimique NV (Metallum Group)	Smelter at Beerse	500
Zinc, metal		Nyrstar N.V.	Smelter and refinery at Balen/Overpek	450
<b>LUXEMBOURG</b>				
Cement		Cimalux S.A. (Dyckerhoff AG)	Plant at Esch-sur-Alzette	850
Do.		Cimalux Interomoselle SARL (Dyckerhoff AG)	Plant at Rumelange	1,000
Steel		Acieries Réunies de Burbach-Eich-Dudelange (ARBED) (ArcelorMittal)	Plants at Differdange, Dudelange, Esch-Belval, Esch-Schifflange	5,320
Do.		Arcelor Differdange SA (ArcelorMittal)	Plant at Differdange	1,200
Do.		Ugine & ALZ Camox (ArcelorMittal)	do.	1,000

Do., do. Ditto.

<sup>1</sup>Includes the capacity of the company SA Ciments de Haccourt.

<sup>2</sup>Company publicly traded with the following participation: Blackrock Group, 10.31%; Glencore International plc., 7.79%; and N.V. Umicore S.A., 5.25%.