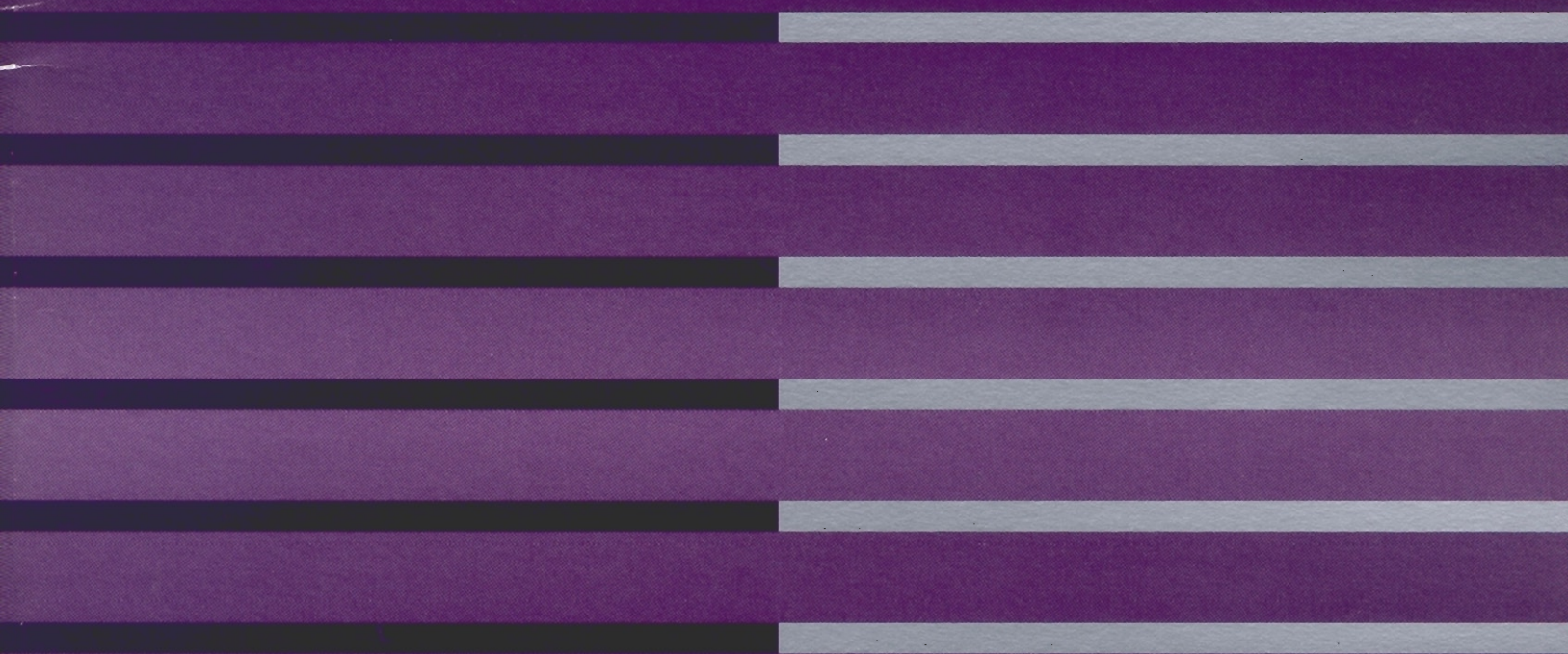




# Alcan Facts 1998



Alcan Aluminium Limited

## 1997 Highlights

- Fabricated products volumes grew 10% to reach their highest-ever level in 1997. With earlier years adjusted for acquisitions and divestments, compound annual growth since 1993 was 11%.
- Net income, at \$485 million, improved in 1997 to reflect higher volumes, although fabricated products prices were lower.
- Alcan's debt:equity ratio remained at a healthy level in 1997 despite the working capital requirements of increased volume. Adjusted for surplus cash at year-end, the ratio was 16:84.

## World Headquarters

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## Version française

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## Terms

The word "Alcan" or "Company" means Alcan Aluminium Limited and, where applicable, one or more consolidated subsidiaries. A "subsidiary" is a company controlled by Alcan. A "related company" is one in which Alcan has significant influence over management but owns 50% or less of the voting stock.

The "Alcan Group" refers to Alcan Aluminium Limited, its subsidiaries and related companies.

In this report, unless stated otherwise, all dollar amounts are stated in United States dollars and all quantities in metric tons, or tonnes. A tonne is 1,000 kilograms, or 2,204.6 pounds.

The following abbreviations are used:

/t	per tonne
kt	thousand tonnes
kt/y	thousand tonnes per year
Mt	million tonnes
Mt/y	million tonnes per year

*All facts and figures are as at December 31, 1997, unless otherwise indicated. Published in April 1998.*

## Trademarks

The word ALCAN and the Company's symbol are registered as trademarks in more than 100 countries.

♻️ *Alcan Facts* is printed on recycled paper using vegetable-based inks.

### Company Profile

Headquartered in Montreal, Alcan is the parent of a worldwide group of companies involved in all aspects of the aluminum industry. Through subsidiaries and related companies around the world, Alcan's activities include bauxite mining, alumina refining, power generation, aluminum smelting, manufacturing and recycling as well as research and technology. Over 33,000 people are presently employed by the Company, with thousands more employed in its related companies.

In the 96 years since it was established, Alcan has developed a unique combination of competitive strengths, with owned hydroelectricity in Canada, proprietary process technology and international presence. With operations and sales offices in over 30 countries, the Alcan Group is one of the most international aluminum companies in the world. It is also a global producer and marketer of flat-rolled aluminum products.

The Alcan Group is a multicultural and multilingual enterprise reflecting the differing corporate and social characteristics of the many countries in which it operates. Within a universal framework of policies and objectives, individual subsidiaries and divisions conduct their operations with a large measure of autonomy. The document, *Alcan, Its Purpose, Objectives and Policies*, was first published in 1978 in 11 languages to strengthen employee awareness worldwide of the general principles and policies that have guided the conduct of Alcan's business over the years. This document was updated and reprinted in 1991 and was revised in 1996 to include a code of conduct. The document was introduced to employees worldwide and is available from the Company upon request.

Alcan is a publicly-owned company with about 20,700 registered holders of its 227 million common shares and 1,200 registered holders of its preference shares. While distributed internationally, the Company's shares are mostly held in North America.

### Key Priorities of the 1990s

The global recession and commodity price squeeze of the early 1990s forced the aluminum industry, and Alcan, to revise corporate priorities and organizational structures.

In July 1993, Alcan concluded an intensive year-long study of the world aluminum outlook and of Alcan's competitive position, business by business. The two overall conclusions were a) that aluminum is a good and growing business to be in, *provided* a company is a really low-cost producer, and b) that Alcan has the assets, technology and market positions to prosper in a tough, competitive world, but it needed to revise some of its priorities in order to do so.

In November 1993, Alcan embarked on five key priorities as a result of the study:

- Reduce still further Alcan's already low primary smelter costs and bring raw material costs to below the world average.
- Exploit world growth markets for rolled products, particularly in the beverage can, automotive and specialty sheet end-uses.
- Maintain investment only in those downstream operations that create value for shareholders and that have a strategic fit.
- Focus R & D programs on core processes and products.
- Continue to reduce overhead costs both in corporate offices and business units.

From 1991 to 1994, Alcan had reduced its annual cost base by over \$600 million, mostly as a result of productivity gains. And, in 1995, Alcan's cost base did not increase over 1994, showing its ability to manage the impact of inflation. By mid-1996, the Company had almost completed its divestment program with the sale of non-strategic downstream businesses in the United Kingdom, Brazil and Argentina. Alcan also restructured its holdings in Japan and the rest of Asia, reinforcing its strategic role in subsidiaries and related companies in Southeast Asia and China. Early in 1997, there were further fabricating asset sales in Brazil and Uruguay. Furthermore, the Company's debt:equity ratio (net of surplus cash) improved to 16:84 at year-end of 1997 compared to 35:65 in 1991.

As a result of corporate restructuring, Alcan is a simpler, more focused organization, with a team of employees committed to creating value for all of its stakeholders – be they shareholders, customers or the communities in which the Company operates.

In 1998, Alcan's strategic priorities are to continue to:

- Implement our Full Business Potential program with the target of increasing after-tax returns by \$300 million by the end of 1999 and earn our cost of capital. In 1997 – the first year of this program – Alcan attained one-third of its target.
- Strengthen the position of aluminum in the marketplace and ensure its future as the material of choice.
- Aggressively seek out opportunities to maximize shareholder value.

## Alumina capacities

(thousands of tonnes)

Locations		% of ownership by Alcan	Annual capacity	Alcan share of capacity
<b>Subsidiaries*</b>				
<b>Smelter-grade alumina</b>				
<b>Australia</b>	Gladstone (Queensland)	21.4	3,325	711
<b>Brazil</b>	Ouro Preto (Saramenha, Minas Gerais)	100	150	150
	Alumar (São Luís)	10	1,200	120
<b>Canada</b>	Vaudreuil (Jonquière, Quebec)	100	1,175	1,175 <sup>1</sup>
<b>Guinea</b>	Friguia (Kimbo)	10.2	640	128
<b>Ireland</b>	Aughinish (Limerick)	100	1,350	1,350 <sup>2</sup>
<b>Jamaica</b>	Kirkvine (Manchester)	93	1,100	1,023
	Ewarton (St. Catherine)	93		
Total smelter-grade alumina				4,657
<b>Chemical aluminas</b>				
<b>United Kingdom</b>	Burntisland (Fife, Scotland)	100	120	120
Total subsidiaries				4,777
<b>Related companies</b>				
<b>Smelter-grade alumina</b>				
<b>India</b>	Belgaum (Karnataka)	34.6	360	125
	Muri (Bihar)	34.6		
<b>Chemical aluminas</b>				
<b>Japan</b>	Shimizu (Shizuoka)	45.6	450	205
Total related companies				330

\*Includes joint ventures, proportionately consolidated.

<sup>1</sup>Includes some 130,000 tonnes of chemical-grade alumina and alumina hydrates.

<sup>2</sup>Restated to better reflect the actual production levels achieved over a period of time.

Aluminum is produced through the electrolytic reduction of alumina (aluminum oxide) that has been extracted from bauxite (the ore) by a chemical process. Between four and five tonnes of bauxite are required to produce approximately two tonnes of alumina, which yield one tonne of metal.

## Bauxite

Alcan obtains its bauxite from mining subsidiaries, consortium companies and third-party suppliers. The Alcan Group has 11 bauxite mines/reserves in six countries, totalling about 400 million tonnes of demonstrated bauxite reserves in subsidiaries\* and related companies. To meet its bauxite needs in 1997, Alcan used 7.8 million tonnes from its mines and purchased 3.7 million tonnes from third parties.

Via its 12.5% interest in Mineração Rio do Norte, a bauxite mining company in Brazil, Alcan supplies the bulk of the requirements for its Jonquière, Quebec, refinery, as well as the Alumar alumina refinery, a joint venture in São Luís, Brazil. Alcan has an indirect 16.8% interest in Compagnie des Bauxites de Guinée (CBG). From CBG, the Company supplies bauxite for its refinery, Aughinish Alumina Limited, in Ireland, and also ships bauxite to its plant in Quebec as well as to third parties. In March 1998, Alcan increased its interest in Ghana Bauxite Company Ltd (GBC) to 80%. From GBC, the Company supplies its refineries in Scotland, Ireland and Canada. Australian bauxite from third parties is used to supply Alcan's 21.4% interest in Queensland Alumina Limited and a related-company refinery in Japan. In February 1998, Alcan and Comalco Limited signed an agreement providing for the future development of the Alcan-owned Ely bauxite reserves in northern Queensland, Australia, with Comalco Limited's Weipa operations.

The Jamaican and Brazilian operations, the related company in India and Alcan's interest in Guinea all produce alumina from their own bauxite.

## Alumina

The alumina produced in Brazil and Canada is largely consumed by Alcan's smelters in those countries. The Australian alumina is shipped to the Kitimat smelter in Canada and is sold to an Australian third party. Jamaican alumina is supplied to Alcan smelters in Quebec, as well as in the United States. Alumina from the Aughinish, Ireland, refinery is shipped to Alcan's three smelters in the United Kingdom and to third parties in Europe and in the Commonwealth of Independent States (CIS). Alumina from Guinea is also shipped to third parties. The alumina produced in India is partly consumed locally by the smelters and the balance is sold to third parties.

While the Vaudreuil refinery in Canada is mainly a supplier of smelter-grade alumina, it produces a significant quantity of alumina hydrate, the starting material for a wide variety of specialty chemical products. Alumina from refineries in the United Kingdom and in Japan is also devoted to specialty chemical products.

Bringing these and other materials together is an Alcan-owned global transportation network that includes freight trains, bulk cargo vessels and port facilities.

**Alcan Group\***  
**Bauxite Mining and**  
**Alumina Refining Operations**

- ▼ Bauxite Mines/Reserves
- ▣ Alumina Refining
- Specialty Chemicals



*\* includes subsidiaries, related companies and divisions.*

## Primary Production

### Smelter capacities

(thousands of tonnes)

Locations		% of ownership by Alcan	Annual capacity
<b>Subsidiaries</b>			
<b>Canada</b>	Arvida <i>(Jonquière, Quebec)</i>	100	238 <sup>1</sup>
	Grande-Baie <i>(La Baie, Quebec)</i>	100	186 <sup>1</sup>
	Laterrière <i>(Chicoutimi, Quebec)</i>	100	210 <sup>1</sup>
	Shawinigan <i>(Quebec)</i>	100	88 <sup>1</sup>
	Isle-Maligne <i>(Alma, Quebec)</i>	100	75 <sup>1</sup>
	Beauharnois <i>(Melocheville, Quebec)</i>	100	49 <sup>1</sup>
	Kitimat <i>(British Columbia)</i>	100	272
	<b>Total in Canada</b>		<b>1,118</b>
<b>Brazil</b>	Ouro Preto <i>(Saramenha, Minas Gerais)</i>	100	51
	Aratu <i>(Bahia)</i>	100	58
<b>United Kingdom</b>	Lynemouth <i>(Northumberland, England)</i>	100	130
	Lochaber <i>(Inverness-shire, Scotland)</i>	100	38
	Kinlochleven <i>(Argyll, Scotland)</i>	100	8
<b>United States</b>	Sebree <i>(Kentucky)</i>	100	186 <sup>1</sup>
	<b>Total outside Canada</b>		<b>471</b>
<b>Total subsidiaries</b>			<b>1,589</b>
<b>Related companies</b>			<b>Total plant capacity</b>
<b>India</b>	Belgaum <i>(Karnataka)</i>	34.6	66
	Hirakud <i>(Orissa)</i>	34.6	30
	Alupuram <i>(Kerala)</i>	34.6	21
<b>Japan</b>	Kambara <i>(Shizuoka)</i>	45.6	20
<b>Total related companies</b>			<b>137</b>

<sup>1</sup> Restated as at January 1, 1998, to better reflect the actual production levels achieved over a period of time.

Alcan is one of the largest primary aluminum producers in the world. The Company owns and operates 13 primary aluminum smelters with a total rated capacity of 1,589 kt/y, including 1,118 kt in Canada. In February 1998, Alcan announced its decision to build a 375-kt/y smelter in Alma, Quebec. Full production at the Alma smelter will be reached by 2002 and the 75-kt/y Isle-Maligne smelter will, by then, have been shut down. Alcan's related companies operate four other smelters outside Canada with a total rated capacity of 137 kt/y. In addition, an Alcan subsidiary in Norway and a related company in Japan each operate a super purity aluminum refinery.

During 1997, Alcan's Canadian smelters produced 1,096 kt of primary aluminum, and subsidiaries in other countries produced 335 kt. In light of the persistent oversupply situation due to aluminum exports from the CIS in the early 1990s, Alcan announced, in January 1994, a temporary cutback in its production of 156 kt/y. Alcan continues to have some 134 kt/y, or 8%, of its total rated capacity temporarily idled. This capacity will be restarted only when warranted by industry and market conditions. In November 1997, Alcan restarted 22 kt/y of capacity at its smelter in Kitimat, British Columbia, as one of several elements of a legal agreement reached in August 1997 with the government of B.C. to settle the long-standing dispute related to that government's rejection of the Kemano Completion Project.

Most of the primary aluminum produced in Canada is exported to Alcan's fabricating operations and to third-party customers in the United States, Europe, the Middle East and Asia. Alcan's other smelters generally serve domestic ingot markets or fabricating plants.

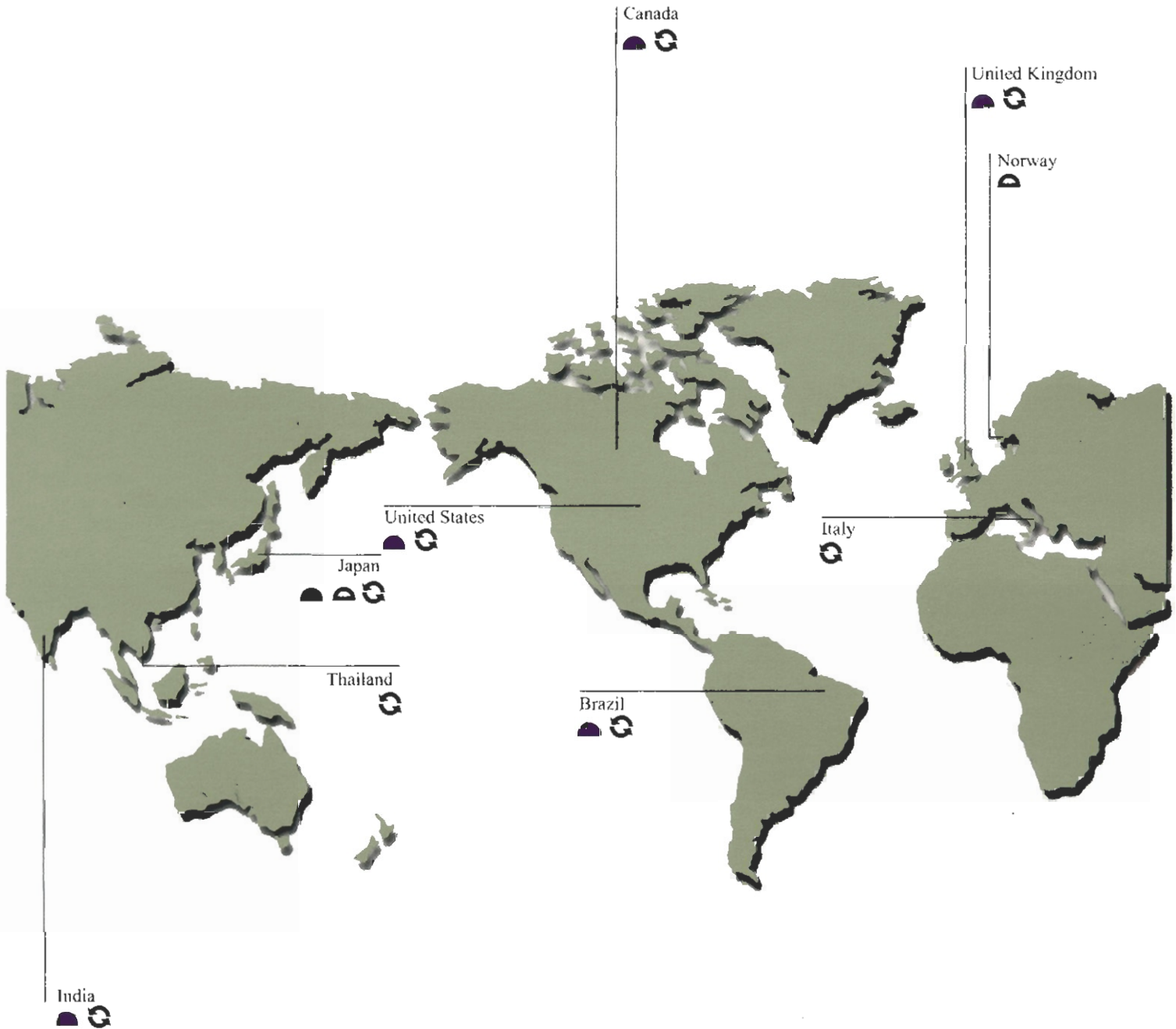
Alcan's primary ingot sales to third parties throughout the world totalled 661 kt in 1997. Close to 85% of ingot shipments were in the form of value-added products, mainly extrusion billet.

Aluminum is produced from alumina by an electrolytic process that uses large quantities of electrical energy to separate aluminum from oxygen in the alumina. For this process, a modern smelter requires about 13,500 (DC) kilowatt-hours of electricity to produce one tonne of aluminum.

Worldwide, about 75% of Alcan's primary smelting capacity is powered by owned hydroelectricity. In Canada, Alcan owns facilities with a total installed capacity of 3,583 megawatts, of which 2,740 megawatts are classified as firm power capacity. These facilities supply all the power needs of Alcan's Canadian smelters. Alcan's smelters in Scotland and Brazil as well as that of a related company in Japan operate their own hydro-power facilities and purchase the balance of their energy needs. The smelter in England and one of the three smelters of a related company in India operate their own coal-fired power plant. The smelter in the U.S. and two smelters of a related company in India are supplied with power under long-term contracts.

# Alcan Group\* Aluminum Production Operations

- Primary Aluminum Smelting
- Super Purity Aluminum Refining
- Recycling/Secondary Smelting/UBC Recovery  
(for details, see page 8)



\* includes subsidiaries, related companies and divisions.

While Alcan has a leading position in international markets for ingot products, the Company's principal sales are of fabricated aluminum products. In 1997, Alcan shipped 1,694,000 tonnes of fabricated products and fabricated 276,000 tonnes from customer-owned metal, producing a total volume of 1,970,000 tonnes. Alcan's fabricated aluminum products business is mainly composed of a number of large, capital-intensive rolling operations as well as some smaller downstream businesses, and represents over 75% of Alcan's total sales and operating revenues of \$7.8 billion.

Over 85% of Alcan's fabricated aluminum products volume is composed of rolled products such as sheet and foil. A major portion of Alcan sheet is can stock for beverage containers. Other important end-use markets for sheet include building and construction, transportation, the printing industry and the industrial distribution market. The Company also rolls foil for household and commercial packaging applications and for industrial products.

Since 1990, Alcan has made significant investments in the expansion and upgrade of its rolled products facilities in North and South America and in Europe. Additionally, in 1994, Alcan acquired a cold rolling and finishing plant in Nachterstedt, Germany. With the coming on stream of these expansions, Alcan became the largest producer of rolled aluminum products in the world.

During 1996, Alcan and its related companies in Japan restructured certain holdings in the Asia and Pacific region. The restructuring will reinforce the Alcan Group's market position in the region and provide a base for future growth.

Through a number of selected downstream businesses, the Company manufactures and sells other fabricated aluminum products such as wire and cable, and extrusions. In addition, the Company is a major supplier of extrusion ingot to independent extruders for the fabrication of products in the building and construction market.

Aluminum rod, cable and wire tubes are produced by the drawing process. Rod, cable and wire products are used in the electrical industry and form a large part of this category of fabricated aluminum products.

Other fabricated products include castings, which are used mainly for automotive and aircraft components. The Company also sells alloys to independent foundries in Canada, Italy, the United Kingdom and the United States.

<b>Fabricating capacities – consolidated subsidiaries<sup>†</sup> only</b> <i>(thousands of tonnes)</i>	
<b>Fabricated aluminum products</b>	Approximate annual capacity
Rolled products	2,250 <sup>1</sup>
Other fabricated products <i>(including rod, wire &amp; cable, castings and extruded and drawn products)</i>	220 <sup>2</sup>
<b>Total</b>	<b>2,470</b>

<sup>†</sup>Includes joint ventures, proportionately consolidated.

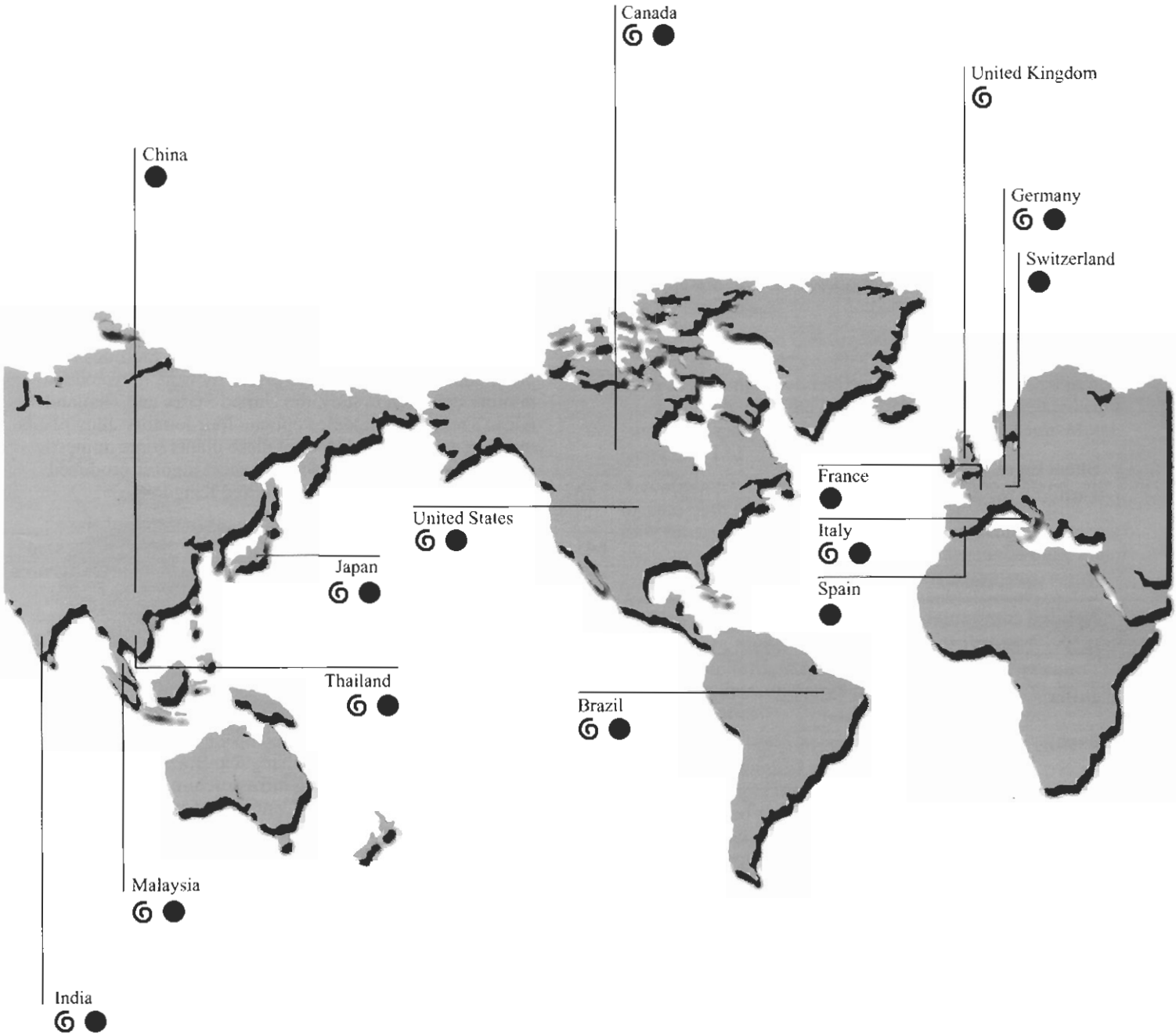
<sup>1</sup>Reflects improvements in machine utilization and product optimization.

<sup>2</sup>Restated to reflect some reclassification to rolled products.



**Alcan Group\***  
**Fabricating Operations**

- ☪ Sheet and/or Foil Rolling
- Other Fabricating



*\* includes subsidiaries, related companies and divisions.*

## Recycling/Secondary Smelting Activities

### Recycling plant capacities

(thousands of tonnes)

Locations (See map, page 5)		% of ownership by Alcan	Annual capacity
<b>Subsidiaries</b>			
<b>Foundry alloys and remelt scrap ingot</b>			
<b>Italy</b>	Borgofranco di Ivrea (Piemonte region)	100	56 <sup>1</sup>
<b>Thailand</b>	Bangpakong (Cholburi)	60.7	30 <sup>1</sup>
<b>United States</b>	Shelbyville (Tennessee)	100	59 <sup>1</sup>
<b>Total foundry alloys</b>			145
<b>Sheet ingot from UBCs and customer process scrap</b>			
<b>Brazil</b>	Pinda (Pindamonhangaba, São Paulo)	100	20 <sup>2</sup>
<b>United Kingdom</b>	Warrington (England)	100	70
<b>United States</b>	Berea (Kentucky)	100	481 <sup>1</sup>
	Greensboro (Georgia)	100	
	Oswego (New York)	100	
<b>Sheet ingot from misc. scrap</b>			
<b>United Kingdom</b>	Warrington (England)	100	70 <sup>1</sup>
<b>Total sheet ingot</b>			641
<b>Total subsidiaries</b>			786
<b>Related companies</b>			Total plant capacity
<b>Foundry alloys and remelt scrap ingot</b>			
<b>India</b>	Taloja (Maharashtra)	34.6	25
<b>Japan</b>	Koda (Aichi)	45.6	116
	Mie (Mie)	45.6	
	Kambara (Shizuoka)	45.6	
<b>Total related companies</b>			141

<sup>1</sup> Restated principally to reflect recent upgrades and/or increased operating improvements.

<sup>2</sup> Reflects the coming on stream of new facility.

Aluminum is one of the most recyclable of all materials. The metal can be repeatedly recycled into the same or other products with effectively no deterioration in quality or in the metal's intrinsic value. In addition to the environmental advantages of aluminum recycling, there are economic benefits. Recycling aluminum only requires about 5% of the energy required to produce primary metal. Aluminum's high scrap value is also a great incentive for collection.

Over one-quarter of the aluminum consumed in the Western World is produced from recycled metal. While most consumers today associate aluminum recycling with used beverage cans (UBCs), it may be surprising to know that more than 50% of recycled metal comes from facilities that remelt scrap from a wide range of other used aluminum products such as cookware, household siding, aircraft fuselages and especially automobile parts. Typically, these "secondary smelters" produce foundry alloys for use in shape castings.

For its part, Alcan has a growing participation in the recycling industry. The Company's annual recycling capacity is now 786,000 tonnes with a further 141,000 tonnes in its related companies. Alcan operates three facilities for the production of foundry alloys primarily from recycled aluminum: one each in Italy, the United States and Thailand. Alcan's related companies operate four foundry alloy plants in Japan and in India. Most of these plants serve domestic automotive markets. In addition, sheet ingot is produced from a variety of scrap in the United Kingdom.

In the case of UBCs, Alcan has a well-established and growing North American recycling network that processed more than 18.5 billion cans in 1997. The Company purchases UBCs throughout North America and remelts the UBCs, together with its customers' can production scrap, at three locations in the U.S., producing new can sheet ingot. Over 2.1 billion UBCs were purchased by Alcan in Canada, which represents roughly 60% of all aluminum cans recycled in Canada.

In February 1998, Alcan started up a dedicated UBC recycling plant at Pindamonhangaba, Brazil. In the U.K., the Company has a growing infrastructure of 26 Alcan Aluminium Can Recycling Centres and over 500 independents. Alcan plays leading roles in joint industry programs to promote aluminum collection and recycling in many of the countries where it operates.

The Company also operates an environmentally advanced operation in Quebec for the recovery of aluminum from the dross that forms on the surface of molten metal. And, in Italy, the Borgofranco plant serves Alcan's fabricating plants in Germany, Switzerland and Italy as well as recycles customers' manufacturing scrap and post-consumer aluminum packaging material. As well, the plant recovers aluminum and salt from saline slag, a byproduct of aluminum recycling. As a matter of course, Alcan operates facilities in many plants to recycle aluminum scrap generated internally by fabricating activities.

Alcan's resource for research and technology is a global system of research laboratories, applied engineering centres and technical departments. Most of these are managed on a company-wide basis by Alcan International Limited (Alcanint), the Company's research and technology arm, headquartered in Montreal. Others are managed and operated locally by Group companies or major operating divisions.

The research unit, centrally managed by Alcanint, is the largest single body of research effort in the Alcan Group. Responsible for 60% of the total R & D expenses for the Alcan Group, it plays a major role in innovation through basic and applied research. The organization is composed of about 490 employees located largely in three laboratories: two in Canada (at Kingston, Ontario, and Jonquière, Quebec) and one in the U.K. (Banbury, Oxfordshire).

In recent years, Alcan's R & D effort has been refocused on core processes and products. Close to 90% of the activities in the R & D centres are now directed towards improved product and process development programs for the mainstream businesses.

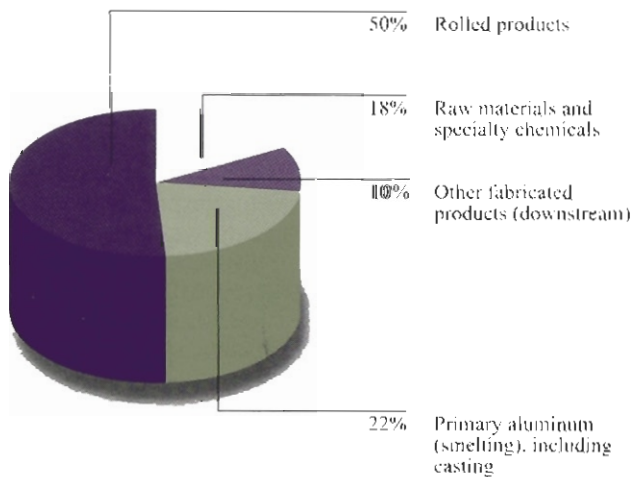
A laboratory in the U.K., managed and operated by Alcan Chemicals Limited, provides R & D support to Alcan's growing specialty chemicals business. Alcanint's research unit also works closely with the laboratories of Alcan's related companies in Japan, and principally with Nippon Light Metal Company, Ltd.

A central technology unit, composed of about 50 people located both in the field and the Montreal office, provides the primary linkage with the three mainstream businesses of the Company. The unit is organized around the three major process technologies of Alcan's main businesses, namely raw materials, reduction (smelting) and fabricating. It focuses on assisting operating units to achieve increased productivity, higher quality and reduced costs. It is also responsible for the intellectual property management that safeguards the Company's process and product technologies and trademarks.

Alcan's operating companies manage applied engineering centres and technical departments located close to key markets and operating divisions. The Applied Materials Center, located in North America, for can technology and automotive centres in Europe, North America and Japan are the most recently established. These centres are focused on major products and provide technical and product development support to customers, drawing extensively on the resources and core scientific disciplines in the research centres.

## Research and Development Expenses for the Alcan Group

Total for 1997 – \$72 million\*



\*Includes close to \$4 million for Alcanint's environmental R & D projects.

Alcan is committed to a process of continual environmental improvement. As an integrated aluminum company, Alcan mines bauxite, a natural resource, converts it through the use of energy – another natural resource, and processes the converted material into various finished and semi-finished aluminum products. Alcan recognizes its responsibility to use these natural resources wisely and with care, and to confront the challenges posed by the technological processes used in its operations.

Within Alcan, the evolution toward integrated environmental management was given impetus when the Company's Chairman first outlined our environmental commitment in *Alcan, Its Purpose, Objectives and Policies*, back in 1978. That led to the development of Alcan's Environmental Policy Statement and management practices aimed at integrating environmental management into the day-to-day running of its operations in 1990. Following an extensive management review, the policy statement was revitalized in 1997 to focus attention on the significant benefits afforded by aluminum use.

The vision statement sets out three important priorities for achieving Alcan's environmental goals in the 21st century – a commitment from every Alcan employee for continual improvement, a determination to capitalize on aluminum's unique properties, and a pledge to make environment an equal among other business objectives.

*Protection of the environment is a high priority for every Alcan employee. This objective requires our full cooperation in a continuing effort to improve our products and production processes.*

*The unique properties of aluminum provide opportunities that conserve energy and resources, and thereby reduce a product's environmental impacts over its life cycle. Aluminum's high strength-to-weight ratio, corrosion resistance, thermal and electrical conductivity, barrier properties and economical recyclability make aluminum an environmental choice for a wide range of uses.*

*Full integration of environmental performance with our health and safety, quality and cost objectives ensures our competitive position.*

The revised policy provides the following set of guiding principles to supplement the vision.

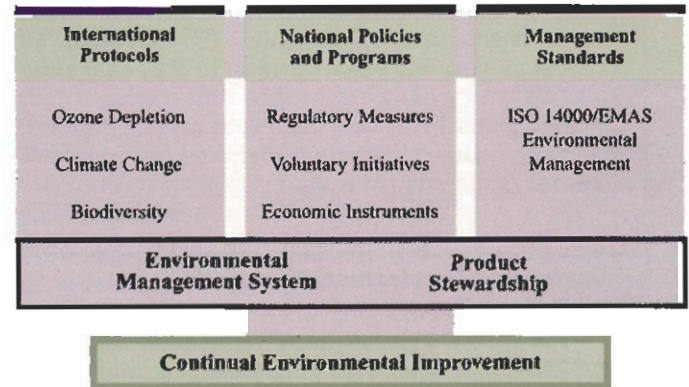
*We will strive to be leaders in our industry and will continue to:*

- *work with suppliers and customers to design and manufacture products that take full advantage of aluminum's properties throughout their life cycle.*
- *use world-class practices in existing operations and incorporate, in new plants and processes, technologies that meet social, economic and environmental demands.*
- *communicate with employees, consumers, communities, businesses and government to achieve greater environmental understanding.*
- *comply with legal requirements and, where appropriate, use more stringent internal standards based on our expertise.*
- *make effective use of environmental management systems that continually improve our performance consistent with defined goals.*

- *respond effectively to environmental emergencies with highly-trained response teams and through agreements with others.*

*By observing these principles, we will, through our leadership and exemplary behaviour, address the environmental expectations of our stakeholders.*

Underlying Alcan's commitment are two major components: a global Environmental Management System (EMS) and Product Stewardship.



## Environmental Management System

Environmental responsibility at Alcan starts at the top with the president and chief executive officer who, along with five outside directors, is a member of the Environment Committee of the Board of Directors. The role of the Environment Committee is to review environmental policy and management programs, monitor the effectiveness of the systems in place, and evaluate management's plans and long-term objectives. To accomplish these objectives efficiently and effectively, each plant identifies and establishes its environmental priorities within the framework of the corporate EMS. In doing so, each plant:

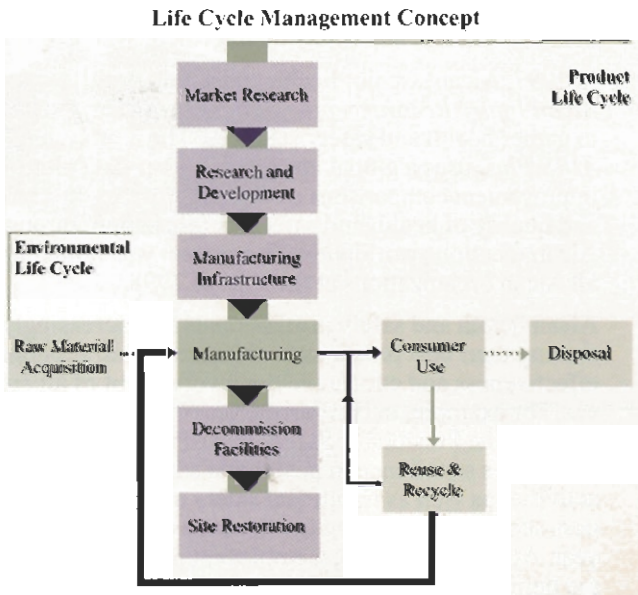
- Defines clear objectives and targets to improve environmental performance. Management programs and action plans are established with assigned responsibilities and targets for completion. Operating practices and procedures are in place for the operations, maintenance, and the handling of all materials and hazardous substances. Appropriate training is provided for all personnel whose work has the potential to result in significant environmental impacts. Facilities maintain internal and external communication programs that include environmental performance and improvement plans.
- Prepares plans to respond to emergencies and has either an on-site emergency response team or an established mutual aid agreement with civil authorities. Plans and programs are also established for energy and material conservation and waste minimization.
- Conducts a compliance review, outlining its compliance with legal requirements and the requirements of the EMS. These reviews are conducted at regular intervals, at least every three years by independent experts, either from within or outside the Company.

An annual assessment and action plan is prepared by each Alcan business sector. The executive vice president of a business sector submits a Representation Letter to the president and CEO summarizing their compliance status and the current status of the EMS.

Analysis of these checking and corrective actions form the basis of the management reviews that are conducted annually at both the business sector level and the corporate level. These reviews re-establish goals and targets for subsequent years, and provide insights for revising program activities.

### Product Stewardship

Alcan believes that the next great wave of environmental improvements will come through the application of a concept known as Product Stewardship. Global environmental issues such as climate change demand that industries work with each other and with their outside partners to resolve problems associated with product systems. Product Stewardship calls for organizations to assume responsibility for their products from “conception to reincarnation.”



Aluminum offers distinct environmental advantages in support of this concept. At Alcan, we use our expertise to help our customers take advantage of aluminum’s unique properties, including its environmental contributions. For example, Alcan’s success with the automotive sector is based on long-standing cooperation and partnership. Aluminum’s light weight is a boon to these customers because it helps them respond to increasingly stringent environmental regulations. Every 10% reduction in the weight of a family-sized vehicle results in a 6% increase in fuel efficiency and a corresponding reduction of exhaust pollution.

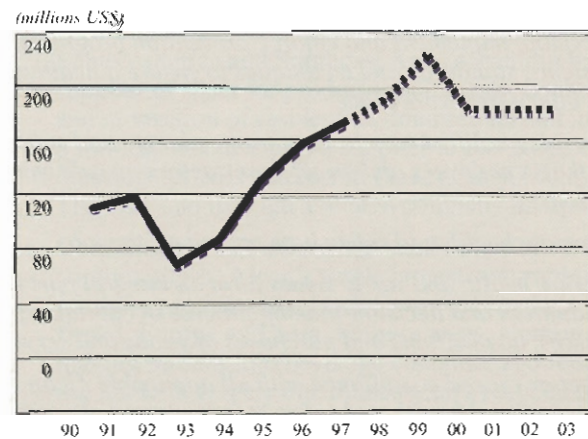
Alcan is proud of its well-established recycling network. Through its subsidiaries and related companies, Alcan’s capacity to recycle both post-consumer and pre-consumer aluminum products exceeded 900,000 tonnes in 1997— or about 35% of our combined primary and secondary production capacities. One of aluminum’s most advantageous traits is its economic recyclability and Alcan is committed to recycling every gram of aluminum returned to it.

Alcan also continues to make significant investments on research and development for environment-related programs, over and above ongoing initiatives at Alcan facilities around the globe. Environmental R & D at Alcan focuses on process improvements, while supporting product-related, joint programs with customers. These programs emphasize reduced energy consumption, reduced material consumption, and elimination or improvement of treatment processes. They also build on aluminum’s unique properties and aim to improve aluminum products.

### Environmental Investment

Alcan’s financial commitments on environment-related expenditures totalled \$837 million from 1991 through 1997, of which approximately \$172 million was expended in 1997. On average, approximately \$190 million will be expended annually on environmental protection over the remainder of the decade. Close to \$4 million was spent in 1997 for R & D expenditures related to the environment.

### Environmental Investments



Alcan’s challenges for the years ahead are to preserve and continue to build upon the successes of the past through consistently applied Environmental Management Systems and to capitalize on the environmental strengths of aluminum through the practice and promotion of Product Stewardship.

A brochure entitled, *Alcan Aluminium Limited, A Commitment to Continual Environmental Improvement* was published in 1996. A copy of this brochure as well as the revised policy may be obtained by contacting Alcan’s head office or any other location listed at the back of this brochure.

## Health and Safety Policy

*It is Alcan Aluminium Limited's commitment to safeguard the health and safety of all its employees by providing a healthy and safe work environment and by managing its operations with the conviction that all occupational injuries and illnesses are preventable. Alcan's management believes that health and safety are paramount criteria of operational excellence. Indeed, the mindset of zero work-related injuries and illnesses is the ultimate goal of every employee in all of our operations.*

*The philosophy and objectives behind this commitment are to:*

- *Proactively monitor the work environment to identify all occupational health and safety hazards. When elimination of any such hazard is not feasible, every possible measure will be taken to control it.*
- *Assign to line managers the responsibility for the implementation of Alcan's health and safety policy.*
- *Make each employee responsible for his/her own health and safety and that of fellow employees at his/her work place.*
- *Develop, implement and enforce prevention programs, systems, standards and techniques to ensure a healthy and an injury-free work place.*
- *Provide qualified resources to train, educate and support both its employees and on-site contractors on safe work practices.*
- *Promote health and safety both on and off the job.*
- *Ensure health and safety issues form an integral part in the evaluation and decision-making process in capital expenditures, acquisitions and purchases of goods and services.*
- *Meet or exceed compliance with all applicable Alcan occupational health and safety standards and governmental laws/regulations. Alcan will conduct periodic auditing to ensure compliance and correct deficiencies.*
- *Ensure the health and safety performances of Alcan businesses are reviewed regularly by senior management and reported to the Board of Directors.*

*The objectives of this policy can only be achieved through the dedication and total commitment of each employee at every level of the organization.*

Jacques Bougie  
President and Chief Executive Officer

October 15, 1996

The health and safety of Alcan employees is of paramount importance. The global Health and Safety Policy, released by Alcan's President, Jacques Bougie, in October 1996, clearly indicates that commitment. The most essential component, however, is the commitment of all Alcan employees to the "mindset of zero work-related injuries and illnesses". The three cornerstones of our professional approach to the implementation of this policy include:

- Occupational medicine – the relationship between employee health and the workplace;
- Industrial hygiene – the recognition, evaluation and control of occupational health hazards. Health hazards can either be chemical, physical, biological or ergonomic in nature;
- Safety – the control of accidental loss.

The policy (at left) not only reflects our commitment but also includes all the other components of an effective management system – planning, implementation and operation, checking and corrective action, and management review. These elements are essential to drive continual improvement of Alcan's health and safety management systems.

In 1997, Alcan's senior health and safety group revised the *Alcan Injury Recordkeeping System (AIRS)*, a system used to gather health and safety statistics. The new system, *AIRS Plus*, uses a global approach, makes data plotting and improvement comparisons easier and provides the consistency and quality of health and safety recordkeeping throughout Alcan locations worldwide. The system was implemented in all Alcan organizations at the start of 1998.

Alcan health and safety professionals are increasingly sharing their best practices to enhance overall program effectiveness and encourage the involvement of all employees. For example, in North America, the rolling operations initiated the President's Safety Award in 1993. This award recognizes excellence in health and safety based on site activities as well as traditional safety statistics. Other business sectors are planning to introduce a similar award this year. At some Alcan sites, employee involvement and safety are being enhanced through behavioural safety, such as the Leonardo project at Aughinish Alumina in Ireland; and the ergonomic process introduced in Alcan Cable and Alcan Smelters and Chemicals Limited.

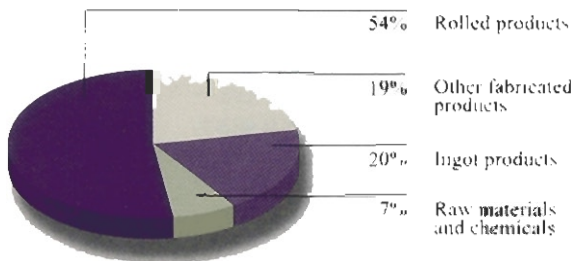
Outside the workplace, employees are encouraged to continue their safe practices for themselves, their families, and their communities.

Increasingly, Alcan's health and safety professionals continue to interact with Alcan's environmental professionals in areas of common interest, such as community health concerns related to atmospheric emissions and emergency response plans. These professionals have examined the requirements of their respective policies to determine what synergies can enhance overall effectiveness. One such example is the co-ordinated approach to environment, health and safety that has been introduced in Alcan Europe.

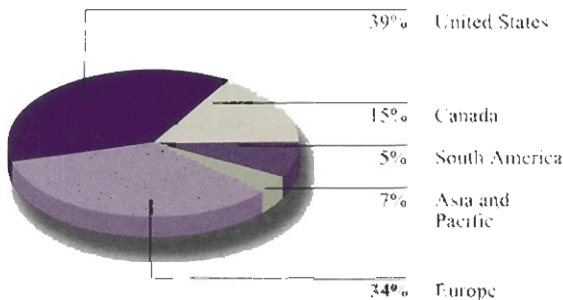
Alcan health and safety professionals are also working in concert with other industry and academic resources, and participating in health research related to all phases of aluminum production and use.

## Total Sales and Operating Revenues for 1997 – \$7.8 billion

### Sales and operating revenues by product sector

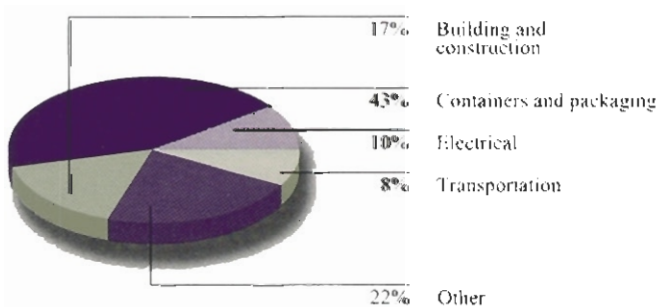


### Sales and operating revenues by region



## Sales of Fabricated Aluminum and Non-Aluminum Products for 1997 – \$5.8 billion

### Sales by end-use market



Nearly 90% of Alcan's consolidated sales and operating revenues are accounted for by aluminum products. Other products include bauxite, alumina, and alumina-based specialty chemicals. Revenues for all products – including conversion of customer-owned metal – totalled \$7.8 billion in 1997, consisting of fabricated aluminum and non-aluminum products of \$6.3 billion and ingot sales of \$1.5 billion.

Fabricated products volumes, including fabrication of customer-owned metal, grew 10% to reach their highest-ever level of 1,970,000 tonnes in 1997.

Following increases in rolling capacity at the Logan (Kentucky), Norf (Germany) and Pinda (Brazil) plants and recent upgrades at other facilities, Alcan increased cold rolling and finishing capacity at its plant in Nachterstedt, Germany. With the coming on stream of these expansions, Alcan consolidated its position as a major global producer of rolled aluminum products.

Alcan also sells ingot products to aluminum fabricators and customers all over the world who, in turn, serve a variety of end-use markets, including:

- Building and Construction:** In North America, Europe, South America and Southeast Asia, Alcan is a leading supplier of sheet for products used in new construction and renovation of residential, commercial and industrial buildings. Alcan is also a supplier to the extrusion and building systems markets in France, Italy, Malaysia, Thailand and through a related company in Japan.
- Containers and Packaging:** While the United States continues to be Alcan's single largest geographic market for these products, the fastest-growing markets are Brazil, Europe and Asia. In these areas, aluminum is making inroads into beverage container and food packaging markets, largely due to the metal's recyclability, while foil consumption is also on the rise. Through subsidiaries in Europe and North America and a related company in Japan, Alcan is a world leader in aluminum foil production.
- Electrical:** The Company produces a full line of bare and insulated conductor products, ranging from proprietary building wire to specialized, patented cable for power transmission lines. Alcan is an important supplier to electrical utilities and contractors in Canada and the United States.
- Transportation:** In both Europe and North America, Alcan is a producer of castings, principally of engine and transmission components, for the automotive industry. Alcan is also focusing on new sheet applications for automotive bodies and structures. In addition, the Company supplies specialized sheet products and proprietary brazing technology for automobile radiators and heat exchangers.

	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987
<b>CONSOLIDATED INCOME STATEMENT ITEMS</b>											
<i>(in millions of US\$)</i>											
<b>Revenues</b>											
Sales and operating revenues	7,777	7,614	9,287	8,216	7,232	7,596	7,748	8,757	8,839	8,529	6,797
Other income	88	75	100	109	75	69	82	162	208	97	81
<b>Total revenues</b>	<b>7,865</b>	<b>7,689</b>	<b>9,387</b>	<b>8,325</b>	<b>7,307</b>	<b>7,665</b>	<b>7,830</b>	<b>8,919</b>	<b>9,047</b>	<b>8,626</b>	<b>6,878</b>
<b>Costs and expenses</b>											
Cost of sales and operating expenses	5,995	5,905	7,233	6,740	6,002	6,300	6,455	6,996	6,682	6,072	5,117
Depreciation	436	431	447	431	443	449	429	393	333	316	296
Selling, administrative and general expenses	444	422	484	528	551	596	635	659	600	525	447
Research and development expenses	72	71	76	72	99	125	131	150	136	132	95
Interest	101	125	204	219	212	254	246	197	130	137	177
Other expenses	54	88	61	95	106	118	163	65	62	91	113
Income taxes	258	226	340	112	(13)	(17)	(104)	126	350	497	230
Equity income (loss)	(33)	(10)	(3)	(29)	(12)	53	89	211	97	97	35
Minority interests	(4)	(1)	4	(3)	1	(5)	—	(1)	(16)	(22)	(5)
<b>Net income (Loss) before extraordinary item</b>	<b>468</b>	<b>410</b>	<b>543</b>	<b>96</b>	<b>(104)</b>	<b>(112)</b>	<b>(36)</b>	<b>543</b>	<b>835</b>	<b>931</b>	<b>433</b>
Extraordinary gain (loss)	17	—	(280)	—	—	—	—	—	—	—	—
<b>Net income (Loss)</b>	<b>485</b>	<b>410</b>	<b>263</b>	<b>96</b>	<b>(104)</b>	<b>(112)</b>	<b>(36)</b>	<b>543</b>	<b>835</b>	<b>931</b>	<b>433</b>
Preference dividends	10	16	24	21	18	23	20	22	21	30	36
<b>Net income (Loss) attributable to common shareholders</b>	<b>475</b>	<b>394</b>	<b>239</b>	<b>75</b>	<b>(122)</b>	<b>(135)</b>	<b>(56)</b>	<b>521</b>	<b>814</b>	<b>901</b>	<b>397</b>
<b>CONSOLIDATED BALANCE SHEET ITEMS</b>											
<i>(in millions of US\$)</i>											
Operating working capital	1,483	1,461	1,731	1,675	1,314	1,460	1,717	1,842	1,774	1,764	1,735
Property, plant and equipment – net	5,458	5,470	5,672	5,534	6,005	6,256	6,525	6,167	5,260	4,280	3,965
<b>Total assets</b>	<b>9,466</b>	<b>9,325</b>	<b>9,736</b>	<b>10,003</b>	<b>9,812</b>	<b>10,154</b>	<b>10,843</b>	<b>10,681</b>	<b>9,518</b>	<b>8,627</b>	<b>7,693</b>
Total debt	1,515	1,516	1,985	2,485	2,652	2,794	3,024	2,648	1,734	1,530	1,558
Deferred income taxes	969	996	979	914	888	955	1,126	1,092	1,044	1,006	754
Preference shares	203	203	353	353	353	353	212	212	212	211	405
<b>Common shareholders' equity</b>	<b>4,871</b>	<b>4,661</b>	<b>4,482</b>	<b>4,308</b>	<b>4,096</b>	<b>4,266</b>	<b>4,730</b>	<b>4,942</b>	<b>4,610</b>	<b>4,109</b>	<b>3,565</b>
<b>PER COMMON SHARE</b>											
<i>(in US\$)</i>											
Net income (Loss) before extraordinary item	2.02	1.74	2.30	0.34	(0.54)	(0.60)	(0.25)	2.33	3.58	3.85	1.68
Net income (Loss)	2.09	1.74	1.06	0.34	(0.54)	(0.60)	(0.25)	2.33	3.58	3.85	1.68
Dividends paid	0.60	0.60	0.45	0.30	0.30	0.45	0.86	1.12	1.12	0.59	0.39
Common shareholders' equity	21.43	20.57	19.84	19.17	18.28	19.06	21.17	22.19	20.30	18.06	15.05
Market price – NYSE close	27.69	33.63	31.13	25.38	20.75	17.63	20.00	19.50	22.88	21.75	17.92
<b>OPERATING DATA</b>											
<i>(in thousands of tonnes)</i>											
<b>Consolidated aluminum shipments</b>											
Ingot products*	858	810	801	897	887	870	866	857	743	832	787
Fabricated products	1,694	1,539	1,733	1,763	1,560	1,389	1,333	1,488	1,518	1,446	1,410
Fabrication of customer-owned metal	276	258	225	189	91	206	145	81	75	80	99
<b>Total aluminum shipments</b>	<b>2,828</b>	<b>2,607</b>	<b>2,759</b>	<b>2,849</b>	<b>2,538</b>	<b>2,465</b>	<b>2,344</b>	<b>2,426</b>	<b>2,336</b>	<b>2,358</b>	<b>2,296</b>
Consolidated primary aluminum production	1,429	1,407	1,278	1,435	1,631	1,612	1,695	1,651	1,643	1,619	1,587
Consolidated aluminum purchases	1,254	1,003	1,365	1,350	865	675	591	646	718	716	593
Consolidated aluminum inventories (end of year)	451	408	449	435	403	418	463	447	539	480	496
<b>Primary aluminum capacity**</b>											
Consolidated subsidiaries	1,558	1,561	1,561	1,561	1,711	1,711	1,676	1,685	1,685	1,680	1,680
Total consolidated subsidiaries and related companies	1,695	1,698	1,712	1,712	1,862	1,862	1,827	1,836	1,836	1,831	1,861
<b>OTHER STATISTICS</b>											
Cash from operating activities (in millions of US\$)	719	981	1,044	65	444	465	659	760	970	1,370	879
Capital expenditures (in millions of US\$)	641	482	441	356	370	474	880	1,367	1,466	676	415
Ratio of total borrowings to equity (%)	23:77	23:77	29:71	35:65	37:63	37:63	37:63	33:67	26:74	26:74	27:73
Average number of employees (in thousands)	33	34	39	42	46	49	54	57	57	56	63
Common shareholders – registered (in thousands at end of year)	21	22	23	26	28	32	34	38	40	41	46
Common shares outstanding (in millions at end of year)	227	227	226	225	224	224	223	223	227	228	237
Registered in Canada (%)	61	61	61	55	59	69	68	54	44	54	44
Registered in the United States (%)	39	39	38	44	40	30	31	44	54	43	53
Registered in other countries (%)	—	—	1	1	1	1	1	2	2	3	3
Return on average common shareholders' equity (%)	10	9	5	2	(3)	(3)	(1)	11	19	24	12
Before extraordinary item (%)	10	—	11	—	—	—	—	—	—	—	—

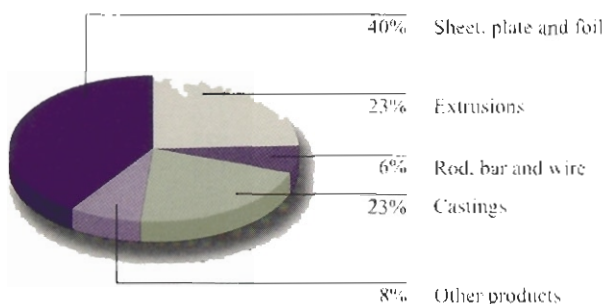
\*Includes primary and secondary ingot and scrap.

\*\*Primary aluminum capacity has been restated to reflect better the actual production levels achieved over a period of time. All per share amounts reflect the three-for-two share splits on May 5, 1987, and May 9, 1989.



## 1997 Shipments of Fabricated Aluminum Products

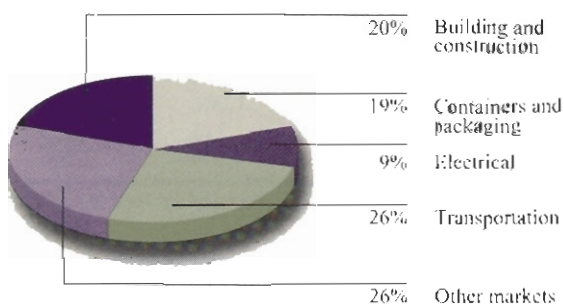
### Shipments by product



Western World shipments of aluminum products reached an estimated 25.5 million tonnes in 1997. This figure covers both primary and secondary/recycled aluminum shipped in the form of fabricated products, including castings.

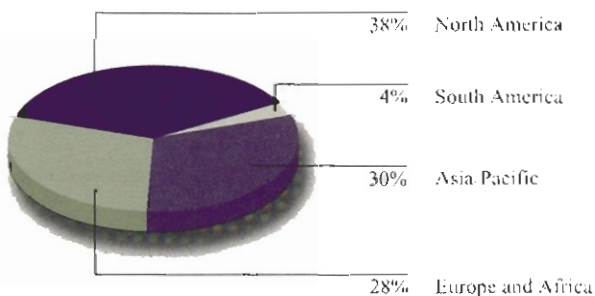
- Flat-rolled products form the largest group of aluminum products consumed in the Western World at 40% of total shipments. The single most important product in this category is can sheet, which accounts for over 30% of total sheet, plate and foil shipments. Extrusions account for 23% of total shipments and are used extensively in the fabrication of products such as doors and window frames. The majority of castings, which represent 23% of shipments, are used in engines and transmissions of automobiles and light trucks. Rod, bar and wire make up 6% of shipments and are used primarily in electrical transmission and distribution lines.

### Shipments by end-use market



- The transportation market is the largest end-use market for aluminum products accounting for 26% of all shipments. It was also the fastest growing, up 7.4%, while Western World light vehicle production grew by an estimated 4.4%. Shipments to the container and packaging market increased by 3.4% mainly due to strong growth in South America. The second largest market, building and construction, had a 3.9% gain.

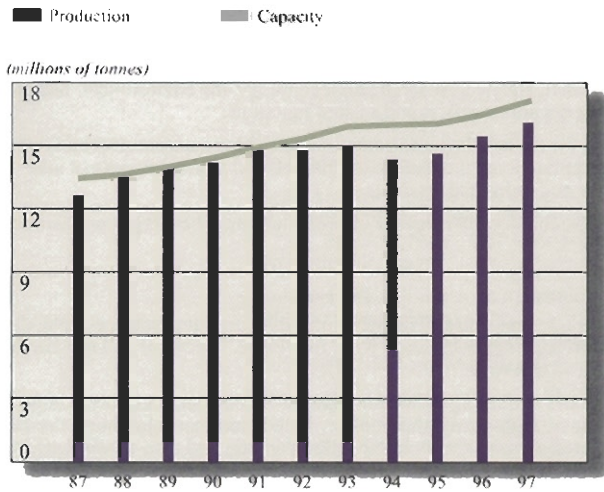
### Shipments by region



- North America is the largest consuming area and grew by over 6% in 1997. Europe also grew by 6.5% after declining the previous year. South America was again the fastest growing region, up 10%, while growth in Asia continued to decline, up only 3%.

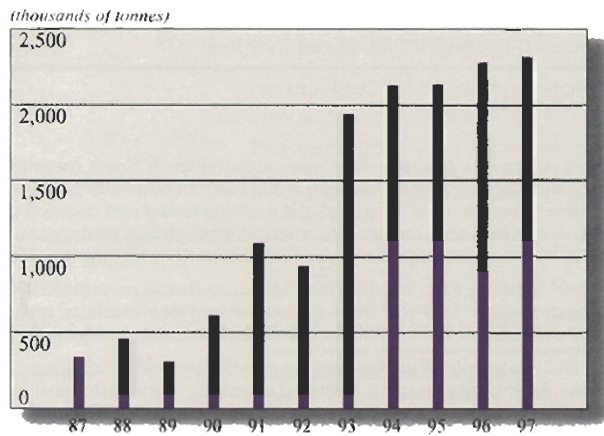
\*Total aluminum industry data, excluding the former Soviet Union, other East Bloc countries, and China.

### Primary Aluminum Production and Capacity



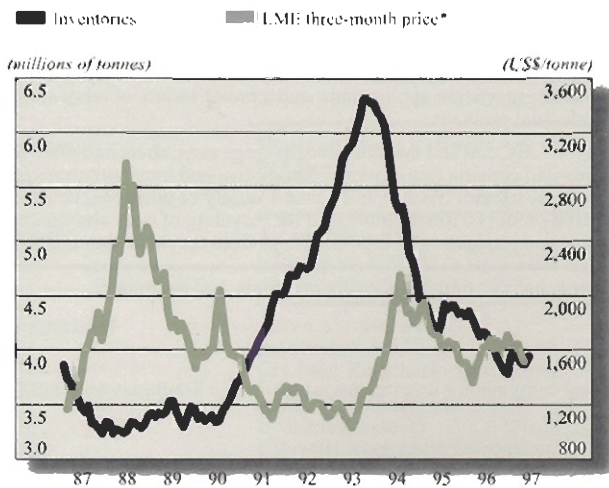
In 1997, Western World production increased to 16.1 million tonnes from the 15.5 million tonnes achieved in 1996. Capacity increased to 16.9 million tonnes from 16.5 million tonnes in 1996. There were brownfield expansions in Australia and New Zealand, Norway and Iceland, and the Middle East. The operating rate for the year was 94.8%, up from 93.7% in 1996.

### Net Ingot Exports from the former East Bloc



Net exports of ingot to the Western World from the former East Bloc are estimated to have risen slightly in 1997 to 2.5 million tonnes, or 13% of Western World supply. Though Russian industrial activity has stopped declining, their high aluminum exports to the West continue. Russia's primary capacity, at 2.9 million tonnes, represents over 80% of the Commonwealth of Independent States' total and is the second largest in the world after the U.S. In the second half of the year, China moved from being a net importer to a net exporter of primary.

### Primary Aluminum Inventories and Ingot Prices



The inventories of aluminum held in London Metal Exchange (LME) warehouses declined by 329,000 tonnes in 1997 while producer inventories rose slightly. The result was that total inventories dropped to 3.8 million tonnes at year-end, from 4.1 million tonnes at the end of 1996. LME three-month aluminum prices spent most of the year between \$1,535 and \$1,700, but reached a high of \$1,775 in early August and a low of \$1,514 in mid-December before closing out the year just above \$1,550. The average was \$1,619 versus \$1,536 in 1996.

\* monthly average

# The Alcan Group Worldwide\*

(Fully owned except where the parent company's percentage of equity ownership is shown)

## NORTH AMERICA

### Canada

**Alcan Aluminium Limited**  
1188 Sherbrooke Street West  
Montreal, Quebec, Canada H3A 3G2

**Sheet**  
1 Lappan's Lane  
Kingston, Ontario, Canada K7L 4Z5

**Recycling**  
2700 Matheson Blvd. E.  
Suite 600, West Tower  
Mississauga, Ontario, Canada L4W 5H7

**Alcan Cable**  
2700 Matheson Blvd. E., Suite 600, West Tower  
Mississauga, Ontario, Canada L4W 5H7

**Alcan Chemicals**  
1188 Sherbrooke Street West  
Montreal, Quebec, Canada H3A 3G2

**Alcan Foil Products**  
191 Evans Avenue  
Toronto, Ontario, Canada M8Z 1J5

**Alcan International Limited**  
1188 Sherbrooke Street West  
Montreal, Quebec, Canada H3A 3G2

**Alcan Smelters and Chemicals Limited**  
1188 Sherbrooke Street West  
Montreal, Quebec, Canada H3A 3G2

Parent company and world headquarters. Responsible for the stewardship of the Company's worldwide raw materials and chemicals, smelting and power, fabricated products, including rolled products, as well as for Alcan's investments in the Asia/Pacific region. Also provides guidance, policies and procedures for the Alcan Group with respect to general administration, legal, personnel, finance, research and technology, the environment, health and safety, corporate affairs and related functions.

Sheet for the building and construction markets; automotive and transportation applications; the distributor market; and a broad variety of other consumer and industrial products.

Responsible for the recovery of used aluminum beverage cans for recycling.

Power transmission and distribution cable, insulated service cable, aluminum and copper building wire, teck cable. Electrical and mechanical alloy rod and strip.

Sales and marketing office for alumina-based chemicals, including calcined aluminas, high-purity aluminas, hydrated aluminas, aluminum fluoride, activated aluminas, aluminum sulfate, and tin and zinc-based flame retardant and smoke suppressant chemicals.

Retail Alcan household foil and Bake-King foilware. Aluminum containers, institutional rolls and pop-up foil for foodservice industry, bakeries and food processors.

Responsible for worldwide technology, research laboratories, intellectual property and technology sales.

Primary aluminum, ingot products, coke calcining, alumina refining and production of specialty aluminas, hydrates and other chemicals, rail and port facilities, hydropower operations and dross treatment.

### United States

**Alcan Aluminum Corporation**  
6060 Parkland Blvd.  
Cleveland, Ohio 44124-4185, U.S.A.

**Alcan Automotive Products**  
37676 Enterprise Court, Farmington Hills  
Michigan 48331-3440, U.S.A.

**Alcan Cable**  
Three Ravinia Drive, Suite 1600  
Atlanta, Georgia 30346-2133, U.S.A.

**Alcan Chemicals**  
3690 Orange Place, Suite 400  
Cleveland, Ohio 44122-4438, U.S.A.

**Alcan Foil Products**  
1513 Redding Drive  
La Grange, Georgia 30240, U.S.A.

**Alcan Ingot**  
6060 Parkland Blvd.  
Cleveland, Ohio 44124-4185, U.S.A.

**Alcan Light Gauge Products**  
6060 Parkland Blvd.  
Cleveland, Ohio 44124-4185, U.S.A.

**Alcan Sheet Products (including Recycling)**  
6060 Parkland Blvd.  
Cleveland, Ohio 44124-4185, U.S.A.

Corporate office for the U.S. activities.

Alcan's automotive business development activities in North America cover mainly sheet products and *Duralcan* metal matrix composite products. Expertise in commercial, technical and manufacturing and engaged in a range of activities with chosen customers to strategically position Alcan in the growing business opportunities of the automotive sector.

Stabiloy® building wire, polyethylene and cross-linked polyethylene covered service drop cable, 600 volt cross-linked polyethylene-insulated underground distribution cable, and bare overhead aluminum conductor.

Sales and marketing office for alumina-based chemicals, including calcined alumina, high-purity alumina, hydrated aluminas, aluminum fluoride, activated aluminas, aluminum sulfate, and tin- and zinc-based flame retardant and smoke suppressant chemicals.

Aluminum containers, foodservice rolls and pop-up foil for foodservice industry, bakeries and food processors. Smoothwall aluminum containers and pet food lids.

Primary ingot.

Foil products for semi-rigid containers, household foil and commercial packaging; the building and construction markets; heat exchangers, automotive and transportation applications, and a broad variety of other consumers and industrial products.

Sheet for body, end and tab stock for beverage cans, sheet and plate for the building and construction markets; automotive and transportation applications; the distributor market; and a broad variety of other consumer and industrial products. Responsible also for recycling of used aluminum beverage cans and production of foundry alloys from recycled aluminum.

### Bermuda

**Alcan (Bermuda) Limited**  
Victoria Hall  
11 Victoria Street  
Hamilton, HM 11, Bermuda

**Alcan Nikkei Asia Holdings Ltd. (78.2%)\***  
Victoria Hall  
11 Victoria Street  
Hamilton, HM 11, Bermuda

Shipping, bauxite trading, alloying materials, and insurance.

Holding company for investments with NLM in Southeast Asia and China.

\*This list names only the principal subsidiaries, related companies or divisions in each country where the Alcan Group has a significant presence as at December 31, 1997, unless otherwise indicated. A complete list is contained in the Company's 10-K Report, available from Alcan's headquarters in Montreal.

<b>CARIBBEAN</b>		
<b>Jamaica</b>	<b>Alcan Jamaica Company</b> Kirkvine P.O., Manchester, Jamaica, West Indies	Bauxite, alumina and related facilities.
<b>SOUTH AMERICA</b>		
<b>Brazil</b>	<b>Alcan Alumínio do Brasil Ltda.</b> Av. das Nações Unidas 12.995 – 26º andar Brooklin Novo, CEP 04565-001 São Paulo, SP, Brazil	Bauxite mining, alumina, primary aluminum, plate, sheet, plain and converted foil, and foil containers.
	<b>Alcan Alumínio Poços de Caldas S.A.</b> Av. Nações Unidas 12.995 – 26º andar cj. "B", Brooklin Novo, CEP 04565-001, São Paulo, SP, Brazil	Bauxite mining.
	<b>Consórcio de Alumínio do Maranhão (Alumar Consortium) (10%)</b> Rodovia BR-135, KM 18, Bairro Pedrinhas, 65095-050, São Luis-MA, Brazil	Alumina refining.
	<b>Mineração Rio do Norte S.A. (12.5%)</b> Praia do Flamengo 200 – 6º andar Rio de Janeiro-RJ, Brazil	Bauxite mining.
	<b>Petrocoque S.A. – Indústria e Comércio (25%)</b> Estrada SP 55, km. 57.880, Trecho Cubatao-Piaçaguera, 11573-000 Cubatao, São Paulo, Brazil	Calcined coke.
<b>AFRICA</b>		
<b>Ghana</b>	<b>Ghana Bauxite Company Limited (80%)</b> Private Mail Bag, Ministry Post Office Accra, Ghana	Bauxite mining.
<b>Guinea</b>	<b>Compagnie des Bauxites de Guinée (16.8%)</b> c/o Halco (Mining) Inc. 900 Two Allegheny Center Pittsburgh, Pennsylvania 15212, U.S.A.	Bauxite mining.
	<b>Friguia (10.2%)</b> c/o Frialco, P.O. Box 265 George Town, Grand Cayman, Cayman Islands	Bauxite mining and alumina refining.
<b>EUROPE</b>		
<b>France</b>	<b>Alcan France (Technal)</b> 270, rue Léon Joulin, BP 1209 31037 Toulouse Cedex 1, France	Aluminum architectural systems for commercial and residential building construction.
<b>Germany</b>	<b>Alcan Deutschland GmbH</b> Kochler Strasse 8, Postfach 51 49 D-65726 Eschborn, Germany	Bare and coated sheet products, plain and converted foil, semi-rigid foil containers, automotive castings, and impact extrusions.
	<b>Aluminium Norf GmbH (50%)</b> Koblenzer Strasse 120 D-41468 Neuss-Stüttgen, Germany	Rolled sheet products.
<b>Ireland</b>	<b>Aughinish Alumina Limited</b> Aughinish Island, Askeaton, Area 71, Co. Limerick, Ireland	Alumina refining.
<b>Italy</b>	<b>Alcan Alluminio S.p.A.</b> Via Bruno Buozzi 12 20090 Pieve Emanuele, Milan, Italy	Bare and coated sheet products, extrusions, circles, foundry alloys from recycled miscellaneous aluminum scrap and aluminum architectural systems.
<b>Norway</b>	<b>Vigeland Metal Refinery A/S (50%)</b> P.O. Box 6 N-4701 Vennesla, Norway	Super purity aluminum remelt ingots.
<b>Spain</b>	<b>Alcan Palco, S.A.</b> Calle de La Mancha 3, Poligano Industrial 28820 Coslada, Madrid, Spain	Semi-rigid foil containers.
<b>Switzerland</b>	<b>Alcan Aluminium AG</b> Industriestrasse 35 CH-9401 Rorschach, Switzerland	Holding company.
	<b>Alcan Rorschach AG</b> Industriestrasse 35 CH-9401 Rorschach, Switzerland	Converted foil for use in food and pet food packaging.
<b>United Kingdom</b>	<b>British Alcan Aluminium plc</b> Chalfont Park, Gerrards Cross, Buckinghamshire SL9 0QB, England	Smelting and power operations, sheet ingot from primary and recycled aluminum, flat rolled products, including sheet, plain, converted and laminated foil, and alumina-based specialty chemicals.

## PACIFIC

Australia	<b>Alcan South Pacific Pty Ltd</b> c/o Pritchard Adams 3rd Floor, 1 Chandos Street St Leonards, NSW 2065, Australia	Holds a special bauxite mining lease in Cape York and the Alcan Group's 21.4% interest in Queensland Alumina Limited.
	<b>Queensland Alumina Limited (21.4%)</b> Parsons Point, Gladstone, Queensland, Australia 4680	Alumina refining.
China	<b>Alcan Asia Limited</b> Room 4702, 47th Floor, The Lee Gardens 33 Hysan Avenue, Causeway Bay, Hong Kong, China	Marketing of Alcan Group products in Asia.
	<b>Alcan Asia Pacific Limited</b> (address as above)	Management office for the direction of operations and investments in the Asia/Pacific region.
	<b>Alcan Nikkei China Limited (72.3%)<sup>2</sup></b> (address as above)	Holding company for investments by Alcan and Nippon Light Metal Company, Ltd. (NLM) in ventures in China and Taiwan, and marketing of Alcan and NLM Group products in China, Hong Kong, Taiwan and Southeast Asia.
	<b>Alcan Nikkei Korea Limited (72.3%)<sup>2</sup></b> (address as above)	Marketing of Alcan and NLM Group products in Korea.
	<b>Nonfemet International (China-Canada-Japan) Aluminium Company Limited (35.2%)<sup>4</sup></b> Kai Hong, No. 2 Industrial Development Village, Nanshan District, Shenzhen, China	Production and sale of aluminum billets, mill-finished and anodized extrusions, windows and doors, and curtain walls.
India	<b>Indian Aluminium Company, Limited (34.6%)</b> 1 Middleton Street, Calcutta 700 071, India	Bauxite, alumina specialty chemicals, primary ingot and recycling, rod, sheet, extrusions, foil, cathode block, and carbon paste.
Japan	<b>Alcan Asia Limited (Japan Branch)</b> 14th Floor, NYK Tennoz Building 2-20, Higashi-Shinagawa 2-chome, Shinagawa-ku, Tokyo 140, Japan	Marketing of Alcan Group products in Japan.
	<b>Nippon Light Metal Company, Ltd. (NLM) (45.6%)</b> NYK Tennoz Bldg., 2-20, Higashi-Shinagawa 2-chome, Shinagawa-ku, Tokyo 140-8628, Japan	Alumina-based chemicals, ingot from primary and recycled aluminum, sheet and extrusions, castings, and building and other fabricated products.
Korea	<b>Alcan Nikkei Korea Limited (Seoul Branch)</b> 6th Floor, Samsung Insurance Bldg., 87 Euljiro 1-Ga, Choong-ku, Seoul, Korea	Marketing of Alcan and NLM Group products in Korea.
Malaysia	<b>Alcan Nikkei Asia Company Ltd. (78.2%)<sup>1</sup></b> Lot 8, Jalan Universiti, 46200 Petaling Jaya, Selangor Darul Ehsan, Malaysia	Management office for the direction and support of businesses in Southeast Asia and China.
	<b>Aluminium Company of Malaysia Berhad (46.3%)<sup>3</sup></b> Lot 8, Jalan Universiti, 46200 Petaling Jaya, Selangor Darul Ehsan, Malaysia	Sheet and foil products for building and construction, transportation, heat exchanger and packaging markets. Extrusions with a variety of finishes including mill, painted, anodized, ANOLOCK and ANOTONE for building and construction market.
	<b>Alcom Nikkei Specialty Coatings Sdn Bhd (62.2%)<sup>4</sup></b> No. 3, Persiaran Waja, Bukit Raja Industrial Estate, 41050 Klang, Selangor Darul Ehsan, Malaysia	Precoated finstock for heat exchangers.
Thailand	<b>Alcan Nikkei Thai Limited (60.7%)<sup>3</sup></b> B.B. Bldg., 8th Floor, 54 Asoke Road, Sukhumvit 21, Bangkok 10110, Thailand	Secondary alloy ingot, mill-finished and anodized extrusions, and fabricated products.
	<b>Alcan Nikkei Siam Limited (54.8%)<sup>3</sup></b> B.B. Bldg., 7th Floor, 54 Asoke Road, Sukhumvit 21, Bangkok 10110, Thailand	Sheet and foil products.

<sup>1</sup> Alcan's direct interest is 60%; the remaining is held through NLM.

<sup>2</sup> Alcan's direct interest is 49%; the remaining interest is held through NLM.

<sup>3</sup> Interest held through Alcan Nikkei Asia Holdings Ltd., which is 78.2% owned by Alcan.

<sup>4</sup> Interest held through Aluminium Company of Malaysia Berhad and Alcan Nikkei Asia Holdings Ltd.

## Historical Review

The history of Alcan may be summarized as the growth, over a period of 96 years, of an integrated aluminum enterprise, based initially on hydroelectric power in Canada and extending to other countries on other continents. In the process, Alcan has become one of the largest aluminum companies in the world and one of the largest multinational companies based in Canada.

Alcan had its beginnings in Shawinigan, Quebec, where hydroelectric power facilities had earlier been developed. The first primary aluminum in Canada was produced on October 22, 1901. The operation was then a subsidiary of Aluminum Company of America (Alcoa), the pioneer producer on the North American continent.

The Canadian operation was incorporated in 1902 as Northern Aluminum Company, but in 1925 its name was changed to Aluminum Company of Canada, Limited. It was also in 1925 that the rights were acquired to develop the Chute-à-Caron and Shipshaw power sites on the Saguenay River, some 241 kilometres northeast of Shawinigan. To utilize the massive and largely unused hydroelectric potential of the Saguenay – Lac-Saint-Jean region, the Company built and started its second aluminum smelter in 1926 at a new town called Arvida, today part of the city of Jonquière.

Only two years later, in 1928, Alcoa decided that it should divest itself of its principal subsidiaries outside the United States, including Aluminum Company of Canada, Limited, and transfer them to an independent Canadian company that could focus its activities on the development of the aluminum industry in Canada and internationally. The separation was achieved by transferring such subsidiaries to that new Canadian company and issuing the shares of the new company to the Alcoa shareholders on a prorata basis. The directors and management were independent of Alcoa from 1928 onwards; a final adjudication of legal proceedings in 1950 ensured that any common identity of major shareholders in the two companies was also removed.

Despite the adversities of the Great Depression of the 1930s, the newly independent company pursued its mission of developing aluminum fabricating activities in Canada, the U.K. and Europe that could provide outlets for the ingot from its Canadian smelters. Although the Company worked hard and successfully to develop new uses and markets for its metal in Canada, close to 85% of its smelter production had to find export markets. An international chain of sales offices was established. Also in the pre-war period, the Company was involved in pioneer efforts to build the industry in India, Australia, China and Japan.

The outbreak of the Second World War in 1939 brought unprecedented demand for aluminum in the manufacture of aircraft for the military efforts of the allied nations, particularly Canada, the U.K. and, later, the U.S.

To meet the demand, Alcan rapidly completed several additional hydroelectric sites in the Saguenay – Lac-Saint-Jean region of Quebec and was able to increase its annual smelter production more than five-fold to over 500,000 tonnes. Fabricating plants to produce sheet and other components for aircraft were also rapidly built in Canada and the U.K.

Following the war, growth in civilian demand, aided by aggressive product development by the aluminum industry, required further expansion of Alcan's power and smelter capacity. As a result, hydroelectric projects were started in Quebec and construction began for the Kitimat-Kemano project in British Columbia. Power capacity was doubled in the 1950s and, by the end of the 1960s, Alcan's Canadian smelting capacity had also doubled to almost one million tonnes. In this period, the Company's fabricating capacity was also greatly increased and had spread to many countries. Particularly noteworthy was the Company's entry as a major fabricator in the U.S. markets after 1960.

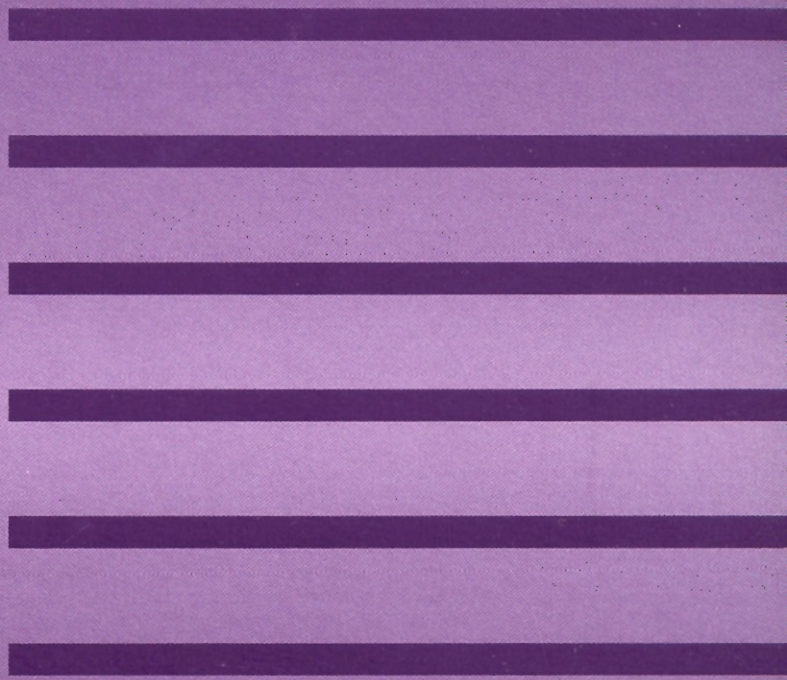
In the 1970s, new smelting operations were opened in Australia, the U.K., Brazil and India. In addition, new bauxite mining activities were undertaken in Guinea and Brazil, while the Company participated in new alumina production capacity, notably in Jamaica, Australia and Ireland.

In the 1980s, the Company was able to take advantage of a major restructuring in the international aluminum industry. Through the 1982 merger with The British Aluminium Company plc and the 1985 acquisition of most of the aluminum assets of Atlantic Richfield Company in the U.S., the Company substantially increased its presence in markets for fabricated products.

Pursuant to a reorganization in 1987, Aluminum Company of Canada, Limited, which had been the principal subsidiary, became the parent company of the Alcan Group of companies and changed its name to Alcan Aluminium Limited.

Please refer to page 1 for the Company profile, key priorities and organizational structure of Alcan today.

*More detailed information on Alcan's corporate history is contained in the three volumes of Global Mission – The Story of Alcan, available from Alcan's headquarters in Montreal.*



Alcan  
Aluminium  
Limited