FIRST IN MATTERS

PERFORMANCE REPORT ON THE 2010–2012 SUSTAINABLE DEVELOPMENT PLAN
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In this report, “Company” or “Corporation” or “Cascades” or “Enterprise” means Cascades Inc. and, where the context requires, one or more of its subsidiaries, divisions and joint ventures.
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<th>Page</th>
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**Legend**
- **Challenge Achieved**
- **Challenge Partially Achieved**
- **Challenge Not Achieved**
ABOUT CASCADES

FOUNDED IN 1964, CASCADES MANUFACTURES, CONVERTS, AND MARKETS PACKAGING AND PAPER PRODUCTS COMPOSED PRIMARILY OF RECYCLED FIBRES. CASCADES EMPLOYS MORE THAN 12,000 WOMEN AND MEN WHO WORK IN OVER 100 OPERATING UNITS IN NORTH AMERICA AND EUROPE. THE COMPANY’S MANAGEMENT PHILOSOPHY, NEARLY HALF A CENTURY OF EXPERIENCE IN RECYCLING, AND CONTINUOUS EFFORTS IN RESEARCH AND DEVELOPMENT ARE DRIVING FORCES ENABLING IT TO DEVELOP INNOVATIVE PRODUCTS FOR ITS CUSTOMERS. CASCADES’ SHARES TRADE ON THE TORONTO STOCK EXCHANGE UNDER THE CAS TICKER SYMBOL.
At December 31, 2012, Cascades now holds 57.61%. It holds 34.85% interest in Boralex (Energy) and 48.54% interest in Reno de Medici (Packaging - European Boxboard).

### OVERVIEW OF THE COMPANY

- **30** manufacturing plants
- **58** converting plants
- **2** de-inked pulp plants
- **23** recovery centres
- More than **12,000** employees

### CORPORATE STRUCTURE

<table>
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<th>Tissue Papers</th>
</tr>
</thead>
<tbody>
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<td>European Boxboard Group</td>
<td></td>
</tr>
<tr>
<td>Containerboard Group</td>
<td></td>
</tr>
<tr>
<td>Specialty Products Group</td>
<td></td>
</tr>
</tbody>
</table>

### MAIN PRODUCTS AND SERVICES

- **Packaging**
  - Industrial packaging, folding cartons, corrugated boxes, protective packaging, food packaging
- **Papers**
  - Bathroom tissue, facial tissues, paper towels, hand towels, napkins, fine paper, kraft paper
- **Recovery**
  - Recovery service and sorting centres

### HEAD OFFICE

Kingsey Falls, Quebec

### NUMBER OF COUNTRIES

Where our units are located: 7

- Canada, United States, France, Sweden, Germany, Italy, Spain

---

1. At December 31, 2012, Cascades now holds 57.61%.
2. 7 integrated manufacturing and converting plants.
The largest producer of containerboard in Canada and 5th in North America

The largest producer of recycled boxboard in Canada and 4th in North America

The largest collector of wastepaper and cardboard in Canada and 5th in North America

Cascades is the top selling green brand in Canada for the bathroom tissue and the paper towel categories, according to the latest Nielsen data.

One of the largest manufacturers of polystyrene foam trays.

For Canadian food processing and retail markets.

Cascades is the top selling green brand in Canada for the bathroom tissue and the paper towel categories, according to the latest Nielsen data.

Overview of the Company

The largest producer of containerboard in Canada and 5th in North America

The largest producer of recycled boxboard in Canada and 4th in North America

The largest collector of wastepaper and cardboard in Canada and 5th in North America

Among the best

One of the leading producers of egg cartons in Canada

4th largest tissue paper producer in North America

3rd largest consumer of recycled fibres in North America


2. RISI, The leading information provider for the global forest product industry, 2012

3. Reports of similar companies
MATTER FOR PRIDE
2010–2012 SUSTAINABLE DEVELOPMENT HIGHLIGHTS

In terms of sustainable development challenges, the 2010 to 2012 period was marked by the following:¹

**ENVIRONMENT**
MORE THAN 75 PROJECTS CARRIED OUT BY THE ENERGY ACTION GROUP (CASCADES GIE INC.), RESULTING IN SAVINGS EXCEEDING 770,000 GIGAJOULES

12% REDUCTION IN GREENHOUSE GAS EMISSION INTENSITY

8.3 MILLION SHORT TONS OF RECYCLED FIBRES EQUIVALENT TO SAVING 124 MILLION TREES

5% REDUCTION IN WATER DISCHARGE

**SOCIAL**

22% REDUCTION IN THE OSHA INCIDENT RATE

MORE THAN 10 MILLION dollars in donations and sponsorships

**ECONOMY**

AN INCREASE IN SALES OF 15%

MORE THAN 20 NEW PRODUCTS MARKETED

IMPLEMENTATION OF AN ASSESSMENT PROCESS FOR SUPPLIERS’ BUSINESS PRACTICES

¹ DATA FROM THE CASCADES GROUP INCLUDING ACTIVITIES IN EUROPE
OUR RAW MATERIAL
Our raw material consists of nearly **80% recycled fibres**, saving millions of trees every year.

**Fibre Supply Highlights**

This data includes procurement of Reno De Medici S.p.A.; not consolidated in 2010 and fully consolidated in 2011 and 2012 according to IFRS accounting standards.

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recycled Fibre Consumption</strong></td>
<td>72%</td>
<td>78%</td>
<td>79%</td>
</tr>
<tr>
<td>Unit: Millions of Short Tons</td>
<td>2.3</td>
<td>3.1</td>
<td>2.9</td>
</tr>
<tr>
<td><strong>Virgin Fibre Consumption</strong></td>
<td>19%</td>
<td>15%</td>
<td>13%</td>
</tr>
<tr>
<td>Unit: Millions of Short Tons</td>
<td>0.6</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Virgin Pulp Consumption</strong></td>
<td>9%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>Unit: Millions of Short Tons</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.2</td>
<td>4.0</td>
<td>3.7</td>
</tr>
</tbody>
</table>

1. Data from the Cascades Group including activities in Europe.
<table>
<thead>
<tr>
<th>Year</th>
<th>Millions of tonnes courtes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2.3</td>
</tr>
<tr>
<td>2011</td>
<td>3.1</td>
</tr>
<tr>
<td>2012</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**Consommation de fibres recyclées**

**Consommation de fibres vierges**

**Consommation de pâte vierge**
Our final material is composed of Environmentally Friendly Products with utmost consideration given to environmental and social issues.

## Economic Highlights

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>3,182</td>
<td>3,625</td>
<td>3,645</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating income before amortization (OIBA or EBITDA)</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>310</td>
<td>229</td>
<td>304</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cash flow (adjusted) from operations</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>197</td>
<td>133</td>
<td>167</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Return on assets</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.6%</td>
<td>6.5%</td>
<td>8.1%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Return on capital used</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8%</td>
<td>1.3%</td>
<td>2.8%</td>
<td></td>
</tr>
</tbody>
</table>

### Breakdown of Sales by Activity Sector (percentage)

- **European Boxboard Group**: 21%
- **Containerboard Group**: 32%
- **Specialty Products Group**: 21%
- **Tissue Papers Group**: 26%

### SALES TO DESTINATION (%)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>41</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>United States</td>
<td>43</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td>Europe and elsewhere</td>
<td>16</td>
<td>23</td>
<td>24</td>
</tr>
</tbody>
</table>

### The Packaging Products Sector, Which Includes:
- The European Boxboard Group, a manufacturer of premium coated boxboard
- The Containerboard Group, a producer of containerboard and boxboard, and a leading converter of corrugated and folding carton products
- The Specialty Products Group, which manufactures specialty papers, industrial packaging, and consumer products packaging, and is also involved in recovery and recycling

### The Tissue Papers Sector, Which Includes:
operational units that manufacture and convert tissue papers for the Away-from-Home and consumer products markets.

2. Excluding specific elements.
OUR GREY MATTER
### Social Highlights

#### Workforce Profile

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of employees at the end of the period</td>
<td>12,389</td>
<td>12,147</td>
<td>12,031</td>
</tr>
<tr>
<td>Average number of years of service</td>
<td>13.1</td>
<td>13.9</td>
<td>13.8</td>
</tr>
<tr>
<td>Average age of employees</td>
<td>44</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Number of students hired</td>
<td>538</td>
<td>518</td>
<td>489</td>
</tr>
<tr>
<td>Number of interns hired</td>
<td>128</td>
<td>126</td>
<td>122</td>
</tr>
</tbody>
</table>

#### Compensation

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross wages</td>
<td>604</td>
<td>594</td>
<td>594</td>
</tr>
<tr>
<td>Benefits</td>
<td>244</td>
<td>255</td>
<td>254</td>
</tr>
<tr>
<td>Profit sharing</td>
<td>38</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>Total compensation</td>
<td>886</td>
<td>879</td>
<td>882</td>
</tr>
</tbody>
</table>

#### Training

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hours of training</td>
<td>296,770</td>
<td>367,908</td>
<td>342,221</td>
</tr>
<tr>
<td>Number of employees trained</td>
<td>8,613</td>
<td>8,981</td>
<td>8,632</td>
</tr>
<tr>
<td>% of employees</td>
<td>58%</td>
<td>54%</td>
<td>58%</td>
</tr>
<tr>
<td>Investments in training (Million $)</td>
<td>11</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>% of the total payroll</td>
<td>1.7%</td>
<td>1.9%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

#### Health and Safety

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA incident rate*</td>
<td>4.9</td>
<td>4.3</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*The OSHA incident rate is an American standard (OSHA 1904) that measures performance in workplace health and safety. Cascades has adopted it as the company’s standard for measuring its performance in health and safety. More details on page 60.
SOCIAL HIGHLIGHTS

GEOGRAPHICAL DISTRIBUTION OF THE WORKFORCE

CANADA
- 2010: 64%
- 2011: 65%
- 2012: 65%

Quebec
- 2010: 38%
- 2011: 38%
- 2012: 38%

Ontario
- 2010: 17%
- 2011: 17%
- 2012: 18%

West
- 2010: 8%
- 2011: 8%
- 2012: 8%

Maritimes
- 2010: 1%
- 2011: 2%
- 2012: 1%

United States
- 2010: 31%
- 2011: 18%
- 2012: 18%

Europe
- 2010: 5%
- 2011: 17%
- 2012: 17%

1. In 2010, the data from Reno de Medici was not taken into account.
The following pages present an overview of our sustainable development achievements during the three-year period from January 1, 2010 to December 31, 2012, which corresponds to the period covered by our first formal sustainable development plan. A second plan for 2013 to 2015 has been launched to pursue our commitments. Details may be found at cascades.com/sustainable-development
AN ENRICHING FIRST EXPERIENCE

WITH A HISTORY OF ENVIRONMENTAL, SOCIAL, AND ECONOMIC COMMITMENT, CASCADES LAUNCHED ITS FIRST SUSTAINABLE DEVELOPMENT PLAN IN 2010. THE PLAN’S 18 OBJECTIVES WERE ESTABLISHED AFTER CONSULTATION WITH STAKEHOLDERS IN 2009, A STEP WE VIEWED ESSENTIAL IN A TRANSPARENT SUSTAINABLE DEVELOPMENT APPROACH.
Material for Success

Beyond the numbers, we would like to highlight efforts in several areas where Cascades has proven to be an avant-garde company. It has long been recognized as a pioneer in the recovery of waste paper and cardboard and in the manufacture of products made from recycled fibres. Our environmental performance is enviable from the perspectives of energy and water consumption and reuse of waste. Our plants are among the top performers, with an average energy consumption that is 50% lower than that of the industry, an average water use that is 80% lower than that of the industry and the recycling of nearly 67% of our papermaking waste.

Our leadership role has also made us aware of our power to influence and the positive impacts we have on the entire supply chain. This is why we recently introduced a responsible procurement strategy. We are convinced that we have launched a process that will ensure our suppliers are as committed to sustainable development as we are. The Sustainable Supplier Award, presented annually since 2009, recognizes companies that enable Cascades to remain at the forefront in offering environmentally friendly commodity products. Further more, several life cycle assessments (LCAs) conducted in collaboration with university researchers and specialized firms have confirmed the environmental benefits of Cascades products. This is undoubtedly one of the reasons why Quebecers regard our company as the most environmentally responsible.

From a human perspective, our company has always invested in our most valuable resource—our employees, of whom we are very proud, and the reason for our success. Our 2010-2012 Sustainable Development Plan included social objectives that sought to improve the workplace quality of life of our employees and to involve them to a greater extent in our sustainable development strategy. The health and safety of our employees remains a priority, and the results show a clear improvement in this regard. True to our tradition, we continued to respect our commitments in the communities where our facilities are located. This resulted in donations of more than $10 million over the past three years.

To carry out our leadership role, we gave ourselves the mandate of promoting sustainable development externally. In 2010, 2011, and 2012, we seized many opportunities to explain our approach and practices to the industry and to the public. As we did so, we listened to and cooperated with our stakeholders.

In short, these past three years have been a rich learning experience. Drawing from this experience, which has made us a better company, we are ready to implement the 2013-2015 Sustainable Development Plan. This new plan will enable us to further our sustainable development commitment by working on challenges that are more focused and more tangible.

With the above in mind, we encourage you to consult our 2010-2012 Performance Report, and we invite you to continue contributing to our planning year after year.

Alain Lemaire
Executive Chairman of the Board

Mario Plourde
President and Chief Executive Officer
In 2009, Cascades conducted consultations with its stakeholders—the company’s first formal consultation exercise specifically on sustainable development. An online survey was developed, targeted interviews were conducted, and consultation workshops were held.

**Cascades’ Stakeholders**

Its employees, customers, suppliers, investors, the communities where the company has facilities, non-governmental organizations interested in sustainable development, and any other group or individual with a more or less direct interest in the company and likely to be affected by its activities.

**Number of Respondents by Category**

- Employees: 41
- Business customers: 29
- Product users: 11
- Suppliers: 10
- Other: 4
- NGO/NPO representatives: 3
- Investors: 2

**Overview of the Phases of Cascades’ First Sustainable Development Plan**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Initial Assessment and Project Planning</th>
<th>Consultations with Stakeholders</th>
<th>Vision and Strategy</th>
<th>Implementation</th>
<th>Measures and Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Initial assessment</td>
<td>Consultation with stakeholders (employees)</td>
<td>Definition of the company’s vision (for all groups) and identification of strategic priorities</td>
<td>Development and undertaking of specific efforts based on the priorities retained</td>
<td>Definition and monitoring of performance measures (key performance indicators)</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Establishing the project’s direction, parameters, and preliminary plan</td>
<td>Consultation with external stakeholders (clients, suppliers, investors, NGOs, communities)</td>
<td>Validation with the Management Committee</td>
<td>Implementation of a sustainable development governance structure</td>
<td>Accountability strategy</td>
</tr>
</tbody>
</table>
RESULTS OF THE MATERIALITY ANALYSIS

The consultations established the initial topics for discussion in terms of sustainable development challenges. A materiality analysis helped focus on the major issues. From which 18 were retained, thus defining our first plan. The challenges in bold in the legend are those that were retained and for the most part are within the materiality or high level of materiality zones.

LEGEND

ENVIRONMENTAL IMPACT OF ACTIVITIES
1. Energy consumption
2. Use of renewable energies
3. Water consumption
4. Wastewater treatment and release
5. Residual waste treatment
6. GHG emission from activities/transport
7. Impact on biodiversity/forest
8. Green buildings (ex.: LEED)
9. Green chemistry

PRODUCT RESPONSIBILITY
1. Product quality
2. Recycled content of products
3. Recyclable content of products
4. Environmental labeling
5. Certification of products by a third party
6. Endorsement of products by an environmental NGO
7. Collection and recycling solutions
8. Environmental characteristics of products

SUSTAINABLE PROCUREMENT
1. Environmental and social conditions imposed on suppliers
2. Certification of suppliers (audits, FSC®)
3. Supplier assessment grid
4. Customers’ contribution to sustainable development objectives
5. Education for Sustainable Development and Environment

EMPLOYEES AND COMMUNITY IMPACT
1. Diversity and equality of employees (non-discrimination)
2. Employee satisfaction (working conditions)
3. Training of employees (sustainable development, workplace health and safety, environment)
4. Responsible staff downsizing
5. Employee health and safety
6. Contribution to local economic development
7. Donations and sponsorships
8. Financial spinoffs (taxes, salaries)

GOVERNANCE AND COMMUNICATIONS
1. Transparency of disclosures regarding sustainable development (quality, contents, frequency, access)
2. Stakeholders’ commitment
3. Sustainable development plan and management structure
4. Support from a reputable consulting firm
5. Validation of the plan by a recognized NGO
6. Sustainable development report
GETTING INTO THE MATTER
THE FOLLOWING PROVIDES IMPORTANT INFORMATION ON THE MEASUREMENT INDICATORS USED BY CASCADeS OR ITS INDUSTRY.

NET SALEABLE PRODUCTION
Environmental data is compiled using net saleable production in metric tonnes produced and machine dried (metric tonnes of saleable products).

A METRIC TONNE
A metric tonne is equivalent to 1000 kilograms or 2204 lbs. (imperial system). It is known as a "metric" tonne to differentiate it from other types of tonnes used in certain technical areas (short tons and long tonnes).

Cascades' production is calculated in metric tonnes.

<table>
<thead>
<tr>
<th>1 METRIC TONNE</th>
<th>1,000 KILOGRAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,204 LBS.</td>
</tr>
</tbody>
</table>

A SHORT TON
A short ton is equivalent to 0.907 metric tonne. In the context of recycled fibres, tonnage is calculated in short tons.

<table>
<thead>
<tr>
<th>1 SHORT TON</th>
<th>907 KILOGRAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,000 LBS.</td>
</tr>
</tbody>
</table>

TYPES OF ENERGY

Non-renewable energy

- FOSSIL FUELS
  - Oil - Natural gas - Coal
- NUCLEAR ENERGY
  - Nuclear isotopes

Renewable energy

- BIOMASS ENERGY
  - Virgin or recycled plant source
- HYDROELECTRIC ENERGY
  - Water and the earth's gravity controlled by dams
- BIOGAS ENERGY
  - Energy derived from waste material decomposition

VIRGIN FIBRES
Virgin fibres are also referred to as wood fibres in contrast to recycled fibres. This term includes logs, wood chips, wood pulp (also referred to as market pulp), and any product originating from these fibres used to manufacture products.
PERFORMANCE REPORT ON THE 2010–2012 SUSTAINABLE DEVELOPMENT PLAN

PLEASE NOTE THAT ALL RESULTS ON THE FOLLOWING PAGES ARE FOR CASCADES’ UNITS IN NORTH AMERICA. THIS WAS THE FRAMEWORK CHOSEN FOR THIS INITIAL FORMAL SUSTAINABLE DEVELOPMENT EXERCISE.
Between 2010 and 2012, production in North American manufacturing plants decreased by 2.7% (excluding plant closures). Since the basic amount of energy required to operate these plants remains the same, each time there is a decrease in production, there is also a decrease in efficiency in gigajoules per metric tonne (GJ/mt). Notwithstanding this trend and despite a decrease in production tonnage, Cascades succeeded in achieving a 1.44% reduction in GJ/mt. The 6% reduction target was not reached, however.

Thus, the energy used by Cascades is divided into 2 categories: the portion of energy purchased, which is 97%, and the portion self-generated, which is 3%. Adding the results, based on the amount of gigajoules used, Cascades' energy intensity is:

<table>
<thead>
<tr>
<th>Year</th>
<th>Gigajoules of energy purchased/mt of saleable products (GJ/MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>11.44 GJ/MT</td>
</tr>
<tr>
<td>2011</td>
<td>11.40 GJ/MT</td>
</tr>
<tr>
<td>2012</td>
<td>11.34 GJ/MT</td>
</tr>
</tbody>
</table>

Thus, the energy consumed by Cascades is divided into 2 categories: the portion of energy purchased, which is 97%, and the portion self-generated, which is 3%. Adding the results, based on the amount of gigajoules used, Cascades' energy intensity is:

2010: 11.44 GJ/MT
2011: 11.40 GJ/MT
2012: 11.34 GJ/MT

However, given that Cascades' energy efficiency plans aim to reduce its reliance on market-sourced energy, the indicator that the company has chosen is energy purchased.
Energy Consumption

According to Energy Star, less energy is required to produce a sheet of recycled paper than to produce a sheet of virgin paper: 12 watts/hour versus 17 watts/hour. ¹

Material for Reflection

According to Energy Star, less energy is required to produce a sheet of recycled paper than to produce a sheet of virgin paper: 12 watts/hour versus 17 watts/hour.¹

Between 2010 and 2012, Cascades saved more than 79 million gigajoules (compared to the same tonnage produced with the Canadian paper industry’s average energy intensity), which is equivalent to:

The annual energy consumption of 756,189 Canadian households.³

Cascades vis-à-vis the industry

Cascades consumes 52% less energy than the Canadian pulp and paper industry average. Cascades’ North American plants consume 11.34 gigajoules per metric tonne of saleable products (GJ/mt), while the industry consumes an average of 24.76 GJ/mt.²

Energy is Cascades’ 3rd largest expense, followed by fibre supplies and remuneration.

Energy is Cascades’ largest expense, followed by fibre supplies and remuneration.

Cascades is more efficient than the industry average.

More efficient than the industry average.

1. energystar.org
2. forest products association of canada, 2011
3. source: natural resources canada
   short link: http://lc.cx/iib

<table>
<thead>
<tr>
<th>Year</th>
<th>Natural Gas</th>
<th>Electricity</th>
<th>Wood Residue</th>
<th>Steam</th>
<th>Biogas</th>
<th>Oil N°6</th>
<th>Propane</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>28.6%</td>
<td>29.7%</td>
<td>19.2%</td>
<td>16.5%</td>
<td>4.2%</td>
<td>0.8%</td>
<td>0.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>2011</td>
<td>30%</td>
<td>29.5%</td>
<td>19.5%</td>
<td>14.5%</td>
<td>4.3%</td>
<td>1.4%</td>
<td>0.3%</td>
<td>0.5%</td>
</tr>
<tr>
<td>2012</td>
<td>29%</td>
<td>29.5%</td>
<td>19.8%</td>
<td>15.5%</td>
<td>4.2%</td>
<td>1.2%</td>
<td>0.3%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
**THE 3Rs APPLY TO ENERGY TOO**

1. **REDUCE AT SOURCE**
2. **RECUPE RATE ENERGY LOSSES**
3. **REPLACE WITH MORE ENERGY EFFICIENT TECHNOLOGY**

---

**AN ENERGY TEAM TO ASSIST OUR PLANTS**

In 1997, Cascades established an Energy Action Group (Cascades GIE Inc.), a team that today consists of a dozen or more energy efficiency specialists whose mission is to help plants reduce their energy consumption. The Group has a budget devoted exclusively to funding energy efficiency projects in our plants.

**75 PROJECTS**

were carried out, with total savings of more than **770,000 GIGAJOULES.**

---

**AMONG THE PROJECTS**

- **Improvement of the Norampac – Trenton vapour system,** which among other things reduces the amount of vapour per tonne produced by 15%.
- **Energy recovery from the Bobboard Group – Jonquière plant’s dryer,** which leads to the waste reclamation of 11,500 tonnes of additional bark each year. The boiler now uses about 50% less electricity, and its emissions of ash into the atmosphere have been reduced by 33%.
- **Replacement of the hood at the Tissue Group – New York plant:** this project alone has created savings of 42,000 GJ/year.
- **Expansion of the Lachute plant,** which was awarded the Gold level of the LEED™ certification. Using 60% less energy than a standard Canadian building of its type, the Lachute plant is a project that illustrates Cascades’ leadership in sustainable development.
- **Optimization of the HVAC system** (heating, ventilation, air conditioning) at Norampac – Vialu, leading to a remarkable 25% reduction in natural gas needs for heating.

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**Savings in gigajoules resulting from the projects carried out by Cascades GIE is equivalent to the annual energy consumption of 7,611 Canadian households.**

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1. **SOURCE:** Natural Resources Canada

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"**CASCAD ES HAS BEEN PROACTIVE IN ITS QUEST FOR ENERGY EFFICIENCY SOLUTIONS SINCE THE LATE 1990s. THERE IS NO SHORTAGE OF IDEAS AND PROJECTS TO OPTIMIZE OUR WORK METHODS AND PROCESSES, BUT MAJOR GAINS ARE INCREASINGLY DIFFICULT TO ACHIEVE. IN FUTURE YEARS, WE WILL PURSUE OUR EFFORTS, BUT THE CONTEXT IS SUCH THAT IT WILL BE DIFFICULT TO ACHIEVE REDUCTIONS OF MORE THAN 1% PER YEAR.**"

**FABIEN DEMOUGEOT, DIRECTOR OF CASCAD ES GIE INC.**
Cascades partners with ENERGY STAR®
In 2010, Cascades partnered with the U.S. Environmental Protection Agency’s (EPA) ENERGY STAR® program by making a commitment to protect the environment through the continuous improvement of its energy performance. In an effort to support this commitment, Cascades’ manufacturing plants are participating in the ENERGY STAR® Challenge for Industry. This challenge is a tool designed to help energy managers and industrial manufacturing sites improve energy performance and set goals. Industrial sites participate by committing to the pre-established goal of reducing energy intensity by 10 percent within 5 years or less. To date, three American facilities in the Tissue Group (Memphis, Waterford and Pittston), have met the ENERGY STAR® Challenge for Industry.

Cascades’ expertise serving customers and the community
In addition to improving the energy status of Cascades’ units, the GIE team is devoted to improving the energy record of the company’s partners. In 2010, Cascades established the “sustainable partnerships” program, offering potential clients access to all of Cascades’ expertise. The same year, Cascades finalized a partnership with the multinational company Bombardier Aerospace. In addition to acquiring a range of environmentally responsible products made by Cascades, Bombardier invited Cascades GIE Inc’s engineers to perform an energy audit of its Saint-Laurent facility. Since then, Cascades has concluded similar agreements with other large corporations.

Most recently, Cascades GIE won a Hydro-Québec tender to establish within its Quebec industrial clientele technical-commercial approaches that foster the implementation of energy management processes related to the new ISO 50001 standard published in 2011. Cascades GIE will guide three Quebec pilot plants for two years. The goal of the pilot project is to establish in spring 2015 a new energy efficiency program for the industrial sector.
In the DICATOR
Kilograms of
CO2 equivalent / metric tonne
of saleable
products (kg CO2 eq./mt).

TARGET
-6% in 2012
compared to 2010

Our Greenhouse Gas Emissions

Over the years, a large majority of Cascades’ plants converted their steam boilers fueled by thick oil to natural-gas-fired systems. In addition to being more energy efficient, these systems reduce the atmospheric emissions of particles, sulphur compounds, and greenhouse gases. The use of combustion burners in several facilities also reduces nitrogen oxide emissions.

In addition to these changes, several business decisions taken in the past three years have had a positive effect on Cascades’ results in air quality. Among them were the closure of the kraft pulp room in East Angus in 2012. The Norampac – Trenton and Boxboard Group – Jonquière plants also increased their ratio of biomass usage, which fosters CO2 emission reductions.

Thanks to these factors, the 6% reduction target was largely achieved.

The constant improvement of energy projects by Cascades GIE specialists and plants contributed to achieving the goal. Since 2012, the action group has been measuring the impact of each of its energy efficiency projects by converting the energy saved into kilograms of CO2 equivalent. Projects carried out during that specific year represent a decrease of nearly 20,000 tonnes of CO2 equivalent.

Special projects such as the installation of a biogas pipeline from the Sainte-Sophie landfill site to Cascades’ fine papers plant in Saint-Jérôme contributed significantly to the company’s improved record of greenhouse gas emissions. Since this innovative project was implemented, the plant reduced its emissions by 90%, from 76,227 tonnes of CO2 in 1990 to 7,406 tonnes in 2012. Cascades also launched industrial ecology projects by replacing some of its steam boilers with the purchase of steam produced by municipal incinerators located near Cascades’ facilities. The projects are profitable for both parties, and they enable Cascades to eliminate the consumption of fuel and the emissions that go with it.

Greenhouse Gas Emissions and Renewable Energy

Goal Reduce greenhouse gases emissions by favouring the use of renewable energy over fossil fuels

<table>
<thead>
<tr>
<th>Year</th>
<th>Kilograms of CO2 Equivalent / Metric Tonne of Saleable Products (kg CO2 eq./mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>195</td>
</tr>
<tr>
<td>2010</td>
<td>208</td>
</tr>
<tr>
<td>2011</td>
<td>194</td>
</tr>
<tr>
<td>2012</td>
<td>183</td>
</tr>
</tbody>
</table>

Indicator Kilograms of CO2 Equivalent / Metric Tonne of Saleable Products (kg CO2 eq./mt).

Target -6% in 2012 compared to 2010
WOOD RESIDUE UTILISATION
Cascades’ greenhouse gas record is similar to the industry average despite the fact that it consumes half as much energy. This is in part due to the company’s lesser use of wood residue (biomass) than other pulp and paper companies, since most of the production comes from recycled fibre. Biomass is considered carbon-neutral.

Biomass makes up about 20% of the energy sources Cascades uses and comes mostly from sawmills located near our facilities. In comparison, the same proportion is on average 68% for other paper manufacturers in the Canadian industry.1

Cascades’ performance is consistent with the industry standard, emitting 183 kilograms of CO2 eq./mt compared to the Canadian industry average of 180 kilograms of CO2 eq./mt.2

CASCADeS’ PERFORMANCE IS CONSISTENT WITH THE INDUSTRY STANDARD, EMITTING 183 KILOGRAMS OF CO2 EQ./MT COMPARED TO THE CANADIAN INDUSTRY AVERAGE OF 180 KILOGRAMS OF CO2 EQ./MT.2

WE RECOVER… AT ALL LEVELS
Three of Cascades’ plants (Jonquière, Trenton and Cabano) have found ways to be more efficient with energy. Combustion gases extracted from manufacturing processes serve to produce hot water used for various operational needs. This approach saves energy and consequently reduces greenhouse gas emissions.

RENEWABLE ENERGY
Cascades’ main source of energy is electricity (about 30% of total consumption). Part of it is renewable, such as that produced in Quebec and British Columbia, while the second portion, in the United States and Ontario, is generated from natural gas, coal, and nuclear energy, which are non-renewable. To increase the proportion of renewable energy used by Cascades, it is therefore essential that the company creates its own opportunities. Several renewable energy projects are being studied, and some will be launched in the coming months and years. Moreover, Cascades will continue to be on the lookout for promising projects, such as the biogas one at its plant in Saint-Jérôme.

THE PROPORTION OF RENEWABLE ENERGY USED BY CASCADeS REMAINED STABLE IN THE PAST THREE YEARS

<table>
<thead>
<tr>
<th>SOURCES OF RENEWABLE ENERGY</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood Residue</td>
<td>19.2%</td>
<td>19.5%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Electricity</td>
<td>13.7%</td>
<td>14.5%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Biogas</td>
<td>4.2%</td>
<td>4.3%</td>
<td>4.2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37.1%</td>
<td>38.3%</td>
<td>38.1%</td>
</tr>
</tbody>
</table>

2. Ibid
3. Includes the proportion of electricity used in Quebec plants (hydroelectricity).

“CASTcADES IS CLEARLY AHEAD OF ITS COMPETITION IN TERMS OF ENERGY EFFICIENCY. OUR EFFORTS ARE PRODUCING POSITIVE RESULTS IN GREENHOUSE GAS EMISSIONS, WHICH HAVE BEEN CONSTANTLY DECREASING SINCE OUR REFERENCE YEAR.”
Léon Marineau, Vice-President, Environment, Cascades
IMPACT OF TRANSPORTATION ON ATMOSPHERIC EMISSIONS

During the 2009 consultations with stakeholders, greenhouse gas emissions from the transportation component and activities emerged as an important material issue. The transportation component raised a lot of questions, probably due to its visibility. Yet transportation is responsible for only a very small proportion of the company’s overall greenhouse gas emissions.

To learn more about the SmartWay program, visit www.sclcanada.org.

Cascades Transport has been a member of the SmartWay program since 2006. The goal of the SmartWay program is to reduce greenhouse gas emissions and other pollutants from the transportation of merchandise. It is administered at the national level by Natural Resources Canada. As a member, Cascades Transport is committed to evaluating its transportation activities in relation to exemplary industry practices, in order to reduce its fuel consumption. And by doing so, it also improves its sustainability.

Cascades Transport’s fleet consists of

- **100 TRUCKS AND 450 TRAILERS**
- which travel more than **15,500,000 KILOMETRES EACH YEAR.**

Based on the fleet’s average consumption of gas per kilometre and the emissions factor, it emits approximately **16,991 TONNES OF CO₂ EQ., or about 5% of Cascades’ total volume of emissions in 2012.**

This small proportion of emissions generated by transportation relative to its manufacturing activities has not stopped Cascades from being one of the most proactive companies in the implementation of green measures, which have led to various important recognitions in recent years. Cascades has been a precursor for a series of new environmental and social initiatives:

- Aerodynamic truck design
- Electronic truck engine cutoff at four minutes when idling
- Aerodynamic lateral aprons
- Tire-pressure control system
- Use of large double road trains (two 53-foot trailers)
- More frequent mechanical maintenance
- Discounts for shipments outside peak traffic hours
- Large tires to replace tandem tires
- Incentives for drivers who achieve gas efficiency targets
- Training on a preventive and energy-efficient winter driving simulator

“**HAVING A FLEET OF ENERGY EFFICIENT VEHICLES COMES WITH MANY BENEFITS. THAT’S WHY WE’RE CONSTANTLY LOOKING FOR NEW PARTNERSHIPS AND NEW SOLUTIONS FOR IMPROVING THE SERVICES WE OFFER.**”

ALAIN BOUTIN, DIRECTOR OF RISK MANAGEMENT AND COMPLIANCE, CASCADAS TRANSPORT

Nothing is lost, nothing is created, everything is transformed.

The famous saying was a favourite of Antonio Lemaire, father of the founders of Cascades. If Cascades uses waste to make new products, the waste from its own manufacturing can in turn be recycled. This is the industrial ecology approach in which the waste from an industrial process is no longer considered waste but rather raw materials that can be used in another industrial process, thus forming multiple material loops.

Recycling enables waste to be used in the manufacture of a new product, but that new manufacturing process also generates its share of waste. Fortunately, research efforts have prevented much of that waste from going to landfill.

Residual materials have been divided into two groups: paper waste and multi-materials.

**PAPERMAKING WASTE**

According to data from Cascades’ Environment Department, almost all waste from the company’s activities comes from manufacturing (98%). The other 2% comes from normal daily activities (office work, equipment maintenance); this is described in Challenge 04 (see page 36).

**GOAL INCREASE THE RECOVERY OF PAPER WASTE**

Bundle of recycled paper contain more than... paper!

The main raw material purchased by Cascades—recycled fibre—is not 100% pure. Despite the sophistication of machines and efforts by sorting centre staff, the bundles of waste paper purchased by Cascades come with more than just paper. Several other types of material can be found: plastic, metal, glass. The volume of these other materials represents about 10%. In other words, in a tonne of recycled paper, there is 100 kg (220 lbs.) of contaminants. In addition to the waste that gets through manual and mechanical sorting, waste paper comes with additives such as ink and mineral fillers that must be removed. These additives increase the proportion of contaminants. The direct consequence is that the more recycled fibre Cascades uses, the more waste that comes with it.

<table>
<thead>
<tr>
<th>Kilograms of waste recovered / Kilograms of waste generated</th>
<th>TARGET</th>
<th>PERCENT ACHIEVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>64.1%</td>
<td>65.1%</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>67.3%</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>67.9%</td>
</tr>
</tbody>
</table>

**PERCENT ACHIEVED**

82%
DESCRIPTION OF THE INDICATOR
By choosing to recycle, Cascades depends on the quality of its raw materials. The indicator (waste recovered / waste generated) was determined with this important factor in mind. All of the company’s waste comes from its processes and not from manufacturing (defective rolls and rolls with the wrong technical specifications are entirely re-introduced into the process). As a result, it is more representative to measure the aspect over which the company has real control, which is the recovery of waste. The rate of waste to landfill / net saleable production could have been considered, but it would not reflect the true efforts invested in this area.

CATEGORIES OF WASTE GENERATED
Contaminants in the bundles of recycled cardboard and paper are removed at the pulp manufacturing stage. Those that take up the most space are rejected by the pulper, which carries out the first step in the pulp-making process. Other equipment such as basic and fine sieves then help remove other smaller contaminants like plastic, polystyrene, staples, and paper clips, generating another lot of waste. This material is referred to as screen reject. This material is referred to as screen reject. For now, very little of that waste is recovered. Since plastic is a large part of the waste, and it has good heating value, its repurposing to produce energy offers the best option (Cascades is considering producing steam by burning it, for example).

Mixed and de-inking sludges are the other categories of waste generated in the manufacturing process. Mixed sludge comes from the treatment of effluent from manufacturing plants, which have their own water treatment systems (see Challenge 08 for details). Spreading the sludge for agricultural purposes is the main option for repurposing since the sludge has good fertilizing properties. It can also be used to produce energy through co-generation (biomass boilers). As the name indicates, de-inking sludge comes for the de-inking process, which involves washing paper and removing ink and varnish residues.

In the mid-1970s, the Norampac – Cabano plant was a pioneer in Quebec when it began repurposing mixed sludge for an organic amendment in agricultural spreading. For its part, de-inking sludge contains minerals that act as an excellent liming agent for acidic soil. Over the years, research efforts have found several other uses for converting de-inking sludge: it helps restore damaged sites such as old mines and gravel and sand pits; it serves as a method for covering sanitary landfill sites; and it is used as fuel in boilers to produce the energy or steam required in the manufacturing process.

EVOLUTION OF THE GENERATION AND RECOVERY OF WASTE AT CASCADES
Quantity of waste (wet metric tonnes)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERATED</td>
<td>784,062</td>
<td>719,623</td>
<td>664,537</td>
</tr>
<tr>
<td>RECOVERED</td>
<td>502,501</td>
<td>468,454</td>
<td>447,191</td>
</tr>
</tbody>
</table>

RECOVERED PROPORTION (%)

- 2010: 64.1%
- 2011: 65.1%
- 2012: 67.3%
Without knowing other companies’ measurement standards, it is difficult to compare Cascades to the rest of the industry. As well waste varies according to the nature of the company: plants that use recycled paper and cardboard in their production do not generate the same kind of waste as those that use virgin fibre. At this stage of industry knowledge, Cascades’ goal is to constantly improve its results and remain on the lookout for opportunities to recover its waste.
THE MULTI-MATERIAL RECYCLING PROGRAM: A CHALLENGE MULTIPLIED BY 19

As mentioned in Challenge 03, paper waste comprises 98% of the total waste generated by Cascades’ activities. Other materials (2%) are part of a multi-material recycling program.

In the early 2000s, Cascades established a comprehensive program to manage this residual matter, perhaps less significant in terms of volume, but nevertheless the most visible to personnel. This program covers 19 categories of material, divided into three groups: hazardous materials, non-hazardous materials, and household recycling. From plastic strapping to electrical wires, including used oil and batteries, everything that falls within a recycling program or a recycling network is recycled. This program is in place in all of Cascades’ operating units.

Each Cascades facility has an individual responsible for the multi-material collection program. They conduct a diagnosis of the material generated and ensure that bins are installed for the material to be collected. They must also find recyclers for the materials their unit generates. Those in charge receive support from Cascades’ Environment Department, which has developed expertise in the field. It provides not only advice but also a wide range of tools to help units accomplish their tasks, in particular communication tools (posters, stickers, leaflets) and a directory of sources of equipment to be installed based on the types of materials.

MUTLI-MATERIAL RECYCLING

GOAL REDUCE THE WEIGHT OF WASTE MATERIAL SENT TO LANDFILL BY OPTIMIZING THE MULTI-MATERIAL RECYCLING PROGRAM

<table>
<thead>
<tr>
<th>Year</th>
<th>Kilograms of waste material sent to landfill / metric tonne of saleable products (kg/mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2.45</td>
</tr>
<tr>
<td>2011</td>
<td>2.11</td>
</tr>
<tr>
<td>2012</td>
<td>2.09</td>
</tr>
</tbody>
</table>

TARGET 1.96 PERCENT ACHIEVED 74%

INDICATOR KILOGRAMS OF WASTE MATERIAL SENT TO LANDFILL / METRIC TONNE OF SALEABLE PRODUCTS (KG/MT)

TARGET -20% IN 2012 COMPARED TO 2010
DESCRIPTION OF ON THE INDICATOR
The papermaking waste indicator is a calculation of the recovery rate obtained by dividing the quantity of material recovered by the quantity of material generated. However, the same cannot be done in the multi-material program. Based on experience to date, it is impossible to give an accurate weight of the material recovered. It is significant, but the data is very piecemeal, and furthermore the bins and containers vary greatly in size. Contrary to waste, which is collected with a weigh bill providing companies with information on the quantities generated, recycling is not done on a weight basis, and thus the amounts recovered remain unknown.

THIS OVERALL SITUATION HAS LED CASCADES TO CHOOSE AN INDICATOR DIFFERENT FROM THAT FOR PAPERMAKING WASTE, I.E. THE WEIGHT OF THE WASTE SENT TO LANDFILL VS. PRODUCTION.

VOLUME OF MATERIAL SENT TO LANDFILL VS. PRODUCTION

<table>
<thead>
<tr>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUANTITY SENT TO LANDFILL (KG)</td>
<td>5,522,000</td>
<td>4,607,000</td>
</tr>
<tr>
<td>PRODUCTION (MT)*</td>
<td>2,257,562</td>
<td>2,178,772</td>
</tr>
<tr>
<td>KG/MT</td>
<td>2.45</td>
<td>2.11</td>
</tr>
</tbody>
</table>

*Also includes production at converting plants.

CONSTANTLY EDUCATE, RAISE AWARENESS, INFORM
According to Léon Marineau, the greatest challenge in this area remains educating, raising awareness, and providing information to the company’s employees.

“ONE PERSON IS IN CHARGE OF THE MULTI-MATERIAL RECYCLING PROGRAM IN EACH PLANT. THIS PERSON MUST ENSURE THE PROGRAM RUNS SMOOTHLY, INSTALL BINS IN STRATEGIC LOCATIONS, AND HELP MAKE HIS/HER COLLEAGUES MORE AWARE OF THE IMPORTANCE OF SOUND WASTE MANAGEMENT. OUR AWARENESS-RAISING EFFORTS IN THIS REGARD ARE NEVER-ENDING.”
LÉON MARINEAU, VICE-PRESIDENT, ENVIRONMENT, CASCADES

IS ZERO LANDFILL ACHIEVABLE?
Well, yes! Three of Cascades’ converting plants in North America have achieved this: Cascades Sonoco – Birmingham (Alabama), Norampac – Etobicoke (Ontario), and Norampac – New York City. Zero landfill does not mean zero waste: in the pulp and paper sector, there is no manufacturing process without waste. The waste from these three plants has not magically disappeared: it has been taken by other organizations located nearby interested in re-using it in their manufacturing processes, often to meet energy needs. This is an example of the industrial ecology principle where the outputs of some become the inputs of others.

In 2011, the Cascades Sonoco plant in Birmingham, Alabama attained the zero landfill objective, a target that Plant Manager Emmanuel Boullay and his team had set in 2009. In 2011, they put an end to their regular waste collection service. Materials are now sorted at source by employees. Discarded materials for which there is no local recycler are put through a compacter and transported by an outside business concern to a transfer centre. Materials considered recyclable are then sorted, and the ultimate waste is sent to the cement plant located nearby for use as an energy source to make concrete. The combustion ashes are even incorporated into the concrete. In addition to rallying employees towards a common goal, this new program enables the plant to save more than $35,000 per year in landfill fees.

HAZARDOUS DOMESTIC WASTE
Hazardous waste generated by plant activities (used oil, leftover chemical products, solvents, inks, glues) is managed according to the storage and disposal standards in force in the country where the units are located.

In 2011, the Cascades Sonoco plant in Birmingham, Alabama attained the zero landfill objective, a target that Plant Manager Emmanuel Boullay and his team had set in 2009. In 2011, they put an end to their regular waste collection service. Materials are now sorted at source by employees. Discarded materials for which there is no local recycler are put through a compacter and transported by an outside business concern to a transfer centre. Materials considered recyclable are then sorted, and the ultimate waste is sent to the cement plant located nearby for use as an energy source to make concrete. The combustion ashes are even incorporated into the concrete. In addition to rallying employees towards a common goal, this new program enables the plant to save more than $35,000 per year in landfill fees.

EVERYONE WINS!
CASCADeS viS-À-VIS THE INDUSTRY

As is the case for papermaking waste, the industry has no comparative basis for this indicator. Cascades’ primary concern is therefore to pursue its efforts to be as efficient as possible in managing its waste and finding avenues for its repurposing. In terms of materials in the recycling program, it is primarily the cooperation of employees that can have a positive impact on the volume recovered. This is why Cascades regularly reminds its employees through various means of internal communication of the 4R hierarchy (Reduction, Re-use, Recycling, Repurposing), while stressing that the best waste is the waste that we try to avoid generating.

CASCADeS: A PARTNER IN QUEBEC’S WASTE REDUCTION WEEK

Since 2006, Cascades has been a partner in Quebec's waste reduction week (Semaine québécoise de réduction des déchets) which takes place in October. The goal of the event is to make Quebeckers more aware of the environmentally sound management of waste material and to propose concrete solutions for action. In 2010, Cascades organized the event “Autopsy of a container” in which employees and the media were invited to participate in the unloading of a dumpster whose contents were then analyzed. This activity enabled everyone to note, in full transparency, that while Cascades owes its existence to recycling waste, its performance was not quite perfect. In the container were materials that should have been sent for recycling, hence the importance of continuing efforts to enhance awareness among employees, as well as among suppliers who are not always aware of the existence of the multi-materials recycling program.
SUPPLIERS’ COMMITMENT TO SUSTAINABLE DEVELOPMENT

GOAL: OBTAIN SUPPLIES FROM RESPONSIBLE SUPPLIERS

SUPPLIERS: KEY PLAYERS IN CASCADES’ SUCCESS
IN A CONTEXT AS COMPETITIVE AS THAT OF COMMODITY PRODUCTS, AND KNOWING THAT PURCHASES REPRESENT BETWEEN 40% AND 80% OF THE TOTAL COST OF OUR PRODUCTS, THE CHOICE OF SUPPLIERS BECOMES A STRATEGIC DECISION WITH A CRUCIAL IMPACT ON THE COMPANY’S OVERALL PERFORMANCE.

The Corporate Procurement Department strives to build and maintain a network of suppliers that plays a role in helping the Corporation meet its ongoing competitive challenges.

The choice of a supplier is based on an approach with tangible multi-criteria, involving factors such as product quality, cost, availability, performance, delivery timelines, delivery reliability, technical ability, and after-sales service. The criteria vary according to the products sought.

Other less tangible criteria also play an increasing role in decisions: the supplier’s reputation, branding, and business practices with respect to a number of aspects, such as the environment, working conditions, human rights, the supply chain, governance, and ethics.

*PURCHASES NEGOTIATED BY THE CORPORATE PROCUREMENT DEPARTMENT. THE PURCHASING CATEGORIES INVOLVED ARE “GOODS AND SERVICES” AND “CHEMICAL PRODUCTS.”

TARGET 20% IN 2012

PERCENT ACHIEVED

2010
21%

2011
21%

2012
23%

TARGET 20%
METHODS FOR ASSESSING SUPPLIERS

When choosing a supplier, Cascades weights each criterion according to the product sought. A score is calculated for each supplier by adding the scores for each criterion multiplied by its associated weighting factor. In 2009, Cascades decided that social responsibility would become an essential criterion for each of its suppliers and that the weighting of this criterion could reach a maximum of 15% of the total score used in the decision-making process. Thus, a supplier with good business practices having put in place various environmental, social, and economic management systems could be favoured over another supplier less advanced in the area.

Cascades’ procurement and sustainable development teams conducted an assessment of suppliers’ business practices based on an internally designed questionnaire. A total of 73 suppliers responded to Cascades’ call between 2009 and 2010. However, Cascades’ teams had to admit that this evaluation process conducted internally was burdensome and difficult to manage.

Consequently, in 2012, Cascades set aside its internally designed questionnaire and hired EcoVadis, a firm specializing in the field. Systematically, for each new call for tenders, suppliers wishing to take part must fill out a questionnaire covering 21 parameters grouped under four themes: environment, social responsibility, ethics, and suppliers.

This model allows a number of procurement criteria, both quantitative and qualitative, to be assessed at the same time. An assessment of social responsibility helps Cascades develop a profile of its suppliers. Businesses with more maturity in this area can have a positive impact on Cascades’ products and production methods and processes, thus helping create a competitive edge for the company and, at the same time, managing risk more proactively.

During our first year of partnership with EcoVadis, 35 suppliers were assessed in the “goods and services” and “chemical products” categories. Cascades targeted these sectors as a priority because it felt that they have the greatest environmental and social risk factors.

OBSTACLES ENCOUNTERED

While there may be more and more talk of responsible procurement and increased attention from research groups, the assessment of suppliers is still a rare and innovative approach. At the present time, only businesses that are fully committed to sustainable development have ventured to take this approach. When Cascades initiated this process in late 2008, leading chemical product manufacturers confirmed it: multinationals much larger than Cascades had never been assessed in this way.

Since Cascades’ association with EcoVadis, several suppliers wanting to take part in the call for tenders have not wanted to complete the assessment. The questionnaire is demanding and involves a cost: two critical aspects of a serious evaluation, and two hindrances for smaller organizations that do not have the information at hand or the personnel assigned to the task.

The final word on this issue is clear: any supplier can answer a call for tenders from Cascades and has the right to refuse the assessment requested. However, suppliers are fully aware that this automatically costs them points, and if they are chosen for their performance with respect to other criteria, they will have to undergo an evaluation sooner or later in the process. In a manner of speaking, this is the new calling card for working with Cascades, which is convinced that this approach is in everyone’s interest.

The person in charge of implementing this initiative views this new approach with suppliers as a close reflection of Cascades’ values. It’s a simple equation:

ALL OF THE SUPPLIERS ASSESSED TO DATE, REPRESENTING 23% OF CASCADES’ PURCHASING VOLUME, HAVE BUSINESS PRACTICES DEEMED RESPONSIBLE ACCORDING TO THE ESTABLISHED CRITERIA.

“The more the components of our products respect corporate social responsibility principles, the easier it is for us to transform them into eco-friendly products.”

STÉPHANE DUBÉ, VICE-PRESIDENT, SUPPLY CHAIN, CASCADES
SUSTAINABLE SUPPLIER AWARD
In 2009, the Corporate Procurement Department created the Sustainable Supplier Award to recognize the efforts of suppliers that have committed to sustainable development with new technology, improved processes, or products that enable one or more Cascades plants to improve their environmental, social, or economic performance.

The Sustainable Supplier Award is a prime example of the importance that Cascades attributes to good business relations.

“I SEE THIS PRIZE AS ONE OF THE BEST INCENTIVES FOR ENCOURAGING SUPPLIERS LIKE US TO ENGAGE IN A SUSTAINABLE DEVELOPMENT APPROACH WITH ITS CLIENTS. FOR THE COMING YEARS, XERIUM INTENDS TO CONTINUE DEVELOPING PAPER MACHINE CLOTHING AND ROLLS TECHNOLOGY FOR THE PURPOSE OF IMPROVING THE PERFORMANCE OF ITS CLIENTS.

Harold Bevis, President and Chief Executive Officer
Xerium Technologies Inc.
Recipient of the 2012 Sustainable Supplier Award

INTEREST IN RESPONSIBLE PROCUREMENT HAS A SNOWBALL EFFECT: ONCE PUT INTO PLACE, SUCH AN APPROACH PROVIDES THE IMPETUS NEEDED FOR THE DEVELOPMENT OF RESPONSIBLE INNOVATIONS AND BEHAVIOUR ON A LARGE SCALE.

Stéphane Dubé, Vice-President, Supply Chain
Cascades

Since 2009, Cascades suppliers have been invited to submit one or more projects at the end of the year. Members of the Procurement Department and sustainable development teams serve as the jury. The winner is announced at the annual meeting of Cascades plant managers, an event to which the participating suppliers are invited. This occasion serves as an exceptional showcase for a supplier that is hoping to become known among all of the company’s decision makers.
Through its mission to manufacture products with a high percentage of recycled fibres, Cascades helps divert millions of tonnes of recyclable materials from landfill sites. In addition to removing waste paper and cardboard from the waste stream, the use of recycled fibres considerably reduces the pressure on forests—a doubly positive impact. Virgin fibres, however, remain necessary as the starting point in the recycling loop.

Covers procurement in North America only. The table on p. 11 of this document presents the company’s total procurement, including its activities in Europe.

### Recycled and Certified Fibre Supply

**Goal:** Increase the use of recycled fibres and virgin fibres that are FSC®-certified or equivalent

<table>
<thead>
<tr>
<th>Category</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of recycled fibre</td>
<td>81.7%</td>
<td>81.3%</td>
<td>82.2%</td>
</tr>
<tr>
<td>Consumption of certified virgin pulp</td>
<td>0.9%</td>
<td>0.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Consumption of certified virgin wood/logs</td>
<td>0.4%</td>
<td>0.7%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Total</td>
<td>83%</td>
<td>82.9%</td>
<td>85.3%</td>
</tr>
</tbody>
</table>

Covers procurement in North America only. The table on p. 11 of this document presents the company’s total procurement, including its activities in Europe.
Vertical Integration
By operating a number of sorting centres in Canada and the United States, Cascades ensures it has a stable supply of recycled fibre. In 2012, the Cascades Récupération and Cascades Recovery sorting centres provided 34% of its supply of recycled fibres, with the remaining portion purchased on the market from over 400 recycled fibre suppliers.

In 2012, the total amount of recycled fibre purchased by Cascades for its North American activities was 1,887,713 short tons, the equivalent of 104,873 full 53-ft. trailers. This tonnage represents 82.2% of Cascades total fibre procurement.

Certification to Trace the Origins of Wood Fibre
In response to a growing demand for certification of its mixed source products (virgin and recycled fibres), in 2009, Cascades sought FSC® certification, which is the most internationally recognized standard for forest management. Since then the company has been able to offer FSC® Recycled (no virgin fibres) and FSC® Mix (virgin and recycled fibres) certified products. FSC®-certified products provide assurance of sound forest management involving respect for the biodiversity of tree species and wildlife habitats, tree planting promoting forest renewal, and a ban on clear-cutting, which destroys ecosystems.

FSC® certification of Cascades’ facilities is confirmed by an independent third party, the Rainforest Alliance, in compliance with FSC® standards.

When the 2010, 2011, and 2012 procurements are added together, the volume of recycled fibre acquired by Cascades represents more than 6 million short tons, which is equivalent to saving 92 million trees.

92 Million Trees

580 X
the surface area of
Mount Royal
Montreal, Quebec, Canada

770 X
the surface area of
High Park
Toronto, Ontario, Canada

306 X
the surface area of
Stanley Park
Vancouver, British Columbia, Canada

364 X
the surface area of
Central Park
New York, United States
Recycled AND Certified Fibre Supply

Obstacles in procuring recycled fibre

The cost of recycled materials, which fluctuates constantly, can be an obstacle to procurement. Whereas in 2009, sorting centres sold materials at ridiculous prices because of the market crisis, in 2011, the price of materials hit an all-time peak, so high that virgin fibre was at times more affordable than recycled fibre.

Contrary to materials like aluminum, fibres are not recyclable ad infinitum. Virgin fibres are vital to the recycling loop. They are also essential to meeting certain quality criteria such as strength, resistance, and softness.

The statement that a fibre is no longer usable after

After two recycling cycles, only 5% of fibres will be recycled a third time!1,2

MATERIAL FOR REFLECTION


Jacques Verreault, Fibre Purchaser, Specialty Products Group
Water is essential in the paper industry, for both the treatment and processing of fibres and other raw materials and for a vast range of related activities such as washing, cooling, and producing energy from steam.

A lot of water is required to manufacture paper. Fibres, whether they are recycled or virgin, are mixed with water and adhere to one another when the water is extracted by pressure or heat. Before it is turned into paper, pulp is composed of 99% water and 1% fibre.

The nature of Cascades’ activities gives it an undeniable competitive edge in terms of water use. Making paper from recycled fibre requires much less water than making paper by processing wood (logs, sawdust, bark) into wood fibre.

Water consumption at Cascades pulp and paper plants varies from 1 to 31 m³/mt. Average water consumption is 11.3 m³/mt, which compares very favourably to the overall Canadian industry average of 61 m³/mt.

Cascades vis-à-vis the industry

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CASCADeS HELPS SAVE MILLIONS OF LITRES OF WATER

HOW IS WATER CONSUMPTION CALCULATED?
All Cascades plants are equipped with water meters that measure effluents (water discharges), a good indicator of water consumption. The difference between intake and discharge is in the range of 10%: the water loss being primarily related to drying paper, a loss through evaporation.

CLOSED CIRCUITS
All Cascades plants recycle the water used in the manufacturing process numerous times for various applications, thus limiting fresh water consumption. Water is recirculated within the plants 10 to 40 times before being sent for treatment and returned to source.

Cascades’ ultimate goal is to completely close its plants’ water circuits, a real operational challenge that some plants have already successfully addressed. This accomplishment considerably reduces the amount of water drawn from rivers, as well as the effluents, which are almost nil. To achieve this, new technologies must be introduced. Significant progress has been made thanks to the efforts of the Research and Development Centre through the installation of new, more efficient and effective sedimentation, filtration, microfiltration, and ultrafiltration equipment. Cascades plans to continue to invest in technologies that permit the reuse of process water and its treatment internally, as well as the closure of water circuits.

SIGNIFICANT PROJECTS IN RECENT YEARS
Three plants closed their water circuits between 2010 and 2012: Fine Papers Group – Breakey Fibres, Tissue Group – Candiac, and Tissue Group – Toronto PM (Whitby). The closing of the kraft pulp room in East Angus also had a positive impact on the company’s progress in this area, its effluent discharge having decreased by 60% since this decision was made.
KEY HIGHLIGHTS


TOOLS TO REDUCE POTABLE WATER CONSUMPTION

In 2012, Cascades’ Environment Department called on a firm specializing in water management to obtain tools to lower the water flow of faucets and toilets. In units located in Quebec only, more than 300 faucet aerators were distributed, along with 200 toilet tank banks.

Water savings are estimated at several thousand litres, and financial savings are assessed at $10,000 PER YEAR.

INTERNAL AND EXTERNAL TREATMENT OF PROCESS WATER

As mentioned in Challenge 07, the production of pulp, paper, and cartonboard requires the use of a vast amount of water, and yet low net consumption. This water is mixed with raw material (recycled or virgin fibre), which goes through various purification stages before the actual manufacture of paper. This results in fibre deposits and mineral loads in the process water that must be removed before the water is returned to the river.

The quality of water released is regulated by strict standards and any violation of these standards can result in stiff financial penalties. And with reason: releasing contaminated water has repercussions on ecosystems and requires additional disbursements for its reuse, in particular the construction of water treatment stations.
QUALITY CRITERIA

Since water quality measurements are made using many instruments, they are expressed in just as many quality criteria. In the pulp and paper sector, the two parameters are the suspended solids (SS) and five-day biochemical oxygen demand (BOD). Suspended solids are fine, insoluble mineral or organic materials visible to the naked eye. Suspended solids make water murky because they block the passage of light. Water treatment is required primarily to remove the suspended solids and reduce the biological oxygen demand. BOD measures the consumption of oxygen required to decompose the organic matter in the water. The higher the BOD, the higher the pollution.

Wastewater from all Cascades plants is treated. Of the 25 paper plants located in North America, 12 have their own water treatment system. The remaining plants treat their surplus process water internally, and then send it to municipal systems for final treatment, respecting the discharge levels authorized.

In recent years, the company has devoted efforts to reuse this treated water in its processes. This has resulted in benefits for both the receiving environment, which experiences less water removal, and for Cascades, since the re-use of hot water results in a reduction in energy expenses.

IMPROVEMENT PROJECTS OVER THE LAST THREE YEARS


CASCADeS VIs-À-VIS THE INdUSTRy

Over nearly 20 years, the pulp and paper industry has invested billions of dollars in improving effluent treatment. These investments have produced results; data collected demonstrate marked progress in the quality of the water discharged into rivers. In fact, the SSs fell by more than 70% and BOD has declined by over 90%. Cascades has been part of this trend. The introduction of biological treatment in the mid-1990s enabled the elimination of the toxicity of effluents, the latter being controlled in a very strict manner by most government authorities in the regions where Cascades owns plants.

ON AVERAGE, THE QUALITY OF THE WASTEWATER TREATED AND RELEASED INTO THE ENVIRONMENT BY

CASCADeS IS 5 TO 10 TIMES BETTER THAN WHAT ENVIRONMENTAL STANDARDS PRESCRIBE.

WATER: A SHARED RESOURCE

Every year, Cascades invests money and significant effort towards improving its plants’ performance in terms of wastewater treatment. It also works in concert with government authorities to establish environmental objectives for water discharges and to define more water treatment programs that are economically and technically attainable, all with a constant concern for the protection of receiving watercourses. As a user, Cascades intends to ensure that the steps it and the paper industry take to protect watercourses are backed by similar efforts by other industrial, agricultural, and municipal users working on the same watersheds.

1. FOREST PRODUCTS ASSOCIATION OF CANADA, 2011
2. REGULATION RESPECTING PULP AND PAPER MILLS, RRQ (RPPM), C O-2, R 27, S 28, 30.
In the current global context, a company must unequivocally adopt a rigorous approach of creativity and innovation management. The speed at which markets evolve should definitely not be underestimated, even in the commodity product sector.

The concept of innovation is far from new to Cascades. The proof: in the mid-1980s, the company established a research and development centre, which, over the years, has become the largest private research and development centre in the pulp and paper sector in Canada. The 40 or so employees who work there are specialized in fields as diverse as product design, machine operation, and paper chemistry. The Research and Development Centre is also active in launching projects to reduce water and raw material consumption to a minimum.

Although Cascades has always been on the lookout for new approaches, the openness of foreign markets, in particular in Asia, has prompted the company to find ways of reinventing itself, one step at a time.

**DESCRIPTION OF THE INDICATOR**

In 2012, Cascades attained a volume of sales resulting from new products and innovations of 8%, a result slightly below the set objective of 10%. A product is considered new for a three-year period. During the period covered by this first edition of the sustainable development plan, Containerboard Group (Norampac) organized its internal innovation management structure. Consequently, the sales calculation does not take its products into account.
CASCADeS: AMonG CANADA’S BeST IN RESEARCH AND DEVELOPMENT

Proof that research and development is a priority at Cascades, the company ranks 49th among businesses that invest the most in this sector, according to Canada’s Top 100 Corporate R&D Spenders 2012 ratings prepared by Research Infosource Inc. Only three companies in the forestry product sector appear on the list, and Cascades is solidly first. The results are available online at researchinfosource.com.

RESEARCH AND DEVELOPMENT INVESTMENTS

<table>
<thead>
<tr>
<th>$ MILLION</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESEARCH AND DEVELOPMENT INVESTMENTS</td>
<td>35.2</td>
<td>43.3</td>
<td>42.4</td>
</tr>
<tr>
<td>% OF SALES</td>
<td>1.1</td>
<td>1.2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

TOWARDS A STRUCTURED APPROACH TO INNOVATION MANAGEMENT

Everyone recognizes the importance of being innovative. However, it is important to structure approaches in this regard; otherwise, the results risk being inconclusive. In 2006, Cascades launched an analysis and reorganization of its innovation structure. An internal committee now has the responsibility of compiling and selecting ideas, developing them, and making strategic decisions. The Cascades Innovation Management Committee (CIMC) is composed of personnel from the company’s various sectors: production, finance, services and logistics, human resources, and sales and marketing. It plays a key role in sustaining inter-group synergy, enhancing a culture of innovation and skills in innovation, passing on best practices, and catalyzing the involvement of all activity sectors.

The definition of innovation may vary from one company to another. At Cascades, the working group responsible for innovation has defined it as follows:

AN INNOVATION IS A NEW PRODUCT, PROCESS AND/OR METHOD THAT CREATES A COMPETITIVE EDGE FOR CASCADeS AND IS A COMMERCIAL SUCCESS.

“NEW PRODUCTS CAN RESULT IN A SOURCE OF INCOME, BUT THIS DOES NOT NECESSARILy GUARANTEE THE COMPANY’S LONGEVITY. THE WORD ‘SUSTAINABILITY’ MUST BE ADDED TO INNOVATION: SUSTAINABLE INNOVATION EQUALS SUSTAINABLE PROSPERITY.”

ROGER GAUDREAUl, MANAGER OF SCIENTIFIC DEVELOPMENT, CASCADeS

With this in mind, Cascades has incorporated a sustainable development filter into its innovation management system ensuring that the ideas selected respect sustainability criteria (environmental, social, and economic) before evolving into projects. For example, from an environmental perspective, the primary characteristics of innovation are the use of raw material with high recycled content, recourse to clean energy, the use of green chemistry, and the potential to recycle the product.

LISTENING TO CLIENTS

There are numerous occasions when innovations can be introduced simply by listening to clients. Paul Landry, Plant Manager, and Stephan Jacques, Accounts Manager, did just that when they rallied part of the Cascades Moulded Pulp (North Carolina) team, to quickly find a solution to a problem encountered by a major fast-food chain. In record time, the work team designed a cup holder to securely hold any type of drink container, preventing spills resulting from drive-through orders. To meet the client’s request, the plant had to juggle its production schedule, a rather arduous challenge, but one brilliantly accomplished by the team in place.

Their efforts earned them two awards: the HAVI Global Solutions (HGS) – Supplier of the Year Award for 2012 and the prestigious System First Award, attributed by this restaurant chain in recognition of a supplier that has made exceptional efforts to prioritize its client’s interests.
BRIEF OVERVIEW OF NEW PRODUCTS FROM ALL CASCADES GROUPS

- **Cascades® Antibacterial™ Hand Towels**, a simple and effective product that on contact with water releases an active ingredient that reduces the amount of residual bacteria on the hands and whose effect lasts for two hours.

- **Cascades® MOKA®** product line: bathroom and facial tissues made from unbleached recycled fibres.

- **Cascades Elite** hygiene product line offering superior quality to establishments seeking such products.

- **The Cascades Ultra** line of softer bathroom tissue (thanks to ATMOS technology), intended for the retail market.

- **Detachable felt backing** for the manufacture of 100% PVC flooring.

- **Polystyrene foam trays** (XPS) adapted to their product. This modified design requires 6% less raw material than a similar tray in rectangular shape.

- **Cascades UltraFit™**, a four-cup beverage carrier for fast-food restaurants.

- **EvOk® polystyrene foam**, revolutionary because of its 25% recycled content.

- **Cascades Re-Plast's lumber** made of 100% recycled plastic, including 30% content from electronic components.

- **Cascades Eko-Sens™**, plastic packaging for the food industry.

- **A fruit basket** with a cardboard handle that replaces the traditional plastic handle (making recovery easier).

- **Security papers** from the Fine Papers Group, made from 100% recycled fibres and designed to combat fraud and the counterfeiting of cheques.

- **Flexicomb®,** flexible protective packaging system that eliminates damage during transportation and handling.

- **EVOK® polystyrene foam,** revolutionary because of its 25% recycled content.

- **The Eco Bistro™** line, take-out food packaging made from recycled fibres.

- **Improvement to the Fine Papers Group’s digital printing product line.**

- **Security papers** from the Fine Papers Group made from 100% recycled fibres and designed to combat fraud and the counterfeiting of cheques.
In spring 2012, the Specialty Products Group organized its first in-house symposium completely devoted to innovation, with the theme “Innovation, the Road to Prosperity.” Strategic directions and actions to be taken in the field were presented. The Antonio Award, named in honour of the father of the Lemaire brothers, was also created to highlight excellence in internal entrepreneurship and innovation initiatives.

LCA is a sustainable development tool that enables the potential environmental impacts of a product, process, or service to be measured and quantified, considering all stages of its life cycle from cradle to grave. In more concrete terms, LCA takes into account the acquisition of resources (extraction, processing), the transportation of raw material, manufacturing (assembly, packaging), distribution (storage, handling, transportation), use (maintenance, repairs, reuse), and end-of-life management (recovery, recycling, repurposing, landfill). LCA enables Cascades to determine the environmental impacts of its products with a view to improving them, implementing ecodesign, or comparing different options (products, processes, raw materials, types of transportation, etc.) to guide its decision making.

"By doing a life-cycle assessment of our products, we are able to reduce the environmental impact and to state what really differentiates us from the market by relying on a scientific approach that is recognized internationally."

SANDRA BOURRET, PROJECT MANAGER AT THE CASCADES RESEARCH AND DEVELOPMENT CENTRE, IS A SPECIALIST IN LIFE-CYCLE ASSESSMENT. TO HER, LCA IS A SCIENTIFIC TOOL THAT REVEALS THE ENVIRONMENTAL PERFORMANCE OF A PRODUCT AND HELPS AVOID GREENWASHING.

FIRST SYMPOSIUM ON INNOVATION

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In 2012, Cascades registered an OIBD excluding specific items of over $304 million, i.e. an increase of 33% compared to 2011. Despite a significant decrease in the cost of recycled fibre, which had a positive impact on the company’s results, the prevailing economic factors during the year negatively affected its financial performance. Difficult business conditions and strong competition are among the factors that contributed to a generalized decline in sales prices. The strength of the Canadian dollar, and operational challenges in some plants, also had a negative impact on Cascades’ profitability.

THE FOUR PILLARS OF CASCADES’ STRATEGIC PLAN:

MODERNIZE
OPTIMIZE
INNOVATE
RESTRUCTURE
FINANCIAL HIGHLIGHTS AT DECEMBER 31, 2012

DIVIDEND YIELD OF 3.9%

NUMBER OF COMMON SHARES OUTSTANDING 93.9 MILLION

MARKET CAPITALIZATION $385 MILLION

INVESTMENTS OF OVER $160 MILLION IN 2012 TO MODERNIZE ASSETS

INCLUDING INVESTMENTS OF $30 MILLION IN CORRUGATED BOX PLANTS IN ONTARIO

THE LARGEST AND MOST SOPHISTICATED CONTAINERBOARD MANUFACTURING MACHINE IN NORTH AMERICA

THE LARGEST WORK SITE IN CASCADES’ HISTORY

In 2011, Cascades and its partners—the Caisse de dépôt et de placement du Québec, Jamestown Container, and another industry partner—announced the construction of Greenpac Mill LLC (Greenpac), a new high-tech containerboard manufacturing plant in Niagara Falls, New York.

At a construction cost of $430 million, the Greenpac plant will produce lightweight linerboard from 100% recycled fibres with just one machine at a width of 328 inches (8.33 metres). The plant will employ 118 people, and its annual production capacity will be 540,000 tonnes.

“This major investment—Cascades’ most significant project—was undertaken to make the company a leader in the containerboard industry.”

Maurice Plante, Vice-President, Boxboard and Containerboard, Norampac

WITH ITS HIGH-TECH PAPER MACHINE, GREENPAC WILL STIMULATE THE LIGHTWEIGHT LINERBOARD MARKET. CASCADES’ PARTICIPATION IN THE PROJECT IS 59.7%
## PLANT ACQUISITIONS DURING THE 2010–2012 PERIOD

### EUROPEAN BOXBOARD GROUP
- Reno de Medici S.p.A.: holding 48.54% interest in common shares at December 31, 2012

### CONTAINERBOARD GROUP
- Bird Packaging, located in Guelph, Kitchener, and Windsor (Ontario): specialized in the conversion and storage of corrugated boxes

### SPECIALTY PRODUCTS GROUP
- NorCan Flexible Packaging Inc. (Ontario): holding 56.5% interest in common shares at December 31, 2012
- Genor Recycling Services Limited (Ontario): recovery and recycling activities
- Packaging Dimensions Inc. (Illinois): manufacture of uncoated partition board

### TISSUE PAPERS GROUP
- Papersource Converting Mill Corp (Papersource), Granby (Quebec): specialized in the manufacture of tissue products for the Away-from-Home market

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## PLANT CLOSURES AND SALES DURING THE 2010–2012 PERIOD

### CONTAINERBOARD GROUP
- Leominster (Massachusetts)
- Avot-Vallée (France)
- Burnaby (British Columbia)
- Le Gardeur (Quebec)
- Versailles (Connecticut)
- Hebron (Kentucky)
- North York (Ontario)
- Peterborough (Ontario)
- Mississauga (Ontario)
- Lachute (Quebec)
- Dopaco (Pennsylvania)

### SPECIALTY PRODUCTS GROUP
- Toronto (Ontario)

### TISSUE PAPERS GROUP
- Scarborough (Ontario)

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FOR FURTHER INFORMATION ON CASCADES’ FINANCIAL RESULTS, CONSULT THE ANNUAL REPORTS AVAILABLE ONLINE AT CASCADES.COM/INVESTORS
As mentioned in Challenge 05 (see p. 39), the importance attributed to the supply chain principle and to product traceability is a relatively new phenomenon in North America. Businesses are progressively starting to be mindful not only of their own environmental record but also of their suppliers’ practices.

Although this approach still remains the exception, Cascades regards its goal of increasing the number of suppliers with a sustainable procurement policy (SPP) as having been ambitious to say the least. During the period covered by this plan and in concert with the firm EcoVadis, Cascades established a system to assess each of its suppliers. Its suppliers must provide details on their procurement practices by answering questions like: Have you adopted a formal policy on sustainable purchases? What mechanisms are used to ensure your policy is applied? In what phase of implementation is your policy? What proportion of your suppliers has sustainable procurement measures in place? Despite the efforts made by certain suppliers to adopt sustainable procurement practices, the results demonstrate that this approach is uncommon in our activity sector.

### Cascades’ Procurement Strategy

During the 2010-2012 period, Cascades was in the process of developing its own. The company focused on this aspect before requiring that its suppliers do the same. In 2010 and 2011, Cascades drafted two sustainable procurement policies: one for the procurement of virgin fibre, and a second for goods and services and chemical products. In 2012, the company revised its strategy with the goal of including other purchasing categories, such as recycled fibre and energy, and also of incorporating the supplier assessment component, which was introduced in the second half of 2012, in conjunction with the firm EcoVadis. Final results are expected to be announced in autumn 2013.

Cascades plans to prepare a profile of the sustainable development practices of the organizations with which it works; its objective is to assess these organizations in terms of many factors, including not only their sustainable procurement strategy, but also their environmental, social, and ethical practices.

<table>
<thead>
<tr>
<th>Year</th>
<th>Goal</th>
<th>Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Increase the number of suppliers with a sustainable procurement policy (SPP)</td>
<td>Not achieved</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>Not achieved</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>Not achieved</td>
</tr>
</tbody>
</table>
In 2011, with help from an outside firm, Cascades designed a four-hour training session on sustainable development. It planned to give this training, first of all, to all of its sales force and later to other staff members. Sales representatives were targeted because that would enable Cascades to achieve a double objective: raising employee awareness of sustainable development and encouraging customers to choose eco-friendly products.

A FEW OBSTACLES ALONG THE WAY
The goal of training 50% of staff was ambitious. Cascades had hoped to meet these people in small groups to facilitate discussion. For logistical reasons, the company chose instead to raise awareness of the issue by taking advantage of opportunities when groups were meeting.

IN 2011, CASCADES TESTED A TRAINING SESSION WITH A GROUP OF

= 10 INDIVIDUALS

IN 2012, IT GAVE THE TRAINING TO TWO OTHER GROUPS TOTALLING

= 40 INDIVIDUALS

As for plant personnel working on regular shifts, freeing them up for a four-hour period proved to be difficult.
The Lemaire brothers are unequivocal: Cascades’ most important asset is its employees. That’s why employees’ health, safety, and well-being are major concerns for the company.

For Cascades, three criteria define the health, safety, and well-being index:

1. Reaching the OSHA annual incident rate goal
2. Contribution to an Employee Assistance Program (EAP)
3. Physical activity program

<table>
<thead>
<tr>
<th>PERCENTAGE OF PLANTS THAT MEET THE THREE CRITERIA</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaching the OSHA annual incident rate goal</td>
<td>51%</td>
<td>50%</td>
<td>57%</td>
</tr>
<tr>
<td>Contribution to an Employee Assistance Program (EAP)</td>
<td>76%</td>
<td>87%</td>
<td>90%</td>
</tr>
<tr>
<td>Financial contribution to a physical activity program</td>
<td>68%</td>
<td>66%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Target 2010 29%
Target 2011 29%
Target 2012 44%

Percent achieved 63%

Goal Increase the health, safety, and well-being index

Indicator Number of units meeting the following three criteria: OSHA incident rate goal, contribution to an employee assistance program (EAP), and financial contribution to a physical activity program / total number of units

Target 70%
A recent French-language workplace health and safety awareness campaign used the slogan “On travaille pour gagner notre vie, pas pour la perdre” (we work to earn our living, not to lose it). Ensuring employees’ health and safety is a matter of respect. Cascades makes every effort to implement various measures aimed at providing a healthy and injury-free work environment:

**MAKING WORKPLACES SAFE**

**ESTABLISHING OPERATING RULES AND PROCEDURES**

**INSTALLING A SENSE OF PERSONAL RESPONSIBILITY IN MANAGERS AND EMPLOYEES**

The OSHA incident rate created by the American Occupational Safety and Health Administration is an index widely used in North America to measure the performance of companies with respect to employee health and safety. This rate represents the number of employment injuries that result in the loss of time or a temporary reassignment, or that require medical treatment, per 200,000 hours worked.

Through a concerted effort, the OSHA incidence rate hit an all-time low of 3.8 in 2012. Indeed, this rate improved by 12% from 2010 to 2011 and by another 12% from 2011 to 2012. Some of the means by which this was achieved include: smart investments to better control risk (e.g. making machines safer, protecting pedestrians in forklift areas, etc.), management programs (e.g. lockout and confined space procedures, forklifts), and, finally, by the development of a strong culture of accountability. Thus, management’s policies combined with employees’ efforts led to successful results. With this new data, we can conclude that Cascades has improved by 67% since 2002.

**MATERIAL FOR REFLECTION**

In 2012, Cascades partnered with Laval University’s psychology department and sleep clinic (the Centre d’études sur les troubles du sommeil), participating in a study aimed at better understanding the causes of sleep apnea, a common problem among truck drivers. The study is continuing throughout 2013, and results will be available at a later date.

**“THE MANDATE OF THE CORPORATE SERVICES DEPARTMENT, SUCH AS ENGINEERING, MECHANICS, MAINTENANCE, AND ENERGY, IS TO OFFER THEIR EXPERTISE TO CASCADES’ VARIOUS BUSINESS GROUPS. OUR PRIORITY IS TO PROVIDE FLAWLESS SERVICES TO THE PLANTS, BUT NEVER AT THE EXPENSE OF EMPLOYEES’ HEALTH AND SAFETY. WE DO NOT WANT ANY ACCIDENTS TO OCCUR, ESPECIALLY NOT POTENTIALLY SERIOUS ONES LEADING TO SEVERE INJURIES. IT IS OUR DUTY TO TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SUCH INCIDENTS.”**

*Pascal Aguettaz, Vice-President, Corporate Services, Cascades*
Despite much improvement and diligent awareness-raising efforts, the extended Cascades family was shaken by two fatal workplace accidents during this three-year period. These tragedies involved an accident in a handling area at the Niagara Falls plant and another involving a forklift at the Saint-Jérôme Fine Papers plant.

### 2 EMPLOYEE ASSISTANCE PROGRAM (EAP)

### 3 PHYSICAL ACTIVITY PROGRAM

#### AT CASCADES, THE EXPRESSION

**A healthy mind in a healthy body**

**TRANSLATES AS**

**Healthy from head to toe.**

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**Examples of measures implemented by Cascades**

<table>
<thead>
<tr>
<th>MEASURES</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MACHINE SAFETY</strong></td>
<td>Many investments have been made in order to protect employees from the dangers of machines without hindering their activities. The key to success has proven to be teamwork between the operators and engineers.</td>
</tr>
<tr>
<td><strong>CASCADES’ ACCOUNTABILITY MATRIX</strong></td>
<td>The Accountability Matrix, a tool created by Cascades, allows managers and employees to jointly determine the level of maturity of their health and safety culture (Bradley Curve): Developing a strong occupational health and safety (OHS) culture is a prerequisite for the long-term reduction of the number and seriousness of accidents in a sustainable way.</td>
</tr>
<tr>
<td><strong>PEDESTRIAN SAFETY AROUND FORKLIFTS</strong></td>
<td>Forklifts are a part of Cascades’ everyday activities. Great efforts have been made to protect pedestrians in forklift areas: access procedures, separate pedestrian walkways, and awareness campaigns regarding the risk of collisions.</td>
</tr>
</tbody>
</table>

**“The incidents most often reported are those involving the use of forklifts. In 2012, 43% of events potentially resulting in death or permanent injury were related to the use of forklifts. Pedestrian safety around forklifts and safe forklift driving habits remain top priorities for the coming years.”**

**Kristel De Cat, Cascades’ Health and Safety Coordinator**

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**From head...** Cascades’ Employee Assistance Program, which is geared toward employees as well as their spouses and dependent children, enables them to obtain quality care in the case of personal, family, or professional problems.

**...to toe.** Cascades also places great importance on its employees’ physical fitness. The company organizes sports tournaments, and some plants offer subsidies to cover employees’ sport activities, all with the goal of promoting a healthy and active lifestyle. Cascades distributes to all its employees the *InfoHEALTH Bulletin (L'Informateur Santé)*, a monthly newsletter dealing with a different topic each month: healthy eating, stress management, blood pressure, heat exhaustion... This newsletter is put together by Cascades’ nurse and physical education coordinator, both based in Kingsey Falls (Quebec).
The results confirmed that virtually all plants (90%) offer an EAP, but that physical activity programs were much less common. There is, therefore, room for improvement in this area.

Details on the calculation method
In order to reach its goal, each plant must have met the three criteria.

Although the OSHA incidence rate decreased significantly between 2010 and 2012, Cascades' calculation was based on the number of plants that met their OSHA goal set during the strategic planning period.

In 2012, 57 plants reached their target, which varied between 0 and 5.5.

Overall, this result is not representative of the work accomplished. Several plants lowered their accident rate without, however, achieving the desired result. The calculation should have been based on the number of plants that improved their rate, the ultimate goal being to achieve the lowest rate possible.

This exercise allowed Cascades to gain a clear picture of which of its units offered an Employee Assistance Program and a physical activity program. Previously, the company had no data concerning these aspects.

Cascades vis-à-vis the industry
It is impossible to make industry-wide comparisons with respect to this specific goal, since it is an amalgamation of three indexes created internally. It was, however, possible to learn that the overall rate of reportable incidents (number of accidents per 100 employees) in the pulp and paper industry decreased:

- 16% between 2005 and 2007
- 42% between 2001 and 2007

Cascades vis-à-vis the industry is impossible to make industry-wide comparisons with respect to this specific goal, since it is an amalgamation of three indexes created internally. It was, however, possible to learn that the overall rate of reportable incidents (number of accidents per 100 employees) in the pulp and paper industry decreased:

1. Forest Products Association of Canada, 2011
IN DICATOR
Commitment level achieved following an opinion survey distributed to employees

TARGET
75%
PERCENT ACHIEVED

2010
69%
2011
69%
2012
55%

14 EMPLOYEE
MOBILIZATION
GOAL INCREASE EMPLOYEE COMMITMENT LEVEL

“We want to get involved and do more for our employers when they know how to foster a sense of belonging and of pride. It’s no surprise that the management approach of Cascades’ Lemaire brothers has been picked apart and studied in universities around the world; respect [...] and honesty make for a winning strategy across the board, especially in the long term.”

Valérie Cusson, Montreal (Quebec)

Valérie is a paper specialist with the Fine Papers Group. She left this comment on Radio-Canada’s Web site following a report whose topic was “Secrets of good employers.” She authorized publication of the comment in this document.

CORPORATE CULTURE
A company’s culture is, in a sense, its genetic code. It’s an amalgamation of the company’s shared values and its approach to problem-solving. It’s a climate, an atmosphere, a way of interacting with employees.

There are many “top employer” rankings, and Cascades performs well in several of them (see the Awards and Distinctions section, p. 74). Few of these ranking systems, however, take into account employees’ opinions in an effort to evaluate their level of appreciation of their workplace.

A study conducted specifically on this topic has attracted our attention over the past few years: the “Best Employers in Canada” ranking by Aon Hewitt, a human resources management consulting firm. This study is the only one of its kind in Canada that seeks to collect the opinions of organizations’ employees and managers, with the goal of identifying the chief priorities that promote mobilization and performance.
EMPLOYEES SPEAK THEIR MINDS
In 2009 and 2012, Cascades invited its employees to complete an online survey aimed at collecting their opinions on various topics and business practices, such as quality of life, values, resources, work-related tasks, overall compensation, recognition, career outlook, learning opportunities and skills development, human resources procedures, and other people within the organization. The results of the study allow a comparison of employers and serve as a basis for drafting action plans.

According to Aon Hewitt, “committed” employees exhibit three behaviours:

1. **SAY**: They speak of the organization in positive terms.
2. **STAY**: They display a strong desire to remain within the organization.
3. **STRIVE**: They seek to outdo themselves in order to meet the organization’s goals.

In 2009, the survey was distributed to a representative sample of plants and employees in Canada, and our respondent pool included about 1,000 employees. In 2012, for the first time, we decided to look at the big picture for Cascades in North America by broadening the survey’s reach to include staff across the continent.

In doing so, Cascades knew its results would be different, since its baseline reference was no longer the same. The target set was not reached, and the mobilization index decreased compared to the previous survey. This result can be chalked up to several factors, including—naturally—conditions internal to the company, but also the socio-economic context. In this respect, the year 2012 was difficult on several levels.

Maryse goes on to define a stimulating workplace as follows:

- One in which employees understand, as they begin their shift, the contribution expected of them and in which, at the end of their shift, they have a sense of having accomplished what they set out to do.
- One with which employees are proud to identify and to which they are proud to belong.
- Where learning opportunities are available.
- Where employees’ skills are called upon.

In order to continue to thrive, Cascades must keep its committed employees on board (retention) and attract highly qualified new employees (recruitment).

Providing a stimulating workplace to which employees feel a great sense of belonging will surely prove to be the key to success in this regard.

Generally speaking, the index was higher in service units than in manufacturing plants, the latter facing different challenges: order backlogs, operational realities, fixed work schedules, etc. To sum up, the survey allows us to identify areas of possible improvement and to establish action priorities in order to respond to employee concerns and to maintain favourable conditions for employees.
To expand the scope of its actions, Cascades must inform its clients about the sustainable nature of its products and services. Since sales representatives are our main interface with the market, special training was designed to equip sales and marketing teams and to develop their expertise in sustainable development to ensure they use it in meetings with clients.

As with the employee training challenge (Challenge 12), this goal was ambitious, and its accomplishment had its share of limitations. Fifty sales representatives received four hours of training on sustainable development, which represents 14% of the target group. According to a non-exhaustive survey, it’s estimated that sustainable development was discussed in 210 meetings with clients. Without an official system for compiling this data, the values given are estimates, but they indicate that the goal was achieved.

**USEFUL TOOLS**
**LIFE-CYCLE ASSESSMENT (LCA)**
Cascades uses the results of life-cycle assessments to explain the benefits of its products. To date, two life-cycle assessments of products or group of products have been published: a first that compares different types of food packaging produced and a second on fine papers.

Reports of these assessments are available at: CASCADES.COM/EN/SUSTAINABLE-DEVELOPMENT.
USEFUL TOOLS

THE ECOCALCULATOR

Cascades has equipped itself with the Ecocalculator, a unique and innovative tool to measure environmental savings in paper and carton products from each of the company’s groups (fine paper, tissue paper, and packaging). SAVINGS ARE MEASURED BY COMPARING 100% VIRGIN PRODUCTS AGAINST 100% RECYCLED PRODUCTS from the North American industry average. Six indicators are used: trees, water, waste, greenhouse gases, energy, and smog. Cascades encourages its clients to calculate their footprint or the footprint made by one of their projects. They can then understand the environmental savings that come from choosing Cascades products, and they can communicate the information internally and externally.

CASCADERS.COM/CALCULATOR

FOR EXAMPLE, BY CHOOSING TO PRINT 10,000 COPIES OF A 8.5X11, 48-PAGE MAGAZINE ON 100% RECYCLED PAPER RATHER THAN ON VIRGIN PAPER, AN ORGANIZATION IS SAVING:

- **43 TREES** = THE AREA OF 3 TENNIS COURTS
- **1,918 KILOGRAMS OF WASTE** = THE VOLUME OF 39 GARBAGE CANS
- **8 KILOGRAMS OF NOx** = THE EMISSIONS OF A TRUCK RUNNING FOR 25 DAYS
- **6,301 KILOGRAMS OF CO2** = THE ANNUAL EMISSIONS OF 2 CARS
- **156,438 LITRES OF WATER** = THE AVERAGE CONSUMPTION OF A HOUSEHOLD FOR 447 DAYS
- **38 GJ** = THE ENERGY USED BY 173,849 SIXTY-WATT LIGHT BULBS FOR AN HOUR
- **1,918 KILOGRAMS OF WASTE** = THE VOLUME OF 39 GARBAGE CANS

1. SOURCES OF RESULTS ARE AVAILABLE AT CASCADERS.COM/CALCULATOR
Members of Cascades’ management team and sustainable development steering committee serve on various sector committees whose mandate is to influence decisions and advance sustainable development methods. The meetings held have involved environmental organizations, government departments, foundations, industry representatives, and academics. The targeted number of meetings was easily surpassed in 2011 and 2012, demonstrating that key employees in this process were very active outside the company.
A FEW OF CASCADES’ INITIATIVES AND INVOLVEMENTS:

PARTICIPATION WITH OTHER CANADIAN DECISION-MAKERS ON A NATIONAL ROUNDTABLE ON THE ENVIRONMENT AND ECONOMY ORGANIZED BY THE GOVERNMENT OF CANADA

DISCUSSIONS WITH THE QUEBEC MINISTRY OF TRANSPORTATION TO EXAMINE THE FEASIBILITY OF ALLOWING DOUBLE ROAD TRAINS ON SMALLER HIGHWAYS

PARTICIPATION IN A TEST PILOTED BY THE QUEBEC MINISTRY OF TRANSPORTATION ON DOUBLE ROAD TRAINS TRAVELLING IN WINTER

BRIEF SUBMITTED IN NOVEMBER 2011 TO THE QUEBEC MINISTRY OF THE ENVIRONMENT, SUSTAINABLE DEVELOPMENT, AND PARKS REGARDING A BILL ON A CAP-AND-TRADE SYSTEM

SOME OF THE COMMITTEES ON WHICH CASCADES REPRESENTATIVES SERVE:

- Association forestière des Cantons-de-l’Est
- Association québécoise pour la maîtrise de l’énergie (AQME)
- Association québécoise des consommateurs industriels d’électricité (AQCIE)
- Association of Independent Corrugated Converters (AICC)
- Association Nationale des Grands Usagers Postaux (ANGUP)
- Book Industry Environmental Council (BIEC)
- Centraide Centre-du-Québec (United Way)
- Centre d’excellence en efficacité énergétique (C3E)
- Chaire de responsabilité sociale et de développement durable (École des sciences de la gestion – Université du Québec à Montréal (ESG-UQÀM))
- Organisme de concertation pour l’eau des bassins versants de la rivière Nicolet (COPERNIC)
- Conseil de l’industrie forestière du Québec (comités environnement et affaires publiques)
- Conseil patronal de l’environnement du Québec (CPEQ)
- Corporation du développement durable (CDD)
- Global Green USA
- Éco Entreprises Québec (ÉEQ)
- Écotech Québec (la grappe des technologies propres au Québec)
- Fédération des chambres de commerce du Québec (FCCQ)
- Fibre Box Association (FBA)
- Food Packaging Institute (FPI)
- International Corrugated Packaging Foundation (ICPF)
- International Corrugated Case Association (ICCA)
- Jeune Chambre de commerce de Montréal (JCCM)
- Manufacturiers et Exportateurs du Québec
- National Paper Trade Association (NPTA)
- Ontario Forestry Industry Association
- Paper Packaging Canada (PPC)
- Packaging Association of Canada (PAC)
- Paper Recycling Council (PRC)
- PAPTAC (Pulp and Paper Technical Association of Canada)
- Programme d’action pour la consommation tranquille (PACT)
- Recycled Paperboard Alliance (RPA-100)
- Recycled Paperboard Technical Association (RPTA)
- Regroupement des jeunes gens d’affaires du Québec (RJGAQ)
- World Containerboard Organization (WCO)

and the chambers of commerce in several regions where Cascades has facilities
Collaboration with stakeholders was the starting point for Cascades’ first sustainable development plan. In 2009, the company consulted several groups of stakeholders (employees, clients, suppliers, non-governmental organizations, etc.) to determine and prioritize the challenges it wanted to overcome. Collaboration with civil society at large followed in the form of conferences, discussions, and participation at roundtables with various players (industry, clients, suppliers, students, citizens, non-governmental organizations, etc.). The number of persons consulted corresponds to the number of persons in attendance at these events.

The Social Media Launch
Cascades made its entrance into the world of social media in February 2012 to keep its stakeholders more regularly informed of its sustainable development initiatives and to create opportunities for dialogue. In addition to Cascades’ Facebook, Twitter, Linkedin, YouTube, and Pinterest accounts, a blog with details on projects and current events was created.

The list of collaborative initiatives is not exhaustive, but the target set for this challenge was more than achieved.
Community Involvement

Goal: Increase the number of units involved in their community

Amount invested in communities by all Cascades units

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ MILLION</td>
<td>3.7</td>
<td>3.6</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Cascades established a geographical condition for its management of donations and sponsorships: the organizations requesting support must have an impact in the communities where the company works. We believe that for employees balance in life depends on healthy work habits as well as a healthy and enjoyable living environment.

The list of community activities in which all of Cascades’ North American units were involved in the past three years shows that:

- 78% of them invested in one cause
- 58% and
- 58% were involved in at least two causes.

Cascades, generous by nature

Community involvement has been part of Cascades’ values since it started in 1964. The company has always fully assumed its role as a good corporate citizen by investing significant amounts in the form of donations and sponsorships. The company’s leadership is no stranger to this approach: the Lemaire brothers take a personal interest in supporting organizations that serve the communities in which Cascades operates.

Amount invested in communities by all Cascades units

<table>
<thead>
<tr>
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</tr>
</tbody>
</table>
SOCIALY COMMITTED EMPLOYEES
Each year, several dozen employees participate in the 12-hour Relay for Life walk for the Canadian Cancer Society, the Light the Night walk for the Leukemia & Lymphoma Society of Canada, and the CIBC Run for the Cure in support of the Canadian Breast Cancer Foundation. Cascades supports them with donations.

LEMAIRE FAMILY FOUNDATION
In addition to all the community actions taken by Cascades, its units, and its employees, the Lemaire Family Foundation, which was created in 2002 by the three brothers, gave $3 million between 2010 and 2012 to 40 organizations and institutions working mainly in health and education.

ONCE NOVEMBER COMES AROUND, DOZENS OF CASCADERS ARE KEEN TO GROW A MUSTACHE FOR PROSTATE CANCER AWARENESS, ONE OF THE MOST COMMON CANCERS AMONG MEN.

Socio-Heroes: People with heart
To honour its many employees who give countless and committed hours as volunteers, in 2012 Cascades created the Socio-Heroes contest to recognize employees who are devoted to one or more causes. Three people have earned the honour: Joseph Boachie (Norampac – Mississauga), Johanne Fournier (Tissue Group – Candiac), and Cheryl Hicks (Cascades Auburn Fiber). As a reward, the recipients receive $1,000 to donate to the organization of their choice. Our blog (blog.cascades.com) tells their story.

Inspiring partnerships
Operation Enfant Soleil, Leucan, the Parkinson Society, the Maisonnee des enfants, the TEEG Foundation, the Care Foundation. Sponsoring the Adopt a Family for Christmas program, the Special Olympics, the Salvation Army, hospital foundations, teaching institutions, suicide prevention organizations, sports teams, local community support groups... ... Hundreds of organizations can count on Cascades’ support every year in various ways: products, financial donations, and volunteer time.

Cycling for a good cause
At Cascades, we know all about bike tours for a good cause! The Charles Bruneau CIBC Tour for the Fondation Charles-Bruneau, the Grand Défi Pierre Lavoie with its mission to encourage youth to adopt healthy life habits, and the Granfondo Garneau-Cascades for the Petits Frères are sports events in which dozens of Cascades employees participate each year. This is an excellent way to bring sports challenges and community causes together.
**WORKING TOGETHER**

Centraide/United Way is the number one cause for Cascades and its employees. Coming from a modest background, the Lemaire brothers understand people in need and have been repeating their annual support for the organization without hesitation for several years. Each fall, a number of Cascades employees become campaign managers for a few weeks and show their ingenuity in gathering funds for the organization and its regional branches. Cascades gives $0.50 for each dollar donated by its employees solid support that amplifies individual donations.

**CASCADES ATHLETES SHINE AT THE OLYMPIC GAMES**

In winter 2010, Cascades saw six of the athletes it sponsored participate in the Vancouver Olympics: Alexandre Bilodeau and Pierre-Alexandre Rousseau (freestyle skiing—moguls), Alex Harvey (cross-country skiing), Jean-Philippe Le Guellec (biathlon), and Jessica Dubé and Bryce Davison (figure skating). Alexandre Bilodeau gave all Cascaders a great thrill when he won Canada’s first gold medal. At the 2012 Summer Olympic Games in London, the eyes of Cascades’ employees were riveted on Kathy Tremblay (triathlon) and on Émilie and Hugues Fournel (canoe-kayak). Roughly 20 other sports are represented on the list of athletes supported by Cascades through its partnership with the Fondation de l’athlète d’excellence du Québec. These athletes are both excellent examples of perseverance and outstanding ambassadors for the company.

**EMPLOYEES WEARING RECYCLED CLOTHES**

Cascades’ recycling values show even in the clothes it offers its employees. In 2011, seeing the growing popularity of eco-fashion, Cascades began working with several Quebec eco-designers to clothe its employees. The lines Myco Anna, Créations Encore, Musky, Voyou, Respecterre, and Oöm are now among the collections found at the Cascaderie and Norampa’rie boutiques. To highlight these alliances, Cascades organized an ethical fashion show at the Gaillarde boutique in Montreal in autumn 2012. Employees served as models, while the audience included representatives of other companies that might be inspired by Cascades’ practices.

**IN KINGSEY FALLS, QUEBEC—CASCADES’ BIRTHPLACE—SEVERAL ORGANIZATIONS WITHIN THE COMPANY’S COMMUNITY HAVE BEEN ABLE TO BENEFIT FROM THE EXPERTISE AND INGENUITY OF THE ENERGY ACTION GROUP FREE OF CHARGE TO REDUCE THEIR ENERGY COSTS.**

**WE RECYCLE ALL FIBRES—EVEN OUR CLOTHES**

In 2012, Cascades began working with Cervex, a non-profit social enterprise that recycles used textiles, clothes, and shoes. It has a dual mission: in addition to giving a second life to thousands of tonnes of textiles each year, Cervex also fosters the social-professional integration of more than 100 people with functional limitations. For its partnership with Cervex, Cascades set up textile recuperation bins outside seven of its plants in Quebec.
For details on Cascades' charters, governance practices, board of directors, code of ethics, majority voting policy, and board committees, see the company's Web site at cascades.com/profile/governance
YEAR AFTER YEAR, CASCADIES IS RECOGNIZED FOR ITS DISTINCTIVE METHODS. THE FOLLOWING IS A LIST OF PRIZES EARNED IN THE PAST THREE YEARS.

2012

CASCADIES LEADERS DISTINGUISH THEMSELVES

Alain Lemaire, Executive Chairman of the Board, was named PDG VERT 2012 (greenest CEO) in the large corporation category of a competition organized by the Groupe Les Affaires and the firm Trebora Conseil.

CASCADIES PRODUCTS WIN AWARDS

Pulp & Paper International (PPI) awarded the Cascades Fine Papers Group with the prize for innovative product of the year for its latest creation: the CheckSecur Platinum Enviro™.

IR MAGAZINE rewarded Cascades with the Grand Prix of Best Relations With Investors in the small-cap category.

Cascades GIE Inc. received an honourable mention in the integrated management category at the AQME (Association québécoise pour la maîtrise de l’énergie) ÉNERGIA GALA.

Cascades’ performance was recognized in three categories of the prestigious LES MERCURIADES awards: investment innovation Quebec, sustainable development, and company of the year.

Cascades was recognized as the 15th best corporate citizen in Canada by CORPORATE KNIGHTS magazine.

Cascades is one of the most attractive employers in Canada according to RANDSTAD.
MACLEAN’S magazine ranks Cascades among the **50 most socially responsible companies in Canada.**

Carl Blanchet, Corporate Director of Innovation and Sustainable Development, was given the **CLEAN50 AND THE CLEAN16** awards in the **manufacturing and transportation category.** These honours highlight Cascades’ leadership in sustainable development.

Cascades was the proud recipient of a **2012 GREEN SUPPLY CHAIN AWARD** highlighting its **responsible supply practices.**

For the second year in a row, Cascades is the most responsible company and brand in the eyes of Quebecers, according to the **Responsible Consumption Index** carried out by the magazine **PROTÉGEZ-VOUS and THE OBSERVATOIRE DE LA CONSOMMATION RESPONSABLE** (ESG-UQÀM, Université de Sherbrooke).

Cascades is proud to have been recognized as the **seventh best corporate citizen in Canada** by **CORPORATE KNIGHTS.**

Cascades won the **Greening of the Supply Chain prize** in the prestigious CATIE contest, organized by the **CANADIAN ASSOCIATION OF IMPORTERS AND EXPORTERS.**

Cascades won the **CORPORATE SOCIAL RESPONSIBILITY prize** for its **exemplary practices.**

Cascades is proud to have won the **EXCELLENCE IN CORPORATE RESPONSIBILITY prize,** awarded for its online boutique, which offers **innovative and environmentally respectful products.**
Cascades received the **Grand Prix for Best Relations With Investors** in the mid-cap and forest products categories, awarded by **IR MAGAZINE, CANADA AWARDS**.

Cascades was ranked **11th among the most admired companies by Quebecers**, a list created by **LÉGER MARKETING** in cooperation with the magazine **LES AFFAIRES** advancing nine places from the previous year.

**CORPORATE KNIGHTS** magazine recognized Cascades as the **47th best corporate citizen in Canada**.

Cascades is among the **50 most responsible companies in Canada** according to **JANTZI RESEARCH’S 2010 list and MACLEAN’S**.

Highlighting the best remuneration programs, the ninth **KORN/FERRY–LES AFFAIRES** contest rewarded Cascades for **the excellence of its governance program**, in the large corporation category.

Cascades is the **most responsible company and brand** in the eyes of Quebecers, according to the **RESponsible consumption INDEX**.

Cascades GIE Inc. (the Energy Action Group) won the Leadership Award from the **CANADIAN INDUSTRY PROGRAM FOR ENERGY CONSERVATION** in the category for **implementation of an integrated energy efficiency strategy**.
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