

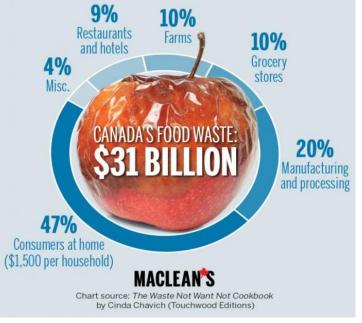
The Consumer Remember When Designing Products For the Circular Economy



Consumer HH Waste and Manufacturing are the primary contributors to Canada's Food Waste Problem and Climate Change!

Wasting away

It's easy to assume food waste is someone else's problem—restaurants? grocery stores? but your own fridge is the real culprit



- Food waste accounts for ~3% greenhouse gas emissions in Canada
- If food waste loss was its own country it would be the THIRD LARGEST emitter - after China and USA source: World Resources Institute

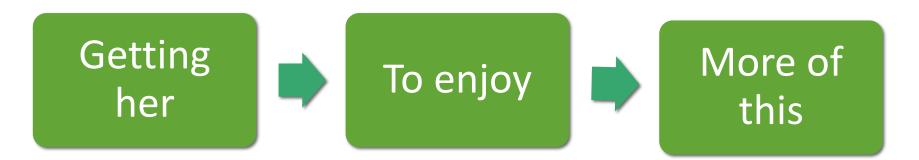


Club Coffee: Toronto Innovation for North American Consumers

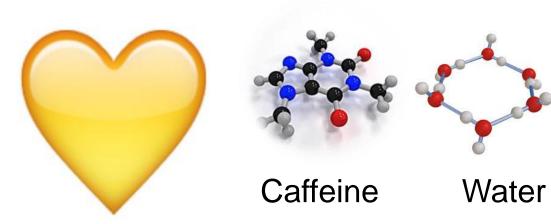
Club Coffee develops innovative products and manufactures them for leading brands across North America



Our Job:



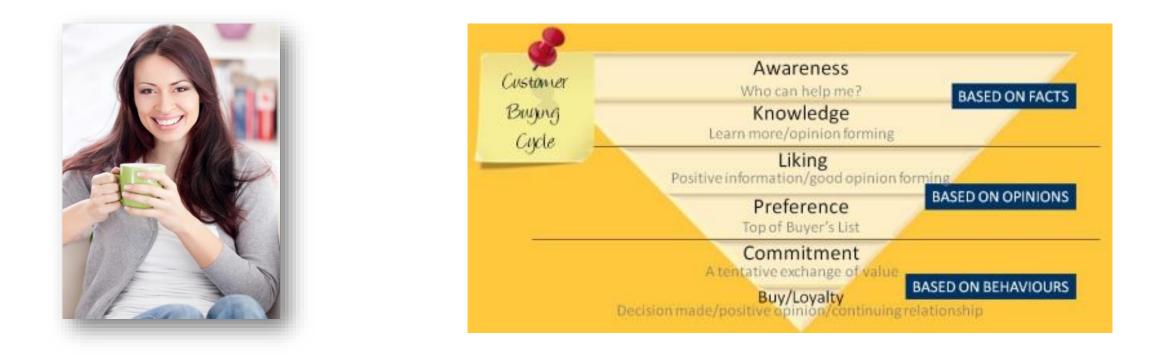




The consumer is about choices



And The Consumer RULES



They make the decision to take a product off the shelf or click on the box to create an order

The consumer is complicated

- They want things they can't have
- They have things they don't need
- They crave uniqueness, yet follow trends
- What they say is often not what they mean
- However, when they want what they want, they usually want it now
- And they want it... for the right price
- Marketing addresses these challenges but the *driver for change* is Innovation



Single Serve Coffee A Game Changer for Consumers and Early Model for a Circular Economy Product



- Coffee is BIG!:
 - #2 most traded commodity behind oil
 - #1 daily consumed beverage in North America
- Over 25+ million single serve brewers in North America, led by the Keurig format
 - Household ownership ~40% (Cda); ~30% (US)
 - 28% Millennials surveyed in US only know how to make coffee with a SS brewer
- The North American Retail Coffee Market exceeded \$18+Bn (USD) in 2016 sales with ~38% US & ~50% CDN sales coming from single serve

The Consumer Need

4 Million K Cups per day in Canada go into the waste stream



Placed end to end, each days usage would extend 175 Kilometers

The distance between Toronto's Union Station and the University of Guelph and back to Union Station



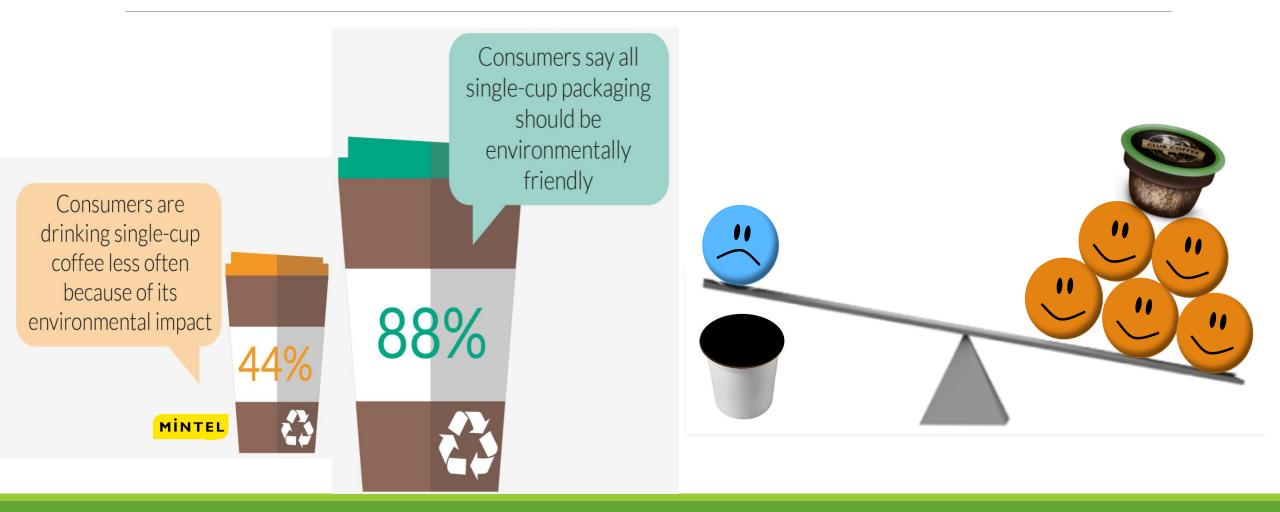




In 2015 ~20Bn Plastic Single Serve cups were sold in North America ... by 2020 ~100Bn+ in landfill



Consumers wants a Better Solution We have reached a Tipping Point!



The World's first 100% Certified Compostable Coffee



Our Solution World's First BPI Certified 100% Compostable Pods



- Each component : Lid/Inks, Ring and Mesh Filter are designed to break down in commercial composting requiring NO SEPARATION!
- ✓ Made from renewable Bio-based materials vs. Petroleum based
- Working with academia (University of Guelph/BDDC) to develop a unique ring made with coffee chaff
- BPI tested and Certified meeting ASTM 6868 standards, ensuring good quality compost!
 - Disintegration in weeks
 - Passed Biodegradation Testing
 - Passed Biotoxicity Testing



Composter field and contamination testing with various composters/processes including Cedar Grove in Seattle

Certified 100% Compostable: Delivering the Right Solution to Single Serve Waste and Beyond!





that enhances the

PurPod

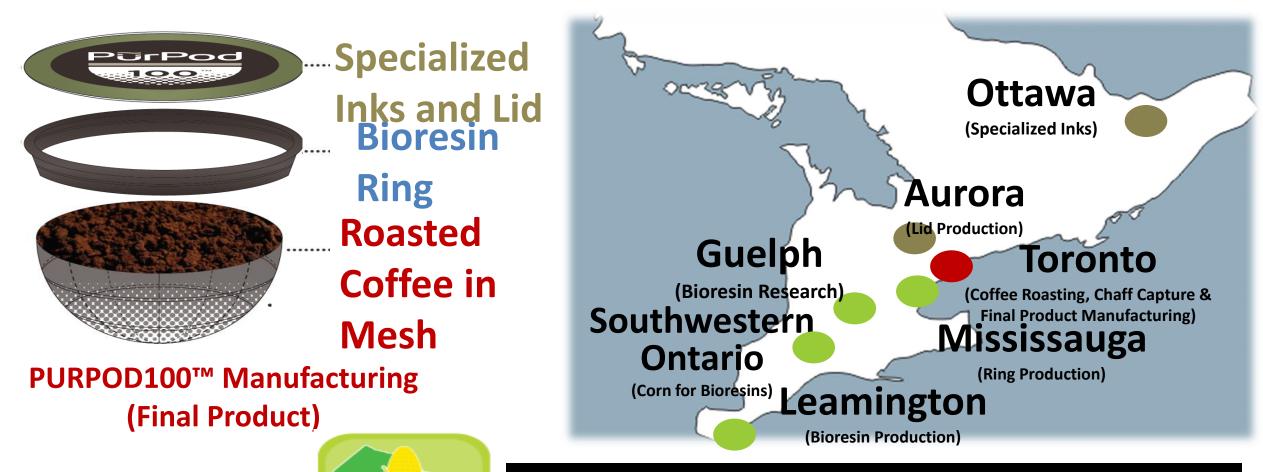
consumer experience !



guilt free...



A Made-in-Ontario Compostable Success Story



Ontario corn, miscanthus grass and other crops are key inputs for compostable substances and products

Finding the Right Solution to Single Serve

Biodegradable?

- No standardized testing & certification
- "Biodegradable" claims are not accepted by government regulators, however they are not always enforced

Recyclable?



- Consumers are required to separate hot pods → not convenient and potential coffee contamination
- Only 10% is theoretically recyclable
 → too light and small to be processed

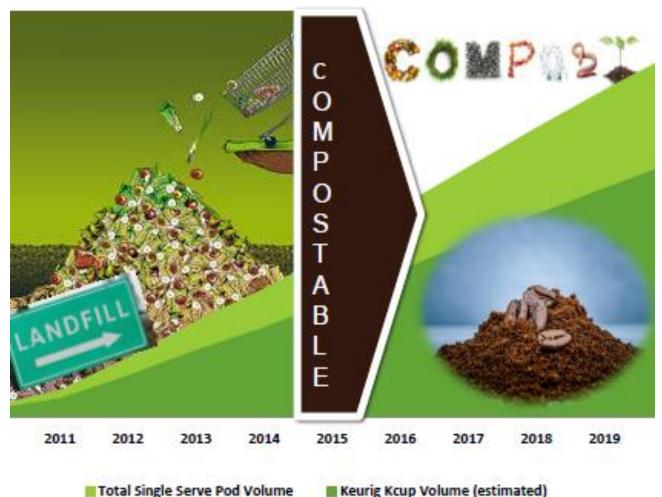
Certified 100% Compostable



- 100% Compostable Claim
- Convenient and consumer friendly solution, no separation/easy clean up
- Diversion of food waste from landfill

Climate Change & Waste Reduction Benefits

- Club Coffee will divert 100 tones of coffee chafe waste back into packaging in 2017
- Single serve delivers 23% fewer greenhouse gas emissions than dripbrewed
- Making all single serve coffee compostable – same as cutting the GHG emissions of 33,000 Canadians
- Compostable Pods will help divert over 100,000 tonnes of pod waste go to landfill each year, in US & Canada



Identified as a Major Example of the Ontario Shift to a Circular Economy

Environment Minister Glen Murray a major supporter of our compostable pod as an example of Circular Economy Thinking

Has mentioned it in many public events and in the Legislature

Sees it as part of positioning Ontario as a leader in compostable innovation, good green jobs and investment





For collection in municipal programs. where approved. Pour la collecte dans les programmes municipaux, où approuvés. CERT # 10528537

How To Get Consumers to Change

Work with the brands they trust to deliver products that are designed for the circular economy

And in Canada, we have a Brand Owner who is sympathetic to this vision and demonstrates leadership in sustainability Loblaw



Loblaw Brands Limited

Manages Canada's Leading Consumer Brands

- # 1 President's Choice
- # 2 No Name
- # 5 Farmer's Market
- # 10 Life Brand (Health & Beauty Aids)
- Over \$12 Billion in sales
- 10,000 food items













Canada's Number 1 Consumer Packaged Goods Company

Outsources Manufacturing and Innovation to Trusted Partners

Loblaw Brands Limited

Commercialization Powerhouse

- Consumers expect innovation from them
- Launched more food innovation in Canada in past 25 years than everyone else combined
 - Products
 - New Categories
 - Sustainable Products
- Principled Stands on Food & Packaging
 - Driven by a very deep commitment to CSR & the consumer
 - PC Organics, sustainable seafood, Free From meat products; PC Baby
 - PC Green; Plastic Grocery Bags
 - No artificial flavors or sweeteners
- Powerful Force in Food Manufacturing
 - Hundreds of small, medium and large suppliers; most are Ontario-based
- Largest funder of Product Stewardship in Canada

Lobavs

Example of Loblaws Leadership

Galen Weston Calls Out Compostable Pod Innovation At Loblaws Annual General Meeting

May 5, 2016





Jointly Developed the Worlds First 100% Compostable Single Serve Coffee Pod in Canada

Model of collaboration between Academia, Manufacturing and Retail to serve a consumer need

The Consumer Challenge; Understanding the Product End of Life Cost



- The Consumer has adapted well to the use of recycling / composting systems
- Has little or no understanding of the true cost of end of life segment of a circular economy
- Puts little value on it, thus will not likely pay a premium for it on the shelf
- Are also taxpayers and voters, so they want to avoid paying for it directly

The Consumer Challenge; Packaged Goods as a source of greenhouse gases









The Consumer Links Energy Production & Consumption to Greenhouse Gas Emissions

They aren't yet linking the impact of Packaged Goods, especially from landfills

So they don't yet see value in reduction yet via composting

That is our challenge to get them to understand this

Perspective

• This is a journey, look how far we have come

• There is progress, Pur Pod 100 is an example

 Thanks to Dr Mohanty and the BDDC for continuing to provide thought leadership and breakthrough product innovation