

A large orange circle in the top-left corner containing icons for a padlock, a recycling symbol, and a chemical flask with a diamond, all set against a background of colorful bokeh.

POLICARBONATOS CQ DE COVESTRO

MATERIALIZANDO LA CIRCULARIDAD

JIMENA RUESTA – SUSTAINABILITY STRATEGY

Inventor and leader in high-tech material solutions

Covestro at a glance



WHAT WE DO

Covestro is among the world's largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life.

The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics and health.

Together with our partners and customers, we are taking big steps to tackle a fundamental challenge: Shifting towards a Circular Economy.

To achieve this bold goal, we are innovating efficient ways to close energy and material cycles. We are pushing boundaries in polymers.

WHAT WE STRIVE FOR

Purpose



To make the world a brighter place

Vision



We will be fully circular

Values



Curious,
courageous,
colorful

€14 bn

Sales 2024

17,500

Employees (in FTE) 2024

#1

One of the leading producers of PU and PC and their derivatives. ^(a)

A clear connection to customers and our ambitions

Our strategy – setting the path for tomorrow



Customer perspective anchored in strategy:
You are never more than 10 meters away from a Covestro product



Be a reliable partner for our customers



Grow our product portfolio based on customers needs



Develop sustainable solutions for and with our customers

BECOME THE BEST OF WHO WE ARE



We OPERATE competitively

DRIVE GROWTH SUSTAINABLY



We GROW our attractive, sustainable portfolio organically, inorganically and through innovation

BECOME CLIMATE NEUTRAL AND FULLY CIRCULAR



We REALIZE our climate targets and our vision to become fully circular

ADVANCE AI & DIGITAL TRANSFORMATION

STRENGTHEN CULTURE AND BUILD WORKFORCE OF THE FUTURE



Financial and non-financial ambitions

Climate neutrality as objective

Scopes 1 and 2



Net zero¹ by 2035

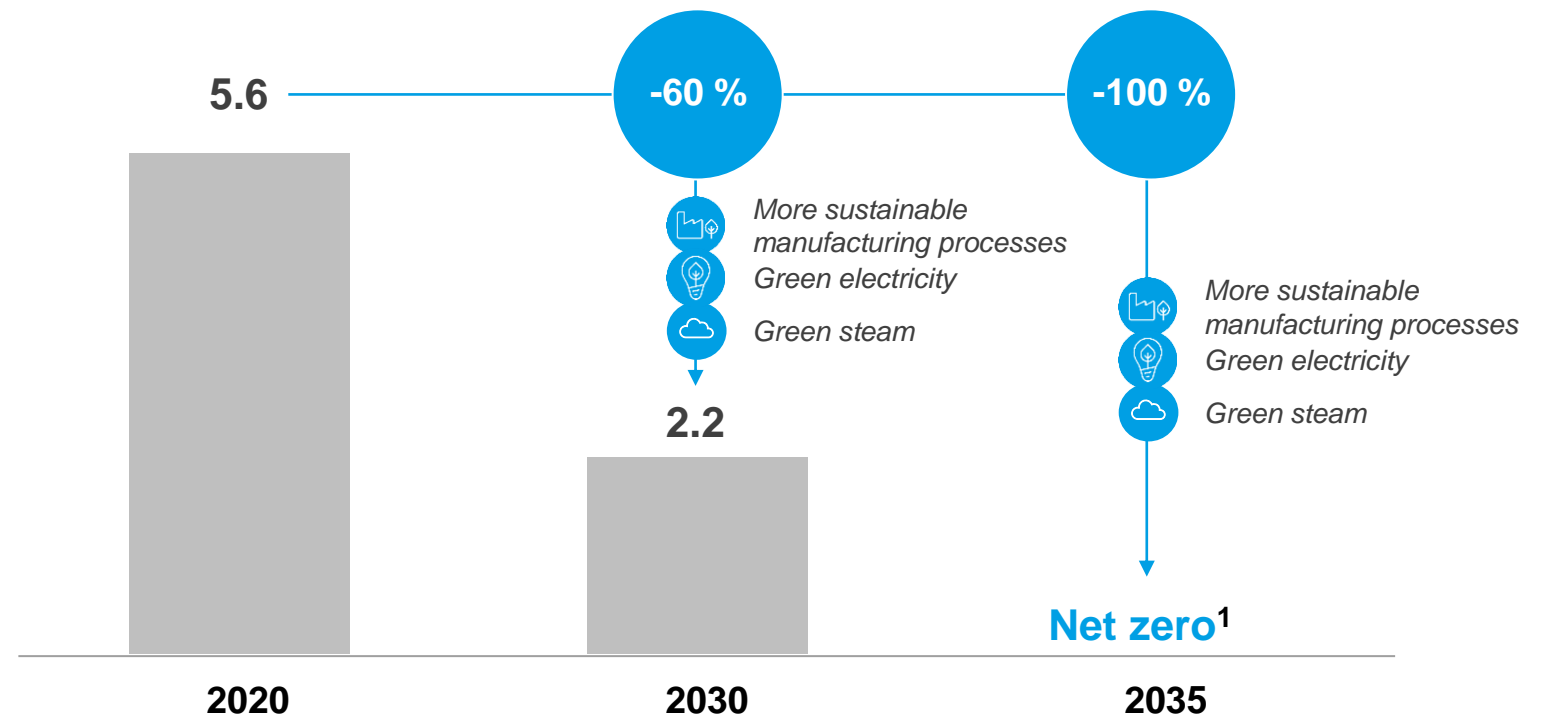
By 2035, Covestro aims for **net zero** for our own emissions (scope 1) and external energy sources (scope 2)

Three key levers for reduction:

- More sustainable manufacturing processes
- Green electricity
- Green steam

All efforts contribute towards the **1.5°C goal** of the Paris Climate Agreement

Greenhouse gas emissions in million t, scope 1 and 2



Climate neutrality as objective

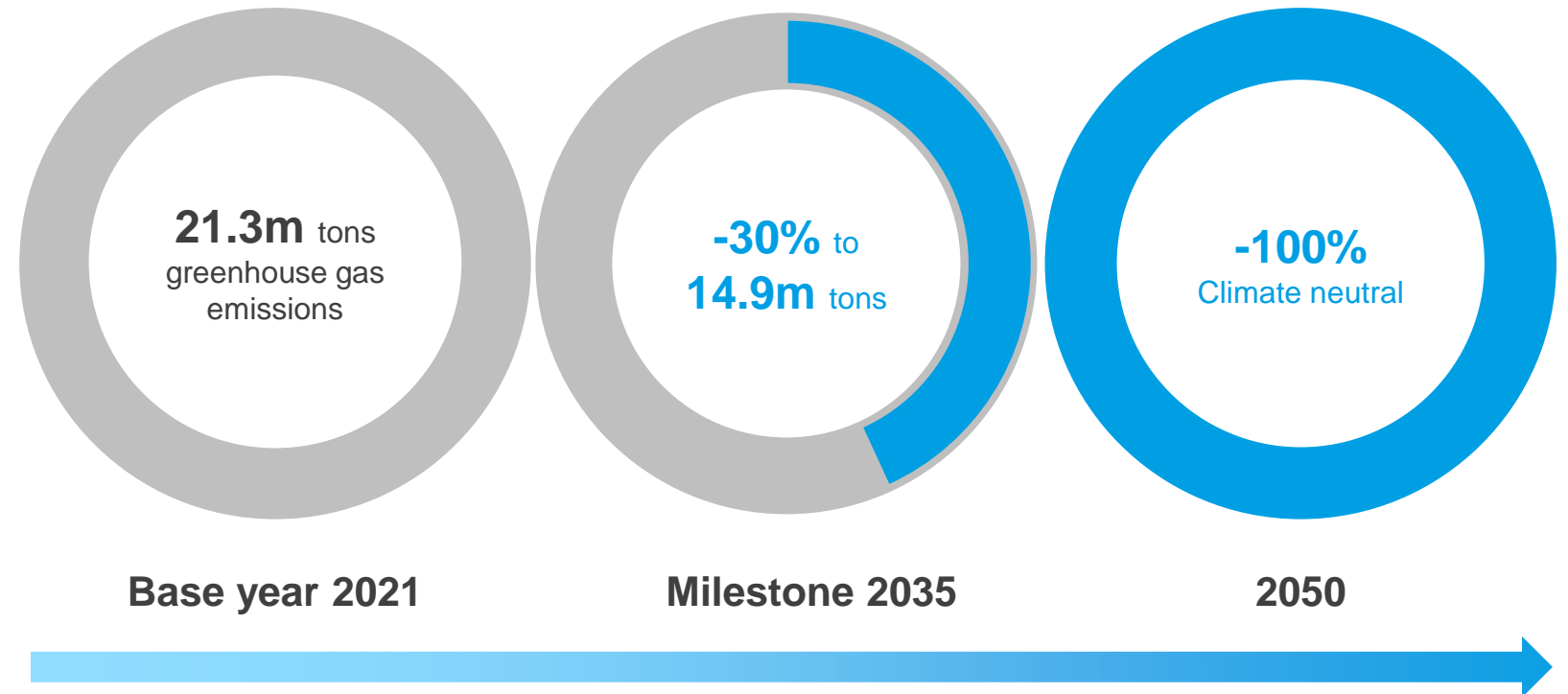
Scope 3



By 2050, Covestro aims for **net zero emissions** upstream and downstream in the value chain, so called scope 3 emissions.

Four levers for reduction:

- Suppliers reduce their scope 1- and scope 2-emissions
- Selling products made from alternative raw materials
- Advancing investments projects (MAKE projects)
- A large number of different factors as a fourth lever



Your go-to partner on sustainability solutions

A sustainable product portfolio with innovative services and solutions



CQ Circular Intelligent Solutions

- R Series: partly mechanically recycled (PCR, PIR)
- RE Series: Drop-in solutions partly with certified renewable attributed material share*
- RP Series: Drop-in solutions partly with certified recycled attributed material share**

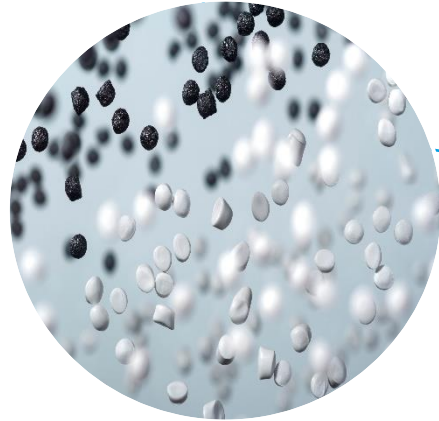


Design services

- Design for sustainability
- Imagio® CQ: visualization of product designs

Enabling circular business models

- Closed/open loop recycling
- Material tracing



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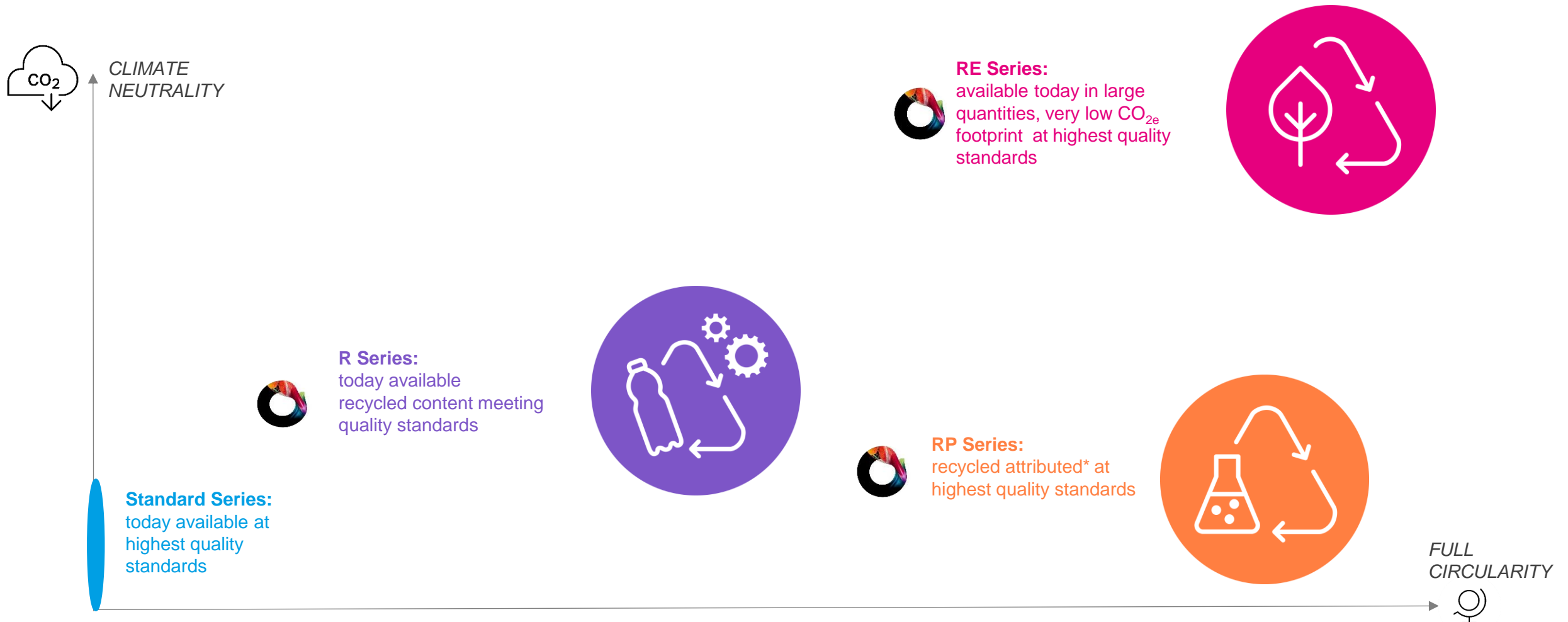
#CircularIntelligence

CQ Solutions:

For a More Circular,
Climate-Neutral
World

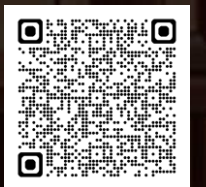
Let's push together for full circularity and climate neutrality.

CQ product portfolio from Engineering Plastics



R Series

Bayblend® R75
Reliable low carbon material for
next-gen headsets from Jabra



R-Series: Post-consumer recycled polycarbonate solutions offer consistent performance and traceable certificates



Mechanical Recycled



Near to prime materials that fulfil **Industry product safety standards**

UL ECV / TÜV certified of its traceable **post-consumer recycled (PCR)** source

A broad recycled portfolio from **25~90% recycled content** to address market needs

Covestro PCR raw material sourcing management system



**Dedicated team responsible
for PCR raw material
sourcing (Global structure
and regional base)**



**X-functional community from
sourcing, R&D, QC, production
& planning to ensure
R-portfolio quality and supply
consistency**



**Different sourcing
models to secure
sustainable PCR raw
material supply**

Continuous investment in mechanical recycling

Exciting step for Covestro on its way to full circularity



Capacity expansion in response to strong market demand

- Set up its first **dedicated line to deliver more than 25,000 tons** of high-quality polycarbonates and blends containing recycled content at integrated site in Shanghai, has commissioned in 2023
- Repurposed a compounding facility in Thailand to address PCR products for the **ASEAN market**
- By 2026, aim to deliver **over 60,000 tons** of recycled polycarbonates per year in the region



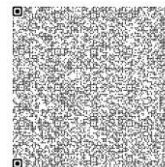
Driving for circularity

Advance end-of-life automotive plastics recycling partnership



Covestro x Ausell to close automotive loop

- Building on our previous partnership in recycling polycarbonate water barrels, this new collaboration aims to accelerate the recycling of plastics from end-of-life vehicles, contributing to the automotive industry's circularity
- **Ausell** will supply recycled polycarbonates derived from discarded automotive headlamps
- **Covestro** will then process into high-quality PCR materials for automotive engineering applications

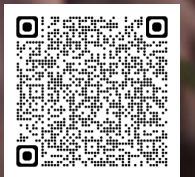


[Advancing end-of-life automotive plastics recycling](#)



RE Series

SAGA™ switches & sockets from ABB preserving resources with Makrolon® RE

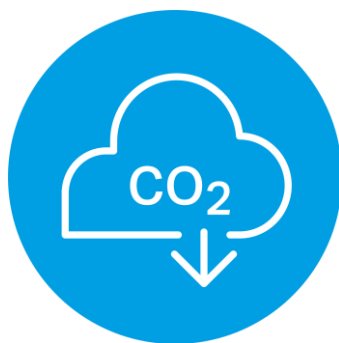


Source and Copyright: ABB

REach your sustainability goals with drop-in solutions from Covestro



RE Series:



REduce significantly the product carbon footprint^{1*}



Up to **89% bio-circular certified attributed material share**, with EPEAT recognition for sustainable use of resources^{2*}



Drop-in solution
Zero implementation effort

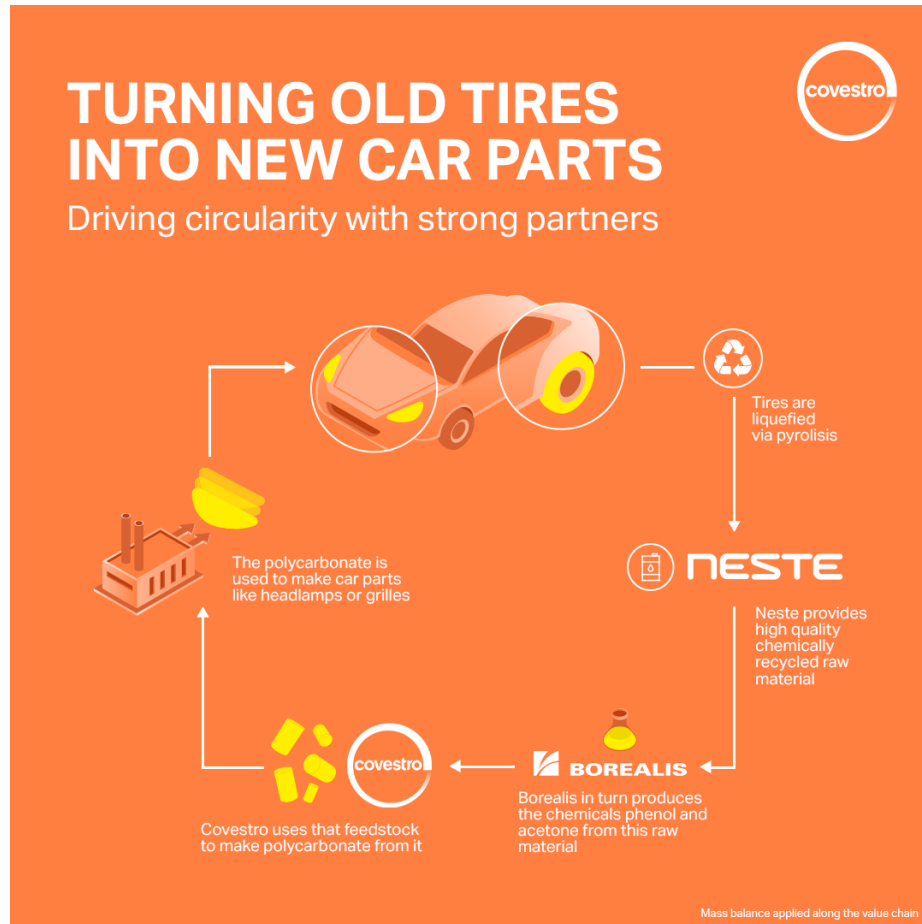




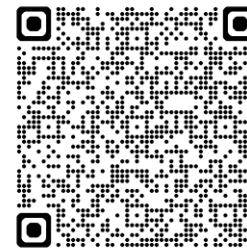
RP Series

Turning old tires into new car parts

Collaboration between Neste, Borealis and Covestro



From left to right: Jeroen Verhoeven (Neste), Thomas Van De Velde (Borealis), Guido Naberfeld (Covestro).



Today, discarded tires often end up in landfills or incineration. The collaboration between Neste, Borealis and Covestro intends to open a route for discarded tires to find their way back into cars.



Reach your sustainability goals with RP series from Covestro

RP Series:



Supports Circular Economy
with significant post consumer
chemically recycled attributed
sustainable share *



Drop-in solution
Zero implementation effort



High purity
chemically refined,
use at highly regulated
industries possible





#CircularIntelligence

CQ Solutions:

Mass balanced
solutions



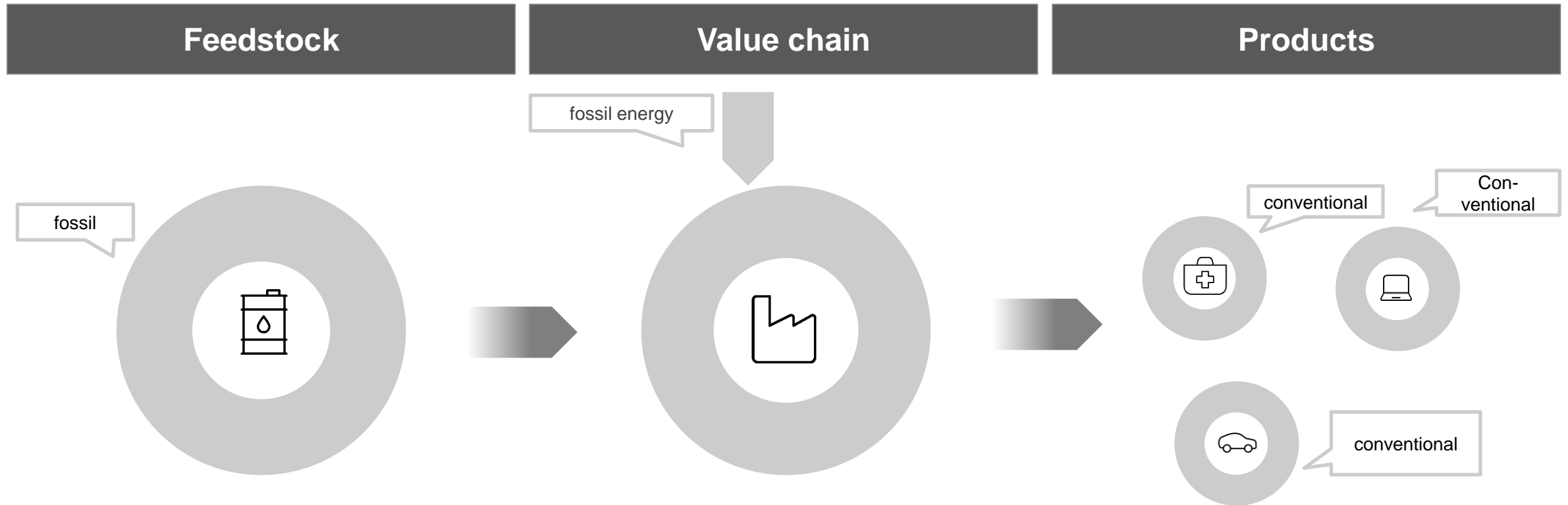


Illustration based on Nova institute

Principle of Mass and Energy Balance Approach

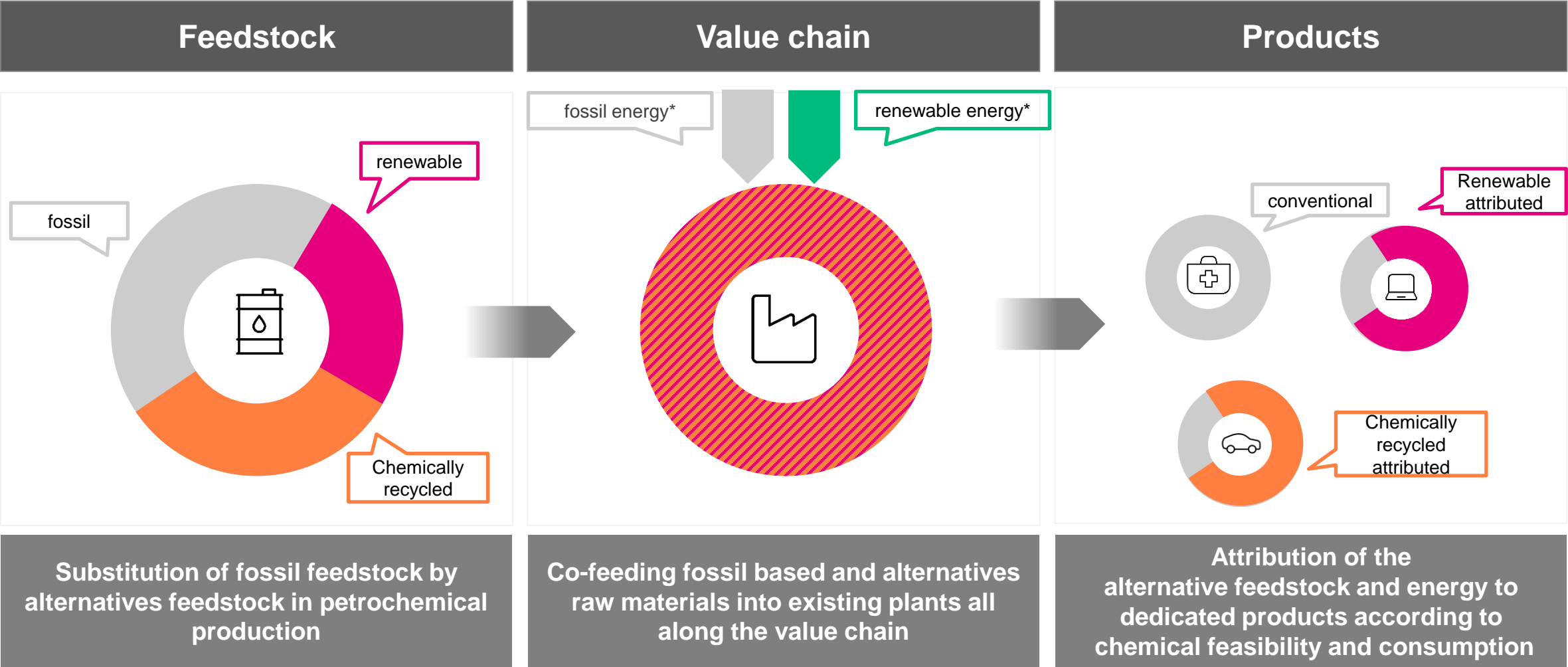


Illustration based on Nova institute

Mechanically and physically recycled polymers remain in same polymer family.

Covestro supports ecosystems to grow availability of recyclable End-Of-Life polycarbonates



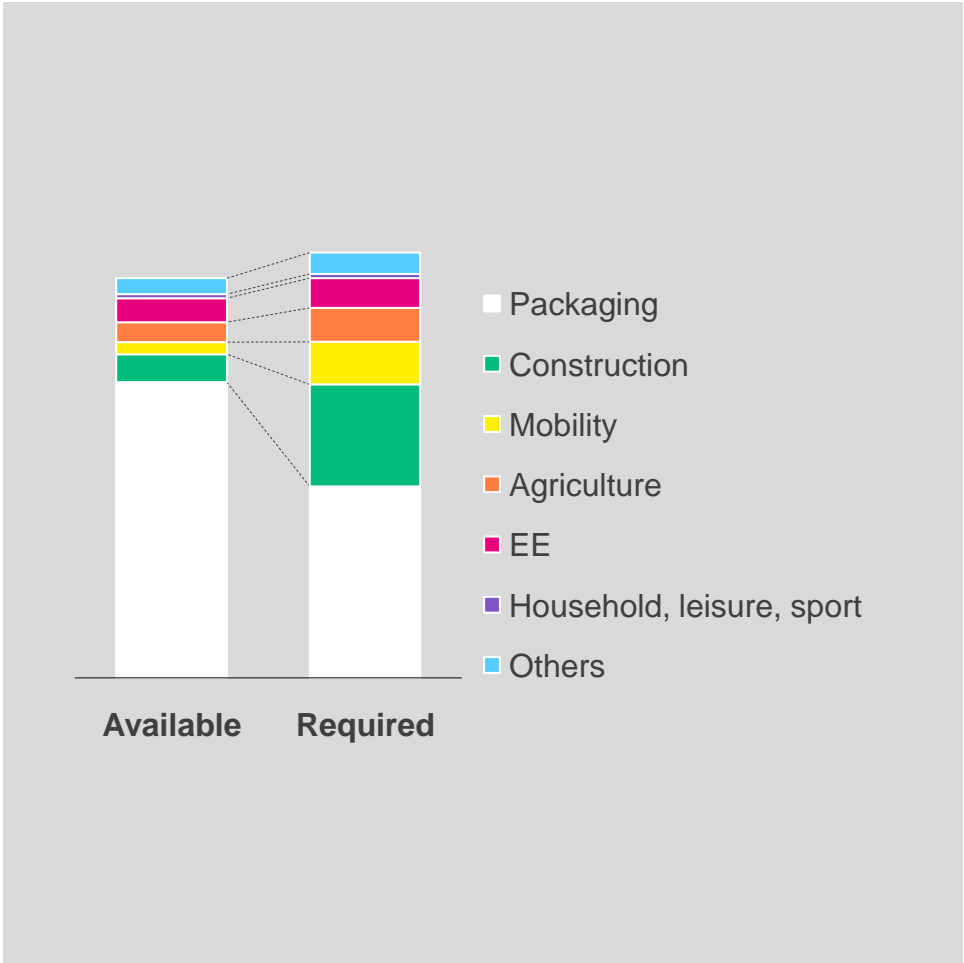
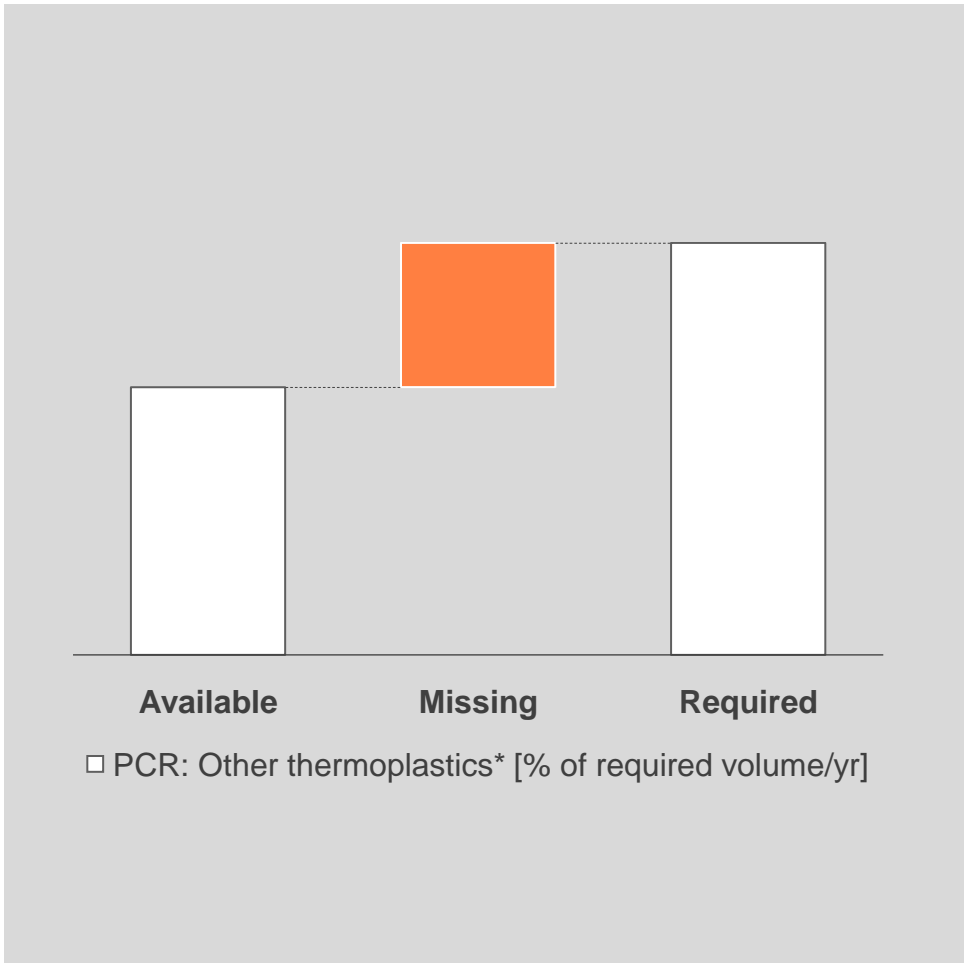
We are excited to deepen our partnership with Ausell as we work closely with our value chain partners to accelerate the **circular transformation of the automotive industry.**

Lily Wang
Global Head Engineering Plastics
Covestro



PCR (post-consumer recyclates) request and availability are expected to be imbalanced among polymer families and industries

Selected scenario developed by Conversio for 2030*



Chemical recycling*** can provide recycled attributed polymers independent from first life.

Available today: polycarbonate attributed to chemically recycled old tires*



Chemically recycled attributed products* are already available

Mechanical recycling is prioritized when quality and quantity are feasible



Mechanically and physically recycled polymers remain in same polymer family.

PCR request and availability are expected to be imbalanced among polymer families and industries**.

Chemical recycling*** can provide recycled attributed polymers independently from first life.



* plastics from chemically recycled post-consumer feedstocks attributed via mass balance

** frame conditions; *** some sort of chemical recycling like gasification or pyrolysis result polymer-independent in base chemicals (while other sorts of polymer-specific chemical recycling result in monomers)

Several sources for alternative raw materials*



RE & RP series are related to alternative feedstocks via mass balance



Bio: feedstock from virgin biomass



Circular : feedstock from waste / processing residues which are not landfilled or burned (e.g. ELT, general plastic waste)



Bio-circular: waste and residues of biological origin (e.g. used cooking oils)

Equivalency verified by Covestro



Makrolon® RE and Makrolon® RP resins are **identical** to conventional Makrolon® resins

You can **replace an existing** Makrolon® with its correspondent Makrolon® RE or Makrolon® RP grade: Their physical, mechanical, thermal, optical, weathering and processing properties are identical to corresponding conventional Makrolon® resin.

	Raw Material Specification	Resin Production Process	Product Formulation	Product Specification
 Makrolon®	✓	✓	✓	✓
 Makrolon® RE *	✓	✓	✓	✓
 Makrolon® RP	✓	✓	✓	✓

Supporting little and big steps towards full circularity

You can decide your speed towards circularity



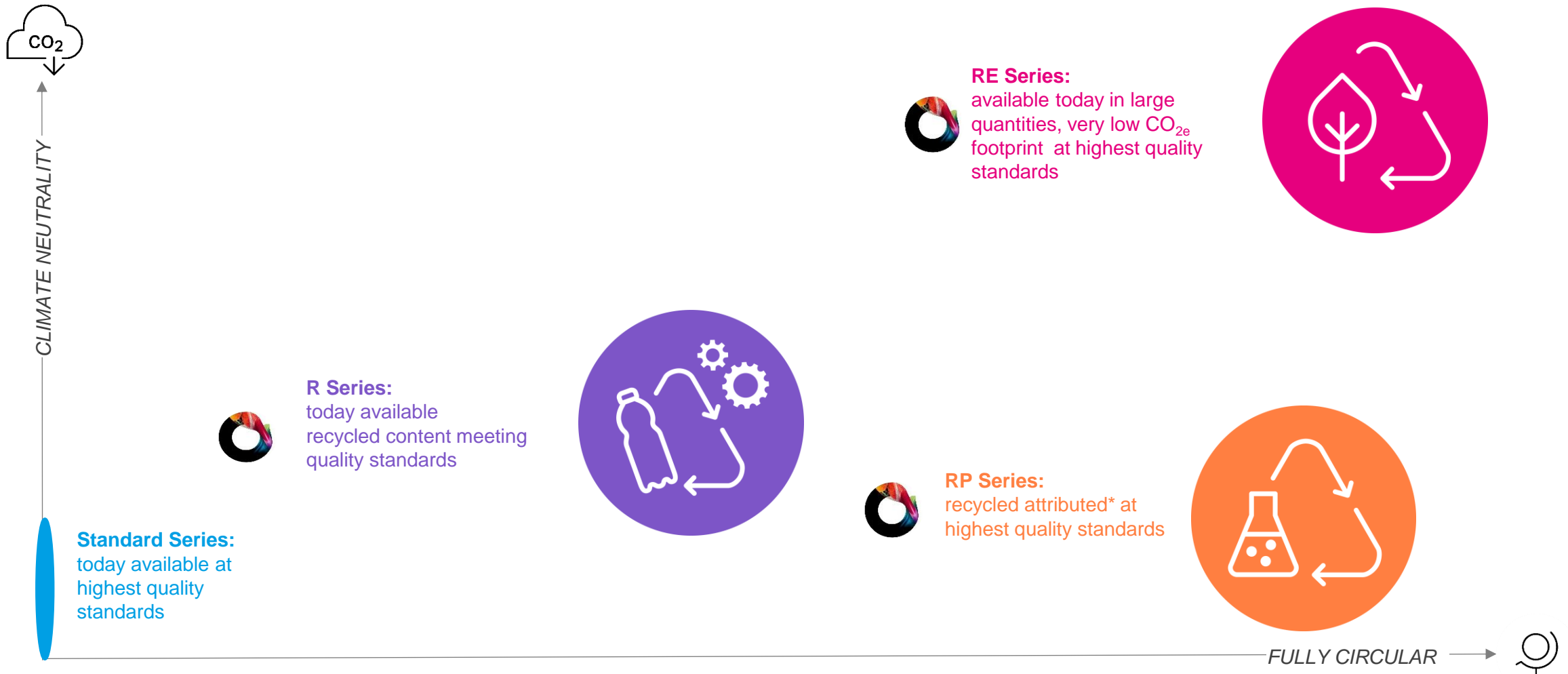
RE and RP
with
significant
certified
attributed
material
share*

RE25 and
RP25 with
25% certified
attributed
material
share*

Both
products with
identical
performance
as respective
standard
material

Let's push together for full circularity and climate neutrality.

CQ product portfolio from Engineering Plastics



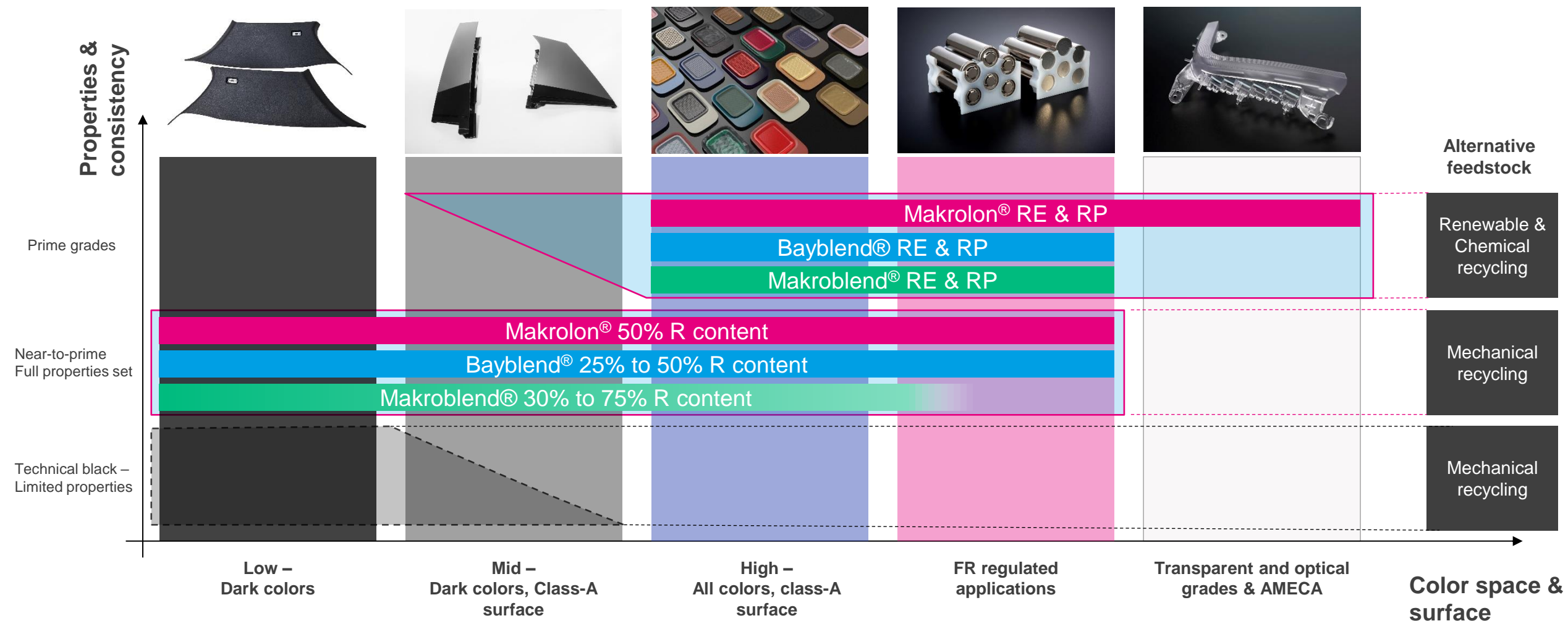


Drug delivery device design based
on polycarbonate materials,
for long use
and easier disassembly at end-of-life



Product application scope

Products characteristics to be adapted to applications for best cost / performance balance



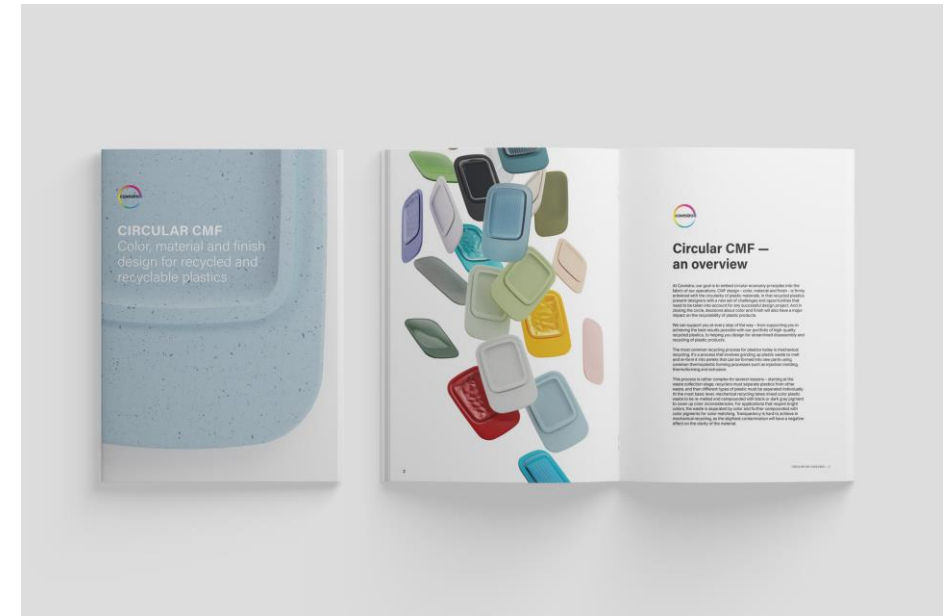
Helping integrate end-of-life disposal & circularity into the design

Guidebook to circular design for electronic makers



Integrating Circularity into Aesthetic Design

Circular DMF Design Guide



CQ Automotive Lighting Solutions

Combining Sustainable Design with More Sustainable Materials to reach your goals



For identical performance:



Makrolon® TC629 RE / RP
→ Heatsinks



Makrolon® DS801 RE / RP
→ Reflectors and CLTE stable parts



Makrolon® LED2245 (HP) RE/RP
→ Lenses and Lightguides



Makrolon® LED2245 DQ RE/RP
Makrolon® LED2245 EL RE/RP
→ Lenses and Functional color parts



Makrolon® AL2447 RE/RP
→ Headlamp cover

Highest optical and mechanical quality



For near to prime quality needs:



Bayblend® T85XF R50
→ Housing, also foamable



Makrolon® 205 R50
Makrolon® 705 R50
→ Bezel and Frames

Opaque colors and near to prime mechanics



Polycarbonatos CQ de Covestro

Materializando la circularidad



Mechanical Recycling



Products with **post-consumer recyclates***** for demanding applications

- High quality feedstock
- 25 to 75% recycled content
- Near to prime performance
- Global portfolio
- IMDS / ELV** readiness

Renewable attributed Polycarbonates



High quality, certified*, mass balanced PC – **biological waste and residues** - replace fossil resources

- “Drop-in” solution with identical properties
- All applications in-scope
- Large CO₂ footprint reduction potential
- Global portfolio of grades

Chemical Recycling



High quality, certified*, mass balanced PC – replacing fossil by **post-consumer-chemically recycled feedstocks**

- Supports Circular Economy, with significant recycled attributed share
- “Drop-in” solution, zero implementation effort
- High purity, use at highly regulated industries possible

Design for Sustainability



Circular Design co-creation with customers

- Modular application design
- Highly complex / disassembly)
- Material centricity (“mono”-material)
- Industry R&D programs, e.g., NALYSES project for EXT lighting (full supply-chain project, digital twin, etc.)

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