

Special Report

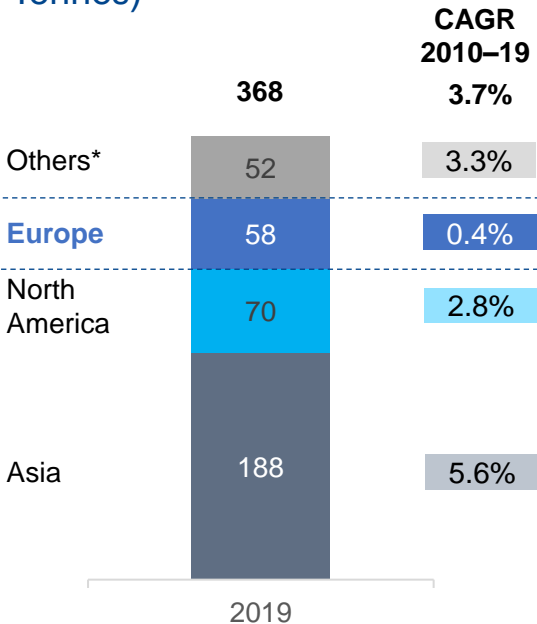
Single-Use Plastics Directive (A Shift Towards Sustainable Foodservice Packaging)



European Union | Regulations Trends and Takeaways

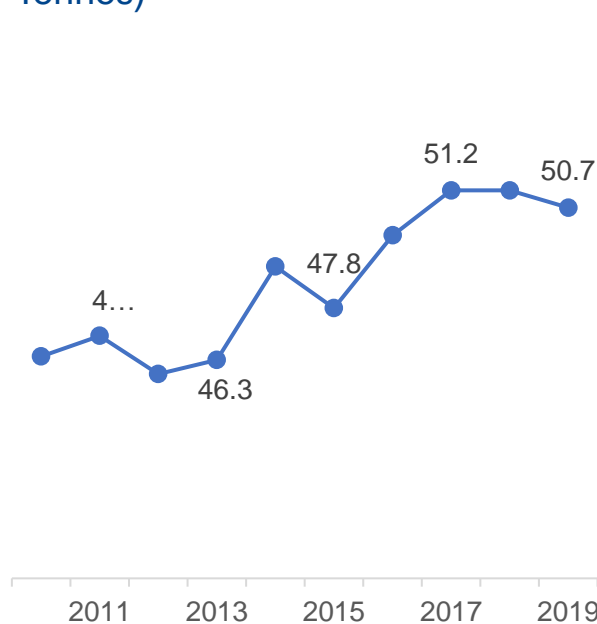
Legislative pressure, pledges from end users resulted in decline in plastics demand in Europe

Global Plastics Production (Mn Tonnes)



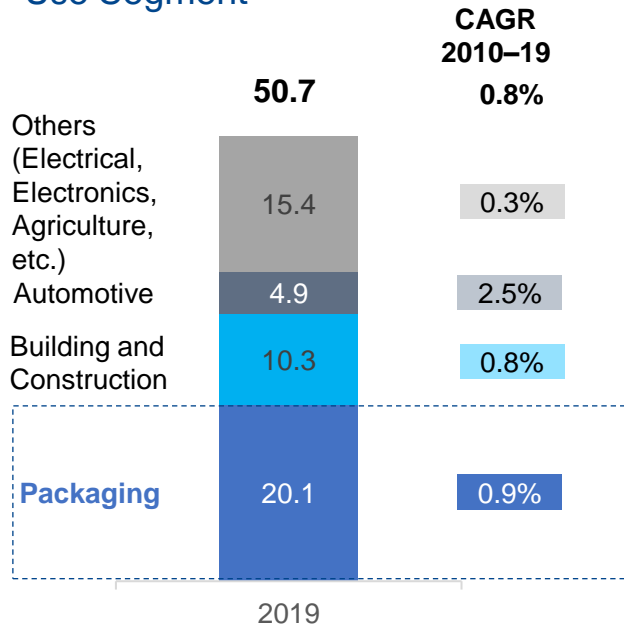
- Global production of plastics is increasing (4% YoY); however, Europe has witnessed a decline in plastics production in recent years.
- The drop can be attributed to the legislative changes and lower demand from end-use industries (specifically the packaging sector).

Plastics Demand in Europe (Mn Tonnes)



- Growing concern for environment and increasing consumer awareness have led to a decline in plastics production and consumption.
- The downward trend is expected to continue due to the rollout of the single-use plastics (SUP) Directive in 2019.

European Plastics Demand by End-Use Segment



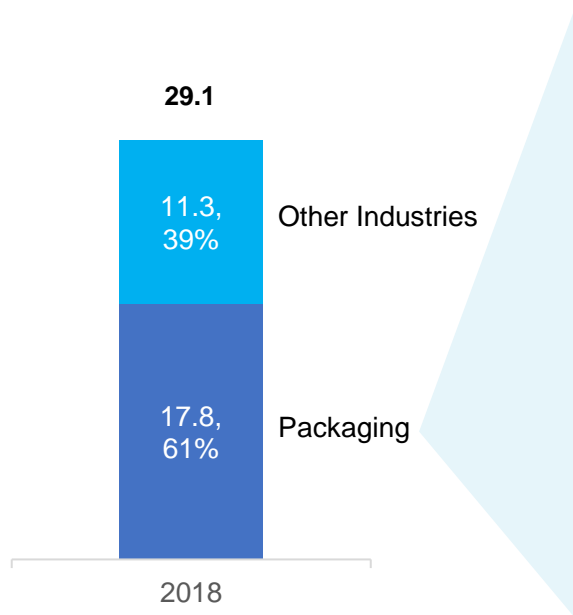
- Packing (household, industrial and commercial packaging) accounts for a major share in the demand for plastics.
- Packaging accounts for an even larger share of plastics waste.

Source: PlasticEurope, Aranca Research

*Includes Middle East and Africa, Latin America, and CIS

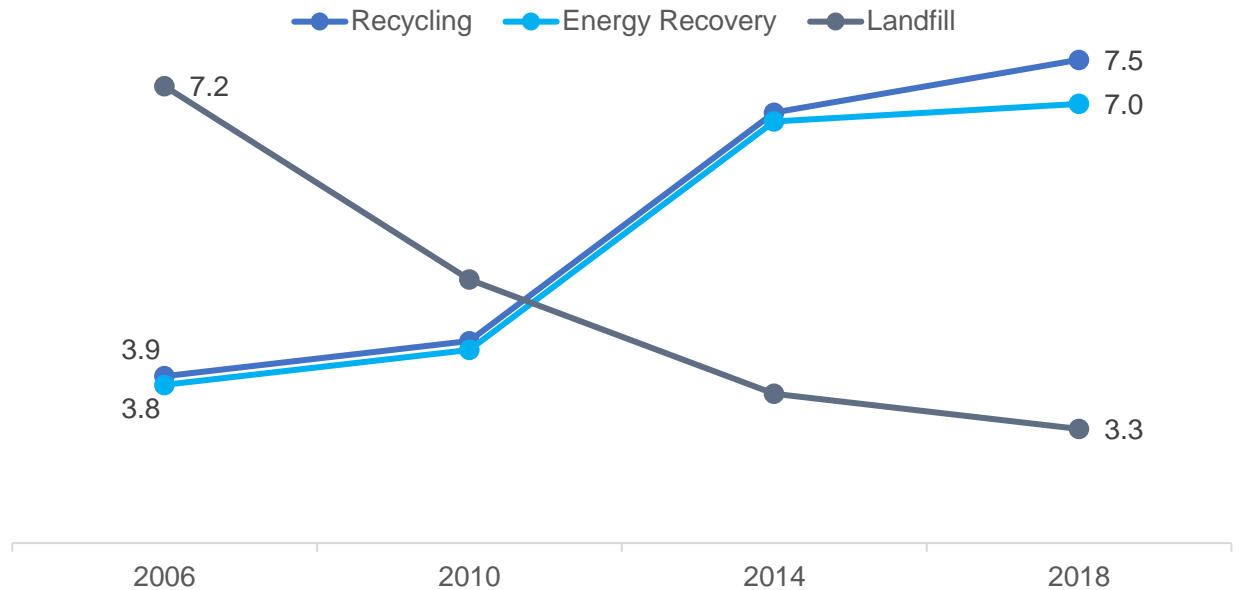
Improvement in waste collection and treatment procedures in Europe in recent times

Plastics Post Consumer Waste Collected by Sector



- Total waste collected in Europe increased from 24.5 MT in 2018 to 29.1 MT in 2019.
- Although the collection rates have improved, a good portion (45%) still escapes the collection system, resulting in environmental pollution.

Plastics Packaging Waste Treatment (Mn Tonnes)



- Plastics recycling and energy recovery processes have improved in Europe in the last one decade.
- In 2018, plastics recycling and energy recovery contributed to around 80% of the plastics packaging waste treatment.
- Both recycling and energy recovery have expanded at a CAGR of 4–5% during 2006–18; in contrast, landfills declined around 1% YoY during the same period.

Source: PlasticEurope, Aranca Research

Implementation of SUP Directive to further result in drop in demand and improved waste management practices

Single-Use Plastics (SUP) DIRECTIVE MEASURES

The directive, which targets SUP items, includes a range of measures such as market restrictions; consumption reduction; design, collection, and labelling requirements; and Extended Producer Responsibility (EPR) schemes, depending on the item and available alternatives

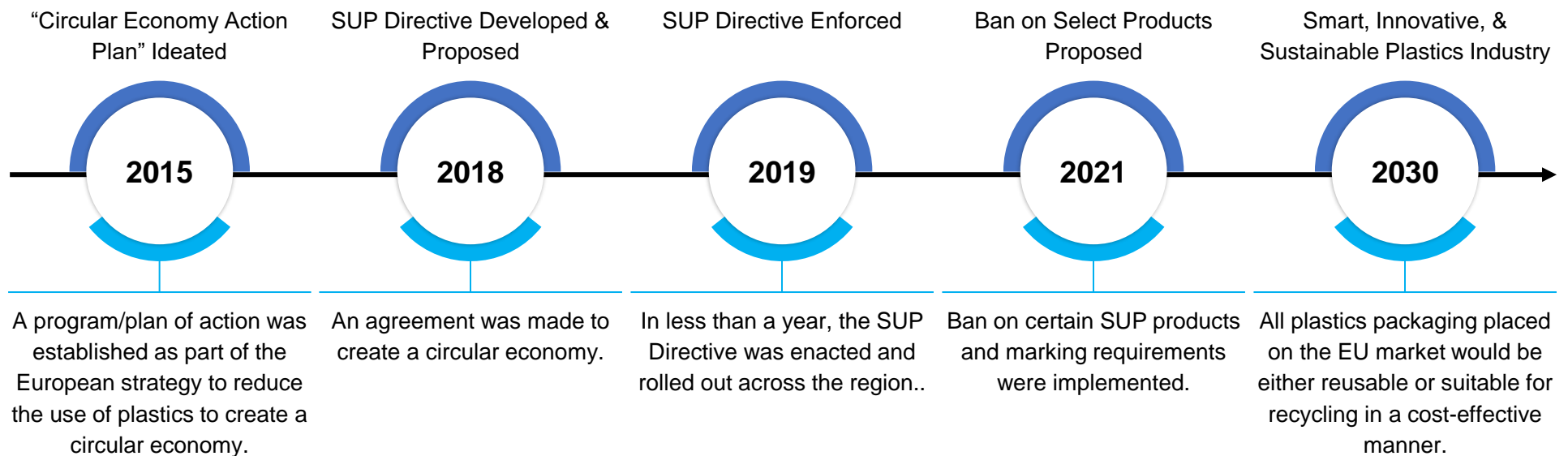
Avert and tackle marine litter (plastics account for 85% of marine litter in the EU)

Phase out unnecessary SUPs

Announce economic incentives to reduce SUP consumption and encourage transition to reusable systems

Introduce high collection rates and EPR schemes

A VISION FOR EUROPE'S NEW PLASTICS ECONOMY



Source: European Commission, Aranca Research

The directive recommends various measures for different categories; majority of them fall under foodservice industry

Measures for Various Plastics Products








Application across foodservice industry

Plastics Products	Restriction on Placing on the Market	Consumption Reduction	Product Design Requirement	Marking Requirement	Extended Producer Responsibility	Separate Collection	Awareness-Raising Measures
Banned Products	Cutlery (Forks, Knives, Spoons, Chopsticks)	X					
	Plates	X					
	Straws	X					
	Beverage Stirrers	X					
	XPS/EPS Food Containers	X					
	XPS/EPS Cups or Beverage Containers	X					
	Oxo-Degradable Plastics	X					
	Balloon Sticks	X					
	Cotton Bud Sticks	X					
	Other Products	Cups for Beverages		X		X	
Food Containers			X			X	X
Beverage Containers				X		X	X
Sanitary Towels & Wet Wipes					X		X
Tobacco Products with Filters					X		X
Packets & Wrappers						X	X
Lightweight Plastic Carrier Bags						X	X
Balloons						X	X

Source: European Commission, Aranca Research

Resulting in foodservice outlets to shift to eco-friendly substitutes across categories restricted to be placed on market



Substitutes for Banned Products

Type	Products Currently in Use	Alternate Materials (Illustrative)	Examples of Eco-Friendly Solutions
EPS Cups & Containers (Beverage & Food)		<ul style="list-style-type: none"> ▪ Paper ▪ Molded Fiber ▪ Bamboo and Husk ▪ Bagasse/Corn starch ▪ Other Plant-Based Material (Palm Leaf/Areca) 	 <p>Arekapak, a Germany-based company, has developed natural, 100% biodegradable packaging solutions from sun-dried areca palm leaves.</p>
Cutlery (Forks, Knives, Spoons, Chopsticks)		<ul style="list-style-type: none"> ▪ Sugarcane ▪ Wood ▪ Recycled PET 	 <p>Bio Futura has developed compostable cutlery and plates from 100% renewable resources such as sugarcane and 100% recycled aluminum sheets.</p>
Straws and Beverage Stirrers	 	<ul style="list-style-type: none"> ▪ Paper ▪ Wheat ▪ Glass 	 <p>HAY! Straws are made from wheat and are 100% natural, bio-based, and compostable. These straws are produced as per the FDA food contact safety guidelines and are GMO-free.</p> <p>Another alternative to plastic straw is glass straw. These straws are sustainable, recyclable, and reusable; and deliver 100% pure taste. Companies such as Vaso (the UK) and Schott (Germany) are among a few producers that offer glass straws in the EU.</p>

Source: Aranca Research, Arekapak, Bio Future, HAY, VASO, SCHOTT

Similarly, sustainable options adopted for products falling under reduce-consumption category





Substitutes for Products with Limited Alternatives

Type	Products Currently in Use	Alternate Materials (Illustrative)	Examples of Eco-Friendly Solutions
Paper Cups for Beverages (Plastic Lining)		<ul style="list-style-type: none"> Paper Cups Without Plastic Lining Plant-Based Inner Lining (Polylactic Acid) Green PE (Sugarcane) 	 <p>Schisler's Earth Cups are made from monomaterial-coated paper without PE lining and are suitable for both hot and cold beverages.</p>
			 <p>Biopak's coffee cups with bioplastic (PLA) lining made from plants are commercially compostable and are sourced from sustainably managed plantation.</p>
On-the-Go Food Containers	 	<ul style="list-style-type: none"> Paper Molded Fiber Recycled PET Bagasse/Corn Starch Other Plant-Based Material (Palm Leaf/Areca) 	 <p>Vegware manufactures more than 300 plant-based catering disposables from a variety of renewable plant-based materials, including bagasse and palm leaf.</p>
			 <p>Harpak-ULMA launched an innovative packaging technology, PaperSeal®, to promote the adoption of green packaging alternatives across the foodservice industry. The company produces materials with renewable fiber sourced from sustainably managed forests.</p>

Source: Aranca Research, Schisler's ,Huhtamaki, Vegware, Harpak-ULMA

Furthermore, commitments laid down by foodservice giants to compel industry participants to **Rethink Plastics**

Measurement & Articles in the SUP Directive

Brands	Details
	<ul style="list-style-type: none">▪ McDonald's announced plans to replace traditional plastic lids with lids made from a new recyclable packaging material (for the McFlurry product range) at all European restaurants by the end of 2020.▪ McDonald's France restaurants have stopped the use of plastic straws since November 2019. Additionally, McDonald's France has replaced plastic lids for drinks with lids made from a fiber-based material.
	<ul style="list-style-type: none">▪ Starbucks announced the phasing out of plastic straws by 2020 from more than 28,000 stores worldwide. The company plans to introduce straws made from alternative materials such as paper and PLA compostable plastic.▪ The company has designed strawless lids which would be used for all iced drinks except Frappuccino across the globe.
	<ul style="list-style-type: none">▪ In 2019, KFC announced plans to completely switch to recoverable or reusable plastic-based consumer-facing packaging by 2025.▪ KFC also decided to replace plastic straws with environment-friendly paper straws across its 250 restaurants in France in 2019.
	<ul style="list-style-type: none">▪ In 2020, Dominos removed plastic carrier bags from all stores across the UK.

Source: Aranca Research

HOW CAN ARANCA HELP



Understand the impact and potential outcome of legislative pressure on the various foodservice packaging products

Identify upcoming/alternate solutions that are gaining traction over plastics

Identify whitespace opportunities in the foodservice packaging space

Map customer requirements related to available alternatives

Understand and analyze disruptions in the supply chain caused due to regulatory barriers

Evaluate the challenges linked to the proposed directive to create a circular economy



Our work in Packaging Space

250+

Market & Business Advisory
Projects

25+

Countries Covered

360°

Covering Entire Value Chain

ABOUT ARANCA



Business Research & Advisory

CXOs in Strategy, SBUs, Sales, Marketing, CI/MI, Innovation



Valuation & Financial Advisory

CFOs in Start-ups, PE/VC Firms, Corporate M&A Teams, Mid-market Companies



Technology | IP Research & Advisory

R&D, Tech Scouting, Open Innovation, IP Teams, Product Development



Investment Research & Analytics

Brokerage, Hedge Funds, IRPs, I-Banks, AMCs, Investor Relations

Decide Fearlessly

From startups to the Fortune 500, private equity and global financial firms, Aranca is the trusted research and advisory partner for over 2500 companies



www.aranca.com



This material is exclusive property of Aranca. No part of this presentation may be used, shared, modified and/or disseminated without permission.
All rights reserved.