



Sustainable Food Systems
Our Recipe for the Future

Food Waste in Canada: Challenges and Opportunities

WASTELESS

May 30, 2017

Overview

- VCMi team
 - » International practitioners with focus on waste (incl. food)
 - » Expertise within numerous sectors – industry & policy
- FLW is an outcome
 - » Determined by individuals' behaviour (businesses, consumers)
 - » Never occurs in isolation
 - » Has multiple root causes
- Impact of government and industry misalignments
 - » Environmental
 - » Increased FLW
 - » Differs by sector

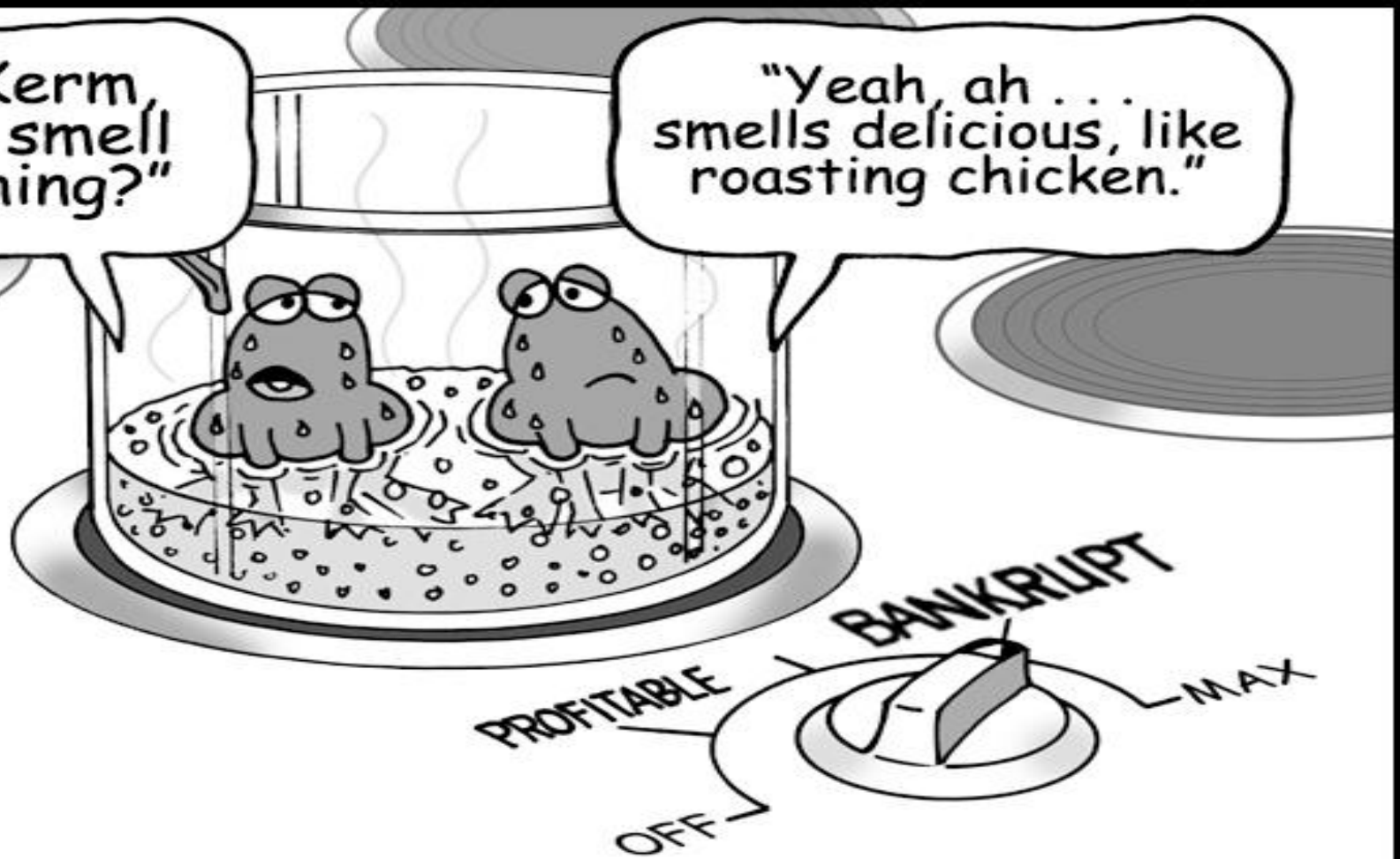


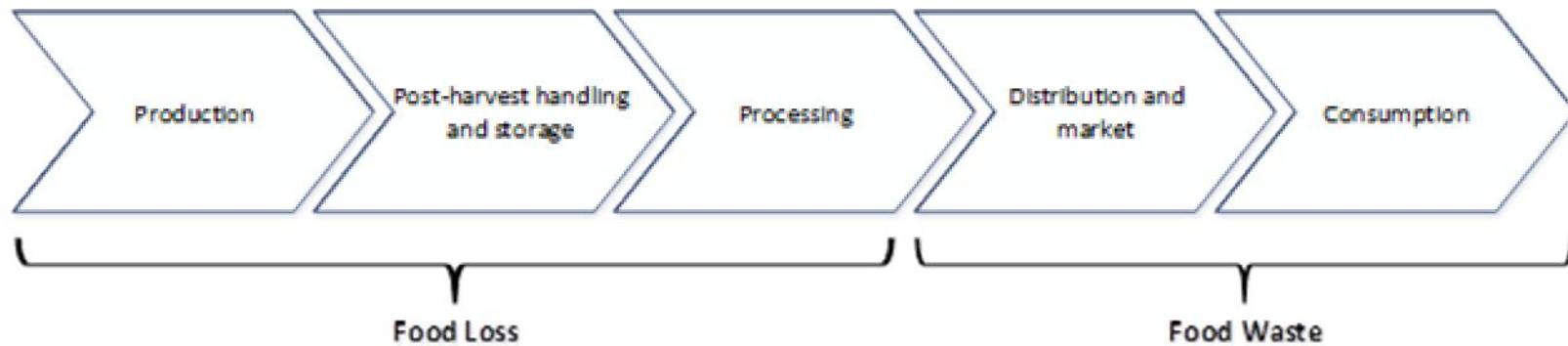
Placing Food Loss and Waste in Context



"Hey Kerm,
do you smell
something?"

"Yeah, ah . . .
smells delicious, like
roasting chicken."





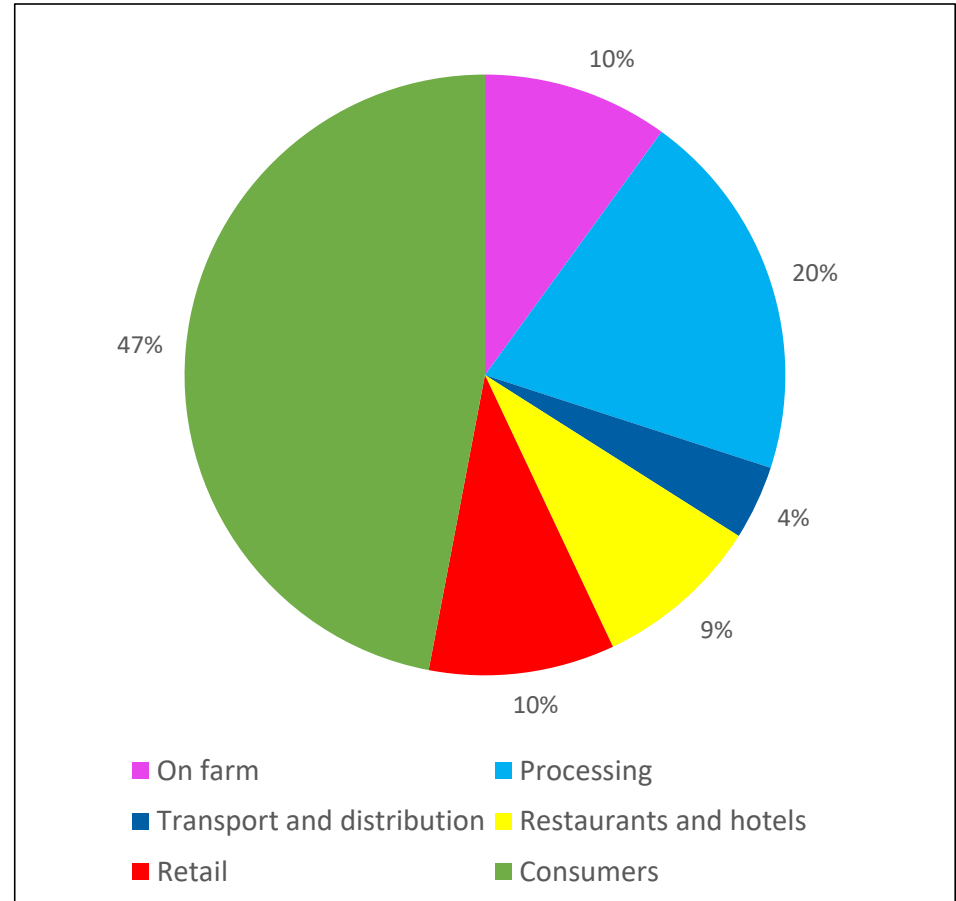
FLW Estimate = \$31B

Estimates directional and indicative

- Available data (e.g. Cdn & US disappearance data)
- VCM International research and consultation to industry
- Insight interviews and measurements
- FAO full cost estimate: >\$100B

FLW in context

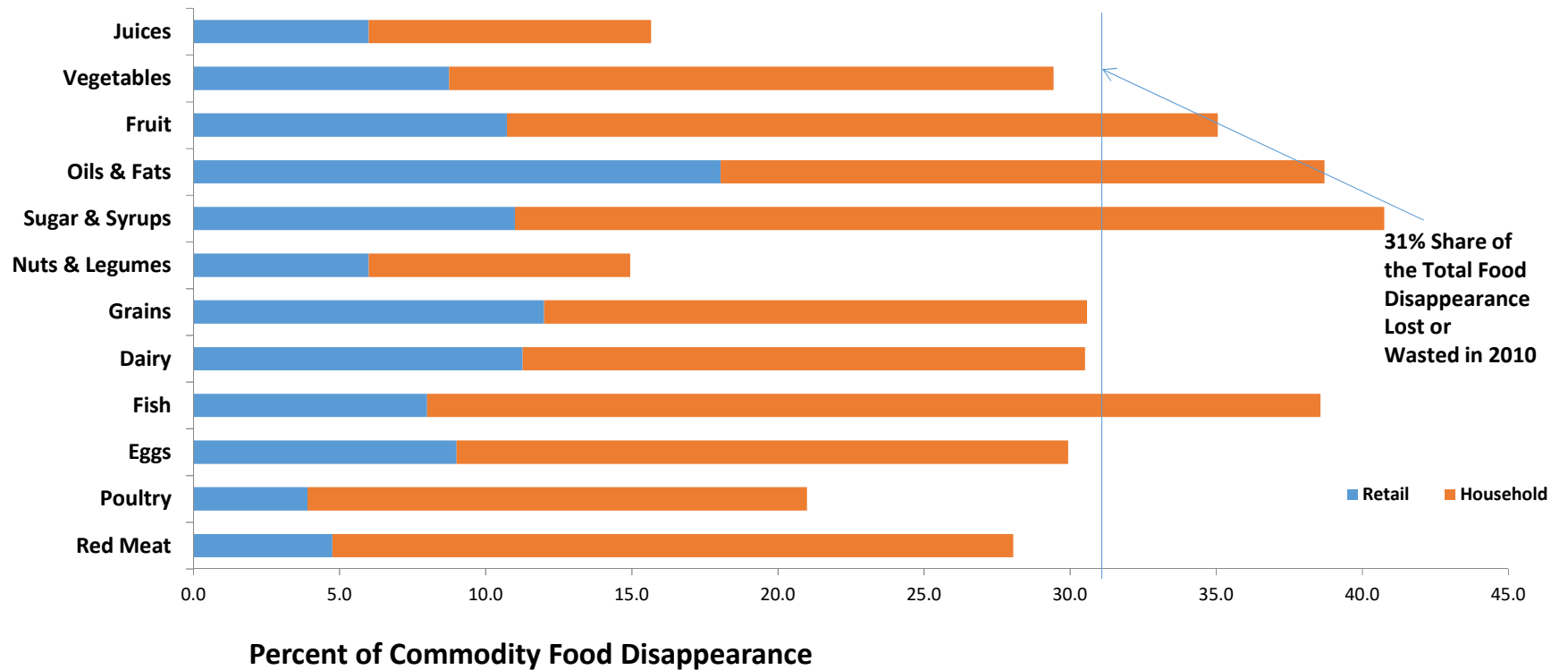
- FLW = 90% of agri-food imports in 2013
- 29.4% (6 billion kg) of food supply lost at retail & HH
- 6 billion kg would fill 60,000 rail cars = 1,000 km train



VCM International
2014



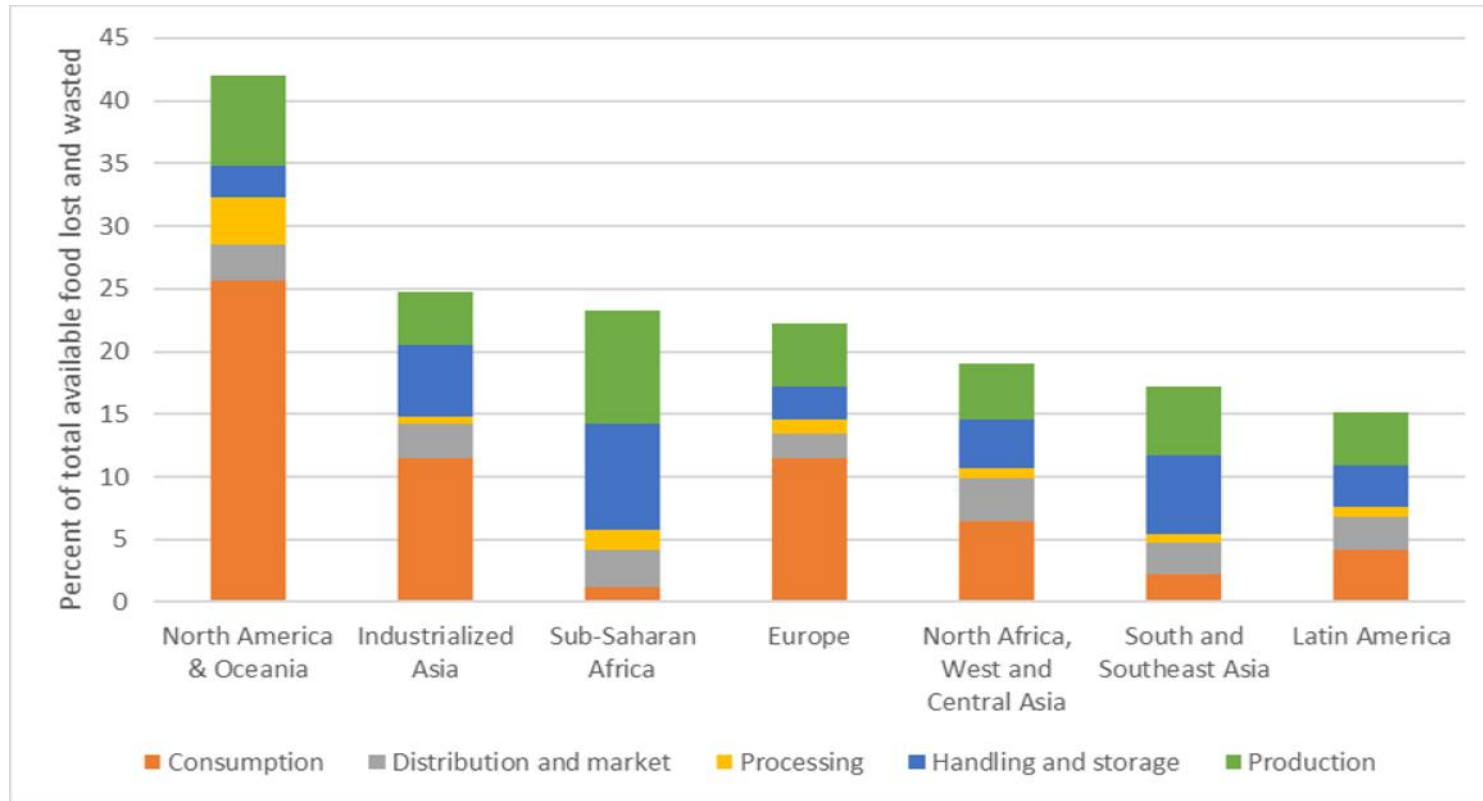
Canadian Retail and Household FLW, 2010



Source: AAFC calculations using Statistics Canada and USDA data..



Share of Available Food Loss & Waste



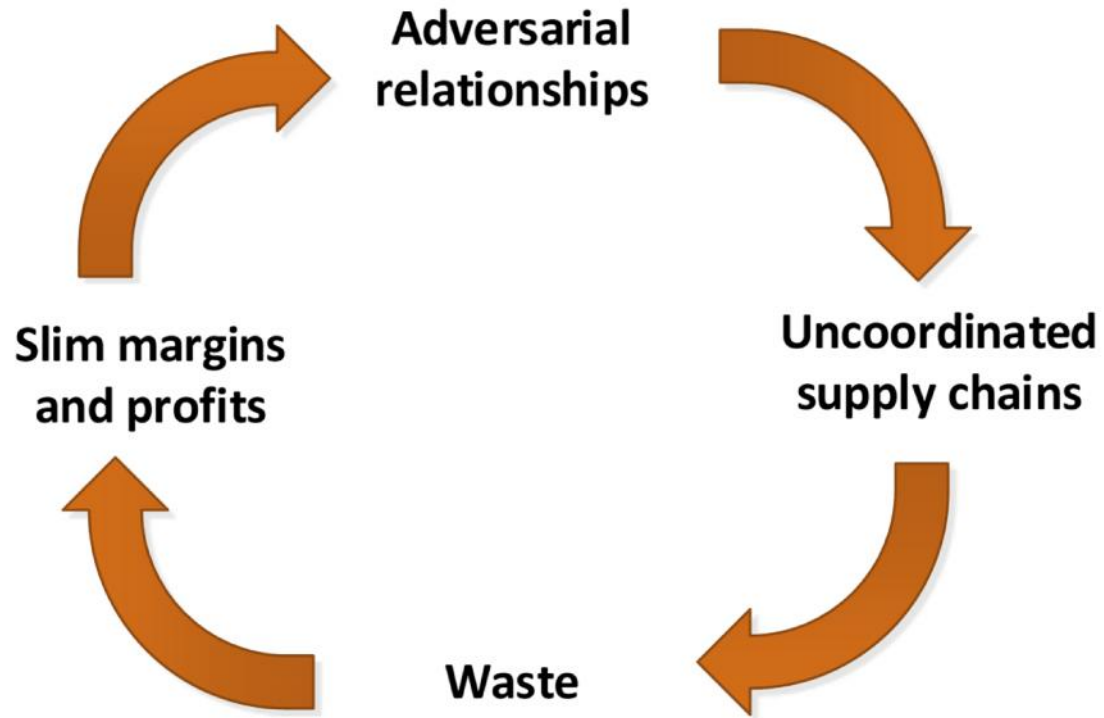
VCMI / AMERIPEN, 2017



Negative Impacts of FWL

- Consumer created food waste
 - » Partly manifestation of how industry operates
 - » Equate to >10% of food prices, creating market failures
- Financial opportunity for businesses
 - » 20-40 % of revenue eaten up by the “hidden factory”
 - » Value of FLW can exceed combined margins from along the chain
- Examples from Ontario
 - » Veg: 20% reduction in grade-out = 74% reduction in grower margin
 - » Distribution: over 20 associated costs, can double value lost
- Environmental impacts of retail and consumer food waste
 - » 15.6 million tonnes of CO₂ = \$2.34 billion
 - » 768 million M³ of water = >307 thousand Olympic size swimming pools

Reiterating Vicious Cycle



Policies, Legislation, Regulations

- Increasing pressure to act
 - » International (e.g. US and FAO initiatives, EU legislation)
 - » Domestic (e.g. provincial misalignments, private member bills)
- Complex policy choices
 - » Multiple ministries, responsibilities
 - » Multiple levels of government, circumstances
 - » Turf wars, competing agendas
- Potential for unintended consequences
 - » Restrict innovation, impacting competitiveness
 - » Ineffective / inefficient resource utilization
 - » Compounding effects

Solutions



Measurement | Analysis | Training | Implementation

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Critical Thinking

Q) Why is the standard railway gauge (distance between rails) 4 ft 8-1/2 inch in North America?

A) Early engineers brought their tools from Britain where the standard gauge was 4 ft 8-1/2 in

Q) Why is the standard gauge in Britain 4 ft 8-1/2 in?

A) The people who made the first rail cars also made horse-drawn carriages that had wheels 4ft 8-1/2 in apart

Q) Why did the carriage makers make their wheels 4 ft 8-1/2 in apart?

A) The old roads in Britain had ruts 4 ft 8-1/2 in apart

Q) Why did the roads in Britain have ruts 4 ft 8-1/2 in apart?

A) The Roman Legions who first built roads in Britain spaced the stone lanes 4 ft 8-1/2 in apart

Q) Why did the Roman Legion build the roads with this spacing?

A) The wheels of the roman chariots were 4 ft 8-1/2 in apart

Q) Why were the Roman wheels that far apart?

A) That was the space needed to fit two horses, side by side, to pull the chariot



Anything graded out
is composted.

Our disposal costs
are small compared
to our revenue.

Excess goes to the
food bank.

Thanks BUT we don't have any food waste.

We just plow the
waste back into the
field.

It's our customer
that is the problem,
not us.

The only waste I can
think of is just part
of doing business.

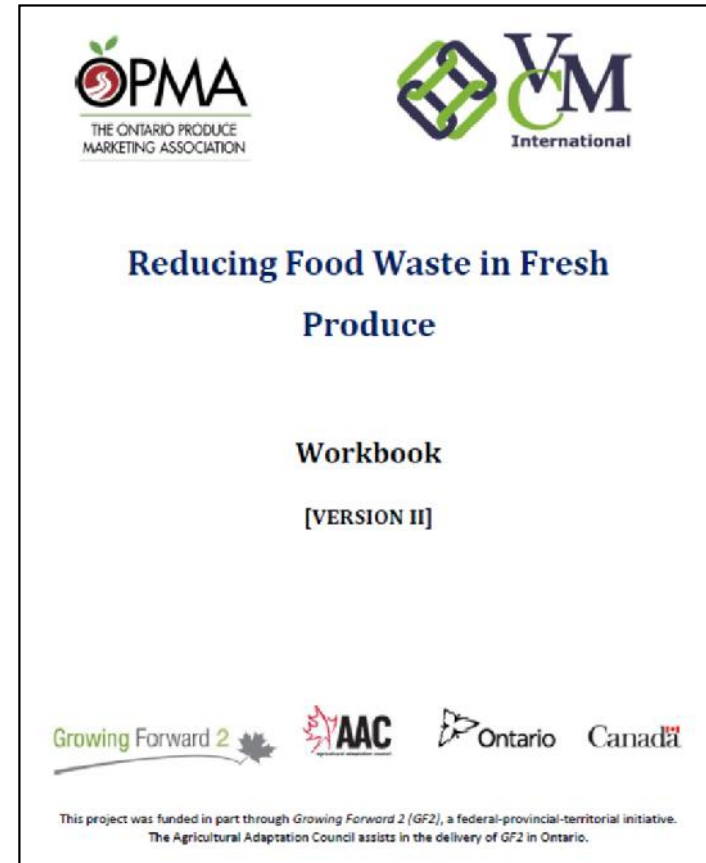
How Can You Benefit from Reducing FLW?

- Understand your business from a process perspective
 - » Many businesses managing symptoms, not root cause
- Question if you are seeking to do the right things
 - » Versus seeking to do things right
- Determine the greatest opportunities
 - » What are your biggest headaches, challenges?
- Determine what you need to measure and how
 - » Produce continuous measurable data
- Do not try to boil the ocean
 - » Begin with what is manageably and realistic



OPMA Workshops

- Tailored to Ontario's produce industry
 - » Applicable to other sectors too
- Ten easy to follow steps
 - » Outcome of >10 years work with industry
- Case studies
 - » Farmer
 - » Packer/Marketer
 - » Distribution
 - » Retail
- Information: virginia@theopma.ca

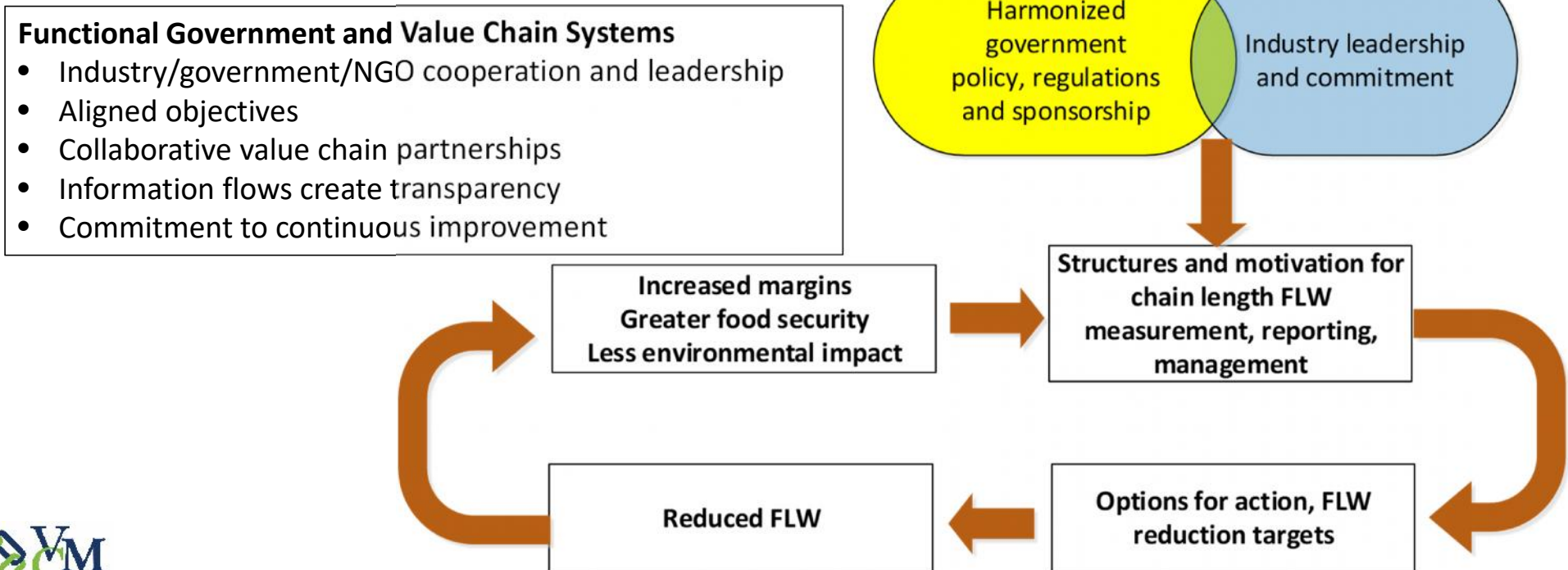


Governments' Three Broad Policy Options

- 1) Ad hoc
 - » Opportunistically engage groups and individuals
 - 2) Government driven
 - » Promote need to reduce FLW, introduce tax and legislation
 - 3) Partner with industry
 - » Engage 3rd party expertise to assist implementation of voluntary agreements
- Common excuses for doing nothing
 - » Insufficient data
 - » Problem too great
 - » Competing priorities and agendas

Industry / Government Partnerships

- Descriptive targets, enabling focused legislation/regulations
- Constructive solution-driven dialogue



Role of Packaging in Reducing Food Waste

Extending shelf life 3 to 10+ times



Comparative Carbon Footprint*		
Item	Product	Packaging
Cheese	52	1
Cooked Ham	624	1

* Does not include reduced energy footprint (e.g. transport & cooling)

Sealed Air, 2017



Conclusions



Conclusions

- Food loss and waste is a symptom
 - » Never occurs in isolation
- Consumers are the largest source of food waste
 - » Exacerbated by management decisions along the value chain
- Enormous amount of food is wasted unnecessarily
 - » Impacts prices, profits, economy, environment
- FLW represents a financial opportunity for businesses
 - » When managers apply critical thinking
- FLW is a policy and legislative challenge
 - » Federation creates added complexity
- Governments have three broad policy options
 - » Sustainably addressing FLW requires industry / government partnerships



Thank you

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