



Sustainable Initiatives in Food Management

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**PROVISION
COALITION**

PROCESSING FOOD SUSTAINABLY



Presentation Outline

- About Provision Coalition
 - Food loss & waste problem in Canada
 - Provision's food loss & waste initiatives
 - Mapping the problem
 - Food waste stakeholder collaborative
 - Food waste working group
 - Industry pilots & solutions forum
 - Summary & next steps
- 



About Provision Coalition

- Providing valuable resources, programming and public policy collaboration
- Provision is the **industry's leading voice on sustainability**
- Funding through Growing Forward 2
 - A federal-provincial-territorial initiative



PROVISION COALITION



CONSEIL DE LA
TRANSFORMATION
ALIMENTAIRE
DU QUÉBEC
FOOD PROCESSING
COUNCIL
OF QUEBEC



FCPC
Food & Consumer
Products of Canada

PACC
Produits alimentaires et de
consommation du Canada



Newest Member



The background of the slide is a photograph of a large pile of food waste, including various vegetables like lettuce, tomatoes, and carrots, along with some plastic packaging and other debris.

How Big is Food Waste Problem in Canada?

\$31 BILLION/Year

30 - 40% of
food produced
is lost along
the value
chain

2% of
Canada's GDP

70% of
Canada's agri-
food exports

ISSUES IN THE FOOD AND BEVERAGE INDUSTRY

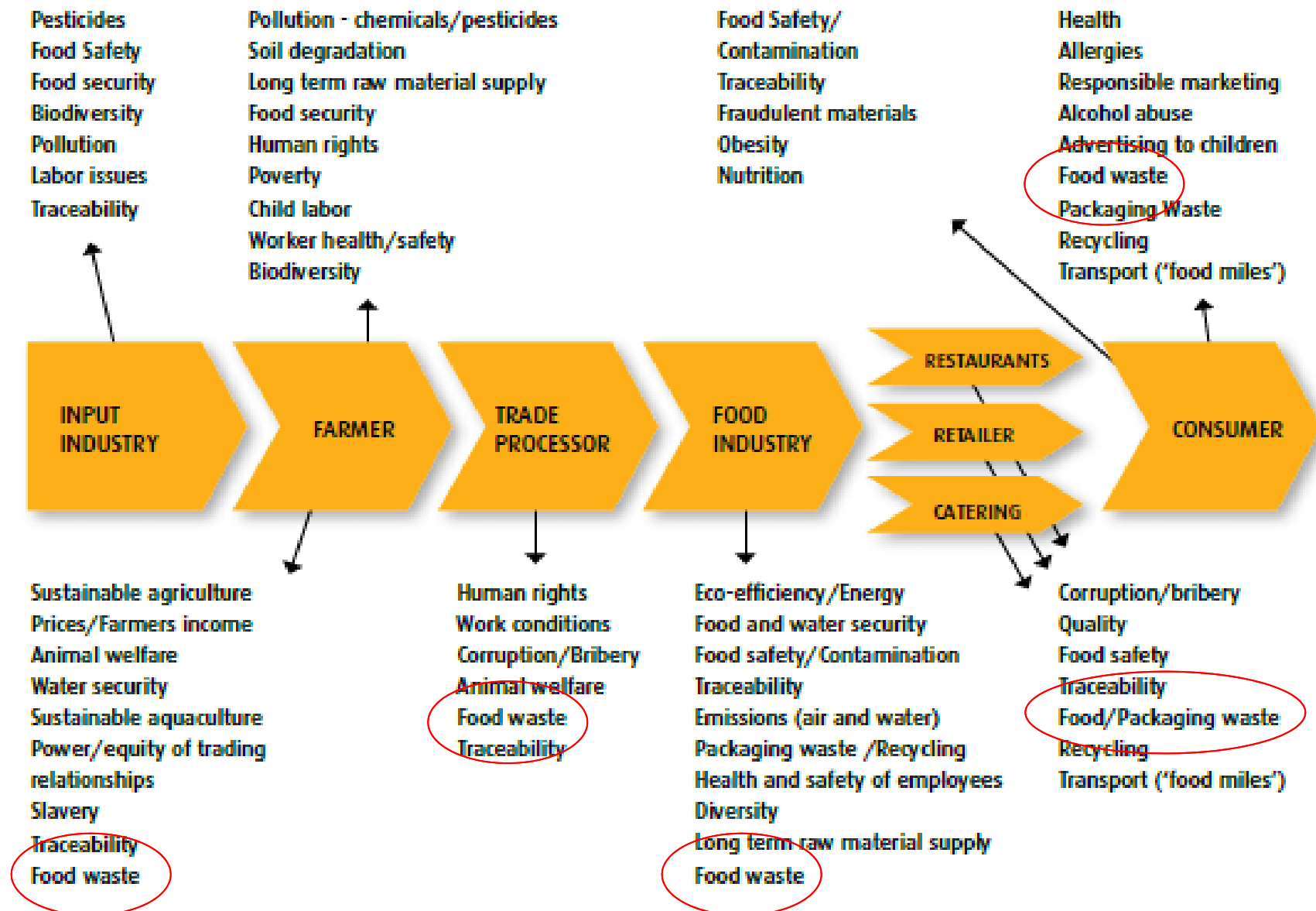


DIAGRAM 3: ISSUES IN THE FOOD AND BEVERAGE INDUSTRY

"Ionescu-Somers, A. and Steger, U. (2008) Business Logic for Sustainability: A Food and Beverage Industry Perspective, Palgrave Macmillan, UK, Page 39"



Provision's Food Loss & Waste Initiatives



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Research: Mapping Food Waste Challenge

- Understand food waste in Canadian F&B industry
 - **What** is food waste?
 - **How** big is the food waste problem?
 - **Where** does food waste occur and **why**?
 - **How** can the problem be tackled?

Developing an
Industry Led
Approach to
Addressing
Food Waste
in Canada

[View the full report](#)



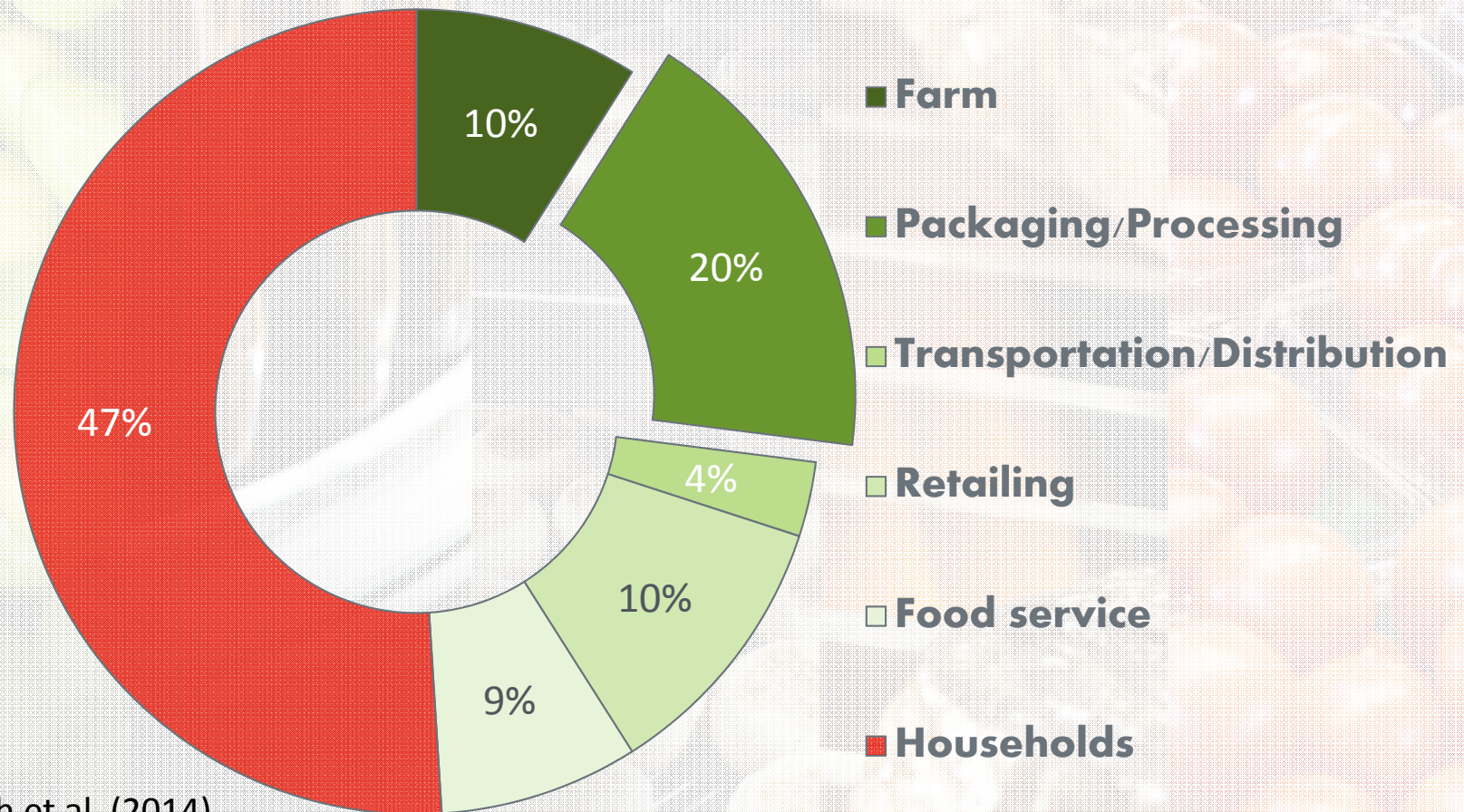
Network for
Business Sustainability
Business. Thinking. Ahead.



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Distribution of Food Waste Throughout the Value Chain (Farm to Fork)



Source: Gooch et al. (2014)



What Are the Hot Spots for Food Waste?

Farm		Packaging & Processing	Wholesale Distribution	Retailing	Food Service	Households
Crop/ livestock production	Post-harvest					
Fruits & Veggies	Fruits & Veggies	Grain Products	Fruits & Veggies	Fruits & Veggies	N.A.	Fruits & Veggies
Seafood	Meat	Seafood	Seafood	Seafood		Meat & Seafood
	Grain Products	Meat	Meat	Meat		Grain Products
		Dairy Products		Bakery & Deli		Dairy Products
		Beverages		Ready-Made Food		Beverages



[illegible]

LEARNING

KNOWLEDGE

INFORMATION INFORMATION INFORMATION

DATA DATA DATA DATA



Food Waste Working Group



INCREASE
**PROFITABILITY &
COMPETITIVENESS**

REDUCE
**ENVIRONMENTAL
FOOTPRINT &
BUSINESS RISKS**

Food Waste Toolkit

Now Launched!

Stage 1b Method 2. Quantifying Food Waste - Output Screen

Quantity of Food Waste Report



[< BACK TO OVERVIEW](#)

Welcome to the Provision Coalition Food Waste Reduction Tool Kit. The purpose of this tool kit is to help your company quantify its avoidable food waste to allow you to develop cost effective reduction strategies that can be implemented and whose success can be measured.

Supporting Tools / Resources

- Export Report
- Other Resources
- Change Facility / Report

% and Annual Dollar Value of Avoidable Food Waste



% and Annual Dollar Value of Avoidable Food Waste



Method 1.Quantifying Avoidable Food Waste Using Available Waste Disposal and Diversion Data

1

Stage 1, Method 1
Qualifying Food
Waste

2

Stage 1, Method 1
Output

< BACK TO OVERVIEW

	Months	Tonnes	Annual
How many tonnes of waste was directed to landfill? From your bills or waste audit data enter the number of months they represent and tonnes of waste.	<div>12</div>	<div></div>	
		\$	
What was the cost of landfilling during the same period? From your bills or waste audit data enter the number of months they represent and disposal cost of waste.	<div>12</div>	<div>0</div>	\$0 /Tonnes
	% Food Waste		
What per-cent of the waste directed to landfill is food waste ? Estimate using your best judgment. (default 50%)	<div>50</div>		
	Months	Tonnes	Annual
How many tonnes of food waste was diverted to any non-disposal options (e.g. composting, anaerobic digestion, animal feed)? From your bills or waste audit data enter the number of months they represent and tonnes of food waste.	<div>12</div>	<div></div>	
		\$	
What was the cost of diversion during the same period? From your bills or waste audit data enter the number of months they represent and diversion cost of waste.	<div>12</div>	<div>0</div>	\$0 /Tonnes
Total Annual Tonnes of Food Waste			
Total Annual Cost to Manage Food Waste (Disposal and Diversion)			\$0.00 /Year

Food Waste Reduction and Practices Toolkit

To start using the framework simply select the question that represents the stage your company is at.



Pilot Partners

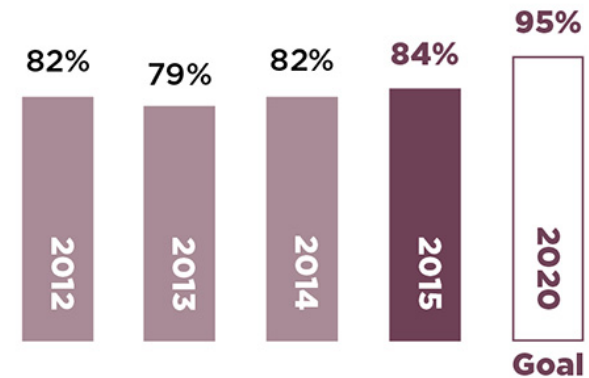


Pilot: Campbell Company of Canada

Campbell has a long history of reducing and recycling:


- Recycle 84% of waste produced, with a goal to recycle 95% by 2020.
- Diversion and source reduction of food waste from landfill through donation, animal feed, compost and waste to energy.
- Donate more than \$50 million in in-kind product annually through direct agency donations and reclamation.

SOLID WASTE RECYCLED





Pilot: Campbell Company of Canada

- Conventional 3Rs Waste Audit
 - Touched on 1% of Campbell's food waste
 - Retained third party consultant to conduct comprehensive food waste audit
 - Applied toolkit
 - Estimated \$300,000 in savings
 - Case Study in Spring 2017
- 

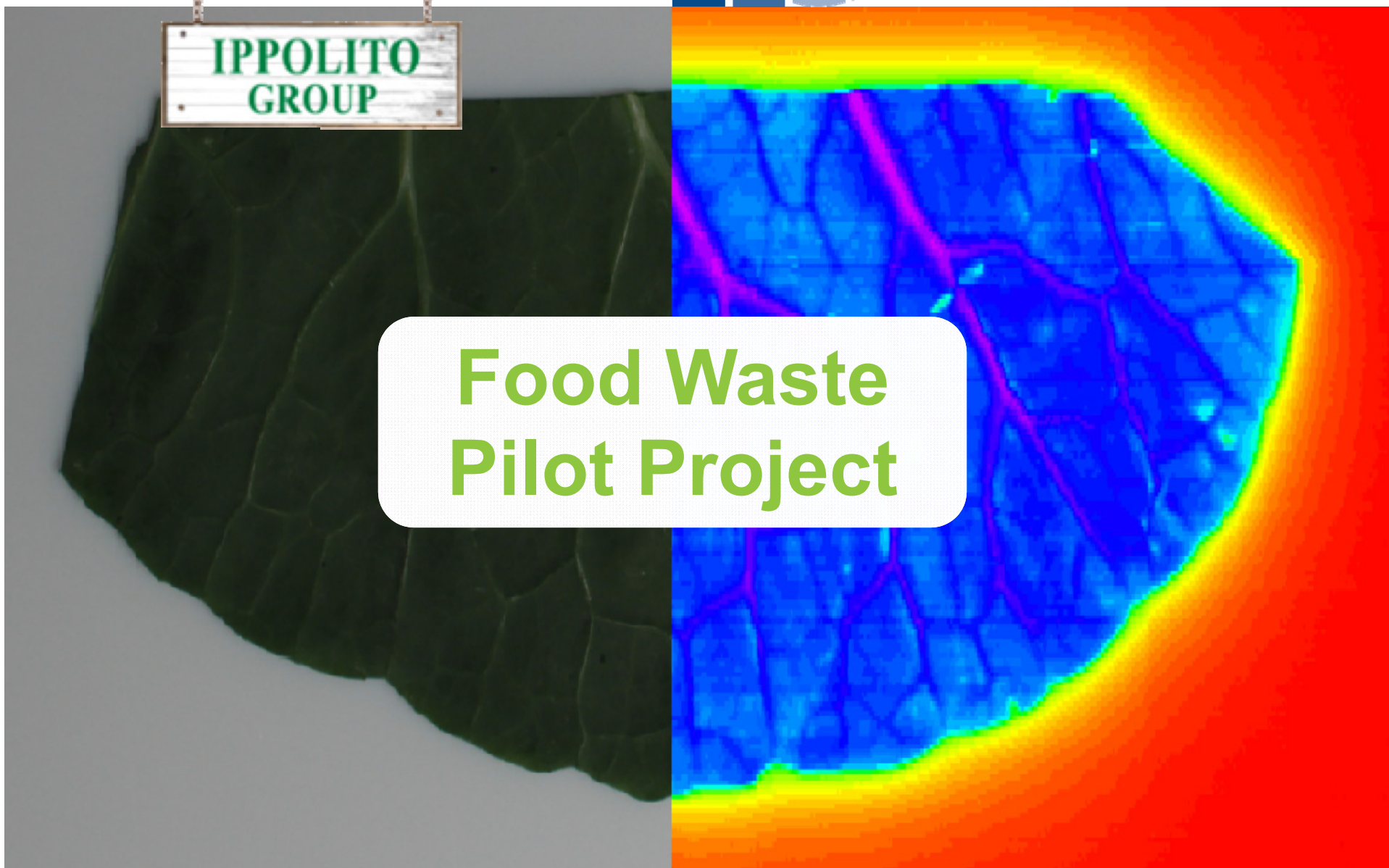


Pilot: Dairy Processor

- 32-38% organic waste opportunity
- Verified with external in-plant audit



Food Waste Pilot Project



Food Waste Pilot Project

- Chemical Grading Pilot Project
 - Funded through a GF2 collaborative grant
 - Working with P&P Optica
 - Piloting hyperspectral chemical sorting technology to identify subtle chemical signatures of early spoilage to reduce waste and extend shelf life



Food Waste Video Production



Solutions Focused Research

- Innovation & Technology Opportunities
- Industry Best Practices



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CANADA'S 2017 FOOD LOSS AND WASTE FORUM

Finding Solutions

- April 12, 2017
- Mississauga Convention Centre, Toronto, Ontario
- Linking efficiencies to food waste reduction

Facebook: Reduce Food Waste Challenge





Next Steps

- Continuing to support industry
 - Demonstrate business value with case studies
 - Solutions Forum
- Securing funding for educational campaign
 - Building awareness of 'real' impacts

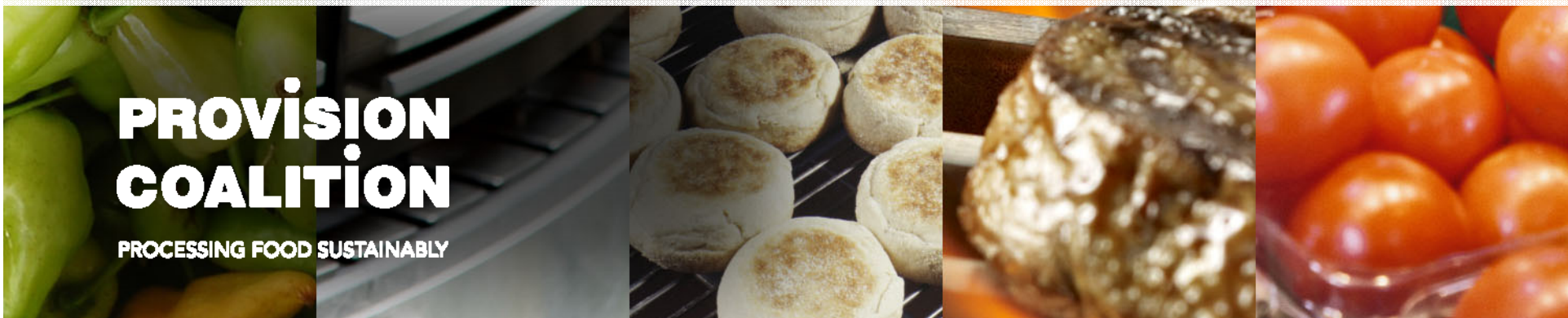


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