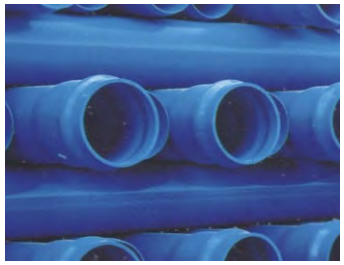


Vision: 100% Plastics Recycling & Recovery

Recycling Council of Alberta Conference 2018

September 20, 2018

Joe Hruska,

V.P. Sustainability

Association canadienne de l'Industrie des plastiques

since • depuis 1943

Canadian Plastics Industry Association

Thank you for opportunity to speak…

1. Ocean plastics and marine litter
2. Lost value of plastics not recovered
3. More efficient & effective plastics management

Photo: AfriramPOE / Shutterstock.com
https://www.fairobserver.com/more/environment/plastic-pollution-environment-climate-change-innovation-news-18726/

Plastics' contributions – providing many benefits

Example – reduces food waste

Fresh for 14 days

40%+ thrown out; plastics keep food fresh longer

Grapes in-store wastage
DOWN by 20%

New potatoes
in-store wastage
DOWN to <1%

Bunches of identical bananas stored for 7 days loose and in a modified atmosphere bag

Source: Packaging in Perspective, Advisory Committee on Packaging, Supported by INCPEN
http://www.thefactsabout.co.uk/files/98201010542packaginginperspective.pdf

Reduced food waste – closer look

"If plastics are replaced by alternative materials, environmental cost of consumer goods would be

3.8 times more."

- Trucost Study

If plastics so beneficial & valuable….

Need to manage more effectively; how can we do that?

Recycling Magazine: *Peter von Bechen, pixelio.de*

Committed partners in finding solutions

Canadian Plastics Industry Association-

National voice in Canada since 1943

- 2,422 companies
- 76,000 employees
- $17.6 billion industry
- Conventional & Bioplastics Sectors
- Members throughout the value chain

- Important to Canadian economy
- Driven by technology, science & innovation

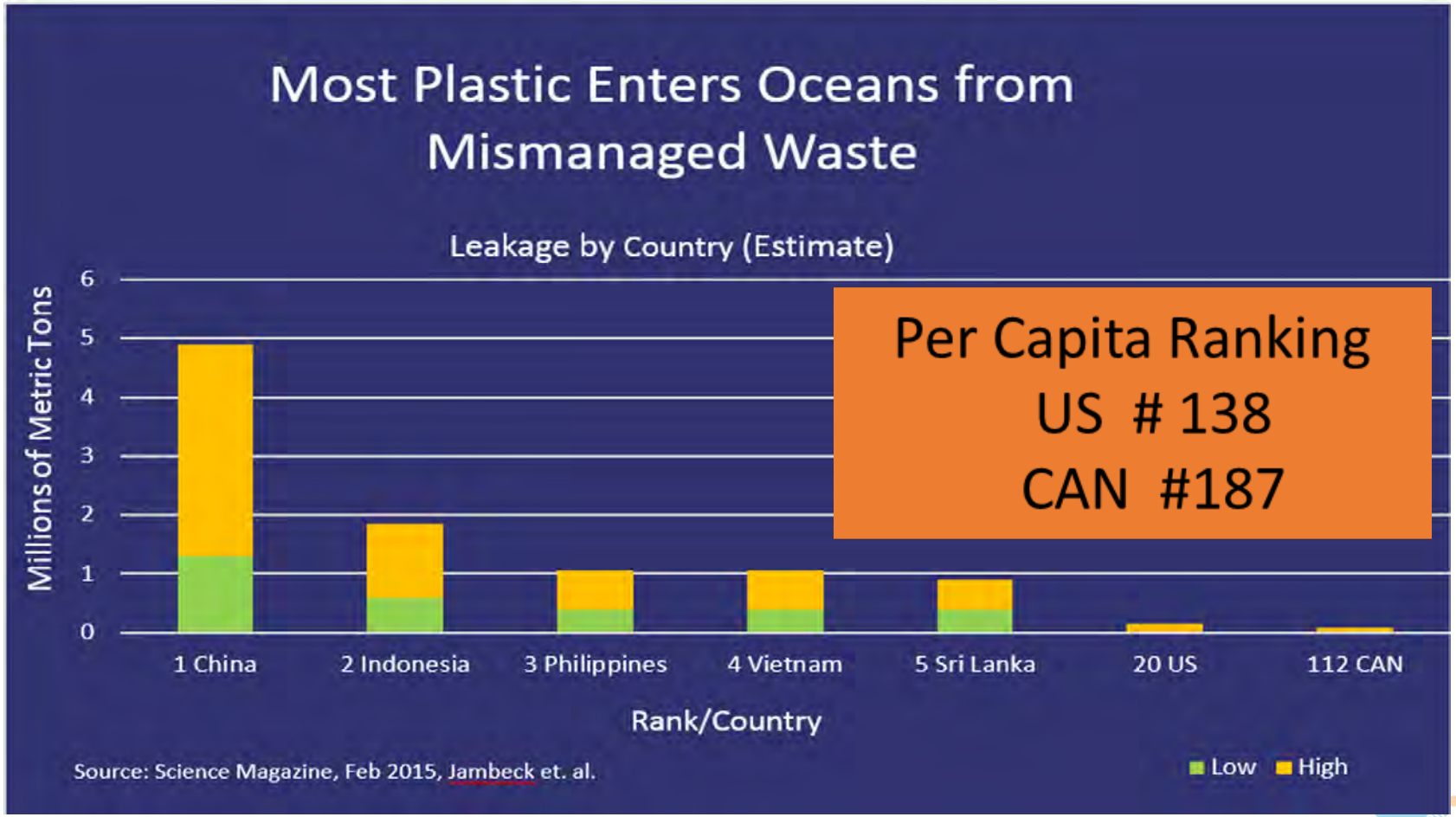
CPIA partnering on Plastics Charter

CPIA & members in Charlevoix, QC

In Halifax, NS now at G7 Ministers Mtg.

Helping export Canadian “know-how”

Joining other countries to help solve the problem overseas



From: Plastics Sustainability Coalition; July 2018

Sustainability & Plastics Recovery in N.A. Utilize all 4Rs

Reduce

Reuse

Mechanical
&
Molecule-to-
Molecule

Recover

21st Century Recycling

CPIA marine litter action

100% of Canadian resin manufacturing sites operated by CPIA members will participate in Operation Clean Sweep-Blue by 2022

CPIA commitment 100% plastics recycled & recovered

CPIA Shared Societal Sustainability Goals:

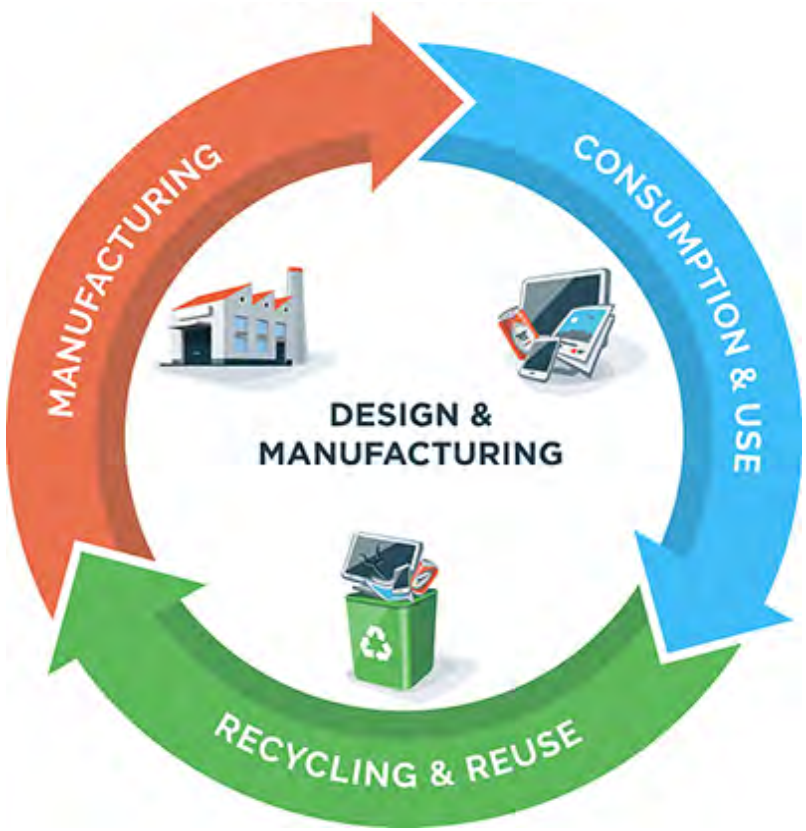
- 100% of plastics packaging is re-used, recycled and recovered by 2040 … or sooner
- Make landfills obsolete

Interim Goal:

- 100% of plastics packaging is recyclable or recoverable by 2030

Circular Economy about recycling, composting, reuse

Circular Economy



- Restorative & regenerative by design
- Keeps products, components, & materials at highest utility & value
- Distinguishes between technical & biological cycles."[1]

But recycling, composting, reuse can't get it all!

[1] PacNext

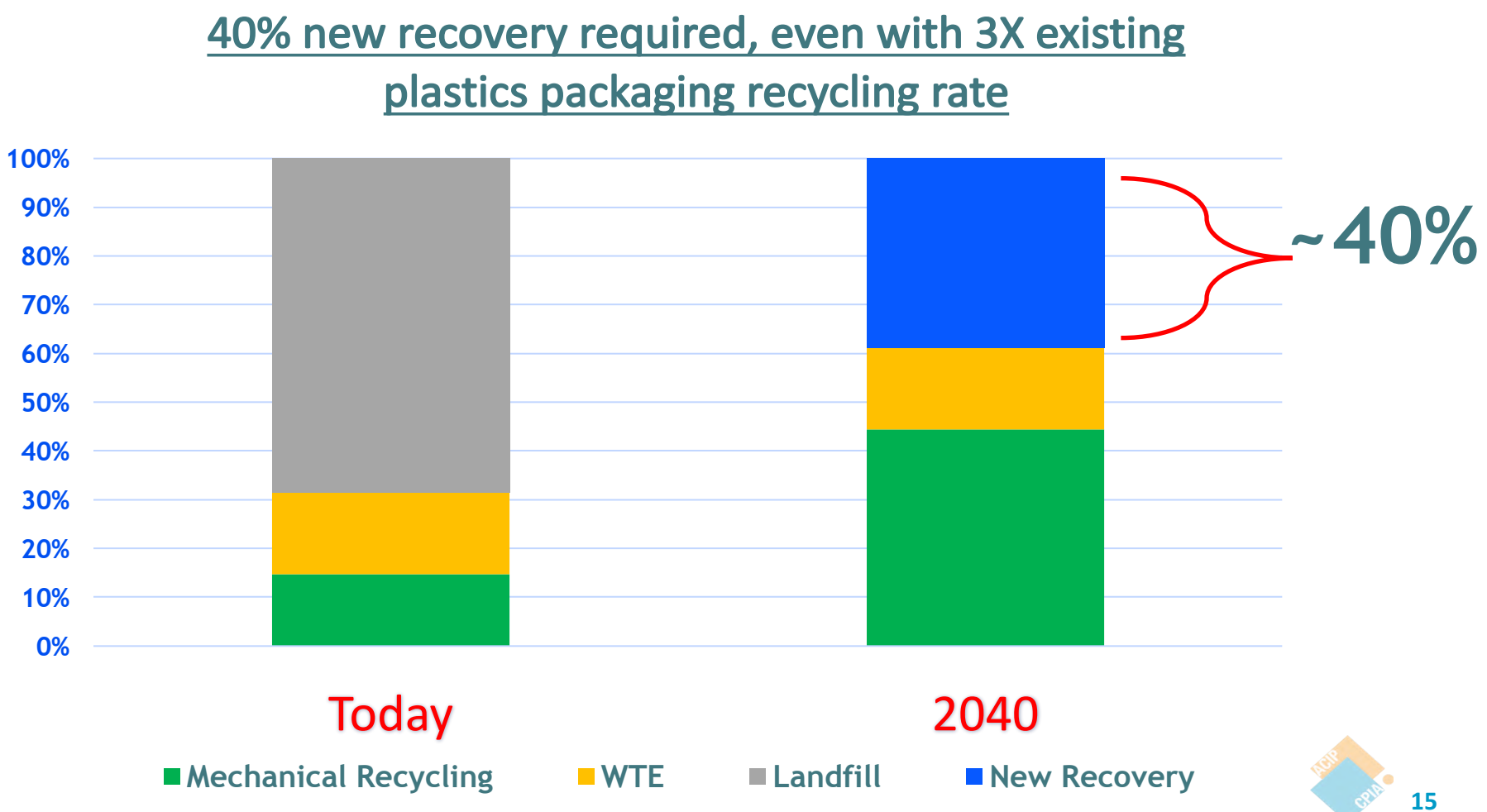
Sustainable Materials Management adds recovery – holistic approach

Sustainable Materials Management

- Use & reuse of materials in most productive & sustainable way across entire lifecycles by minimizing amount of materials involved & associated environmental impacts.[1]

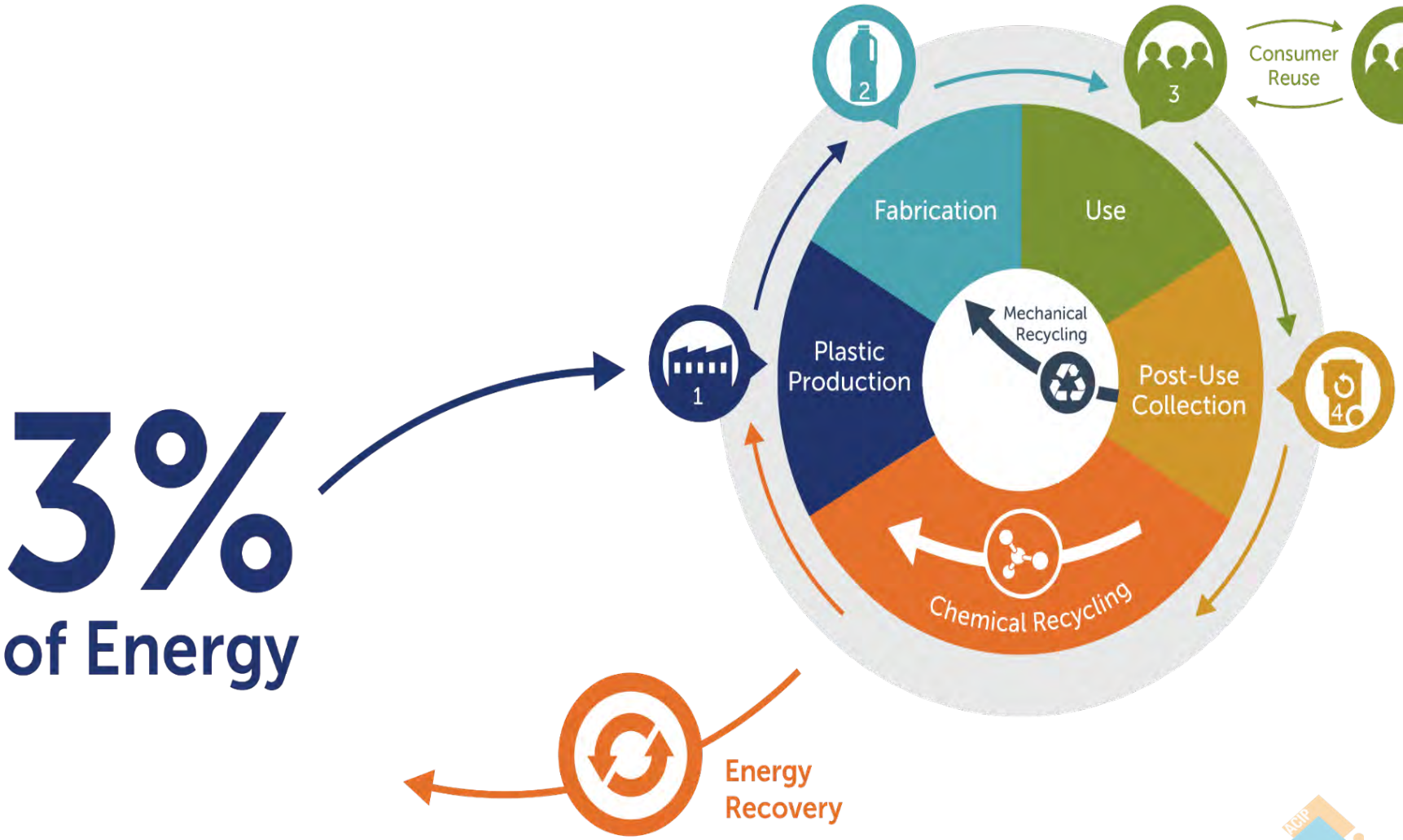
[1]US EPA. (Sept 2011). https://www.epa.gov/smm/sustainable-materials-management-basics

New recycling & recovery solutions essential

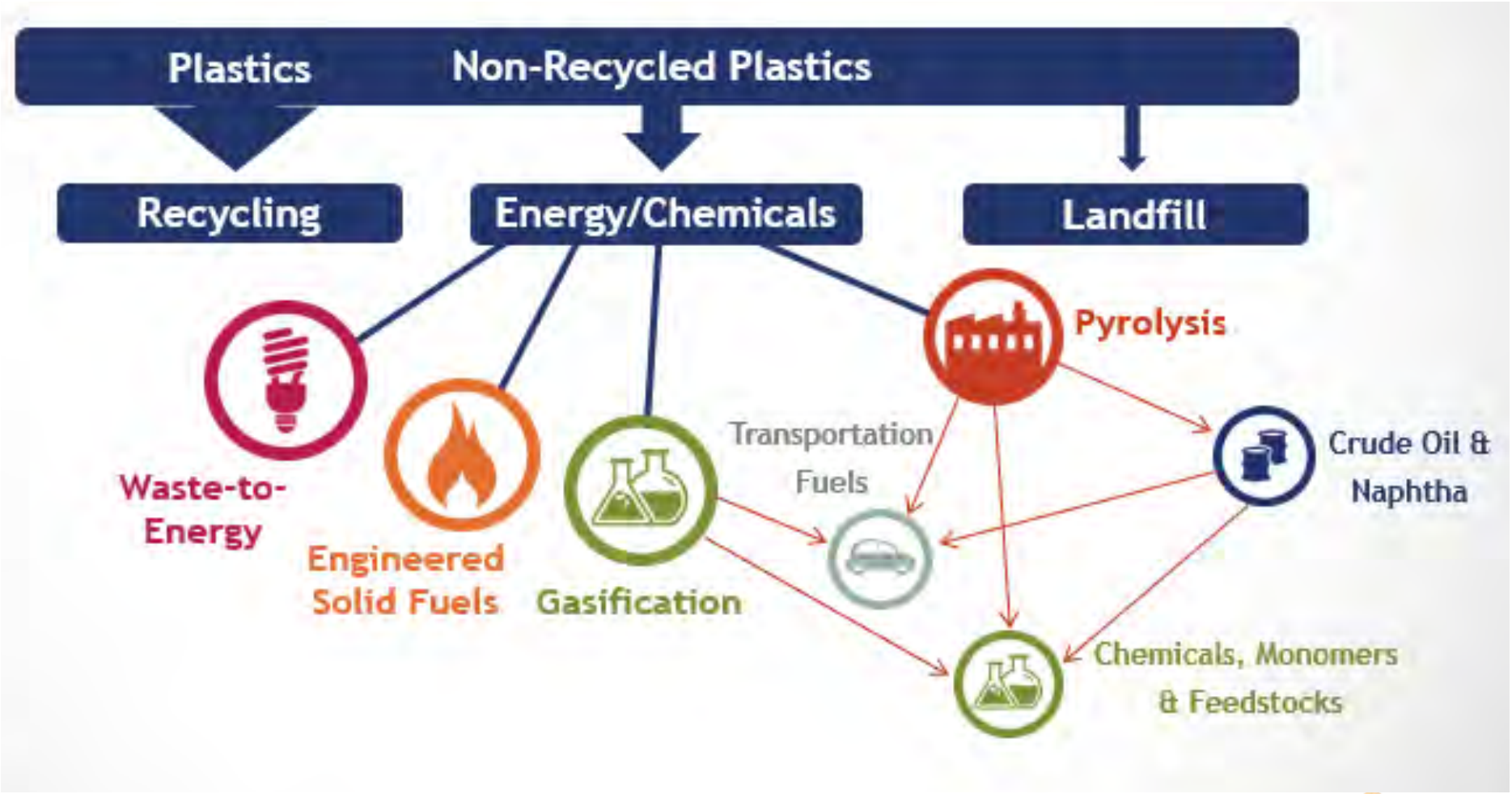


American chemistry Council

Plastics in circular economy



Plastic recovery: diverse yields



Innovations – convert post consumer plastics into original state molecules

Polystyrene

- 3 industry leaders close loop recycling PS packaging
- Using advance recycling technology
- Canadian solution to global problem

Innovations like Energy Bag

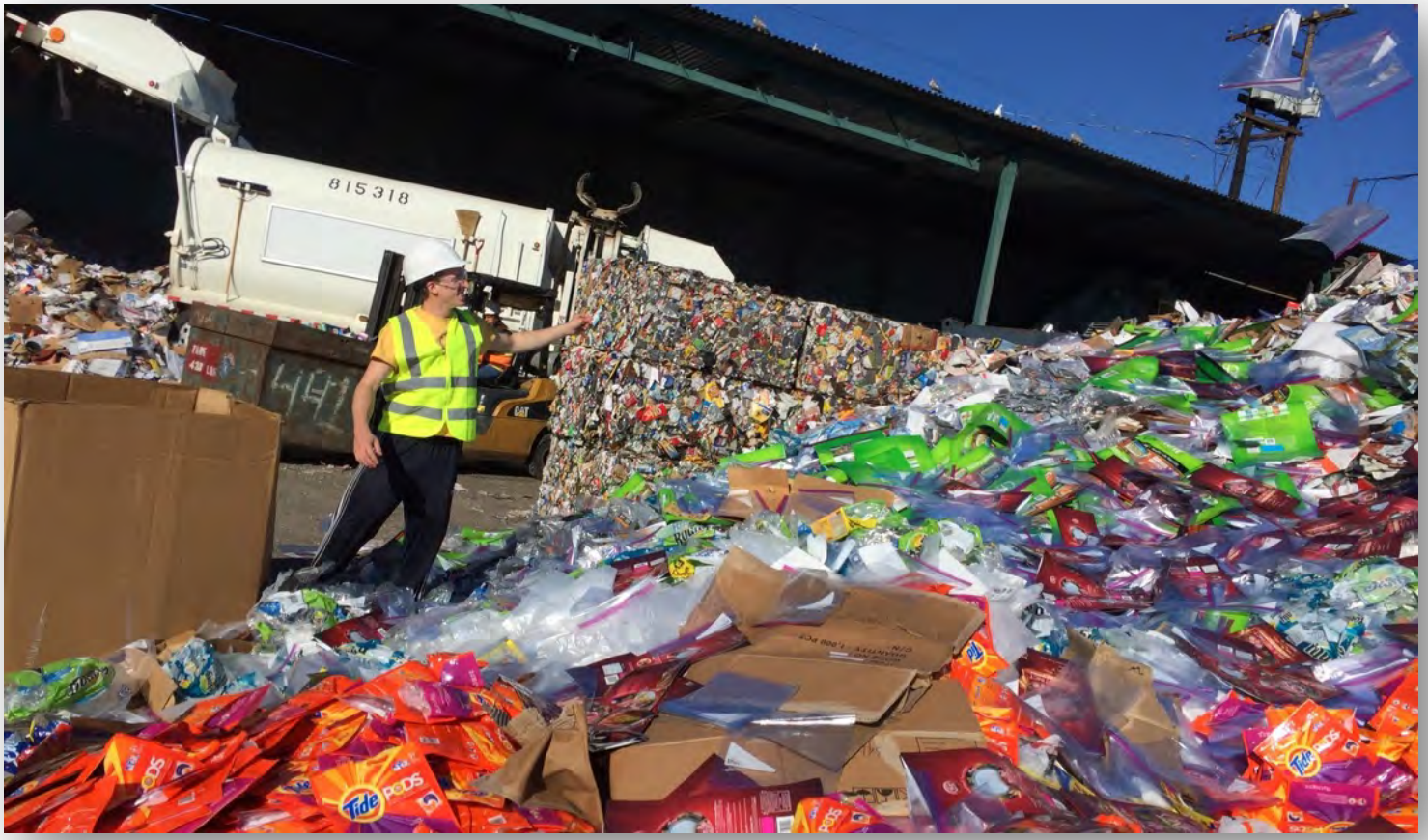
Dow's "Hefty Energy bag"

- Increase resource productivity of non-recyclable materials
- Making them into ethanol & other useful high valuable feedstocks such for waxes, oils & new plastics

https://www.kab.org/hefty-energy-bag-program/program-overview

Innovations in plastic management & recycling

Materials Recovery for the Future Pilot



Source: https://www.materialsrecoveryforthefuture.com

Plastics - valuable energy source

University of Waterloo - *Energy and Economic Values of Non-Recycled Plastics (NRP) Currently Landfilled in Canada*

- NRP = 2.8 million tonnes per year
- NRP converted by pyrolysis to fuel oil = 10.5 million barrels of oil per year

$ ½ Billion

700,000 cars

Advanced thermal & energy recovery

Energy from waste

Durham York Energy Centre

Zero plastics to landfill

Source: https://www.durhamyorkwaste.ca/Home/Home.aspx

Working hand-in-hand

CPIA and municipalities should work together

- help consumers/taxpayers enjoy a quality of life while
- reducing environmental impacts…air, land and water.
- one example: Resource Recovery Partnership Conference: June
- CPIA supports extended producer responsibility (EPR)

AMO Municipalities Ont

The Growing Garbage Problem:

The Story in Ontario

Waste is generating headlines across the globe, whether about banning plastic straws or dealing with islands of debris floating in the ocean. People are finally recognizing that so-called "convenient" products and packaging are causing inconvenient environmental havoc.

The waste problem is having a big impact in Ontario as well, undermining our iconic Blue Box program and clogging our waste systems, waterways and green spaces. Here's why:

1 **Products and packaging have gotten a lot more complicated:** What ends up in our waste is rapidly changing. All those disposable products and resealable pouches are getting more and more difficult to manage and recycle. Too often the only solution is to dispose of them because there isn't a viable market for the material, or it's simply too costly to recycle. Unfortunately, that doesn't stop some companies from mis-labeling products as being compostable or recyclable, even when the systems in place cannot accept them. It's confusing for consumers, increasing waste management costs and undermining confidence in the whole system.

2 **More waste products and packaging are ending up in the environment and we don't have enough landfill space:** More waste products and packaging are littering our communities and waters, where they harm wildlife and waterways. Municipalities and property taxpayers must clean up this pollution and foot the bill. Recent studies estimate eight million tonnes of plastics are ending up in our oceans annually. An estimated 10,000 tonnes per year is entering the Great Lakes. One in five municipalities, according to a 2010 survey by the Auditor General, don't have enough disposal capacity to meet future needs.

3 **Uncertainty is delaying needed investment in Ontario's recycling infrastructure:** The rapid changes to the waste stream requires increased investments in new processing facilities. However, uncertainty around legislation in Ontario has delayed much needed investment in these facilities.

Globally, many corporations recognize that they're in the best position to drive change to address this issue, rather than burdening property taxpayers. It's time for Canada and Ontario to take action.

Importance of partnerships

City of London & CPIA Partners MOU

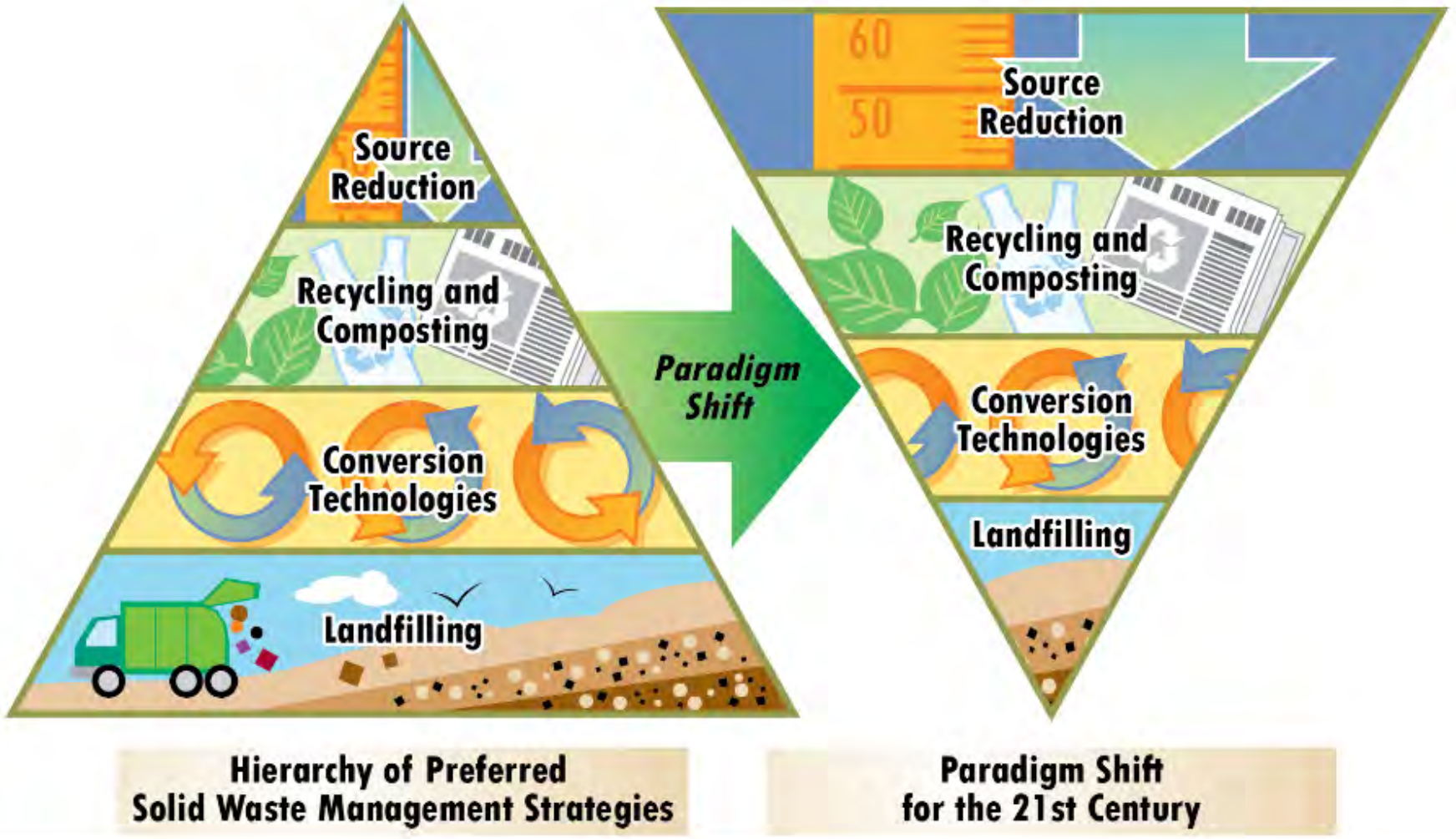
- Initiatives leading to a more sustainable economy
- Advance waste conversion, resource & energy recovery & policy objectives
- Collaboration – other municipalities, industry, academia, governments
- Broadly share information

Expanding Partner Opportunities

Institute for Chemicals and Fuels from Alternative Resources
Western University
icfar

Bioindustrial Innovation Canada®
A Sustainable Chemistry Alliance

Time to expand collaboration



Reproduced from Waste Advantage Magazine, August 15, 2014

Summary

1. 100% is a societal goal
   - Industry, governments and key stakeholders need to work together to success in reaching 100%

2. Consumers play a key role in making it happen

3. We need to expand options for diversion
   - Embrace new technology that will help us get to 100%
   - All diversion should count providing future opportunity to transition to higher value products.

Questions

Welcome your thoughts and suggestions…

CPIA website: www.plastics.ca

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Association canadienne de l'industrie des plastiques
since • depuis 1943
Canadian Plastics Industry Association

Sources & Resources

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3. Operation Clean Sweep https://www.opcleansweep.org/
4. Dow Hefty Energy Bag https://www.kab.org/hefty-energy-bag-program/program-overview
5. Materials Recovery for the Future https://www.materialsrecoveryforthefuture.com

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