

Eco design and Siemens EcoTech

17. Kunststoff-DIA(hr)LOG®

5. und 6. Mai 2026



SIEMENS



Eco design uses a systematic approach that aims to **incorporate ecological aspects**.

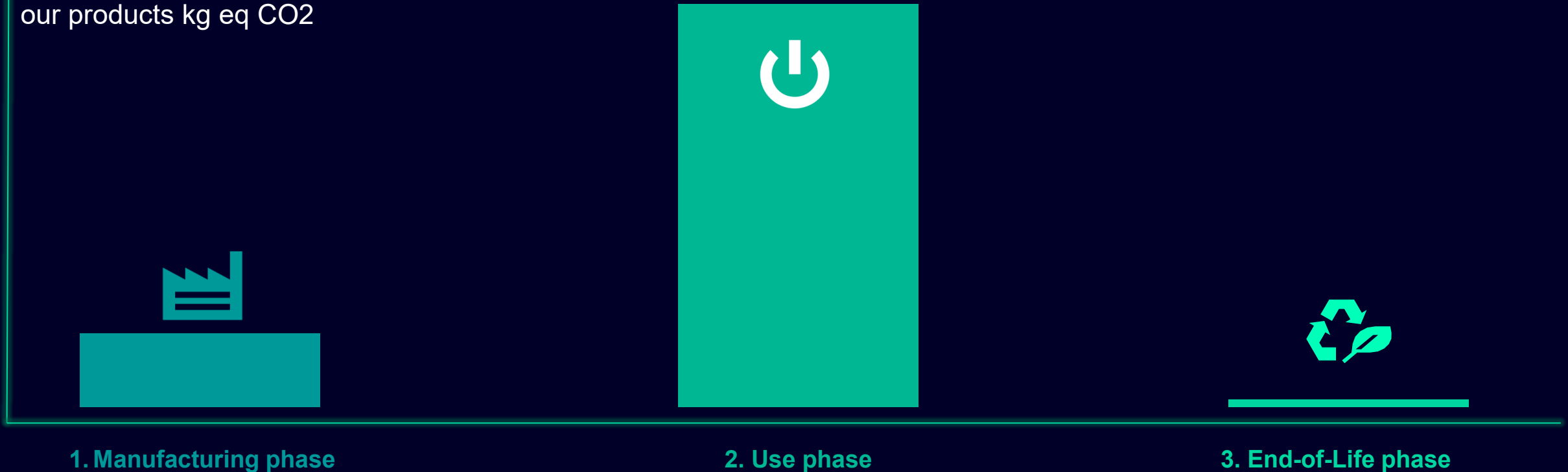
[...]

The term eco design expresses the fact that **ecology** and **economy** are to be **combined** within the eco design approach with the help of good design.

- Umweltbundesamt (German Federal Environment Agency): “What is eco design? Practical handbook for eco design including toolbox”

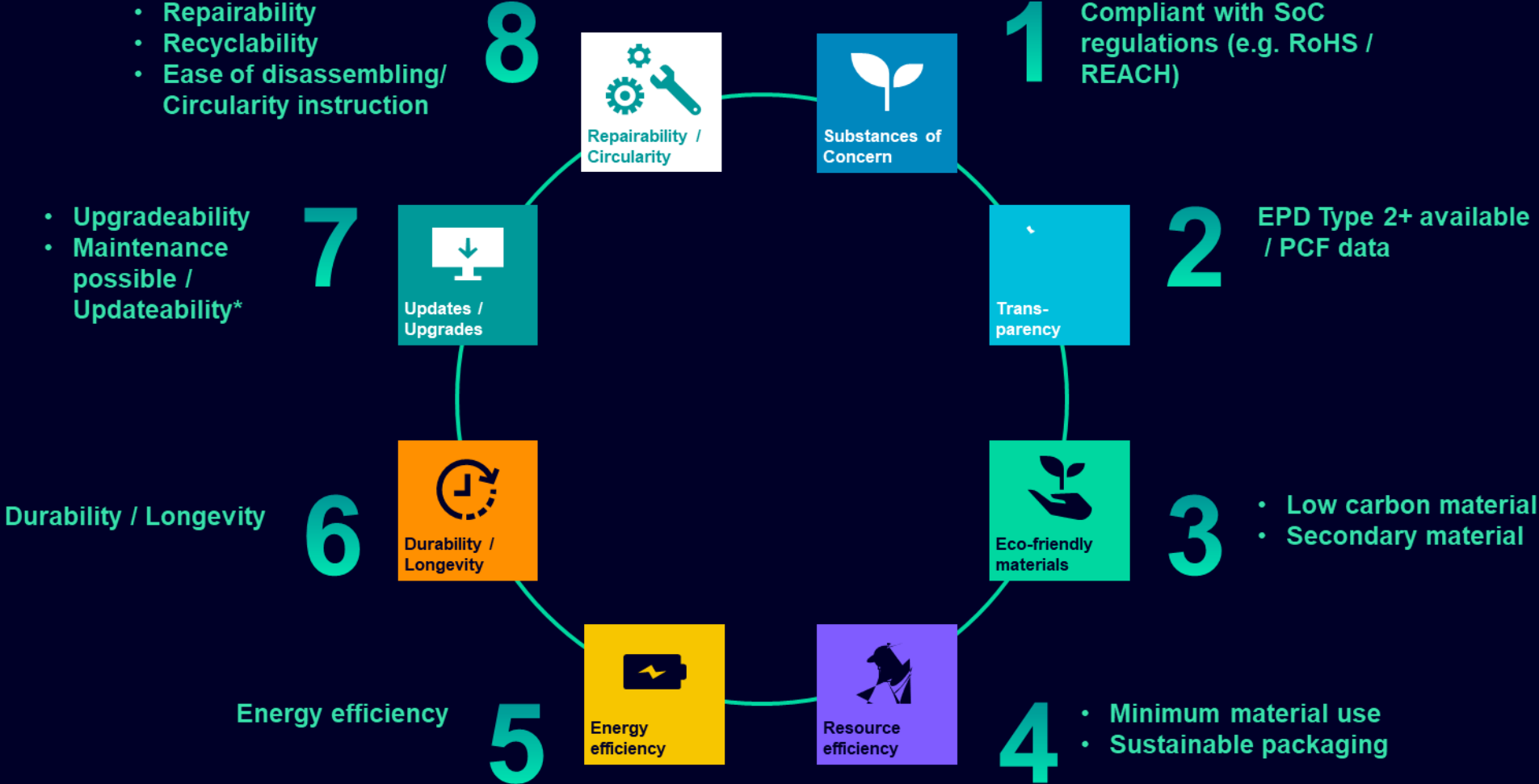
Eco design takes the entire product life cycle into account.

Average global warming potential of our products kg eq CO₂



The basis for eco design optimizations are life cycle analyses (LCAs), which provide an all-round view of the environmental impact over the entire life cycle (global warming potential, water consumption, ozone layer and much more).

Our Robust Eco Design framework is the base to fulfill the Siemens EcoTech framework



Siemens EcoTech framework to assess a product's environment performance

EPD Type II & compliant with substance regulation Sustainable production facilities information (100% renewable electricity)	Sustainable materials	Low carbon material Secondary material Minimum material use Sustainable Packaging Substances of concern
	Optimal use	Energy efficiency Durability/longevity Maintenance possible/updatability
	Value recovery & circularity	Repairability Upgradability Ease of disassembling/circularity instructions Recyclability Take-back scheme



Criteria of our Robust Eco Design approach



Mandatory requirements and 13 criteria in 3 dimensions

Minimum one criteria in each dimension to be fulfilled

Examples for good eco design



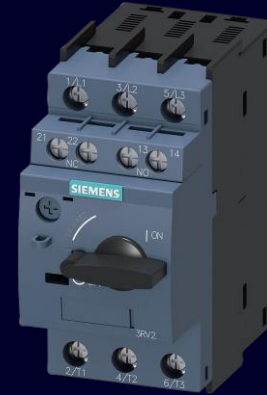
SENTRON ECPD

combines 10 product functions in one
and
uses novel switching technology.



SENTRON 5SV RCCB

uses new high-performance plastic
housing made from 50% recycled
content.



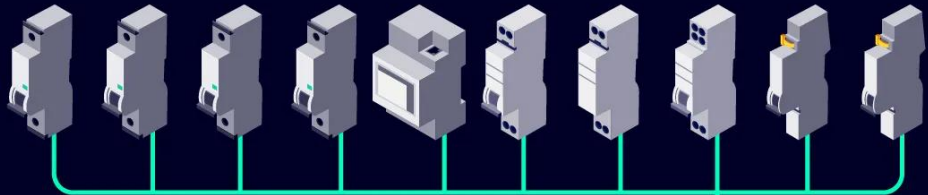
SIRIUS 3RV2 Circuit Breaker

uses plastic housing with 100%
biowaste instead of naphtha /
crude oil as feedstock.

SENTRON Electronic Circuit Protection Device (ECPD) optimizes the demand for resources, materials, and energy

Conventional protection and switching devices

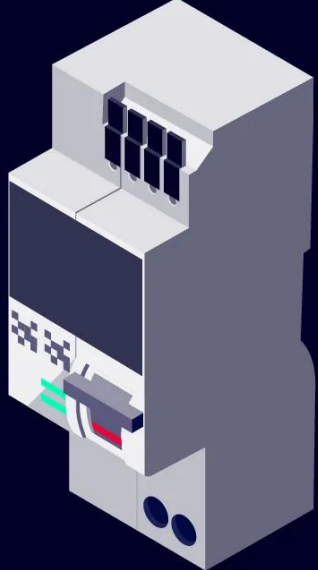
- 10 products
- 18 W power loss
- 16 MW module width



SENTRON ECPD Electronic Circuit Protection Device

- 1 product
- 7 W power loss
- 2 MW module width

- Plastics: >90%
- Metals: >90%
- Electronics: >80%
- Packaging: >90%



<https://www.siemens.com/global/en/products/energy/low-voltage/components/sentron-protection-devices/sentron-ecpd.html>

Contact

Published by Siemens AG

Roland Sailer

Global Commodity Management Thermoplastic Parts & Resins

E-Mail: Roland.Sailer@siemens.com



SIEMENS