



—

SIG COMBIBLOC: SHAPING THE FUTURE OF ASEPTIC PACKAGING

KEPLER CHEUVREUX FMCG PLASTIC PACKAGING
TRANSITION FIELD TRIP

—

November 10, 2020



78%

of consumers say they are more likely to buy products packaged in paper or cardboard than in other materials because they are better for the environment.⁵

CONSUMERS A FORCE FOR CHANGE



77%

of consumers perceive plastic to be the least environmentally friendly packaging material.¹



81%

of consumers think it's important or extremely important that companies design environmentally conscious products.²



88%

of consumers want brands to help them be more environmentally friendly.³



60%

of consumers want companies to replace single-use plastic packaging with alternate options not made from plastic.⁴

¹Accenture (2019): Accenture Chemicals Global Consumer Sustainability Survey

²Nielsen (2018): Global Sustainable Shoppers Report

³Forbes (2018): 88% Of Consumers Want You To Help Them Make A Difference

⁴Packaging Digest (2019): Consumer Survey on Plastic Packaging Sustainability

⁵IPSOS (2018): Paper Innovation Survey

SHIFT FROM PLASTIC TO PAPER IS ALREADY UNDERWAY

**SIG is the first carton
company to offer
paper straws.**



Straight straw
with FSC™
certification
(Feb '19)



U-straw with
FSC™ certification
(Oct '19)

RISING TO THE OPPORTUNITY TO LEAD THE WAY

CONNECTING FUTURE SUCCESS TO SUSTAINABILITY



“Arla creates the future of sustainable dairy”¹

STRONGER PLANET

SUSTAINABLE PACKAGING



Packaging plays a key role in protecting the quality and freshness of our products, and we are committed to minimizing waste related to its production.

That's why we're working to find better ways to get more out of less, and aiming to use only recyclable packaging while increasing the included amount of renewably sourced materials such as paper fibers and bio plastics.



“The goal is for our packaging to be fully circular by 2050 (...)”²

Sustainable packaging for lower emissions

At FrieslandCampina we believe that packaging should be sustainable



“World Without Waste”³

Make 100% of our packaging recyclable globally by 2025. Use at least 50% recycled material in our packaging by 2030.

We are fundamentally rethinking how we get our products to consumers, including what kind of packaging to use and whether a package is needed at all.

¹ Arla: arla.com/sustainability/sustainable-packaging/

² FrieslandCampina: www.frieslandcampina.com/sustainability/sustainability-in-the-supply-chain/packaging/

³ Coca-Cola Company: coca-colacompany.com/content/dam/Journey/us/en/reports/coca-cola-world-without-waste-report-2019.pdf

RISING TO THE OPPORTUNITY TO LEAD THE WAY

CONNECTING FUTURE SUCCESS TO SUSTAINABILITY



“Arla creates the future of sustainable dairy”¹

STRONGER PLANET

SUSTAINABLE PACKAGING



Packaging plays a key role in protecting the quality and freshness of our products, and we are committed to minimizing waste related to its production.

That's why we're working to find better ways to get more out of less, and aiming to use only recyclable packaging while increasing the included amount of renewably sourced materials such as paper fibers and bio plastics.

Packaging plays a key role in protecting the quality and freshness of our products, and we are committed to minimizing waste related to its production.

That's why we're working to find better ways to get more out of less, and aiming to use only recyclable packaging while increasing the included amount of renewably sourced materials such as paper fibers and bio plastics.





logitech



PARTNERSHIP IS KEY IN **LEADING SUSTAINABILITY**

Together with Nestlé, Logitech, and other industry partners, SIG sponsors a chair for ***sustainable materials*** at the EPFL Institute of Materials.



SUSTAINABLE BY NATURE

SIG ASEPTIC CARTON PACKAGING

RENEWABLE

Beverage cartons are made on average with 75% paperboard, a renewable material.

RESPONSIBLE

100% of the paperboard used to manufacture our cartons comes from paper mills which have an FSC™ certified chain-of-custody.

RESOURCE EFFICIENT

Through continuous innovation, the beverage carton industry reduced the amount of materials used compared to 20 years ago.

FULLY RECYCLABLE

In 2019, 51%¹ of beverage cartons in the EU were recycled.

Notable examples:

Germany: 76%²

France: 51%³

LOWEST CARBON FOOTPRINT

Our cartons perform best compared to other packaging alternatives as proven by independent Life Cycle Assessments.⁴

¹ In 2019, 51% of beverage cartons in the EU were recycled.

² Reported by FKN (Fachverband Kartonverpackungen für flüssige Nahrungsmittel e.V.).

³ Reported by ACN (Alliance Carton Nature).

⁴ Independent Life Cycle Assessments conducted by IFEU Institute Heidelberg based on ISO 14040.

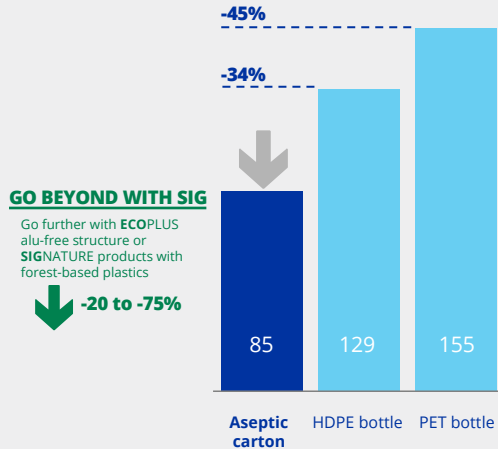
LOWEST CARBON ALTERNATIVE

CARTONS WIN EVERY TIME

Based on European average (EU27): Life Cycle Assessment conducted by IFEU Institute Heidelberg based on ISO 14040 standards with critical review.

LIQUID DAIRY

kg CO₂ equivalent produced per packaging type for 1,000L UHT milk



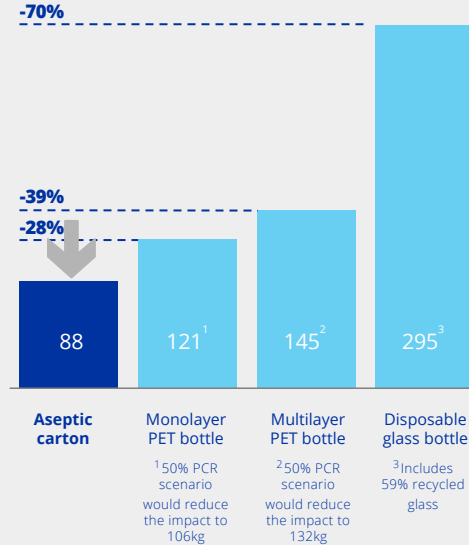
GO BEYOND WITH SIG

Go further with **ECOPLUS** alu-free structure or **SIGNATURE** products with forest-based plastics

-20 to -75%

NON-CARBONATED SOFT DRINKS

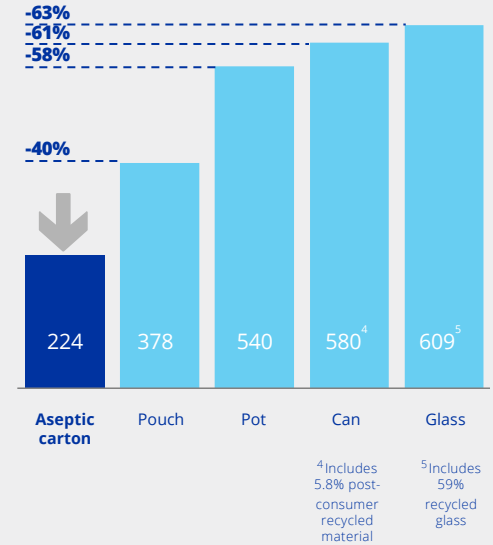
kg CO₂ equivalent produced per packaging type for 1,000L non-carbonated soft drinks



PCR: Post Consumer Resin / recycled material

FOOD

kg CO₂ equivalent produced per packaging type for 1,000L food



PCR: Post Consumer Resin / recycled material



SIG IS LEADING SUSTAINABILITY INNOVATION OVER THE LAST DECADE



Leading responsible forestry (2009)

Industry-first with FSC™ certification:
100% chain-of-custody,
100% of packs can be labeled with FSC™ (2016).



Committing to a lower carbon footprint (2010)

The world's first alu-free aseptic carton pack.



Driving the transition to bio-based plastics (2017)

The world's first aseptic packs with polymers 100% linked to forest-based sources.



Leadership in responsible aluminum sourcing (2019)

Industry-first with Aluminium Stewardship Initiative (ASI) chain-of-custody certification, world first with labeled products.



Advancing the use of recycled materials (2019)

Industry-first to offer certified recycled polymers.



CONTRIBUTING TO A CIRCULAR ECONOMY

SOURCING INNOVATION AND COLLECTION + RECYCLING

SOURCING FROM RESPONSIBLY MANAGED FORESTS

TRACEABLE WORLDWIDE AND VERIFIED FSC™ CHAIN-OF-CUSTODY CERTIFICATION

LEADING RESPONSIBLE SOURCING
For all primary materials

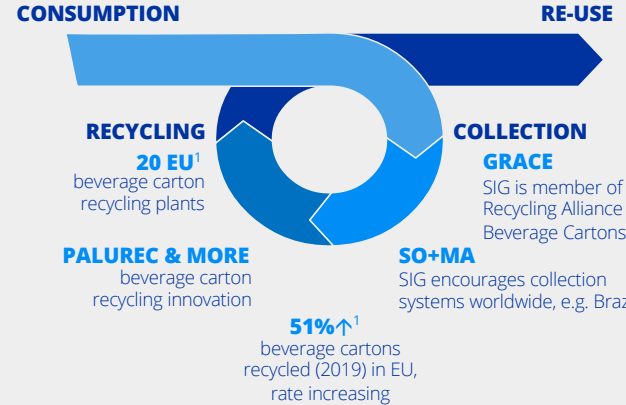
SIG BEVERAGE CARTON PRODUCTION & INNOVATION

Average **75%** paperboard
SIG leading material stewardship with FSC™-sourced wood fibers.

21% polymers
First in certified forest-based and certified recycled plastics.

4% aluminum
First with ASI-certified aluminum and exclusive to offer aluminum-free structures.

DRIVING THE USE OF RENEWABLE MATERIALS
Unique packaging innovation



ENSURING PACKAGING IS RECYCLED
Efficient collection is the base for effective recycling

¹ The Alliance for Beverage Cartons and the Environment (ACE)

ENSURING VALUABLE MATERIALS HAVE A NEW LIFE

SIG'S APPROACH TO RECYCLING

GLOBAL

Created or joined several global initiatives on catalyzing collection and recycling of beverage cartons, e.g.:

- **GRACE:** Global Recycling Alliance for Beverage Cartons and the Environment (GRACE) (founded in 2019)
- The **Consumer Goods Forum** Coalition of Action on Plastic Waste (founded in 2020)

REGIONAL

Member of regional sector associations for coordinated **advocacy** and **recycling**, e.g.:

- **ACE:** Alliance for Beverage Cartons and the Environment (founded in 1990)
- **EXTR:ACT:** Driving value from multi-material recycling, shared technology hub [EU] (founded 2018)
- **4evergreen Alliance:** Cross-industry alliance, goals are to optimize fiber-based packaging circularity (founded 2019)

LOCAL

Our regional teams have developed **country-specific roadmaps** to help **increase collection** and **recycling** of used beverage cartons.

Depending on local infrastructure and legislative context, we are assessing a mix of joint beverage carton sector (or multi-stakeholder) activities as well as SIG-own initiatives and projects, e.g.:

- SO+MA House (Brazil 2019)
- School Eco-Canteen (Thailand 2018)
- FKN¹ (Germany)
- ACN² (France)
- ACE UK

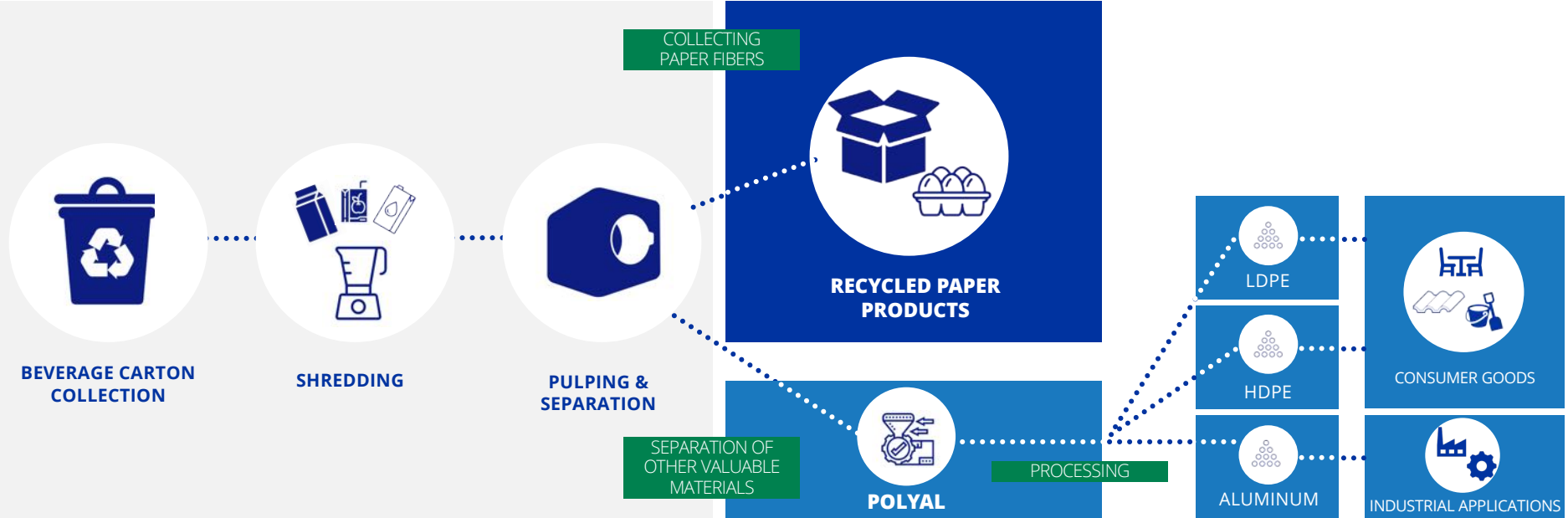


INNOVATION

Through design for recycling and the use of innovative new technologies, we are creating the next generation of aseptic packaging for improved recyclability as well as leading the way in the adoption of new material sourcing, specifically recycled or renewable materials.

CARTON RECYCLING

CIRCULARITY OF VALUABLE MATERIALS

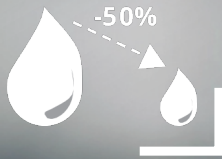


SIG FILLER TECHNOLOGY

DELIVERING WORLD-CLASS SUSTAINABILITY

WATER REDUCTION

Reducing water usage within our fillers by **50%** - saving valuable water resources everyday (2020)¹.



LOWEST WASTE RATE

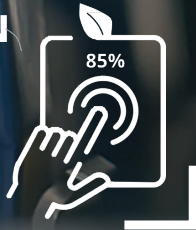
SIG fillers and sleeves system guaranteeing lowest waste rate: **50%** lower than competition².

IMPROVING THE INSTALLED BASE

Equipment improvements are also available as retrofitting kit for the installed base.

ENERGY REDUCTION

Energy reduction mode integrated in all SIG mid- and small-size platforms enables **CO₂ reduction of up to 5T per year^{3,4}** (2020).



LOWER EMISSIONS BY 25%

Through new innovations, we target to reduce CO₂ emissions by **25%** resulting in **savings of approximately 79T of CO₂ per filler annually^{3,4}** (2021).

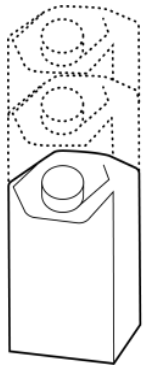
¹ Included on all new high-speed filling machines, and available for most installed base filling machines with a retrofit kit.

² SIG waste rate of 0.3% of filling machine.

³ Calculated with Global Electricity Grid Mix as published by the IAE (International Energy Agency), published 2019; kg CO_{2e}/kWh = 0.4853.

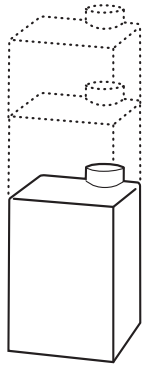
⁴ Reduction calculation based on average: 2 shifts, 220 days, 3,520 production hours (estimated average based on all machines in the field).

SUSTAINABILITY THROUGH MAXIMIZED FLEXIBILITY AND UTILIZATION



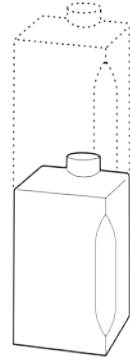
1,000ml
750ml
500ml

combifitMidi



1,000ml
750ml
500ml

combiblocMidi



1,000ml
500ml

combistyle



1
Filler

3
Formats

3
Filling volumes

<30min
Change-over

12,000
Packs per hour

70+
Combinations

ONE MACHINE. MULTIPLE OPPORTUNITIES.

SIG OFFERS THE MOST FLEXIBLE FILLER

SIG				
Filler	Packaging type	Filling volume	Structures	Total possibilities
1x CFA 812	combiblocMidi	500ml	Standard	70+ Combinations
			ECOPLUS*	
	combifit Midi	750ml	SIGNATURE 100*	
			SIGNATURE Full Barrier	
			SIGNATURE CIRCULAR	
	combistyle	1,000ml	SIGNIA**	

* Alu-free structures for CFA 812 are currently available only for cb8 for plain white UHT milk applications

** SIGNIA can be combined with all 5 structures above



THE BEST CHOICE IN ASEPTIC PACKAGING **CUSTOMER JOURNEYS**



LOWEST CARBON CHOICE SIGNATURE 100 ALU-FREE



- Arla Foods was the **FIRST** customer to choose **SIGNATURE 100**.
- New packaging highlighting the value and story behind their **ORGANIC MILK** as well as showcasing their **COMMITMENT** to sustainable dairy production.
- Clear **MESSAGING** to consumers: buying this package promotes the use of renewable materials to preserve fossil resources and making the right choice with a lower carbon footprint packaging.



— ICONIC. SUSTAINABLE. RESPONSIBLE. SIGNATURE FULL BARRIER —



Start-up brand from **UNILEVER'S FUTURE PLATFORM** launched a range of enhanced water products targeting **SOCIALLY, ENVIRONMENTALLY,** and **HEALTH** conscious consumers.

Consciously choosing the carton bottle for its:

- Lower carbon footprint
- Sustainable materials
- Responsible materials
- Traceable materials

Communicating to consumers that they are making the best choice with B-Better products.



LEADING POSITION WITH SIGNATURE SIGNATURE FULL BARRIER



Riedel

CoolBest

Leading Dutch beverage manufacturer **RIEDEL** relaunching their iconic **CoolBest** brand in SIG's **SIGNATURE** Full Barrier packaging with **MORE THAN 20 SKUs**.

Setting itself apart with their **SUSTAINABLE COMMITMENT TO SOURCING** – from fruit to package:

- Certified forest-based plastics
- FSC™-certified paperboard
- ASI-certified aluminum

SIGNATURE
portfolio



A scenic landscape featuring a wooden cabin on a lake, a church, and mountains. The cabin is built on stilts and has a small boat docked at its side. The lake is calm and reflects the surrounding mountains and sky. In the background, there are steep, rocky mountains with some greenery. A small church with a steeple is visible on the right side of the image. The sky is overcast with some clouds.

SIG. SUSTAINABLE BY NATURE.

THANK YOU