

The Canadian Food Packaging Innovation Guide

Materials, Sustainability, Technologies & Industry
Resources

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**FOOD RESEARCH &
INNOVATION LAB**

About This Resource

The Canadian Food Packaging Innovation

Guide was developed as an applied research and industry resource highlighting packaging materials, sustainability trends, emerging technologies, and innovative Canadian organizations shaping the future of packaging. Examples from the bakery and broader food sectors are featured throughout to demonstrate practical applications and opportunities for food manufacturers.

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Part 1:

The Evolution of Packaging in Canada

Packaging has played a critical role in Canada's economic development by enabling the safe transportation, preservation, and distribution of products across vast geographic regions. Throughout history, packaging materials have evolved in response to changing consumer demands, technological advancements, environmental concerns, and regulatory requirements. Today, innovation in the Canadian packaging industry is increasingly focused on sustainability, circular economy principles, and reducing environmental impacts while maintaining product protection and functionality.



Figure 1. Automated packaging systems illustrate the continuing evolution of packaging production and distribution.

Packaging In Canada: Past, Present & Future

Past

“Study the past if you would define the future.”

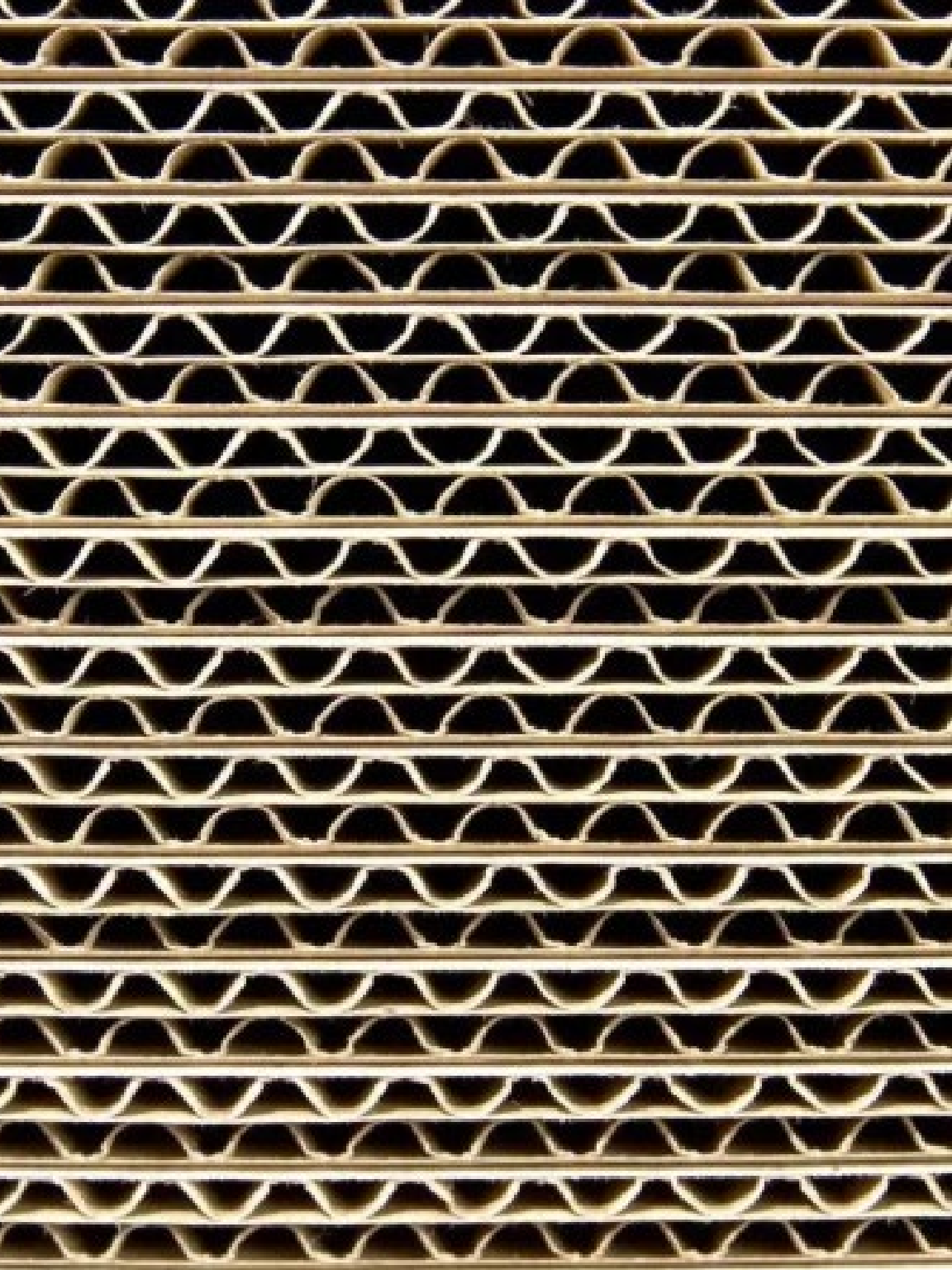
- Confucius

Corrugated Packaging

Corrugated packaging has long been one of the most widely used packaging materials in Canada for its ability to provide effective protection for products during transportation and storage. The material's lightweight structure, combined with exceptional strength and cushioning properties, allows manufacturers to protect goods while maintaining relatively low packaging costs (Fitas et al., 2023).

Corrugated packaging is primarily produced from cellulose fibres derived from renewable forest resources, contributing to its strong sustainability profile in many applications. Established recovery and recycling systems in Canada further enhance its environmental performance. In addition, the highly competitive corrugated packaging market has encouraged continuous innovation in manufacturing processes, structural design, printing technologies, and material efficiency to meet evolving customer and sustainability requirements (Fitas et al., 2023).

Today, corrugated innovation increasingly focuses on lightweighting, recycled fibre optimization, barrier coatings, and improved print technologies.



Paperboard Packaging

Paperboard has long been an important packaging material for food and consumer products because it combines low weight, stiffness, printability, and the ability to be cut, creased, and folded into a wide range of package formats. Folding cartons, trays, sleeves, and boxes are common applications, particularly for bakery products such as cakes, pastries, cookies, and confectionery.

Paperboard is primarily produced from cellulose fibres and may contain virgin or recycled content depending on the application. Its main limitation is relatively poor resistance to moisture, oils, grease, and gases, which has traditionally required coatings, laminations, or inner packaging to improve performance. Recent innovation has focused on developing water-based and bio-based barrier coatings that enhance functionality while maintaining recyclability and fibre-recovery potential. (Adibi et al., 2023; Naitzel et al., 2023)



Figure 2. Paperboard packaging, commonly used for food and bakery products.

Glass Packaging

Glass has been used for packaging applications for centuries and remains a well-established material for food and beverage storage. Its popularity is largely attributed to its excellent barrier properties, including impermeability to gases and moisture, and its chemical inertness, which minimizes interactions between the package and its contents. These characteristics make glass particularly suitable for products requiring long-term storage and preservation (Pagnotta, 2026).

Recent innovations in glass packaging have focused on lightweighting, improving manufacturing efficiency, and reducing transportation-related carbon emissions. Glass also supports circular economy objectives because it can be recycled repeatedly without significant loss of quality, making closed-loop recycling systems highly desirable for manufacturers and regulators alike (Pagnotta, 2026). Trade-offs include a relatively high weight compared with many alternative packaging materials, which can increase transportation and logistics impacts; the significant energy required for glass production and recycling; and its susceptibility to breakage.



Figure 3. Automated filling of glass bottles. Source: Created using generative AI software.

Metal Packaging

Metal packaging, particularly aluminum and steel, has historically played an important role in food preservation and product protection. Metals can provide ample barrier protection against oxygen, moisture, and light while offering exceptional mechanical strength and thermal stability. These properties have made aluminum and steel essential materials for shelf-stable foods, beverages, and other packaging applications requiring long-term product protection (Pagnotta, 2026).

Despite these performance advantages, metal production is associated with significant environmental impacts, particularly greenhouse gas emissions generated during extraction and manufacturing processes (Lian et al., 2025). As a result, innovation within the metal packaging sector has increasingly focused on reducing manufacturing emissions, improving energy efficiency, and increasing recycled content (Pagnotta, 2026).

Current innovation areas include surface engineering, alloy optimization, lightweighting initiatives, and multilayer package structures. While both aluminum and steel are highly recyclable materials capable of supporting closed-loop recycling systems, coatings, laminates, and internal linings can complicate recycling processes and present additional environmental considerations for future packaging design (Pagnotta, 2026).



Figure 4. Metal containers are a durable and highly recyclable packaging format.

The Rise of Plastic Packaging

The growing adoption of plastic packaging during the second half of the twentieth century transformed the packaging industry by providing manufacturers with a versatile, durable, and cost-effective material. Plastics offer a wide range of performance characteristics, including chemical resistance, impact resistance, flexibility, transparency, and lightweight construction. These properties have enabled packaging solutions that improve product protection, enhance convenience, and reduce transportation costs (Stanley et al., 2025).

However, growing concern about the environmental impacts of plastic waste has become a major driver of innovation. Concerns regarding landfill accumulation, marine pollution, and fossil-based resource consumption have encouraged the development of recyclable materials, recycled-content packaging, bio-based alternatives, and more effective collection systems (Stanley et al., 2025). Despite these challenges, plastics remain an integral component of modern packaging systems due to their functionality and affordability.

Ontario has become an important part of the shift in plastics manufacturing. The growth of packaging converters throughout Ontario further contributed to the expansion of plastic packaging manufacturing and innovation within Canada's packaging sector (Stanley et al., 2025).



Figure 5. Plastic beverage bottle, a lightweight packaging format that can incorporate recycled content and support material recovery.

Present

*“Do the best you can until you know better. Then when
you know better, do better”*

- Maya Angelou

Extended Producer Responsibility (EPR)

One of the most significant developments in Canada's packaging industry is the adoption of Extended Producer Responsibility (EPR) programs. These policies transfer responsibility for the environmental management of packaging materials from municipalities to designated producers or brand owners; however, EPR requirements vary by province and territory. For specific guidance and program details, visit Circular Materials:

<https://www.circularmaterials.ca>

These programs apply across a wide range of packaging materials, including corrugated, paperboard, plastics, metals, and glass.

Under EPR frameworks, organizations must track the quantities of packaging introduced into the marketplace and demonstrate progress toward government-established recycling and recovery targets. This approach encourages manufacturers to improve packaging design by reducing material use, simplifying construction, increasing recyclability, and supporting circular economy objectives.

As a result, EPR should continue to drive packaging innovation and sustainability across Canada.

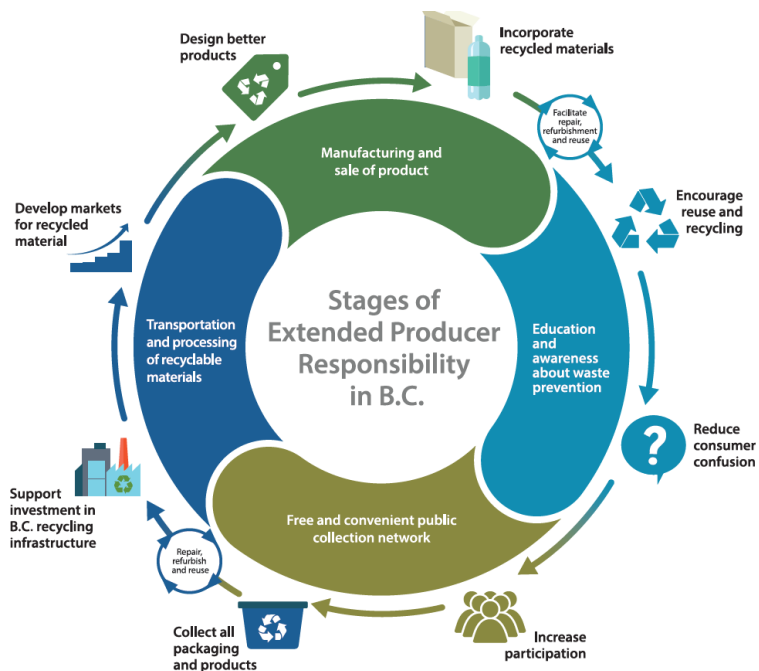


Figure 6. EPR flow example in British Columbia. Source: <https://www2.gov.bc.ca/gov/content/environment/waste-management/recycling/recycling-system-regulations>

Post-Consumer Recycled (PCR) Content Trends

Post-consumer recycled (PCR) content refers to material that has been used by consumers, collected through recycling systems, reprocessed, and incorporated into new packaging products.

Increasing regulatory and corporate sustainability commitments have driven demand for higher PCR content across many packaging applications. PCR requirements encourage greater participation in recycling systems while helping reduce dependence on virgin raw materials.

Governments are considering or establishing recycled-content policies and requirements across jurisdictions to stimulate demand for recycled materials and support the development of circular material flows. The incorporation of PCR content has therefore become a major focus area for packaging manufacturers seeking to meet sustainability goals and regulatory expectations.



Figure 7. Processed post-consumer plastic prepared for use as recycled feedstock.

Recyclability and Golden Design Rules

Packaging recyclability has emerged as a key design consideration throughout the industry. Organizations increasingly rely on the Golden Design Rules (GDR) for Plastic Packaging to guide the development of packaging systems that are efficient, recyclable, and economically viable.

The GDRs were first developed by The Consumer Goods Forum (CGF) Plastic Waste Coalition Action in support of the Ellen MacArthur Foundation's New Plastics Economy Global Commitment. In Canada, implementation has been led by the Canada Plastics Pact (CPP).

The GDR framework encourages packaging designers to:

- Eliminate unnecessary complexity
- Prioritize mono-material structures
- Improve compatibility with recycling infrastructure
- Simplify packaging construction

By discouraging problematic multilayer packaging formats and promoting compatibility with recycling systems, the Golden Design Rules support higher recovery rates and help advance circular economy objectives throughout the packaging value chain.



Figure 8. The golden design rules, courtesy of Canada Plastics Pact.

Food Waste Reduction

Packaging plays a vital role in reducing food waste by preserving product quality, extending shelf-life, and preventing contamination during transportation and storage.

As governments and organizations increasingly recognize the environmental impacts of food loss and waste, packaging innovations are focusing on:

- Improved barrier properties
- Freshness preservation
- Product monitoring technologies

These advancements contribute to sustainability goals by reducing resource consumption across the food supply chain and minimizing waste. The relationship between packaging innovation and food-waste reduction is explored further in Part Two.



Figure 9. Discarded produce and packaging highlight the challenge of food waste across the supply chain.

Future

“We are called to be architects of the future, not its victims.”

- R. Buckminster Fuller

Active Packaging

Active packaging technologies are designed to interact with packaged products or their surrounding headspace/environment to extend shelf-life and maintain product quality. Commercialization of these technologies depends on food-contact safety, cost, and demonstrated shelf-life benefit.

Examples include:

- Antimicrobial packaging
- Oxygen scavengers
- Antioxidant compounds incorporated into packaging materials
- Moisture management technologies

As food safety and food waste reduction become increasingly important, active packaging is expected to play a growing role in future packaging systems (Yildirim et al., 2018).



Figure 10. Active packaging examples. Source: https://ebrary.net/205797/environment/active_packaging_technology

Intelligent Packaging

Unlike active packaging, which changes the package environment, intelligent packaging systems primarily monitor, record, and communicate information about product condition throughout the supply chain.

These technologies include:

- Freshness indicators
- Gas sensors
- RFID systems
- Time-temperature indicators
- Real-time monitoring devices

Intelligent packaging enhances food safety, improves traceability, and supports supply chain optimization through continuous monitoring of packaged products (Mkhari et al., 2025).

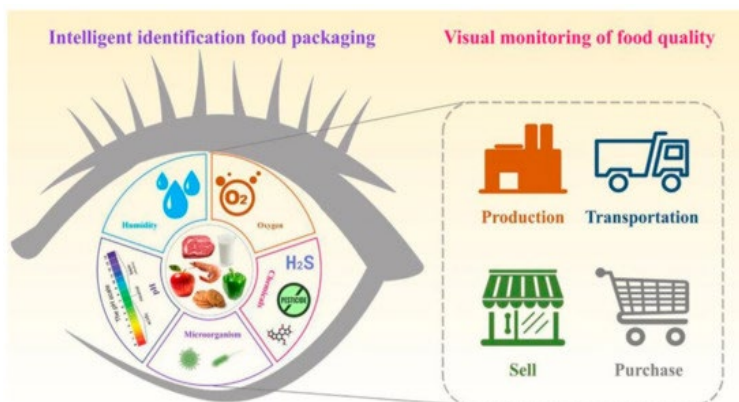


Figure 11. Visualization of intelligent packaging. Source: <https://doi.org/10.3390/membranes1205047>

Smart Labels

Smart labels are one practical form of intelligent packaging. They integrate technologies such as:

- Near-field communication (NFC)
- Radio-frequency identification (RFID)
- Printed electronics
- Embedded sensors

Applications include product authentication, freshness monitoring, inventory management, and real-time supply chain tracking. As digitalization continues to transform the packaging industry, smart labels are expected to improve transparency, traceability, and consumer engagement throughout food and consumer goods markets (Yepuri et al., 2026).

*Figure 12. The next page provides a visualization of passive RFID chips.
Source: Created using generative AI software.*

RFID Tag Close-Up



Thin, flexible RFID tag (typically includes an antenna and microchip)

Tag Placement Detail



Integrated between layers of the packaging material

Inside View (Cutaway)



RFID tag
(embedded in packaging)



Finished Product Package
(with RFID tag integrated)

How it Works

The RFID tag is embedded in the packaging during the manufacturing process, making it secure, durable and discreet while enabling tracking and identification.



Enables
product tracking



Improves
supply chain visibility



Supports
sustainability goals



Helps with
inventory management

Reusable Packaging Systems

Reusable packaging models are gaining attention as organizations seek to reduce packaging waste and comply with evolving EPR regulations. Their environmental benefit depends on return rates, transportation distances, washing requirements, and the number of successful reuse cycles.

These systems utilize durable packaging formats that can be:

- Collected
- Cleaned
- Redistributed
- Reused multiple times

Growing regulatory pressures and corporate sustainability objectives are expected to accelerate the adoption of reusable packaging systems over the coming decade (Heeremans et al., 2025).

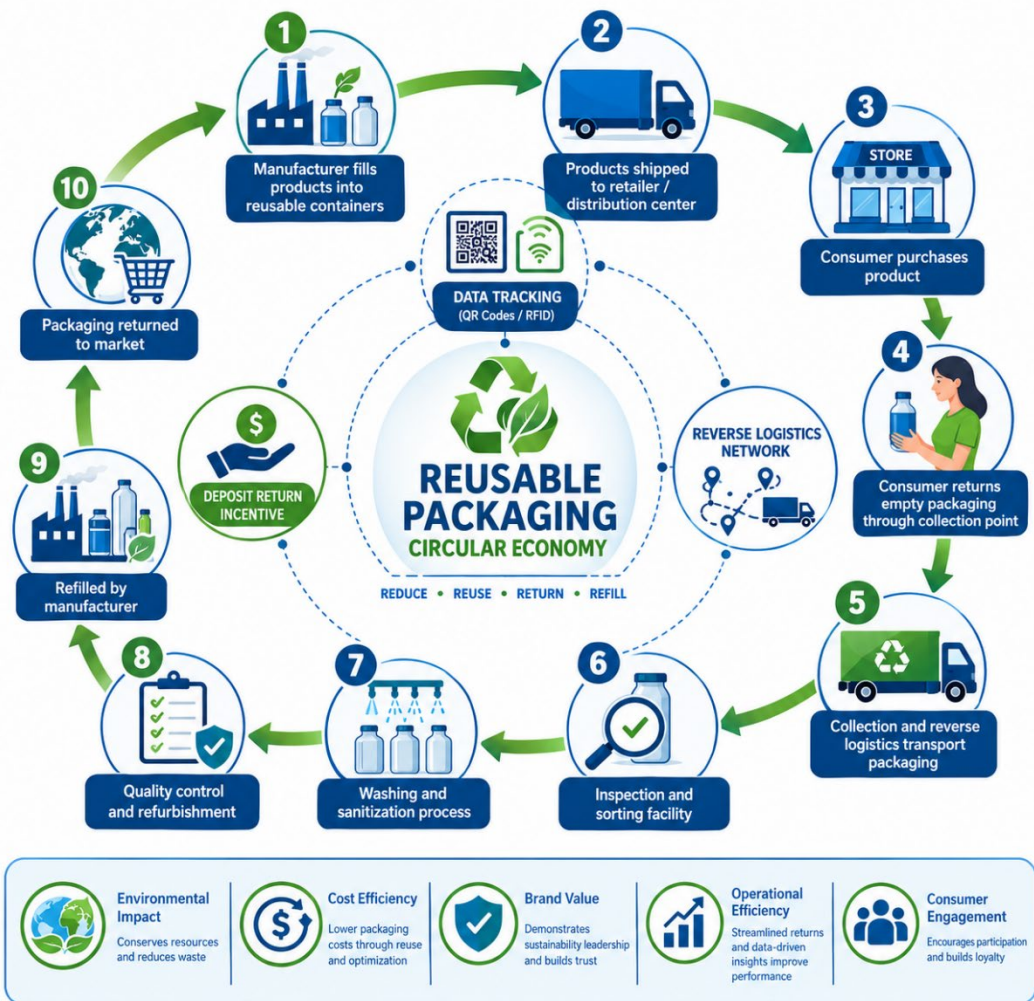


Figure 13. Reusable packaging diagram. Source: Created using generative AI software.

Digital Product Passports

Digital Product Passports (DPPs) represent an emerging tool for supporting circular economy initiatives. DPPs provide a digital identity for products and can document information such as material composition, sustainability characteristics, recyclability, and lifecycle information.

Through increased transparency and traceability, DPPs can support circular economy strategies by making reliable information about products and materials available to stakeholders throughout the value chain. This information can support material recovery, recycling, regulatory compliance, and more informed end-of-life decision-making (Chawla et al., 2026).



Figure 14. DPPs enable quick access to various information. Source: Created using generative AI software.

Part 2:

Packaging Innovation Driven by Sustainability Goals

Sustainability has emerged as one of the most significant forces influencing packaging innovation worldwide.

Historically, packaging development focused primarily on product protection, transportation efficiency, and cost reduction. While these factors remain important, modern packaging innovation is increasingly driven by the need to reduce environmental impacts, improve resource efficiency, and support circular economy objectives. However, a sustainable package that fails to protect the product is not a successful packaging solution.

Food manufacturers, retailers, consumers, regulators, and investors are all placing greater emphasis on environmental performance, creating strong incentives for organizations to develop packaging solutions that minimize waste and resource consumption while maintaining product safety and functionality.

Why Sustainability Is Driving Packaging Innovation

Regulatory Environment. One of the primary drivers of sustainable packaging innovation is the changing regulatory environment. Federal, provincial, territorial, and municipal governments have all introduced policies and environmental targets aimed at reducing waste generation, improving material recovery, and lowering greenhouse gas emissions. In Canada, broader environmental legislation, such as the *Impact Assessment Act*, reflects the federal government's commitment to preventing and mitigating significant adverse environmental effects associated with industrial activities. Although not specific to packaging, this wider policy setting reinforces the need for manufacturers to consider environmental impacts throughout a product's lifecycle, from raw material production and manufacturing to disposal and resource recovery (Impact Assessment Act, 2019).

Corporate Sustainability Commitments. These goals have also become an important catalyst for packaging innovation. Many food and consumer packaged goods companies have established objectives related to packaging recyclability, recycled content, carbon reduction, and waste elimination. These commitments are often connected to broader Environmental, Social, and Governance (ESG) strategies and reporting. As a result, packaging suppliers are increasingly challenged to develop materials and package designs that help brand owners meet environmental objectives while maintaining product protection, functionality, and cost effectiveness.

Consumer Expectations. Consumers influence packaging development as well. Sustainability has become an increasingly visible consideration in how consumers evaluate products and packaging, particularly in areas such as recyclability, reusability, compostability, and recycled content. While factors such as price, convenience, and product performance remain important, growing awareness of packaging waste continues to encourage organizations to investigate alternative materials and more resource-efficient packaging.

Retailer Requirements. Retailers can significantly influence packaging innovation through suppliers' requirements and sustainability initiatives. Packaging scorecards, material reduction objectives, recyclability guidelines, and other supplier expectations can encourage manufacturers to optimize package designs, reduce unnecessary material use, and improve compatibility with recovery systems. Packaging suppliers capable of meeting these requirements may also strengthen their position within increasingly sustainability-focused retail supply chains

Environmental Compliance. Environmental compliance requirements provide an additional incentive for innovation. Depending on their operations and jurisdiction, organizations may be required to manage waste and emissions, meet reporting obligations, obtain permits, and handle other environmental responsibilities. Packaging innovations that reduce material consumption, simplify material structures, or

improve recovery can help organizations reduce environmental impacts while responding to evolving compliance expectations and business risks.

Waste and Carbon Reduction. Finally, waste reduction and carbon-reduction targets continue to influence packaging decisions. Lightweighting, increased recycled content, improved transportation efficiency, reduced material consumption, and packaging that extends product shelf-life can all contribute to broader sustainability objectives. Consequently, environmental considerations are increasingly being incorporated alongside traditional packaging requirements such as product protection, manufacturability, cost, and supply chain performance.



DRIVING A SUSTAINABLE FUTURE TOGETHER

The Forces Shaping Packaging Innovation in Canada



Figure 15. Sustainability drivers influencing packaging innovation in Canada. Source: Created using generative AI software.

Canadian Sustainability Initiatives Relevant to Packaging

Key Canadian Focus Areas

Canada has adopted several national sustainability initiatives that directly influence packaging design, manufacturing, recovery, and recycling systems. These initiatives are intended to support a transition toward a circular economy while reducing environmental impacts associated with packaging waste.

Reduction of Plastic Waste

A major focus of Canadian environmental policy is reducing plastic waste and plastic pollution. In November 2018, federal, provincial, and territorial governments adopted the *Canada-wide Strategy on Zero Plastic Waste*:

<https://www.canada.ca/en/environment-climate-change/services/environmental-funding/programs/zero-plastic-waste-initiative.html>

The strategy takes a lifecycle and circular economy approach to plastics management and establishes a framework for preventing waste generation, increasing material recovery, and reducing environmental leakage of plastic materials. The strategy recognizes that plastics provide substantial economic and societal benefits but require improved management practices to prevent pollution and maximize resource recovery (Environment and Climate Change Canada, 2025).

The strategy encourages innovation in packaging materials, package design, recycling infrastructure, and collection systems. As businesses seek to align with the objectives of the Zero Plastic Waste Strategy, numerous opportunities arise for developing recyclable packaging, recycled-content materials, and alternative packaging solutions.



Figure 16. Turning plastic waste into valuable packaging resources through circular economy principles. Source: Created using generative AI software.

Increased Packaging Recyclability

Canadian governments increasingly support policies that improve packaging recyclability and recovery rates. Recyclability has become a key performance metric for packaging systems because materials that can be successfully recovered and reprocessed contribute to circular economy objectives. As a result, packaging designers are increasingly selecting materials and structures that are compatible with existing recycling infrastructure.

These efforts have encouraged the adoption of packaging designs that are more compatible with existing collection and recycling systems, including mono-material structures, simplified package formats, removable components, and material-identification technologies that improve sorting efficiency at material recovery facilities.



Figure 17. Source: <https://how2recycle.info/about-the-how2recycle-label/>

Use of Recycled Content

As introduced in Part 1, the use of PCR material has become an important consideration in packaging design. Governments, brand owners, and industry organizations are increasingly encouraging the use of recycled content to reduce reliance on virgin resources and create stronger markets for recovered materials.

Increased demand for recycled feedstocks can improve the economic viability of recycling systems by helping recovered materials retain value within the supply chain. In many applications, using recycled content may also reduce greenhouse gas emissions and resource consumption compared with producing equivalent materials entirely from virgin feedstocks. As a result, recycled content is becoming an increasingly important component of both circular economy strategies and broader packaging sustainability initiatives.



Extended Producer Responsibility (EPR)

As introduced in Part 1, Extended Producer Responsibility (EPR) programs shift greater financial and operational responsibility for packaging waste from municipalities to designated producers. Although specific requirements vary by province and jurisdiction, EPR programs generally require producers to account for the packaging they place on the market and contribute to its collection, recycling, and recovery.

For businesses, EPR can directly influence packaging decisions. Material type, package weight, recyclability, and overall package design may affect reporting obligations and the costs associated with managing packaging at the end of life. This creates an incentive to reduce unnecessary material use, simplify package structures, improve compatibility with existing recycling systems, and consider end-of-life performance earlier in the packaging development process.

As EPR programs continue to expand and mature across Canada, they are becoming an increasingly important economic and regulatory driver of sustainable packaging innovation.

Figure 18. The next page illustrates Canada's packaging sustainability ecosystem. Source: Created using generative AI software.

CANADA'S PACKAGING SUSTAINABILITY ECOSYSTEM

PEOPLE • INNOVATION • CIRCULAR ECONOMY



Working together across the value chain to create a more sustainable packaging future for Canada.

PACKAGING MATERIALS



Corrugated Board



Plastic Packaging



Metal Containers



Glass Bottles



Paper Packaging



ENABLING SUPPORTS



Government & Regulators
Set standards and enable progress



Industry Collaboration
Share knowledge and scale solutions



Innovation & Design
Develop better materials and smarter systems



Education & Awareness
Build understanding and drive change

THE RESULT



Lower Environmental Impact
Conserve resources and reduce waste



More Circular Systems
Keep materials in use for longer



Stronger Communities and Economies
Create local jobs and opportunities



A Cleaner, Healthier Planet
A more sustainable future for generations to come

Federal Plastics Registry

The Federal Plastics Registry (FPR) further enhances accountability and transparency throughout the plastics value chain. The registry collects information from organizations involved in plastic manufacturing, use, management, and recovery. By tracking plastics from production through end-of-life management, policymakers gain valuable data that supports evidence-based decision-making and future regulatory development (Environment and Climate Change Canada, n.d.).

The availability of improved lifecycle data is expected to encourage organizations to identify inefficiencies and develop packaging systems with improved environmental performance. For businesses, the practical implication is an increased need for accurate data on packaging materials and quantities.

Packaging's Role in Food Waste Reduction

Food waste reduction has become an increasingly important sustainability objective across the food supply chain. Significant environmental impacts are associated with food that is produced, processed, transported, and ultimately discarded before it is consumed.

Packaging innovation can help reduce these losses by extending shelf-life, preserving freshness and product quality, improving protection during distribution, and providing information about product condition. Technologies such as improved barrier materials, active packaging, resealable formats, and freshness or temperature indicators can therefore contribute to both food waste reduction and improved product performance.

In many food applications, the environmental benefit of preventing product loss can outweigh the environmental impacts associated with the packaging itself. For this reason, reducing packaging material should not be considered in isolation from its ability to protect the product. Effective packaging design requires balancing material use with shelf-life, product protection, food safety, and overall environmental performance.

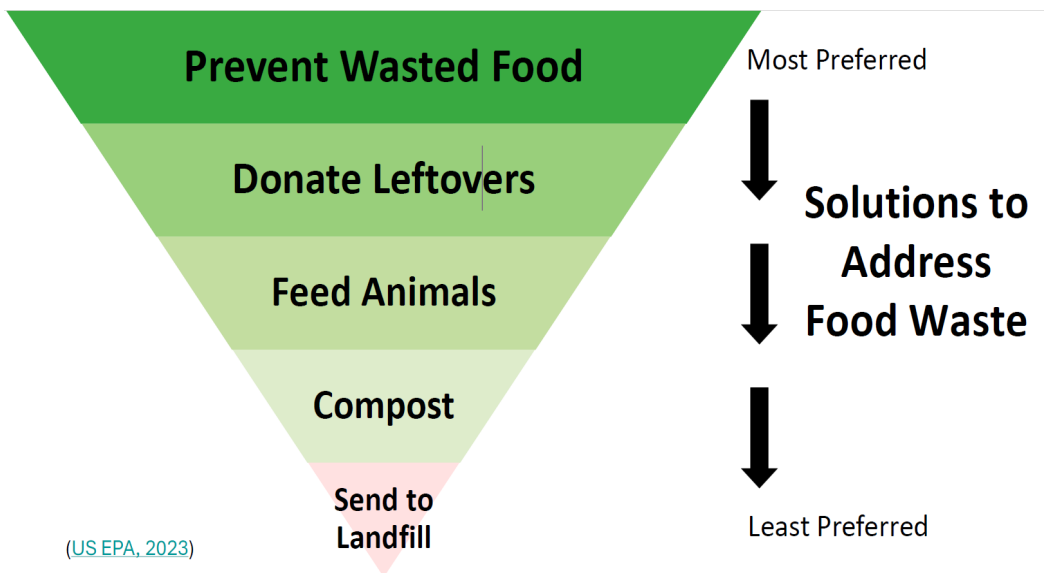


Figure 19. The food waste reduction hierarchy.

Support for Circular Economy Initiatives

Canada's sustainability agenda increasingly incorporates circular economy principles. Rather than following a traditional linear model of resource extraction, production, consumption, and disposal, circular economy systems seek to keep materials in use for as long as possible through reuse, refill, recovery, recycling, and, where applicable, refurbishment or remanufacturing.

For the packaging industry, circular economy initiatives encourage the development of packaging systems that preserve material value, reduce resource consumption, and minimize waste.

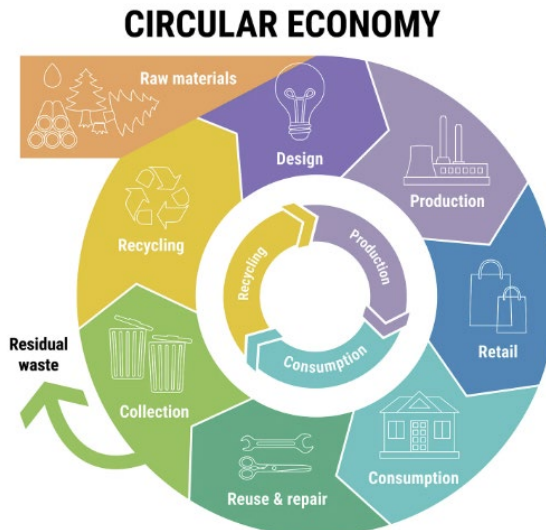


Figure 20. Circular economy infographic

For packaging developers, these priorities translate into opportunities, including:

- Recyclable packaging formats
- Reusable packaging systems
- Alternative fibre-based materials
- Bio-based packaging materials
- Lightweight package structures
- Active packaging technologies
- Intelligent packaging systems
- Packaging with higher recycled content
- Packaging that extends food shelf-life
- Digitally enabled traceability systems

Collectively, these innovations can improve environmental performance while maintaining packaging functionality and consumer convenience.

Sustainability Priorities & Innovation Opportunities

Circular Materials Economy

Aim

A circular materials economy intends to reduce waste by keeping materials in use and preserving their value through strategies such as reuse, repair, remanufacturing, refurbishment, and recycling.

Innovation Opportunities

- Design for recyclability in relevant collection systems
- Focus on mono-material packaging
- Increase use of post-consumer recycled materials
- Consider fibre-based alternatives to complex plastic structures
- Design closed-loop recycling systems
- Implement reusable and refillable packaging
- Improve sorting and recovery technologies
- Develop digital product passports



Figure 21. Circular economy model for bakery packaging in Canada.
Source: Created using generative AI software.

Energy Reduction Efforts

Aim

The objective of energy reduction initiatives is to improve energy efficiency across all stages of the packaging lifecycle, including material extraction, manufacturing, logistics, and waste management activities.

Innovation Opportunities

- Lightweight packaging designs
- Reduced material usage
- Manufacturing process optimization
- Increased use of lower-impact renewable materials where appropriate
- Improved transportation efficiency
- Lower-temperature sealing technologies
- Increased recycled-content usage

Food Waste Reduction

Aim

Food waste reduction strategies strive to minimize losses across the supply chain by improving preservation methods and developing longer-lasting food products.

Innovation Opportunities

- Develop active packaging technologies
- Implement antimicrobial packaging systems
- Integrate oxygen scavengers
- Optimize moisture management systems
- Introduce freshness indicators
- Deploy temperature monitoring technologies
- Enhance barrier material performance
- Design portion-controlled packaging formats
- Improve resealability features

Landfill Waste Reduction

Aim

Efforts to reduce landfill waste seek to minimize the volume of discarded packaging by promoting resource recovery and circular end-of-life management options.

Innovation Opportunities

- Develop recyclable packaging systems
- Adopt compostable materials where suitable collection and processing infrastructure exists
- Implement refillable packaging platforms
- Expand reusable transport packaging solutions
- Apply design-for-recycling principles
- Deploy advanced collection and sorting technologies
- Design mono-material packaging formats

Packaging Innovation Opportunities for Bakeries

Packaging innovation can provide bakeries with opportunities to improve product quality, reduce waste, strengthen sustainability performance, enhance the consumer experience, and increase shelf-life. Since bakery products can be sensitive to moisture, oxygen, handling, and changes in texture, packaging plays an important role in maintaining freshness while also supporting operational and marketing objectives.

Consumer Perspective

Packaging can significantly influence the consumer experience of bakery products. Effective package design can help preserve freshness, softness or crispness, aroma, and overall product quality while protecting baked goods from moisture, fat migration, contamination, and physical damage.

Features such as resealable closures, portion-controlled formats, easy opening, and improved product visibility can also increase convenience for consumers. Smart or intelligent packaging technologies may provide additional information related to freshness, traceability, or product condition. Sustainability may also be a purchasing consideration for some consumers, particularly when environmental improvements are achieved without compromising product quality, convenience, or functionality.

Bakery products present particularly diverse packaging requirements. Soft breads and cakes may require moisture retention and protection from microbial spoilage, while crackers, some cookies, and other crisp products generally require protection from moisture uptake. Products containing higher levels of fats may also benefit from oxygen and aroma barriers that help limit rancidity and flavour deterioration. Research on bread packaging has identified moisture migration, microbial spoilage, oxidation, texture changes, and loss of desirable aroma

among the factors that can influence shelf-life and consumer acceptance (Gigante et al., 2023)

Consumer research also suggests that sustainability should not be considered independently from the basic performance of the package and the product. In a study that included prototype packaging for biscuits, Oloyede and Lignou (2021) found that **“price and quality were the main driving forces for consumers' purchase intent.”** Participants also expected sustainable packaging to maintain freshness, product quality, durability, and functionality. These findings reinforce the importance of developing bakery packaging that provides environmental benefits without requiring consumers to accept reduced product quality or convenience.

Sustainability Benefits

Packaging innovation can help bakeries reduce environmental impacts through material reduction, improved recyclability, increased use of recyclable or renewable materials, and more efficient package designs. Selecting packaging that performs effectively with less material can also contribute to broader waste-reduction and circular-economy objectives.

Shelf-life extension can provide an additional sustainability benefit by reducing product spoilage and food waste. Material reduction and shelf-life extension can also reduce packaging and costs of lost product when validated under actual storage and distribution conditions. For bakeries, the most effective packaging solutions therefore balance environmental performance with product protection, food safety, operational requirements, and cost.

For bakery products, this balance is particularly important because reducing packaging material or changing to an alternative material can affect the moisture barrier, seal integrity, oxygen transmission, mechanical protection, and ultimately shelf-life. A lighter or more easily recyclable package may provide little overall environmental benefit if it results in greater product damage or food waste.

Recent reviews of packaging life-cycle assessments have found that shelf-life extension can play an important role in preventing food waste and that packaging sustainability assessments should account for both the direct impacts of the package and its effect on the food being protected (Hemachandra et al., 2024). Verghese et al. (2015) similarly concluded that packaging developers should consider **“the product and its packaging as a complete system”** when optimizing sustainability.

For bakeries, this means that packaging sustainability should be evaluated in the context of overall product performance. A lighter package or alternative material may reduce packaging impacts, but those benefits can be offset if product damage, staling, moisture gain, or spoilage increase. As a result, lightweighting, recyclable structures, renewable materials, and other sustainability improvements should ideally be evaluated alongside shelf-life, product-loss rates, line performance, and distribution requirements rather than as isolated packaging attributes (Verghese et al., 2015).

Brand Value and Market Position

Packaging is also an important part of how bakery products are presented to consumers and retailers. Sustainable packaging can support perceptions of transparency, innovation, and environmental responsibility while helping a brand communicate its values and differentiate its products within the marketplace.

Organizations that adopt well-designed packaging solutions may also strengthen relationships with retailers and customers who place greater emphasis on sustainability and waste reduction. When environmental improvements are combined with strong product protection, functionality, and visual appeal, packaging innovation can become a useful tool for supporting brand development and long-term market competitiveness.

For bakery products in particular, packaging often serves as both the primary protection system and one of the most visible elements of the brand. Structural design, graphics, windows, material choice, and communication of freshness or sustainability information can influence how consumers interpret the product before purchase. This can be particularly important for premium, artisanal, locally produced, or specialty bakery products, where packaging can help communicate product quality and distinguish the product from conventional alternatives.

Academic research suggests that packaging sustainability can also influence the broader perceptions of the product. Magnier et al. (2016) found that food products presented in packaging perceived as more sustainable were evaluated more positively for product quality, although the relationship also depended on how consumers perceived the product itself. This suggests that sustainability can contribute to brand positioning, but it is most effective when the package design, environmental message, and underlying product are consistent with one another (Magnier et al., 2016).

Clear communication is therefore important. Environmental claims should be specific, understandable, and supported by evidence rather than relying on broad terms such as “green”, “eco-friendly”, or “sustainable”. For bakery businesses, packaging provides an opportunity to communicate practical improvements – such as recycled content, reduced material use, recyclability, reuse, or food-waste reduction – while maintaining the visual appeal and product information consumers expect.

Packaging Considerations for Frozen Bakery Products

Many of the packaging considerations discussed previously in this guide remain applicable to frozen bakery products. Product protection, food safety, shelf-life, material and package compatibility, machinability, cost, sustainability, regulatory requirements, distribution efficiency, and consumer convenience must still be considered when selecting an appropriate packaging system. For frozen products, however, these factors must also be evaluated alongside the additional demands of low-temperature storage and temperature fluctuations in cold-chain distribution.

Frozen bakery is a diverse category that can include frozen dough, par-baked breads and rolls, fully baked breads, pastries, cakes, desserts, and other products intended to be thawed, baked, or reheated before consumption. Freezing can substantially extend storage life and provide operational advantages, but frozen storage can also affect yeast activity, gluten structure, starch behavior, and moisture distribution. Research on frozen dough has shown that ice formation, storage conditions, and freeze-thaw processes can contribute to structural and quality deterioration over time (Zhang et al., 2024). Maintaining appropriate and stable frozen storage conditions is therefore important to the quality of the finished bakery product.

Packaging remains an important part of this preservation system. Frozen-food packaging generally requires sufficient resistance to moisture and gas transmission, physical damage, and the effects of low-temperature handling. Inadequate moisture protection can lead to dehydration and freezer burn,

while oxygen exposure may cause oxidative deterioration in susceptible products (Das Adhikary et al., 2026). Research specifically examining frozen dough, part-baked, and fully baked bread also demonstrates that packaging barrier properties can influence oxidative stability during frozen storage, reinforcing the importance of matching packaging performance to the product's characteristics (Novotni et al., 2011).

Material and package performance should also be considered throughout the complete distribution cycle. Films, trays, seals, closures, labels, and adhesives must continue to function under the temperatures and handling conditions expected during storage and transportation. Temperature fluctuations are particularly important for frozen bakery products: research has demonstrated that greater fluctuations during frozen storage can accelerate quality losses in frozen dough and bread compared with well-controlled storage conditions (Phimolsiripol et al., 2008). Packaging should therefore be considered alongside freezing, storage, and distribution practices rather than as an isolated component of product preservation.

Requirements may also extend beyond frozen storage. Products thawed before retail display or consumption can experience changing temperature and humidity conditions, while frozen-to-bake or frozen-to-heat products introduce additional considerations related to package opening, portioning, handling, and preparation instructions. Secondary and transport packaging can also play an important role in protecting fragile products and

supporting the efficient use of frozen storage in transportation. As with other bakery packaging, the most appropriate solution should balance product protection and food waste prevention with material use, operational compatibility, cost, and realistic end-of-life options.



Figure 22. Example of a frozen bakery aisle. Source: Created using generative AI software.

Frozen Bakery - Innovation Opportunities

Improved moisture and oxygen barriers - development of films and package structures that provide the barrier required to limit dehydration, freezer burn, and oxidation while minimizing unnecessary material use (Das Adhikary et al., 2026).

Recycle-ready frozen-food structures – mono-material and simplified packaging systems capable of maintaining seal, barrier, and mechanical performance under frozen conditions.

Bio-based and alternative materials - development of renewable or compostable materials that maintain adequate flexibility, strength, and barrier performance at low temperatures. Recent research on frozen food packaging identifies biopolymer-based materials as an active area of development (Das Adhikary et al., 2026).

Improved freeze-thaw performance - packaging systems designed to maintain integrity through temperature changes, including resistance to condensation, seal failure, and changes in material properties during thawing.

Freezer-grade labels and adhesives - label systems that remain securely attached, legible, and functional through freezing, transportation, condensation, and thawing.

Cold chain monitoring and intelligent packaging – time-temperature indicators, sensors, and connected technologies that provide information about temperature exposure during storage and distribution. Continued research is advancing these technologies as tools for monitoring temperature-sensitive foods and identifying cold chain excursions (Yar et al., 2025).

Active packaging technologies - oxygen scavengers, moisture management systems, and other active technologies that may provide additional quality protection for appropriate frozen or post-thaw bakery products.

Frozen-to-bake and frozen-to-heat formats - package designs that support convenient portioning, handling, preparation, or movement directly from frozen storage into subsequent heating or baking processes.

Optimize secondary and transport packaging - right-sized cases, improved pallet utilization, and protective packaging that can reduce product damage while improving the efficiency of frozen warehousing and distribution.

Barriers Impacting the Adoption of Sustainable Packaging

Although demand for sustainable packaging continues to increase, organizations face several significant barriers that slow adoption. These challenges are often financial, technical, regulatory, and operational in nature. McKinsey & Company, a multinational strategy and management consulting firm, identified six major barriers that continue to influence purchasing decisions across the packaging value chain (McKinsey & Company, 2025).

In practice, packaging decisions therefore involve trade-offs rather than a single universally sustainable solution.

First Barrier: Affordability

Affordability remains one of the most significant obstacles to the adoption of sustainable packaging. Alternative materials and packaging formats can have higher production or procurement costs than conventional options, which may require organizations to absorb additional expenses or pass them on to consumers through higher product prices. This can raise concerns about competitiveness, particularly for smaller businesses operating on tight margins (McKinsey & Company, 2025).

However, material price alone does not determine the true cost of a packaging change. Equipment modifications, production-line efficiency, transportation requirements, product loss, minimum order quantities, and EPR fees can all influence the total system cost of a new packaging solution. As a result, sustainable packaging alternatives are most effectively evaluated on their overall operational and lifecycle costs rather than on unit price alone.

Second Barrier: Performance

Another challenge is performance. Sustainable materials must meet the same functional requirements as traditional packaging, including strength, durability, machinability, seal integrity, barrier protection, and shelf-life preservation. However,

many newer materials have not yet achieved equivalent performance levels in all applications, and some organizations have reported higher failure rates when transitioning to alternative packaging solutions. This creates reluctance among manufacturers who cannot afford product damage, contamination, or reduced customer satisfaction (McKinsey & Company, 2025).

Third Barrier: Defining Sustainability

There is also a lack of agreement regarding the definition of sustainability. While most stakeholders agree that sustainability is important, there is less consensus about what should be prioritized. Some organizations focus on reducing packaging materials/chemicals leaching into the environment, while others emphasize improving circularity through recycling and reuse systems. Others prioritize reducing carbon emissions, and many attempt to balance all these objectives simultaneously. These differing priorities make it difficult to establish universal standards and make direct comparisons between packaging solutions (McKinsey & Company, 2025).

For this reason, packaging alternatives should be compared against clearly defined priorities and measurable performance indicators rather than a generic “sustainable” label.

Fourth Barrier: Regulatory Complexity

Regulatory complexity presents another barrier. Packaging regulations are often established and enforced at multiple levels of government, including federal, provincial, territorial, and municipal authorities. Organizations operating across different jurisdictions must navigate varying requirements related to recyclability, labeling, reporting, recycled content, and environmental performance. Meeting all applicable regulations can be resource-intensive and may increase compliance costs and administrative burdens (McKinsey & Company, 2025).

Fifth Barrier: Supply Chain Reliability

Organizations also face risks associated with limited or unreliable supply chains. Minimum order quantities, lead times, and geographic availability are often barriers to using sustainable materials, as they are not always available in the volumes, quality, or consistency required for large-scale production.

Manufacturers and brand owners depend on reliable supply networks and are often hesitant to adopt packaging solutions that could introduce sourcing uncertainties or production disruptions. As a result, supply chain reliability often becomes a deciding factor when selecting packaging materials (McKinsey & Company, 2025).

Sixth Barrier: Knowledge Gaps

Finally, there is often incomplete knowledge of existing and emerging solutions. Packaging technologies continue to evolve rapidly, with advances in bio-based materials, reusable systems, intelligent packaging, digital product passports, and smart labeling. Keeping pace with these developments requires substantial investment in research, monitoring, and testing. Consequently, many organizations prefer to continue using familiar materials and technologies rather than assume the risks associated with adopting newer, less proven alternatives. This tendency can slow innovation despite the availability of potentially beneficial sustainable solutions (McKinsey & Company, 2025). Access to applied research, material testing, pilot-scale trials, and knowledgeable suppliers can help to reduce this adoption risk.

From Challenges... to Opportunities

Sustainable packaging presents significant opportunities to reduce material use, improve resource recovery, lower environmental impacts, and reduce food waste. However, the transition to more sustainable packaging is rarely straightforward. Cost, performance, competing sustainability priorities, regulatory requirements, supply chain reliability, and knowledge gaps can influence whether an alternative packaging solution is technically and commercially viable. Research similarly identifies uncertainty surrounding costs and benefits, and complex trade-offs among packaging requirements as important barriers to sustainable packaging adoption (Afif, 2022).

Successful packaging innovation, therefore, requires a **systems-based approach** rather than focusing on a single material or environmental attribute. Packaging must continue to protect the product, perform efficiently during manufacturing and distribution, meet regulatory and food safety requirements, satisfy consumer needs, and function within realistic recovery systems. Environmental improvement should consequently be evaluated alongside economic and functional performance. Jagoda et al. (2023) emphasize that sustainable food-packaging design requires balancing environmental impacts and economic costs with functional requirements and consumer expectations. This reinforces the importance of evaluating packaging alternatives across their lifecycle rather than assuming that one material or format is inherently the most sustainable choice.

For food manufacturers, moving from sustainability goals to practical implementation may require collaboration across the packaging value chain. Material suppliers, converters, equipment manufacturers, packaging designers, technology developers, research organizations, and other technical specialists can provide expertise needed to assess materials, conduct trials, validate shelf-life and packaging performance, and determine whether new solutions can be successfully scaled up. An integrated approach involving both upstream and downstream supply chain partners has also been identified as an important contributor to successful, sustainable packaging implementation (Afif, 2022).

The following **Canadian Packaging Innovators & Industry Resources** section highlights companies and organizations active across these areas. The directory is intended to provide businesses with a starting point for identifying potential technologies, suppliers, development partners, and expertise that may support the investigation, testing, and commercialization of new packaging solutions.

Part 3:

Canadian Packaging Innovators & Industry Resources

Canada's packaging ecosystem includes manufacturers, material developers, equipment suppliers, technology companies, distributors, and other organizations supporting the development and commercialization of packaging solutions. This index brings together a curated selection of Canadian organizations and industry resources that may be useful to food and bakery businesses exploring packaging materials, technologies, equipment, and emerging alternatives.

Not every organization included is presented specifically as an innovator. Some have been selected because they offer established manufacturing capabilities, specialized technical expertise, accessible supply options, or services that can help businesses implement packaging solutions in practice. Others represent emerging technologies or new approaches to materials, sustainability, automation, and package performance. The index is intended as a starting point rather than an exhaustive directory.

About the Company Information

Company profiles in this section were developed using publicly available information, primarily from company websites and other published sources available at the time of preparation. Organizations were selected based on their relevance to packaging materials, packaging technologies, manufacturing capabilities, sustainability initiatives, innovation activities, or industry support services. Neither Conestoga College nor Dawn Foods received any financial compensation from any organization included in this resource.

Descriptions of products, technologies, certifications, environmental attributes, and performance reflect information reported by the respective organizations and should not be interpreted as independent validation, endorsement, or verification of those claims. Readers are encouraged to confirm current capabilities, certifications, regulatory compliance, product suitability, environmental claims, and technical performance directly with the organization before making any packaging decisions.

Packaging

Machinery

&

Automation

This section highlights Canadian companies supplying machinery, automation, and production-line technologies for food and packaging operations. Capabilities range from individual sealing, wrapping, and inspection systems to integrated robotic handling, case packing, and palletizing solutions.

AFA Systems

<https://www.afasystemsinc.com/>

Location: Brampton, Ontario

What They Do

Manufacture secondary packaging machinery and offer product services.

Why They Matter

Expertise in packaging automation and have state-of-the-art facilities to provide customers with innovative solutions.

Key Innovations & Capabilities

Design, build, and manufacture automation systems for packaging, including cartons, case packers, tray and carton formers, tray packers, palletizers, case erectors and sealers, feeders & denestors, and product accumulators.

Bakery Applications

Companies looking to commercialize and/or scale up their production can turn to AFA Systems for automation, expertise, and services to potentially boost their manufacturing capabilities.

Fortress Technology Inc.

<https://fortresstechnology.com/>

Location: Toronto, Ontario

What They Do

Design and manufacture product-inspection systems, including metal detectors, checkweighers, X-ray inspection equipment, and integrated combination systems.

Why They Matter

Provide Canadian-designed inspection technology that helps manufacturers improve food safety, quality control, and production-line verification.

Key Innovations & Capabilities

Capabilities include Icon X-ray inspection, proprietary detection algorithms, metal detection, checkweighing, automated rejection, and integrated product-inspection systems.

Bakery Applications

Relevant for breads, baked goods, snacks, and other packaged foods requiring contaminant detection, package-weight verification, quality control, and automated product rejection.

PLAN IT Packaging Systems

<https://www.planitpackaging.com/>

Location: Mississauga, Ontario

What They Do

Supply and integrate primary, secondary, and end-of-line packaging equipment, including flow wrapping, bagging, weighing, case packing, and palletizing.

Why They Matter

Offer scalable automation solutions that can accommodate smaller manufacturers as well as companies progressing toward more integrated production lines.

Key Innovations & Capabilities

Capabilities include HFFS/VFFS, premade pouch systems, multi-head weighing, inspection, robotic case packing, and compact automation equipment.

Bakery Applications

Equipment is available for breads, pastries, cookies, cakes, and other baked goods, with options ranging from introductory automation to complete packaging lines.

Plexpack

<https://www.plexpack.com/>

Location: Toronto, Ontario

What They Do

Design and manufacture Canadian-made bag-sealing, vacuum, gas-flush, automated bagging, and shrink-packaging equipment.

Why They Matter

Offer equipment ranging from tabletop and semi-automatic systems to fully automated, making them particularly accessible to smaller and growing manufacturers.

Key Innovations & Capabilities

Capabilities include continuous bag sealing, vacuum and gas-flush systems, automated bagging, shrink packaging, and integrated conveying.

Bakery Applications

Well-suited to breads, cookies, pastries, and other baked goods packaged in bags or pouches, including applications requiring improved sealing or modified atmospheres.

Propack Processing & Packaging Systems Inc.

<https://propack.ca/>

Location: Beamsville, Ontario

What They Do

Design and build high-speed packaging systems using robotics, machine vision, product handling, wrapping, and secondary packaging automation.

Why They Matter

Provide advanced Canadian automation expertise for manufacturers moving toward higher-volume production and fully integrated packaging lines.

Key Innovations & Capabilities

Specialize in robotic pick-and-place, vision-guided handling, product distribution, automated loading, and primary-to-secondary packaging integration.

Bakery Applications

Strongly suited to cookies, crackers, cakes, bars, and confectionery requiring automated handling, wrapping, cartoning, and case packing.

Starview Packaging Machinery Inc.

<https://starview.net/index.html>

Location: Dorval, Québec

What They Do

Design and manufacture manual, semi-automatic, and fully automated food tray sealing, thermoforming, skin packaging, and related packaging equipment.

Why They Matter

Offer Canadian-manufactured equipment for production levels ranging from startups and smaller processors to high-volume manufacturers.

Key Innovations & Capabilities

Capabilities include tray sealing, modified-atmosphere packaging (MAP), skin packaging, thermoforming, and customized automated systems.

Bakery Applications

Relevant to cakes, pastries, desserts, and other bakery products requiring tray-based packaging, improved presentation, or controlled-atmosphere shelf-life protection.

Flexible

Packaging

Manufacturers

&

Converters

This section highlights Canadian manufacturers and converters producing flexible packaging for food and consumer product applications. Capabilities include printed films, pouches, rollstock, and specialty structures designed to provide product protection, shelf-life performance, processing compatibility, and brand differentiation.

Chantler Packages

<https://chantlerpackages.com/>

Location: Mississauga, Ontario

What They Do

Manufacture and supply flexible food packaging with capabilities in converting, printing, and bag-making, and access to additional global manufacturing resources.

Why They Matter

Combine Canadian flexible packaging expertise with a broad food-packaging portfolio and additional sourcing capabilities for specialized or larger volume requirements.

Key Innovations & Capabilities

Capabilities include flexographic printing, slitting and converting, wicketed bags, pouches, rollstock, and customized flexible packaging formats.

Bakery Applications

Offer packaging for breads, buns, muffins, cookies, pastries, cakes, crackers, biscuits, and other bakery products.

Flair Flexible Packaging

<https://www.flairpackaging.com/>

Location: Calgary, Alberta

What They Do

Develop and manufacture flexible packaging, including rollstock, bags, pouches, lidding films, and custom barrier structures for food and non-food markets.

Why They Matter

Canadian-founded and headquartered, with both stock and custom programs that can support smaller businesses as well as larger food manufacturers.

Key Innovations & Capabilities

Capabilities include film extrusion, converting, laminating, flexographic and rotogravure printing, barrier structures, and recyclable flexible packaging formats.

Bakery Applications

Relevant to baked snacks, sweets, baking ingredients, grains, dry mixes, and other products requiring pouches, rollstock, barrier films, or resealable formats.

Layfield Flexible Films

<https://www.layfieldgroup.com/flexible-films/>

Location: Richmond, British Columbia

What They Do

Design and manufacture flexible films and packaging for food, medical, industrial, and other markets.

Why They Matter

Canadian-founded and headquartered, with vertically integrated manufacturing that brings film production, printing, lamination, and converting together in-house.

Key Innovations & Capabilities

Capabilities include blown film extrusion, high-resolution printing, solventless lamination, slitting, converting, barrier structures, and recycle-ready packaging formats.

Bakery Applications

Relevant to bakery products requiring customized barrier properties, printed pouches or rollstock, resealability, and shelf-life protection.

Omniplast Inc.

<https://omniplast.com/en/>

Location: Saint-Hubert, Québec

What They Do

Manufacture flexible packaging, including polyethylene film, rollstock, and custom printed bags for commercial, food, retail, and industrial applications.

Why They Matter

Quebec-based manufacturer with in-house capabilities, allowing customers to source custom flexible packaging from film production through printing and conversion.

Key Innovations & Capabilities

Capabilities include polyethylene film extrusion, flexographic printing, custom printed bags and rollstock, stand-up and block-bottom formats, and packaging development.

Bakery Applications

Relevant for bakeries and food manufacturers requiring printed or unprinted bags, rollstock, and other flexible formats for baked goods, ingredients, or secondary packaging.

Rootree

<https://rootree.ca/>

Location: Burlington, Ontario

What They Do

Manufacture digitally printed, flexible packaging while also providing creative services and co-packing support.

Why They Matter

Their low-minimum, concept-to-launch model is particularly useful for startups and smaller food businesses that require lower-volume production runs.

Key Innovations & Capabilities

Capabilities include digital flexible packaging, recyclable and compostable formats, solventless lamination, custom design, and co-packing.

Bakery Applications

Well-suited to cookies, snacks, granola, baking mixes, and other bakery products requiring short-run printed pouches, custom branding, or co-packing support.

Sinclair Packaging

<https://sinclairpackaging.com/>

Location: Cambridge, Ontario

What They Do

Produce digitally printed flexible packaging, including stand-up and lay-flat pouches and rollstock.

Why They Matter

Combine Canadian production with low minimum orders and fast turnaround to make custom flexible packaging particularly accessible to start-ups and smaller manufacturers.

Key Innovations & Capabilities

Capabilities include HP Indigo digital printing, short production runs, custom pouches and rollstock, and recyclable all-polyethylene packaging options.

Bakery Applications

Well-suited to cookies, snacks, granola, baking mixes, confectionery, and other bakery products requiring short-run printed pouches or rollstock.

Tempo Flexible Packaging

<https://tempoflexiblepackaging.com/>

Location: Innisfil, Ontario

What They Do

Manufacture custom flexible packaging in rollstock using vertically integrated capabilities in printing, converting, and package development.

Why They Matter

Combine more than 50 years of experience with Ontario manufacturing, food safety certification, and support for both established and growing food brands.

Key Innovations & Capabilities

Capabilities include high-quality printing, recyclable harmony pack structures, PCR-containing packaging, resealable features, and custom flexible packaging development.

Bakery Applications

Well-suited to cookies, snacks, granola, baking mixes, and other bakery products requiring short-run printed pouches, custom branding, or co-packing support.

Winpak Ltd.

<https://www.winpak.com/>

Location: Winnipeg, Manitoba (additional Canadian operations in Québec and Ontario)

What They Do

Manufacture flexible and rigid packaging, lidding materials, and packaging machinery, including rollstock, flow-wrap films, pouches, and specialty high-barrier packaging.

Why They Matter

Headquartered in Winnipeg, they combine large-scale North American manufacturing with advanced extrusion, printing, converting, and technical-development capabilities.

Key Innovations & Capabilities

Capabilities include multilayer barrier films, horizontal and vertical flow-wrap materials, pouches, flexographic and rotogravure printing, and recyclable paper-based EcoWrap®.

Bakery Applications

Relevant for breads, baked goods, snacks, confectionery, and dry ingredients requiring rollstock, flow-wrap, pouches, or barrier packaging.

Rigid

Plastic

Packaging

Manufacturers

This section highlights Canadian manufacturers producing rigid plastic packaging for food and other consumer applications. Capabilities include thermoforming, injection molding, and custom packaging development for trays, clamshells, containers, and other formats that require product protection and merchandising performance.

Amhil

<https://amhil.com/>

Location: Mississauga, Ontario

What They Do

Manufacture rigid food packaging, including PET containers, cups, lids, portion containers, and custom foodservice packaging.

Why They Matter

Part of Canadian, family-owned Wentworth Technologies, with substantial Canadian manufacturing and more than 50 years of food-packaging experience.

Key Innovations & Capabilities

Capabilities include thermoforming, custom packaging development, recycled-content PET, hinged containers, portion packaging, and high-volume food-packaging production.

Bakery Applications

Offer clear hinged containers specifically suited to bakery products, confectionery, snacks, and other foods where product visibility and protection are important.

BMP Packaging (Ice River Sustainable Solutions)

<https://bmppackaging.ca/>

Location: Feversham, Ontario

What They Do

Manufacture thermoformed containers, clamshells, and trays using recycled PET produced within the Ice River group.

Why They Matter

Canadian family-owned and vertically integrated, connecting PET recovery and recycling with sheet production and finished rigid packaging.

Key Innovations & Capabilities

Produce food-grade PET sheet and thermoformed packaging in-house, with products containing up to 100% recycled PET.

Bakery Applications

Can provide stock or custom rPET trays, containers, and clamshells for bakery products requiring clear, rigid product protection and presentation.

CP Formplast

<https://www.cpform.com/en/>

Location: Montréal, Québec

What They Do

Design and manufacture custom thermoformed packaging, including trays, clamshells, and other rigid formats for food and consumer products.

Why They Matter

Canadian, family-owned, and founded in Montréal, with design, prototyping, tooling, and thermal forming performed in its own manufacturing facility.

Key Innovations & Capabilities

Capabilities include in-house design and mold production, custom thermoforming, rPET packaging, prototyping, and both small and large-scale production.

Bakery Applications

Relevant to baked goods and confectionery requiring custom trays, clamshells, lids, or other clear thermoformed packaging.

Elmes Packaging

<https://www.elmespackaging.com/>

Location: Mississauga, Ontario

What They Do

Design and manufacture custom thin-gauge thermoformed packaging, including trays, clamshells, blisters, lids, and protective inserts.

Why They Matter

A Canadian, family-run manufacturer operating in Mississauga since 1975, with in-house engineering and custom thermoforming capabilities.

Key Innovations & Capabilities

Capabilities include package design, prototyping, tooling, thermoforming, and production using PET, rPET, PP, and other specialty materials.

Bakery Applications

Can develop custom food-grade trays, clamshells, and lids for baked goods requiring product protection, visibility, and tailored package dimensions.

Guycan Plastics Limited

<https://www.guycanplastics.com/>

Location: Mississauga, Ontario

What They Do

Design and manufacture stock and custom thermoformed rigid food packaging, including containers, trays, clamshells, and domes.

Why They Matter

Combine in-house design, tooling, prototyping, and thermoforming with a broad range of existing food-packaging formats.

Key Innovations & Capabilities

Capabilities include high-speed thermoforming, custom package development, in-house tooling, lightweighting, and the use of recycled-content PET materials.

Bakery Applications

Offer dedicated packaging formats for donuts, muffins, tarts, cookies, and other bakery products, along with custom thermoforming capabilities.

Omnia Packaging

<https://www.omniapackaging.ca/>

Location: Guelph, Ontario

What They Do

Manufacture rigid food packaging, including injection-moulded polypropylene containers and recyclable paper trays at their Guelph production facility.

Why They Matter

Combine Canadian manufacturing with the international packaging expertise of their Italian parent company, Gruppo Sunino, while introducing new rigid food-packaging technologies to the Canadian market.

Key Innovations & Capabilities

Capabilities include injection molding, in-mould labeling, lightweight mono-material PP containers, and glue-free, top-sealable Mustang paper trays.

Bakery Applications

Relevant to confectionery, desserts, baked goods, and other foods requiring rigid tubs, trays, or customized food contact packaging.

Corrugated

Packaging

Manufacturers

This section highlights Canadian manufacturers producing corrugated packaging for shipping, distribution, retail-ready, and display applications. Capabilities range from conventional shipping cases to structural design, protective inserts, high graphics printing, and specialized performance solutions.

Atlantic Packaging Products

<https://atlantic.ca/>

Location: Toronto, Ontario (multiple Canadian manufacturing facilities)

What They Do

Manufacture corrugated boxes, custom die-cut packaging, retail-ready packaging, displays, and other paper-based packaging solutions.

Why They Matter

Canadian-founded and privately-owned, with vertically integrated recycling, paper-manufacturing, corrugated-converting, design, testing, and logistics capabilities.

Key Innovations & Capabilities

Capabilities include recycled containerboard, structural design, high-quality printing, retail displays, and in-house ISTA-certified package-performance testing.

Bakery Applications

Relevant for bakery shipping cases, retail-ready packaging, corrugated trays, displays, and other secondary packaging requiring product protection during distribution.

BC Box Manufacturing Ltd.

<https://bcbox.ca/>

Location: Surrey, British Columbia

What They Do

Design and manufacture custom corrugated boxes, die-cut packaging, bulk containers, displays, and other corrugated formats.

Why They Matter

A Western Canadian, family-owned manufacturer with its own corrugator, supporting both customized projects and larger production requirements.

Key Innovations & Capabilities

Capabilities include in-house corrugating, structural design, custom die cutting, flexographic printing, specialty board combinations, and food and beverage packaging.

Bakery Applications

Relevant for bakery shipping cases, foodservice boxes, corrugated trays, printed secondary packaging, and custom distribution formats.

Kruger Packaging

<https://pack.kruger.com/>

Location: Brampton, Ontario, and LaSalle, Québec

What They Do

Design and manufacture custom corrugated packaging, including shipping cases, die-cut boxes, and high-quality printed packaging.

Why They Matter

Provide substantial Canadian corrugated manufacturing capacity along with design, logistics, and supply chain optimization expertise.

Key Innovations & Capabilities

Capabilities include advanced corrugating, flexographic printing, lithographic labeling and preprint, structural design, and packaging optimization.

Bakery Applications

Relevant for bakery shipping cases, distribution packaging, die cut formats, and printed corrugated packaging requiring strength and efficient palletization.

Moyy

<https://moyydesign.com/>

Location: Hamilton, Ontario

What They Do

Design and produce custom corrugated packaging, e-commerce formats, retail packaging, and displays with a strong emphasis on graphics and brand presentation.

Why They Matter

A division of Canadian-owned White Bird, Moyy combines corrugated design and manufacturing with digital printing capabilities, particularly well-suited to customized, shorter-run packaging.

Key Innovations & Capabilities

Capabilities include structural design, single-pass digital printing, custom corrugated manufacturing, high graphic packaging, and retail and e-commerce displays.

Bakery Applications

Relevant for seasonal packaging, branded shipping cases, retail-ready formats, displays, and shorter-run corrugated packaging for bakery products.

Planet Paper

<https://planetpaper.com/>

Location: Concord, Ontario

What They Do

Manufacture corrugated boxes, displays, inserts, protective packaging, retail-ready formats, and heavy-duty containers.

Why They Matter

Combine Ontario manufacturing with broad corrugated capabilities for projects ranging from short runs to high-volume supply-chain applications.

Key Innovations & Capabilities

Capabilities include structural design, prototyping, multiple flute profiles, inserts and dividers, retail-ready packaging, and project tracking from design through production.

Bakery Applications

Relevant for shipping cases, protective inserts and dividers, retail-ready packaging, e-commerce formats, and distribution packaging for bakery products.

Royal Containers

<https://royalcontainers.com/>

Location: Brampton and St. Thomas, Ontario

What They Do

Design and manufacture corrugated boxes, trays, displays, retail-ready packaging, and custom corrugated formats.

Why They Matter

Combine Canadian corrugated manufacturing with structural design, printing, recycled-board supply, and substantial production capacity in Southern Ontario.

Key Innovations & Capabilities

Capabilities include custom structural design, multiwall corrugated, high-impact printing, retail displays, and moisture-resistant coatings and adhesives for food and cold-storage applications.

Bakery Applications

Relevant for bakery shipping cases, trays, retail-ready packaging, displays, and distribution packaging requiring additional moisture or cold-storage performance.

Paperboard & Folding Carton Packaging Manufacturers

This section highlights Canadian manufacturers of folding cartons and other paperboard packaging used for food, retail, and consumer products. Capabilities include structural design, printing, specialty finishing, and production ranging from short-run and seasonal programs to high-volume commercial applications.

Advance Paper Box Ltd.

<https://advancepaperbox.ca/>

Location: Winnipeg, Manitoba

What They Do

Design and manufacture custom paperboard folding cartons with printing, die-cutting, windowing, forming, and gluing performed in-house.

Why They Matter

A long-established Canadian manufacturer with more than 50 years of folding-carton experience and roots in supplying cake boxes to local bakeries.

Key Innovations & Capabilities

Capabilities include structural design, sheet- and web-fed printing, paperboard sheeting, die-cutting, tray forming, window patching, and custom folding-carton production.

Bakery Applications

Particularly relevant for cake boxes, window cartons, trays, and other custom paperboard packaging for bakery and food products.

Allcard Packaging

<https://allcard.ca/>

Location: Cambridge and Concord, Ontario

What They Do

Design and manufacture custom folding cartons and paperboard packaging using digital and conventional print and finishing technologies.

Why They Matter

Combine scalable Canadian manufacturing with rapid prototyping and flexible production, supporting projects from small initial runs through higher-volume packaging programs.

Key Innovations & Capabilities

Capabilities include seven-colour digital printing, variable data and SKU printing, offset printing, structural design, prototyping, die-cutting, and high-speed folding and gluing.

Bakery Applications

Relevant for crackers, confectionery, baked goods, snacks, and other products requiring customized printed cartons, sleeves, or retail-ready paperboard packaging.

Astro Box Corporation

<https://astroboxcorp.com/>

Location: Concord, Ontario

What They Do

Design and manufacture custom folding cartons for bakery, foodservice, beverage, retail, and other consumer-product applications.

Why They Matter

A Canadian, family-owned manufacturer operating since 1982, with food-safe manufacturing and all major carton-production capabilities located in-house.

Key Innovations & Capabilities

Capabilities include structural and graphic design, six-colour lithographic printing, die-cutting, windowing, forming, gluing, and custom carton development.

Bakery Applications

Strongly suited to bakery, deli, and takeout packaging, including custom cartons and display formats for cakes, pastries, and other baked goods.

Great Little Box Company

<https://www.glbc.com/>

Location: Richmond, British Columbia

What They Do

Design and manufacture custom folding cartons, corrugated packaging, labels, displays, and other packaging solutions.

Why They Matter

A Canadian company founded in British Columbia in 1982, with substantial in-house packaging and design capabilities and a strong Western Canadian manufacturing presence.

Key Innovations & Capabilities

Capabilities include custom folding-carton structures, high-quality printing, specialty finishing, structural design, paperboard sleeves, and integrated packaging and label development.

Bakery Applications

Relevant for printed cartons, sleeves, premium retail packaging, and other paperboard formats where product presentation and branding are important.

Netpak Packaging

<https://www.netpak.com/en/>

Location: Montréal, Québec

What They Do

Manufacture custom printed folding cartons for food, beverage, pharmaceutical, beauty, retail, and other consumer product markets.

Why They Matter

A Canadian folding carton manufacturer with a 150,000 sq. ft. Montréal-based production facility and particularly strong food safety, colour control, and sustainable material capabilities.

Key Innovations & Capabilities

Capabilities include structural design, offset printing, automated die-cutting and gluing, window patching, low-migration and water-based inks, and certified paperboard options.

Bakery Applications

Relevant for branded cartons, sleeves, multi-packs, window cartons, and other food-safe paperboard formats for baked goods and confectionery.

SupremeX

<https://supremex.com/>

Location: Montréal, Québec (multiple manufacturing facilities)

What They Do

Design and manufacture custom folding cartons and other paper-based packaging for the food, beverage, healthcare, retail, and consumer product markets.

Why They Matter

Combine substantial Canadian manufacturing capacity with flexible production and support for projects from prototypes and smaller quantities to large-volume packaging programs.

Key Innovations & Capabilities

Capabilities include lithographic printing, structural design, windowing, foil stamping, embossing, specialty coatings, high-speed blanking and gluing, and FSC/SFI certified paperboard options.

Bakery Applications

Relevant for confectionery, snacks, dry bakery products, sleeves, window cartons, and other custom paperboard packaging requiring strong graphics and food-grade production.

Moulded

Fibre

Packaging

This section highlights Canadian companies that develop and produce moulded fibre packaging from recycled fibre, agricultural residues, and other cellulose-based materials. Applications include trays, clamshells, inserts, and food containers designed to provide renewable alternatives to selected plastic packaging formats.

Cascades

<https://www.cascades.com/en>

Location: Kingsey Falls, Québec (multiple Canadian manufacturing facilities)

What They Do

Manufacture moulded pulp and thermoformed fibre packaging from recycled fibre, including food trays and foodservice formats.

Why They Matter

A major Canadian packaging manufacturer with decades of moulded-fibre experience and significant expertise in recycled materials and circular packaging design.

Key Innovations & Capabilities

Capabilities include 100% recycled-fibre moulded pulp and thermoformed food trays with water-based barrier technologies designed for automated packaging lines.

Bakery Applications

Potential applications include fibre trays and other formed-fibre formats for bakery products that require product protection, presentation, and moisture resistance.

CKF Inc.

<https://ckfinc.com/>

Location: Hantsport, Nova Scotia

What They Do

Manufacture moulded fibre, rPET, and other rigid food and foodservice packaging, with extensive Canadian production capabilities.

Why They Matter

A Canadian-owned manufacturer with more than 90 years of experience and significant expertise in moulded-fibre packaging and sustainable food-packaging development.

Key Innovations & Capabilities

Earthcycle™ provides FSC-certified, home-compostable moulded-fibre packaging, while newer Etched Earthcycle™ technology enables branding and digital information to be incorporated directly into the package surface.

Bakery Applications

Relevant to bakery products requiring trays, bases, foodservice formats, or custom fibre packaging, with additional rPET options available where clear rigid packaging is preferred.

GreenHero Solutions

<https://www.greenherosolutions.com/>

Location: Toronto, Ontario

What They Do

Design, engineer, prototype, and supply custom moulded-fibre packaging ranging from protective inserts to food-grade trays, clamshells, and containers.

Why They Matter

Provide a smaller, Canadian-based point of entry for companies investigating moulded fibre who may not yet have a large, established packaging program.

Key Innovations & Capabilities

Work across thick-wall, transfer-moulded, thermoformed, and after-pressed fibre formats, with custom design, prototyping, embossing, and food-grade applications.

Bakery Applications

Support the development of custom trays, clamshells, inserts, and other fibre-based food packaging for bakery products.

RevivePack

<https://revivepack.ca/>

Location: Montréal, Québec

What They Do

Develop moulded and thermoformed fibre food packaging using agricultural-residue-based materials for foodservice and retail applications.

Why They Matter

Represent an emerging Canadian approach to replacing selected plastic and foam food-packaging formats using agricultural fibre and food-focused package development.

Key Innovations & Capabilities

Development areas include agricultural-residue fibre materials, thermoformed clamshells, trays and bowls, PFAS-free formulation strategies, and planning for future Canadian manufacturing.

Bakery Applications

Potential applications include clamshells and trays for donuts, pastries, cookies, cakes, and other baked goods requiring fibre-based food packaging.

Pulp Moulded Products

<https://www.pulpmouldedproducts.com/>

Location: Keswick, Ontario

What They Do

Design and manufacture custom moulded-pulp packaging for food, consumer products, industrial applications, and protective packaging.

Why They Matter

A Canadian manufacturer specializing specifically in moulded fibre, with expanding Ontario production and the ability to support custom packaging development.

Key Innovations & Capabilities

Capabilities include custom moulded-fibre engineering, food-grade packaging, protective inserts, recycled-fibre materials, prototyping, and multiple moulding processes.

Bakery Applications

Potential applications include custom fibre trays, inserts, foodservice formats, and protective packaging developed around specific bakery-product requirements.

Packaging

Distributors

&

Integrated

Solutions

Providers

This section highlights Canadian companies that connect businesses with packaging materials, equipment, and related technical services. These providers can help simplify sourcing and implementation by combining packaging selection, machinery, inventory management, automation, technical support, and other services within a single relationship.

Carrousel Packaging

<https://www.carrousel.ca/en/>

Location: Boucherville, Québec

What They Do

Distribute food and industrial packaging, packaging equipment, and related supplies, supported by customization and technical services.

Why They Matter

A Canadian, family-owned company with more than 50 years of experience, a large packaging inventory, and an extensive distribution network serving businesses ranging from SMEs to major manufacturers.

Key Innovations & Capabilities

Food-packaging sourcing, custom printing, paper bags, tray sealing, vacuum packaging, bag sealing, packaging machinery, and equipment service.

Bakery Applications

Offer bread and pastry bags, cake and pastry boxes, rigid containers, foodservice packaging, and packaging equipment for bakeries and pastry operations.

Crawford Packaging

<https://crawfordpackaging.com/>

Location: London, Ontario, with Canadian locations and distribution centres across multiple provinces

What They Do

Provide packaging materials, equipment, automation, and technical support through partnerships with packaging material and machinery manufacturers.

Why They Matter

Offer a single point of contact for companies needing to coordinate packaging materials, machinery, automation, maintenance, and ongoing technical support.

Key Innovations & Capabilities

GUARDIAN stretch film, designed to deliver optimal load integrity with minimal waste, and GrowPack, a private brand for produce packaging.

Bakery Applications

Relevant to baked goods requiring flow wrapping, films, trays, labels, secondary packaging, or automation as production volumes increase.

Foodpak, a division of Duropac

<https://www.foodpak.com/>

Location: Richmond, British Columbia; Duropac head office in Candiac, Québec

What They Do

Distribute flexible food packaging and packaging equipment, and provide technical service, inventory management, and packaging development support.

Why They Matter

As Duropac's Western Canadian division, Foodpak combines specialized food-packaging expertise with a coast-to-coast distribution network and broader supplier base.

Key Innovations & Capabilities

Flexible and high-barrier packaging, MAP and vacuum packaging, recyclable mono-material structures, packaging equipment, technical service, and inventory support.

Bakery Applications

Relevant to baked goods, snacks, and other products requiring films, pouches, trays, shelf-life protection, or scalable packaging equipment.

Georgette Packaging

<https://www.georgettepackaging.com/>

Location: Kitchener, Ontario

What They Do

Provide custom and stock packaging through a network of manufacturing partners, with services spanning package sourcing, customization, printing, design guidance, and supply coordination.

Why They Matter

Founded from direct experience in the bakery industry, they provide packaging resources for bakeries, cafes, and growing food businesses navigating custom packaging, branding, MOQs, and supplier selection.

Key Innovations & Capabilities

Custom paperboard and corrugated boxes, bags, cups, pouches, foodservice packaging, packaging consultation, sourcing, storage, and distribution support through a network of partners.

Bakery Applications

Relevant for bakeries seeking stock or custom packaging for retail, takeout, and foodservice applications.

Gertex Solutions

<https://gertexsolutions.com/>

Location: Toronto and Hamilton, Ontario

What They Do

Provide packaging materials, equipment, automation and technical services for food, manufacturing and distribution operations.

Why They Matter

A Canadian-owned packaging group combining materials and supplies with equipment, automation, maintenance, and operational consulting.

Key Innovations & Capabilities

Primary and secondary packaging equipment, stretch and shrink systems, case handling, automation, equipment rentals and leasing, maintenance, and stock-and-release programs.

Bakery Applications

Provide end-to-end bakery packaging solutions, including films, corrugated packaging, flow wrapping, case packing, pallet stabilization, and packaging automation.

KinsBrae Packaging

<https://www.kinsbraegroup.com/>

Location: Cambridge, Ontario

What They Do

Provide custom packaging, printing, labelling, co-packing, warehousing, logistics, and packaging-development services.

Why They Matter

Combine multiple packaging formats and production services under one roof, allowing brands to coordinate design, packaging, pack-out, inventory, and distribution with one partner.

Key Innovations & Capabilities

Capabilities include digital printing, corrugated and paperboard packaging, pouches, labels and sleeves, co-packing, 3PL services, and in-house production of their innovative KB Paper Bottle.

Bakery Applications

Can support bakery brands requiring custom cartons, corrugated packaging, pouches, labels, pack-out services, warehousing, or coordinated packaging development.

Rocketline

<https://rocketline.ca/>

Location: Concord, Ontario

What They Do

Distribute food, shipping, and industrial packaging products while helping customers source packaging solutions tailored to their operations.

Why They Matter

Provide an accessible Canadian source for both stock and specialized packaging, with a broad range and a consultative approach to sourcing.

Key Innovations & Capabilities

Capabilities include custom films, pouches, rigid and lidding films, thermoforming films, trays, vacuum packaging, shipping materials, and packaging equipment.

Bakery Applications

Offer dedicated bakery packaging, including clamshells, as well as films, trays, pouches, and other food-packaging formats.

Labels

&

Packaging

Decoration

This section highlights Canadian companies specializing in labels, sleeves, and other technologies used to identify, decorate, and communicate through packaging. Capabilities include digital and flexographic printing, variable data, specialty adhesives, shrink sleeves, and solutions supporting branding, regulatory information, and traceability.

Associated Labels & Packaging

<https://associatedlp.com/>

Location: Coquitlam, British Columbia

What They Do

Manufacture custom labels, shrink sleeves, and flexible packaging using digital and flexographic printing technologies.

Why They Matter

A Canadian, family-run manufacturer with extensive food-packaging experience and the ability to support both smaller projects and larger production programs.

Key Innovations & Capabilities

Capabilities include pressure-sensitive labels, shrink sleeves, digital and flexographic printing, laser scoring and perforation, specialty finishes, and food-safe packaging production.

Bakery Applications

Relevant for labels and sleeves used on bakery containers, pouches, clamshells, jars, and other packaged foods requiring strong graphics or short-run flexibility.

CCL Label

<https://ccllabel.com/en>

Location: Mississauga, Ontario (with multiple global locations)

What They Do

Design and manufacture pressure-sensitive labels, shrink and stretch sleeves, in-mould labels, and other packaging-decoration technologies.

Why They Matter

Part of Canadian-headquartered CCL Industries, widely recognized as the world's largest label company, bringing significant Canadian and global R&D capability to advanced packaging decoration.

Key Innovations & Capabilities

Capabilities include shrink sleeves, advanced printing and embellishment, recycling-compatible labels, wash-off technologies, functional labels, and smart-label integration.

Bakery Applications

Relevant for labelled rigid containers, jars, tubs, beverages, dairy-based bakery products, and other packaged foods requiring high-performance decoration and labelling.

Label Design Ltd.

<https://labeldesign.ca/>

Location: Guelph, Ontario

What They Do

Manufacture custom pressure-sensitive labels for food, consumer products, healthcare, industrial, and other markets.

Why They Matter

A Canadian label manufacturer operating since 1990, with SQF-certified food-packaging production and strong expertise in label materials, adhesives, and application performance.

Key Innovations & Capabilities

Capabilities include up to 10-colour printing, digital and flexographic production, specialty adhesives, extended-content labels, vision-based quality inspection, and sustainable label-material operations.

Bakery Applications

Relevant for bakery containers, clamshells, bags, jars, and ingredient products requiring food-certified labels, specialty adhesives, branding, or regulatory information.

Labelink

<https://labelink.ca/>

Location: Montréal, Québec (with multiple Canadian locations)

What They Do

Manufacture pressure-sensitive labels, shrink sleeves, RFID labels, and other printed packaging for food, beverage, and consumer-product markets.

Why They Matter

A Canadian manufacturer with a growing network of specialized printing facilities and strong food-packaging quality and safety capabilities.

Key Innovations & Capabilities

Capabilities include digital and flexographic printing, shrink sleeves, specialty labels, RFID tags, prepress, and packaging prototyping.

Bakery Applications

Relevant for branded food labels, shrink sleeves, traceability labels, and packaging components for bakery products requiring food-safe materials and reliable print quality.

Multi-Action

<https://www.multiaction.ca/>

Location: L'Ange-Gardien, Québec (with multiple Canadian locations)

What They Do

Manufacture custom labels and sleeves for food, beverage, grocery, industrial, and consumer-product applications.

Why They Matter

Part of the ID Images Group, they combine Canadian manufacturing with a national network that includes Precision Label in Calgary and other specialized label operations.

Key Innovations & Capabilities

Capabilities include digital and flexographic printing, shrink sleeves, wash-off labels, linerless labels, compostable label options, variable printing, and energy-efficient LED ink technology.

Bakery Applications

Relevant for bakery and ingredient products requiring food labels, traceability, tamper-evident seals, or specialty-performance materials.

Thames Label & Litho

<https://thameslabel.com/>

Location: Cambridge, Ontario

What They Do

Design and manufacture custom pressure-sensitive and specialty labels for food, beverage, consumer, industrial, and regulated products.

Why They Matter

A Canadian label manufacturer printing in Ontario since 1985, with flexible production suited to both shorter runs and larger-volume requirements.

Key Innovations & Capabilities

Capabilities include digital and conventional label printing, specialty materials and adhesives, die-cut labels, foil and embossed finishes, and customized food-and-beverage labels

Bakery Applications

Relevant for packaged baked goods, as well as clamshells, bags, jars, and ingredient products requiring custom branding, product information, or food-labelling compliance.

Reusable

Packaging

&

Reuse

Systems

This section highlights Canadian companies developing reusable packaging and the systems required to keep it in circulation. Solutions include durable containers, collection and return networks, washing and redistribution services, tracking technologies, and program management tools that support repeated package use.

Ciculr

<https://circulr.ca/>

Location: Toronto, Ontario

What They Do

Operate reusable-packaging programs that enable consumer packaged goods to be sold, returned, cleaned, and recirculated through participating retailers.

Why They Matter

Have operated a reuse network across the Toronto-Waterloo corridor since 2020 and are developing infrastructure intended to make reusable CPG packaging easier to scale.

Key Innovations & Capabilities

Capabilities include reusable-container programs, retailer return networks, consumer tracking, standardized packaging systems, and Canadian-developed reverse-vending technology for reusable packaging.

Bakery Applications

Potentially relevant for bakery products, ingredients, spreads, sauces, or other foods that can be sold in standardized returnable jars or containers.

Container Corporation of Canada

<https://www.containercorp.com/>

Location: Richmond Hill, Ontario

What They Do

Design and manufacture corrugated and plastic packaging, including reusable and refillable plastic bottles and related packaging technologies.

Why They Matter

A Canadian manufacturer with long-standing experience in both corrugated and plastic packaging and a particular focus on reusable and recyclable packaging systems.

Key Innovations & Capabilities

Developed the EnviroClear® Smartbottle™, a reusable, dishwasher-safe bottle manufactured in Canada, along with recyclable bottle technologies, barrier systems, blow-moulding equipment, and EnviroSkid® corrugated pallets.

Bakery Applications

Potential applications include reusable containers for dry ingredients or beverages, recyclable rigid containers, and corrugated distribution packaging for bakery operations.

Fill if Forward

<https://fillitforward.com/>

Location: Guelph, Ontario

What They Do

Develop technology and reusable products that help organizations launch, manage, track, and measure reuse programs.

Why They Matter

Provide Canadian-developed digital tools for tracking reusable-container inventory, returns, participation, and environmental performance.

Key Innovations & Capabilities

Reuse365 supports QR-based reuse tracking, reusable inventory and return management, program analytics, engagement tools, and automated reminders.

Bakery Applications

Potentially relevant to bakery cafes, campuses, workplaces, and institutional foodservice operations implementing reusable cups or food-container programs.

Friendlier

<https://www.friendlier.com/>

Location: Guelph, Ontario

What They Do

Provide reusable food and beverage containers through a managed system for return, collection, washing, and redistribution.

Why They Matter

Founded in Guelph, they have evolved from a local restaurant program into a scalable reuse system that now operates with foodservice, institutional, grocery, and event partners.

Key Innovations & Capabilities

Provide reusable containers, consumer return technology, commercial washing and sanitization, collection logistics, impact tracking, and end-of-life recycling.

Bakery Applications

Relevant for bakery cafes, prepared desserts, meals, catering, and other foodservice applications where reusable takeout containers can replace disposable formats.

reusables

<https://reusables.com/>

Location: Vancouver, British Columbia

What They Do

Provide technology-enabled reusable food-container systems for universities, hospitals, corporate campuses, and other institutional foodservice operations.

Why They Matter

A Canadian-founded company focused on solving the operational challenges of reusable packaging through automated tracking, returns, and inventory management.

Key Innovations & Capabilities

Capabilities include reusable containers, Tap-to-Reuse™ payment-card technology, smart return stations, inventory tracking, automated return management, and program analytics.

Bakery Applications

Relevant to campus bakeries, cafes, institutional foodservice, and other bakery operations serving prepared foods or beverages in reusable takeout packaging.

Suppli

<https://mysuppli.ca/>

Location: Toronto, Ontario

What They Do

Operate managed reusable-container programs for corporate catering, offices, and film and television production.

Why They Matter

Provide a specialized closed-loop service in which containers, collection, washing, redistribution, and impact reporting are handled for the customer.

Key Innovations & Capabilities

Capabilities include reusable-container supply, return-bin systems, commercial sanitization, collection logistics, catering integration, and reuse-impact reporting.

Bakery Applications

Relevant to bakeries and caterers supplying corporate offices, events, or productions where reusable containers can replace disposable catering and foodservice packaging.

Compostable

&

Circular

Packaging

Solutions

This section highlights Canadian companies offering packaging solutions that reduce reliance on conventional single-use materials through compostability, the use of recovered materials, and other circular approaches. Products include food-service packaging, fibre formats, flexible packaging, and secondary packaging for food and bakery applications.

NOTE:

Compostability depends on both product certification and access to an appropriate collection and processing system. Businesses should verify local acceptance requirements before adopting compostable packaging or making disposal claims for it.

Core Sales Inc.

<https://coresales.ca/home>

Location: Mississauga, Ontario

What They Do

Supply certified compostable foodservice packaging, including cups, food tubs, lids, straws, cutlery, and other plant-based disposable formats.

Why They Matter

A Canadian, family-owned company focused exclusively on compostable packaging, with particular emphasis on supporting smaller distributors and foodservice businesses.

Key Innovations & Capabilities

Offer BPI- and TÜV- certified packaging made from PLA, CPLA, bagasse, and other renewable materials, along with guidance on appropriate product selection and disposal.

Bakery Applications

Relevant to bakery cafes, takeout service, beverages, desserts, and other foodservice applications requiring commercially compostable packaging.

Eco Guardian

<https://ecoguardian.com/>

Location: Aurora, Ontario

What They Do

Manufacture and supply compostable and recyclable food packaging, including fibre containers, paper cups and bowls, trays, and other foodservice formats.

Why They Matter

A Canadian-owned company with a broad sustainable-food-packaging range and newly established Ontario-based manufacturing for selected paper cups and bowls.

Key Innovations & Capabilities

Capabilities include sugarcane and bamboo fibre packaging, compostable foodservice formats, custom package development, and Canadian production of an expanding range of paper-based products.

Bakery Applications

Offer fibre clamshells, trays, cups, bowls, and other formats suitable for bakery, deli, dessert, and foodservice applications.

Gallimore Products Inc.

<https://www.gallimoreproducts.com/>

Location: Toronto, Ontario

What They Do

Develop and supply foodservice packaging, including compostable fibre, paper, PLA, wood, and bamboo, as well as recyclable packaging formats.

Why They Matter

A privately-owned, Canadian company established in 1985, supplying compostable foodservice products in Canada since 2006.

Key Innovations & Capabilities

Offer BPI-certified compostable packaging, PFAS-free fibre options, sugarcane products, paper cutlery, paper containers, and custom foodservice packaging.

Bakery Applications

Relevant for bakery cafes, desserts, takeout foods, catering, and other applications requiring compostable trays, containers, cups, or foodservice packaging.

Greenii Inc.

<https://greenii.ca/>

Location: Halifax, Nova Scotia

What They Do

Upcycle clean, discarded newsprint and flyers into paper bags and packaging, while also supplying recycled paper, foodservice, and custom-printed packaging.

Why They Matter

Use an unusual local circular model that gives recovered paper another use without conventional repulping, de-inking, or bleaching.

Key Innovations & Capabilities

Capabilities include upcycled paper bags, Canadian-made recycled-paper bags, custom printing, boxes, pouches, and protective paper packaging.

Bakery Applications

Useful for bakery carryout, retail, and secondary packaging; Greenii's upcycled newsprint bags should only be used for already-packaged products, as they are not food-contact grade.

Refresh Packaging

<https://refreshpackaging.ca/>

Location: Calgary, Alberta

What They Do

Develop and supply compostable flexible products, including food storage bags, cling wrap, produce bags, and waste-management films.

Why They Matter

Provide a Western Canadian source focused specifically on certified compostable alternatives to conventional flexible plastic products.

Key Innovations & Capabilities

Offer compostable flexible films and bags for food storage, freezer use, produce handling, and organics collection.

Bakery Applications

Potentially useful for food storage, ingredient handling, wrapping, and other bakery operations seeking compostable flexible-film alternatives.

Bio-Based

&

Compostable

Materials

&

Technologies

This section highlights Canadian companies that develop or manufacture bio-based, biodegradable, and compostable materials for packaging applications. Technologies include PLA and PHA materials, fibre-based composites, seaweed-derived materials, and other alternatives intended for conversion into films, coatings, rigid packaging, and related formats.

NOTE:

Compostability claims and appropriate end-of-life pathways vary by material and should be verified for the intended application and local waste-management system.

BI-AX International Inc.

<https://biaxinc.com/>

Location: Wingham, Ontario

What They Do

They manufacture specialty films, including Evlon®, a compostable PLA film for food and other applications.

Why They Matter

A Canadian manufacturer with more than 30 years of oriented-film experience, they convert commercially available PLA resin into functional packaging film at their facility.

Key Innovations & Capabilities

Capabilities include plain and heat-sealable Evlon PLA films, oriented-film manufacturing, printing and lamination compatibility, form/fill/seal applications, and pre-commercial R&D trials. Evlon® has food-contact approvals.

Bakery Applications

Relevant for bread and bakery bags, confectionery packaging, snack packaging, sealed overwraps, carton windows, and other applications requiring clear, printable, or heat-sealable compostable films.

Bioform Technologies

<https://bioformtech.com/>

Location: Vancouver, British Columbia

What They Do

Develop fibre-reinforced hydrogel films intended to replace selected conventional plastic films in packaging applications.

Why They Matter

Their technology uses pulp fibre and is designed to work with existing thermoforming and heat-sealing infrastructure, potentially reducing the changes required to transition away from conventional plastic films.

Key Innovations & Capabilities

They have developed a patented low-energy process for producing multilayer fibre-reinforced hydrogels at commercial speeds and are developing paper-recyclable thermoforming films for rigid-packaging production.

Bakery Applications

Potential applications include fibre-based thermoformed trays and other food-packaging formats that currently use conventional plastic rollstock.

BOSK Bioproducts

<https://www.bosk-bioproducs.com/>

Location: Québec City, Québec

What They Do

Develop REGEN™, a ready-to-use PHA-based biomaterial produced using carbon sources derived from non-food-grade industrial by-products.

Why They Matter

They provide a Canadian-developed, bio-based, and compostable resin designed for processing using conventional plastics-manufacturing equipment and certified for food-contact applications.

Key Innovations & Capabilities

Its FlexCarbon™ technology produces PHA used in REGEN™, available in grades suitable for processes such as thermoforming, injection moulding, blow extrusion, and 3D printing.

Bakery Applications

Potentially relevant to converters and bakery packaging developers creating compostable trays, containers, and other food-contact packaging using bio-based resin.

erthos®

<https://www.planeterthos.com/>

Location: Toronto, Ontario

What They Do

Develop custom bio-resins, bio-additives, and bio-coatings using proprietary materials technologies and an AI-assisted materials development platform.

Why They Matter

They develop and optimize biomaterials against performance, cost, environmental, and compliance requirements.

Key Innovations & Capabilities

Technologies include compostable bio-composites for rigid and flexible applications, bio-based plasticizers and elastomers, barrier coatings, rapid formulation development, prototyping, and manufacturing compatibility trials.

Bakery Applications

Potential partner for developing bio-based materials for bakery films, rigid containers, coatings, and other packaging, where conventional polymers currently provide the required barrier or mechanical performance.

PhyCo

<https://www.phyco.ca/>

Location: Vancouver, British Columbia

What They Do

Develop seaweed-based biomaterials, including compostable bioplastic films, pellets, and coatings.

Why They Matter

Represent an emerging Canadian approach to packaging materials that use seaweed and marine biotechnology as an alternative renewable feedstock.

Key Innovations & Capabilities

Their proprietary biorefinery technology converts seaweed into extrusion-ready biomaterials. Current development includes scale-up of compostable films and an antimicrobial seaweed-based coating for food-packaging applications.

Bakery Applications

Potential future applications include compostable films and coatings for food packaging, although the technology remains in development and its current commercial-scale work is primarily focused on agriculture and broader agri-food applications.

TerraVerdae Bioworks

<https://terraverdae.com/>

Location: Edmonton, Alberta

What They Do

Develop and supply PHA-based bioplastics, resins, coatings, and specialty materials made through fermentation of renewable carbon sources.

Why They Matter

Provide a Canadian biomaterials platform spanning flexible films, thermoforming, injection moulding, and coatings, with formulations for industrial processing and end-use requirements.

Key Innovations & Capabilities

Products and capabilities include blown and cast-film resins, thermoforming and injection-moulding resins, specialty PHAs, compostable paper coatings, adhesives, chitosans, and custom biopolymer formulations.

Bakery Applications

Relevant to packaging developers and converters exploring compostable films, thermoformed containers, coating, and other bio-based materials for bakery and food-packaging applications.

Advanced

Packaging

Materials

&

Technologies

This section highlights Canadian manufacturers and technology developers advancing packaging through barrier materials, specialty papers, coatings, recycling processes, and high-performance additives. These technologies can improve shelf-life, material efficiency, recyclability, use of recycled content, and overall package performance.

Celplast Metallized Products

<https://www.celplast.com/>

Location: Toronto, Ontario

What They Do

Manufacture metallized and transparent high-barrier films and provide specialized coating and metallizing services.

Why They Matter

A Canadian manufacturer focused on barrier technology, helping converters achieve shelf-life performance while developing structures compatible with recyclability, downgauging, and alternative materials.

Key Innovations & Capabilities

Capabilities include vacuum metallizing, AlOx transparent barrier coatings, proprietary top coatings, high-barrier PE, PP, and PET films, recycle-ready mono-material solutions, and compostable PLA barrier films.

Bakery Applications

Relevant for cookies, crackers, snacks, confectionery, dry mixes, and other bakery products requiring improved oxygen, moisture, or aroma barrier and extended shelf-life.

CelluForce

<https://celluforce.com/>

Location: Windsor, Québec

What They Do

Manufacture cellulose nanocrystals (CNC) and develop CNC-based materials for packaging and other industrial applications.

Why They Matter

Operate commercial-scale cellulose nanocrystal production in Québec and provide both raw CNC materials and formulated packaging technologies that can improve package performance while supporting more recyclable structures.

Key Innovations & Capabilities

CelluRods® cellulose nanocrystals can enhance material properties, while CelluShield™ is a bio-sourced, water-based oxygen-barrier coating designed for use in recyclable flexible packaging and for compatibility with PE, PP, and PET structures.

Bakery Applications

Relevant to converters and food manufacturers developing high-barrier films and coatings for bakery products, where oxygen protection, shelf-life, and recyclability are important.

Domtar

<https://www.domtar.com/>

Location: Port Alberni, British Columbia (with additional Canadian Locations)

What They Do

Manufacture specialty and food-grade papers used by converters to produce food packaging, wrappers, bags, and other paper-based formats.

Why They Matter

The Port Alberni mill is a significant Canadian manufacturer of food-grade and specialty papers, providing packaging converters with access to domestically produced fibre-based materials.

Key Innovations & Capabilities

Food-packaging grades include papers engineered for grease resistance, water resistance, strength, printability, and ovenable applications.

Bakery Applications

Relevant for bakery bags, wraps, liners, interleaving papers, pouches, and other paper-based formats requiring grease resistance, moisture resistance, printability, or food-contact.

Loop Industries

<https://loopindustries.com/>

Location: Terrebonne, Québec

What They Do

Develop and operate technology to depolymerize waste PET and polyester into purified molecular building blocks for manufacturing virgin-quality recycled PET and polyester.

Why They Matter

Their technology can recover PET from difficult waste streams, including coloured, contaminated, and multilayer PET, and return the material to food-grade and high-value uses.

Key Innovations & Capabilities

The Infinite Loop™ process uses low-temperature methanolysis to recover DMT and MEG from PET and polyester waste, which are then used to produce recycled PET and polyester. In addition to operating a Canadian production facility, they license their technology globally.

Bakery Applications

Supports development of circular PET packaging, including food-grade trays, containers, and other recycled PET formats.

Neptune Nanotechnologies Inc.

<https://www.neptunenano.com/>

Location: Markham, Ontario

What They Do

Develop chitin nanocrystals derived from seafood-processing waste for use in packaging, paper, coatings, and other materials.

Why They Matter

Convert crab, shrimp, and lobster shell waste into a high-performance additive that can improve strength, barrier properties, and material efficiency.

Key Innovations & Capabilities

Chitin nanocrystals are being evaluated as additives and coatings for flexible films, paper, and fibre materials to improve mechanical properties and resistance to oxygen, water, and oils. They support proof-of-concept, pilot, and scale-up development.

Bakery Applications

Potential applications include higher-performance bakery films, paper, and fibre packaging, where improved strength or barrier properties could reduce material use or support more recyclable and bio-based structures.

Nfinite Nanotechnology Inc.

<https://nfinitepaper.com/>

Location: Waterloo, Ontario

What They Do

Develop high-barrier paper packaging using ultra-thin nanocoatings that provide moisture, oxygen, and grease protection traditionally achieved with multilayer plastic.

Why They Matter

A Canadian technology company commercializing an approach that could enable more paper-based flexible packaging while maintaining the barrier performance required for shelf-stable foods.

Key Innovations & Capabilities

Its atmospheric-pressure spatial atomic layer deposition technology applies extremely thin ceramic-oxide barrier layers to paper.

Bakery Applications

Potential applications include granola and snack bars, cookies, dry bakery products, and other foods currently packaged in high-barrier metallized or multilayer flexible packaging.

Active

&

Intelligent

Packaging

Technologies

This section highlights Canadian companies developing active and intelligent packaging technologies that extend beyond traditional package protection. These systems can interact with the packaged product or monitor and communicate information related to freshness, quality, storage, or distribution.

A-Scent Innovations

<https://a-scentinnovations.com/>

Location: Vancouver, British Columbia

What They Do

Develop smart sensor labels that detect food-spoilage indicators and provide real-time information on product freshness.

Why They Matter

Represent an emerging Canadian approach to moving beyond fixed date codes toward package-level freshness monitoring and data-informed food-quality decisions

Key Innovations & Capabilities

Technology under development combines electrochemical sensing, printed electronics, packaging integration, and connected data tools to enable freshness-monitoring alerts.

Bakery Applications

Potential future applications include refrigerated desserts, filled baked goods, and other perishable bakery products, where real-time freshness information could supplement conventional shelf-life dating.

GreenVeil Packaging Inc.

<https://greenveilpackaging.com/>

Location: Ottawa, Ontario

What They Do

Develop biodegradable and antimicrobial biocomposite materials for food packaging, including active packaging intended to help maintain food quality and emerging freshness-indicator technologies.

Why They Matter

Combine alternative packaging materials with an active microbial function to create a useful bridge between the bio-based material technologies and the active packaging technologies.

Key Innovations & Capabilities

Current development includes antimicrobial food trays, controlled-degradation biocomposites, and smart spoilage indicators.

Bakery Applications

Potential applications include trays and containers for pastries, desserts, and other foods where active antimicrobial packaging could contribute to quality or shelf-life management.

SUPAC Innovation Corp.

<https://supac.ca/>

Location: Vancouver, British Columbia

What They Do

Develop and supply active packaging sachets that manage oxygen or ethylene within packaged food and produce environments.

Why They Matter

Provide one of the most directly applicable, active packaging technologies in this section, with oxygen-control solutions specifically positioned for commercial food processors and packaged bakery products.

Key Innovations & Capabilities

Products include iron-based oxygen-scavenger sachets for oxygen-sensitive packaged foods and ethylene-absorber sachets for fresh-produce applications.

Bakery Applications

Oxygen scavengers may be relevant for packaged breads, tortillas, snacks, and other bakery products in which oxygen contributes to quality deterioration.

Ynvisible Interactive Inc.

<https://www.ynvisible.com/>

Location: Vancouver, British Columbia

What They Do

Develop ultra-low-power printed e-paper displays for smart labels and indicators that communicate changing product or supply-chain information.

Why They Matter

Provide an enabling technology for intelligent packaging that uses thin, flexible displays to communicate product status, temperature exposure, or sensor-derived conditions directly on a package or label.

Key Innovations & Capabilities

Capabilities include printed electrochromic e-paper, thin, flexible indicators, smart-label integration, and scalable roll-to-roll production, with applications in food freshness and cold chain.

Bakery Applications

Potential applications include intelligent labels for refrigerated or frozen bakery products, desserts, and temperature-sensitive ingredients requiring visible freshness or cold-chain information.

Using This Resource

Packaging continues to evolve as new materials, technologies, regulations, recovery systems, and business models emerge. The organizations and resources presented in this guide are intended to provide a starting point for food and bakery businesses exploring packaging opportunities, whether to improve an existing package, evaluate alternative materials, introduce new equipment, or investigate emerging technologies.

Successful packaging decisions require consideration of product protection, food safety, shelf-life, machinability, cost, sustainability, regulatory requirements, and end-of-life infrastructure. Businesses are encouraged to engage with suppliers and technology providers, verify current capabilities and claims, and conduct appropriate package and product testing before implementation. Collaboration among food companies, packaging suppliers, researchers, and technology developers can help translate promising packaging innovations into practical commercial solutions.

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