



Product Carbon Footprints to steer towards Net zero

Boris Gaspar

Managing Director BASF Czech Republic

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Society starts talking about Product Carbon Footprints

PCF as a differentiation factor



BERECHNUNG DES PRODUCT CARBON FOOTPRINTS

https://www.ortlieb.com/de_de/co2e-calculation (05.07.2024)



VARIO

Der innovative Hybrid Vario lässt sich intuitiv und in Sekundenschnelle vom Rucksack zur Radtasche umwandeln und bietet dir damit maximale Flexibilität.

WATCH OUR HOW-TO-VIDEO

Made in Germany PVC free IP 64 QL3.1 system

LIEFERZEIT 2-3 WERKTAGE VERFÜGBARKEIT AUF LAGER ART. NR. F7747

220,00 €

CO₂e-Fußabdruck: 16,04 kg

https://www.ortlieb.com/de_de/vario+F7747 (05.07.2024)



EN

100% original.
40% less CO₂.¹
Makes sense.



<https://www.tesa.com/en/industry/general-applications/4965> (31.03.2024)

Adidas and Allbirds unveil low-carbon-footprint sneaker from their collaboration

The brands announced the FUTURECRAFT.FOOTPRINT, a running shoe with a carbon footprint of just 2.94kg CO₂e per pair.



<https://www.contagious.com/news-and-views/campaign-of-the-week-adidas-and-allbirds-create-low-carbon-shoe> (26.09.2021)

WE BOUGHT THIS TWO-PAGE AD TO TELL YOU WE'VE BEGUN INCLUDING CLIMATE FOOTPRINT NUMBERS ON OUR PRODUCTS.



AND WE'RE DONATING THIS PAGE TO THE DAIRY INDUSTRY SO THEY CAN TELL YOU THEIR CLIMATE FOOTPRINT NUMBERS TOO.



SCAN TO APPLY! AND OTHER OFFICIAL STUFF

<https://www.reasonwhy.es/actualidad/oatly-espacio-publicitario-marcas-lacteos-informacion-impacto-climatico> (15.05.2023)

BASF
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Easy Analogy: Nutrition Factors of a Cereal Bar

What info do we need to create a PCF?

1 Product



2 Ingredients

Life cycle inventory (LCI)



What do I need to produce the product?

INGREDIENTS: Oats, brown rice, chicory root fiber, honey, cane sugar, glucose syrup, peanut butter (peanuts, sea salt), peanuts, palm kernel oil, oat milk powder, canola oil, vegetable glycerin, sea salt, soy lecithin, natural flavor, Vitamin E (tocopherols to maintain freshness).

Allergen Information:
Contains peanuts and soy.
May contain tree nuts and sesame seeds.
May contain nut shell fragments.

3 Nutrition Factors

Life cycle impact assessment (LCIA)

Nutrition Facts	
6 servings per carton	
Serving size 1 bar (44g)	
Amount Per Serving	
Calories	180
% Daily Value*	
Total Fat 7g	9%
Saturated Fat 2.5g	13%
Trans Fat 0g	
Polyunsaturated Fat 1g	
Monounsaturated Fat 2.5g	
Cholesterol 0mg	0%
Sodium 80mg	3%
Total Carbohydrate 30g	11%
Dietary Fiber 5g	18%
Total Sugars 9g	
Includes 8g Added Sugars	16%
Sugar Alcohol 0g	
Protein 3g	

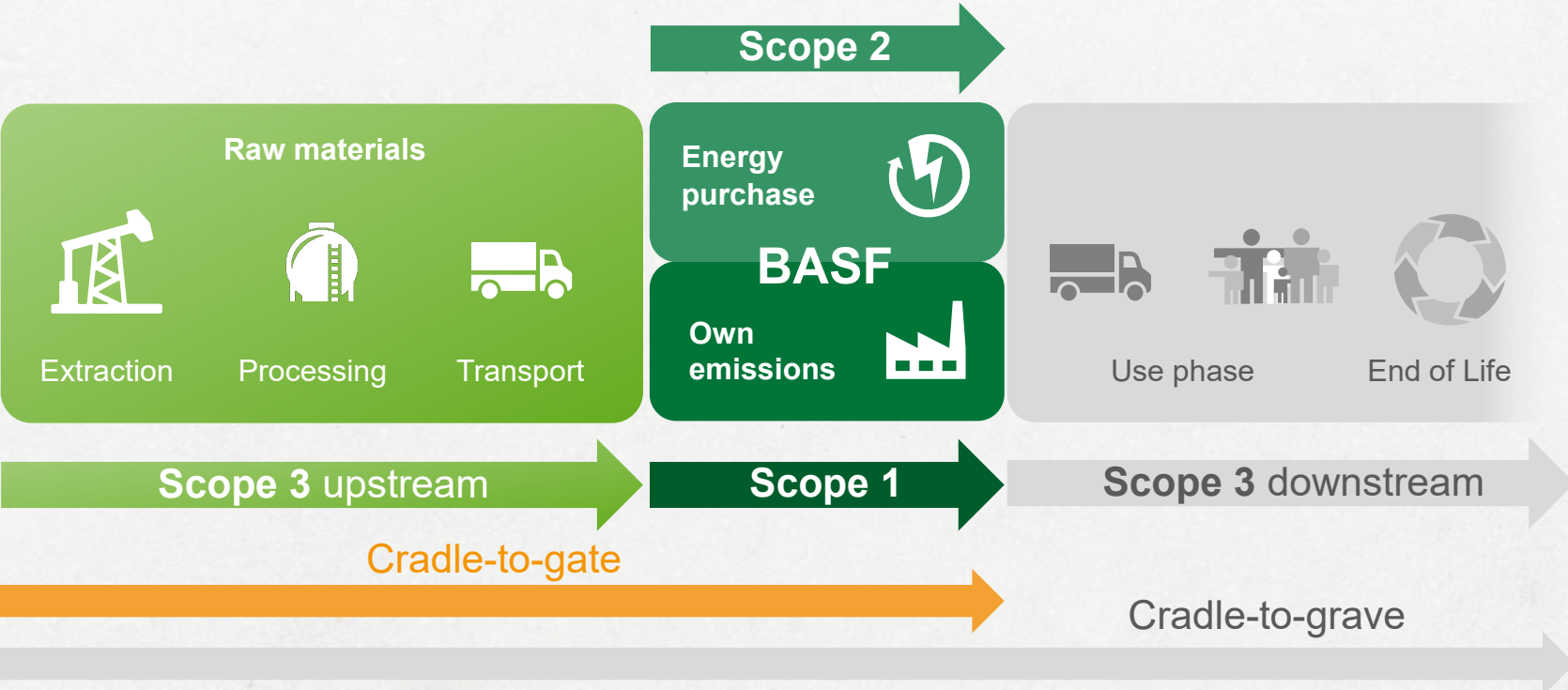
What is the impact of my product?

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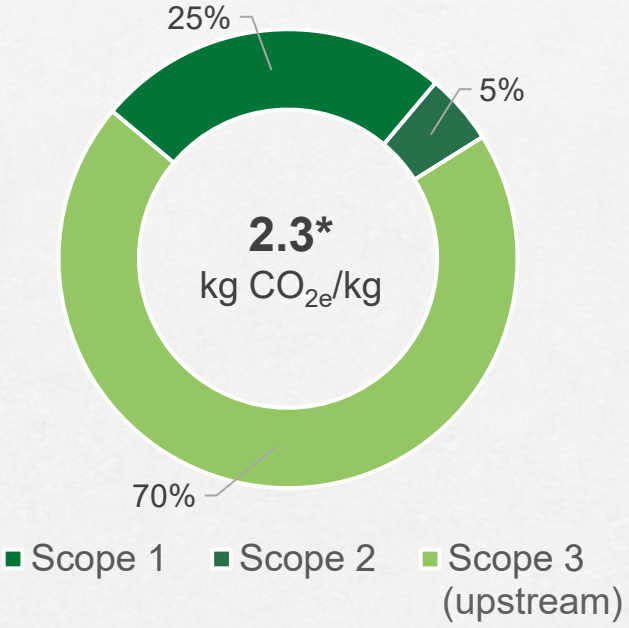
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Product Carbon Footprint (PCF) @ BASF

- BASF's PCFs summarize the total amount of greenhouse gas (GHG) emissions that are associated with a product from cradle-to-gate.




Structure of BASF's average PCF*




ISO 14067:2018 defines the Product Carbon Footprint as the life cycle GHG emissions of a product
 *averaged over A companies' emissions and sales volumes 2020. Individual PCFs may vary strongly in magnitude and scope distribution i.e., aroma chemical: 13 kg CO_{2e}/kg, petrochemical: 1,4 kg CO_{2e}/kg

Product Carbon Footprints create transparency

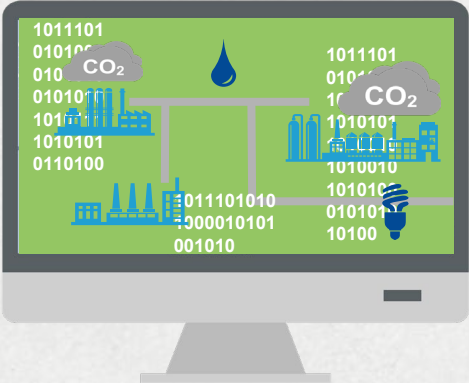
Unparalleled and consistent transparency in the carbon footprint of complex portfolios

20,000
Raw materials 
Scope 3

10 TWh/a
Energy 
Scope 2



700
Production plants
Scope 1



CO_{2,e}



Product Carbon
Footprints of
~45,000
Sales Products

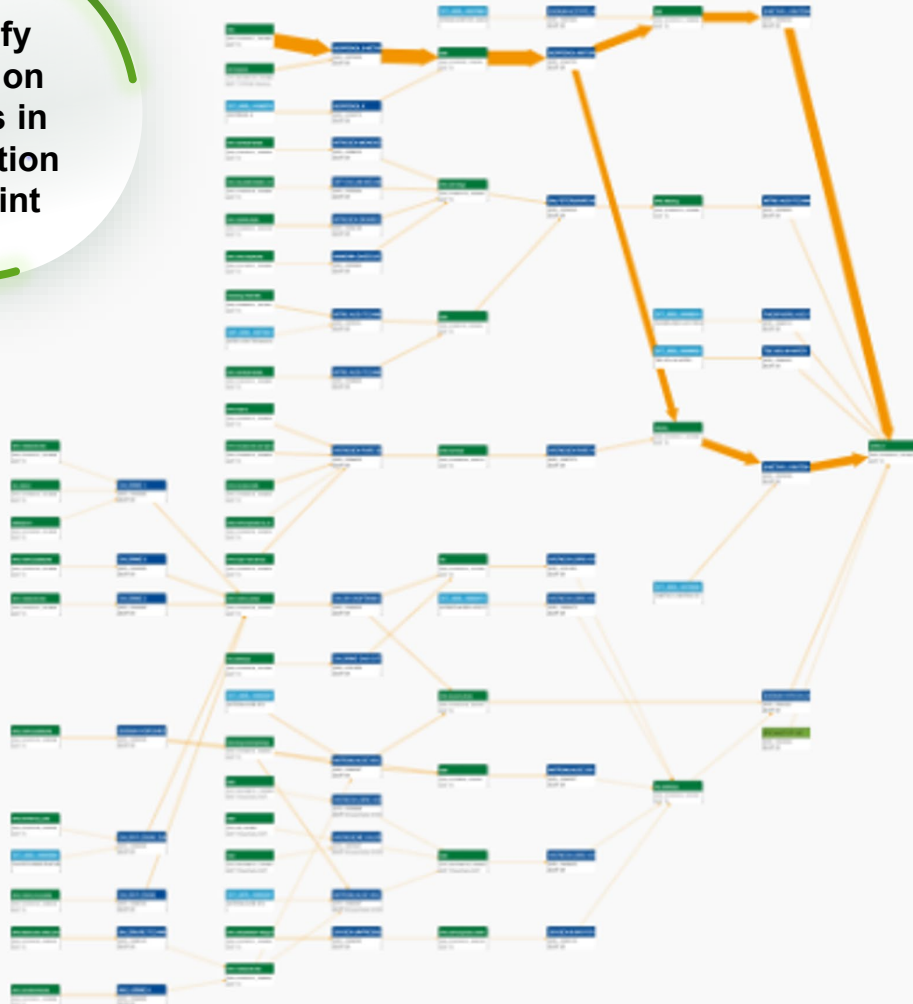
Cradle-to-gate Product Carbon Footprints for BASF's portfolio based on process emissions, energy demand and upstream emissions.

- TÜV-certified**
- Meets ISO standards***
- Calculates product carbon footprints cradle-to-gate
- Transparency on CO₂ emissions
- Identification of main reduction levers
- Certified software
- Transparent documentation

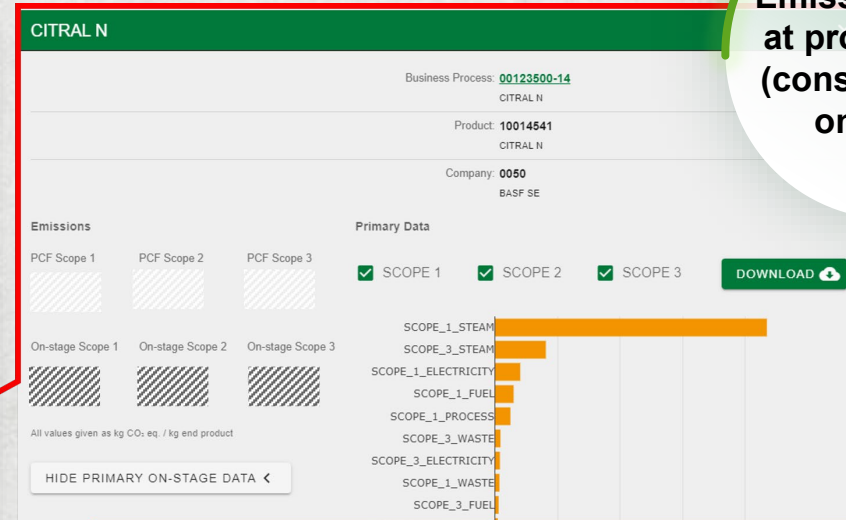
* Energy generation and chemical processes
** ISO 14067:2018
*** ISO 14040:2006, 14044:2006, 14067:2018, GHG Protocol Product Standard

Transparency on our emissions on product level

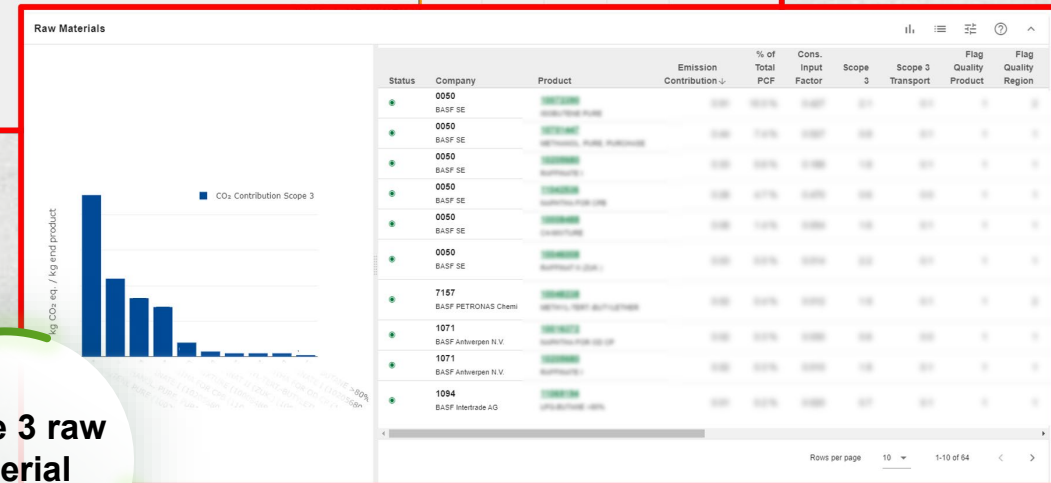
Identify emission drivers in production footprint



Emission details at product level (consolidated & on stage)

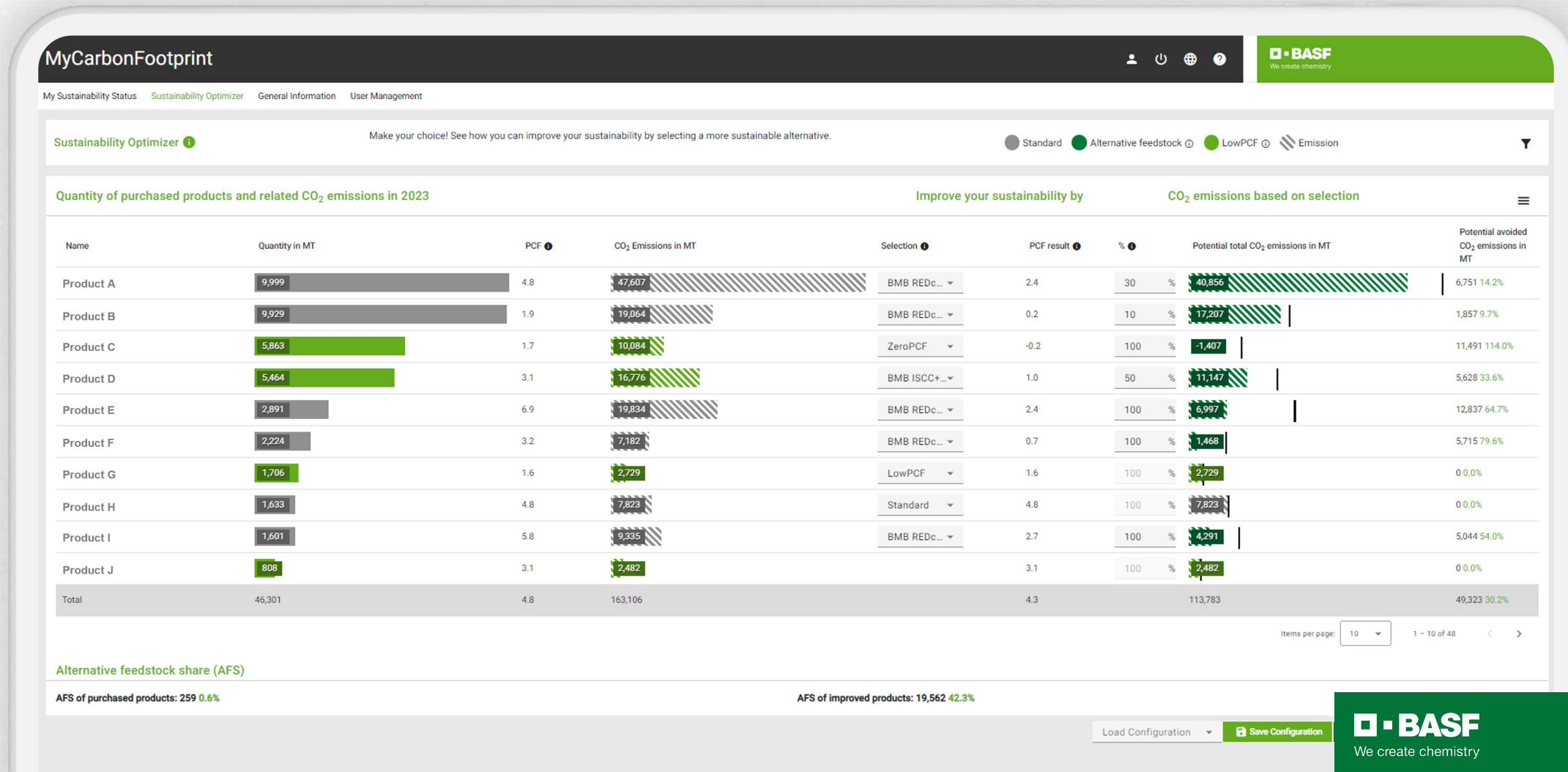


Scope 3 raw material impact



PCF enable BASF to tailor sustainable offerings for our customers

Exemplary visualization of the MyCarbonFootprint web application. Link: [MyCarbonFootprint](#)



¹ Product Carbon Footprint (PCF): Sum of fossil-based emissions, biogenic CO₂ removals and emissions, biogenic CH₄, and emissions from land use, direct land use change, and peat oxidation, all expressed as CO₂ equivalents per metric ton of product [MT CO₂ eq / MT product].

We support our customers on their transformation journeys with low and zero-PCF products

Originally

Infinergy® 230 (AP) midsole

500 g
CO₂e¹



Today

Infinergy® 230 RC midsole

270 g
CO₂e¹



Future

0 g
CO₂e¹



¹ CO₂e emissions (cradle-to-gate), calculated according to a method from McKinsey; only Infinergy® part of the sole



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