



# Circular Matters

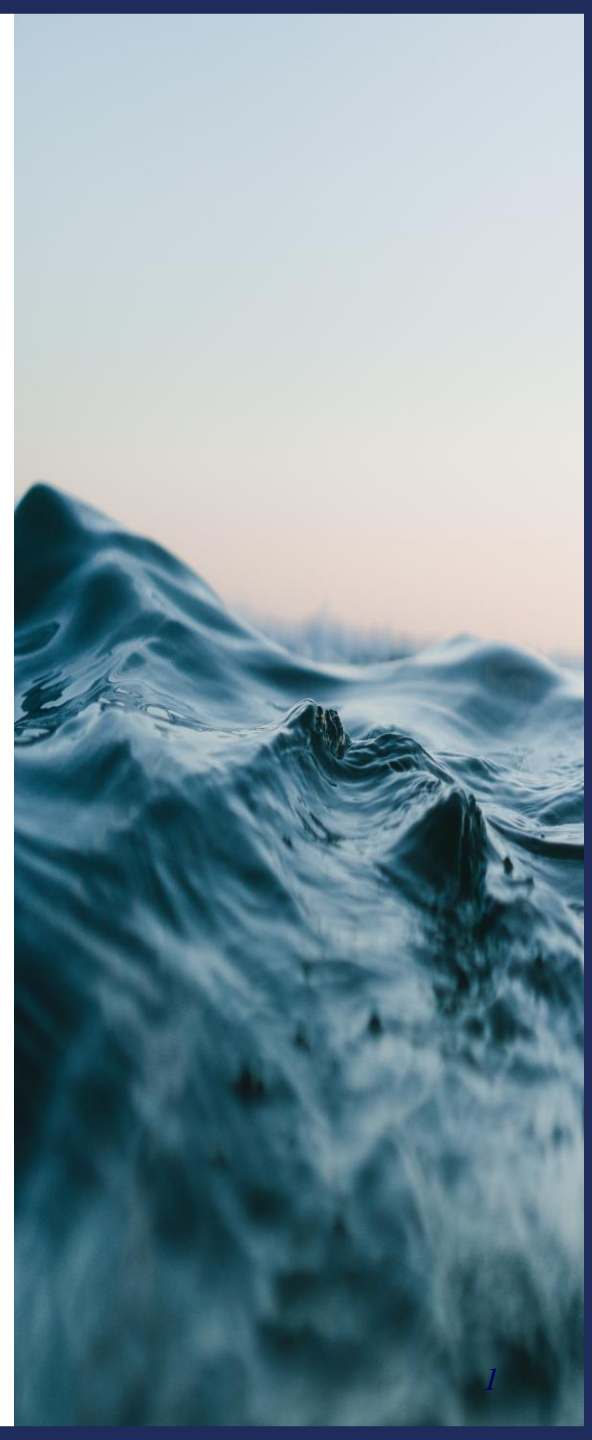
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## Domestic Recycling Market Development: Key to Building a Circular U.S. Economy

**Sustainability in Packaging**

March 12, 2020

Chicago, IL



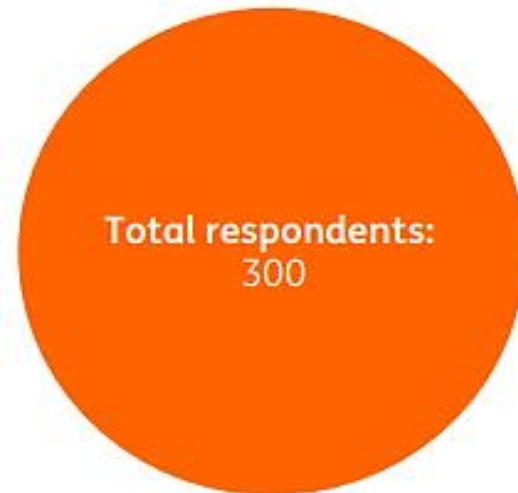


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# Circular Economy Building – Who's on Board?

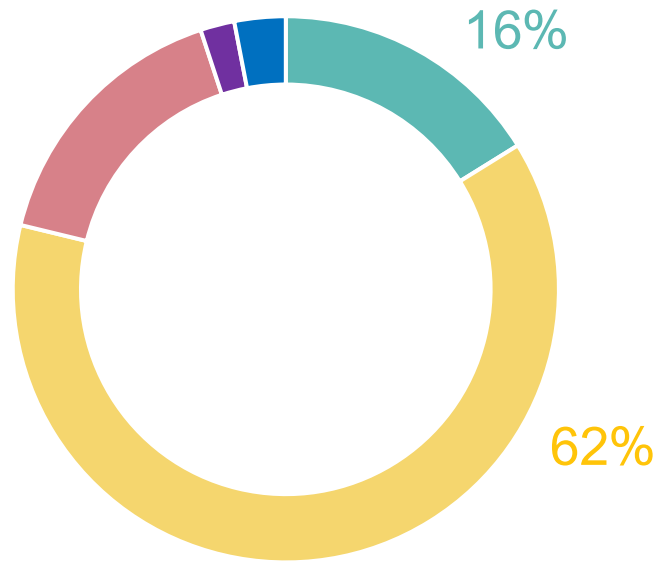
# ING surveyed 300 US business executives on views about transitioning to a circular economy

Conducted by Longitude, of Financial Times Group – May 2019



[https://www.ingwb.com/media/2692501/ing\\_us-circular-economy-survey-05-02-2019.pdf](https://www.ingwb.com/media/2692501/ing_us-circular-economy-survey-05-02-2019.pdf)

# ING survey results...



- Already adopted a CE framework
- Moving toward the circular economy is part of business framework
- Trying to learn more
- Don't know
- Not considering

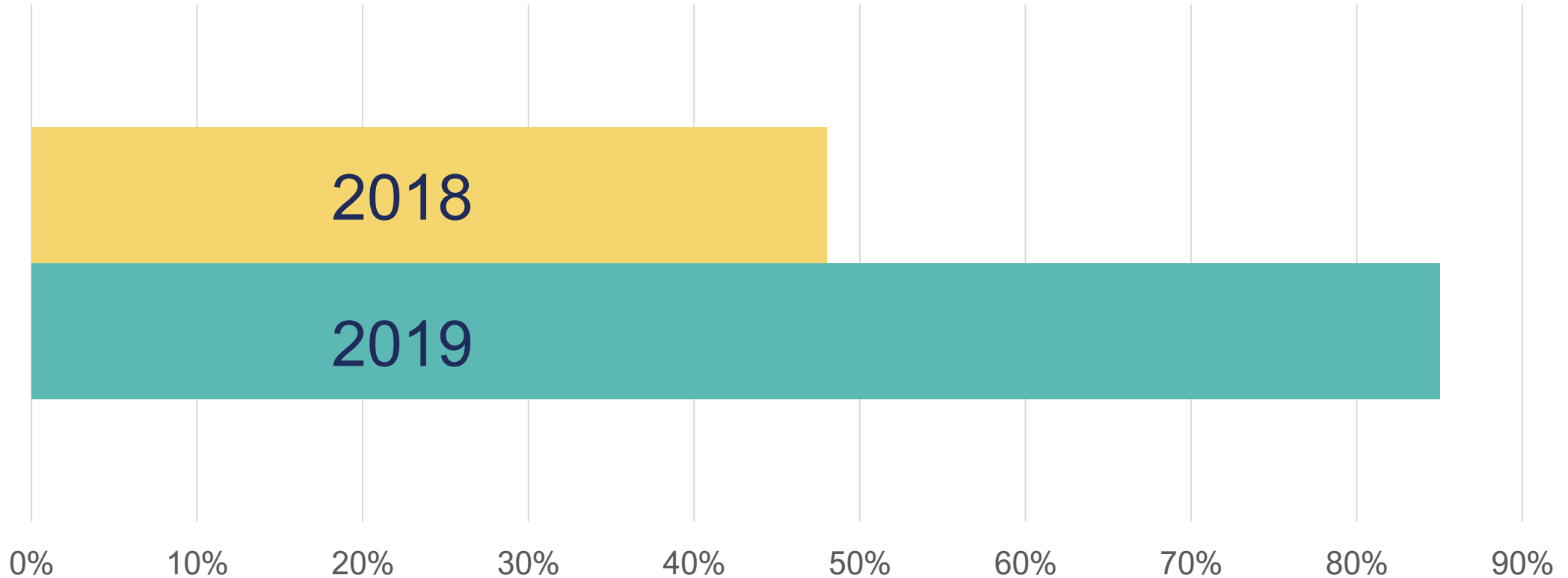
1/3 of firms adopted a circular framework due to customer demand



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# ING survey results...

Companies embedding a CE framework in strategic decision making



## Also noteworthy...

- Over 450 entities have committed, through the Ellen McArthur Foundation New Plastics Economy, to:
  - increase use of recovered/renewable resources
  - improve the reusability/recyclability of products they sell, use and manufacture
- Accenture predicts transitioning to a circular economy could unlock \$4.5 trillion of additional economic output by 2030



Global  
Commitment



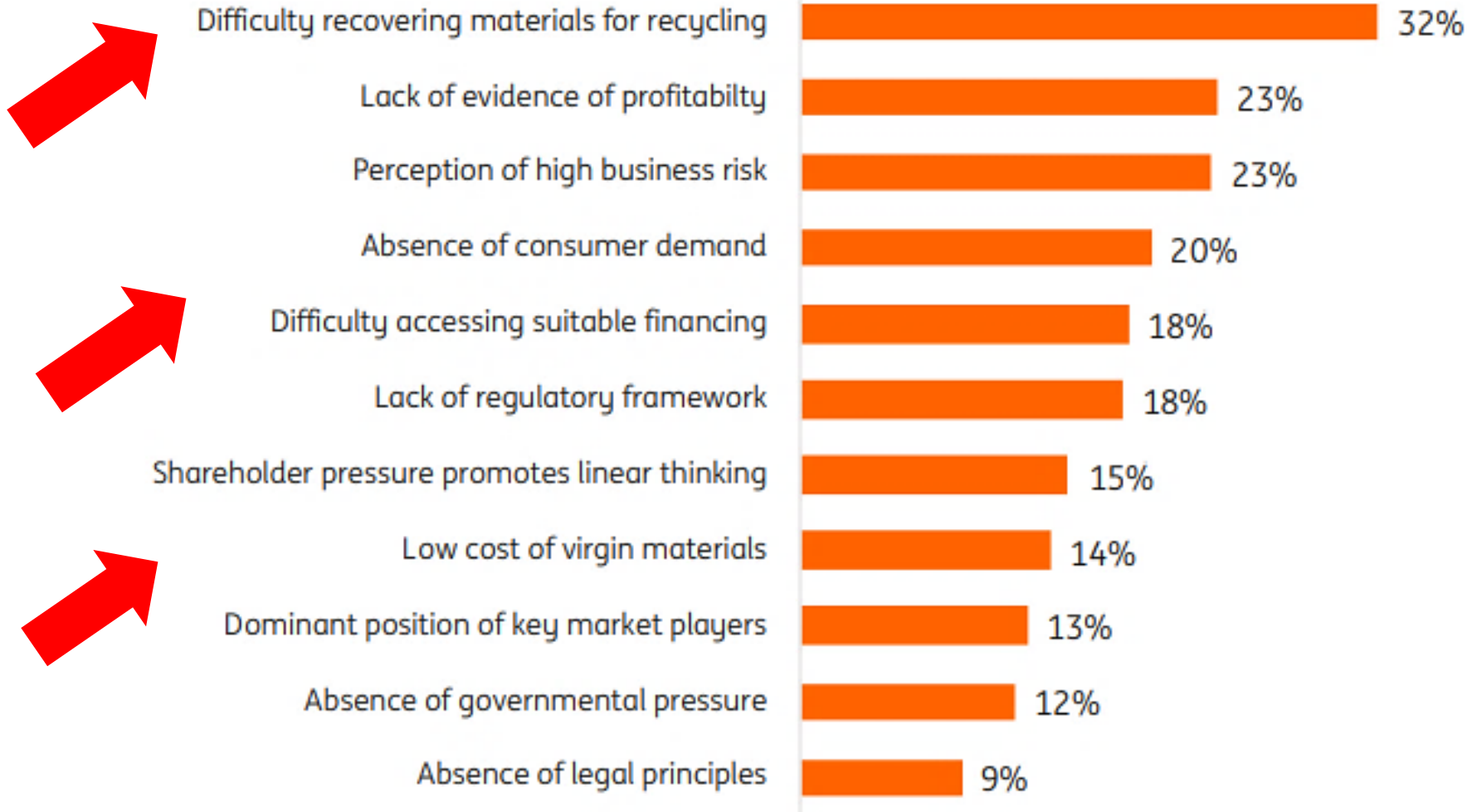
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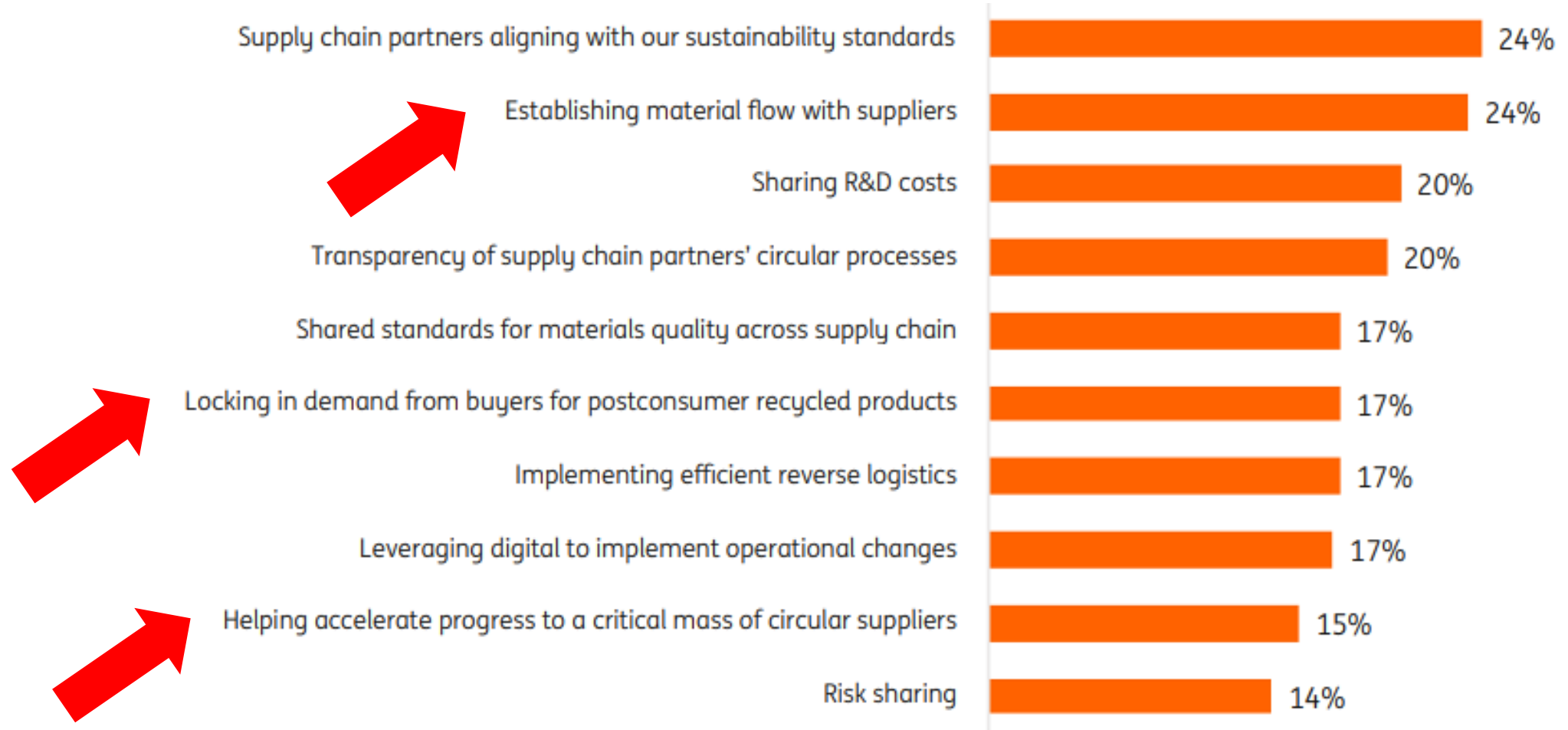
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# Transition to a Circular Economy – What's Needed

# Barriers to adopting the Circular Economy



# Most mentioned supply chain needs to support a circular economy model



Source: 2019 ING US Business Survey

# The Recycling Partnership announced roadmap to catalyze transition toward a circular economy

- “A circular economy cannot happen without recycling. Community recycling programs are currently the only consumer-facing, reverse logistics mechanisms available at scale for packaging in the U.S., providing both recovery infrastructure, and the means to create new material from secondary (as opposed to virgin) sources.”





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# What is Recycling Market Development?

# Recycling market development:

Defined actions to enhance the economic vitality of the reuse/recycling industries



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# Supply push



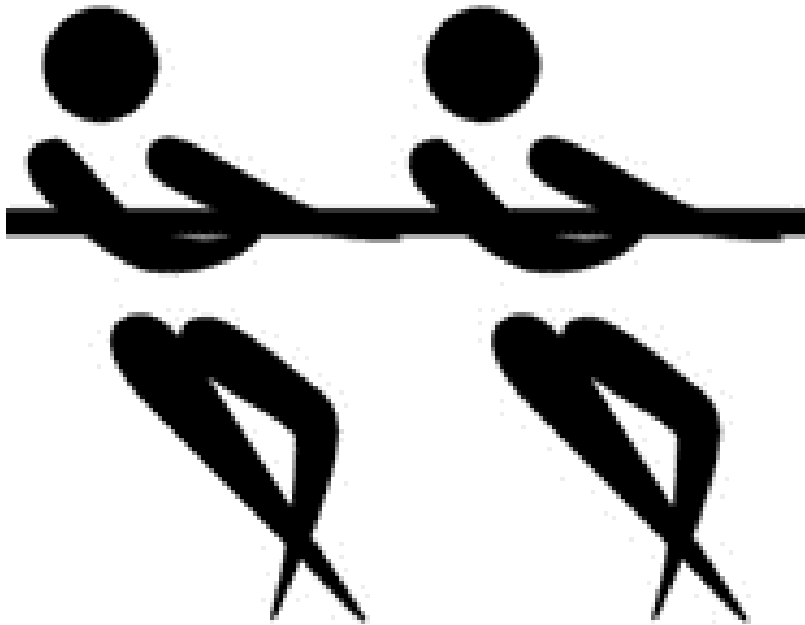
- Increase tonnage
- Improve quality
- Enhance reliability
- Enhance affordability



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# Demand pull



- Grow demand for recyclable materials and recycled content products

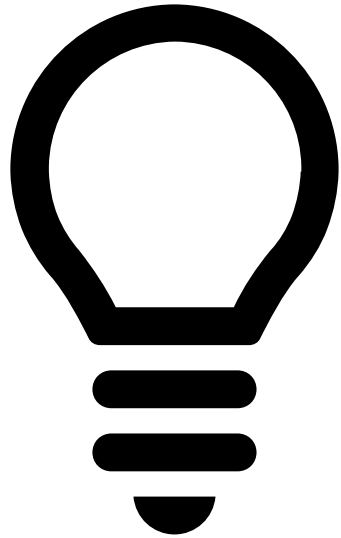


# Ways to increase demand

- Expand recovered materials consumption by existing businesses
- Convert from virgin feedstock
- Attract new businesses using recycled feedstock



# Innovation



- R&D to increase recycling opportunities and efficiencies





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# History of Recycling Market Development in the U.S.

# US EPA initiatives paved the way

- 1994 – Launched 3-year effort: “Recycling Means Business: EPA’s Recycling Market Development Strategy”
- Primary initiative: Jobs through Recycling Program
  - 4 Recycling/Reuse Business Assistance Centers
  - 9 Recycling Economic Development Advocates
  - Recycling Technology Assistance Partnership (ReTAP)
  - Supported development of Chicago Board of Trade’s recyclable commodities trading system



Build institutional capacity for recycling market development



# Initial RMD efforts: states

- Some state efforts as early as 1990/1991 – e.g., NC, WA, NY
- Over 18 states with recycling market development offices/ programs; most states with some type of RMD activities
- Often environmental and economic agency involvement

“Recycling Means Jobs”



# Nonprofit efforts

- Clean Washington Center
- Materials for the Future Foundation (California)
- Chelsea Center for Recycling and Economic Development (Massachusetts)
- Mid Atlantic Council of Recycling and Economic Development Officials (MACREDO)
- Mid-America Council for Recycling Officials (MACRO)
- **Pennsylvania Recycling Markets Center**
- **Southeast Recycling Market Development Council (SERDC)**
- **Northeast Recycling Council (NERC)**
- **National Recycling Coalition (NRC)**



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# Past business and industry efforts

- NRC and CWC, with EPA and U.S. Chamber established and operated ReTAP program
- NRC formed and managed Buy Recycled Business Alliance (BRBA) - launched in 1993
  - More than 3,000 businesses and organizations
  - Members pledged to increase use of recycled content products and report purchasing data to NRC for compilation
  - Quarterly newsletter, 30-page buy recycled guide, and national buy recycled campaign





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# RMD: How It's Done

# Systematic approach



# Types of barriers that RMD can address

- Information/technical
- Risk/uncertainty
- Mispricing (economic externalities/ undervaluing)
- High transaction costs
- Challenges in reaching economies of scale
- Unrestricted nature of information
- Regulatory



# Barriers can be material-specific or cross-material



# Tools for recycling market development

- Information and technical assistance
- Funding/financing assistance
- Buy recycled programs and policies
- Taxes, fees, and other economic incentives/disincentives
- Other regulations and policies



# Tools to address specific barriers

## Example - uncertainty/risk aversion

Barrier	Information and Technical Assistance	Buy Recycled	Finance & Funding	Regulations/ Policies
Uncertainty/ risk aversion	<ul style="list-style-type: none"> <li>Market projection studies</li> <li>Demonstration projects</li> <li>Testing</li> <li>Model contracts</li> <li>Feedstock availability studies</li> </ul>	<ul style="list-style-type: none"> <li>Guaranteed purchases</li> <li>Cooperative purchasing</li> <li>Price preferences</li> </ul>	<ul style="list-style-type: none"> <li>No/low interest loans</li> <li>Loan guarantees</li> <li>Bond financing</li> <li>Equity financing</li> <li>Risk-sharing via contract</li> <li>Subsidies</li> </ul>	<ul style="list-style-type: none"> <li>Utilization requirements</li> <li>Voluntary use agreements</li> <li>Removal of overly restrictive regulations</li> </ul>

# What works?

## Key principles of RMD strategies

**Needs  
Based**

**Integrated  
Approach**

**Appropriate  
Scale**

**Right Tool  
for the Job**



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# Considerations to weigh

- Cost to implement
- Ability to influence markets
- Ability to divert material – quantity and type
- Ability to implement quickly
- Potential partners, existing programs
- Impact on other programs





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# Potential Players and their Roles

# Many have a role to play

## FEDERAL GOVERNMENT

U.S. EPA  
General Services  
Other Agencies  
Legislators

## STATE GOVERNMENTS

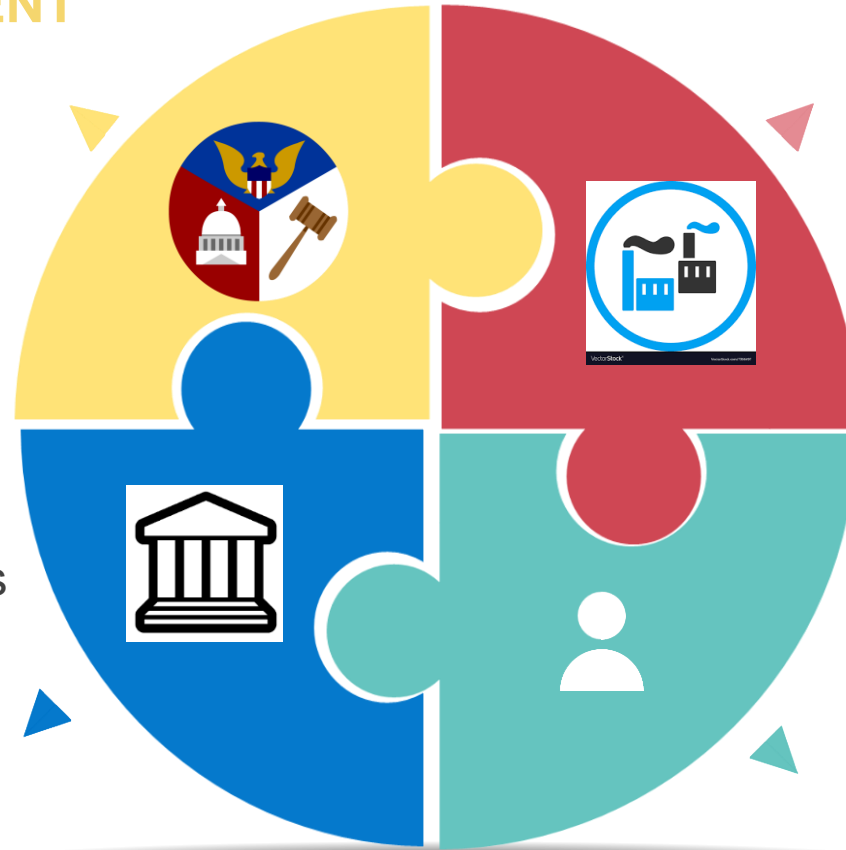
Economic Development Agencies  
Environmental Agencies  
Procurement Agencies  
Legislators

## INDUSTRY

Individual businesses/brands  
Industry organizations/NGOs

## LOCAL GOVERNMENTS

Environmental Depts.  
Procurement Depts.  
Planning and Zoning Depts.



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# Potential role of federal government



- Funding, through EPA or potentially other agencies
- Collaboration, facilitation, information-sharing
- Improve international trade policies
- National Buy Recycled policies/campaigns
- Information-sharing, networking, collaboration
- Pass legislation that supports RMD & innovation



# Potential role of state government

Economic Dev., Materials Mgt., Procurement Agencies



- Improve availability/cost/quality of material supply
- Tax incentives, permitting help, regulatory relief, grants
- Buy Recycled policies/campaigns
- Information-sharing, networking, collaboration opportunities
- Assist with business plans and technical assistance
- Pass legislation that supports RMD



# SC Dept. of Commerce recognizes value of recycling industry to the state

## Then Vs. Now

1993

- Recycling rate (all solid waste) was 1.4 percent
- 17 counties did not recycle
  - 1 paper mill
  - 1 PET plastic reclaimer
  - 3 textile recyclers
  - 1 Ball glass recycling facility

2019

- Recycling rate (MSW) in FY 19 was 28.1%
- 46 counties have recycling program
  - 4 paper mills (recycle OCC)/1 tissue mill
  - 10 PET bottle plastics reclaimers
  - 4 steel mills
  - 1 flat rolled aluminum mill
  - 1 glass recycler
  - 3 R2/RIOS electronics recyclers
  - 3 textile recyclers
  - 1 carbon fiber recycler
  - 1 zinc recycler
- ✓ And many more = 300 recyclers in SC



# SC Dept. of Commerce RMD initiatives

- Work with Commerce Global Business Development to recruit/assist with expansion
- Technical, marketing, matchmaker assistance
- One-on-one materials management consultation
- Supply campaigns, e.g., “Your Bottle Means Jobs”
- Incentives – e.g., \$750,000 grant to host County to assist Ecomelida, Inc. with site prep and building construction; job development credits, plus county provided property tax incentives



# Another state example: Maryland

\$49M recycled pulp facility opening in Chesapeake

- Total Fiber Recovery LLC to open in 2021 - will process 300K tons of fiber from area MRFs
- VA Economic Development Partnership worked with City's economic dev. dept. and Port of VA to secure the project
  - \$200,000 grant awarded from VA Opportunity fund
  - Incentives from Port of VA Economic and Infrastructure Development Zone Grant Program
  - Free employee training from VA Jobs Investment Program
- Competed against South Carolina for this project



# Potential role of local governments



- Improve availability/cost/quality of supply via education & communication
- Ensure processors produce high-quality materials (via contract terms/oversight)
- Zoning/tax incentives, permitting assistance, regulatory relief
- Site assistance, e.g., eco-industrial parks
- Buy recycled programs/policies
- Help businesses identify sources of feedstock
- Assist with business plans
- Assist with developing local partnerships

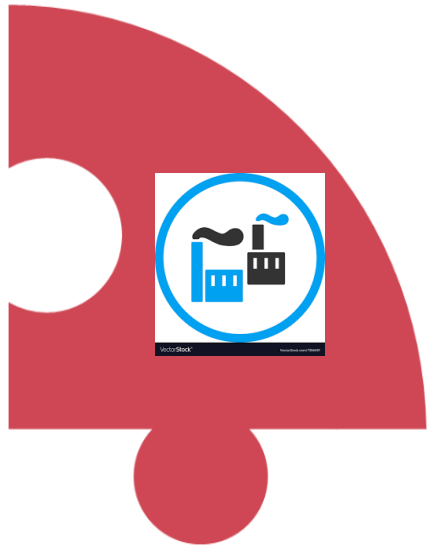


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# Potential role of private sector

- Partner with gov't entities and NGOs to identify/ address challenges and opportunities
- Share risks, costs via partnerships
- Support RMD initiatives
- Support policy mechanisms that advance the Circular Economy
- Commit to buying recycled content feedstocks/products
- Design for recyclability
- Advance R&D/innovation
- Address global opportunities



# Examples of industry initiatives

- Ellen MacArthur Foundation New Plastics Economy/Plastics Pact
- The Recycling Partnership: Circular Economy Accelerator, Polypropylene Recycling Coalition
- GreenBlue Recycled Material Standard (RMS) and tradable credits initiative
- SPC – How2Recycle; Design for Recycling
- Association for Plastics Recyclers (APR) Demand Champions
- Closed Loop Partners – NextGen Cup Consortium
- Materials Recovery for the Future Collaborative
- PLASTICS: New End Markets Opportunities for Film (NEMO)



Source: Sustainable Packaging Coalition





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# Looking Ahead

# What is needed to move forward?



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# RMD – A Look Back and a Look Forward

Report on Recycling Market Development in the U.S.  
conducted by Circular Matters

- Purpose – provide a resource for today that shares learnings from past RMD efforts
- Collaborated with More Recycling
- Funded by ACC, Trex Company, Inc., Oregon DEQ
- History of RMD in the U.S.
- Program profiles, examples of specific RMD initiatives, lessons learned, implications for future
- Development of tools/dbase – in progress
- [www.circular-matters.com](http://www.circular-matters.com)





# Circular Matters

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*Thank you!*

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