

Cradle to Cradle at Desso



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DESSO: Cradle to Cradle Company

1. A bit about Desso
2. Challenges we face
3. The answer of Cradle to Cradle
4. Desso's Roadmap
5. Area's of concern
6. Carbon management?

DESSO is...

a leading manufacturer of carpet tiles
and artificial grass pitches

950 employees

4 production locations

Global player



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Innovation through

1. Creativity

DESSO transformed itself into a superior floor design company through better external focus via the “**Circles of Architects®**” programme.

1. Functionality

DESSO invented carpet tiles that improve the quality of life by:

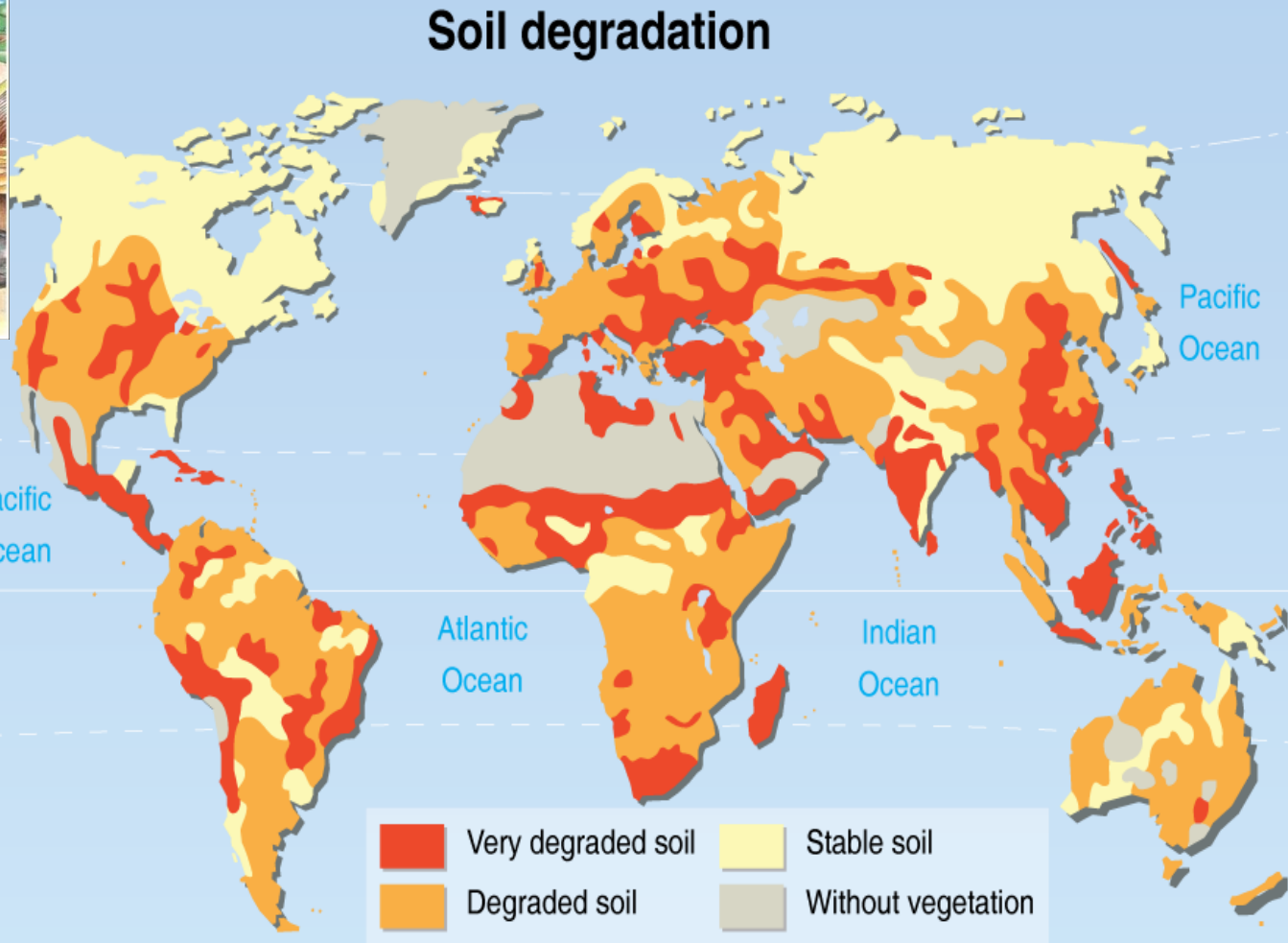
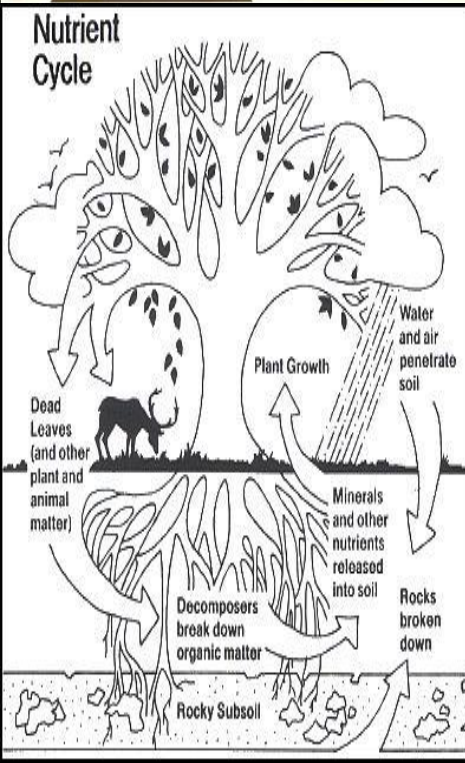
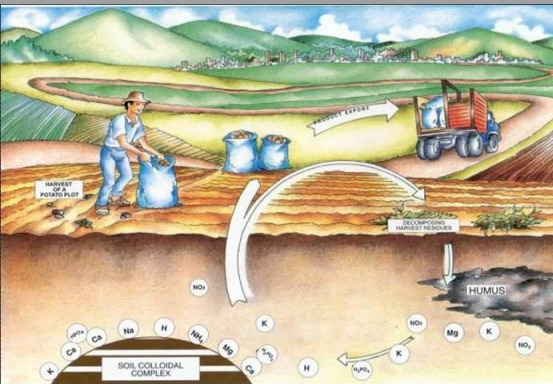
- **Indoor air quality** Less fine dust (8 times lower levels than hard floors with DESSO AirMaster®)
- **Sound absorption** in offices, healthcare and schools with DESSO SoundMaster®

1. Cradle to Cradle®

Challenges that face us



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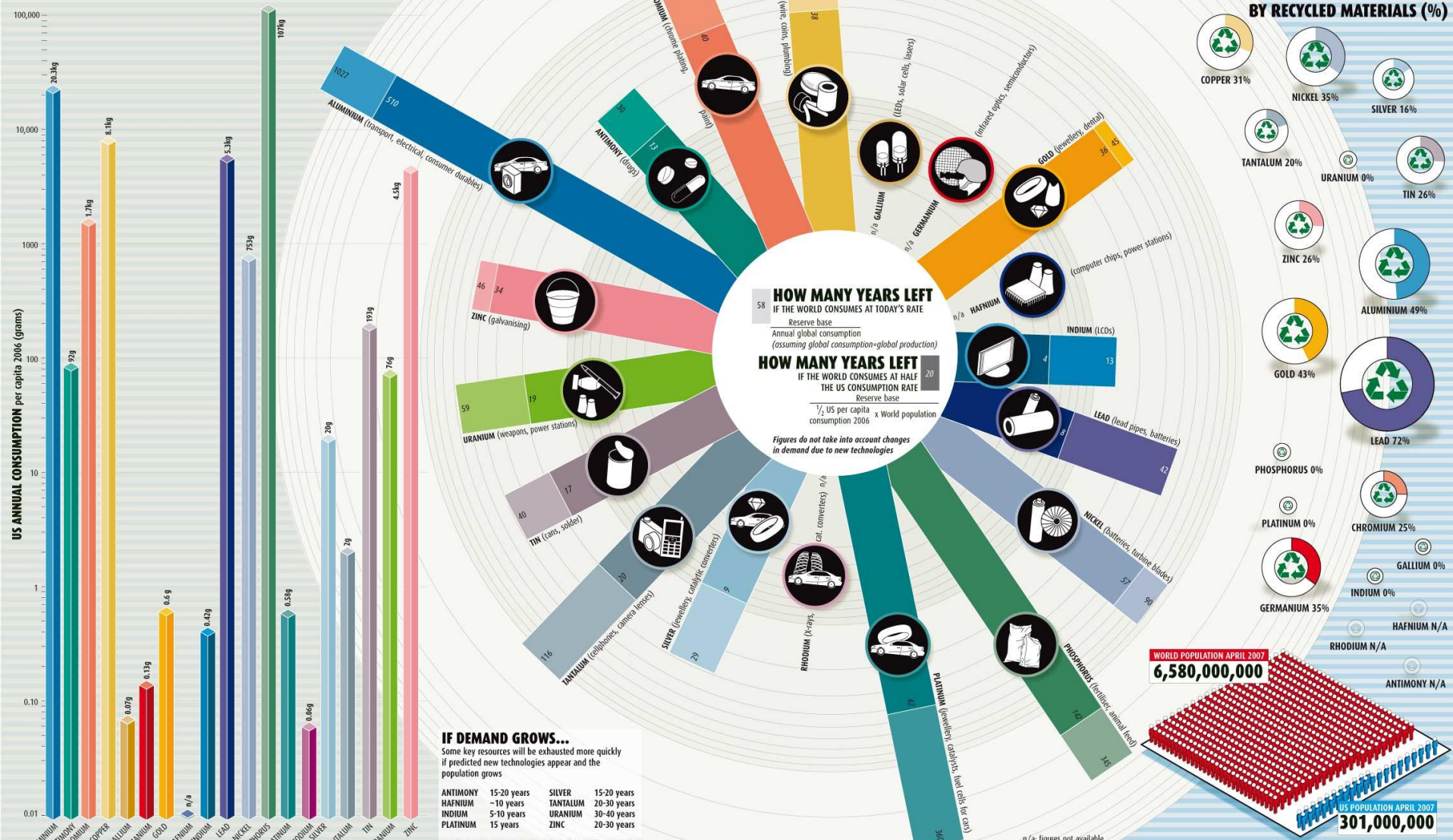


Source: UNEP, International Soil Reference and Information Centre (ISRIC), World Atlas of Desertification, 1997.

Philippe Rekacewicz, UNEP/GRID-Arendal

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HOW LONG WILL IT LAST?

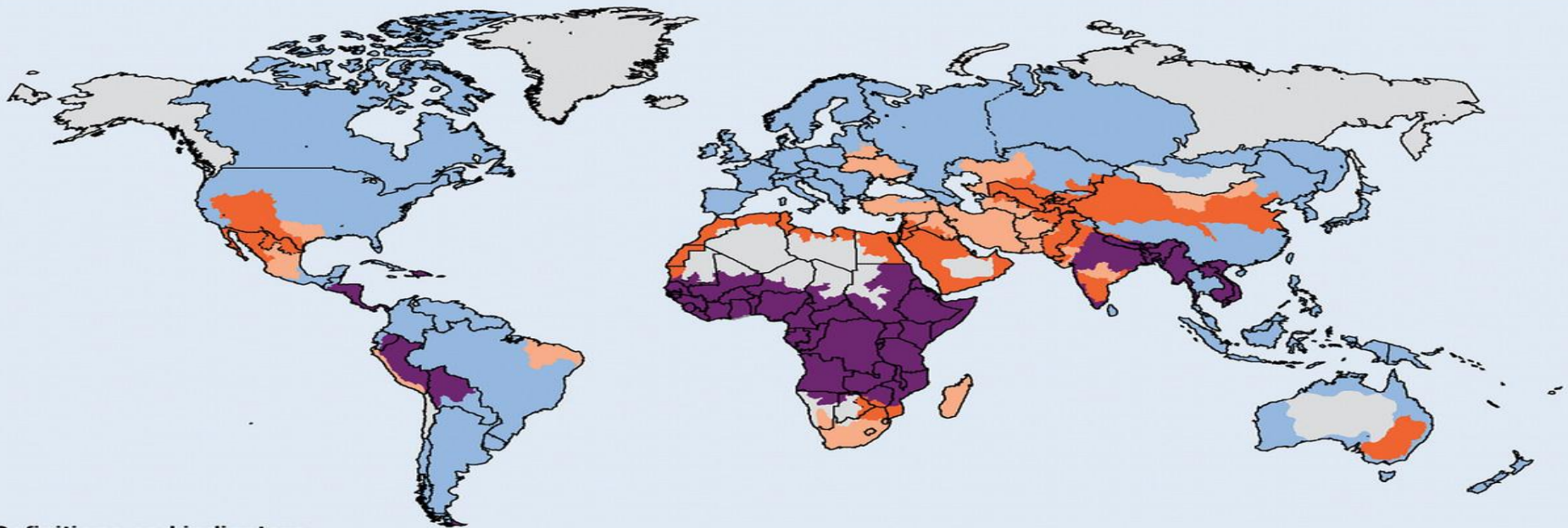


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map 2

Areas of physical and economic water scarcity

- | | | |
|---|---|---|
|  Little or no water scarcity |  Approaching physical water scarcity |  Not estimated |
|  Physical water scarcity |  Economic water scarcity | |



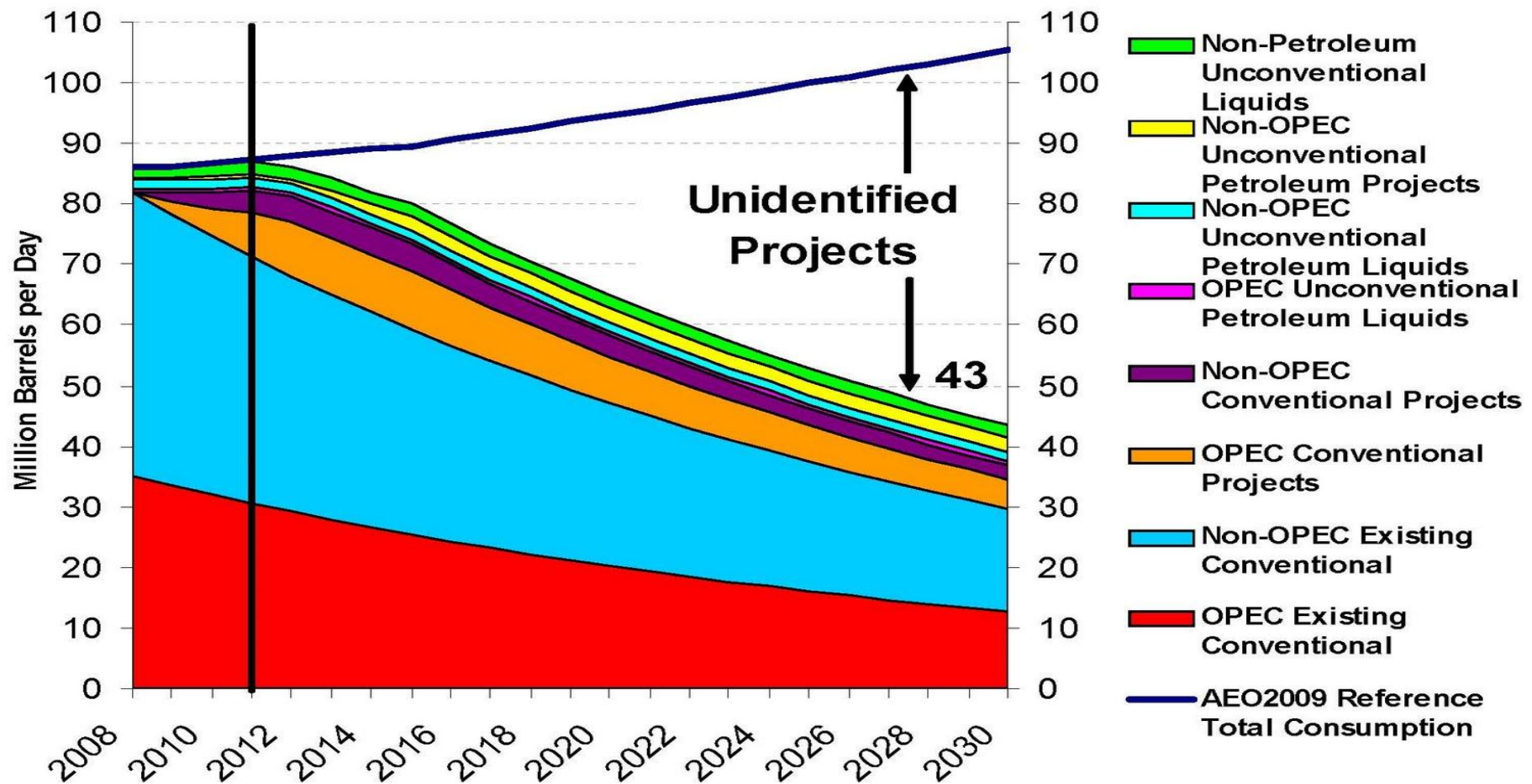
Definitions and indicators

- **Little or no water scarcity.** Abundant water resources relative to use, with less than 25% of water from rivers withdrawn for human purposes.
- **Physical water scarcity** (water resources development is approaching or has exceeded sustainable limits). More than 75% of river flows are withdrawn for agriculture, industry, and domestic purposes (accounting for recycling of return flows). This definition—relating water availability to water demand—implies that dry areas are not necessarily water scarce.
- **Approaching physical water scarcity.** More than 60% of river flows are withdrawn. These basins will experience physical water scarcity in the near future.
- **Economic water scarcity** (human, institutional, and financial capital limit access to water even though water in nature is available locally to meet human demands). Water resources are abundant relative to water use, with less than 25% of water from rivers withdrawn for human purposes, but malnutrition exists.

Source: International Water Management Institute analysis done for the Comprehensive Assessment of Water Management in Agriculture using the Watersim model; chapter 2.

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World's Liquid Fuels Supply



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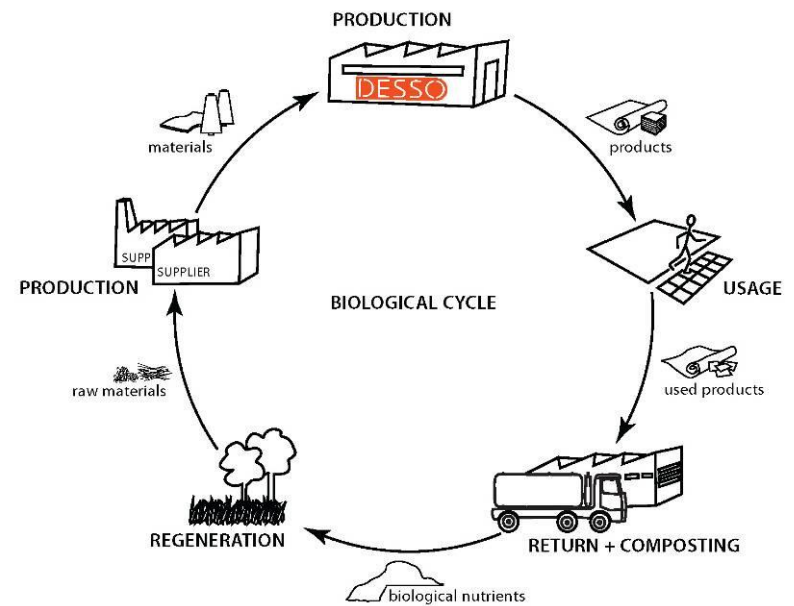
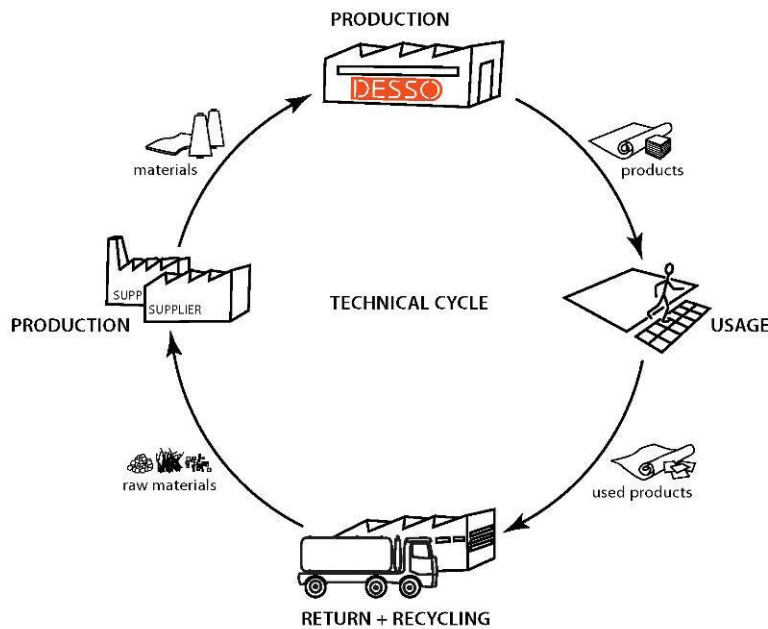
The Basic Principles of Cradle to Cradle®



- Waste equals food
 - Use current solar income
 - Celebrate diversity
-
1. Improve quality of life and environment
 1. Re-utilize all materials used in the product.
Design criteria: easy disassembly
 1. Use post consumer materials as raw material in the product.
 1. All raw materials should be 100% safe for humans and environment.
 1. Use renewable energy in all stages of the cycle.

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The Cradle to Cradle® Cycles



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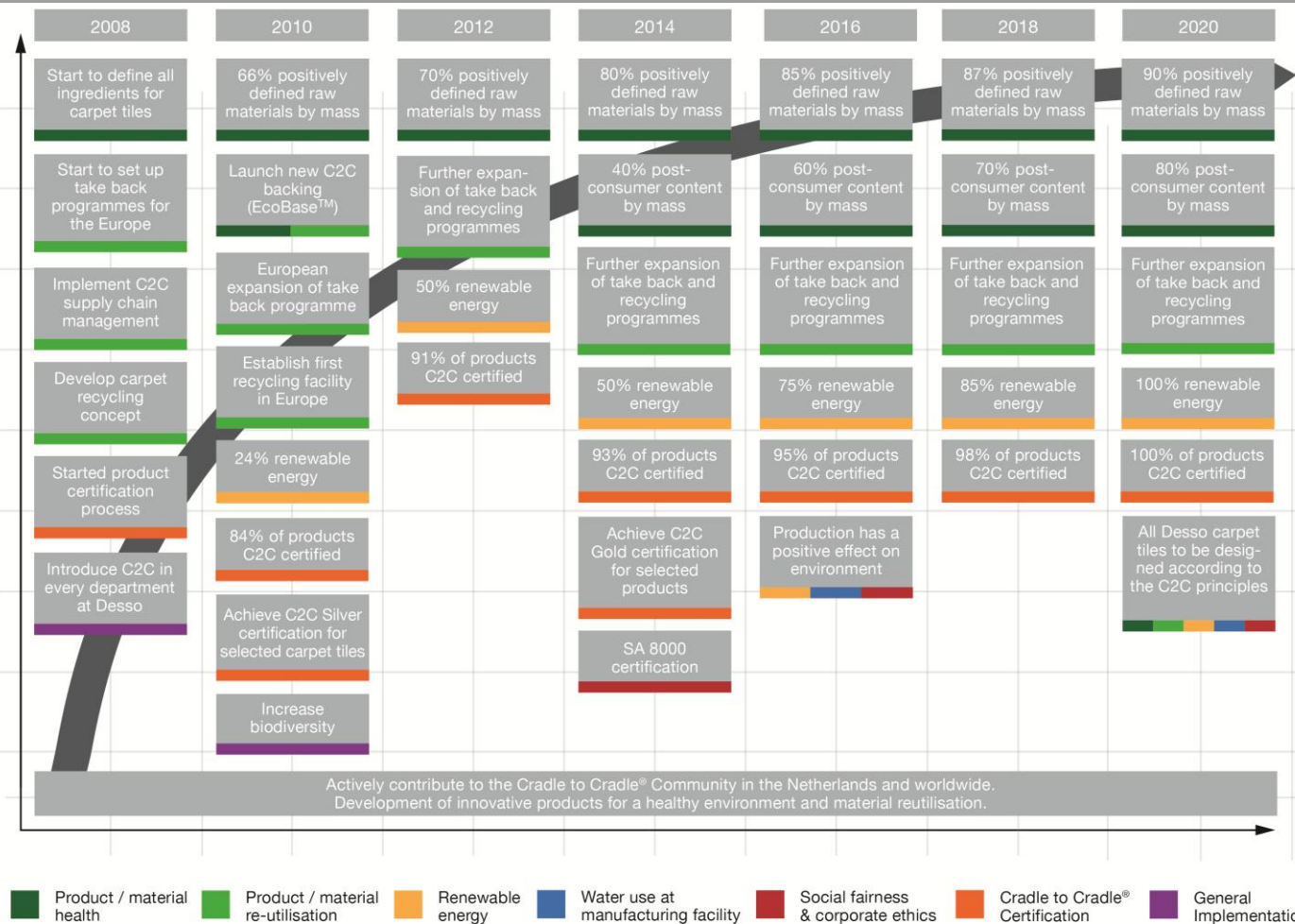
Goals 2020



- ✓ All products of Desso are developed according to C2C design criteria
- ✓ All materials and process inputs come from renewable or recycled sources.
- ✓ All materials are capable of returning safely to either natural systems or industrial systems
- ✓ Establish unique, tailored take back and recycling systems for closing the loop

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Cradle to Cradle® Roadmap

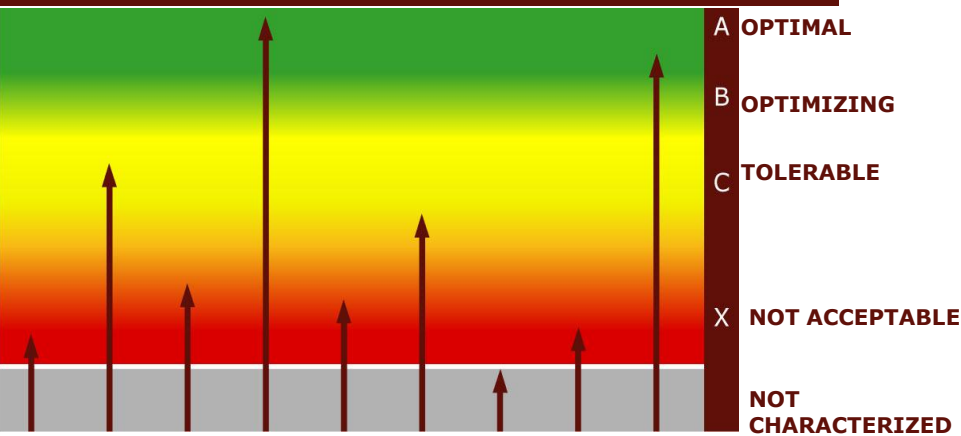


Status of Cradle to
Cradle®
Implementation

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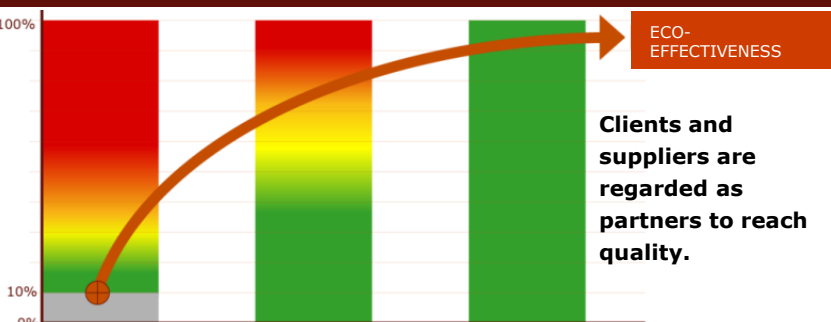
Material Health

IDENTIFY THE BEST: ABC-X CATEGORIZATION



The Passive Positive List

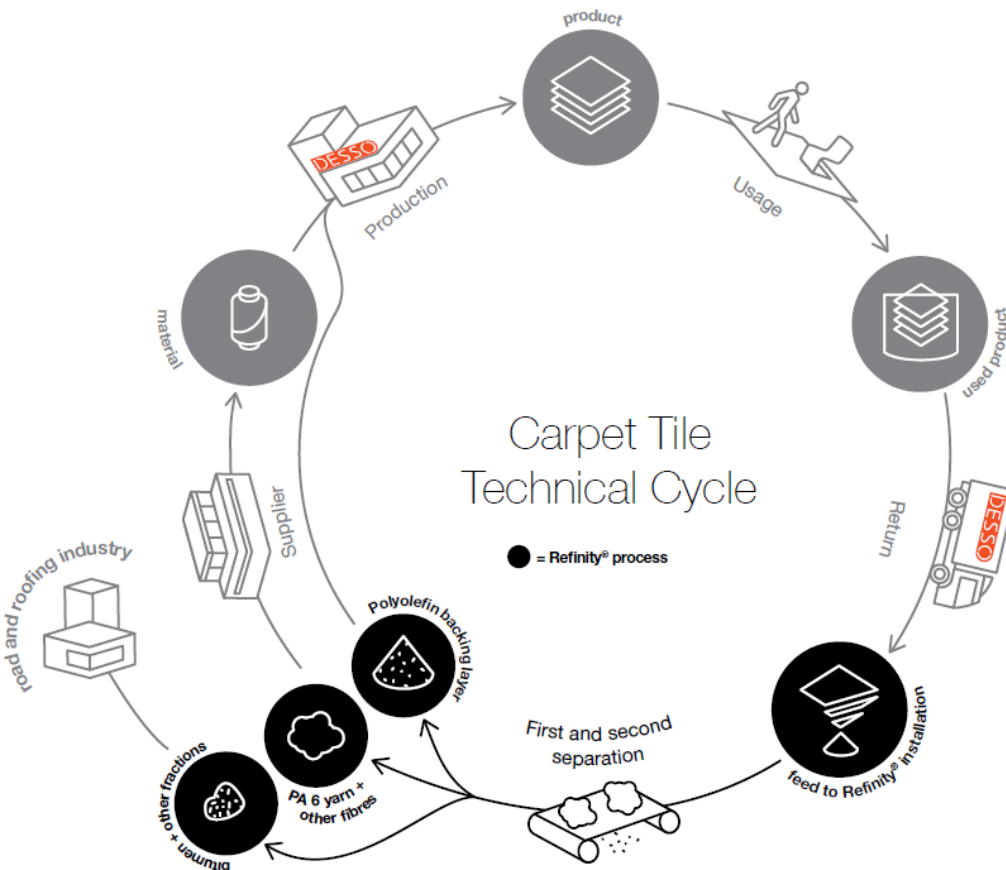
PROGRESS OF QUALITY FROM CRADLE TO CRADLE WITH TIME



No need to be perfect from day 1.

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Material Reutilization Desso Refinity®



In 2009, with the support of Eco Innovations Desso developed an innovative separation technique called Refinity®.

This process enables us to separate the yarn and other fibres from the backing, thereby producing material streams which can be recycled.

All non-recyclable fractions will be used as secondary fuel in the cement industry.



eco-innovation
WHEN BUSINESS MEETS THE ENVIRONMENT



DESSO
The Floor is Yours

DESSO: Cradle to Cradle Company Take Back™



- DESSO also offers a Take Back™ certificate to guarantee that material is recycled according to our Cradle to Cradle® principles.



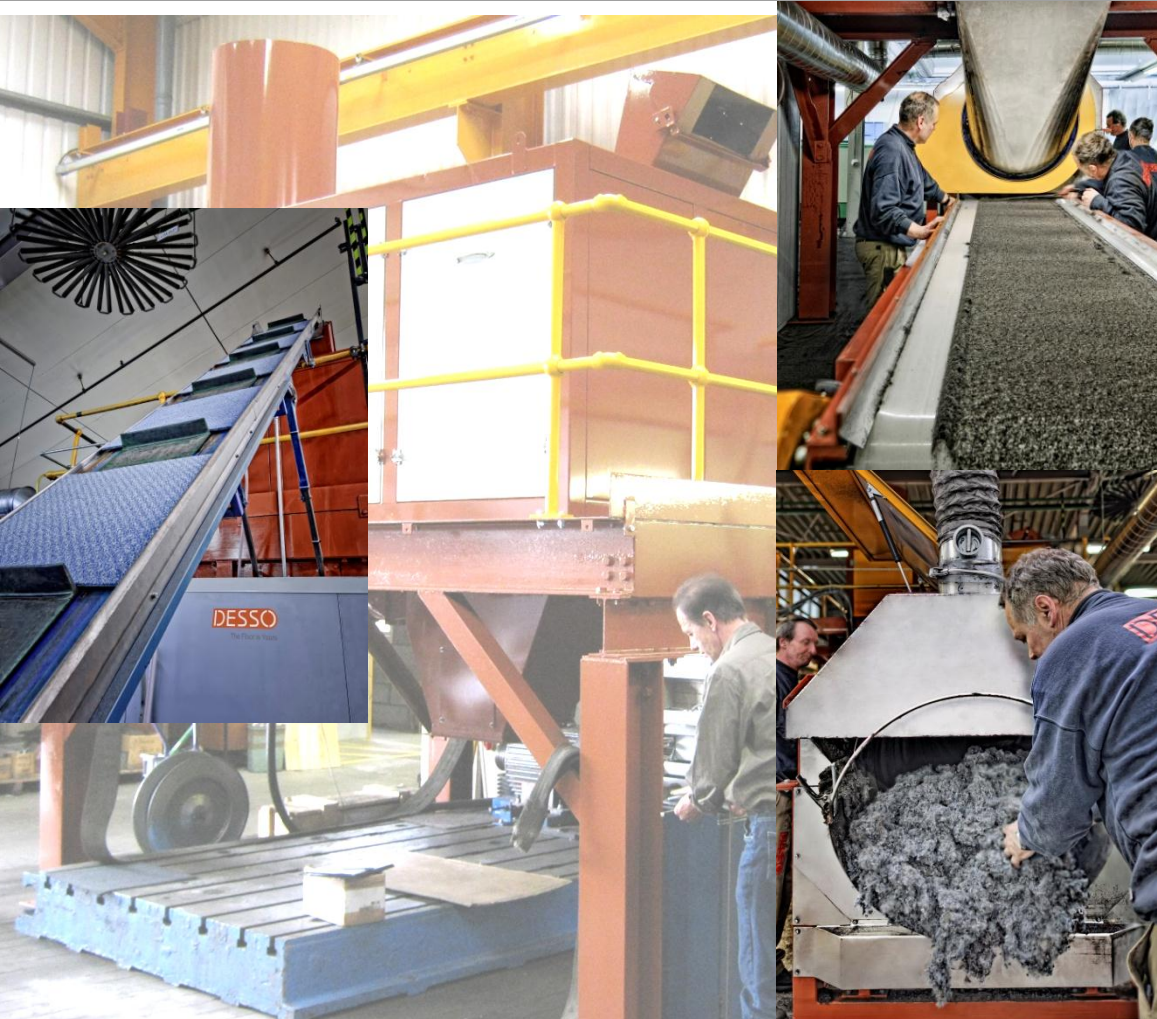


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WHEN BUSINESS MEETS THE ENVIRONMENT



DESSO
The Floor is Yours

DESSO: Cradle to Cradle Company Desso Refinity[®]



Carpet shredder

Input:

Full carpet tiles, other carpet in investigation.

Output:

Light fraction with all the fibres and a heavy fraction containing the bitumen and latex

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Current solar income



Energy

2020 100% durable energy

- ✓ Biomass
- ✓ Wind energy
- ✓ Solar energy

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Water stewardship



Aerobic purification

with

Ozone installation

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Social aspects



Establishment code of conduct according C2C

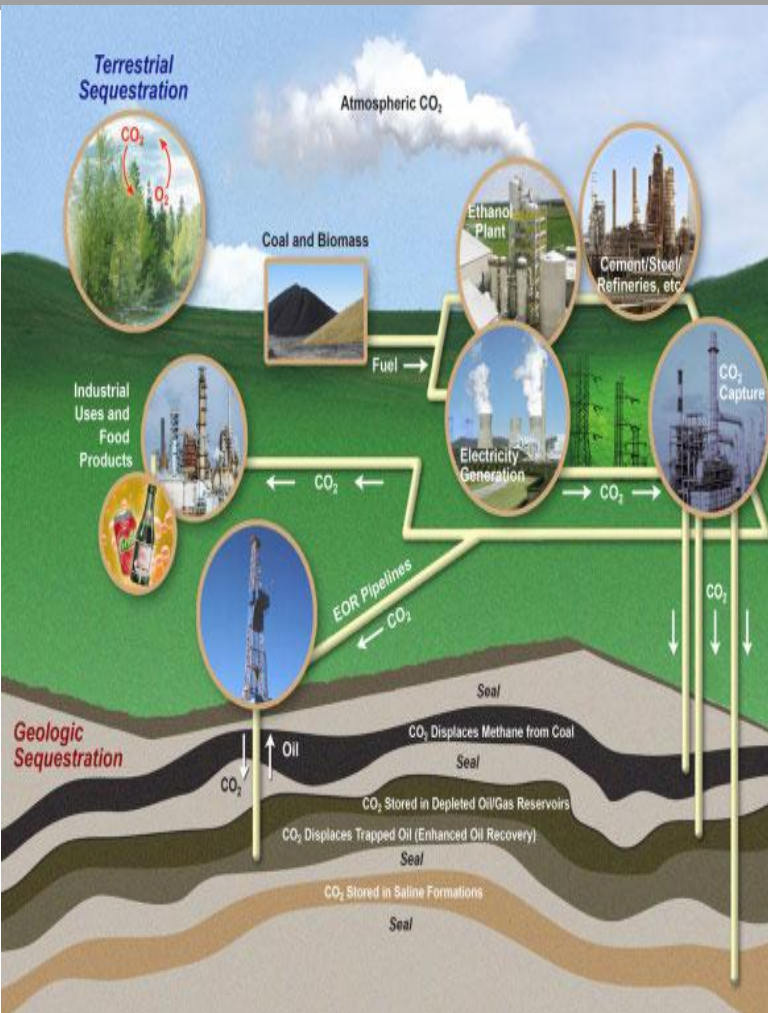
Employee satisfaction

Supplier risk analysis on social aspects

SA 8000 certification process

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C2C & Carbon Management



Carbon footprint gives wrong focus

No consideration for:

- ✓Material scarcity.
- ✓Social aspect.
- ✓Bio diversity/Eco systems

How C2C improves climate.

- ✓Use current solar income
- ✓Increase biodiversity
- ✓Infinite recycling

Material management rather than compensation
Carpet from CO₂

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Postive impact from Products



- ✓ Airmaster, a product that captures fine dust. This way lower concentration in air
- ✓ Soundmaster, reduces sound dramatically for quieter surroundings. (less noise pollution)
- ✓ Fuelmaster, reduces the fuel consumption of planes because of low weight.

The road less travelled...



Two roads diverged in a wood,
and I,
I took the one less traveled by,
And that has made all the difference.

Robert Frost, 1874 – 1963

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Thank you

For more information, please contact us
or visit our website

www.desso.com