# Market Study on Food and Food Waste Management in Canada

Commissioned by the Netherlands Enterprise Agency

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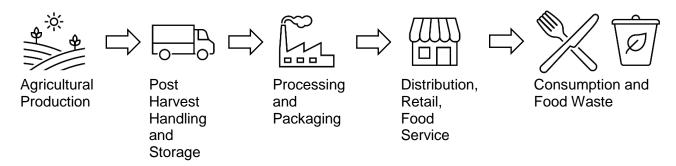
Submitted by:



# **Executive Summary**

The purpose of this report is to provide Dutch companies with a better understanding of emerging business opportunities within the Canadian food production and management value chain (value chain) (see Figure E.1).

Figure E.1 – Food Production and Management Value Chain



A high-level overview of the key business opportunities along the value chain associated with regulatory and market change is provided in Table E.1. Many of these opportunities pair well with the focus the Netherlands has had in accelerating the transition to a circular economy.

Table E.1 – Key Opportunities Along the Value Chain

Opportunities/Drivers	Food Production and Management Value Chain				
	Agricultural Production	Post harvest Handling and Storage	Processing and Packaging	Distribution Retail Food Service	Consumption and Food Loss
Greenhouse gas reduction	✓	✓	✓	✓	✓
Plastic waste and packaging			✓	✓	✓
Food waste reduction and diversion			✓	✓	<b>√</b>
Labour shortages	✓	<b>√</b>			

It should be noted that there is some overlap between the various opportunities/drivers. As an example, the use of anaerobic digestion to process organic waste and generate renewable energy would help to meet both greenhouse gas reduction goals as well as food waste diversion.

There are two key opportunity/drivers with immediate Dutch business opportunities:

- 1. GHG reduction as it relates to the development of AD infrastructure, and
- 2. Plastic waste and packaging as it relates to the reduction of plastic waste, including more recycled content in plastics and better recovery of plastics at materials recovery facilities.

This is where some short-term efforts by the Consulate will have the greatest immediate chance of success, defined as trade between Dutch companies and Canadian entities.

Food Waste Reduction and Labour Automation are opportunity/drivers with, at this point, a longer lead time for Dutch business opportunities. We say this with a little hesitation because the situation for these two opportunity/drivers could change very quickly. This would be driven by COVID-19 and its untended consequences as it relates to supply chains and general labour shortages. Further, we are mindful that it is important that innovation and automation do not result in a reduction of manual labour opportunities but provides solutions where there is not enough labour to fulfil specific roles. This is where some efforts by the Consulate have the opportunity to develop success in 3-5 years, defined as trade between Dutch companies and Canadian entities.

We believe that if there is a proven Dutch solution that can contribute to solving a problem (i.e., as described in key drivers/opportunities) that Dutch companies will be given a fair opportunity to participate. This could include sales via a procurement process or direct sales. Further, the Dutch are viewed upon favourably by different levels of governments. They are seen as forward thinking and innovative. They would be a receptive audience to hearing about Dutch thinking and innovation and this a good pathway, as it has been in the past, to future sales for Dutch companies. The two cautions that Canadian companies may have are the potential for supply chain issues and access to timely servicing should issues occur.

Table E.2 summarizes the key opportunity/drivers, with the highest scores provided in Section 5.

Table E.2 Key Opportunities

Table E.2 Key Opportunities			
Key drivers/	Key Opportunities		
opportunity areas			
Greenhouse gas reduction	<ul> <li>Anaerobic Digestion infrastructure development.</li> </ul>		
Plastic waste and packaging	<ul> <li>Upgrading Materials Recovery Facilities to better capture single use plastics.</li> </ul>		
Plastic waste and packaging	<ul> <li>Improve recyclability of plastics.</li> <li>Improve recycled content of plastics.</li> <li>Alternates to plastic packaging (e.g., paper).</li> </ul>		
Food waste reduction and diversion	<ul> <li>Food waste reduction programs.</li> <li>Improved packaging to extend food shelf life.</li> <li>Improvements at food processing facilities to reduce the amount of food that becomes waste.</li> </ul>		
Labour shortages	<ul><li>Additional automation in food processing.</li><li>Automation in greenhouse production.</li></ul>		

In general, the Consulate should work to build the number of companies that can potentially take part in procurement opportunities Greenhouse Gas Reduction (specifically Anaerobic Digestion) and Plastic Waste and Packaging, in particular.

# **Greenhouse Gas Reduction (specifically Anaerobic Digestion)**

- Dutch companies have already been self-organizing and participating in procurement opportunities.
- Dutch companies are also already tracking future procurement opportunities. The Netherlands consulate could also track upcoming procurements and push this out to relevant Dutch associations and companies.

 The Consulate could hold events (workshops, webinars, conference presentations) for Canadian audiences to profile current Dutch technologies and their success in Canada. It would be useful to target an audience of potential procurers.

## Plastic Waste and Packaging

- Engage with various levels of Canadian government to profile Dutch solutions to reducing single
  use plastic usage, plastics with greater recycled content, alternatives to plastic packaging and
  equipment/technology that can improve the capture rate of recycled plastics at materials
  recovery facilities.
- Work with Dutch packaging companies (plastic and other) to let them know about the push to reduce single use plastic usage, increase recycled content of plastic packaging etc.
- Dutch companies that sell plastics recovery equipment to materials recovery facilities are also already likely tracking future procurement opportunities. The Netherlands consulate could also track upcoming procurements and push this out to relevant Dutch associations and companies.
- The Consulate could hold events (workshops, webinars, conference presentations) for Canadian audiences to profile current Dutch technologies and their success in Canada. It would be useful to target an audience of government officials and potential procurers.
- There are also some unique technologies that the Consulate may want to find separate means
  to profile. For example, a technology that captures surface waste might be of interest to many
  waterside communities dealing with litter issues that affect tourism that could be profiled through
  organizations like the Association of Municipalities of Ontario or the Federation of Canadian
  Municipalities. These types of technologies would also likely garner media attention through
  pilots given public concern with plastic waste.

### **Food Waste Reduction**

- Monitor what is happening with regard to food waste reduction programs in Canada and the Netherlands.
- Inform Dutch packaging companies of potential opportunities to sell packaging that helps extend the shelf life of food.
- Introduce Dutch companies that specialize in reducing the amount of food that becomes waste
  at major Canadian food processing companies through events (workshops, webinars,
  conference presentations). Also, introduce them to Canadian companies that are already
  working in this space (e.g., Provision Coalition).

### **Labour Shortage (Automation)**

- Engage with various levels of Canadian government to profile Dutch solutions to labour automation.
- The Consulate could hold events (workshops, webinars, conference presentations) for Canadian audiences to profile current Dutch labour automation technologies and the potential for their implementation in Canada. It would be useful to target an audience of government officials and potential. By way of example, Excellence in Manufacturing Canada does regular polling of their members which could help to better isolate opportunities for Dutch companies and could also work with the Consulate on roundtable sessions.

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