

Will Waterbased Inks Save the World?

PRETHINK INK webinar, Sept. 22nd 2022
ACTEGA Terra Aqueous Inkjet, André Salié

The Corporate Structure of ALTANA

Four divisions, one successful group



Sales	€2,667 m	EBITDA	€482 m
Employees	6,731	EBITDA margin	18 %



Paint additives
Plastics additives
Industrial applications
Measuring and testing instruments

Coatings
Graphic arts
Cosmetics and personal care
Plastics industry
Functional applications

Wire enamels
Electrical
Electronic
Engineering materials

Flexible Packaging
Metal Packaging Solutions
Paper & Board

Sales in €m: 1,227
Employees: 2,420

Sales in €m: 383
Employees: 1,735

Sales in €m: 594
Employees: 1,061

Sales in €m: 463
Employees: 1,284

All figures relate to the fiscal year 2021.

What We Stand for

A specialist for packaging and printing

ACTEGA:

- develops, produces and distributes **specialty coatings, inks, adhesives and sealing compounds** with a focus on the packaging, graphic arts and medical industries
- provides materials with a **high-value appearance** (visual/tactile) and **innovative functionalities**
- offers technically sophisticated product solutions for **flexible and metal packaging, folding cartons, labels and commercial prints**
- owns **production facilities** in **Europe, North and South America** as well as **China**



**PACKED
WITH
EXPERTISE**

Possibly it Helps



ACTGreen®

Waterbased Coatings based on recycled materials from fossil-oil or renewable resources



Provalin®

Sealant for metal vacuum closures free of PVC, phthalates or any other plasticizers



Low Gauge Compounds

Compound solution that allows reduction of steel in the crown cap up to 0,3g per piece.



FoodSafe Gold

Waterbased Coatings based on materials certified according the Cradle-to-Cradle product standard.



ECOLEAF

New kind of material spot metallization.



Signite™

Product decoration without using backing substrate.

Sustainability

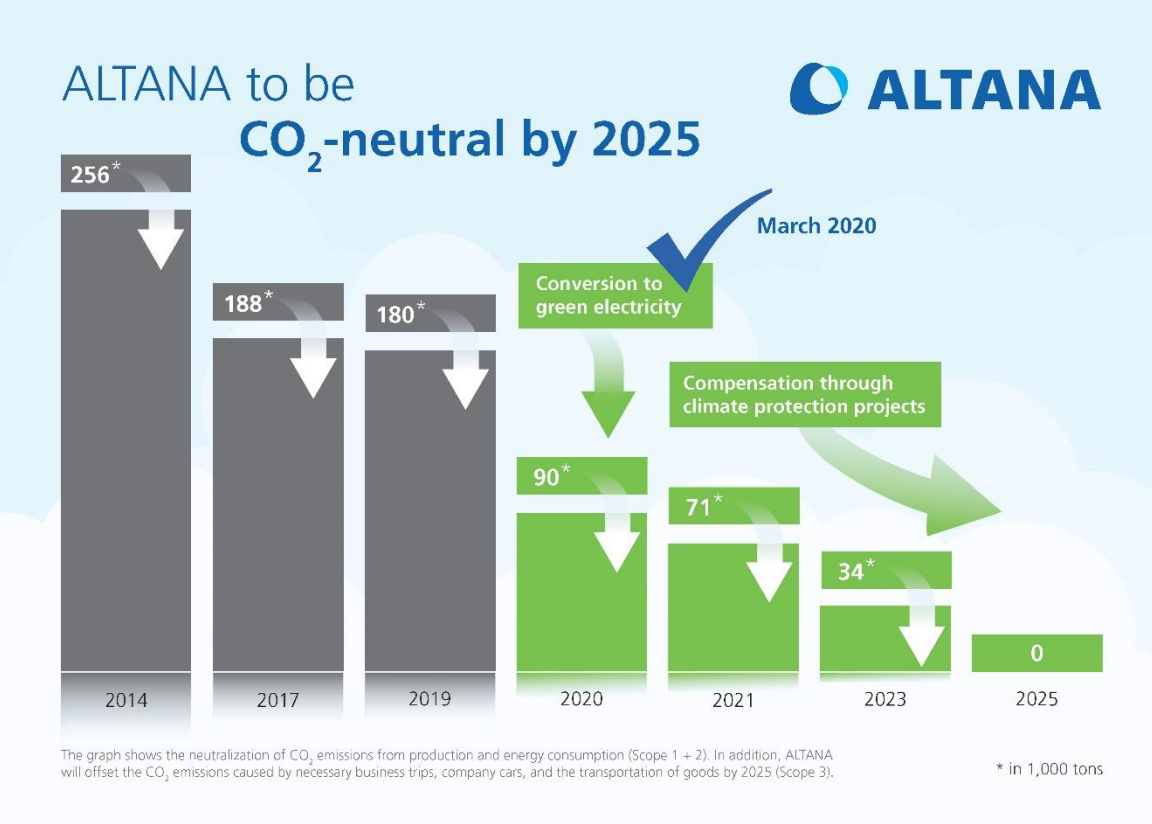
Major milestones achieved



Complete conversion to green electricity for all sites already in March 2020



Gold status for the ALTANA Group in the EcoVadis sustainability rating confirmed with a significantly higher score



We Want to Leave Footprints on Innovations, not on Emissions

Together with Corp. Procurement

Measures for Climate Neutrality

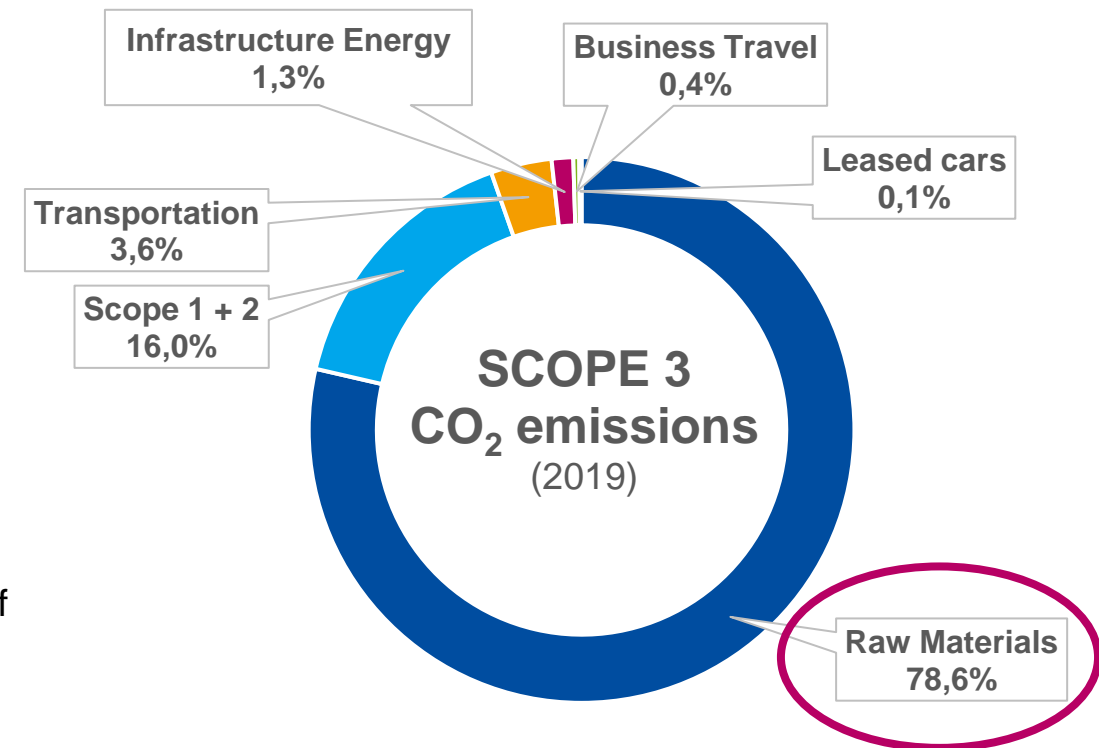
The chemical industry exhibits a significant carbon footprint: 85% of the feedstock for organic chemicals is fossil-based, biomass contributes only for 10%

Own impact on the emissions of products is in the low single-digit percentage range:
~1% from production, <1.5% from transport

Raw materials portfolio is most significant leverage!

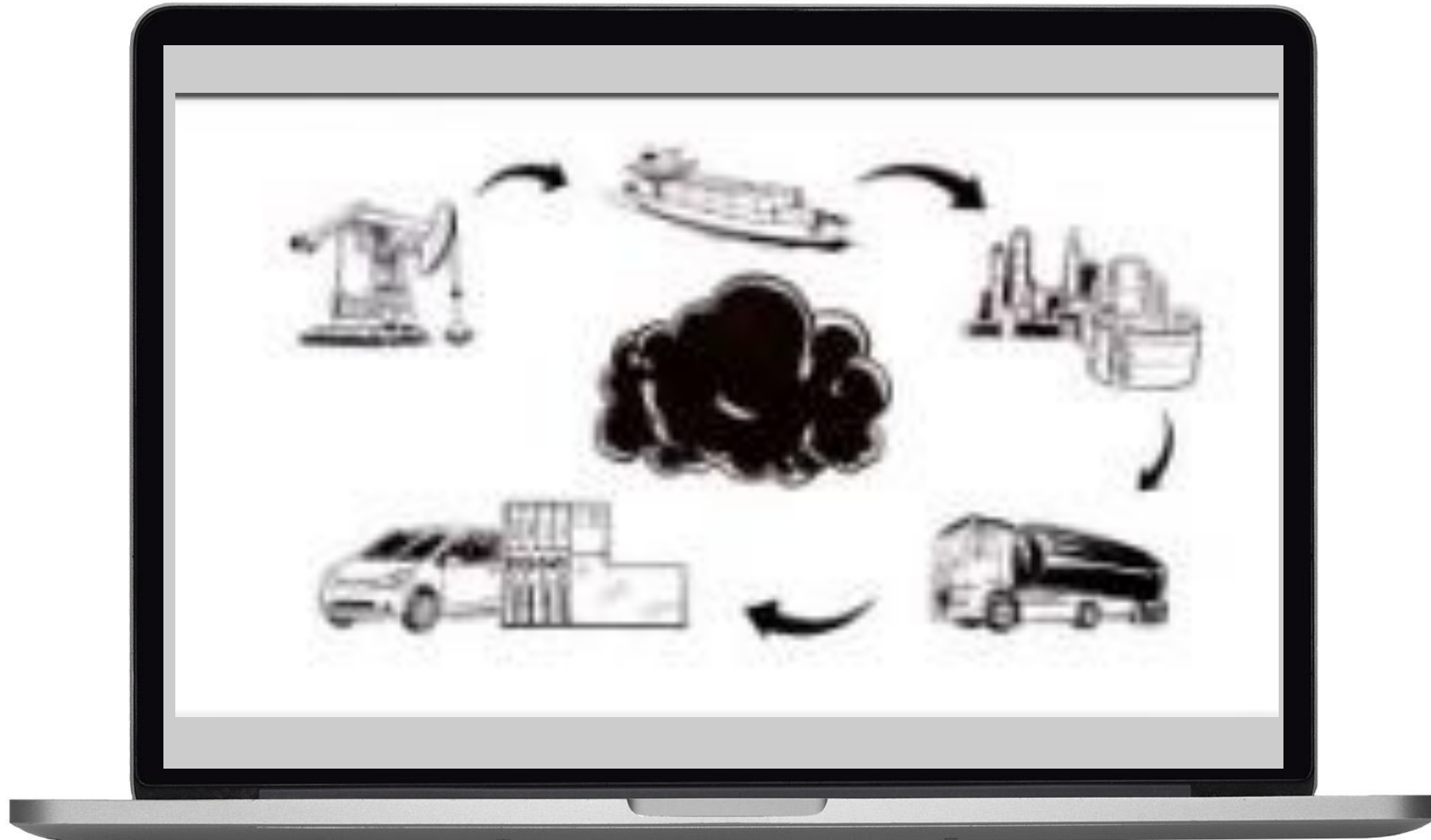
Two strategies could reduce the emissions associated with raw materials:
Employing bio-based vs. **biomass balance** raw materials

Supplier program to consistently further **improve CO₂ balance** of purchased raw materials.



Source: Master Thesis (J. Meyerratken 03/2022), [Group approach on raw materials for generic formulations of wb & UV curable coatings \(ACTEGA Terra\)](#)

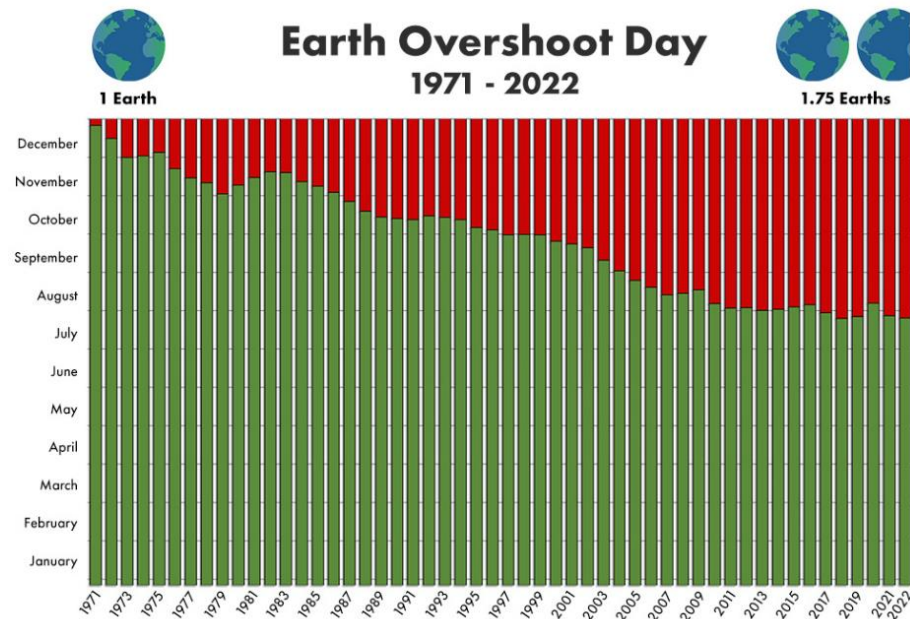
Think Big



[Wie kann ich meinen CO2-Fußabdruck verringern? | European Youth Portal \(europa.eu\)](https://european-youth-portal.eu)

A Ruined Day

THIS YEAR, EARTH OVERSHOOT DAY LANDS ON JULY 28
 Earth Overshoot Day marks the date when humanity has used all the biological resources that Earth regenerates during the entire year.*



Source: National Footprint and Biocapacity Accounts 2022 Edition
 data.footprintnetwork.org

Overshoot Day – an diesem Tag sind alle Ressourcen verbraucht (utopia.de)

Wie viele Erden bräuchten wir, wenn alle so leben würden wie die Bewohner der USA?

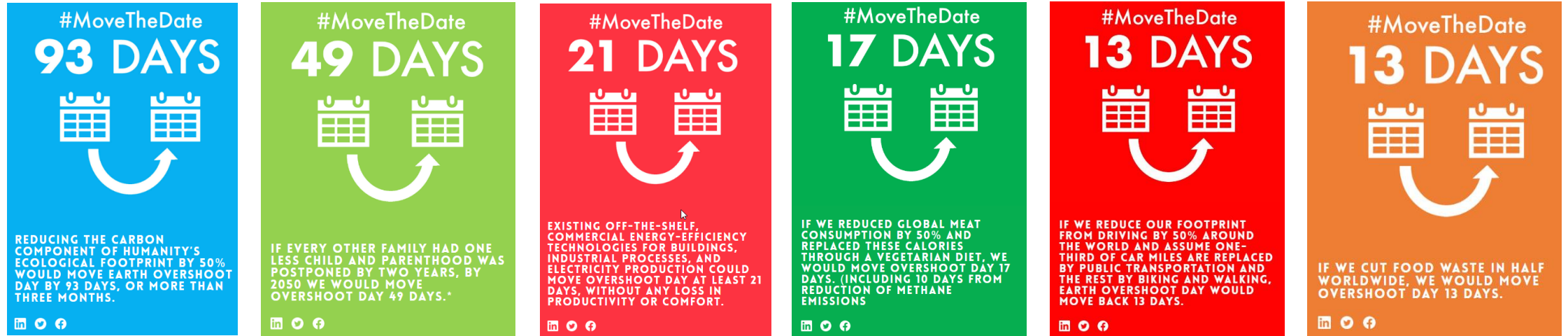


Quelle: National Footprint and Biocapacity Accounts 2022
 Resultate für andere Länder verfügbar unter overshootday.org/how-many-earths

Earth Overshoot Day By the Numbers



Leverages



Planet Solution - #MoveTheDate of Earth Overshoot Day



206 days

114 days

01.01.2022 – 28.07.2022 = 209 days
157 days left in 2022

Ambitious Plans

- The European Commission adopted a set of proposals to make the EU's climate, energy, transport and taxation **policies fit for reducing net greenhouse gas emissions by at least 55% by 2030**, compared to 1990 levels.

More information on [Delivering the European Green Deal](#).

- no net emissions of greenhouse gases by 2050
- economic growth decoupled from resource use
- no person and no place left behind

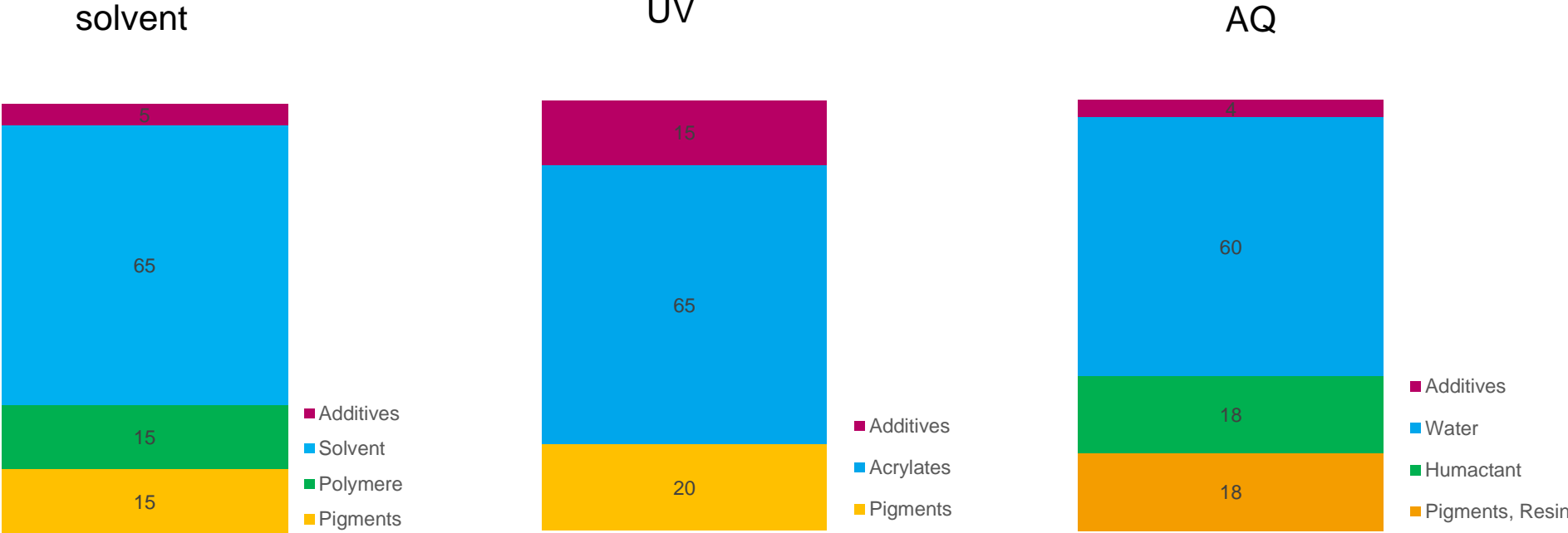


- **Consequences for the industry?**



[A European Green Deal | European Commission \(europa.eu\)](#)

(How) Can Waterbased Ink Reduce Carbon Footprint?



According to a study about eco efficiency, waterbased inks and glues have a 15% improved CO2 balance based on the usage of waterbased resins . Sources: [Wasserbasierte Druckfarben und Klebstoffe als wertvoller Beitrag zur Nachhaltigkeit flexibler Verpackungen \(basf.com\)](#)

Can Waterbased Ink Reduce Carbon Footprint?

- When using water-based ink systems, there is ***no need for thermal exhaust*** air purification, which noticeably **reduces** the **amount of CO2 emissions** as well as the **consumption of primary energy**. An equally important contribution to the sustainability and recyclability of packaging is the maximum **reduction of the applied ink layer**.

Zukunftssichere Verpackungen durch nachhaltige Druckfarben | Flexo+Tief-Druck (flexotiefdruck.de)
Übersetzung mit Linguee aus dem Deutschen

BUT: using waste heat from solvent combustion for other processes that require heat as well will improve the situation > **always evaluate the whole process rather than only single elements!**

→ It will be a combination of different action items, based on an existent scenario

What's in For Us?



Switching from solvent to AQ > necessary investment into equipment and education



“By eliminating the process step of exhaust air purification and saving CO₂ during the combustion of the ethanol, we can save more than 70% CO₂ when processing water-based inks in the printing process compared to processing solvent-based inks.”

www.folian.com, 14.07.2022



Carbon footprint Contribution of printing ink (packaging and newspaper together) < 1% of the whole finished product

www.wirsindfarbe.de, Allgemeine Informationen über Druckfarben, 24.03.2018
UK Carbon Trust

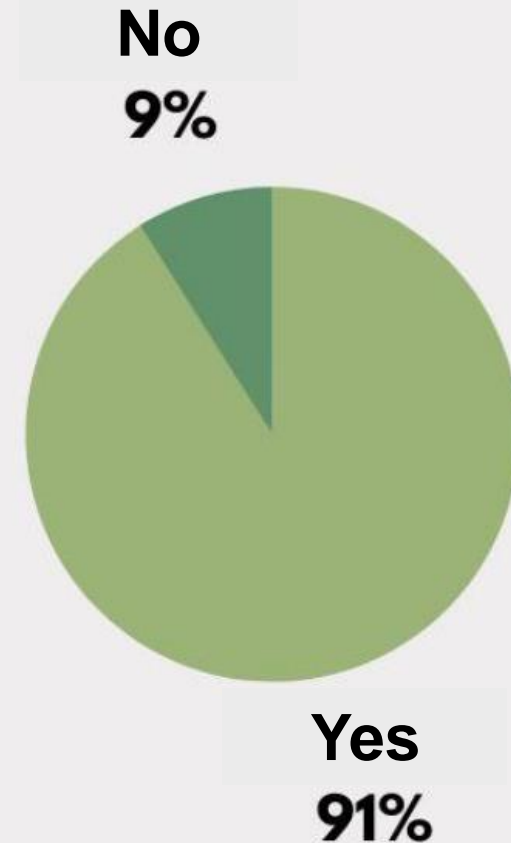


“Of course, I cannot say, whether it will be better if it is different; but I can say this much: it must be different if it is to be good.”

Georg Christoph Lichtenberg, German Physician, *1742 - †1799

Do you feel like
companies are
Greenwashing?

www.louisadellert.com



Feedback from 5000 consumers aged 18 - 30

Time for Action



www.augsburger-allgemeine.de
Waldbrände und Hitze. Wo brennt es aktuell in Frankreich?
20.07.2022

Millionen Hektar zerstört: Raubbau am Regenwald schreitet voran - n-tv.de



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