

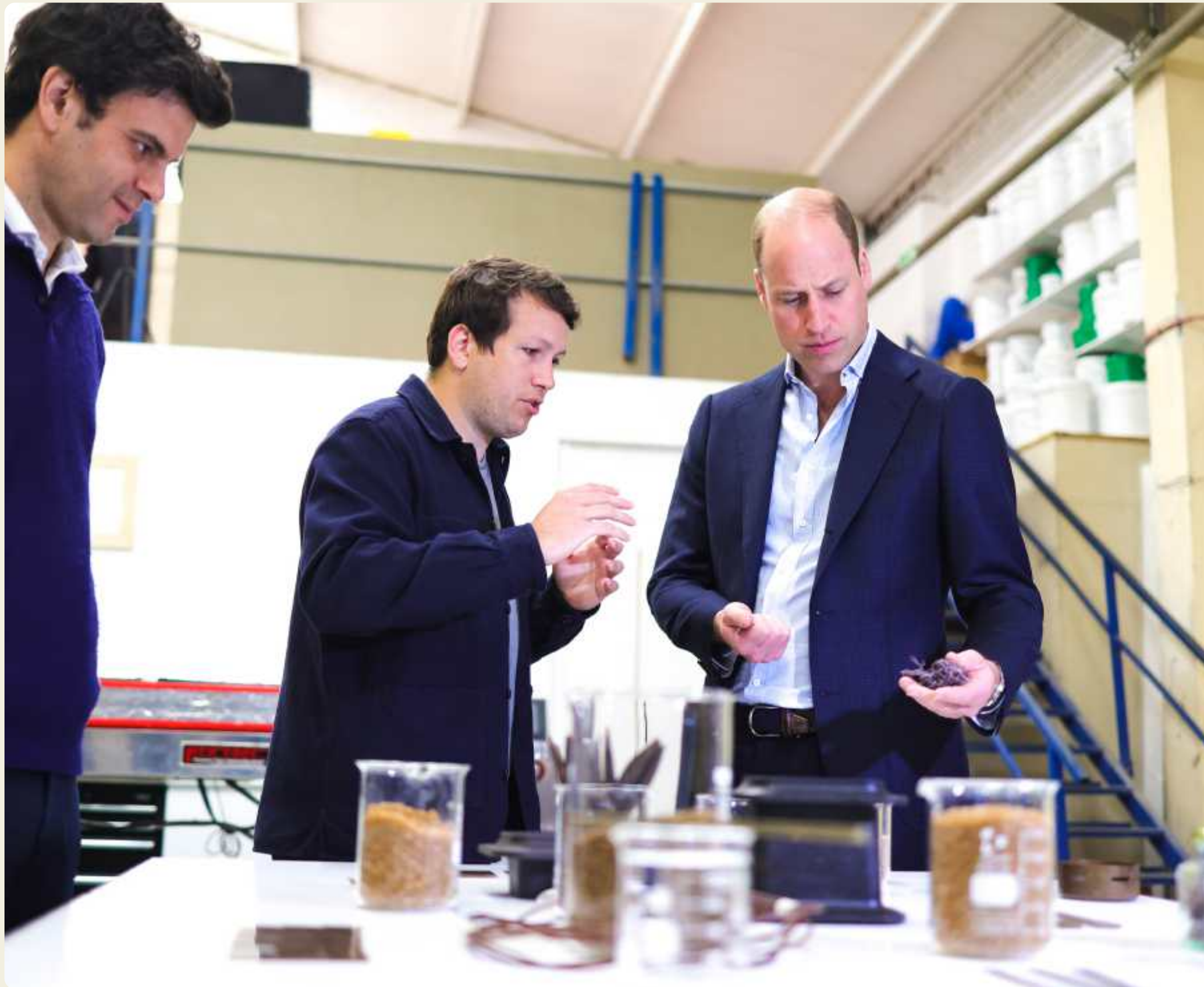
**Notpla**

**Impact Report 2023**

**We create disappearing packaging,  
carefully engineered for a healthy planet**



**Notpla**



“

Notpla presents a wonderful vision of what scaling really looks like, and that gives us all hope, inspiration and optimism. Notpla is on its journey, and we are here to facilitate and promote them to achieve greater things.

→ Prince William, Founder of The Earthshot Prize  
speaking at the Earthshot Prize Innovation Summit 2023 in New York





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## We are delighted to present Notpla's second annual impact report

Notpla was started nine years ago in our kitchen with a vision to create innovative and sustainable packaging solutions that would help reduce plastic waste and pollution. This vision still guides our mission of making packaging disappear.

2023 has been a remarkable year for us, beginning in an unprecedented way, with Notpla having been selected as one of the winners of The Earthshot Prize just months before. Since this milestone, we've developed significantly. Now, with a family of regenerative materials made from seaweed and plants, we've formed incredible partnerships with some of the industry's leaders and achieved much-needed policy breakthroughs. With increased funding, our efforts to grow our position in the packaging and food service industry have helped to answer the continuing calls from consumers for truly plastic-free solutions.

## This year we replaced 4.4 million units of single-use plastic

While we are happy with our achievements, much more work is needed. Eight million metric tons of plastic still end up in the oceans each year, and there is an urgent need for sustainable and scalable solutions.

We will continue to be a driving force for change through our products and message. We strive to inspire a wider movement and demonstrate that a world without plastic pollution is possible.

We would like to thank all our team, partners, and supporters for all the ways that you have made our continued growth possible.



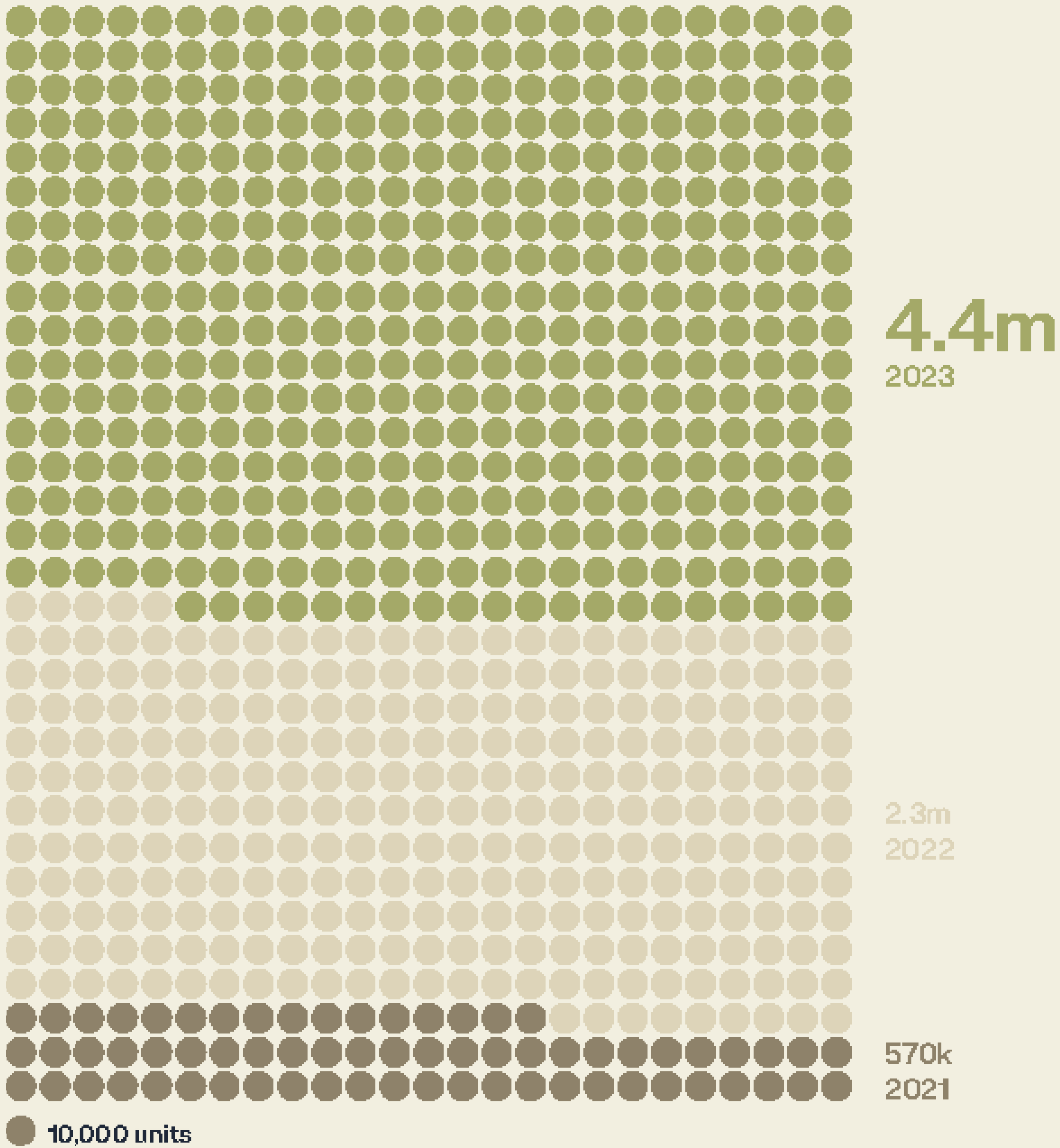
Rodrigo Garcia Gonzalez & Pierre Paslier  
Notpla Co-Founders & Co-CEOs



## Our impact in 2023

These metrics showcase dedication to impact from the ever-expanding Notpla community, an international partnership network covering every dimension, from brands, manufacturers, suppliers, and media to policymakers.

Within the numbers, you'll find stories of real people committed to restoring the health of our planet.



**7.3 million**  
Total single-use plastic replaced



**Dilemma**





# The looming environmental threat of plastic to our planet is undeniable

- Over 90% of plastic pollution is single-use items
- There are more than 3,200 known toxic substances present in plastic
- 20% of the world's oil supply will be used by the plastics industry by 2050
- Plastic in the ocean is expected to outweigh fish by 2050





## The material equation is wrong

For almost 100 years, disposable packaging has been characterised by materials that do not match their intended purpose.

Consider the packaging journey of an item you use every day. The momentary enjoyment derived from a snack contrasted with the potential lifespan of its packaging when you're finished—like decorations left hanging for centuries after a celebration.



In our hands for 12 minutes

← Around for up to 1000 years  
polluting the environment, leaving  
behind microplastics

Gone in weeks →  
regenerates into fertile soil, becoming  
food for worms, fungi, and microbes

## Packaging seamlessly integrated into nature

Nature serves as a poignant teacher, presenting a more harmonious and balanced approach. Take the humble banana; its peel will effortlessly decompose once the fruit is consumed. It is a captivating illustration, urging us to explore and implement more sustainable packaging solutions that seamlessly integrate back into the natural decomposition cycle.





## Validated solutions for real-world problems

Notpla is a family of regenerative packaging materials, made from seaweed and plants. Behind these products is a company of the same name, deeply committed to making the planet a healthier place.

Our core team is an assembly of interdisciplinary experts in material science, engineering, biology, bio-design and business services. But we're not alone: Directly supported by our impact-driven investors and advisors, we're embedded in a larger ecosystem of sustainability-minded companies, anti-plastic policymakers, climate initiatives, lifestyle influencers and consumers that care—possibly including yourself.



Seaweed-coated  
food containers



Edible energy  
gel pods



Food oil  
pipette



Dry food sachets



Rigid cutlery



Ocean Paper





## Seaweed is a powerful weapon in our fight against plastic pollution

The often overlooked hero of the ocean, is poised to revolutionise the landscape of sustainable packaging. Its natural ability to decompose sets it apart from traditional packaging materials and gives us hope for a more thoughtful and sustainable future of packaging. Seaweed-based packaging is rich in minerals and fibres, providing the strength and flexibility to create film, coating, and moulded products.

Beyond its physical properties, seaweed thrives in harmony with its marine habitat:

“**With its ability to sink carbon, sustain marine biodiversity, employ women, and unlock value chains, seaweed farming demonstrates how development, climate, and nature work together to generate value and uplift communities**

→ The World Bank,  
Global Seaweed New and Emerging Markets Report 2023



Only 0.066% of the total ocean space is required  
**to replace all single-use plastic**



Seaweed Hotspots  
Current  
Potential

Brown Seaweed  
Red Seaweed





## Building communities for a sustainable future

Regenerative seaweed aquaculture is a powerful tool for climate change mitigation and adaptation. It's crucial that the increase in seaweed production to meet our future needs is carried out in a manner that maximises the advantages to both humanity and the environment.

Notpla participates in various international initiatives to establish a seaweed supply chain that is regenerative, resilient, safe, and equitable.



### Global Seaweed Superstar

Advisory board member

The 'Seaweed Breakthrough' project promotes sustainable seaweed aquaculture, the conservation of wild seaweed stocks and associated biodiversity on a global level.



### Global Seaweed Coalition

Member

The Global Seaweed Coalition is a community working collaboratively to establish a seaweed industry that prioritises safe products, working conditions, and environmental protection.



### Seaweed for Europe

Member

The Coalition brings together stakeholders from over 10 European countries, leveraging innovation and investment to scale the seaweed industry and unlock substantial environmental, economic, and social benefits.





# Milestones



**Winning The Earthshot Prize  
has given us the opportunity  
to demonstrate our innovative  
solutions to a vast network  
that is committed to creating a  
more sustainable future**



We were honoured  
to host Prince  
William during his  
Earthshot Prize  
winners' visit



We shared the  
global stage at The  
Earthshot Prize  
Innovation Summit  
2023 in New York

Prince William joined  
forces with  
YouTubers Sorted  
Food to serve up  
burgers





# Spotlight on Coating

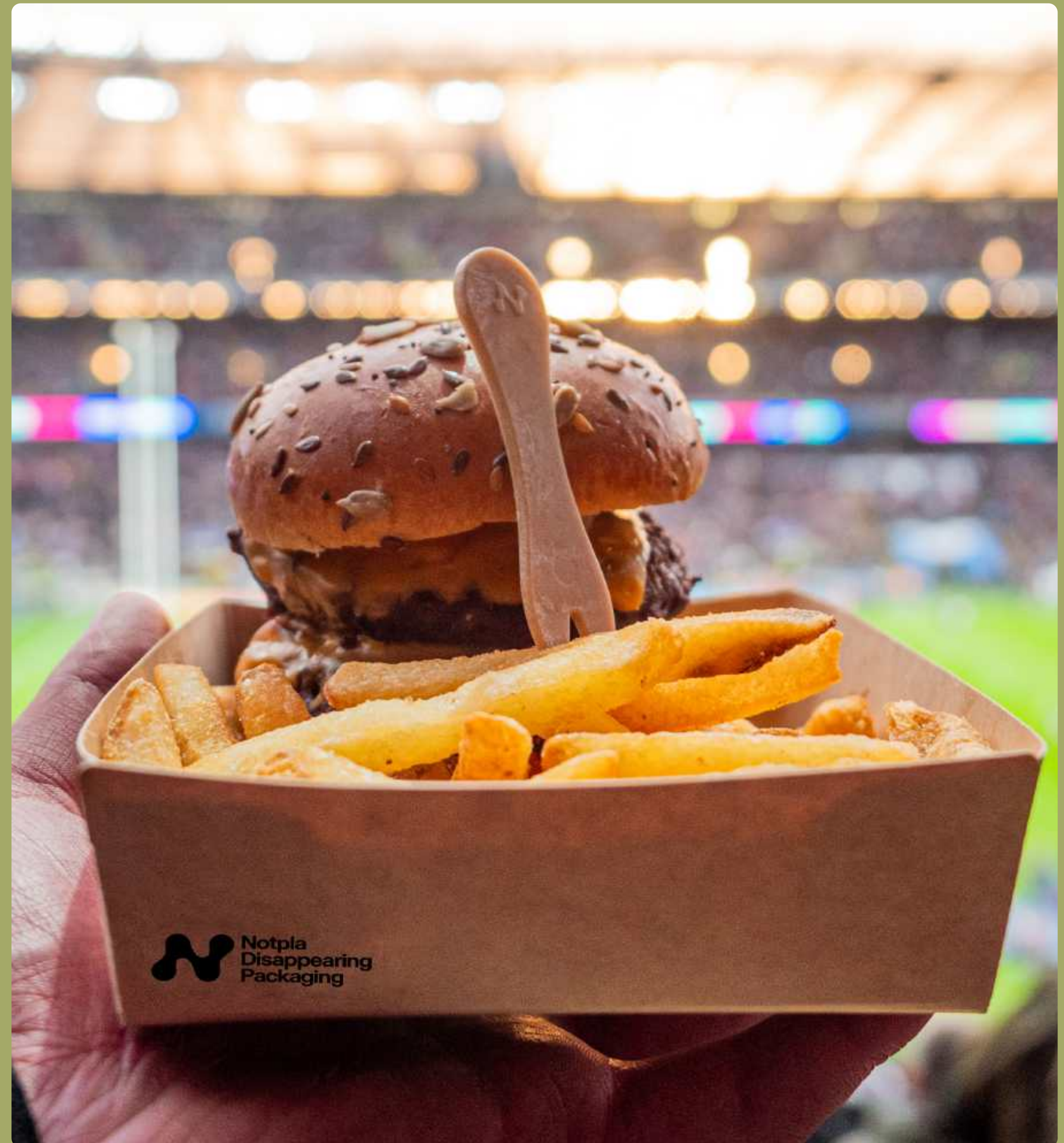
Disposable plastic containers contribute significantly to the environmental crisis, constituting nearly 10% of all marine debris. The long-lasting nature of plastic exacerbates the problem, as it can persist in the environment for centuries.

To address this issue at its source, Notpla has introduced an innovative food container with a 100% natural seaweed coating, breaking away from traditional containers laden with enduring petrol-based coatings.

Seaweed's natural properties allow the entire package to be composted at home or given a second life through recycling, diverting waste away from landfills with a safe and eco-friendly disposal route, subsequently reducing the prevalence of plastic pollutants in the environment.

## Up to 70% less CO<sub>2</sub>e

Independently reviewed data shows that Notpla's seaweed-based packaging produces up to 70% less CO<sub>2</sub>e greenhouse gas (GHG) emissions than the analysed conventional plastic alternatives like Polypropylene (PP) and Polylactic acid (PLA).





# What is the true cost of plastic?

Plastic packaging has been widely used due to its affordability and convenience. However, the financial impact of plastic on our environment is far more significant than we often realise.

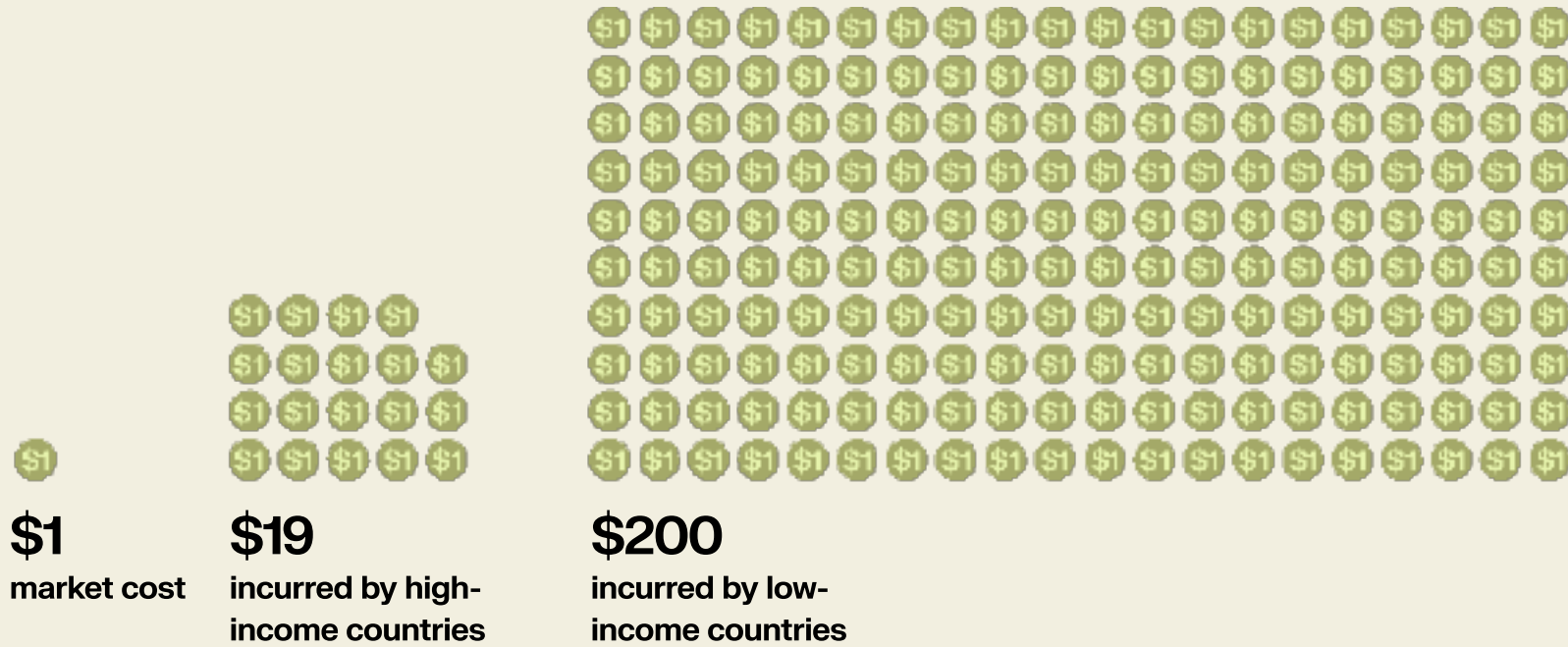
The world’s oceans bear the brunt of plastic pollution, with 85% of the lifetime cost of plastic going towards marine ecosystem service costs to repair damage caused by mismanaged waste.

We’re only paying the deposit on our plastic consumption and leaving our children to settle the debt



Photo by  
Hermes Rivera  
on Unsplash

But that's not all. Plastic waste also affects low-income countries disproportionately. A new WWF report reveals the shocking inequalities, showing that the total lifetime cost of plastic is 200 times higher than the market price for low-income countries.



Lifetime costs of plastic (US\$/kg)

Photo by OCG  
Saving The Ocean  
on Unsplash





# The first and only government-approved plastic-free coating

A significant achievement unfolded in October. In the first government assessment of packaging materials ever conducted, and after nine months of meticulous scrutiny, the Dutch government officially acknowledged Notpla Coating as the first and only plastic-free material to meet the strict EU Single-Use Plastics Directive standards.

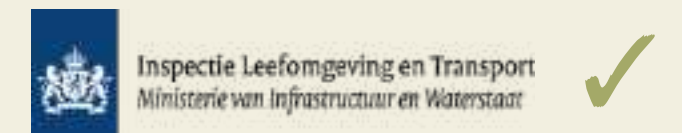
Thanks to this recognition, Notpla has formed a strategic partnership with Conpax, specialists in foodservice packaging converters, to enter the Benelux region in 2024.

Until now, industry greenwashing was rampant with companies able to claim plastic-free without fear of checks or enforcement.

In a landscape where packaging producers vie for sustainability acclaim, the industry has witnessed the emergence of more robust policies and regulations to bring clarity to the market. From eradicating greenwashing practices to closing loopholes in "plastic-free" claims, we welcome the increased attention from policymakers. A pivotal moment was the introduction of the EU SUPD, representing a significant stride in addressing plastic products and curbing misleading plastic-free assertions.



“ Therefore we conclude that following the directive text and its guidelines that the seaweed based coating is made from a natural polymer that is not chemically modified and subsequently the product does not classify as a SUP



→ The Netherlands takes a stand against plastic waste with Notpla





# Spotlight on Film

## TOM FORD PLASTIC INNOVATION PRIZE POWERED BY LONELY WHALE

“

We started the year on a high as the TOM FORD Plastic Innovation Prize winners. After rigorous testing, including simulation in whale gut, Notpla Film was validated as a scalable, biodegradable alternative to plastic.

Launch of an industry-first sustainable clothes detergent sachet in partnership with MACK. By introducing a guilt-free, plant-based, water-soluble alternative, we hope this innovation will pave the way for companies to transition away from harmful synthetic materials like polyvinyl alcohol (PVOH/PVA) that can harm soils and waterways.

We secured €1.3 million in funding to collaborate with Industrias Roko, S.A. in developing innovative processes to produce a seaweed agar extract that can be transformed into flexible film packaging. By optimising the byproduct (seaweed fibres) from this process, create Rigid and Ocean Paper products and get closer to achieving zero-waste and a circular process.

When I launched the TOM FORD Plastic Innovation Prize with Lonely Whale, I did so with the desire to be part of the solution, not an arbiter of the problem. It takes just one amazing idea and the drive to tap into one's potential to make the impossible possible. Notpla exemplifies this drive and has given me extraordinary hope that the real-world solutions we need now are at our fingertips

Tom Ford, Founder of the TOM FORD Plastic Innovation Prize

The Winners of the TOM FORD Plastic Innovation Prize continue to inspire me with their commitment to innovate to scale marine-safe alternatives, helping to mitigate the 11 million metric tons of new plastic made from fossil fuels that enter the ocean each year

Lucy Sumner, Co-founder of Lonely Whale

Our partnership with Notpla aligns perfectly with our mission to provide customers with a truly sustainable, eco-friendly cleaning solution that leaves zero legacy on the planet for future generations. We believe that sustainable packaging is not just an option but a responsibility we owe to our planet and communities.

→ Anthony McCourt, Co-Founder at MACK





# Meet the ambassadors of the new seaweed-powered gastronomy

We contributed to avoiding 250 tonnes of CO2e and displacing nearly 8 tonnes of plastic by selling over 4 million coated boxes—a significant accomplishment realised through an extensive network of partners.

Our continued collaboration with Just Eat Takeaway.com facilitated the distribution of Notpla Coated Boxes across 9 European countries. Additionally, pivotal partnerships with Bidfood UK successfully introduced our seaweed-coated boxes to over 45,000 food businesses in the UK.

We also extend our gratitude to the numerous foodservice operators and independent restaurants in the UK and beyond for their invaluable support.



“ We are very pleased with the cooperation between Notpla and Conpax ... From our facilities in the Netherlands, we will design, manufacture, and supply new sustainable single-use products made from Notpla coated board for the BENELUX market, which calls for this exact solution.

→ Roy Suiskens, director of Conpax







**Despite a 60% increase in policies targeting plastic pollution over the past five years**



**The total volume of plastic in the ocean has risen by more than 50%**

## **The Natural Polymers Group are championing change for plastic-free alternatives**

Together with seven other material innovators, we launched the Natural Polymers Group with a vision to advance natural polymers as the mainstream substitute for plastic and reduce plastic pollution on a global scale.

We collaborated with the World Economic Forum and published a joint statement ahead of the UN Global Plastics Treaty negotiations. As leaders of this coalition, we aspire to inspire policy and public opinion, encouraging the adoption of natural packaging solutions to combat plastic pollution more effectively.



**LOLIWARE**

**Xampla**

**SWAY**

traceless

**PlantSea**



**zerocircle**



# Spotlight on Rigid

We're thrilled to announce that we've received a £1 million grant from Innovate UK to advance Notpla Rigid, our innovative seaweed-based material that aims to replace plastic cutlery.

Plastic cutlery is a major contributor to plastic waste, with an astounding 40 billion units discarded in 2019 alone. This results in 6.1 million tonnes of CO2e emissions annually—equivalent to the emissions of 1.3 million cars.

To help combat plastic waste, several countries, including the United Kingdom, are phasing out single-use plastic cutlery. Notpla Rigid offers a sustainable solution to address these pressing environmental challenges and supports the global initiative to reduce plastic waste.

**In 2023, we successfully achieved the same cycle time for injection moulding Notpla Rigid pellets as Polypropylene (PP). This remarkable feat highlights the boundless potential and scalability of this revolutionary material**



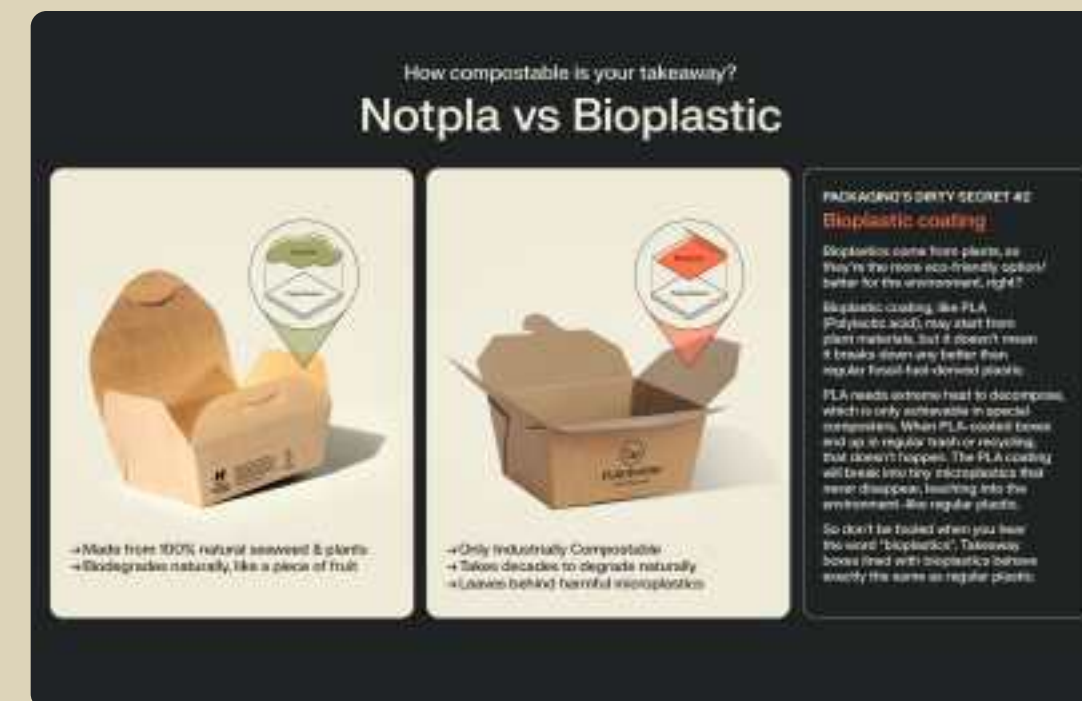


# A thought leader in plastic-free

Our commitment goes beyond just eliminating plastic packaging and extends into awareness initiatives. We delve into the environmental, economic, and social implications of plastic packaging and strive to equip consumers and industry leaders with the knowledge to ask the right questions, spot greenwashing practices, and better understand the science behind sustainable packaging solutions. By deepening sector knowledge of environmentally responsible options, we aim to empower businesses to make sustainable choices.

## Packaging's dirty secrets

Our impactful series exposes the reality behind “eco-friendly” coatings; we highlight the hidden plastic content in dispersion and aqueous coatings, contributing to recycling stream contamination and microplastic release. Notpla remains steadfast in our commitment to drive a decisive shift toward a sustainable and transparent future for the industry.



## Standout with Seaweed

We're proud to partner with local communities and small businesses with sustainable practices that positively impact the planet. Our Standout with Seaweed series features independent food businesses leading the way in sustainability.



## Demystifying Sustainability

The Notpla Glossary is a document designed to help unravel and understand the complex terminology surrounding sustainability, from the diverse meanings and limitations of the word sustainable to the realities of recycling.

## Supporting industry

We have strong links with Câr-Y-Môr seaweed farm, Wales's first 'regenerative ocean farm'. Founded in 2022 as a community benefit company, the farm improves the coastal ecosystem by using regenerative ocean farming—a great example of how we strive to promote sustainability on multiple levels.



Photo by Richardson Media and Car-Y-Mor





# Circular by design

By harnessing the full potential of seaweed, we are actively working towards a more sustainable future. Through innovative techniques, we can extract valuable resources from every part of the plant, leaving nothing to waste. This circular approach benefits our planet and inspires us to continue pushing the boundaries of what is possible.

**one  
tonne**

of seaweed fibres rescues

**four  
tonnes**

of trees from being felled

**<60%  
water**

than traditional  
paper production





People



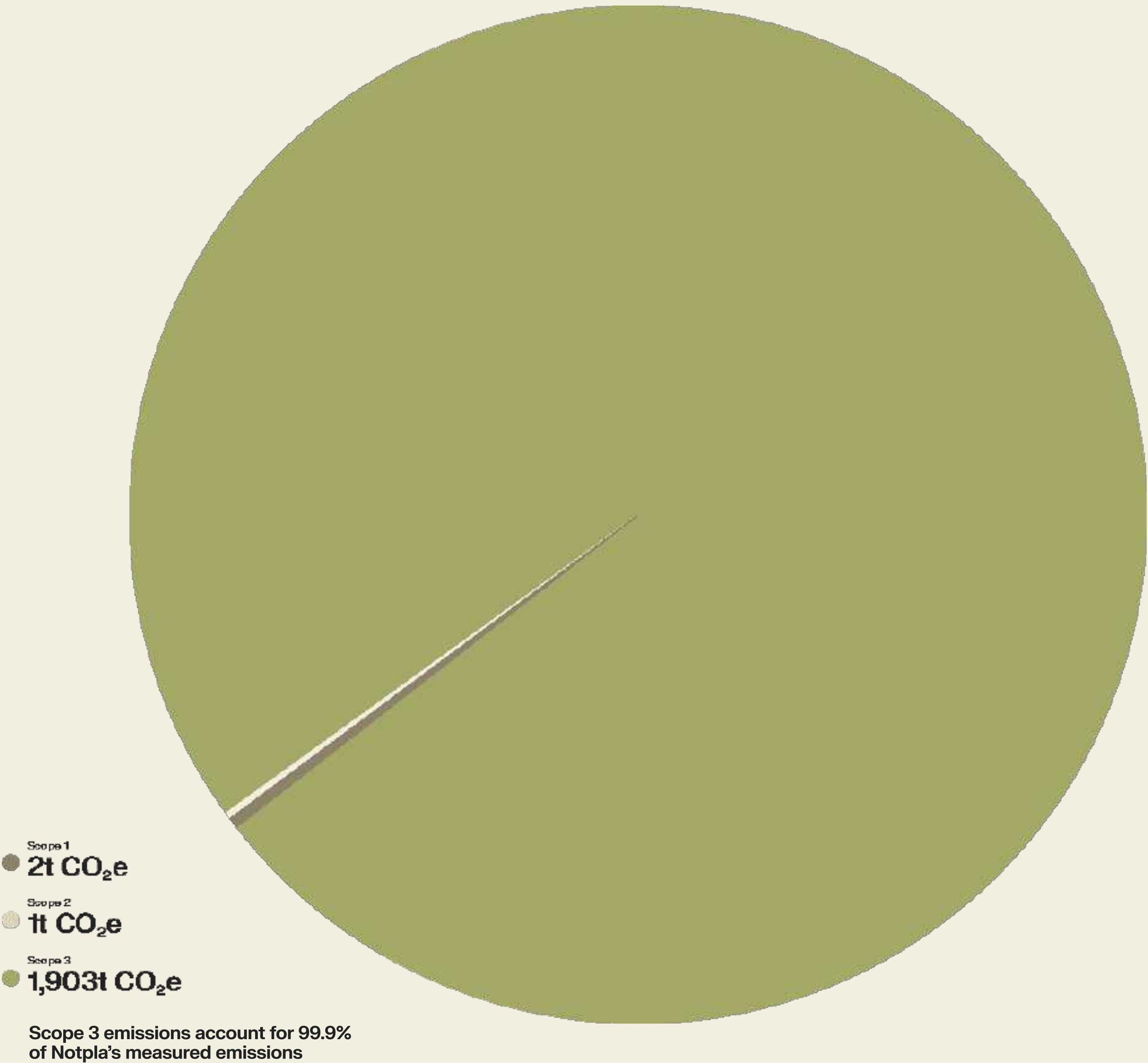
Notpla’s total 2023  
measured emissions

1,906t CO<sub>2</sub>e

We are proud to report that we have seen a reduction in our direct emissions (Scope 1 and Scope 2) by 8% compared to the previous year.

Our carbon footprint is mainly influenced by the Scope 3 emissions produced by our production partners, distribution channels, and purchasing processes. As a result, we are continually searching for and integrating new methods to decrease the environmental impact of our operations and products with the help of our partners.

A thorough greenhouse gas inventory accounting was conducted by Climate Essentials, using the Greenhouse Gas Protocol.  
Scope 1: Direct emissions from company-owned facilities and vehicles  
Scope 2: Indirect Electricity, heating, and cooling  
Scope 3: Indirect emissions from travel, commute, shipping, purchased goods, and leased assets.





## Proud to B-Corp

In May, Notpla achieved B Corp certification after a comprehensive evaluation of our products and practices. This milestone marks our commitment to elevated social and environmental performance standards.

# Certified

<sup>®</sup>

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# Corporation





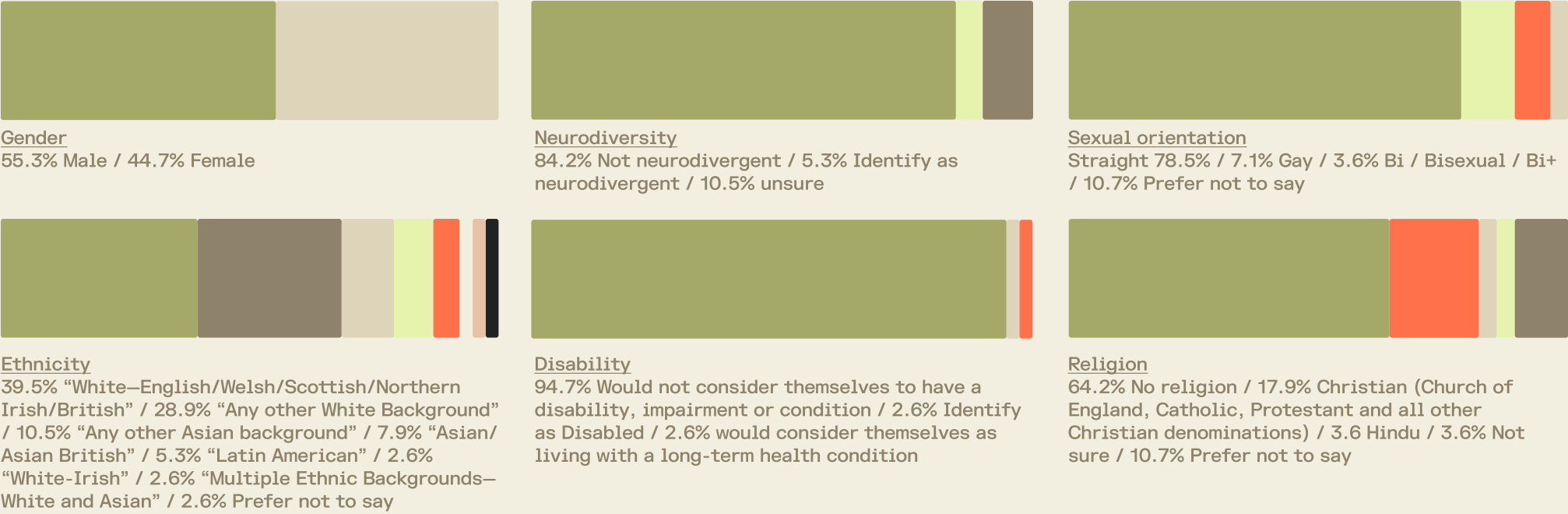
# Our team is the heart of Notpla

We prioritise a work environment that fosters independence, inclusivity, and empowerment, allowing our team to contribute to our mission directly.

This year, we have championed employee growth through enhancements to our Learning and Development programmes and refining our hiring process. One of our significant achievements was the launch of the Seaweed Academy - a 1-week programme designed for all new hires to learn about Notpla, sustainability, and the policies within the packaging industry.

Our values were updated to align with our evolved goals as a growing company.

- Nature is our North Star
- Trailblazers
- Better Together
- Real World Solutions
- Make it Happen





# Welcome Hoa Doan, Notpla's Head of Impact

We are thrilled to welcome our first Head of Impact, Hoa Doan, who will lead our efforts to create positive change through our innovative solutions. With a decade of expertise in leading sustainable initiatives, Hoa is here to drive Notpla as a trailblazer in sustainability within the industry. Hoa will be instrumental in elevating the scale of our impact while working tirelessly to enhance our environmental performance and reduce our footprint. This strategic move reinforces our steadfast pursuit of a more sustainable and impactful future.



**A message from Hoa**

Nature is our north star, meaning in everything we do, our success is guided by the wisdom of nature.

With each product we engineer, each process we improve, and each partnership we build, we get closer to achieving our mission of making plastic packaging disappear. By showing that sustainability can go hand in hand with business success, we hope to inspire change in the often-overlooked issue of the packaging products we use daily.

We are grateful to our Notpla team, clients, partners, advisors, investors, supporters, and the Earthshot prize team for a momentous year. We have some exciting plans coming up in 2024, and we cannot wait to share them with you all.

**Hoa Doan**  
Head of Impact

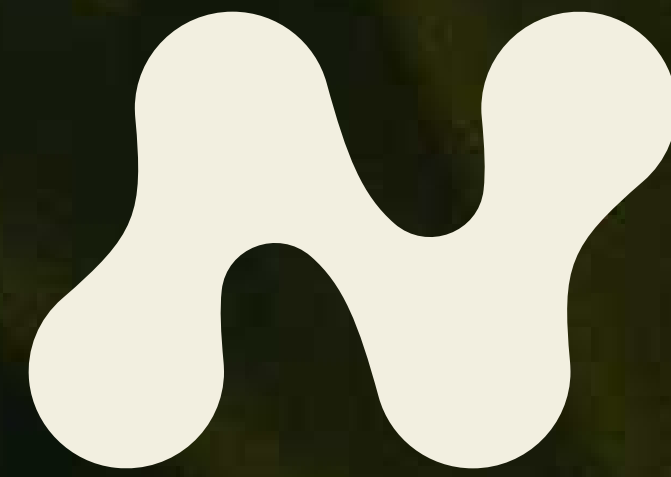
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This report was published on 23rd February 2024, and all content was accurate to the best of our knowledge. Should new information come to light, we will update it. We have written it in good faith in the spirit of transparency and welcome any feedback or support to improve its content. Contact us at [info@notpla.com](mailto:info@notpla.com)

Designed by: Ben Fullerton, Communication Designer





**Notpla**

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