

# REFORESTUM

## Adding trust and transparency to the forest carbon markets





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# Intro to Reforestum.







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# Reforestum's mission

Reforestum is part of a new generation of marketplaces aiming to make carbon offsets more impactful and trustworthy, using a technology stack to improve the transparency of reforestation and conservation project verification, monitoring, and financing.

# Reforestum's origins

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Reforestum started by building a community of reforesters around the world and planted its first project in the north of Spain in 2017.

Since then, we have built a marketplace to bring on many more projects that have truly additional impacts on solving climate change, restoring ecosystems and making sure local communities are fairly rewarded. (1)

# Innovation at the service of restoring the earth

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Reforestum is developing cutting-edge technology such as Artificial Intelligence (AI) deployed to analyze satellite imagery and radar data, all aimed at helping companies and individuals finance large scale projects that restore and protect nature and sequester carbon with greater visibility of outcomes backed by data. We call this our Monitoring, Reporting and Verification (MRV) tools.

Funding the right projects in the right way is also at the heart of what we do. This is one of the ways in which we differ from many traditional offsetting businesses who fund projects solely on the basis of standards they adhere to e.g. the UN's Gold Standard. We go a step further —ensuring that projects on our marketplace can prove beyond any doubt the outcomes they achieve, be they carbon emissions reductions or removal, or biodiversity and community benefits.

(1) Article 6 of the Paris Accord mandates "the use of internationally transferred mitigation outcomes towards nationally determined contributions (NDC's), promote sustainable development and ensure environmental integrity and transparency."



# Trust and traceability.





Offsets have so far failed both climate and corporate objectives

Despite decades of development and progress, both mandatory and voluntary carbon markets have fallen short of high expectations due to failures on multiple levels. Opaque accounting that allowed for so-called double-counting of carbon credits, a lack of traceability in payment flows and a lack of accountability for project outcomes have made it difficult for conscious corporates to promote or even stand by the offset projects they support..

## Building trust into carbon offsets

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The Reforestum platform makes it easy for corporates to procure high-quality offsets at scale and over the long-term from a unique portfolio of projects, while taking advantage of technology to reduce inefficiencies and increase trust among stakeholders.

## Key benefits:

- Increase customer engagement and willingness to pay, by displaying the emissions associated with your products or associated services like delivery, and giving customers the ability to choose how they wish to compensate for their impact as well as visualise their contribution directly on the Reforestum platform
- Integrate carbon accounting and offsetting with existing systems, using APIs to integrate at checkout for existing services and products being sold online, or in the backend as part of supply chain management and procurement
- Increase employee motivation, making offsetting a visible part of the company's broader sustainability strategy and emissions reductions efforts, and enabling employees to engage with the offset projects supported

(\*) where available, currently in Spain and soon in the UK, see Projects pages for more detail

- Reduce offset procurement
   costs, transforming an annual procurement exercise into automatable and continuous sourcing from a portfolio of projects including in the local country (\*)
- Reduce reputational risks, thanks to the multi-decade track-record from our partners combined with our in-house MRV technology to back claims with data
- Make it easier to communicate on your actions, through our corporate public profile page and leader-board that can easily be shared with stakeholders



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# Why natural solutions are necessary, cost-effective and scalable.

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# **Natural Climate** Solutions

Climate change is a global problem, and it requires solutions on a global scale. One of those is hiding in plain sight. Our lands provide an untapped opportunity of both storing carbon and reducing carbon emissions in the world's forests, grasslands and peatlands.

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## When cheaper is better

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Natural climate solutions can deliver large-scale emissions reductions cost-effectively. The UN Intergovernmental Panel for Climate Change reports that, by 2030, up to a third of annual land-based emissions reductions targets could be achieved at a cost of \$20 or less per ton of carbon dioxide removed or avoided. While the transition to low carbon energy is underway but will take decades to complete, natural climate solutions could and should provide a biological bridge to a low-carbon future in the near-term.

## **Solving the climate** emergency starts today

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Reforestum covers the whole spectrum of natural-based solutions on our marketplace, with a combination of afforestation projects as well as third-party reforestation/avoided deforestation projects to suit our corporate customers' needs:

## • Types of projects:

### ⊕ In-house afforestation projects in Europe:

Tree-planting options include both off-the-shelf and bespoke projects



### **⊙** 3rd-party top-of-class REDD+

Projects around the world monitored via our innovative near real-time MRV



# Inhouse Diojects.





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## Afforestation tree-planting in Europe

We are working with partners at the local level in Spain and securing similar partnerships in the UK who have the local knowledge necessary for true ecosystem restoration rather than merely planting trees. These projects follow the strictest national certification protocols and guidelines, and we go beyond legal requirements to provide long-term certainty that projects satisfy not only carbon sequestration but also biodiversity and increased resilience to a changing climate.

## Solutions to meet every need

We understand that our corporate clients have specific needs that cannot all be met with "one size fits all" projects. For that reason, we enable a variety of ways in which our corporate clients can participate to financing projects, whether on an ongoing basis for projects already on our platform or to specifically build their own bespoke projects to meet the needs of their sustainability strategy.

## In house projects

	Off the shelf	Bespoke
Time to deliver:	Immediate	4-12 months
Cost per ton:	•••	•••
Certifications:	By local governments	By local governments

## Génesis

Planted in 2017, our first project Génesis has been officially certified as a carbon capture project by the Spanish Ministry of Agriculture, Fisheries and Food - Ministry for the Ecological Transition (Mapama) through its bureau of climate change. The project contains 10 native species and will sequester up to 9,711 tons of CO2 over the next 25 years.

### **PARTNERS:**





#### **CERTIFICATIONS:**





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# Third party projects.

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## **Rigorous selection of 3rd party projects around the globe**

We only work with partners who have experience developing certified projects according to the highest international standards, and with a real connection to the local communities. Working directly with international partners who have the local knowledge necessary for true ecosystem restoration gives us a global presence anchored in local environmental restoration.

Our partners for our first 3rd party projects are Ecosphere+, part of Mirova Natural Capital, and are leading the way to more impactful projects through long term planning and financing of local restoration efforts (see examples below).

## Plugging the gaps with cutting-edge technology

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There is currently no easy way to compare projects and be confident of their impact beyond their accreditation. Certification bodies like Verra and Gold standard are necessary but sometimes not sufficient to meet the need of companies who are conscious to only support the most impactful projects.

This is why at Reforestum we have decided to build our own tools to quantify and verify the carbon reductions and removal associated with projects on our platform, in addition to any existing certifications. Giving companies and their customers access to the tools they need to easily visualize and ensure that projects are having the impact they pay for.

#### Third party project

Time to deliver:	Real-time / A few weeks *
Cost per ton:	• • •
Certifications:	VCS, CCB
Framework:	UN REDD+



# Examples of projects:

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## Sumatra Merang Peatland Project

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The Sumatra Merang Peatland Project will restore more than 22,934 hectares of peatland rainforest in the Merang biodiversity zone in Indonesia, one of the largest and deepest peat swamp areas in South Sumatra, preventing the release of up to 4.9million tons of carbon emissions by 2021. Other measurable impacts of the project include the creation of jobs and new livelihood opportunities that help reduce the drivers of deforestation and wildlife poaching.

Location	Surface area	Certifications	Sustainabl	e Developm	ent Goals
Merang, Indonesia	22,934 hectares	VCS CCB Gold	1 2	9 10	15 16
			5 8	12 13	





#### **CERTIFICATIONS:**

FRAMEWORK:

Verified Carbon Standard



Standards



# Examples of projects:

## Nii Kaniti

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Nii Kaniti project in Peru focuses on protecting rainforest and avoiding deforestation on community land through scaling up sustainable community forest management. By 2021, the project will protect an estimated 127,000ha and avoid 4,800ha of deforestation, avoiding close to 2.5million tons of carbon emissions. It integrates conservation activities that put a value on indigenous-led development with FSC certified timber extraction and cacao agroforestry.

	Location	Surface area	Certifications	Sustainable	Developme	nt Goals
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	Perú	127,000	VCS	1	8	15
		hectares	CCB Gold	2	12	16
				5	13	





#### **CERTIFICATIONS:**

#### FRAMEWORK:

Verified Carbon Standard



Standards



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# Innovative technology.





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## Near real time Monitoring Reporting and Verification (MRV)

Carbon markets are often reliant on patchy data obtained during the very early phases of a project, making it difficult to know with precision how much carbon emissions has in fact been removed or avoided at a given point in time.

We are developing and deploying a remote monitoring system that computes forest analytics on a near real-time basis. The monitoring system will use satellite images and radar data as inputs and leverage state-of-the-art deep learning models to infer the quality of the forests, the number of hectares that have been reforested, and the carbon stocks in that area.

## APIs for carbon offsetting

In a world of interconnected systems via software, we believe that solutions need to seamlessly integrate with your existing processes, and this is why we have chosen to make our platform easy to onboard for all online activities such as e-commerce. We enable you to focus on what you do best and embed carbon offsetting as part of your existing and future activities.

## • Use Cases:

### All For Padel

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A subsidiary of Adidas distributing all Padel products in Europe, successfully connected their IT systems to our API at the beginning of 2020. As a result, customers that register their product's serial number in their website are rewarded with offsets in our project in Spain, accessible directly on the Reforestum platform. This action is embedded in a more ambitious collaboration ongoing project.

### ⊕ Destinia

The major flights broker in Spain connected their checkout process to our web-based marketplace also as a first step of a major plan.











## MRV - Monitoring, Reporting and Verification

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Refers to the measurement, reporting and verification of a reforestation/conservation project and associated greenhouse gas (GHG) emissions and removals, including their changes over time.

## Carbon offsets (inc Forest carbon offsets within that)

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An action or activity (such as the planting of trees or carbon sequestration) that compensates for the emission of CO2 or other greenhouse gases to the atmosphere

### **Gold Standard**

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UN certification standard towards achieving the global Sustainable Development Goals; includes Renewable energy credits

## **Natural Climate Solutions (NCS)**

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Encompasses all the solutions to climate change through the enhancement and restoration of natural ecosystems. Also sometimes referred to as Nature-based solutions (NBS)

### REDD+ (Reducing Emissions from Deforestation and forest Degradation) "plus" elements of other activities that enhance carbon stocks

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Launched in 2008 as a UN mechanism to value and protect carbon stored in forests, many countries have integrated REDD projects as part of their national strategies, though the programme has faced issues with monitoring and verification and has not yet reached critical scale

## Verra (previously Verified Carbon Standard -VCS)

Verra develops and manages standards and frameworks to vet environmental and sustainable development efforts, build their capacity and enable funding for sustaining and scaling up their benefits. Verra emerged over the years as the market leader in the certification of voluntary carbon projects, accounting for 73% of certified projects in 2018

## **Verified Carbon Units (VCUs)**

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Under the VCS Program, projects are issued unique carbon credits known as Verified Carbon Units or VCUs. Each VCU represents a reduction or removal of one tonne of CO2 equivalent (CO2e) achieved by a project.

### API

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Application Programming Interface - An application programming interface is a computing interface to a software component or a system, that defines how other components or systems can use it.



## **Contact us**

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