



# whitepaper

Upgrading recycling. The ecosystem that empowers businesses and rewards individuals for recycling in order to combat the climate crisis.





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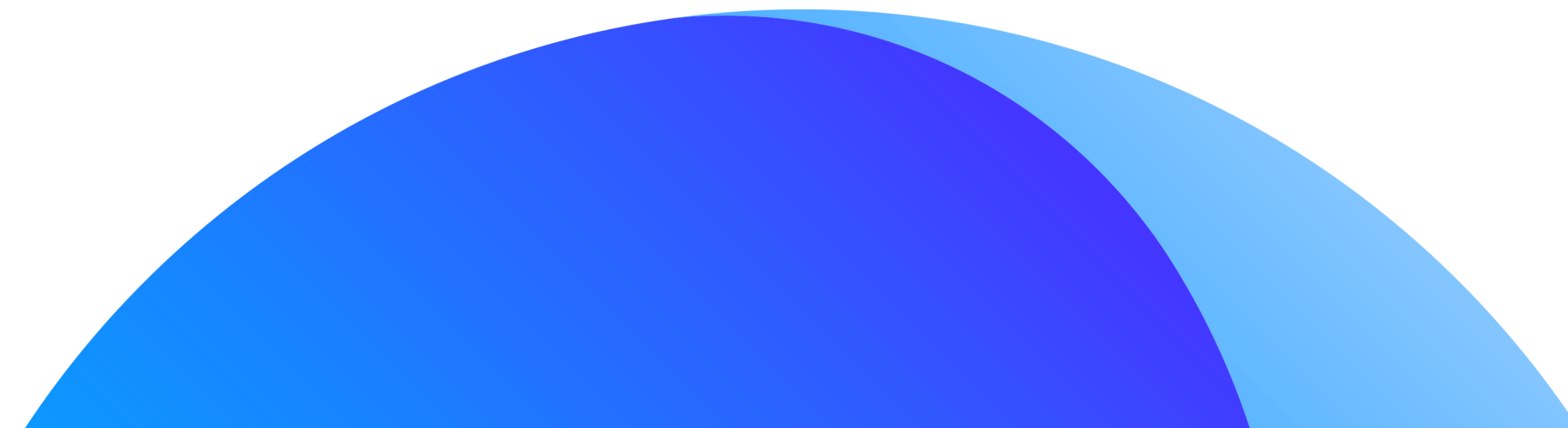




# Mission statement



ecoterra is a company which attempts, by making use of blockchain technology, to facilitate and encourage the recycling process in order to fight global warming and climate change. Today's worsening effects have led not only a lot of big-name companies, but also a great number of consumers to engage themselves in slowing down, and eventually reversing the wild weather pattern that climate change has unfortunately set. Tree plantations, beach cleanups, and a proper waste management are only some of the ways in which climate change is currently being combated. Recycling is another one. Although today, more than ever, a great emphasis is put on it, recycling still seems to raise some difficulties due to one reason or another. Some people, although well meant, simply say they lack the knowledge (was it the pizza boxes or the soda cans that had to go to the recycling bins?). How the overwhelming majority, however, motivates its unwillingness to recycle is due to a lack of either a convenient access (39%), some extra space for the bins (35%), or enough time to properly separate the waste (29%). All these reasons seem to indicate the lack of a rather more personal reason to recycle, and may be translated into: "we lack the incentive to find a convenient access", "we lack the incentive to make some extra space for the recycling bins", or "we lack the incentive to find time to separate the recyclables". Without a personal incentive, people are more reluctant to take the extra step needed in order to recycle properly.

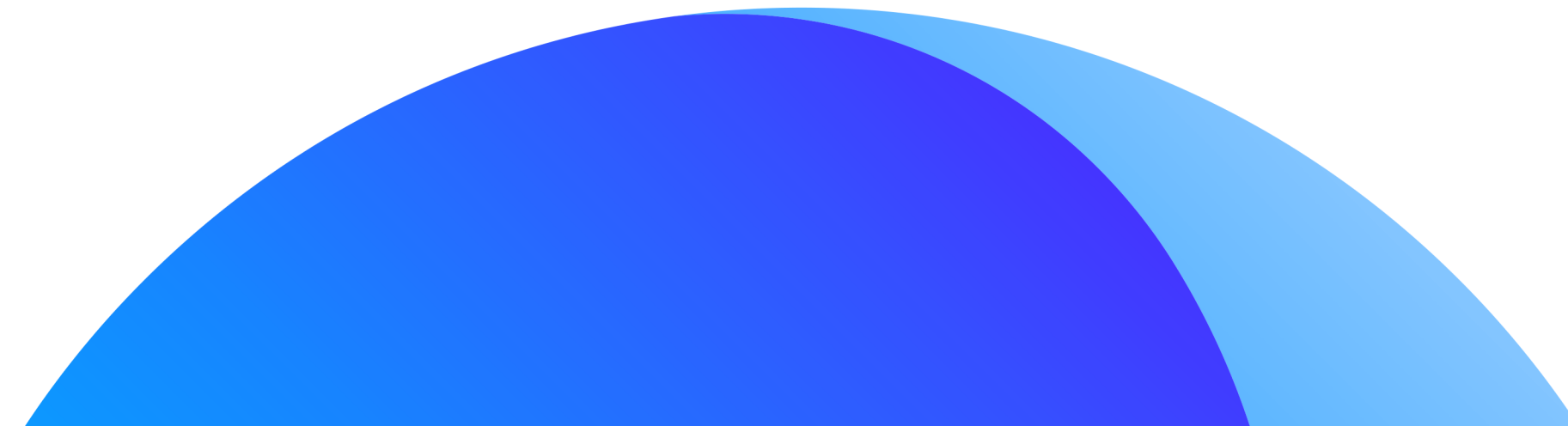


What ecoterra aims to do, therefore, is not only educate the public on the necessity of recycling (via its green education initiatives), but also to incentivise him to actually recycle. ecoterra users will be rewarded every time they recycle as long as they follow a few simple steps which will be available on the ecoterra app. Therefore, apart from the fiat money that one receives from the reverse vending machines in exchange for his Coke can or water bottle, our users will also be rewarded with ecoterra tokens via our recycle-to-earn system (R2E). R2E is a reward system through which ecoterra aims to incentivize users to recycle for extra rewards and further benefits. Unlike fiat money, our tokens may not only significantly increase in value, but can also be staked in order to passively earn dividends from ecoterra's revenue streams.





But ecoterra's plan does not end here. Although the consumers are the ones that mainly need incentives in order to recycle, there are two other no less significant players in the recycling process: the companies which produce the recyclables and the recycling companies. After the recyclable packaging is properly disposed of by the informed consumer, it is collected by the recycling company and delivered to one of the local recycling centers. There the packaging is converted into raw materials by means of recycling. What ecoterra wishes to do is facilitate the interaction between the recycling and the product companies while at the same time promoting a circular product life cycle. This will be achieved by providing the two aforementioned players with a common marketplace; here the former will be able to sell the raw materials, while the latter to buy them and maximize their value by turning them into new products. A second marketplace will be available to our conscious users, both individuals and businesses, where they will be able to purchase verified carbon credits (VCUs) in order to offset their carbon emissions. The blockchain technology will allow this interaction to enjoy full transparency, and instant transactions in the absence of an intermediary or a third party. Another benefit of blockchain technology is that it allows for multiple means of payment; for example, the companies are able to pay inside our marketplace with anything from fiat money to stable coins (USDT), Bitcoin, and of course ecoterra. Some of the advantages that companies are provided with when opting to pay using ecoterra are lower transaction fees and the possibility of staking.

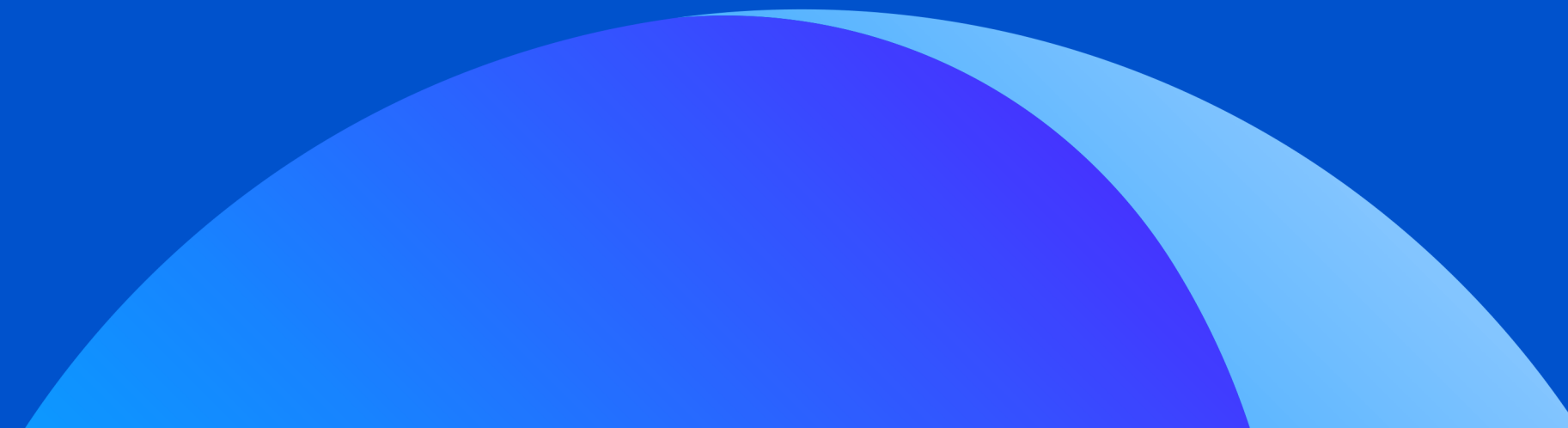






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**Vision**





ecoterra strives to become the primary vehicle for providing a facile and rapid recycling process to all the parties involved while at the same time fighting the climate crisis. In order to do this, our main goal is to create a self-sustaining and circular ecosystem which consists of five major components: (1) recycling, (2) the recycling marketplace, (3) educating, and (4) the carbon offset marketplace.

The key players in (1) are the user and the product companies. Companies are first presented with a number of different-sized recycling plans which vary according to the three types of recyclable materials that are accepted by the RVMs: glass, plastic, and aluminium. After it is customized according to each company's needs, the plan can be purchased and the money directed to the users. Because the responsibility of recycling mainly lies with the individual and his willingness to fight back the effects of global warming and climate change, incentives are required. Therefore, the money collected from the companies when purchasing a plan will be automatically directed to the individuals every time they choose to properly dispose their waste in order to boost recycling.

(2) allows ecoterra to achieve its last two objectives at once: bringing the product and the recycling companies closer together in order to promote a circular product life cycle, and transforming the ecoterra ecosystem into a circular one.

(3) seeks to engage both individuals and businesses in actively supporting the educational programs that ecoterra will put forward in the near future. As soon as the educational platform will be up and running, the business-aimed recycling plans will also include some of the educational materials available on the platform. As for the individuals, distinct plans will be designed, comprising greening actions and educational materials towards why and how to go green.







Finally, (4) will quicken and improve the purchasing process of carbon credits for both businesses and individuals. Here ecoterra users will find a wide range of verified and trustful projects that provide real reductions in greenhouse gas emissions, and will be rewarded if they choose to join the carbon sequestration initiative.

What stands at the core of these projects is the blockchain technology. We view blockchain technology as the soundest choice for achieving our aim of easing and improving the recycling cycle while at the same time tackling climate change and global warming. By blockchain implementation we do not only guarantee full transparency and security, but also prompt transactions with very low fees. Apart from these core features, we hope that by the help of the blockchain technology we will be able to build in the near future a unified community of like-minded individuals whose concerns for the actual state of the environment drive them to make responsible choices and engage in effective recycling.



An aerial photograph of a wildfire. The top half of the image shows dense green and yellowish-brown vegetation. A bright orange and yellow fire line runs diagonally across the middle. Below the fire is a large, dark, smoky area. The right side of the image is a solid blue background with a faint, stylized globe graphic. At the bottom right, there are two overlapping semi-circles in shades of blue and purple.

# **Global warming and climate change: current issues, future outlook**

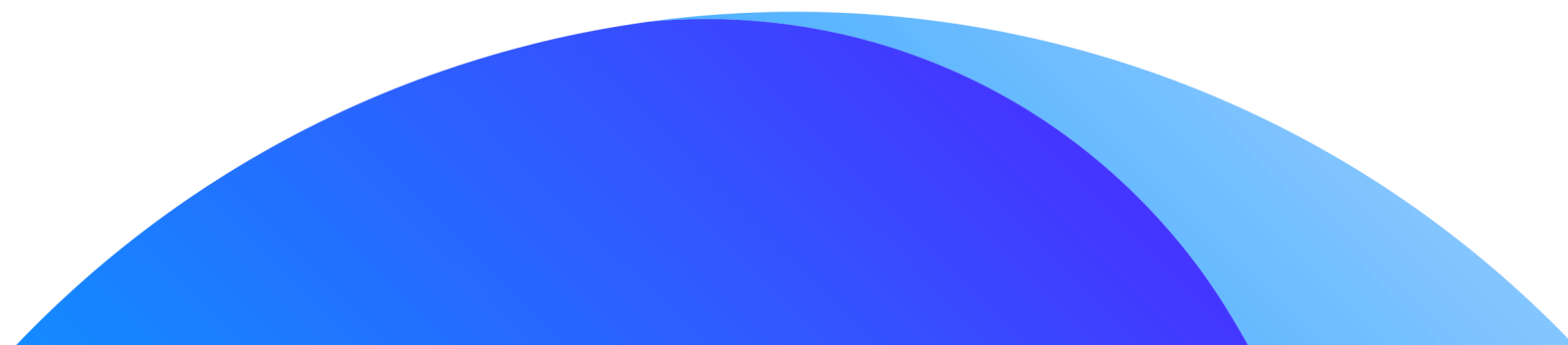


In this section we will discuss the broader issues of global warming and climate change and how they are related to the birth and mission of ecoterra. In order to ease the reading, the section will be divided into two shorter subsections. The first subsection will discuss the challenges that our planet faces today due to global warming and climate change; what is intended here is to both raise awareness to readers who may not be fully acquainted with this particular topic, and provide those who are familiar with it up-to-date and reliable information. The second subsection relies almost exclusively on the data provided by the latest Emissions Gap Report, The Heat Is On, A World of Climate Promises Not Yet Delivered, published in 2021. The subsection aims to provide the readers with as accurate estimations as possible regarding the future prospects of global warming and climate change; these estimations take into consideration both the sustained action needed in order to tackle global warming, and the lack of it.



## 3.1 Where do we stand

The year 2021 has raised unprecedented challenges for the forests of California, Amazon, Turkey, and Greece. While the number of acres of land burnt by wildfires has more than doubled in California, the president of Turkey labels the year 2021 as the worst in the country's history in terms of the severity of the wildfires. Not only that such wildfires are increasing air pollution around the damaged areas and affecting air quality, but they also lead to the destruction of homes and to the need for immediate evacuation. This was the case in 2021 for more than 2,000 inhabitants of the Greek island of Evia. Evacuation was also necessary in the case of Fairbourne village, located on the coast of Wales as the rising sea levels led to flooding. Extreme heat and drought are two other clear symptoms of climate change. In northern Greenland the temperature registered in July 2022 was around 15 degrees Celsius - that is at least 5 degrees warmer than the expected temperature for that time of the year. 7.2 million Olympic-sized swimming pools could have been filled with the amount of water that resulted from the melted ice; and that is only during the first couple of days (6 billions tons of water/day). At the end of August the BBC described Europe's drought as the worst in the last 500 years with 2/3 of Europe under drought warning and many dried-out rivers. As the Danube's levels reached their lowest level in almost a century, dozens of German warships that had been sunk during WW2. Near the town of Prahovo, Serbia were uncovered. Uncovered in August on the Elbe river in the Czech Republic was also one of the dozens 'hunger stones' in central European rivers that marked levels during historical major droughts. The oldest readable carving on the stone dates from 1616 and may be translated as: "If you see me, weep".







These are only some of the visible footprints that climate change leaves behind it, but they provide sufficient clues to all of us as to understand that the distant future is no longer distant and that immediate action is required now. A similar reasoning stood behind the adoption of the Paris Agreement in 2015 by almost 200 parties. The Paris Climate Agreement is a treaty that comes as a response to the rising global temperature and that sets out to tackle climate change by limiting global warming to 2 (preferably 1.5) degrees Celsius this century (compared to pre-industrial levels). In order to do this, cutting greenhouse gas (GHG) emissions is required. Now, what stands at the heart of the Paris Agreements are the nationally determined contributions (NDCs). To put it in other words, the NDCs represent each party's action plan to cut emissions and to adapt to climate impacts. Each party is not only required to update its NDCs every five years, but it is also necessary that each such update manages to reflect progressively enhancing ambition. This is where the Emissions Gap Report comes into play.



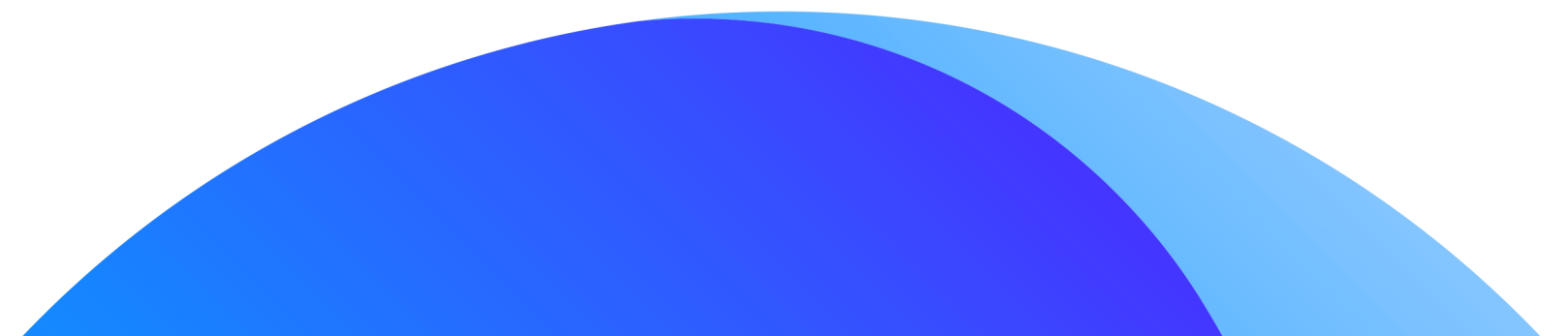
The Emissions Gap Report is an annual report written by an international team of leading scientists across the globe and has the role to assess the gap between “where we are likely to be” - if the current NDCs are met - and “where we need to be” - where science indicates emissions should be in order to achieve the goals of the Paris Agreement. According to the team, the emission gap must be closed by 2030; otherwise, the goal of a 2 degrees Celsius temperature increase may be out of reach. There are only eight years left and the current state does not look very promising. In 2019 both the GHG emissions and the Fossil CO<sub>2</sub> emissions reached a record high of 51.5 and 37.9 gigaton of CO<sub>2</sub> respectively. Although at the time of writing the report there was still no estimated data available on the total global GHG emissions for 2020, there is data for the CO<sub>2</sub> emissions. What the COVID-19 pandemic seems to have led to is an unprecedented 5.4% drop in CO<sub>2</sub> emissions in 2020, resulting in only 36.0 gigaton of CO<sub>2</sub> in 2020. However, despite this decline, the report suggests that it is not likely for these reductions in emissions to be detectable in the atmospheric growth rate. In fact, the concentration of CO<sub>2</sub> in the atmosphere grew by almost 2.3 parts per million; this growth is attributed to the fact that CO<sub>2</sub> is a cumulative pollutant which enjoys a long lifetime. Therefore, in order to really notice a decrease in the current CO<sub>2</sub> concentration in the atmosphere, not only urgent but also persistent reductions in emissions are necessary.



## 3.2 What next?

In the previous subsection we have seen what the current state of affairs in terms of global warming and climate change looks like by emphasising today's alarming levels of GHG and CO<sub>2</sub> emissions in the atmosphere. Next, we aim to discuss what the future holds for us under the current NDCs and what it could hold for us if each and every one of us were to accelerate action towards reaching the common goal - maintaining global warming to maximum 2 degrees Celsius by the end of the century.

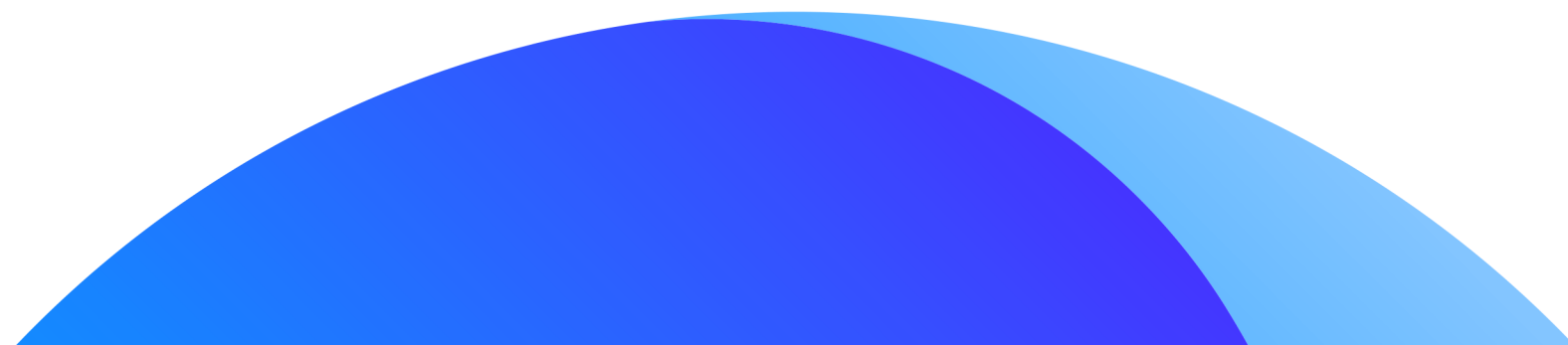
Now, truth is problems are being tackled: the number of wind farms and solar installations is growing, as is the number of people who opt for an electric car instead of a gas vehicle. More people prefer to select the ride sharing option on their taxi apps and even more of them switched to a more plant-based diet. The harsh truth, however, is that neither of these changes happens nearly as quickly as it should. According to the most recently published Intergovernmental Panel on Climate Change the chances of exceeding the 1.5 degrees Celsius temperature threshold in the next two decades have raised up to 50%. Despite the more or less comforting drop in the CO<sub>2</sub> emission in 2020 mentioned above, specialists expect a strong rebound in emissions for 2021; while they estimate a 4.8% CO<sub>2</sub> growth, the GHG emissions are expected to reach similar levels to those in 2019 - which, remember, were record high (51.5 gigaton of CO<sub>2</sub>).



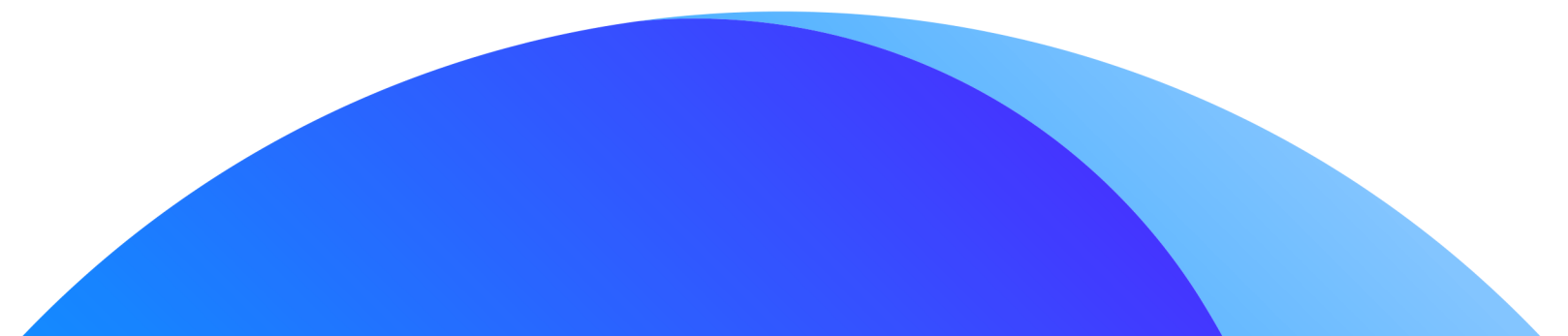


The problem does no longer seem to be only that the parties, as a whole, are struggling to comply with their latest NDCs, but that the NDCs themselves, even if fully implemented, are not enough to close the emissions gap. According to the latest Emissions Gap Report, the updated NDCs for 2030 could reduce (if fully implemented) projected 2030 emissions by 7.5%. According to this scenario, by the end of the century the global warming would reach 2.6-2.7 degrees Celsius. In order to limit global warming to 2 degrees Celsius a 30% emissions cut is needed. But if emissions seem to continue to increase despite all these updated policies that parties plan to implement, is there really something we can do or is our fate sealed?

The team behind the Emissions Gap Report believes that net zero targets are the future; they define net zero emissions as “a state where the sum of all anthropogenic emissions and removals is zero”. Briefly said, net zero emissions can be understood as some sort of balance or equilibrium between the GHG emissions levels that we send out in the atmosphere and the GHG emissions levels that we take back from the atmosphere. The balance must not be tipped. However, before a net zero emissions transition can be possible, global GHG emissions must first peak. Only after a country reaches its peak a steady decline in emissions is possible. Under current policies by 2030 up to 57 countries, which make up for 60% of global emissions, will have peaked. In order to limit warming to 1.5 degrees Celsius, global GHG emissions must however peak before 2025 and decrease by around 45% by 2030. Only now can a net zero emissions scenario be implemented. A net zero CO2 emissions scenario would stabilise global warming, while a net zero GHG emissions scenario would first result in a peak and then in a decline in global warming.



If we wish to stick to the 1.5 limit, it is necessary that CO2 emissions reach net zero around 2050, followed by the GHG emissions 15-20 years later. It is estimated that even a relatively small delay of 15-20 years in either of the two already limits warming to 2 degrees Celsius. If the current NDCs are fully implemented along with the net zero targets, global warming exceeding 2.5 degrees by the end of the century drops significantly to a 15% chance. Up to this point, 52 parties have pledged a net zero target; these parties cover almost 57% of current global domestic GHG emissions. The countries who have not yet committed to net zero emissions are urged to do so, while those which have still need to better clarify and disambiguate their targets.







**(Im)Proper  
Recycling: even  
more challenges  
to overcome**



Waste generation is inextricably linked to the levels of a nation's economic development, urbanisation and population. It is natural that as a country becomes more populated and wealthy the amount of waste that it generates grows - that is why, for example US and Canada have the highest average amount of waste per capita (around 2.21 kg daily). However, according to The World Bank report, the overall quantity that the world generates is 0.74 kg per capita per day, with a total of 2.01 billion tonnes of municipal solid waste generated only in 2016. Under the current scenario, the amount of waste is expected to increase to 2.59 billion tonnes by 2030 and to 3.40 billion tonnes by 2050 annually. Out of this total waste stream, only 19% undergoes materials recovery through recycling and composting. As with the amount of total generated waste, the quantity of recycled waste also depends on a nation's prosperity; while in high-income countries 29% of waste is recycled, in low-income countries the percentage drops to as low as 9%. Sadly, a large percentage of waste in (but not exclusively) lower-income countries continues to be openly dumped, burned, composted or disposed in landfills that lack gas collection systems.





A significant percentage of solid waste consists of plastic waste. According to the latest survey by The World Bank 12% of all municipal solid waste in 2016 was plastic - that is 242 million tonnes. The big difference between organic waste and plastic is that the latter takes up to hundreds or thousands of years to decompose in nature. Yet plastic litter stands for more than one quarter of waste dumped openly and its amount continues to increase. But it is not only on the land that the mismanagement of plastic waste can be easily noted. As much as eight million metric tons of plastic eventually ends up in the ocean every year; and as much as 62% of it consists of food and beverage packaging. Due to the environment waste plastic may pose an even greater risk when it escapes into the oceans. Firstly, biodegradability becomes almost irrelevant in the marine environment. What it means is that even if the plastic waste theoretically has the capacity to breakdown, it will not do so fully due to the lack of light, oxygen and temperature in the deep ocean. Because of this incapacity, both biodegradable plastics and non biodegradable ones will weather and degrade and turn into smaller pieces which eventually acquire the name of microplastics. Microplastics not only threaten the life of marine organisms but also that of humans. According to a case study conducted by The World Bank these micro plastic particles have been found in many species of fish which were sold for human consumption. When ingested by humans, the chemicals carried by these microplastics lead to increased risk of oxidative stress, cell damage, and inflammation.





All of the above are the harmful effects that improper waste management leads to. What we all must do, therefore, is to learn how to improve our waste practices and then do so. According to a study conducted by Zero Waste Europe in 2015, only the EU could cut almost 200 million tonnes of GHG emissions annually by 2030 if improved waste management practices are implemented. Change is still within our reach but we must act now. There are three main methods in which curbing waste is attainable: produce less, consume less, better manage the existing waste. Today these three methods are gaining a lot of attention in the environmental space under the catchier label of “the 3Rs” which stands for: reduce, reuse, and recycle.







# ecoterra's ecosystem: the way out



Now that we have a better understanding on today's concerning environmental challenges, it's time for solutions. While the challenges raised by the previous section require local or country-level strategies in order to be tackled, ecoterra wishes to focus on rather some businesses-level strategies and individual choices by the help of which its users can fight against climate change. In order for ecoterra to facilitate the recycling process and at the same time address the issue of CO2 emissions, an ecosystem is required. ecoterra developed a self-sustaining, circular ecosystem that comprises four key elements: (1) recycling, (2) the recycling marketplace, (3) educating, (4) the carbon offset marketplace.







## Individuals

The tool by which we hope to encourage a sustained behaviour change is the monetary incentivising mechanism called “Recycle-to-Earn” (R2E). ecoterra users will be rewarded every time they choose to recycle their waste as long as they follow a simple step-by-step guide as follows:

- create an ecoterra account
- scan the recyclable item’s bar code which is linked to our item database
- log into the ecoterra App available on the website’s dashboard
- open the ecoterra App and search for the nearest RVM using our RVM map
- go to the location and place the recyclables in the RVM
- receive a receipt with the type of material and number of units attached to it (which serves as a confirmation of recycling)
- take a photo of the receipt using the App
- receive ecoterra tokens according to the quantity of scanned recyclables placed in the RVM via our R2E system



A secondary means through which users may also benefit from financial incentives is by dropping off their clothing items at retailers that will recycle them. The North Face, H&M, Levi's, Patagonia, and Gap are only some of the big name stores that will reward you for recycling your clothes. All of these brand names are merely suggestive for it is completely up to each user to pick his retailer of choice. The users will be rewarded with ecoterra tokens after providing us with a photo of the receipt using the App. Since the fashion industry may be responsible for up to 10% of the global GHG emissions, we hope that encouraging more people to opt for conscious shopping will be of significant help towards our common goal which is fighting climate change.







The third and final means by which ecoterra aims to incentivise its users to shift to a more sustainable lifestyle is by rewarding the prosumers. Since large amounts of CO<sub>2</sub> are released in the atmosphere for electricity production, renewable energy is another great means by which users can reduce their footprints. Users who already are, or who opt to become active energy consumers and generate their own electricity, whether that is by means of solar panels or wind turbines, will be recompensed with ecoterra tokens after providing us with a proof of their green energy injection (a scan/photo of the electricity bill).



## Solutions for businesses

ecoterra designed several recycling plans aimed solely at businesses. These recycling plans vary in size and price, according to the quantity and type (plastic, aluminium, glass) of recyclables that the company intends to have recovered from its users by a certain point in time. For example, one corporation can opt for a recycling plan that targets to have two hundred tonnes of PET bottles recovered by the end of the year, while another smaller company can go for a slightly more modest plan targeting one hundred tonnes of recovered aluminium cans in the course of the same year. The money provided by companies when purchasing our plans will serve as the financial incentives that ecoterra users will receive every time they recycle.







## The recycling marketplace

What ecoterra wishes to encourage its affiliated companies to do is adopt and promote a circular product life cycle, rather than a linear one. And our recycling marketplace promises to do just that. By becoming the single point of intersection between businesses and the recycling companies, this marketplace becomes a secure digital space where lightning-quick transactions can take place in full transparency. Once the recyclers convert the waste into raw materials, they can put them up for sale on the recycling marketplace. The companies can either buy the already available raw materials that they need in their manufacturing, or make a new request for a material which is not yet available there. When requesting a new material, the company will have to select the type, quantity, frequency, and quality of the material. As soon as a recycler has the material that meets the company's requirements, he will answer the request. The payment options available to the companies range from fiat money and stable coins (USDT) to Bitcoin and ecoterra. If opting to pay using ecoterra, the companies will enjoy smaller transaction fees. According to the number of completed transactions, recycling companies will be rewarded with ecoterra tokens.



## Educating

One of ecoterra's most important short-term goal achievements is the implementation of its very own green education platform. ecoterra strongly believes that educating and motivating individuals to shift their daily habits plays an enormous role in improving the quality of all of our lives as well as helping the environment. The first step towards proper action is always proper education. We do not wish for our users to blindly support action towards climate change and global warming; we want them to willingly do so because they have fully grasped their harmful effects and the risks associated to them. Because of this, ecoterra puts great price on designing its educational platform and making it available to the users in the near future. Interactive and reliable content will be made available in this way to both individuals and businesses that wish to support ecoterra's initiative.





## Carbon offset marketplace

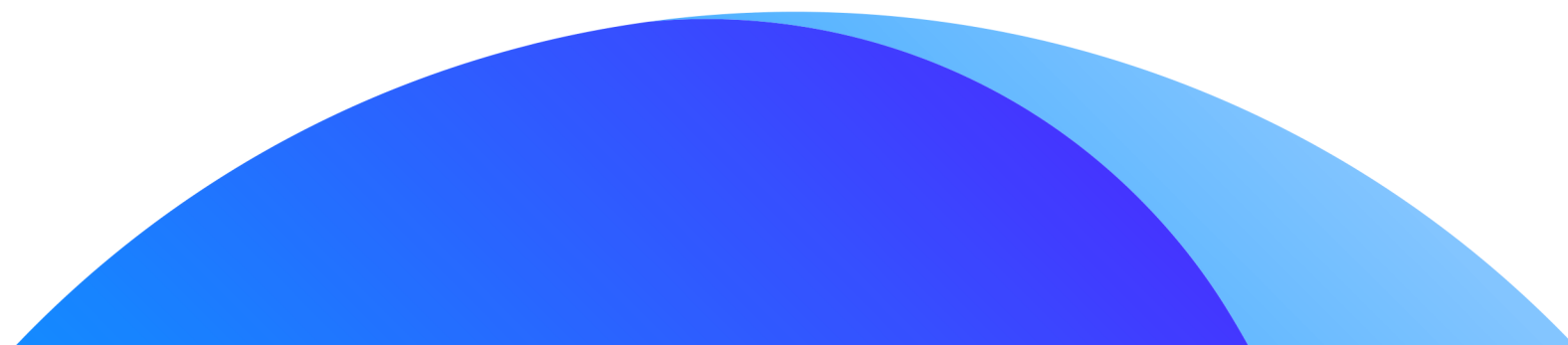
The last element of ecoterra's ecosystem is a second marketplace that we make available to our users, both individuals and businesses, and which is a carbon offset marketplace. Today, carbon markets provide a great opportunity for a full range of actors (be they individuals, businesses, or a country as a whole) to meet both their short and long-term emission goals where internal reductions alone are not sufficient. There are two types of carbon markets out there: mandatory (MCMs) and voluntary (VCMs). The first category stands for those carbon offsets that most often countries or organizations are required by law to report periodically; the MCMs market size was valued in 2021 at around \$271 billion, expanding by 128% from 2008. The second category comprises every carbon offset that environmentally friendly organisations and individuals willingly purchase in order to neutralize their carbon footprint; the VCMs has already quadrupled since 2020, reaching almost \$2 billion in 2021.





Carbon can be reduced or removed by the help of various projects which cover a wide range of sectors: forestry, renewable energy, carbon storage, and more. The main issue, however, that such projects pose is their credibility. As the demand for carbon credits rose, so did the number of environmental projects that promise trustful carbon trading; sadly, most of these projects are either complete scams, or simply lack the legal or technological requirements to achieve their goal. In response to such challenges, Verra develops the VCS Program. Aimed as a mechanism through which projects that reduce or remove carbon emissions become accredited, the VCS program has turned into the most widely used voluntary GHG program around the globe with over 1803 certified VCS projects and more than 957 million tonnes of carbon and other GHG emissions reduced or removed up until now. After the project obtains its certification by having complied with the VCS standard, the credibility problem clears up; one is now certain that the reductions or removals promised by that project are genuinely taking place. Every certified project is then issued verified carbon credits (VCUs) which act as GHG credits and which can be sold by the project developers and bought by the individuals or businesses on an open market.

It is here where ecoterra steps in. What we seek to do by the help of our carbon offset marketplace is to bridge the VCS projects to both their crypto and non-crypto buyers. By making use of the blockchain technology, ecoterra will mediate the exchange between the projects that are reducing carbon emissions and the individuals or businesses that wish to offset their emissions. While our marketplace will facilitate the user's search and purchase of carbon credits, the blockchain technology will allow for a safe and transparent transaction and a minimized fraud risk.





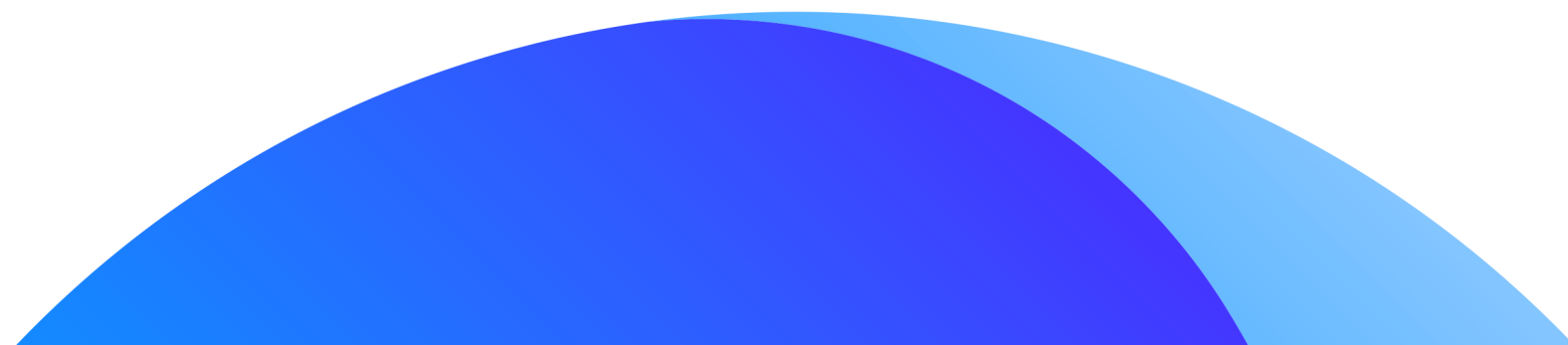


**Benefits that  
await ecoterra  
users**



# Individuals

Conscious ecoterra users who recycle their waste and follow the above-mentioned steps automatically receive ecoterra tokens. This may be the quickest and effortlessly way in which citizens who merely pay attention to their regular environmental responsibilities can receive financial gain. However, it is not only that ecoterra rewards these individuals, but it also provides them with further opportunities and advantages that they can obtain by means of the ecoterra tokens:

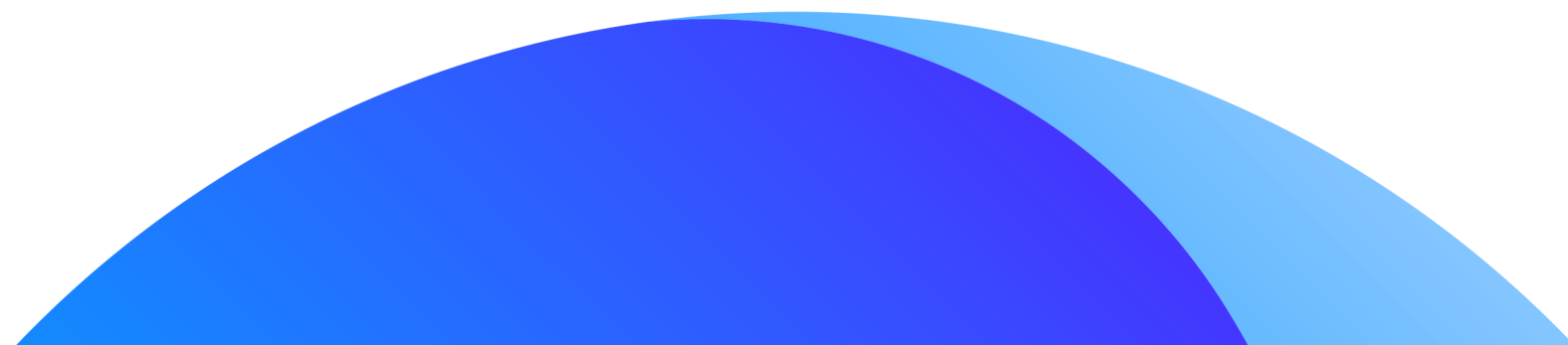
- unlike the fiat money that users will receive from the RVMs when recycling, ecoterra tokens may be staked; the staked coins allow users to passively earn dividends from ecoterra's revenue streams
  - ecoterra tokens also offer users the possibility to buy carbon credits via our carbon offset marketplace and support the environmental projects closest to their heart
  - Once ecoterra's educational platform will be up and running, ecoterra holders will be able to access the content using the tokens.
  - Increase their total impact score and receive NFT rewards; users who actively engage in supporting the environmental projects that ecoterra's carbon offset marketplace will allow easy access to (as well as users who will employ the educational platform in the near future) will receive NFT prizes according to their total impact score. It is up to each user whether he further holds, trades or sells his NFT.
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# Businesses

As for the businesses, ecoterra puts forward three possible scenarios, each with its own advantages from which affiliated companies can benefit from:

## Businesses that purchase ecoterra's recycling plans

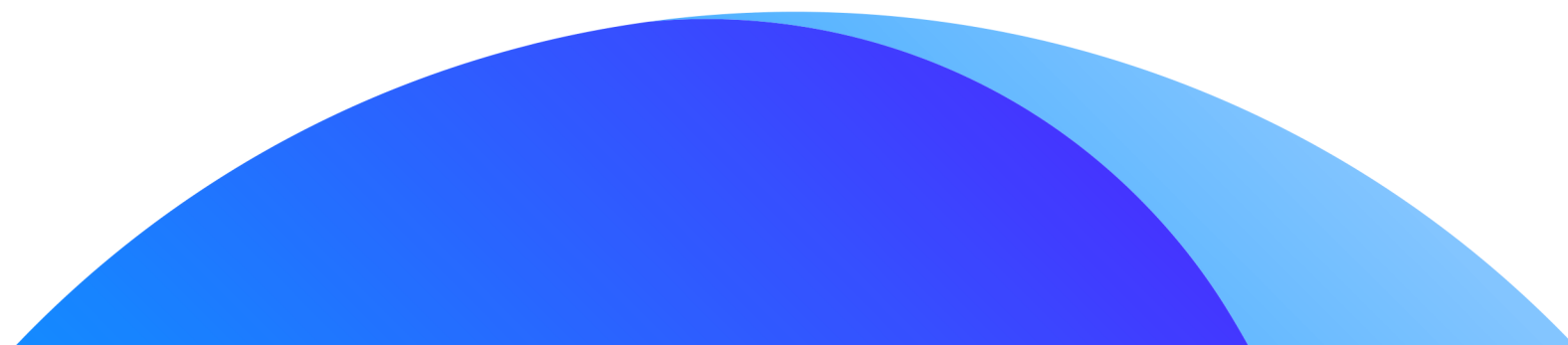
- recover their target quantity of recyclables from the users
  - automatically support impactful environmental projects; as a token of appreciation for those companies which join ecoterra's mission, with every purchase of a recycling plan a contribution will be automatically sent to one (or more) of the environmental projects that we promote.
  - the same mechanism applies for the green education initiative (part of the contribution will be automatically directed to the green education initiative, once the platform is available)
  - receive detailed data on their target audience; by the help of ecoterra's product database together with the data contained in the user's profiles, ecoterra is able to communicate to its affiliated companies valuable insights into audience preferences. Reaching their target audience, increasing their reach, as well as encouraging sustained proper waste management among their buyers are only some of the useful things that companies can easily do with the help of ecoterra.
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## **Businesses that purchase raw materials from ecoterra's recycling marketplace**

- enjoy a wide range of recycled raw materials already available on the marketplace
- ability to customize requests according to each company's needs (type, quantity, frequency, quality)
- possibility to place requests on different materials than those already displayed on the marketplace
- promote a circular product life cycle

## **Businesses that purchase carbon credits from ecoterra's carbon offset marketplace**

- offset their voluntarily carbon emissions in an accessible and quick way while at the same time supporting impactful verified projects
  - increase their total impact score: Today more than ever companies are urged to get involved and support the fight against climate change; and many companies take great pride in displaying their attitude and strenuous efforts of fighting climate change in the absence of a third party that should assess the company's real progress. By the help of ecoterra's total impact score, affiliated companies will enjoy an objective, verifiable and transparent assessment of their involvement in the climate crisis.
  - receive NFT rewards which can be held/sold/traded
  - offset their mandatory carbon emissions in the near future; as another great goal on ecoterra's roadmap aims at providing businesses with a mandatory carbon offset market.
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# Benefiting everyone

## Accessibility

**ecoterra** addresses to any individual or business around the world. There is no requirement whatsoever that an individual or a business needs to fulfil in order to join the ecoterra family apart from the desire and willingness to change the world for the better. Any consumer who consciously disposes his recyclable waste using an RVM is therefore eligible to enjoy all the benefits that ecoterra devised for its individual users. Valued at \$372 million in 2020 and expected to reach \$736.9 million by 2030, the global RVM market size is massively growing, which means that the number of RVMs installed will do the same, making it easier for citizens to have access to one of them.

ecoterra also gladly welcomes all types of businesses, be they small and medium-sized enterprises or large corporations. A growing number of businesses are making pledges to fight climate change and advocate for climate justice by making conscious choices in terms of GHG emissions, energy consumption, renewable energy or waste reduction. ecoterra allows businesses around the world to make real progress in their fight against climate change by joining one of the three initiatives that we devised for our affiliated companies.





## Wide range of certified environmental projects

Another advantage that ecoterra takes pride in is its extensive list of impactful projects by the help of which both individuals and businesses can offset their carbon emissions. As ecoterra's role is to facilitate and quicken the strenuous process of searching for the right project, our users will gain immediate access to Verra's VCS projects. These projects cover a wide range of sectors, such as: renewable energy, manufacturing industries, construction, transport, waste handling and disposal, AFOLU (Agriculture, forestry and other land use), and carbon capture and storage. Anyone who is interested in the full list of the VCS sectoral scopes can access it on [www.terra.org](http://www.terra.org).

Now let's see the dangers that some of these projects can prevent and understand their impact:





## Tree planting

Approximately 10% of the CO<sub>2</sub> emissions caused by human activity are linked to deforestation, which means that more than 1 billion tons of CO<sub>2</sub> are released to the atmosphere every year mainly as a result of cutting and burning forests. This is because trees function as carbon sinks - they sequester CO<sub>2</sub> by means of photosynthesis. But this can also be a good thing. Since a mature, full grown tree can store on average 20 kg of CO<sub>2</sub>/year while releasing oxygen, large-scale tree planting can become essential to limiting CO<sub>2</sub> emissions. Other short-term benefits of tree planting include: regulating temperature extremes, cooling down local temperatures by providing shade, preserving and increasing natural habitats for endangered species.







### **Forests/beach/rivers cleanups**

Improper waste disposal make up 5% of global GHG emissions and constitute not only a danger towards local environmental and human health, but also contribute to global pollution. Since biodegradation of plastics is either impossible, or challenging at least, plastic litter poses the greatest threat. Cleanups are an efficient way in which we can reduce pollution and preserve natural resources.

### **Marine carbon sequestration**

Oceans stand as the world's largest carbon sink, absorbing a third of the man-made CO<sub>2</sub> emissions - that is 20x more than trees and soil combined. Unfortunately, today's large amounts of CO<sub>2</sub> that oceans absorb affects their chemistry and they become more acidic, leading to millions of marine species becoming endangered. Distributing CO<sub>2</sub> more evenly (either by direct injection or fertilization) through a method called marine carbon sequestration protects the biological diversity of the oceans.



## Ocean cleanups

The second problem that marine life (and fish consumers) faces is ocean pollution. Microplastics threaten not only the life of marine organisms but also that of humans, when ingested, causing risk of oxidative stress, cell damage, and inflammation. Minimizing the concentration of plastic in the ocean means healthy oceans and healthy people.







ecoterra believes in the potential that such eco-actions hold in terms of reversing and eventually putting an end to climate change and the consequences associated with it. However, we also have also seen and come to terms with the fact that accelerated and continuous effort is now required from all of us in order for these greening activities to truly make a difference. And to do so fast enough. By becoming a reliable means of finding top green projects and providing users with easy access to them, ecoterra hopes to encourage as many individuals and businesses as possible to get involved and start making a change!





# Why blockchain technology?



After having a thorough look into the blockchain technology and weighing the pros and cons of its features we decided that it is indeed the soundest way to carry out our primary mission - easing and improving the recycling cycle in order to respond to the rising challenges of climate change. In order to build both a truly self-sustaining ecosystem and a unified community of individuals who work towards a common green goal, it is first required to build trust between all these parties; that is on one hand, between the partner companies and the recyclers, and on the other hand between our users and ecoterra itself. And what better way to do so than by adopting a decentralized architecture, so pivotal to the blockchain technology.

What the decentralized structure allows us to do is build a self-sufficient ecosystem in the absence of a central authoritative entity. In this way both information sharing between parties is facilitated and transparency improved. Each company will be able to track, for example, the itinerary of its recyclables all the way until those reach their final destination (the recycling center), as well as each user will be allowed to verify if his contribution to the greening actions supported by ecoterra is properly met. Loss of goods, theft, and fraud are only some of the unwanted outcomes that the blockchain's decentralized network eliminates. Further advantages of the blockchain technology are:



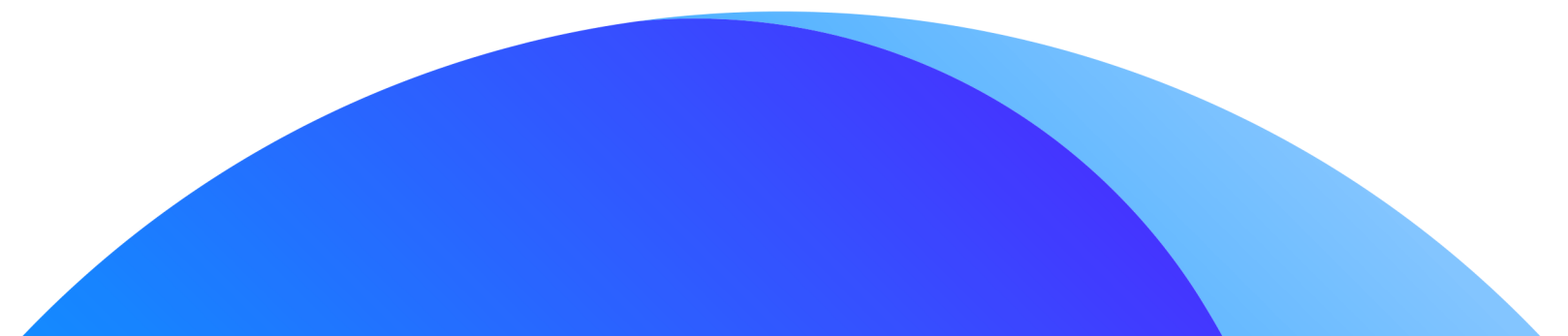


## **No intermediaries**

The fact that decentralized exchanges do not require a third party actually presents multiple advantages. The first would be that users simply don't need to transfer their assets to such a third party. Therefore, both companies and recyclers are at no risk of being hacked, while ecoterra users safe from thieves. Secondly, eliminating intermediaries also means reduced costs. Because no more (or very much reduced) manual tasks, traditionally provided by middlemen, are needed, both product and recycling companies can make substantial cost savings. Lastly, eliminating both the intermediaries and their manual tasks results in quicker transactions which save time and maximize efficiency for all parties involved.

## **Multiple means of payment**

By making use of the blockchain technology the ecoterra marketplaces will allow users to choose the method of payment which suits them most. A wide range of payment options will be available from fiat money and stable coins (USDT), to Bitcoin and ecoterra. If opting for the ecoterra payment method users will enjoy discounted transaction fees and staking options.





## **NFTs Certificate of contribution**

The NFT (non-fungible token) system allows us to reward both individuals and businesses with certificates of contribution according to their total impact score. As with any NFT that is stored on blockchain, these certificates will have the ability to prove one's ownerships. Therefore, ownership becomes transparent and so does the contribution proof.

## **Recycle-to-Earn**

R2E is a reward system inspired from the now already famous Play-to-Earn (P2E) crypto games that give their players the opportunity to earn tokens and trade them with other players by making use of the blockchain technology. ecoterra borrows and adapts this concept by allowing its users to earn tokens when recycling.

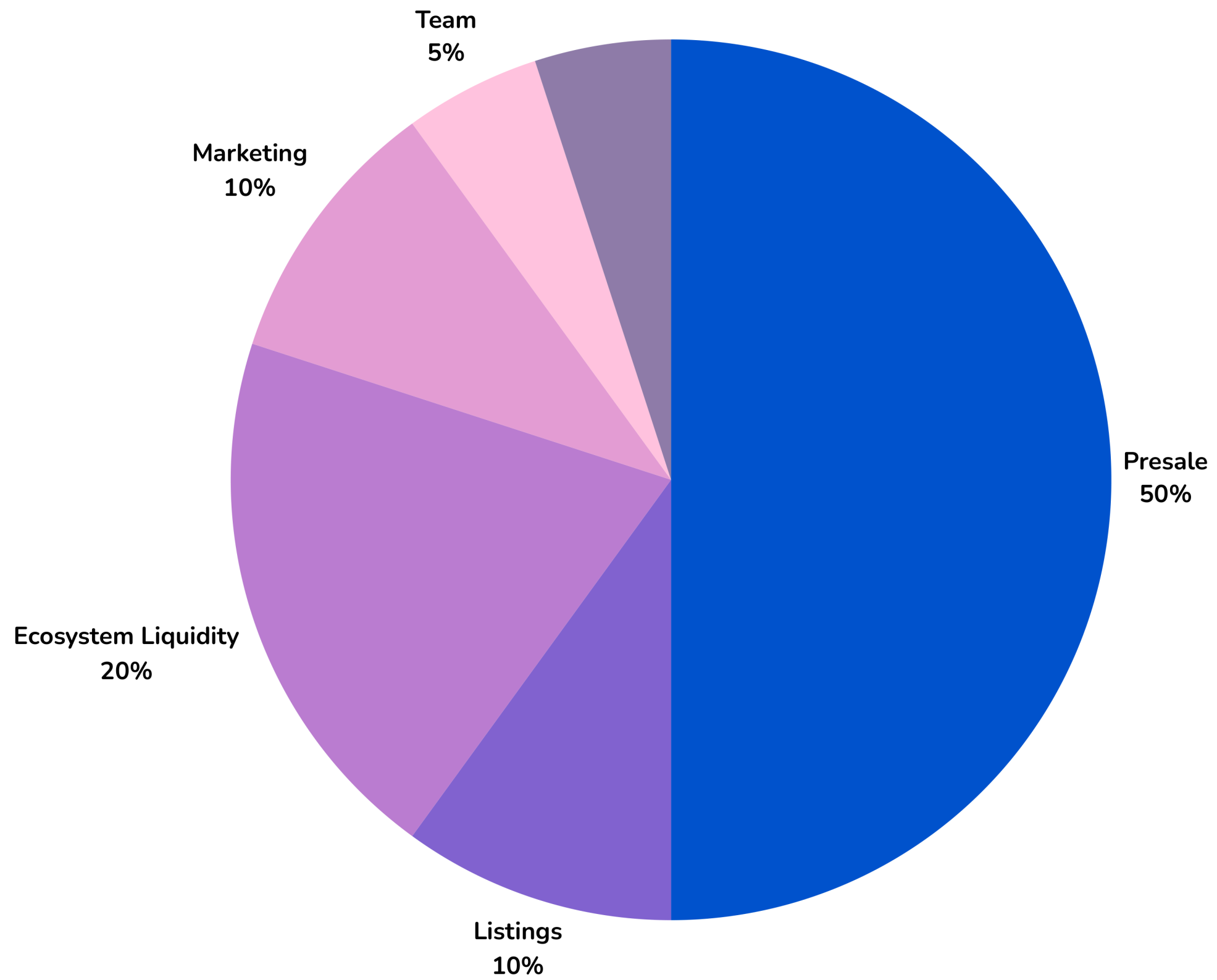
## **Worldwide accessibility**

The last but not less valuable than the previous features is the blockchain's potential to offer instant access to users all around the globe. This feature is essential for a successful large-scale adoption of ecoterra and also for the development of a strong global community of people who work together towards the same goal - building a better planet.





# tokenomics



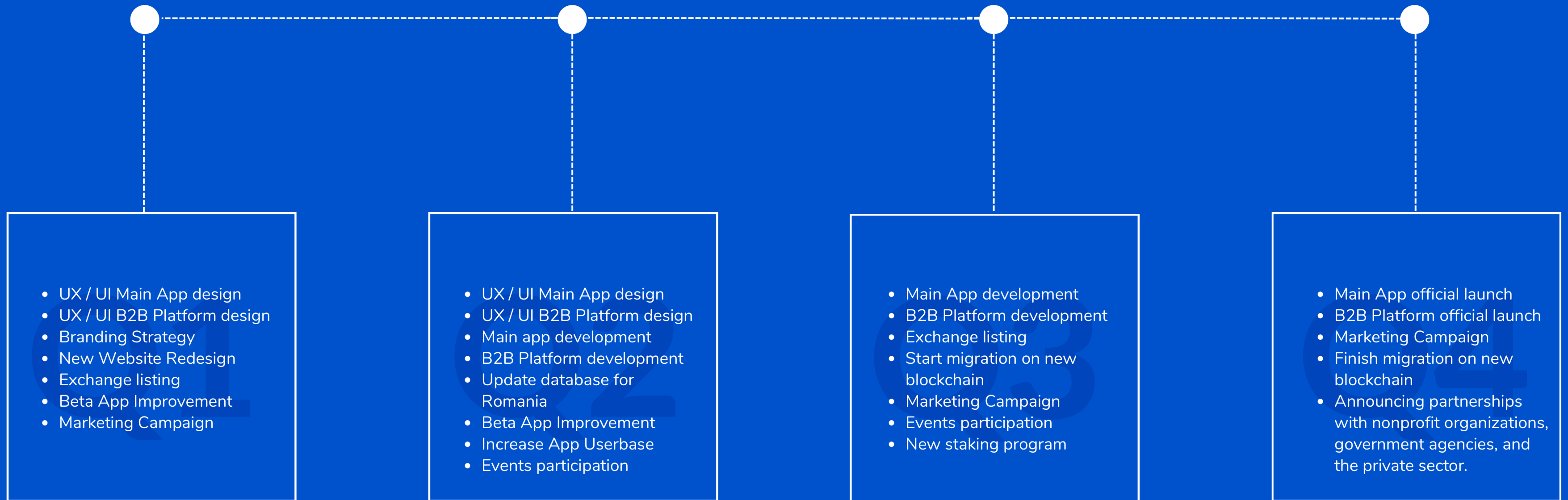


# vesting

Designation	Percentage	Amount	Vesting
Presale	50%	1,000,000,000	Unlocked
Ecosystem LP	20%	400,000,000	6 months locked / monthly vesting for 3 months
Listings	10%	200,000,000	Unlocked
Marketing	10%	200,000,000	3 months locked / monthly vesting for 3 months
Team	5%	100,000,000	1 year lock / monthly vesting for 3 years
Corporate Adoption	5%	100,000,000	3 months locked / monthly vesting for 3 months



# Roadmap 2024





# token info

## Contract Address

0x982b50E55394641cA975a0eEc630b120b671391a

## Symbol

ECOTERRA

## Decimals

9

## Network

Ethereum ERC-20

## Supply

2,000,000,000