Now

GRETA

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GRETA

from data to sustainability decisions

CIRCULOOS

Funded by the European Union

THE DECISION GRETA MAKES EASIER

Which option (material, supplier or circular loop) **really lowers our footprint, and by how much,** before we invest?

DATA IN

CIRCULOOS Data Platform

GRETA reads the parameters it needs, e.g. process and IIoT data, directly from the platform through secure APIs.

ASSESSMENT

GRETA LCA engine

An expert-built LCA model (ISO 14040/44, EF 3.11, ecoinvent) returns 25 environmental indicators in real time.

DECISION OUT

Compare and choose

AS-IS vs TO-BE, hotspots, PDF report. Results flow back to the platform: CO_2e is what the optimiser (SCOPT) minimises.

This project has received funding from the European Union's "Horizon Europe" programme under grant agreement 101092295

GRETA early design: compare scenarios in real time

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Decide while the design is still open

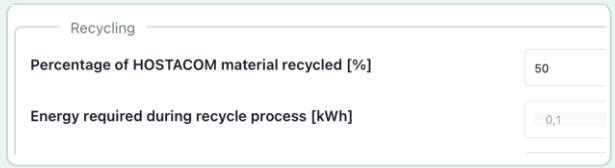
1 Create scenarios

- **AS-IS** · virgin plastic
- **TO-BE** · 50% recycled
- **What-if** · 70% recycled
- **What-if** · 90% recycled

+ new scenario: duplicate and edit

Variants of one expert-built model, even with limited early data.

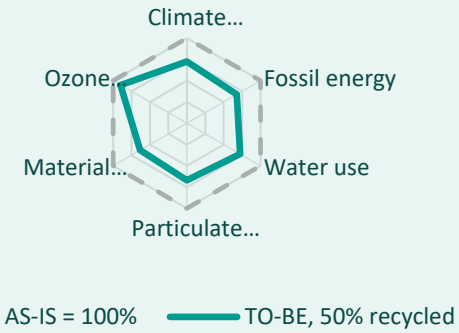
2 Change the data



materials · recycled share · suppliers · distances · energy · process data

…or read automatically from the CIRCULOOS Data Platform.

3 Compare in real time



25 indicators recalculated at every change (example: plastic pilot).

Early design decisions, backed by numbers

Every change is recalculated instantly, so the trade-offs between options show up before the design is fixed.

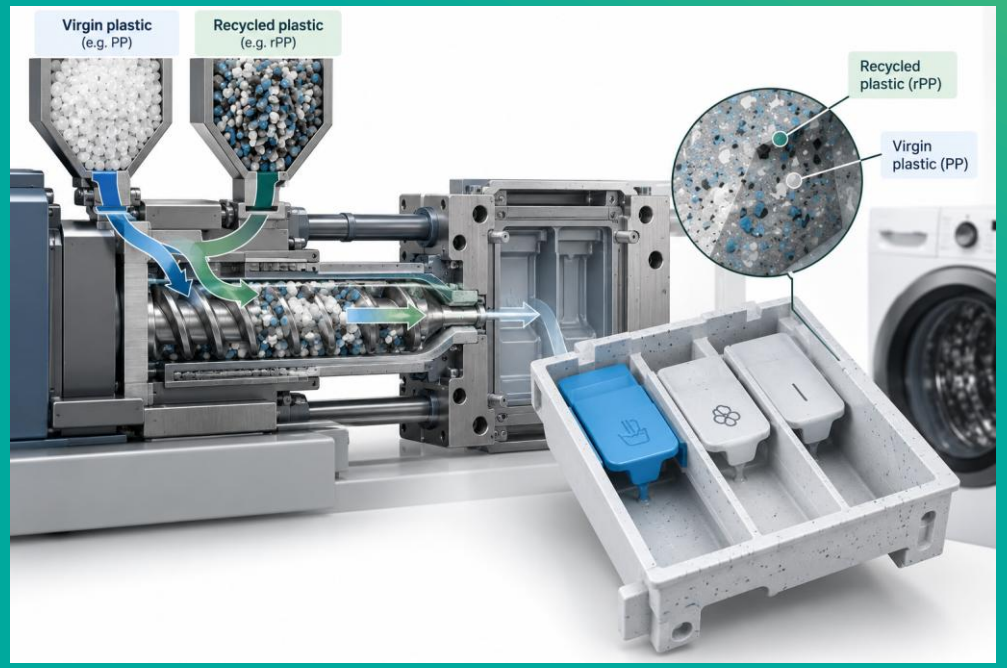
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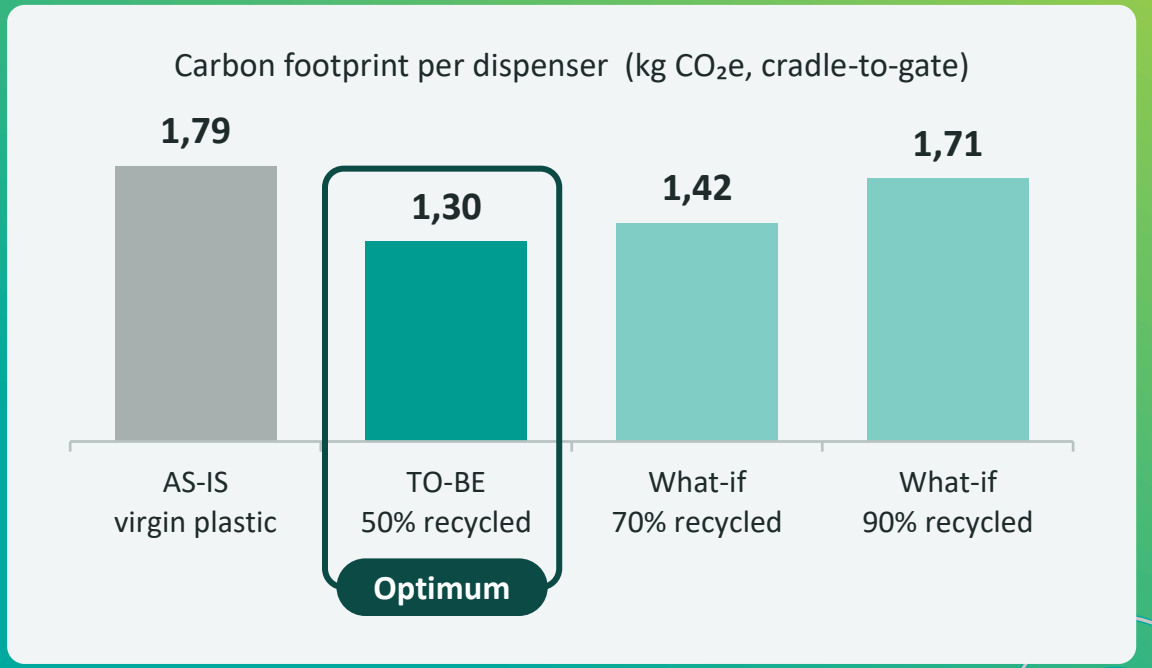
GRETA one concrete example

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How much recycled plastic is worth it?





Optimum at 50% recycled content: –27% CO_2e vs virgin plastic

Trade-off: recycling cuts raw-material impacts, but above 50% the extra production energy outweighs the gain.

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