



Sustainability as Covestro's Strategic Asset: How We Translate It into Coatings and Adhesives

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Recepimento Green New Deal | 20.04.2022

[covestro.com](https://www.covestro.com)

Covestro – leading in the world of plastics

Strong

- €15.9 bn in sales
- ~17,900 employees¹



Useful

- Plastics, pre-products and solutions
- For many industries



Global

- 50 production sites globally
- Close to customers and partners



Innovative

- ~1,500 employees in research and development
- 80 years of ideas and inventions



Materials for coatings, adhesives and specialties

BE Coatings & Adhesive



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Several applications



Cosmetics



Floor finishing



Coatings for
Automotive



Textiles

19%

Group Share

€2 bn

Sales FY 2020
(Covestro Legacy)

Solutions for global challenges



Our world is facing huge challenges.

Covestro does everything to master these challenges and to **push the boundaries of what is possible.**

This is how we achieve **innovative products and solutions** – efficient, economical and sustainable.



Climate change



Population growth



Mobility



Urbanization



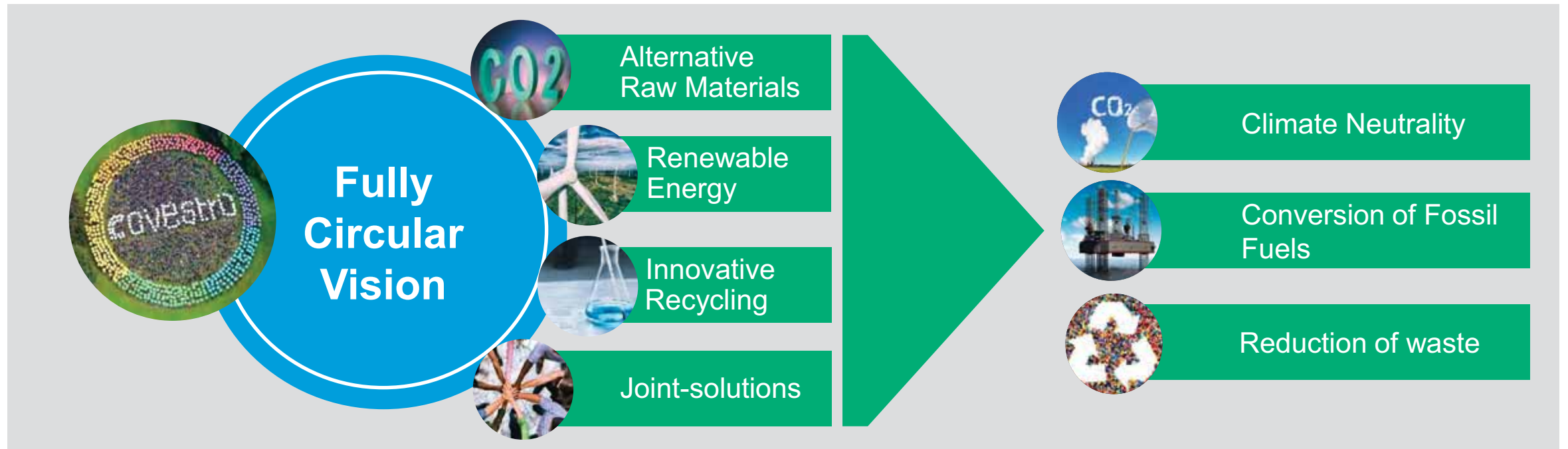
Demographic change



Digitization

Circular Economy for a Sustainable Development

4 Strategic Tools for 3 Goals





Our corporate vision

***“We will be
fully circular”***

Milestone on the way to the circular economy: climate neutrality



Net zero¹ by 2035

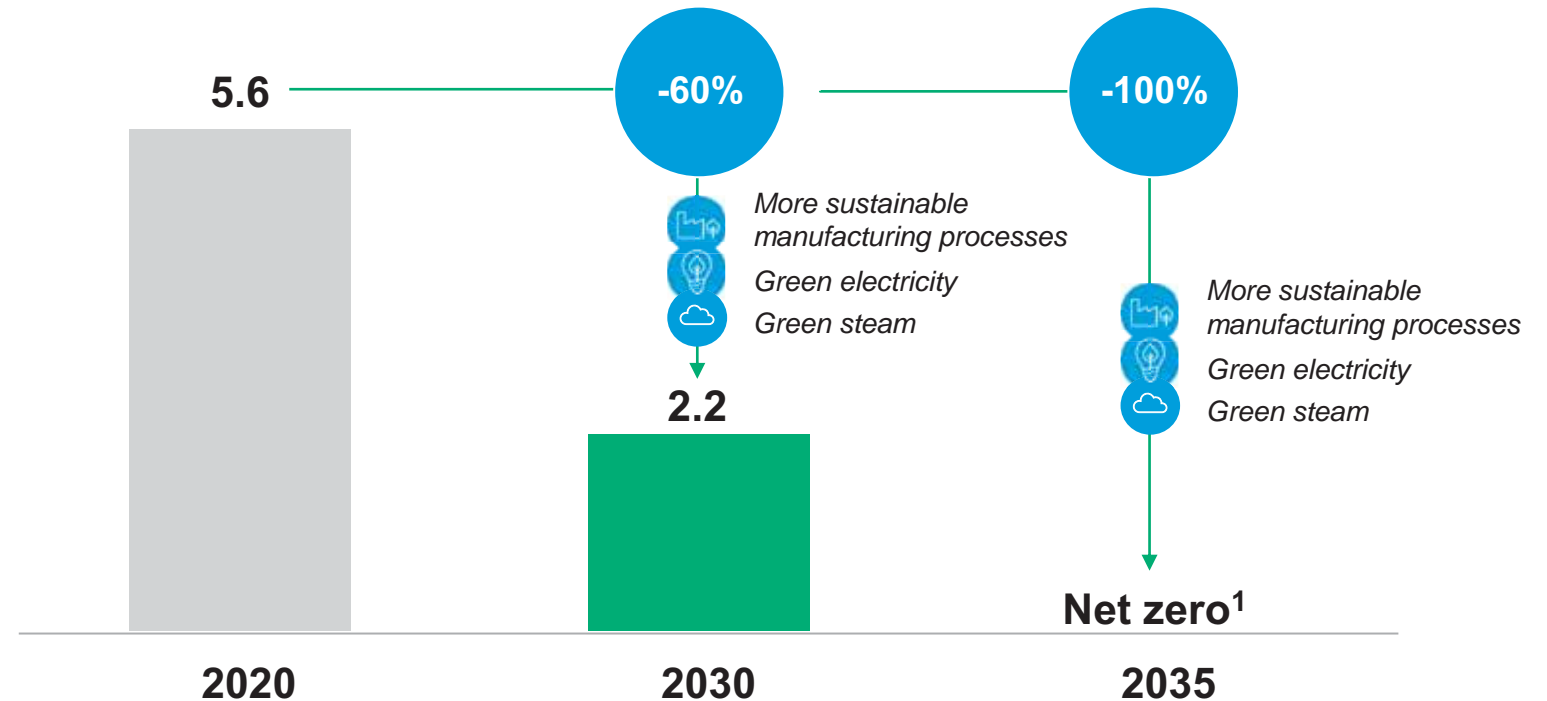
By 2035, Covestro aims for net zero scope 1 and 2 emissions.

As interim target for 2030, Covestro has committed to a 60% reduction in greenhouse gas emissions to 2.2m t.

Clear roadmap with three innovative levers for reduction.

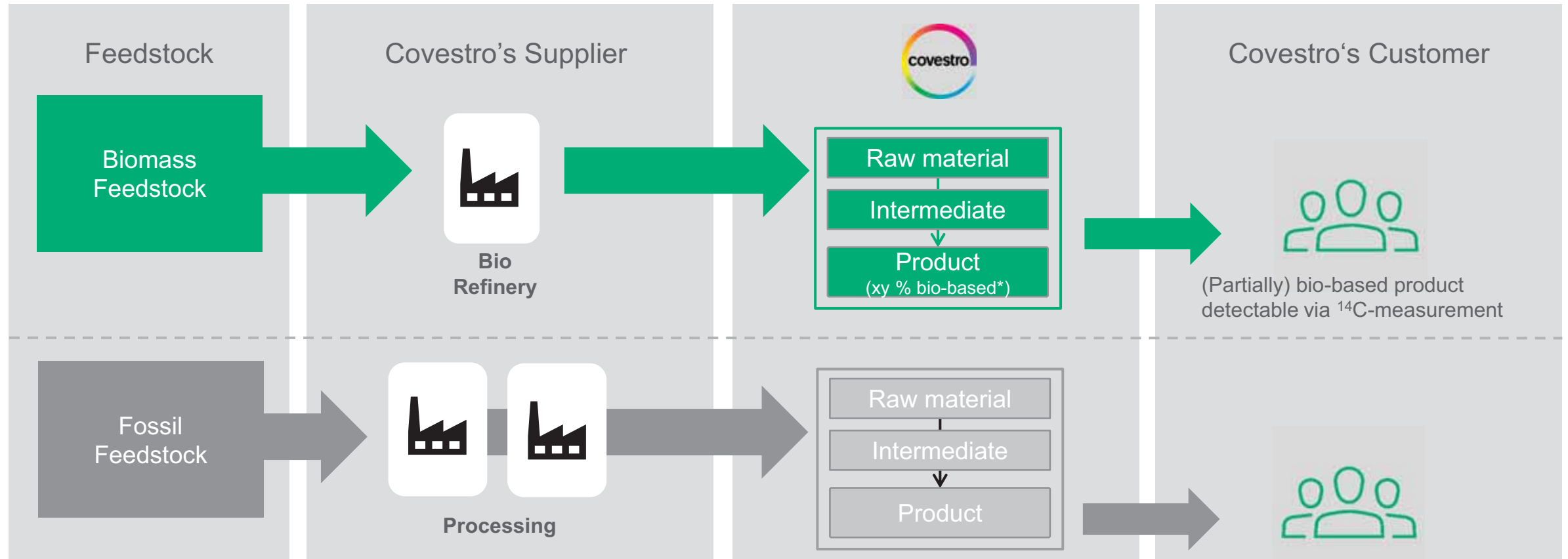
All efforts pay toward the 1.5°C goal of the Paris Climate Agreement

Greenhouse gas emissions in million t, scope 1 and 2



¹ Achieving net zero greenhouse gas emissions is defined as a balance between anthropogenic emissions (from own operations and energy procurement) and anthropogenic removals of greenhouse gases.

Segregated processing of bio-based feedstock is an important part of our Circular Economy product offerings



→ Segregated process allows traceability of renewable feedstock in end products

* depending on product composition

Our Covestro eco products are partially bio-based and produced in a segregated process



Performance enabled by nature – from 27% to 70% content of renewable carbon¹

Partially bio-based products for various applications:

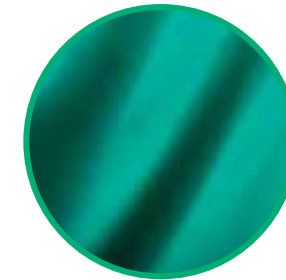
- Desmodur[®] eco N
- Desmodur[®] eco BL
- Bayhydur[®] eco
- Bayhydrol[®] eco
- Impranil[®] eco
- Baycusan[®] eco
- Decovery[®]



Metal



Wood & furniture



Textile



Cosmetic



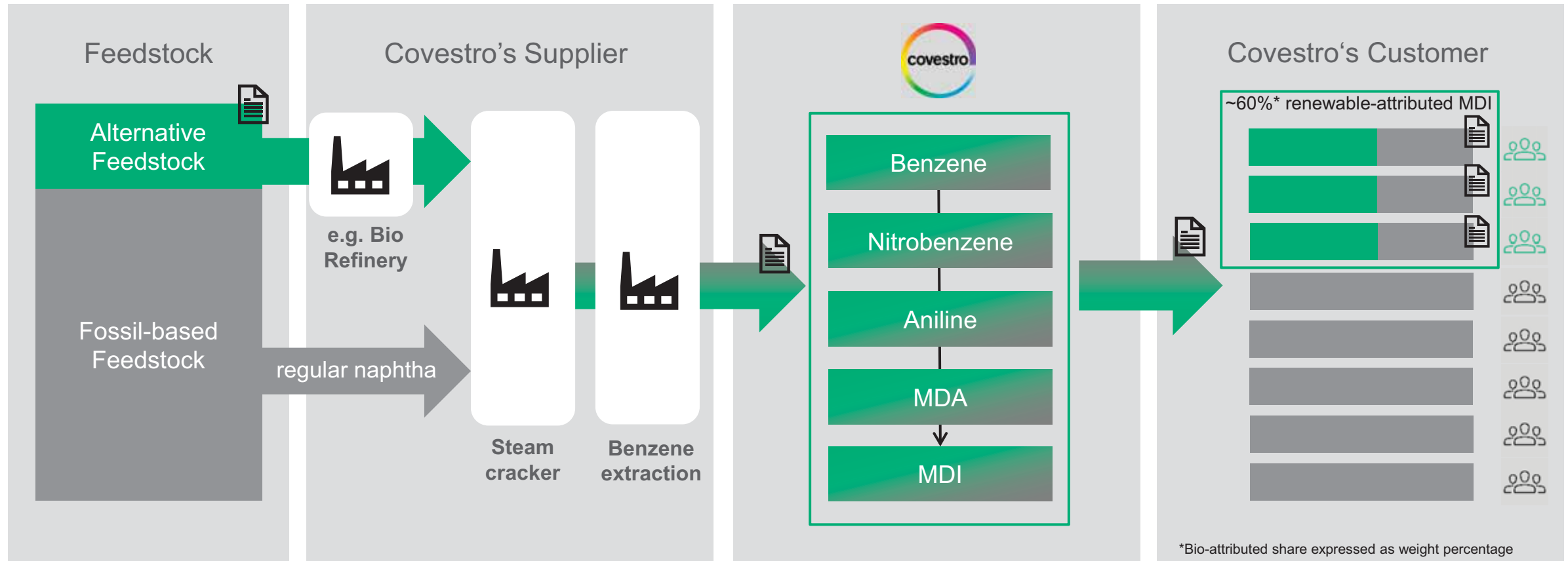
Architectural



Packaging

¹ Renewable carbon, ¹⁴C measurement according to ASTM-D6866 standard

Besides our segregated bio-based solutions Covestro is now offering MDI via the Mass Balance approach



→ Mathematic attribution of alternative materials is certified by ISCC*

ISCC PLUS certification

* ISCC=international sustainability & carbon certification
Illustrative, not true to scale

Mass balanced products are delivered with a Sustainability Declaration



Sustainability Declaration, as additional part of the shipping documents

Certificate of Analysis



- same specification
- same product quality



Sustainability Declaration



- transparent rules for Mass Balance
- traceability throughout the supply chain
- feedstock identity

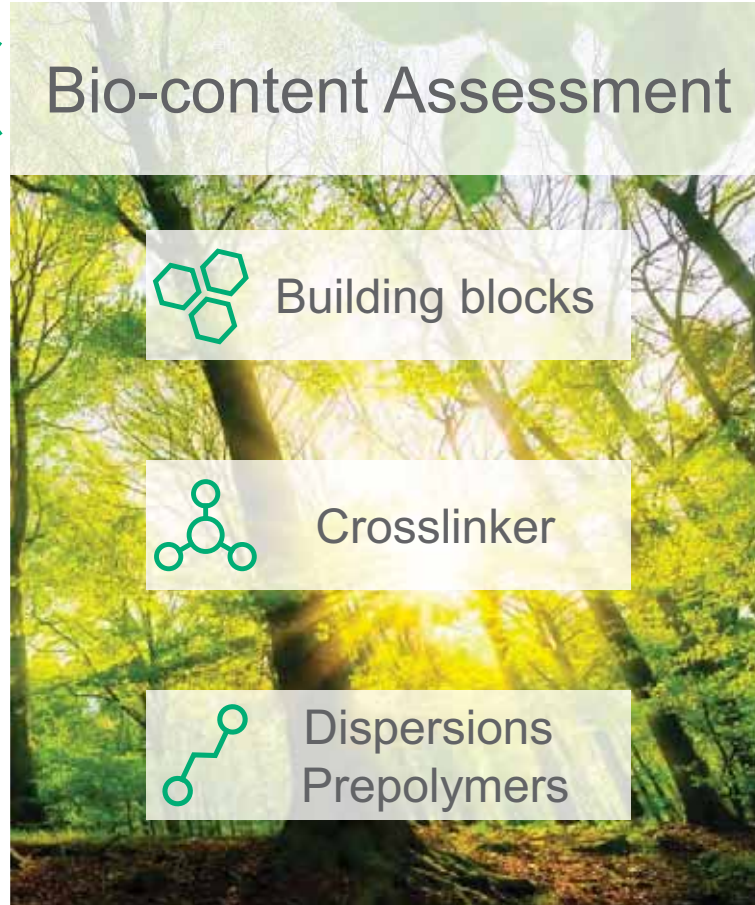
Alternative Production Processes

Biomass for a lower environmental footprint

Segregated

- Bio-content assessment via ^{14}C -test
- Dedicated production plants
- Drop-ins, near drop-ins
- Clear communication to the end-user (“bio-based”)

Bio-content Assessment



Building blocks



Crosslinker



Dispersions
Prepolymers

Mass Balance

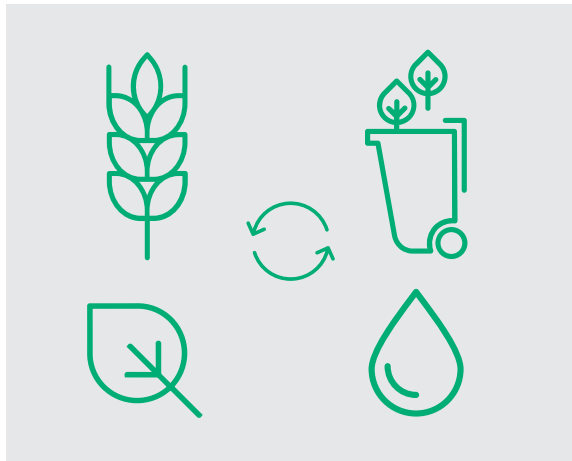
- Mathematical allocation of bio-content and ISCC Plus Certificate
- Existing production plants, Flexibility
- Drop-ins
- Flexibility in the use of different alternative feedstocks

Decovery®

Plant-powered coating resins



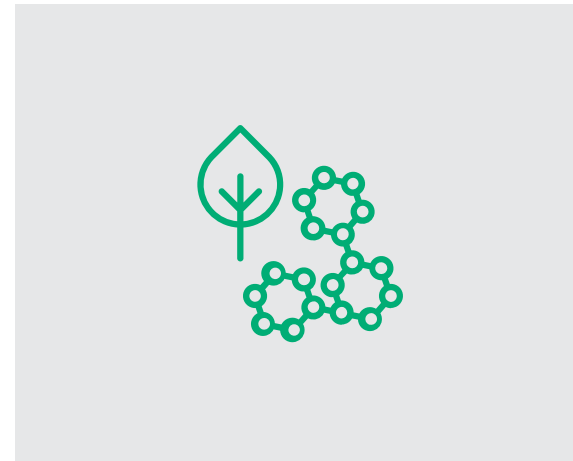
Decovery® is a family of plant-based resins designed to deliver high-performance products across coatings and inks markets while treating our planet gently. It's made from plant-based materials that are sustainably sourced.



Plant-based materials such as tree bark, castor beans and corn¹



→ Converting plant-based materials into a variety of renewable building blocks



→ Leading to a platform of high-performance plant-based polymers



→ **Decovery®** resins

1) Depending on the **Decovery®** resin type

Decovery[®] resins deliver ...



Performance



Equal or better performance compared to fossil-based resins¹

Health



Using safer ingredients and containing very low VOCs.

Sustainability



Plant-based materials, reducing the carbon footprint, manufactured with renewable energy²

- Transparency**
- Up to 52% verifiable (C14) bio-based content³
 - Up to 34% reduced carbon footprint⁴
 - Sustainably sourced materials (feedstock transparency, supplier audits)
 - Product (Sustainability) Passport & value chain transparency projects with 3rd parties

1) Compared to conventional water-based alternatives

2) Only resins manufactured in Europe at Waalwijk, NL site; Energy from three local windparks (provided by Eneco)

3) Depending on product grade; verified by Beta Analytic Inc. (Bio-based and Biogenic Carbon Testing Laboratory)

4) Compared to water-based alternative (fossil-based)

High transparency standards help to build credibility & trust



Sustainable Sourcing

Careful selection & auditing of suppliers based on sustainability standards. High level of feedstock transparency.

- Declaration of feedstock type & origin
- Suppliers audited by Ecovadis with standards of the 'together for sustainability' (TfS) initiative
- Certified feedstock

Verifiable bio-based content (C14)

The bio-based content of the resin can be identified via scientific method (C14).



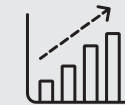
We supply our partners with the results of the C14 analysis² as a proof



Paint manufacturers conduct analysis for coating and can apply for certifications

Lifecycle Assessment (LCA)

We assess the total environmental impacts of our resins (cradle to gate).



We conduct LCA's for each resin (3rd party reviewed)³



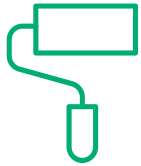
Paint manufacturers can make use of the data and infographics for their products.

1) An initiative of chemical companies that developed a global program to assess and audit the supply chain; supplier audits ongoing
2) Measurements according to ASTM D6866
3) ISO-14040-14044 standard, IPCC 2013 GWP 100a standard and the WBCSD chemical sector guidance

Decovery[®] portfolio



Decorative



SP-7450

39%

SP-8406

52%

SP-8310 XP

37%

SP-8030

43%

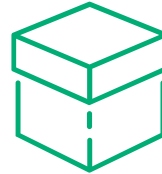
Flooring



SP-2022 XP

35%

Packaging



SP-6200 XP

39%

SP-6400 XP

35%

D-2105

39%

Furniture



SP-7000 XP

27%

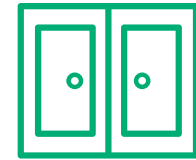
SP-7100 XP

27%

SP-7400 XP

40%

Joinery & Facade



SP-7450

39%

SP-7100 XP

27%

Decovery[®] innovation roadmap





Grazie

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