

iscte

INSTITUTO
UNIVERSITÁRIO
DE LISBOA

Business plan for the start-up “ Sylvester”

David Jasper Wenzel

Master in Management

Supervisor:
PhD Renato Telo de Freitas Barbosa Pereira, Assistant
Professor (with Aggregation),
Iscte – University Institute of Lisbon

October, 2023



Marketing, Operations and General Management
Department

Business plan for the start-up “ Sylvester”

David Jasper Wenzel

Master in Management

Supervisor:

PhD Renato Telo de Freitas Barbosa Pereira, Assistant
Professor (with Aggregation),
Iscte – University Institute of Lisbon

October, 2023

Summary

In the following project I elaborate a comprehensive business plan for a start-up called Sylvester. Sylvester seeks to combat climate change, deforestation and the destruction of ecosystems of biodiversity through the creation of a community governed natural reserve in Europe. This endeavour will be facilitated with the use of blockchain and NFT technology.

The target demographic is established to be predominantly young adults who feel powerless confronted with the environmental challenges awaiting in the future.

To further comprehend and ascertain potential customer's intentions, views and opinions, a study was executed in form of a survey. The results of this survey validate the concern and apprehension surrounding the aforementioned issues, shedding light on the challenges Sylvester will encounter in its pursuit of successful business operations.

Finally, through various analyses, projections, estimates and calculations, we arrive at the conclusion that there is value in the establishment of this start-up. This value extends beyond monetary considerations, although financial aspects remain a central focus in this business plan. Most notably, the value is rooted in the environmental and social impact, as elaborated upon at various points throughout this document.

Key words:

- Blockchain
- Non-fungible tokens
- Nature preservation
- Business Plan
- Community

JEL Code

M13- New firms and Startups

Sumário

De seguida, apresento um plano de negócios para uma startup chamada Sylvester. A Sylvester tem como objetivo combater as mudanças climáticas, o desmatamento e a destruição dos ecossistemas da biodiversidade por meio da criação de uma reserva natural governada pela comunidade na Europa, utilizando a tecnologia blockchain e NFT.

O mercado-alvo é predominantemente composto por jovens adultos que se sentem impotentes diante dos desafios ambientais que aguardam o futuro.

Para compreender e verificar as intenções, pontos de vista e opiniões potenciais dos clientes, foi realizada uma pesquisa na forma de um questionário. Esta pesquisa confirma a noção de que existe preocupação e inquietação quando se trata dos tópicos mencionados, destacando os desafios que a Sylvester enfrenta para garantir o sucesso de suas atividades comerciais.

Finalmente, por meio de várias análises, projeções, estimativas e cálculos, chegamos à conclusão de que existe um valor real na criação dessa startup. Esse valor não se restringe apenas ao aspecto monetário, que é o foco principal deste plano de negócios, mas está relacionado principalmente aos aspectos ambientais e sociais, conforme explorado ao longo deste documento.

Palavras chave:

- Blockchain
- Non-fungible tokens
- Conservação da natureza
- Plano de negócios
- Comunidade

JEL Code

M13- New firms and Startups

Table of Contents

| | | |
|--------------|---|-----------|
| 1. | <i>Executive Summary</i> | 1 |
| 2. | <i>Literature Review</i> | 3 |
| 2.1 | <i>Introduction to NFTs</i> | 3 |
| 2.2 | <i>Deforestation and Biodiversity loss</i> | 4 |
| 2.3 | <i>Using NFTs to preserve nature</i> | 6 |
| 2.4 | <i>Ecosystem services</i> | 7 |
| 2.5 | <i>Carbon offsets</i> | 8 |
| 2.6 | <i>Conclusion</i> | 9 |
| 3. | <i>Opportunity</i> | 11 |
| 3.1 | <i>Problem Worth Solving</i> | 11 |
| 3.2 | <i>Solution</i> | 12 |
| 3.3 | <i>Validation</i> | 13 |
| 3.3.1 | <i>Customer questionnaire</i> | 14 |
| 4. | <i>Organizational Plan</i> | 17 |
| 4.1 | <i>Vision, Mission, Goals</i> | 17 |
| 4.2 | <i>Product description</i> | 17 |
| 4.3 | <i>Business model</i> | 19 |
| 4.4 | <i>Management of the company</i> | 20 |
| 5. | <i>Marketing Plan</i> | 21 |
| 5.1 | <i>Situational Analysis</i> | 21 |
| 5.2 | <i>Market Analysis</i> | 21 |
| 5.3 | <i>Competition Analysis</i> | 22 |
| 5.4 | <i>PESTLE Analysis</i> | 23 |
| 5.5 | <i>Internal Analysis (SWOT)</i> | 26 |

| | | |
|------------|--|-----------|
| 5.6 | <i>Customer Analysis</i> | 27 |
| 5.7 | <i>Differentiating and Positioning</i> | 28 |
| 5.8 | <i>Marketing Tactics</i> | 29 |
| 6. | <i>Financial Plan</i> | 31 |
| 6.1 | <i>Start-up Expenses</i> | 31 |
| 6.2 | <i>Projected Profit and Break-even analysis</i> | 33 |
| 6.3 | <i>Sales/Revenue Forecast and Cash Flow</i> | 36 |
| 6.4 | <i>Projected Balance Sheet</i> | 38 |
| 6.5 | <i>Financial Valuation</i> | 39 |
| | <i>Bibliography</i> | 43 |
| | <i>Annex</i> | 47 |

1. Executive Summary

Sylvester is a social business that serves as a platform for rewilding in Europe, providing transparency and participatory decision-making that was previously lacking. We are building a community of rewilding enthusiasts and collaboratively creating new wilderness areas, which are funded through blockchain-based WildTokens and democratically managed.

The challenges of climate change and species extinction can leave individuals feeling overwhelmed and powerless, with limited options for transparent and participatory engagement that provide a sense of efficacy. Sylvester addresses this need by selling WildTokens - animated 3D models of a land area - at an entry price of 50 euros, which enable token holders to vote on measures to rewild the land. Each token holder can make proposals for rewilding measures and contribute their perspective through an online community created specifically for this purpose, the Wild Climate Club. This community is built using blockchain technology for complete security and transparency. Ecological progress is documented and shared through satellite imagery and natural capital accounting. To achieve the greatest impact, we use the rewilding approach, which involves minimal invasive interventions that allow nature to regulate itself.

Sylvester's bottom-up democratic approach is reflected in our corporate structure, which is based on the concept of "responsibility ownership." The future Sylvester GmbH is solely owned by a specially formed association, with team members serving as employed managers of the GmbH and only becoming partial owners through membership in the association. All profits are reinvested.

We are targeting environmentally conscious individuals in Germany who are already engaged in or interested in environmental causes, including the over one million people between the ages of 14 and 39. To reach this audience, we are building partnerships with outdoor sports organizers and creating a visually appealing brand presence that inspires people to support wilderness and conservation efforts. Additionally, we place a special emphasis on engaging the local population through collaborations with schools and scouting groups. Annual engagement in conservation efforts is increasing, and similar rewilding projects have already demonstrated that collective financing, such as through crowdfunding, can be highly successful.

We plan to start with a pilot area in Northern Portugal, which we will finance through crowdfunding. We will already achieve profitability when 40% of the tokens are sold. Any surpluses will fund the next area. Our business model is designed for growth and will allow us to acquire significantly more expensive land in Schleswig-Holstein within three years. With this growth-oriented approach, we expect to generate an annual revenue of 1.5 million euros in five years.

With our team composition, we feel well-equipped to handle any challenges. Julius Wenzel, a socio-economic student, serves as CEO and CTO, responsible for organizational and technical implementation. Lukas Poddig, a journalist with a bachelor's degree in sociology and political science, is responsible for marketing and communication. In addition, we have other experts, such as ecologists, geographers, and lawyers, supporting us in land acquisition and research.

Sylvester offers a unique opportunity for customers to engage in sustainable and wild Europe at a low entry cost while providing high levels of impact transparency and participation. By linking land, ecological value, and WildTokens, and explicitly supporting the local and digital community, Sylvester creates a one-of-a-kind platform for customers to connect and support a sustainable and wild Europe.

2. Literature Review

Humanity is causing the destruction of the natural environment. This happens in a plethora of different ways from the burning of fossil fuels, extinction of animals, deforestation and the loss of biodiversity in general. This investigation is aimed at the latter two issues. The problem that seeks to be faced is that of climate change. All of the above are important issues by themselves but this document also explores consequences to these actions which is climate change. Climate change, at an increase of a mere 2 instead of 1,5 degrees Celsius, already means a difference of hundreds of millions of people less exposed to climate related and poverty risks (Schleussner et al., 2016)). Climate change also influences habitability of certain countries, making them uninhabitable, (Warner & Van Der Geest, 2013) and thus leading potentially to large scale migrations.

We are living in a new era of technology with web3, blockchain and cryptocurrencies emerging. These new technologies bring both advantages and disadvantages which are yet to be studied in depth and verified. This new technology comes with its issues, for example the large amount of energy required to enable the creation of new blocks, new coins and new NFTs with the mining of blocks for the blockchain being the major problem factor. At the same time blockchains like Ethereum are working on ways to make crypto more energy efficient e.g. proof of stake instead of proof of work to verify someone to mine blocks (Saleh, 2021).

2.1 Introduction to NFTs

To understand NFTs one must first understand the technology that makes them possible: Blockchain. Blockchain technology is in itself not a completely new technology, however it's application and use are what is being innovated (Ali & Bagui, 2021).

It is a secure data storing, transferring and most importantly record keeping technology. Blocks that can store any kind of information. Its name derives from the blocks where the information is stored and its specific way that connects the blocks (chain) which creates a link that is unalterable (Lee Twesige, 2015).

This so-called immutability is what promises potential for this technology as it is incorruptible. Another benefit is the velocity at which transactions can be done all over the world when you compare it to the traditional way that can take days or weeks, transactions on the blockchain can be concluded in a matter of seconds or minutes.

Blockchain technology has the potential to substitute a centralized transaction verification entity, meaning it is a decentralized system where no one group of people has the power to control and dictate the terms at which transactions are fulfilled.

This falls under a bigger term called decentralized finance such as Bitcoin, Ethereum, etc. which attribute their existence to this technology (Wright, 2008).

In decentralized finance (DeFi) just as in blockchain technology a need for some track keeping and controlling roles arises which is solved by a wide web of nodes who are dispersed all over the world unrelated in any way to each other who assume these roles in a decentralized independent way (Vujičić et al., 2018).

The Ethereum and Bitcoin blockchains are the biggest ones whereas bitcoin chooses a more conservative path, Ethereum is constantly looking to innovate with new features on top of their blockchain of which smart contracts are the innovation that sets the stage for NFTs.

Smart contracts are contracts which are automatically executed via the blockchain in accordance with the terms and conditions of said contract. They also have functions where certain outcomes are triggered when certain events transpire. This way, ownership of collaterals or the repayment of loans will be automatically transferred or enforced when the contract reaches completion or a breach in contract occurs. It is again incorruptible because the contract is programmed and can like the blockchain not be altered. In these smart contracts transactions of ownership against payment are recorded and various forms of new financing opportunities arise (Zheng et al., 2020).

NFTs are non-fungible tokens which means that each NFT is individual and like a collectible, unlike fungible tokens like currency if you exchange one NFT for another the situation doesn't stay the same whereas if you swap one dollar for another nothing changes.

NFT's are most commonly known for its digital Art applications and the market that has been created around it.

Having established what an NFT is it is important to consider the many possibilities that they present us with which we will get in to in the third chapter (Wang et al., 2021).

2.2 Deforestation and Biodiversity loss

To begin this chapter a concentrated definition of deforestation and biodiversity loss is in order.

According to the Oxford English Dictionary deforestation is: "the act of cutting down or burning the trees in an area", and biodiversity loss is the loss of "the existence of a large number of different kinds of animals and plants which make a balanced environment".

The precedent this document assumes is that deforestation and the loss of biodiversity have a negative impact on the earth's climate and are therefore worth fighting. In other words, forests need to be protected and so do the different species of animals especially endangered ones as they are already close to extinction.

Through the loss of forests large amounts of CO₂ are released as well as a large carbon removal entity is removed from the equation (Houghton & Nassikas, 2018). According to Griscom et al., (2017) Protecting, maintaining and expanding forests are some of the more promising measures to contain global warming. Besides its carbon binding capabilities forests also provide active cooling actions for the planet such as:

- Albedo- which is the reflexivity of light, meaning that sunlight not being reflected so much as absorbed or transformed in photosynthesis. This prevents the sunlight from being constantly reflected and rereflected between the atmosphere and the ground, thus leading to less global warming (Lawrence et al., 2022).

- Evapotranspiration- which like sweat cools down the human body, through evaporation of water on the forests leaves keeps the earth cool (Davin & de Noblet-Ducoudre, 2010) .

- Rough canopy- which by also drawing water vapor and heat away from the earth surface reduces surface heat and stabilizes the climate on both the diurnal and seasonal level (Lee et al., 2011).

The loss of biodiversity is by definition destruction of nature by the fact that for there to be less species on the planet, some will have need to have been destroyed. It is however less obvious in regard to its negative effect on climate change. When talking about biodiversity what it really influences is the resilience of the ecosystem, meaning how well it endures change (Brown, 2014). There are three different types of diversity:

- Intraspecific diversity- Is about genetic diversity within a species. This diversity helps species be more capable of adapting to the environment (Schaberg et al., 2008) as well as staying fit in a sense of e.g., capability of reproduction (Allentoft & O'Brien, 2010).

- Interspecific diversity- Is about the variety of different species with similar functions that can coexist, replace extinct species' functions and respond to adverse conditions (Elmqvist et al., n.d.; MacArthur et al., 1972).

- Ecosystem diversity- Is the variety of different ecosystems in which a species appears and also the spatial separation of these ecosystems and how that has a positive effect on its resilience (Andersen et al., 2014).

2.3 Using NFTs to preserve nature

In accordance with the Paris agreement of 2015 most countries with 4 exceptions have agreed upon taking action to reduce greenhouse gas emissions to below 1,5-2-degree Celsius rise in temperature on the global scale. This treaty has opened and incentivized the carbon credit market to expand and innovate so that companies can offset their carbon footprint with its help (Michaelowa et al., 2019). This document however seeks not only to study how NFTs can help offset carbon footprints but mostly how it can preserve nature. Forests and wildlife are only one of various ways that the carbon credit market operates, other options such as wind water and sun energy funding are also widespread and popular.

NFTs already play a role in this general manner of carbon offsetting by incorruptly stating ownership and transaction of carbon credits thus preventing the cheating of the system through double accounting of the carbon credits (Schneider et al., 2019). In this sense carbon credits once purchased and accounted are retired, meaning they cannot be traded further. Carbon Credits can however also be traded if a certain company has lower emissions than predicted they can sell the surplus of credits to other companies that didn't achieve their goal (Guo, 2022).

NFTs that are based around nature and wildlife can also appear with a more preserving character. In this sense there are several emerging forest and wildlife protection NFT companies being established which instead of tokenizing the offset carbon of certain forest, tokenize the forest/wildlife itself. This means, that they own property, or landowners adhere to their platform, and that property is divided in to NFTs. By buying and trading the NFTs, percentages of resale and proceeds from ICOs are directed to the landowner for maintenance and care of the ecosystem (wildtokens.org, openforestprotocol.org and coorest.io).

Other variations of this concept are for example the creation of crypto wildlife NFTs in Africa that seek to compete with and turn obsolete the black market for endangered animals. By making the animals available as digital twins to be collected online the goal is to maintain the wildlife existing and even increase it through breeding (Mofokeng & Matima, 2018). This not only incentivises wildlife farmers to breed the animals, but hopes are that poachers are disincentivised due to lower margins and less demand (Tensen, 2016).

Two concepts that are most commonly talked about in the context of NFTs and nature preservation are ecosystem services and carbon credits. In the following we will closer examine these two applications and their potential in this endeavour.

2.4 Ecosystem services

According to the (*Ecosystem Services | National Wildlife Federation, n.d.*)” An ecosystem service is any positive benefit that wildlife or ecosystems provide to people. The benefits can be direct or indirect—small or large.”

This concept is not directly an application of NFT or blockchain technology to nature preservation, however, it creates a common denominator between the monetary system and nature's values. Between the years 2001-2005 the UN sponsored an effort to analyse the impact of our actions on the ecosystems and human well-being. This was called the “Millennium Ecosystem Assessment”(Walter V. Reid et al., 2005).

In this document ecosystem services are separated into 4 different categories:

- Provisioning services

These are the most obvious products gained from nature such as livestock, water, wood, vegetables, fruits, gas, oil, etc. which can be extracted directly from nature.

- Regulating services

These services are responsible for making life possible on earth like when plants clean air and filter water, bacteria and fungi that decompose waste, pollination through bees, etc. These services make the ecosystem more resilient.

- Cultural services

These are the benefits that nature provides for the human mind. Nature inspires creativity, builds knowledge, creates ideas, it is aesthetic and provides spiritual and recreational havens.

- Supporting services

These are the processes that enable the ecosystems to exist in the first place such as photosynthesis, nutrient cycling, soil formation, etc.

All of these services have a value which can be put into monetary terms even though for some of them it is easier/ humans are more accustomed to than others. For provisioning services, it is fairly easy for us to determine a value. For a forest for example, by summing up the value that you would get by cutting down all the trees and selling them for wood/timber and extracting all the resources like oil or gas, you would arrive at the value of the provisioning services.

Other services however are not as straightforward and sometimes even challenging to put a monetary value to. If we take the same forest as in the example before, but try to put a monetary value on the aesthetic beauty and the psychological benefits for the frequenters of the forest we find ourselves challenged. (Costanza et al., 1998).

Where this type of valuation really gains importance is when it comes to carbon offsetting.

2.5 Carbon offsets

Carbon offsets are mechanisms that allow individuals and organizations to compensate emissions of carbon dioxide and/or other greenhouse gasses by funding greenhouse gas binding activities in other locations.

According to the Kyoto Protocol Article 12, industrialized countries are permitted to use emission reduction projects in other countries to offset their own emissions. In this way the carbon emission targets can be more easily (*KYOTO PROTOCOL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE UNITED NATIONS, 1998*). This mechanism also bears some criticisms like the variance in quality of carbon credits. As previously expanded on, ecosystems provide a variety of services and some have greater perks than others. When it comes to carbon offsets, these can be achieved, in an accounting sense, through the mere reduction of emissions or by actual binding of these gasses (carbon sinks). While one merely reduces the amount that was going to be emitted worldwide, the other one actually compensates it. This difference can be especially observed when it comes to the pricing of carbon offsets on the market which are highly varied and non-fungible which in theory they should be (Hamrick & Gallant, n.d.).

Other criticisms entail the ease and inexpensiveness with which these carbon offsets are obtainable which in turn delays an actual shift towards more sustainable practices of the companies. Another criticism is that, the carbon emission reduction is also considered as carbon offsetting which means that if a company reduces greenhouse gas emissions, the carbon credit is still granted, even though the end result is still an addition to greenhouse gas emissions and there is no greenhouse gasses being reabsorbed.

Also Carbon offsets have to adhere to a certain criteria to be accounted as such:

- Additionality

This refers to the fact that there has to be an additional greenhouse gas emission reduction than there would have been without the investment, e.g. if the funding goes to low emissions equipment that would have been purchased anyway by the company owner.

- Permanence

This guarantees that the offsetting measures stay intact throughout the lifespan that they are accounted for. E.g. If a company plants trees to offset their carbon footprint but then cuts them down prematurely and thus ending the carbon offsetting.

- Leakage

The absence of leakage refers to whether the emissions that are offset don't get emitted elsewhere to compensate.

- Verification

This simply means that the criteria that have just been described need to be verified by an impartial authority (Kim & Pierce, 2018).

2.6 Conclusion

The conclusion that can be drawn from the previously reviewed literature is open for interpretation, however the one that presents itself most obvious to myself is the following.

It has been common knowledge, as well as scientifically proven, that our environment and by such I mean biodiversity and the ecosystems it inhabits are being destroyed on a daily basis. This tragedy is not only happening at an alarming rate, but it is also creating damning consequences for human life on earth. The main consequence referred to in this literature review is climate change towards global warming through various factors, the main one being the emission of greenhouse gasses.

In this context the applicability of NFTs and Blockchain technology is explored as a possible first step towards mitigating some of the aforementioned consequences. These technologies, however, also, due to their immaturity still present some obstacles and room for improvement which are slowly being improved, e.g. the high energy consumption and the lack of faith by consumers in this new technology, etc. The point is however made that with this technology come great technological advances which can be useful in the fight against global warming.

The two main factors, ecosystem services and carbon offsets are for now not related to blockchain or NFT technology. They are however the object of the literature review because of the potential that a symbiosis of the two not only with each other but also with the blockchain technology.

This means that carbon offsets have been mentioned to have flaws such as their non fungible nature. This is where I propose ecosystem services as the solution for accounting the actual value that is being gained, not purely in a greenhouse gas perspective but in every perspective. This way healthy ecosystems and projects with an actual positive impact get rewarded more as opposed to the ones that merely present a great amount of carbon offsetting by unethical or unsustainable means.

It is at this point where I suggest the blockchain technology to take over for the bookkeeping responsibility of these carbon offsets and ecosystem services. Disregarding the controversy about sustainability for a moment, the tremendous potential of blockchain as a decentralized impartial recordkeeping system is widely agreed upon. And with blockchains such as Ethereum switching, from the energy consuming Proof of Work verification process to the much more energy efficient

and sustainable Proof of Stake process, the technology seems to present more and more potential in the fight against deforestation and biodiversity loss.

The project for which this thesis is the business plan creates NFTs for these purposes, however simple it may be at the start. The main objective is to make easy to acquire nature NFTs so that an ever growing audience can part take in preserving the healthy ecosystems of earth.

3. Opportunity

3.1 Problem Worth Solving

The effects of the climate crisis, such as global warming, extreme weather, and species extinction, are becoming increasingly palpable. Yet, despite this, politics has so far been unable to effectively limit the climate catastrophe. Although the German government had already announced the goal of protecting 2% of German land as wilderness in 2007, this goal was dramatically missed with only 0.6% achieved by 2020. Even though the state of Schleswig-Holstein has achieved this goal, environmental protection organizations such as the NABU are demanding the protection of at least 5% of the area as wilderness areas in order to preserve biodiversity and counteract species extinction.

The inadequate combatting of the climate crisis is causing a growing sense of hopelessness and powerlessness, especially among young people. According to a 2021 survey by Avaaz (n=10,000), 84% of young people worldwide are concerned about the consequences of the climate crisis. To address this challenge and motivate more people to participate, further efforts and accessible offerings are necessary (Hickman et al., 2021).

People who want to act to combat the climate catastrophe and meet their powerlessness with commitment are confronted with various problems when it comes to their options for action.

These start with (1) entry barriers: although young people are increasingly willing to engage, they often lack the financial means to invest in projects where they feel they can make a relevant contribution with their limited budget. This means that with the small amounts that they can spare and funnel towards their sustainability projects.

Especially (2) buying land for nature conservation purposes or to ecologically upgrade it is very costly in time and money. As well as it is complicated for individuals and thus not an option for large parts of Sylvesters potential clientele.

A traditional donation process can provide a short-term feeling of making a relevant contribution. However, it is mostly (3) a fleeting impact experience that only temporarily displaces the feeling of powerlessness in the face of the extent of the crisis.

These actions usually remain (4) individualistic and do not give the individual a sense of being part of a larger movement. This again takes away from size of the perceived impact as it feels like one is individually trying to achieve worldwide change.

Furthermore, there are only few offerings that already provide the opportunity for (5) participation and engagement with low financial contribution. This means, that to participate in projects that fulfil some of the previously mentioned problem areas, large funds are required to join and low cost options are low and of lesser quality

Moreover, many opportunities for engagement lose credibility due to (6) an opaque connection between invested money and ecological impact. Investors or donors are more satisfied if they can witness an impact and or change accomplished with the money invested or donated.

Finally, even the most widespread form of ecological action, (7) traditional nature conservation, has lost its attractiveness as it is important, but does not offer sufficient prospects for the future. In order to get a handle on the climate crisis, it is necessary to rebuild new, healthy, and resilient ecosystems in addition to protecting existing areas.

All these 7 points tie into the main theme of this section which is the customer problem which summed up in a single word is helplessness. The previously described points all illustrate different attempts for an individual to achieve a positive change in natural preservation, or a hurdle towards the same goal. These points culminate in a generalized feeling of helplessness and inability. And this is the problem to which Sylvester proposes a solution.

3.2 Solution

The solution that Sylvester seeks to offer their clients is introducing Wild Tokens for a community-based ecological self-efficacy experience.

Our solution aims to address the challenge of limited opportunities for individuals to actively participate in community-based ecological initiatives and engage in rewilding projects. We have developed a unique concept using Wild Tokens and a community of token holders to create an inclusive and engaging experience.

Our approach begins with the introduction of Wild Tokens, each representing a specific European area dedicated to protection and rewilding. Through blockchain technology, we ensure that participation is secure and transparent, instilling confidence in token holders. This not only guarantees the integrity of their involvement but also reinforces the sense of collective ownership and responsibility for the protected areas.

With our Wild Tokens and the community of token holders, we aim to provide individuals with a unique opportunity to engage in community-based ecological self-efficacy. By actively involving token holders in environmental conservation efforts, we foster a sense of empowerment and collective impact.

Our platform facilitates the collective construction of new wilderness areas, resulting in a significant contribution to ecological regeneration. By bringing together a diverse community of participants, we transform rewilding into an attractive group experience, encouraging collaboration and a shared sense of purpose.

Additionally, we strive to democratize nature conservation by enabling token holders to participate in the joint purchase of land. This opens up accessibility and ensures that conservation efforts are inclusive. Every token holder has a voice and influence in determining the rewilding measures for each plot. By empowering individuals with decision-making abilities, not only will Sylvester achieve meaningful and lasting change but more importantly it gives the customers a sense of purpose and capability for positive impact.

Joint actions on the designated plots are designed to involve the local population and helpers, fostering a sense of community engagement. By encouraging the participation of local communities, we strengthen the connection between people and their natural surroundings. Additionally, these collaborative efforts create an additional incentive for individuals to participate in the projects, promoting a culture of environmental stewardship.

With Wild Tokens and our community-based approach, we provide an opportunity for individuals to experience the power of ecological self-efficacy firsthand. By actively participating in rewilding initiatives, our token holders can make a tangible difference in preserving and restoring our natural ecosystems.

Overall, our solution with Wild Tokens and a community-driven approach aims to create a meaningful and engaging experience for individuals seeking to contribute to ecological self-efficacy and rewilding initiatives. By promoting accessibility, transparency, and collaboration, we pave the way for a more sustainable future, where communities actively participate in preserving and regenerating our natural ecosystems.

3.3 Validation

Validation for the solution to the customer problem can be achieved in several different ways. Most common validations are surveys and questionnaires or in depths interviews with the target customers. Through these methods, customers views opinions and preferences are attempted to be understood through strategic and carefully phrased questions. In these types of validation, you collect quantitative and qualitative data respectively.

Other options of validating solutions to a customer problems are for example prototype testing, where a minimum viable product is tested in a select group pf customers. A/B testing where two

slightly different products are tested in a select group of customers to see which allows to compare performance and customer satisfaction. User observation is a type of analysis in which a product once distributed is evaluated based on how the consumer interacts with it gathering information on usability issues.

Once a product has already been introduced in the market Metrics and analytics are very important to continuously improve products and possibly uncover improvement opportunities.

Two validation methods have been chosen to validate our solution and value proposition. Firstly we have chosen to conduct a questionnaire to potential clients of Sylvester whose results shall be presented in the subsequent section.

To further validate our client's problem and our proposed solution to it we choose the method of proof of concept. Meaning a pilot program will be conducted where the concept of Sylvester will be proven through acquisition of a pilot plot that is to be rewilded and sold as tokens via crowdfunding.

The crowdfunding campaign will provide helpful indicators as to the consumers behaviour and disposition towards the project and provide valuable data to further develop and improve the solution that Sylvester proposes.

3.3.1 Customer questionnaire

The customer questionnaire is a self-administered questionnaire, as in it is conducted by each interviewee individually and without supervision or guidance. This method was chosen due to its simplicity, velocity and cost effectiveness.

It was distributed through the snowball effect, asking each of the participants to send the questionnaire along to new potential customers. This form of spreading the questionnaire was again chosen for its cost effectiveness and simplicity but it also has a component of selection. Selection component is in this case the factor that the people who pass on the questionnaire choose subjects who might already have an interest in or affinity for the field that is being studied and are thus more likely to be future customers.

The questions are mostly rating scales questions (a scale of 1-5) as well as multiple choice questions to keep the questionnaire short and easy to respond. A few demographic questions as well as some optional open-ended questions were also presented in the questionnaire.

The questionnaire can be found in the annex but to sum it up we can divide the questions in to four main sections. It starts with demographic ascertaining questions. Secondly it attempts to capture feelings on the climate change and ecosystem destruction in general. Followed by an

assessment of how already existing organizations satisfy their demands. Lastly some questions regarding Sylvester's activity and proposed solution are asked.

The demographics collected from the questionnaire were mostly young people with 54,1% in the ages between 16 and 24, 24,3% between 24 and 30. The young target group explains the degree of scholastic demographic with 48,6% having a bachelor's degree and 37,8% a highschool diploma and fewer with higher education. And finally, 59,5% male respondents and 40,5% female participated.

The general feeling towards climate change and ecosystem destruction are quite negative, with 70,2% and 81,1% respectively being 4 and 5 out of 5 on a scale of not at all concerned to very concerned. When it comes to satisfaction with actions taken by the world leaders addressing these issues the image is the inverse, with 94,6% being 1 and 2 out of 5 satisfied.

In all aspects regarding the pre-existing choice, transparency and overall satisfaction with environmental organisations the responses follow a normal distribution centred in the middle. This signifies a certain indifference of the respondents towards these institutions and indicates a space in the market that still needs filling which is what Sylvester seeks to do.

At this point the next part begins, wherein the potential customer is asked specifically about rewilding and blockchain, which is equivalent to Sylvester's proposed activity. Three quarters of the sample group had heard of rewilding and when it comes to the attributed effectiveness of creating a natural preserve in Europe to combat climate change opinions vary significantly. 21 out of 37 deem it 4 and 5 out of 5 effective, evenly distributed. 9 out of 37 deem it medium effective (3/5) and 7 deem it a 2 out of five effective. However when it comes to the effectiveness of the same for the preservation of biodiversity only 1 respondent deemed it not very effective and 81,1% deemed it very effective.

The last question is regarding the familiarity with blockchain, and this is where the picture inverts itself with more than half the respondents feeling uncomfortable with buying blockchain tokens and another 18,9% positioning themselves indifferent to it, being neither comfortable nor uncomfortable.

From this questionnaire some conclusions may be drawn. It is evident that there is significant concern when it comes to climate change as well as the loss of ecosystems and biodiversity. Complementary to that is an insatisfaction with actions of world leaders and an indifference towards already acting players in the same market Sylvester seeks to enter. This shows an available market share and potentially a growth in the target market with Sylvester's entry into the same.

On the other hand, this questionnaire has brought an issue to light that Sylvester will have to tackle which is the distance and unfamiliarity of blockchain technology and all its applications to the

masses. This results in a lack of trust in it and can lead to some restraint in purchasing behaviour of the client.

Limitations of this study are first and foremost the small dimension of the sample. This leaves the results volatile compared to a study with a greater sample. A greater sample would have also covered a wider range of demographics and shown their views more definitively. In retrospective maybe further incentives and attention grabbing would have been necessary besides the snowball effect to reach a larger audience.

4. Organizational Plan

4.1 Vision, Mission, Goals

Vision: Taking back control over the resources that guarantee our healthy and peaceful existence.

Mission: Expanding the territory that is to be rewilded and successfully doing so, while at the same time building an ever growing community of wildlife enthusiasts.

Goals:

- Purchase the pilot plot
- Achieve the sales to fund the purchase of further plots
- Rewild the degraded ecosystems
- Keep the brand image mainstream
- Continually expand activities on to new continents

4.2 Product description

Sylvester provides an accessible starting point for anyone who wants to experience ecological self-efficacy through community-driven restoration of healthy ecosystems. With Sylvester, we purchase land in Europe and create a new platform where people can actively participate in the rewilding of these areas in a transparent and democratic manner. This is achieved by offering representative shares in these areas as blockchain-based WildTokens for sale. Through WildTokens, buyers gain access to a democratically-participatory governance system where they can make proposals and vote on governance decisions as well as the specific implementation of rewilding measures on-site.

The digital WildTokens are visually linked to a 3D model of the area they represent. To ensure maximum transparency of impact, the tokens are regularly updated with satellite images of the area and information on its ecological regeneration. These images are provided by providers such as RESTOR for climate protection projects, and the satellite data is combined with quantification methods for ecological impact such as Natural Capital Accounting, which captures the development of the value of ecosystems using biophysical indicators such as CO2 sequestration, water filtration, and biodiversity. This enables a transparent and comprehensive understanding of the ecological

progress on the areas. The sale of WildTokens covers not only the land-related costs but also all business costs such as salaries or software costs.

With rewilding, we have chosen a particularly forward-looking approach to ecological action that seeks to maximize ecological value with minimal intervention. The focus is on initiating ecological processes that help the ecosystem regenerate itself, not just protecting existing wilderness but also building new ones. Our rewilding approach also places special emphasis on the socio-economic inclusion of local actors. Since WildTokens also serve as the access key to our rewilding community - the Wild Climate Club - the entry price of 50 euros per WildToken is deliberately low. We want to enable as many people as possible to engage in the community for more wilderness in Europe. This is particularly important to us, as studies (2022, German Federal Environment Agency) show that experienced self-efficacy and positive feedback from the environment are the best ways to reduce helplessness.

The democratic and transparent structuring of the community is also reflected in our corporate structure. Sylvester sees itself as a social enterprise that explicitly recognizes responsibility and aims to create more wilderness in Europe collaboratively. Sylvester will consist of two legal entities: a GmbH (limited liability company) and a registered association (e.V.). The GmbH will initially be founded as a GbR (civil law partnership) to give Sylvester a legal form even without sufficient start-up capital. The GmbH will purchase and manage the land and issue the WildTokens. The e.V. owns the GmbH and serves as its control body. The e.V. is the institution where all token holders can collectively vote on governance and rewilding measures as members, with each person, regardless of the number of tokens they hold, having one vote.

To ensure smooth coordination and active exchange among numerous members digitally, our digital infrastructure will be an automated link between various providers. This will include tokenization platform Otterspace.xyz, communication tool Discord, voting platforms, and access regulation tools such as Guild.xyz. Customers will have immediate access to this infrastructure upon receiving the token and can start contributing their ideas and discussing the next steps for the area. From that moment on, they can also be informed about the developments on the areas through semi-annual updates using their tokens.

This offer, with such a low entry price, is unique in Europe and is intended to appeal to a broad range of people who want to actively contribute to ecological restoration and have a stake in the future of our planet.

4.3 Business model

The business model Sylvester has chosen for its purpose is that of NFT sales on a blockchain. At this stage it is very important to differentiate between what is usually associated with NFTs and what NFTs in its objective form are. NFTs are nowadays most commonly known for their application to digital artwork however NFTs are simply non fungible tokens meaning any kind of token with a singular value are NFTs. Sylvester will sell tokens that are representative for square meters of wild terrain and are thus non fungible.

We are planning to purchase a pilot area for Sylvester in Portugal. In addition to the significantly lower land costs (only about 10-20% compared to land in Schleswig-Holstein), our connections to local initiatives such as Rewilding Portugal and Mossy Earth also speak in favor of this decision. We plan to finance this first area through a crowdfunding campaign, where we offer so-called "Future Tokens". This is the option to receive a token if the required funding amount is raised. To encourage participation, we plan to offer a lower entry price of only 30 euros. We have already received an initial commitment for investment in this first area, so we do not need to crowd-fund the entire purchase price.

If we can purchase the first area, depending on the success of the crowdfunding campaign, we will still have 80-90% of the tokens that we can offer for sale through more traditional means. Following the pilot area, we will purchase a second area, which we will finance from the proceeds of the sold tokens from the first area. With 80% of WildTokens sold on the pilot area, we can target significantly more expensive land for the next areas. In particular, we are looking at Schleswig-Holstein, where our local connections are essential for finding and purchasing potential properties. In Schleswig-Holstein, we are interested in properties that are located as close as possible to one of the nine model areas for wilderness expansion in the state or that are adjacent to the green belt along the former German-German border. This will help maximize the ecological benefit and promote the spread of biodiversity in northern Germany.

After the initial crowdfunding campaign, we will continue our distribution efforts online and offline. Online, we will focus heavily on partnerships. We have already contacted some social businesses such as Alpakas or Mossy Earth, with whom we want to enter into partnerships to promote and support each other. In addition, we will approach communities such as sustainable groups or influencers to promote Sylvester. Offline, we will attend fairs such as the Green World Tour, Grünes Geld Messe, or the Landshuter Umweltmesse. We also want to be present at sustainable festivals such as the Boom Festival, offer workshops and showcase Sylvester. Finally, surf camps (where we already have many contacts) or similar outdoor sports hubs are of interest to us as a point of sale due to the suitable clientele.

4.4 Management of the company

The core team of Sylvester consists of Julius Wenzel and Lukas Poddig. Julius, the project's visionary and a socio-economic student at the CAU in Kiel, is responsible for economic and technical issues at Sylvester. His interest in decentralized and community-based governance models, coupled with his passion for wild nature, led him to conceive Sylvester. As CEO of Sylvester, Julius is in charge of blockchain infrastructure, accounting, crowdfunding, and management. Lukas, a political and sociology graduate who is currently working as a journalist until the end of April, is primarily responsible for communication, marketing, and community building at Sylvester. Both have gained various experiences in PR and marketing, and as founders, they are responsible for the company.

Beyond the core team, Sylvester has an extended team that supports the company in building its infrastructure and implementing projects, depending on their capacities. This team includes, among others, landscape ecologist Julia Fuster and geography student Florian Neuser, who support Sylvester in finding and selecting potential sites. For concrete rewilding, concepts for suitable "micro-rewilding" have already been created by Rewilding Portugal, which serve as a basis for any rewilding measures in this context.

Irene Canovi supports us as a designer in developing our corporate identity and user experience. As a business economist, I, David Wenzel, assist in the creation and calculation of the detailed business plan. In addition, we have Kevin Trenkwalder on board as a full-fledged jurist, who is available to assist with founding preparation and resolving legal issues.

For the development of our technical infrastructure, we have a Letter of Intent (LOI) for cooperation with Otterspace. The company specializes in connecting decentralized blockchain tokens and governance systems and is capable of implementing our governance structure. Otterspace uses the Optimism Blockchain, an Ethereum Layer-2 blockchain that is much more energy-efficient and environmentally friendly than outdated blockchains like Bitcoin, thanks to its proof-of-stake consensus mechanism. The company is currently in the beta phase, which is why it offers its services to us free of charge for development purposes. With the already existing expertise in this area, we can independently take care of the maintenance and upkeep of the token infrastructure after integration.

5. Marketing Plan

5.1 Situational Analysis

The situational analysis will be conducted in several different areas which are:

Market analysis

Competition analysis

PESTLE analysis

SWOT internal analysis

Customer analysis

5.2 Market Analysis

Climate protection and sustainability are significant societal issues that are considered important by a large majority of Germans. A survey conducted in 2021 by the German Federal Environment Agency with a sample size of 2,000 respondents showed that 65% of Germans consider climate to be an important concern. Although it's difficult to estimate the actual willingness of people to take action, there is a growing trend among young people to actively engage in these issues. For example, approximately one-third of 16-18-year-olds had participated in a climate demonstration by 2020. We want to provide an accessible platform for all these people.

A recent rewilding project in the UK provided a reliable reference for customer willingness to pay and demonstrated that collective financing can be a successful concept. The Scottish rewilding initiative Highlands Rewilding managed to raise over €800,000 through crowdfunding within just seven weeks. A total of 454 donors contributed an average of €1,600 each. The funding of environmental protection projects is a rapidly growing market, as evidenced by the global market for biodiversity protection, which was worth €9.7 billion in 2021 and is projected to grow annually by 9.5% until 2025. In Germany, €191 million was donated for sustainable purposes such as environmental protection in the same year. The average donation amount was €43, which is close to the target price of €50 for a WildToken.

To realistically estimate the Total Addressable Market (TAM), we referred to donation behavior in Germany in recent years. According to the Spendenrat, a total of €5.4 billion was donated by 19 million people in Germany in 2020. These are voluntary donations from individuals up to €2,500, excluding large donations. Of this amount, 7.2% went to animal welfare and 3.3% to environmental protection, totaling €567 million.

To determine the Serviceable Addressable Market (SAM) in the next step, we divided the TAM among market players. With 119 relevant environmental organizations (according to the Federal Environmental Agency), this amounts to an average of €4.7 million per year. Thanks to our innovative concept, modern approach, and high marketing efforts, we see our SAM at €10 million, which is above the average for environmental organizations.

Our Serviceable Obtainable Market (SOM) will be €4 million in five years. This will give us a market share of 0.03% of annual investments in biodiversity. This is an initial market estimate.

5.3 Competition Analysis

As previously established our company is not only founded on the NFT and blockchain technology as well as it is a platform for regenerative investing. We therefore compete with both NFT projects and regenerative investing companies, but also with NGOs that all share the same goal of preserving nature.

After identifying these sectors, we established the biggest and most popular companies, which share similar visions, missions and goals for their operations.

Following this selection, several parameters were defined in which Sylvester is measured against its competitors. The main parameters are: the financial aspect, the accessibility aspect, the community aspect and some other general information. These aspects were in turn subdivided and an analysis was put forth. The results can be seen in the table below.

Table 5.1- Competitors in the market. Source, The Author, 2023

| Aspect 📌 // Project 📌 | | Us | NFT | | Investments | | NGO's |
|-----------------------|--|--|--|--|--|--|--|
| | | Sylvester | Fund The Planet | WWF NFT Programme | Highlands Rewilding | Generation Forest | Rewilding Europe |
| Financial Aspect | Minimal financial involvement | ≤50€ | 750€-1000€ | 50€-100€ | 50€-100€ | >2500€ | ≤50€ |
| | Yearly commitment | No | No | No | No | Yes | No |
| | Financial involvement allows for participation | Yes | No | No | Yes | Yes | No |
| | Wirtschaftliche Rendite | (Yes) | No | No | Yes | Yes | No |
| | Non-Financial Rewards (Tokens and or Actions) | Yes | (Yes) | No | Yes | No | No |
| Accessibility Aspect | Accessibility/Ease of use | Very good | Good | Good | Bad | Medium | Good |
| | Analog actions required? | No | No | No | (Yes) | Yes | No |
| | Personal data required? | No | No | No | Yes | Yes | No |
| | Crypto wallet required? | No | Yes | Yes | No | No | No |
| | Account required | (Yes) | No | No | Yes | Yes | No |
| General Info | Operationsgebiet | Europe | Peru | - | Scotland | Panama | Europa |
| | Blockchain based | Yes | Yes | Yes | No | No | No |
| | Rewilding, Conservation, Forestry | Rewilding | Conservation | Conservation | Rewilding | Forestry | Rewilding |
| | Appealing / Findable / Famous (SEO) (Feeling) | Very Bad | Medium | Medium | Medium | Good | Very Good |
| | Impact-Transparency | Token links to land coordinates, satellite data, land access, natural capital accounting | Token links to land coordinates | No correlation between purchase and impact, WWF newsletter | Onland access & community involvement, natural capital accounting | Cooperative (independent) annual reports + newsletter | No correlation between purchase and impact, newsletter |
| Community | Community Access | Token = Club Membership | Hard to find, but should be somehow possible | No community to access | Accessible share serves as entry to community | Access by buying a share, possibility to become ambassador | Registration in volunteer database |
| | Digital Community | Social Media + Website + Discord & Snapshot - Voting with Token | Dead Discord | Dead Discord | No | No | Social Media |
| | Offline Community | Community Camping on site, joint rewilding action, parties... | 1 poorly communicated fieldtrip | No | Good | Annual members meeting, possibility | Medium |
| | Community Democracy Level | Democratic Structures for involvement, suggestions and decisionmaking/votings | Very bad | Very bad | Community is involved in rewilding processes, probably also able to take part in decisions | Community can vote through shareholder meetings | NGO like |
| | Community Rewards System (Rewards for work in the community) | Additional benefits like WildTokens through volunteering possible and encouraged | No | No | No | No | No |
| | Target Community | Diverse, Young, Climate Concious | "Classic donors" - rel. wealthy | NFT Collectors, Digitally atuned WWF donators | Scottish locals & UK rewilding enthusiasts | Regenerative investors, rel. wealthy | All types of donors, rewilding projects |
| Personal Opinion | Sustainability Feeling | Very good | Medium | Medium | Very Good | Good | Very Good |

5.4 PESTLE Analysis

The problem as previously elaborated on is not limited to any one country and neither is the solution that is proposed. Hoping to eventually spread the activity across many different countries,

Portugal has been chosen as the starting point for this company and as such will be the subject of the PESTLE analysis.

Political- Portugal has elected the central-left socialist party PS (partido socialista) as political leader in January 2022. It is a country of stable political nature and it has shown leadership when it comes to the transition to renewable energy sources. It has also set goals of carbon footprint reduction exceeding that which is expected from them by the United Nations and European parliament (*«A Próxima Década é a Mais Exigente» Nas Metas Ambientais - XXI Governo - República Portuguesa*, n.d.). These factors seem favourable for the project as it is of ecological nature and the local government seems to share an ecological agenda which could be mutually beneficial. Portugal is a member of the European Union since 1986 and a part of the Euro area since 1999 adding to the political stability of the country.

Portugal is subdivided on multiple levels. Firstly, there are the two autonomous regions (Madeira and the Azores) with extensive legislative power and the ability to define their own policies, except regarding foreign policies and internal defence. The Portuguese mainland is divided into five administrative regions: Lisbon, the north, the centre, the Alentejo and the Algarve. These are empowered with financial and administrative autonomy however not ruled by elected councils but by decentralised bodies of the central government.

On a smaller level, these regions are divided into municipalities which are in turn subdivided into parishes (freguesias). Portugal has largely decentralised the administration of competencies to the municipal/ parishes level in an attempt to give the ability to the people to solve local issues themselves. As Portugal has big differences in development from a very advanced and modern Lisbon area to the rural areas of the south and the inland, so are the differences in quality of management. This can potentially lead to a further distancing in developmental status of the regions. Municipalities and parishes both have elected councils and they vary in importance. In some areas well established municipalities have more say due to a lack of organisation in the parish council in other areas the opposite may be the case (*Descentralização de Competências*, n.d.; Kołodziejcki, 2019).

Due to Portugal's decentralised system and the nature of the project we will have to deal with the local councils in the lesser developed areas of Portugal which can make it easier to arrange meetings as it is more familiar and they have generally less on their agenda, as well as being open to receive projects that may bring more attention and benefits of financial and environmental kind. On the other hand, some problems may arise due to lack of organisation, protocol and experience.

When it comes to bureaucracy in Portugal the project may encounter some hurdles. Processes are famously slow and unnecessarily complex, generally speaking. Adding to this is that areas of

interest for our project are, generally, in more rural locations which can add to the slowness in processing of bureaucratic formalities and issues (Bureaucracy Main Barrier for Emigrants - The Portugal News, n.d.).

Economic- In 2021 Portugal reached a GDP per capita of 24.262 USD and an overall of 249,89 billion USD of GDP. This puts it in 48th place in major economies. There has been a moderate decrease in GDP of 4,8% which is relatively low in regard to the pandemic and compared to other economies. If one is to consider the purchasing power parity and calculate the GDP per inhabitant, Portugal ranks 39th in the list of the world's richest countries.

The unemployment rate increased from the previous year from 6,5% to 6,8% but still low in the international context. Portugal's inflation is 10,6%.

Portugal has a trade deficit of 2.8 billion Euros, exporting around 6.7 billion Euros and importing around 9.6 billion Euros in goods. Most exported and imported goods are machinery and mechanical appliances with this also being the area of the biggest deficit. On the other hand, the greatest surplus was achieved in trading mineral products, cellulose pulp and paper. Portugal's biggest trading partners are Spain, Germany and France while transactions with Spain show the biggest deficit and the ones with France the biggest surplus (Portugal Balance of Trade - November 2022 Data - 1950-2021 Historical, 2022).

Portugal ranked 37th out of 60 on the Bloomberg Innovation Scale and originated 4 of Forbes 2000 largest listed companies of which three are from Lisbon and one from Porto. There were more imports than exports (111.86 billion USD to 105.30 billion USD).

The pandemic, like in many other countries, sent Portugal in to a bit of a recession and applied significant pressure on the healthcare system.

Social- Portugal has an approximate population of 10.1 million and at a yearly growth rate of -0,19% it draws a contrast to the European Union average (0,11%) and means that population is declining and growing older. Population density is 111 per sq. km for a total area of 91.210 sq. km. There has however been a decline in emigration of local population and an increase in immigration.

The population, for the biggest part, lives in an urban environment, with close to half of it living in two metropolitan areas: Lisbon and Porto. This leaves the other half scattered across the rest of the country even though it is notable to say that the central and northern region have a significantly larger population and population density than the the Alentejo and Algarve region.

Dealing with smaller communities can slow down an already slow bureaucratic system, as well as, bringing a technologically advanced project to a rural place may encounter ignorance and resistance by the local population.

Technological- Portugal has a growing technological sector, especially in the area of software development and renewable energy. This is supported by a strong telecommunications network with widespread high speed internet.

Portugal's location on the Atlantic coast bears opportunity for development of offshore wind energy.

There is a growing trend in the exploration of blockchain and AI technology as well as there is a willingness on the side of state and businesses to invest in this sector.

Legal- Portugal has implemented several legal reforms in support of its business environment such as the simplification of the business creating process.

Environmental- Portugal is vulnerable to effects of climate change such as rising sea levels and a higher occurrence of droughts. It is host to a variety of ecosystem, e.g., forests, wetlands coastal areas and smaller mountain ranges, which it intends to preserve through the creation of several protected areas as well as conservation programs.

There is political interest in environmental conservation as well as demand an individual level. The country has set multiple ambitious targets in the field of renewable energy including the goal of becoming carbon free by 2050.

5.5 Internal Analysis (SWOT)

Opportunities:

Blockchain technology is growing yet it is in its early stages. This creates an opportunity for not before seen concepts to develop. At the same time due to the same fact there is less competition in the market.

Another opportunity is the sense of urgency and helplessness when it comes to climate change. This works in the favour of the product that is being sold because of the value proposition. This being a direct participation in rewilding activities which counter climate change effects.

Threats:

The unfamiliarity of blockchain technology is a threat as customers might shy away from putting their money in uncertain investments.

The fact that technically what is being sold are NFTs which have a reputation of being purely speculative and mostly associated to digital art. Due to this connotation some potential customers are put off of the product that we provide.

The hurdle to enter the digital market is small. As digital tokens are what is sold, there is no need for any fixed assets or costs neither are any significant upfront investment or facilities required.

Strengths:

Sylvester is relying on volunteers, for now, who are all on a friendly basis which creates a constructive working environment as well as close to no costs.

Another strength is the internationality of the team, bringing a variety of connections to all parts of Europe to the table. Looking towards the future expansion of the project these connections are very valuable.

Sylvester has already received some grants which not only brings an influx in capital but also confirms the validity and relevance of the projet and also its uniqueness.

Weaknesses:

Most of the collaborators are young and not very experienced in the job market as well as the start-up process of companies.

There is a lack of experts in the team due to the volunteer nature of the assignment.

5.6 Customer Analysis

Our target group is very wide in a general sense however there are certain groups that we try to more directly target.

Our medium to long-term goal is to enable everyone to purchase a Sylvester token. That's why we believe it's crucial to keep the entry level low, at just 50 euros per token, in order to appeal to a wide range of customers. Compared to our competitors, who typically only allow for decision-making with high investments, our low entry point is a key differentiator for Sylvester. Our ultimate aim is to democratize participation and decision-making in a way that's accessible to everyone.

We recognize that early adopters who are technically savvy and passionate about our mission will likely be the first to invest in Sylvester. We've identified this group as nature-loving digital natives, typically between the ages of 14 and 39. According to the German Volunteer Survey of the Federal Ministry of Family Affairs (n=27,759), 4.1% of this age group (24.89 million people) in Germany are committed to the environment, which translates to about one million people who could potentially be interested in Sylvester. As the issue of climate crisis and prevention gains more importance, we anticipate a growing target audience. By lowering the barrier to active engagement, we hope to attract people who may have been deterred in the past due to complexity, lack of participation, or opaque use of funds.

Our target audience consists of environmentally conscious people who value biodiversity and nature conservation. According to the Environmental Agency (n=2,000), this now applies to 65% of adults in Germany, making our target audience the ecological mainstream and early majority. These

are people who feel a personal connection to the environment, often through sports or outdoor activities, and are invested in creating a liveable future.

As we work to rewild areas throughout Europe, we recognize the importance of engaging with local communities. Local support is critical to the success of our operations on the ground. While the makeup of this group may vary slightly from area to area, we aim to involve local actors such as scouts, schools, and universities in our projects. These groups can serve as valuable partners, helping to spread the word about our work and serving as local ambassadors for Sylvester.

In summary, Sylvester is not simply a donation project; rather, it's a "glocal" platform that's accessible from anywhere yet deeply rooted in local communities. By empowering individuals to take an active role in conservation efforts, we hope to build a better future for all.

5.7 Differentiating and Positioning

There are various initiatives that pursue similar goals in principle. However, these initiatives usually focus only on the protection of existing nature and wilderness, especially with Fund the Planet and the World Wildlife Fund's Non-Fungible Animals (NFAs), rather than on creating new wilderness areas. While the aforementioned projects also use NFTs (Non-Fungible Tokens) or various versions of blockchain technology as a basis, they do not operate in Europe, offer limited participation opportunities, and do not provide direct traceability of ecological developments.

On the other hand, the entry barrier is very high for some competitors, such as The Generation Forest, where a cooperative share for participation in tropical forest reforestation costs several thousand euros. Moreover, this is a reforestation project that generates returns by selectively harvesting tropical timber, which is diametrically opposed to our approach of rewilding, where nature itself regulates the area. In terms of rewilding specifically, there are two initiatives in our selection that operate in Europe: Rewilding Europe and Highlands Rewilding. Rewilding Europe purchases land in Europe, which is then allowed to return to its natural state with minimal intervention. Rewilding Europe leads the way in rewilding in Europe and brings together various initiatives in the European Rewilding Network. However, small investors cannot directly track their investment's progress with the ecosystem or have a say in how exactly the projects should proceed. Highlands Rewilding is a rewilding project limited to Scotland that kickstarts wilderness creation with collective financing, involving the local community. However, unlike Sylvester, this project is less geared towards participation and community suggestions.

In summary, Sylvester's uniqueness lies in the combination of low entry barriers for interested parties, precise impact monitoring, and a grassroots democratic structure that explicitly allows

everyone to actively engage and create a vibrant place for exchange and wilderness at various locations in Europe with their suggestions, opinions, and local commitment.

5.8 Marketing Tactics

For our marketing, we differentiate our target audience into two marketing personas. The first group are digitally savvy and locally independent: the early adopters and the ecological mainstream. The second persona consists of the local stakeholders.

Through their precise definition, we can address our customers accurately and cater to interest differences (environmental protection vs. benefits for the local population) and user differences (use of social media vs. consumption of traditional offline media). The high environmental consciousness and enthusiasm for nature of the early adopter and ecological mainstream target groups serve as the basis for offering professional infotainment content with compelling storytelling about wilderness and the diversity of nature according to their marketing persona.

This content serves as the foundation of our marketing communication for our online channels. To provide attractive content for our various marketing channels, we have started building a network of professional videographers and photographers who provide us with archive material or works for reuse. As we primarily acquire our customers online, we place special emphasis on attractive design and engaging user experience.

We will deliver our marketing content through various online and offline marketing channels to our customers. Social media platforms such as Instagram, Facebook, TikTok, and Twitter play a significant role in this regard. They are used by the majority of our target audience and offer a high reach and the possibility of precise content alignment. These platforms already feature active exchanges on the topic of the environment and nature conservation, to which we contribute with our content and thus draw attention to our organization. Other rewilding organizations such as Mossy Earth (20,500 followers on Instagram and 34,000 followers on TikTok) demonstrate how effectively they can reach their target audience. We have already established initial contacts with actors in the rewilding scene (Mossy Earth and Rewilding Portugal) to raise awareness of our organization through cooperative marketing. Joint rewilding actions, campaigns, and advertising for rewilding in general are in both parties' interests. Furthermore, the clear delineation of our target audience provides the opportunity to place advertisements on social media and in topic-related podcasts. This enables us to achieve a high success rate for our marketing content at low costs.

A mail newsletter, a blog, and a Discord server are also part of the marketing strategy. They provide the opportunity to address our customers even more directly and give them a transparent insight into our working structures and steps. This is of particular interest to future token holders.

Even outside the digital world, classic marketing strategies such as attending fairs, events, and rewilding actions should not be neglected. Here, we are in active contact with our rewilding partners in Portugal and the EU and keep ourselves up-to-date on nature and environmental fairs to make a presence and advertise potential customers outside the digital world.

We attach special importance to cooperating with schools, scouts, and associations located in close proximity to our areas when it comes to offline marketing. The focus here is on conveying our work to promote acceptance, participation, and the spread of our project by local communities. The marketing persona two for local communities on-site is therefore adapted specifically per area and local community to cater to potential differences from the other two target groups, such as fewer environmental concerns and more economic worries.

6. Financial Plan

Due to the great possibilities of innovation and environmentalism grants we have applied to a 12 months financial support from the state of Schleswig Holstein in Germany. We are also in the process of applying to other grants that will aid in starting our operations.

As part of the 12-month funding, we plan to carry out a crowdfunding campaign and acquire the pilot area. Our goal is to establish Sylvester as an innovative and social company in Schleswig-Holstein by the end of the funding period. Initially, this involves setting up the civil law partnership and the association, along with relevant preparations. At the same time, we are conducting a comprehensive market study. While we work on the technical MVP that enables us to sell the pilot area, we are searching for suitable sites and negotiating locally. Once a specific site is in view, we can launch the crowdfunding campaign and emit Future Tokens. This requires special marketing preparations. If we achieve our crowdfunding goal, we can purchase the land, convert Future Tokens into WildTokens, and begin the discussion and voting on rewilding measures. The regular token sale provides us with the means to implement these measures beyond the funding period. Once the land is acquired, we will also engage with local stakeholders, including as multipliers from a sales perspective.

In addition, ongoing processes such as management, marketing, and community management are on the agenda. To this end, we regularly update and moderate our blog, email newsletter, website, social media, and Discord server. By the end of the startup funding, our token sale will have already started, enabling us to operate independently. This allows us to transition from the funding phase to the future as a stable company with headquarters in Schleswig-Holstein.

6.1 Start-up Expenses

The startup expenses for this project are very limited due to the simplicity of its structure.

In the following table it is observable, that the main portion of the required funding will be achieved through a crowdfunding campaign. These funds are directly linked to the purchase of the pilot plot.

At the same time all the administrative cost which is generously estimated and entails all the back end operations. These include the creation and maintenance of the website, the online store and social media presence as well as the blockchain infrastructure required for the project. Other smaller costs fall under the umbrella of these administrative necessities such as naming rights,

creation of company and association, domain name, etc. These costs are covered, with a buffer, by the grant that has been obtained by the state of Schleswig Holstein.

Table 6.1- Start-up expenses. Source, The Author, 2023

| <i>Startup Budget</i> | <i>Amount</i> | <i>Sources of Capital</i> | <i>Amount</i> |
|---------------------------|---------------|---------------------------------|--------------------|
| Estimated Budget | 27.500,00 € | Stakeholders investments | 0,00 € |
| Estimated Expenses | 25.000,00 € | | |
| Difference | 2.500,00 € | Total | 0,00 € |
| | | Grants | |
| | | Schleswig Holstein Grant | 7.500,00 € |
| | | Total | 7.500,00 € |
| | | Crowdfunding | 20.000,00 € |
| | | Total | 20.000,00 € |
| | | Loans | 0,00 € |
| | | Total | 0,00 € |
| | | Grand Total | 27.500,00 € |
| | | Expenses | Amount |
| | | Proof of concept | |
| | | Cost of pilot plot | 20.000,00 € |
| | | Cost of Rewilding | 1.000,00 € |
| | | Total | 21.000,00 € |
| | | Fixed Costs | 0,00 € |
| | | Administrative cost | 4.000,00 € |
| | | Total | 4.000,00 € |
| | | Grand Total | 25.000,00 € |

6.2 Projected Profit and Break-even analysis

It is important to repeat that Sylvester is a social business. This means that all profits that are achieved will get reinvested towards further expansion and or philanthropic, social and environmental activities.

Eventual dividends or compensations for stake and shareholders are a possibility as marketing and loyalty strategies however disregardable at this early stage of the company.

To achieve and surpass the break-even point to the degree that expansion is possible the following numbers are important.

The first plot is projected to cost around 20.000€, which will be funded through the crowd funding campaign. At this point there are still administrative and rewilding costs that need to be covered. These come in at 40.000€ and 20.000€ respectively for the whole plot. With each token being sold at 50€ and corresponding to 50 sq.m. means that a total of 80.000€ are needed for the break even point to be achieved in revenue. This corresponds to 1.600 sold tokens and thereby 40% of all tokens.

As additional revenue comes in possibilities to expand arise to second and third plots. The projected profit calculations for those plots are shown in tables 4 and 5.

Table 6.2- Profit calculation for first plot. Source, The Author, 2023

| FIRST PLOT | | |
|------------------------------|----------|-----|
| Initial Invest | €20.000 | |
| Area price (incl. land tra | €0,10 | m2 |
| Area | 200.000 | m2 |
| Token price | €50 | |
| Token area | 50 | m2 |
| Token amount | 4.000 | |
| Administrative expenses | €10 | |
| Total administrative budget: | €40.000 | |
| Rewilding costs/ha | €1.000 | |
| Rewilding costs/token | €5 | |
| Total rewilding budget | €20.000 | |
| Costs | €80.000 | |
| Crowdfunding discounts | €13.340 | |
| Token sale to break-even | 1.600 | 40% |
| Turnover at full sale | €200.000 | |
| Profit if 80% sold | €66.660 | |
| "Profit" on full sale | €106.660 | |

Table 6.3- Profit calculation for second plot. Source, The Author, 2023

| SECOND PLOT | | |
|--------------------------------------|----------|--------------|
| Initial Invest | €60.000 | (10% buffer) |
| Area price (incl. land transfer tax) | €0,10 | m2 |
| Area | 600.000 | m2 |
| Token price | €50 | |
| Token area | 50 | m2 |
| Token amount | 12.000 | |
| Administrative expenses/token | €7 | |
| Total administrative budget: | €84.000 | |
| Rewilding costs/ha | €800 | |
| Rewilding costs/token | €4 | |
| Total rewilding budget | €48.000 | |
| Costs | €132.000 | |
| Crowdfunding discounts for 1st area | | |
| Token sale to break-even (from) | 2.640 | 22% |
| Turnover at full sale | €600.000 | |
| Profit if 80% sold | €288.000 | |
| "Profit" on full sale | €408.000 | |
| Accumulated profit on full sale | €468.000 | |

Table 6.4- Profit calculation for third plot. Source, The Author, 2023

| THIRD PLOT | | |
|--|------------|------------------|
| Initial Invest | €325.000 | (23.000€ buffer) |
| Area price (incl. land transfer taxes) | €0,50 | m2 |
| Area | 650.000 | m2 |
| Token price | €50 | |
| Token area | 25 | m2 |
| Token amount | 26.000 | |
| Administrative expenses/token | €6 | |
| Total administrative budget: | €156.000 | |
| Rewilding costs/ha | €1.000 | |
| Rewilding costs/token | €3 | |
| Total rewilding budget | €65.000 | |
| Costs | €221.000 | |
| Crowdfunding discounts for 1st area | | |
| Token sale to break-even (from total) | 4.420 | 17% |
| Turnover at full sale | €1.300.000 | |
| Profit if 80% sold | €494.000 | |
| "Profit" on full sale | €754.000 | |
| Accumulated profit on full sale | €1.079.000 | |

6.3 Sales/Revenue Forecast and Cash Flow

As a reference I have chosen the project “Highlands Rewilding” which is based in Scotland and has a very similar goal to that of Sylvesters on a more local level.

Highlands Rewilding has some advantages compared to Sylvester for example a higher expendable capital in the community which it inserts itself in. This means there is more willingness to invest/donate towards environment preservation in Scotland than in Portugal not only due to an overall wealthier population but also of mentality, awareness and direct affectation.

This is considered in the numbers that were taken from the project and they were adapted to project numbers that are considered realistic and attainable by Sylvester.

Highlands Rewilding has since 2023 obtained a total of 1.373.538€ in 3 years. In its initial crowdfunding campaign the targeted 80.000€ were surpassed (Highlands Rewilding Investment, n.d.).

Applying this to Sylvester: We believe that the crowdfunding goal of 20.000€ will be met and the supply of presale tokens surpassed by demand. This stow up of demand results in sales revenue of 120.000€ in the first year. With this estimate Sylvester conservatively expects to match and exceed the goal set by the crowdfunding campaign of Highlands Rewilding as well as achieving the break-even. As per the projected turnover Sylvester should have enough funds to invest in to the second plot.

For the second year Sylvester calculates an increase in total revenue of two thirds which would total 200.000€ and thus selling out the first plot and already dips into the second plot. For the third and fourth year the revenue increases are calculated with 70% and 40% respectively.

It is important to note that as Sylvester is a social business all profits get reinvested meaning that once the profit reaches the necessary amount for the planned expansion, this will, with all due diligence, planning and necessary precautions, get executed right away. In tables 4 and 5 the costs associated with the second and third plots are laid out and these will be found again in table 6.

The projected cash flow can be seen in the following table:

Table 6.5-Projected cash flows for first four years. Source, The Author, 2023

| | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 |
|-------------------------------|-------------|--------------|--------------|--------------|--------------|
| Beginning cash balance | | 1.500,00 € | 25.500,00 € | 181.500,00 € | 121.700,00 € |
| Cash inflows | | | | | |
| Presale | 20.000,00 € | | | | |
| Sales | | 120.000,00 € | 200.000,00 € | 340.000,00 € | 476.000,00 € |
| Other income | 7.500,00 € | | | | |
| Loan proceeds | | | | | |
| Total cash inflows | 27.500,00 € | 120.000,00 € | 200.000,00 € | 340.000,00 € | 476.000,00 € |
| Cash outflows | | | | | |
| Startup expenses | | | | | |
| Fixed operating expenses | 4.000,00 € | 24.000,00 € | 16.000,00 € | 27.200,00 € | 54.080,00 € |
| Budgeted operating expenses | 2.000,00 € | 12.000,00 € | 28.000,00 € | 47.600,00 € | 37.680,00 € |
| Cost of 1st plot | 20.000,00 € | | | | |
| Cost of 2nd plot | | 60.000,00 € | | | |
| Cost of 3rd plot | | | | 325.000,00 € | |
| Total cash outflow | 26.000,00 € | 96.000,00 € | 44.000,00 € | 399.800,00 € | 91.760,00 € |
| Net Cash Flow | 1.500,00 € | 24.000,00 € | 156.000,00 € | -59.800,00 € | 384.240,00 € |
| Ending cash balance | 1.500,00 € | 25.500,00 € | 181.500,00 € | 121.700,00 € | 505.940,00 € |

6.4 Projected Balance Sheet

The balance sheet is of a rudimental nature the simplicity of the actual company's activity. As previously explained the company is merely an intermediary between the association and the plots of land. This means that, except for received grants there will be merely increases in fixed assets and capital stock as the company expands.

Table 6.6- Projected balance sheet. Source, The Author, 2023

| | |
|---------------------------------------|--------------------|
| Assets | |
| Cash | 2.500,00 € |
| Accounts receivable | |
| Accrued compensation | 5.000,00 € |
| Inventory | |
| Fixed assets | 20.000,00 € |
| Accumulated depreciation | |
| Total assets | 27.500,00 € |
| | |
| Liabilities | |
| Accounts payable | |
| Short term debt | |
| Grants with condition | 7.500,00 € |
| Long term debt | |
| Total liabilities | 7.500,00 € |
| | |
| Equity | |
| Capital Stock | 20.000,00 € |
| Retained Earnings | |
| Total Equity | 20.000,00 € |
| | |
| Total liabilities & equity | 27.500,00 € |

6.5 Financial Valuation

There are various ways of valuating companies that have proven themselves through time. As ,however, it has become clear throughout this business plan that Sylvester doesn't conform to a typical business setup. The association character of Sylvester means there are no third party investors. Customers are the only investors and have thus a say in the companies activity, however they are also controlled by the purpose of the association which is a not for profit, social business.

When it comes to returns made or profits achieved these will mainly be in the form of ecosystem services which are slowly making their way into financial valuations, occupying at this point however a very low standing in importance. The following financial valuation is purely calculated through financial perspectives and treating Sylvester as if it was an ordinary business

starting up. This explanation serves to fill certain gaps where the formulas don't apply to their full potential.

To value Sylvester the method of discounted cash flow valuation has been chosen. The formula for this valuation method is :

$$DCF = \frac{CF1}{1+r} + \frac{CF2}{(1+r)^2} + \dots + \frac{CFn}{(1+r)^n} \quad (1)$$

With:

- CF1= Cash flow of the first year
- CF2= Cash flow of the first year
- CFn= Cash flow for additional years
- r= discount rate

The discount rate in this case is equivalent to the weighted average cost of capital (WACC) which was calculated with:

$$WACC = \left(\frac{E}{V} \times Re \right) + \left(\frac{D}{V} \times Rd \times (1 - Tc) \right) \quad (2)$$

With:

- E= Market value of firms equity = 20.000
- D= Market value of firms debt=7.500
- V= E+D=27.500
- Re= Cost of equity = 9,91%
- Rd= Cost of debt = 5.5%
- Tc= Corporate tax rate (Germany) = 15%

For the values of Re and Rd, average values were taken from NYUs study on cost of equity in the sector of environmental and waste services. (*Cost of Capital*, 2023) The values are 9,91% and 5,5% respectively. This gives us, together with numbers extracted from the startup balance sheet, a WACC of 8,482%. Once more it is important to mention, that due to the social nature of the activity, shareholders and investors don't actually expect any return from their investments as it has been communicated as such. This is purely theoretical to achieve a value for the company's worth.

Adding the WACC to the DCF calculation and filling in the blanks from the Cash Flow Statement a result of 356.537,41€. To this we add the terminal value as the activity is to be carried out in perpetuity. This is calculated with:

$$Terminal\ value = \frac{FCF \times (1 + g)}{d - g} \quad (3)$$

With

- FCF= Cash flow for the last forecasted period

- g= Growth rate
- d= Discount rate=WACC

The growth rate typically comes in between 2-5% with 2-3% historical inflation rate and 4-5% historical GDP rate. Our calculations were made with a growth rate of 4%. Thus adding the The terminal value of 188.444,59€ to the previously established DCF methods value of 356.537,41€ we arrive at a final valuation of the company with a value of 544.982,00 €.

These calculations have been done with values estimated by myself in a more conservative perspective for future business, however a best case scenario has been put forth in collaboration with Sylvester’s management team with a more optimistic view. In this case the Cash Flow Projections are the following:

Table 6.7- Optimistic projected cash flow. Source, The Author, 2023

| | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 |
|-------------------------------|-------------|--------------|--------------|----------------|----------------|
| Beginning cash balance | | 1.500,00 € | 67.500,00 € | 210.500,00 € | 1.006.100,00 € |
| Cash inflows | | | | | |
| Presale | 20.000,00 € | | | | |
| Sales | | 180.000,00 € | 600.000,00 € | 1.020.000,00 € | 1.428.000,00 € |
| Other income | 7.500,00 € | | | | |
| Loan proceeds | | | | | |
| Total cash inflows | 27.500,00 € | 180.000,00 € | 600.000,00 € | 1.020.000,00 € | 1.428.000,00 € |
| Cash outflows | | | | | |
| Startup expenses | | | | | |
| Fixed operating expenses | 4.000,00 € | 36.000,00 € | 48.000,00 € | 81.600,00 € | 114.240,00 € |
| Budgeted operating expenses | 2.000,00 € | 18.000,00 € | 84.000,00 € | 142.800,00 € | 199.920,00 € |
| Cost of 1st plot | 20.000,00 € | | | | |
| Cost of 2nd plot | | 60.000,00 € | | | |
| Cost of 3rd plot | | | 325.000,00 € | | |
| Cost of 4th plot | | | | 975.000,00 € | |
| Total cash outflow | 26.000,00 € | 114.000,00 € | 457.000,00 € | 224.400,00 € | 314.160,00 € |
| Net Cash Flow | 1.500,00 € | 66.000,00 € | 143.000,00 € | 795.600,00 € | 1.113.840,00 € |
| Ending cash balance | 1.500,00 € | 67.500,00 € | 210.500,00 € | 1.006.100,00 € | 2.119.940,00 € |

In this case, with the same formulas, adapting merely the cash flow values, we achieve a valuation of 1.485.295,31 € to which a perpetuity of 546.265,67 € is added, thus arriving at a final valuation of 2.031.560,98 €. This would be the best case scenario.

Bibliography

- «A próxima década é a mais exigente» nas metas ambientais - XXI Governo - República Portuguesa. (n.d.). Retrieved December 12, 2022, from <https://www.portugal.gov.pt/pt/gc21/comunicacao/noticia?i=a-proxima-decada-e-a-mais-exigente-nas-metas-ambientais>
- Ali, M., & Bagui, S. (2021). Introduction to NFTs: The Future of Digital Collectibles. *International Journal of Advanced Computer Science and Applications*, 12(10), 50–56. <https://doi.org/10.14569/IJACSA.2021.0121007>
- Allentoft, M. E., & O'Brien, J. (2010). Global Amphibian Declines, Loss of Genetic Diversity and Fitness: A Review. *Diversity 2010, Vol. 2, Pages 47-71*, 2(1), 47–71. <https://doi.org/10.3390/D2010047>
- Andersen, A. N., Ribbons, R. R., Pettit, M., & Parr, C. L. (2014). Burning for biodiversity: highly resilient ant communities respond only to strongly contrasting fire regimes in Australia's seasonal tropics. *Journal of Applied Ecology*, 51(5), 1406–1413. <https://doi.org/10.1111/1365-2664.12307>
- Brown, K. (2014). Global environmental change I: A social turn for resilience? *Progress in Human Geography*, 38(1), 107–117. https://doi.org/10.1177/0309132513498837/ASSET/IMAGES/LARGE/10.1177_0309132513498837-FIG1.JPEG
- Bureaucracy main barrier for emigrants - The Portugal News*. (n.d.). Retrieved December 12, 2022, from <https://www.theportugalnews.com/news/2022-08-07/bureaucracy-main-barrier-for-emigrants/69232>
- Cost of Capital*. (2023). https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.html
- Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O'Neill, R. V., Paruelo, J., Raskin, R. G., Sutton, P., & van den Belt, M. (1998). The value of the world's ecosystem services and natural capital. *Ecological Economics*, 25(1), 3–15. [https://doi.org/10.1016/S0921-8009\(98\)00020-2](https://doi.org/10.1016/S0921-8009(98)00020-2)
- Davin, E. L., & de Noblet-Ducoudre, N. (2010). Climatic Impact of Global-Scale Deforestation: Radiative versus Nonradiative Processes. *Journal of Climate*, 23(1), 97–112. <https://doi.org/10.1175/2009JCLI3102.1>

- Descentralização de competências*. (n.d.). Retrieved December 12, 2022, from <https://transparencia.gov.pt/pt/municipios/indicadores-por-municipio/descentralizacao-de-competencias>
- Ecosystem Services | National Wildlife Federation*. (n.d.). Retrieved May 9, 2023, from <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Understanding-Conservation/Ecosystem-Services>
- Elmqvist, T., Folke, C., Nyström, M., Peterson, G., Bengtsson, J., Walker, B., & Norberg, J. (n.d.). *Response diversity in ecosystems*. <https://doi.org/10.1890/1540-9295>
- Griscom, B. W., Adams, J., Ellis, P. W., Houghton, R. A., Lomax, G., Miteva, D. A., Schlesinger, W. H., Shoch, D., Siikamäki, J. V., Smith, P., Woodbury, P., Zganjar, C., Blackman, A., Campari, J., Conant, R. T., Delgado, C., Elias, P., Gopalakrishna, T., Hamsik, M. R., ... Fargione, J. (2017). Natural climate solutions. *Proceedings of the National Academy of Sciences of the United States of America*, *114*(44), 11645–11650. https://doi.org/10.1073/PNAS.1710465114/SUPPL_FILE/PNAS.1710465114.SAPP.PDF
- Guo, W. (2022). For Today's Carbon Tracking, Carbon Credit Environmental Protection NFT Application. *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.4189950>
- Hamrick, K., & Gallant, M. (n.d.). *Unlocking Potential State of the Voluntary Carbon Markets 2017 Supporter Sponsors*. Retrieved May 15, 2023, from www.forest-trends.org
- Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, E., Mayall, E. E., Wray, B., Mellor, C., & Van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Articles Lancet Planet Health*, *5*, 863–873. www.thelancet.com/
- Highlands Rewilding Investment*. (n.d.). Retrieved May 17, 2023, from <https://invest.highlandsrewilding.co.uk/invest>
- Houghton, R. A., & Nassikas, A. A. (2018). Negative emissions from stopping deforestation and forest degradation, globally. *Global Change Biology*, *24*(1), 350–359. <https://doi.org/10.1111/GCB.13876>
- Kim, R., & Pierce, B. C. (2018). *Carbon Offsets An Overview for Scientific Societies*.
- Kołodziejcki, M. (n.d.). *Policy Department for Structural and Cohesion Policies*. Retrieved December 12, 2022, from <https://www.cplp.org>.
- KYOTO PROTOCOL TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE UNITED NATIONS*. (1998).

- Lawrence, D., Coe, M., Walker, W., Verchot, L., & Vandecar, K. (2022). The Unseen Effects of Deforestation: Biophysical Effects on Climate. *Frontiers in Forests and Global Change*, 5, 49. <https://doi.org/10.3389/FFGC.2022.756115/BIBTEX>
- Lee Twesige, R. (2015). *Bitcoin. A simple explanation of Bitcoin and Block Chain technology.*
- Lee, X., Goulden, M. L., Hollinger, D. Y., Barr, A., Black, T. A., Bohrer, G., Bracho, R., Drake, B., Goldstein, A., Gu, L., Katul, G., Kolb, T., Law, B. E., Margolis, H., Meyers, T., Monson, R., Munger, W., Oren, R., Paw U, K. T., ... Zhao, L. (2011). Observed increase in local cooling effect of deforestation at higher latitudes. *Nature* 2011 479:7373, 479(7373), 384–387. <https://doi.org/10.1038/nature10588>
- MacArthur, R. H., Diamond, J. M., & Karr, J. R. (1972). Density Compensation in Island Faunas. *Ecology*, 53(2), 330–342. <https://doi.org/10.2307/1934090>
- Michaelowa, A., Shishlov, I., & Brescia, D. (2019). Evolution of international carbon markets: lessons for the Paris Agreement. *Wiley Interdisciplinary Reviews: Climate Change*, 10(6), e613. <https://doi.org/10.1002/WCC.613>
- Mofokeng, M., & Matima, T. (2018). Future tourism trends: Utilizing non-fungible tokens to aid wildlife conservation. *African Journal of Hospitality Tourism and Leisure*. https://www.researchgate.net/publication/327832753_Future_tourism_trends_Utilizing_non-fungible_tokens_to_aid_wildlife_conservation
- Portugal Balance of Trade - November 2022 Data - 1950-2021 Historical. (n.d.). Retrieved December 12, 2022, from <https://tradingeconomics.com/portugal/balance-of-trade>
- Saleh, F. (2021). Blockchain without Waste: Proof-of-Stake. *The Review of Financial Studies*, 34(3), 1156–1190. <https://doi.org/10.1093/RFS/HHAA075>
- Schaberg, P. G., DeHayes, D. H., Hawley, G. J., & Nijensohn, S. E. (2008). Anthropogenic alterations of genetic diversity within tree populations: Implications for forest ecosystem resilience. *Forest Ecology and Management*, 256(5), 855–862. <https://doi.org/10.1016/J.FORECO.2008.06.038>
- Schleussner, C. F., Lissner, T. K., Fischer, E. M., Wohland, J., Perrette, M., Golly, A., Rogelj, J., Childers, K., Schewe, J., Frieler, K., Mengel, M., Hare, W., & Schaeffer, M. (2016). Differential climate impacts for policy-relevant limits to global warming: The case of 1.5 °c and 2 °c. *Earth System Dynamics*, 7(2), 327–351. <https://doi.org/10.5194/ESD-7-327-2016>
- Schneider, L., Duan, M., Stavins, R., Kizzier, K., Broekhoff, D., Jotzo, F., Winkler, H., Lazarus, M., Howard, A., & Hood, C. (2019). Double counting and the Paris Agreement rulebook. *Science*, 366(6462), 180–183. <https://doi.org/10.1126/SCIENCE.AAY8750>
- Tensen, L. (2016). Under what circumstances can wildlife farming benefit species conservation? *Global Ecology and Conservation*, 6, 286–298. <https://doi.org/10.1016/J.GECCO.2016.03.007>

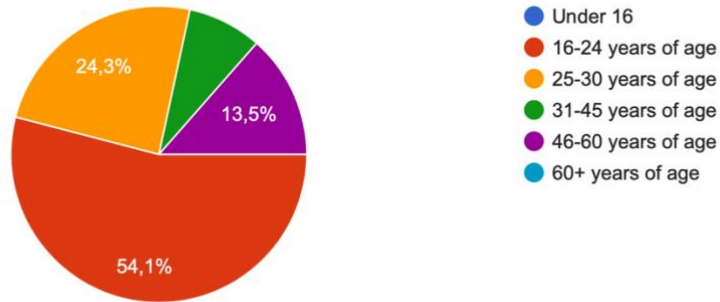
- Vujičić, D., Jagodić, D., & Randić, S. (2018). Blockchain technology, bitcoin, and Ethereum: A brief overview. *2018 17th International Symposium on INFOTEH-JAHORINA, INFOTEH 2018 - Proceedings, 2018-January*, 1–6. <https://doi.org/10.1109/INFOTEH.2018.8345547>
- Walter V. Reid, Harold A. Mooney, Angela Cropper, & Doris Capistrano. (2005). *Millenium Ecosystem Assessment*. <https://www.millenniumassessment.org/documents/document.356.aspx.pdf>
- Wang, Q., Li, R., Wang, Q., & Chen, S. (2021). *Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges*. <https://arxiv.org/abs/2105.07447v3>
- Warner, K., & Van Der Geest, K. (2013). Loss and damage from climate change: Local-level evidence from nine vulnerable countries. *International Journal of Global Warming*, 5(4), 367–386. <https://doi.org/10.1504/IJGW.2013.057289>
- Wright, D. C. S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.3440802>
- Zheng, Z., Xie, S., Dai, H. N., Chen, W., Chen, X., Weng, J., & Imran, M. (2020). An overview on smart contracts: Challenges, advances and platforms. *Future Generation Computer Systems*, 105, 475–491. <https://doi.org/10.1016/J.FUTURE.2019.12.019>

Annex

Annex A- Questionnaire Results

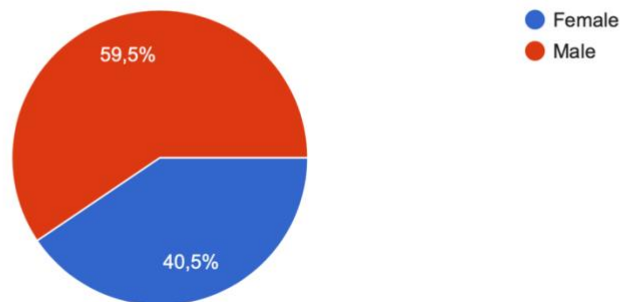
What age group do you belong to?

37 Antworten



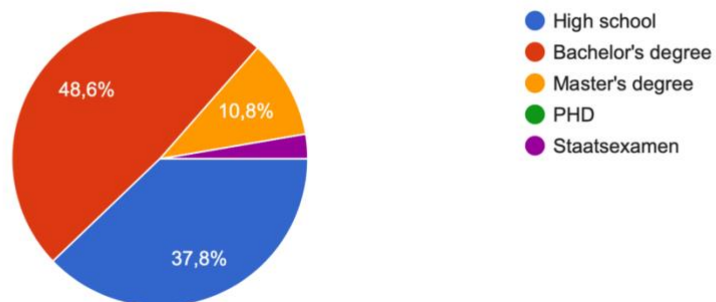
Gender

37 Antworten



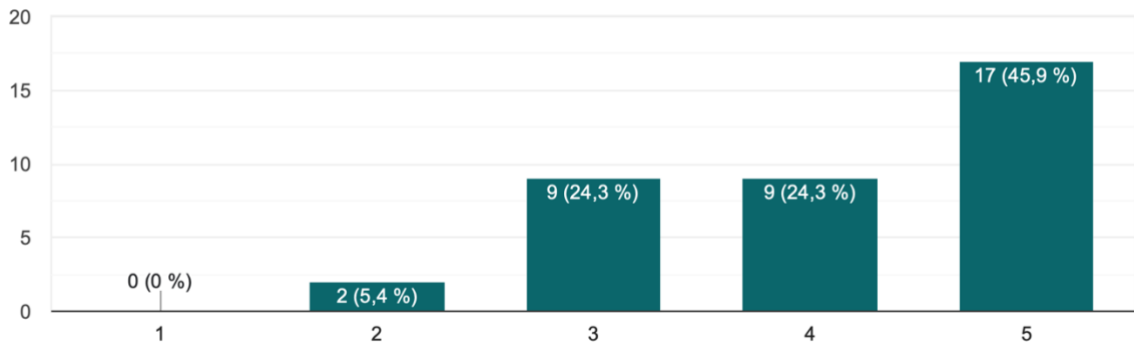
Degree of Scholarity

37 Antworten



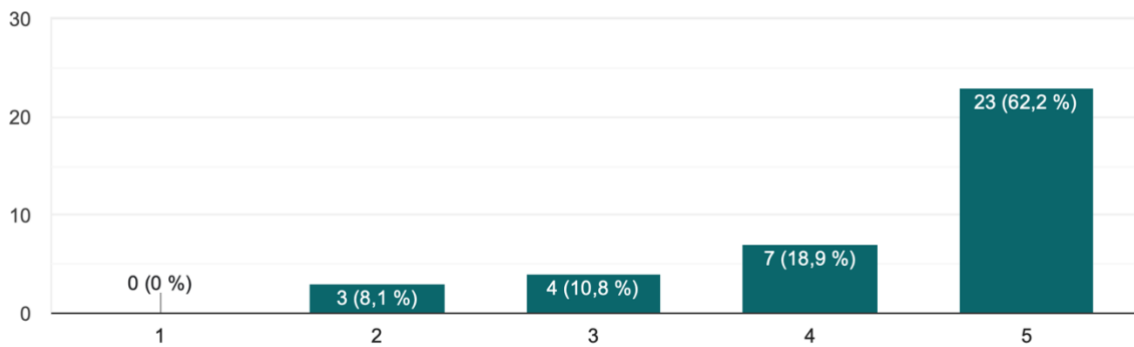
How concerned are you about climate change?

37 Antworten



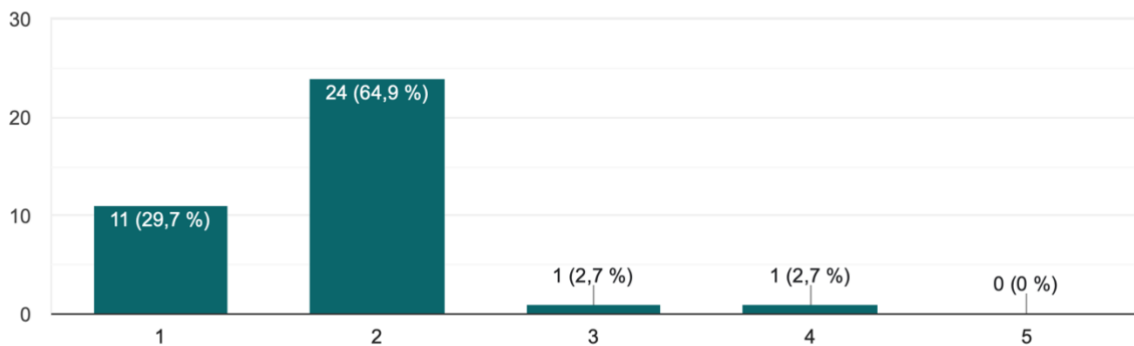
How concerned are you about the destruction of ecosystems and biodiversity loss?

37 Antworten



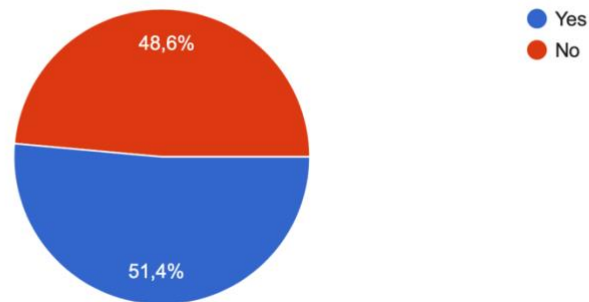
How satisfied are you with the action taken by the worlds leaders in fighting climate change?

37 Antworten



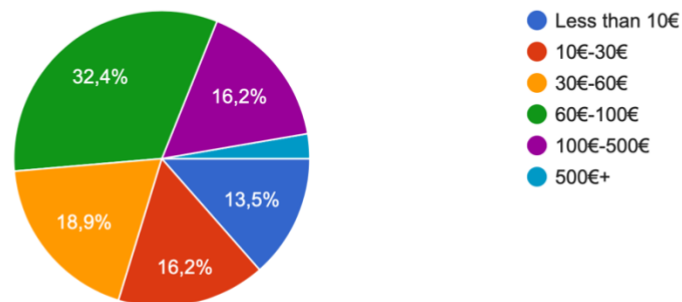
Have you ever donated money towards mitigating climate change and ecosystem destruction?

35 Antworten



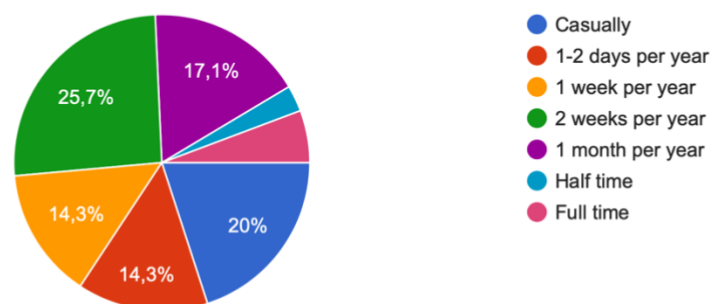
How much money would you be willing to spend towards saving ecosystems and biodiversity and fighting climate change annually?

37 Antworten



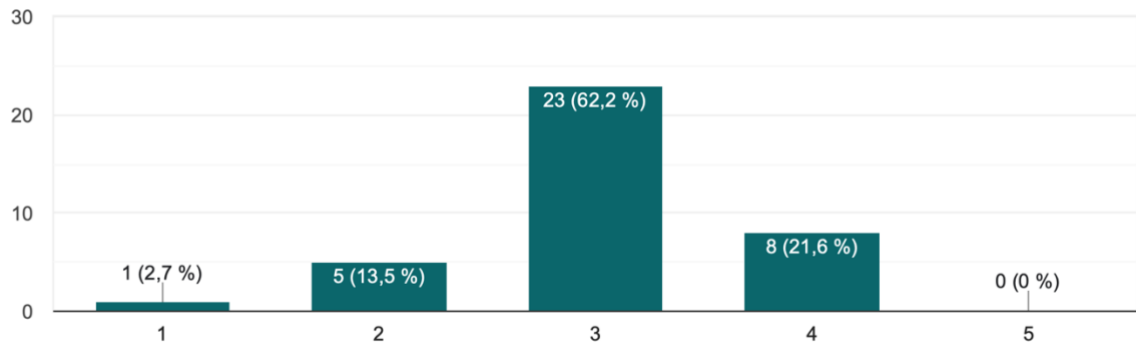
How much time would you be willing to spend on saving ecosystems and biodiversity and fighting climate change?

35 Antworten



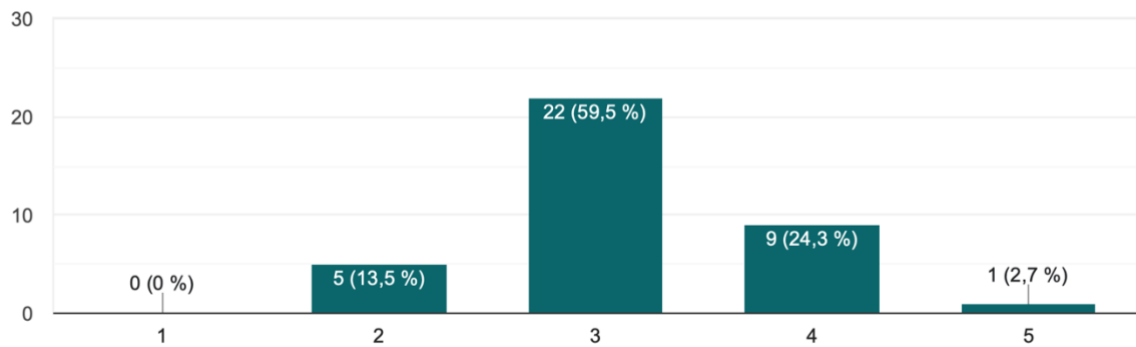
How satisfied are you with environmental organisations in general?

37 Antworten



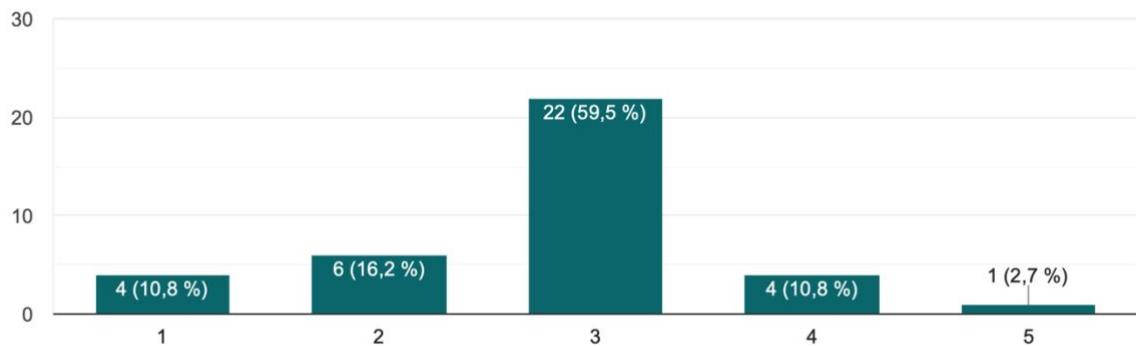
How satisfied are you with the choice of current environmental organisations?

37 Antworten



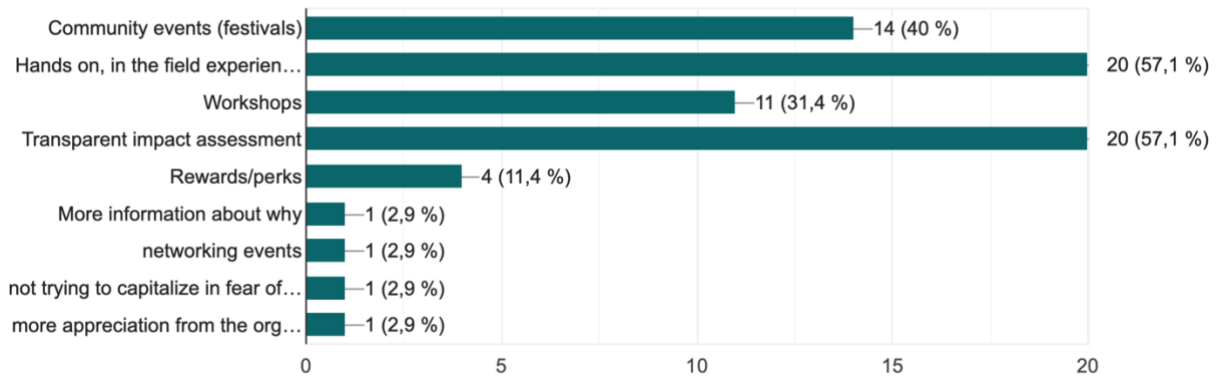
How satisfied are you with environmental organisations transparency?

37 Antworten



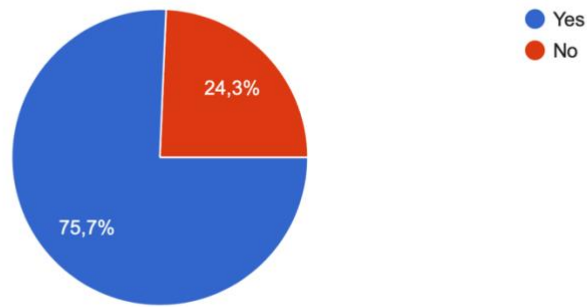
What would increase your willingness to volunteer and/or donate money?

35 Antworten



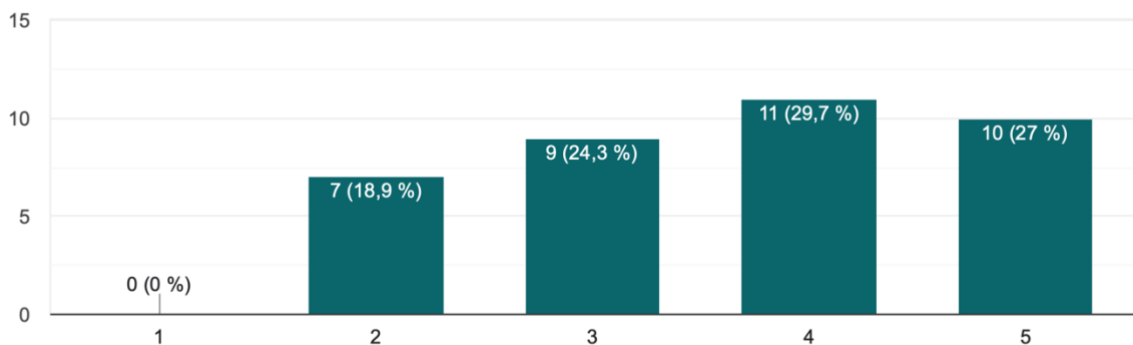
Have you heard of rewilding?

37 Antworten



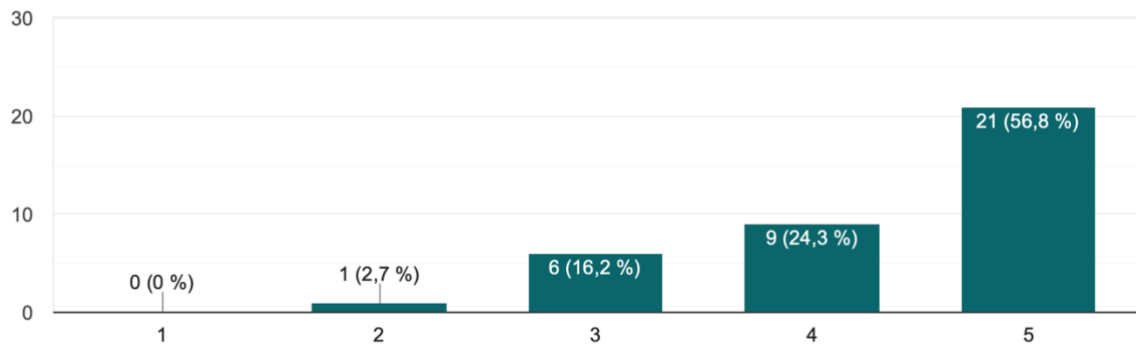
How effective do you deem the creation of a natural preserve in Europe in the fight against climate change?

37 Antworten



How effective do you deem the creation of a natural preserve in Europe in the fight against biodiversity loss and ecosystems?

37 Antworten



How comfortable do you feel with buying blockchain tokens?

37 Antworten

