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Term Paper

**Five ways to shape the economic and ecological
environment on the island of Tenerife in times of a global
pandemic and beyond**



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Declaration of authorship of an academic paper

I hereby declare that I have written this paper myself and used no other sources or resources than those indicated, have clearly marked verbatim quotations as such, and clearly indicated the source of all para-phrased references.

Neither this paper nor any part of this paper is a part of any other material presented for examination at this or any other institution.

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1 Introduction

1.1 Task description

We currently live in an extraordinary time. Due to the COVID-19 pandemic we all are challenged in lots of different ways. Our work as well as our private lives have changed significantly.

The island of Tenerife, former heavily dependent on tourism is currently facing a huge challenge. With the already declining number of tourists visiting Tenerife in the previous years (Gobierno de Canarias, 2020) the COVID-19 crisis hits even harder. The number of tourists has dropped significantly. For example, there have been 1.143.699 visitors on the canaries in October 2019. In October 2020 however the number of tourists was at only 136.896. (Gobierno de Canarias, 2020)

Having that in mind one could imagine that the economy and the people on Tenerife and the entire Canary Islands must think about new ways for doing business in order to sustain good working and living conditions. At the time of writing, it is completely unclear how long the pandemic and the associated restrictions will last. However, it must be assumed that these circumstances will severely restrict tourism in Tenerife in the long term. Considering the incredibly special and challenging circumstances worldwide, various business ideas will be presented in the following, which are intended to offer new perspectives for the local people of Tenerife in particular, away from the usual tourism business. But challenging times always bring opportunities with them. It cannot be stated that the extensive tourism of millions of tourists every year can be described as sustainable. This brings up the opportunity to think about a sustainable future for the Canary Islands even more.

The business ideas presented in this paper are based on the so-called Circular Business Model. Other than the linear business model the Circular Business Model not only takes the environment into account, but the environment is also a crucial part in this system. This holistic approach ensures that all significant factors are considered.

1.2 Research Question

Regarding the common ground for all the groups working on business ideas for this term paper the following research question applies:

How could economically and ecologically sustainable business ideas for the Island of Tenerife look like in times of a global pandemic and beyond?

Every team therefore must develop an economically and ecologically sustainable business model based on the circular business model.

1.3 The Business Idea development process

Five groups were formed to work on and develop different ideas regarding the island Tenerife and its specific circumstances and requirements. During the development of the ideas the groups supported each other with new ideas and feedback to existing ideas.

Also, a so-called Knowledge Huddle was conducted on the 26 of November 2020 by the Grasp Network (GRASP Network, 2020) with the students, experts from different fields and locals from Tenerife. The Knowledge-Huddle was a great opportunity for the groups to present their business ideas to other people and get direct feedback from people living on the island and other experts. Furthermore, the students had the opportunity to conduct interviews different experts following the event.

1.4 Goal of this term paper

The term paper aims to present viable business ideas especially suited for the island of Tenerife. It should inspire and show alternatives to the already existing businesses on the island. Each team is approaching the challenges holistically by trying to cover all different aspects of the business idea and applying the circular business model. Through direct feedback and exchange with experts the business ideas in this paper are already well founded, even though they could yet not have been tested under real conditions.

1.5 Structure

This paper contains the results, namely the business ideas of the five groups. Each group is going to present their business idea in a separate chapter. Following the introduction, a PESTEL analysis for the island of Tenerife will be found, looking at the political, economic, social, technological, ecological, and legal aspects of the island.

2 PESTEL Analysis

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2.1 Social situation

The seven islands of the Canary Islands are inhabited by over two million people. The vast majority of the population occupies the two islands Grand Canaria and Tenerife which are the main islands of the archipelago. (Lahtinen, et al., 2013, p. 2). Specifically, in Tenerife, the population consists of 966,185 people at the beginning of 2020 (The National Statistics Institute (INE), 2020). From this it can be concluded that 4.6 percent of the total Spanish population lives in the Canary Islands. The archipelago is characterized especially by the high population density (Lahtinen, et al., 2013, p. 2). In 2018, Tenerife had a population density of 305.7 inhabitants per square kilometer (UrbiStat S.r.l., 2018). Compared to the whole of Spain, this is over three times more, because Spain had a density of 93,7 inhabitants per square kilometer in 2018 (The World Bank Group, 2018). Thus, there is a strong congestion, especially on the two main islands, considering the arriving tourists visiting the islands (Lahtinen, et al., 2013, p. 2). In 2018, the average age of the inhabitants of Tenerife was 42.2 years and there were 50,8 percent female and 49,2 percent male residents (UrbiStat S.r.l., 2018). Furthermore, the life expectancy in 2018 in the Canary Islands was 82,8 years (Countryeconomy.com, 2019).

After the financial crisis, the immigration to the island is increasing again. A major part of this consists of immigrants from American countries. Here, the countries of Cuba and Venezuela can be mentioned in particular. Immigration from Italy is also on the rise. The reason for immigration to the Canary Islands is dominated by the motive to find work there instead of the motive to live on the island (Buraschi & Hernández, 2019, p. 16).

Spanish law governs the school system in the Canary Islands. They have a pre-primary school for children up to six years. Hereby, it is not mandatory to attend this school. It is followed by a primary school for children between six and 12 years. After that there is the compulsory secondary from 12 to 16 years and then the upper secondary from 16 to 18 years. With completion of the upper secondary school, they are entitled to study at a university. In general, if public schools are attended, school participation on the islands is free of charge with the exception of the fee-based upper secondary (OECD, 2012, p. 12). Specifically, Tenerife has at the time of this work two universities on the island. The University of La Laguna is a public university and the Universidad Europea Canarias is a private university (SPET, Turismo de Tenerife, SA, 2020). The archipelago is characterized by a subtropical climate. These climatic conditions as well as the beaches attract numerous tourists to the islands (OECD, 2012, p. 12). Each island is characterized by its own peculiarities (Lahtinen, et al., 2013, p. 2).

2.2 Political situation

The Canary Islands are one of the most peripheral areas of Europe (Lahtinen, et al., 2013, p. 21). Concerning the Statute of Autonomy of the Canary Islands, which was adopted in 1882, the archipelago is an autonomous region of the country of Spain (Global-Regulation Inc, 2020). Therefore, the islands have its own tax- und economic system, from which the companies on the archipelago benefit (Goruma, 2020). In terms of policy, it differs significantly from the other regions of Europe. Four different levels of government control the island. There is

- The administration of the country of Spain
- The administration of the entire archipelago
- The council of each single islands
- The government of the communities

(Lahtinen, et al., 2013, p. 21).

For the island of Tenerife there is a council, which can decide independently on various issues (SPET, Turismo de Tenerife, SA, 2020). The archipelago consists of two provinces. The first is Santa Cruz de Tenerife, here El Hierro, La Palma and La Gomera belong to. The second province is Las Palmas. Gran Canaria, Fuerteventura and Lanzarote belong to this province (Lahtinen, et al., 2013, p. 21).

The presidential election was in 2019 and Ángel Víctor Torres was elected by the parliament as the current president (Status: December 2020) of the Canary Islands (S.L., 2019). The Parliament is situated in Santa Cruz. However, the president changes his place every four years, alternating between Tenerife and Gran Canaria (Goruma, 2020).

In 2018, a new Statute of Autonomy of the Canary Islands was adopted. In this, the sea has also been taken into account. Before this agreement, the sea was not part of the autonomous community. Now that the sea is included, the islanders have rights over the sea, which brings them new potentials (European Institute of Public Administration, Delegation Barcelona, 2020).

2.3 Economic situation

In 2019, the gross domestic product (GDP) of the Canary Islands was at 47,164m euros, which places it as the 8th economy in Spain. Looking at the GDP per capita in 2019, which is a good indicator for the quality of life, the Canary Islands had 21,244 euros. Compared the GDP per capita (2019) in Spain was at 26,430 euros and 41,340 euros in Germany (Datamacro, 2020; Statista, 2020a). The following figure 1, gives an overview on the development of GDP on the Canary Islands over the last 20 years.

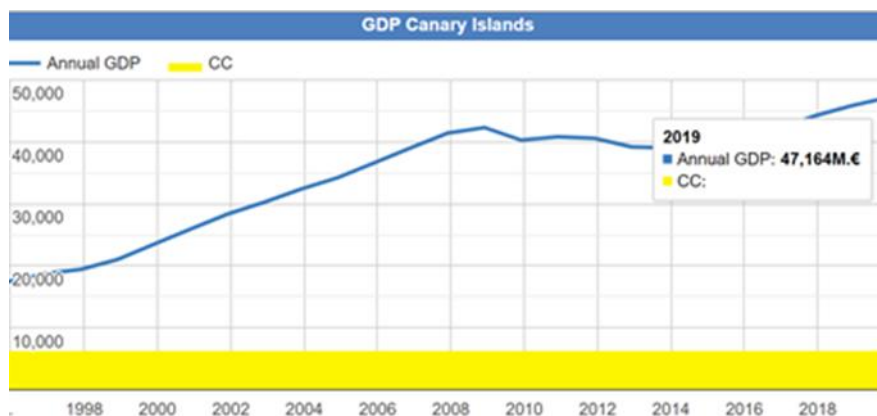


Figure 1: GDP Canary Islands (countryeconomy, 2020)

Looking at the economic fields, Tenerife's is most represented by the tertiary sector, with about 74.6% (Cabildo de Tenerife, 2020). Within the service sector, in particular the tourism and therefore the hotel industry stands out. Especially in the hotel environment, there is a need for highly qualified and specialized personnel for the service in high-class hotels. In connection to this sector, the construction of buildings and specialized construction activities are flourishing (European Commission, 2020a). The industry sector on the island is sparse and accounts only for about 8 % of national GDP, mainly in the field of tobacco, agro-food processing and oil refining. In regard to the primary sector, the majority is in the rain-fed agriculture (potatoes and vines), and a minority in irrigated agriculture (mainly tomatoes and bananas). Nevertheless, the export of tropical fruits like mangoes, pineapples and avocados as well as flowers has started in recent years. Exports in this field are mainly geared towards trade with national markets as well as the EU (Cabildo de Tenerife, 2020). The business structure on the Canary Islands is characterized by small and medium-sized enterprises. Thus, the canaries have 146,126 registered companies, of which more than a half have no employees at all, 35,17% employ five or less people and only 8.66% employ more than five people. Therefore, the island

only has thirteen companies with more than a thousand employees (European Commission, 2020).

There are approximately 1,130,700 people of working age in the Canary Islands (2019), of which 239,600 people are unemployed. This involved 87,794 men and 116,735 women. Therefore, the unemployment rate amounts to 21.19%, which is above the national average. The majority of these unemployed residents comes from the service sector, followed by the construction industry, the industrial field and finally the agricultural sector (European Commission, 2020). In more detail, most of the unemployed are in the professions of administrative workers, farm workers, cashiers, carpenters, workers in orchards, greenhouses, nurseries and gardens, learning supervisors, receptionists and hairdressers. Considering the above mentioned, it can be said that the Canary Islands have a labor surplus for occupations in which low skills are required (European Commission, 2020b). Regarding the employed people the minimum wage that an employee can receive for 2020 equals 950 euros per month, 50 euros more than in 2019, an increase of 5.6% (Statista, 2020b)

The public debt amounts to 6,613 million euros in 2019, which is a debt per capita of around 2,978 euros per inhabitant (Datamacro, 2020; Statista, 2020a).

Factors such as insularity, lack of raw materials and distance from the European continent result in disadvantages for the development of the Canary Islands economy. To counteract these disadvantages, the Canary Islands have a special economic and tax regime, which includes special rules on the Value Added Tax (VAT) (European commission, n.d.a). These special rules imply that the islands are not part of the harmonized VAT system (Article 6 of the VAT Directive). Instead, there is a local tax on consumption, the IGIC (Impuesto General Indirecto de Canarias) and another tax on consumption, namely the AIEM (Arbitrio sobre Importaciones y Entregas de Mercancías en las Islas Canarias). These taxes are handled by the national or local authorities, which nevertheless still need to respect the general principles of the Treaty on the Functioning of the European Union, to exclude discrimination in the taxation of goods (European Commission, n.d.b).

During the last thirty years, the standard of living in the Canary Islands has continuously increased. This is evident in the steadily rising Human Development Index (HDI), which in 2018 had a value of 0.861. In comparison, Spain as a whole is in 25th place with a value of 0.893 and Germany is in 4th place with 0.939. In general, the HDI value shows a combination of life-expectancy, GDP per capita and education levels. Countries that reach a value above 0.800 are considered to have a very high level of development, which indicates that the Canary Islands has reached a very high level of human development (Conceição, 2019, p. 300; Forte, 2018; globaldatalab, 2020).

The current Covid-19 crisis has a strong impact on the Canary Islands economy. For example, every second company has reduced its workforce and about one in three has even laid off more than half of its employees or sent them to work part-time. Accordingly, about 40 percent of the island's residents are unemployed or working part-time. As a result, at least 28,000 people are now living at subsistence level. This in turn has a major impact on the economic performance of businesses. According to the Spanish Confederation of Small and Medium-Sized Entrepreneurs (Cepyme), 90 percent of companies make less sales than before the Corona crisis. Around 40 percent even turn over less than half. Since the islands have a greater dependence on tourism, it is more difficult to face the effects of Covid-19. All economic indicators of the Canary Islands are disproportionately more negative due to the dependence on the service sector caused by the current Corona situation (Bornewasser, 2020a, 2020b).

2.4 Environmental situation

In general Tenerife is a very diverse country due to the geographic layout created by the volcano el Teide, the highest mountain in Spain with 3,718 meters and the mountain range, which runs from east to west. Because of that there are different altitudes and temperatures which in turn create different sudden microclimates on the whole island. There exist different vegetation zones because of winds, altitude and rain differences such as desert landscapes, on the coast, subtropical rainforests in the midlands and the summit and volcanic landscapes, such as the Teide national park.

This in turn result in a mild climate throughout the year with an average above 20 degrees Celsius and less than 30 degrees. The North of the island is greener and cooler than the South. As well as the trade winds are the reason why the climatic harshness of the nearby Saharan desert are softened. Furthermore, the correlation of the orography of the island and the cold marine current of the Canary Islands are creating mild temperatures at Tenerife's beaches and coasts. (Cabildo de Tenerife, 2020)

But Tenerife is also affected by climate change and global warming. Due to the nearby Saharan desert the island will face more frequently heatwaves and Saharan dust events. Usually there are two dust seasons, one in summer and the other one in winter. Since 1980 the dust concentrations have doubled, and this leads to social-economic impacts through reduced visibility. This in turn influences the airport operations and their transport services. (Hernandez et al. 2018, p. 29) In the recent years, seasons have changed, and the temperature has mainly risen in winter, autumn and summer. (Martín et al. 2012) As research states there occurred an increase of the mean temperature, comparing the decades between 2001 and 2010 to 1944 and 1953. The research "revealed an increase of $0.60 \pm 0.30^{\circ}\text{C}$." (Martín et al. 2012 p. 348) The heatwaves not only have impacts on the health of the population of Tenerife, it also affects the

ecosystems and the wildlife on the island. As well as it also provokes material overheating which in turn will damage the infrastructure, “such as hospitals, transport and energy infrastructure”. (Hernandez et al. 2018, p. 29)

Another aspect that affects the environment drastically on the island of Tenerife are sources of pollution. The main source of air pollution is the oil refinery and the shipping in the harbour of Santa Cruz de Tenerife and the power plants along the east coast of the island. (Hernandez et al. 2018) They cause emissions, that exceed the legal limits. In 2011 Tenerife was “the only area in Spain in which the hourly ($350 \mu\text{g m}^{-3}$) and daily limits ($125 \mu\text{g m}^{-3}$)” (Baldasano et al. 2014, p. 577) of SO_2 were exceeded. The population is directly affected by the plumes due to the inland sea breeze that spreads emissions directly over the cities. This effect deteriorates “under summer S[aharian]A[ir] L[ayer] conditions due to the concentration of air pollutants at low altitudes linked to the downward shifts of the inversion layer and to heterogeneous reactions between pollutants and Saharan dust”. (Hernandez et al. 2018, p. 29) Tenerife is also heavily affected by marine plastic pollution, through the currents, plastic is washed up at the coastlines of the island. (Reinold et al. 2020)

Finally, an aspect that is affecting the environment and the people on Tenerife is water shortage. Water is a rare resource on Tenerife because of the high permeability of soils and because of the low rainfalls on the island during the year. The population on the island heavily depends on access to subterranean watercourses, due to the volcanic characteristics of the soil the rainwater seeps underground. But due to the over-exploitation of aquifer resources it is a socially constructed scarcity. (Aguilera-Klink et al. 2000) More than 80 percent of the water consumption on the island “is sourced from its network of 1,700 km (1,055 miles) of canals and 500 active wells” (Tenerife Tourism Corporation, 2020). Agriculture is the sector that uses most of the water resources, followed by the population and the tourists. There are also desalination plants, in order to be able to use the sea water or plants for “purifying waste water to be used in irrigation” (Tenerife Tourism Corporation, 2020).

2.5 Technological situation

When analyzing the technological factors, relevant for new business ideas on Tenerife, three aspects are most relevant, physical infrastructure, digital infrastructure as well as the research and development capability.

The importance of the physical infrastructure comes with the fact that Tenerife is an island without any bridges connecting them to another continent, therefore making it only be accessible by sea or air. These two modes of transportation are very well developed on Tenerife as it has five operating international ports alongside two large airports (Tenerife South Airport –

TFS & Tenerife North Airport – TFN), allowing up to 5.8 million people to travel to Tenerife each year (Forte, 2020).

The five cargo ports are located around the capital of Santa Cruz and in the South, allowing for easy distribution of goods on the island. By far the largest cargo port is the Puerto de Santa Cruz de Tenerife, handling 300,000 TEUs per year (Port Authority of Santa Cruz de Tenerife, 2020). For its strategic location in handling cargo between Europe Africa and America as well as its importance in cruise traffic, Puerto de Santa Cruz has been named one of the three most important ports in the world by Seatrade Cruise Med in 2016 (Grupo 20 Minutos S.L., 2016).

Just as the cargo ports, the ports for personal transportation are located on the east coast in Santa Cruz and the southern coast in Los Christianos. While the port of Santa Cruz serves as a connection to mainland Spain and Gran Canaria, most ferries to the other Canary Islands operate from the port of Los Christianos. While the other three larger islands, Gran Canaria, Lanzarote and Fuerteventura all have international airports, the smaller islands like La Gomera or El Hierro heavily rely on the transport of cargo and passengers from Tenerife (SPET Turismo de Tenerife, S.A., 2020).

Because the most frequented travel locations are located on the southern coast of Tenerife, Tenerife South Airport has more annual passengers (11,168,707 on 70,277 flights) (Aena, SME S. A., 2020) than Tenerife North Airport (5,840,483 on 75,385 flights). 99 percent of the Tenerife North's airport operations are domestic flights, while Tenerife South handles almost all international flights. (Aena, SME S. A., 2020)

Both airports are also used for cargo transportation with TFN (12,596 tons/year) (Aena, SME S. A., 2020) handling a sizeable larger amount of cargo compared to TFS (2,188 tons/year) (Aena, SME S. A., 2020).

As of now, possibilities for rail transport are very rare on Tenerife. The only present rail network are the two lines of the Tenerife Tram, operating in the Santa Cruz metropolitan area, transporting 15,554,655 passengers in 2019 (Metropolitano de Tenerife, S.A, 2020). Currently, there are plans to add a third metro line as well as a train line connecting Santa Cruz to the southern airport and the northwestern coast area. These plans have been confirmed by the Tenerife government, however there is no current timeline as for when the construction will start (SwissRapide AG, 2020) (Metropolitano de Tenerife, S.A, 2020).

For transportation of goods and people on the island, Tenerife is relying heavily on their road network, as there is no island-wide rail network present yet. Two major highways connect the capital Santa Cruz to the urban areas of Puerto de la Cruz in the north and the popular tourist destinations in the South. The only locations which are not connected to the highway system

and therefore are harder to reach, are the Teide volcano as well as the less inhabited north-western and northeastern tips of the island (Tourism Council of the Canaries Government, 2020).

The relatively short distances on an Island like Tenerife offer perfect conditions for a broad use of electric vehicles. Charging stations are already present in the urban areas in the north and the south of the island and on all passenger ports (Electromaps, 2020). An interesting project in regard to electric mobility is currently being carried out at the port of Santa Cruz, where charging stations for passengers are being installed and the vehicle fleet is gradually being replaced with electric vehicles (Port Authority of Santa Cruz de Tenerife, 2016). For e-mobility to be predominant on Tenerife however, some more time and a lot more investment in the charging station network will be required.

Of high relevance for any potential new company on the island is the digital infrastructure, mainly the availability of reliable high-speed internet. Despite being an island in the Atlantic Ocean, located 200 miles from the next coast (Morocco) and 925 miles from the European mainland (Portugal), Tenerife has fiber optic internet available almost all over the island, providing download speeds of up to 625 Mbps (FairnetReport, 2020). The healthy competition of six different internet service providers has accelerated the expansion of high-speed internet, resulting in an average download speed of 37.75 Mbps (FairnetReport, 2020), which is noticeably higher than in many other countries, e.g., Germany (23 Mbps) (Heuzeroth, 2019).

To measure the capability of Research and Development, a look at companies operating in the technological sector as well as Universities can tell a lot. Tenerife is home to a considerable number of public research centers and technological centers, both multidisciplinary and sectoral, that develop their activities in thematic areas of special interest for the Archipelago (mostly sea and ocean related) (Meryem, et al., 2019). Aided by the geographical proximity, Tenerife is also trying to share and provide technology for renewable energies and water technology to their African neighbor countries (Instituto Tecnológico y de Energías Renovables – ITER S.A., 2020).

Looking at renewable energies, Tenerife and the Canary Isles provide some of the best circumstances in the entire world. As Tenerife has the most hours of daylight per year in all of Europe, the potential for solar/photovoltaic energy is immense. Same goes for wind energy. The Tenerife government currently plans to have 45% of all energy consumed on Tenerife to be produced from renewable sources (SPET, Turismo de Tenerife, S.A., 2020). The trade winds make the Canary Islands a very windy region, allowing for a wind energy production of 186.67 MW in 2018, making up almost 45% of the Canaries' total 417.6 MW of wind energy

(REVE, 2019). Another, less common source of renewable energy would be geothermal energy. This innovative form of energy generation is mostly used on volcanic Islands like Iceland and the Azores and, while very complex, has proven to be extremely efficient. With Tenerife's mount Teide, the largest volcano in Europe, lies a lot of potential for geothermal energy which is currently assessed by two separate studies (Richter, 2016).

The geographical situation has proven some challenges for businesses especially in terms of transportation. Considering that Tenerife is not connected to the European mainland by any road or rail network, the physical and digital infrastructures are as good as they can be, as the island's government has put a lot of effort into minimizing disadvantages. Despite not having a large technology sector, the expertise in renewable energy and water technology as well as the sharing with African countries, might be crucial factors for the future success of Tenerife.

2.6 Legal situation

Regarding the legal factors, it first needs to be stated, that there are no significant differences between Tenerife and the other Canary Isles, therefore this section will be looking at the region of the Canary Isles as a whole instead of Tenerife.

The Canary Islands are regarded as an Autonomous Community of the Kingdom of Spain, meaning they are officially ruled by the Spanish government. Compared to other Autonomous Communities in Spain however, some of the legislative competencies are shared between the Spanish government and the Canaries Regional Assembly. Amongst other things, the legislative competences of the Regional Assembly include hunting, fishing, scientific research, culture, social assistance and tourism. Moreover, the Regional Assembly is competent for approving the regional budget (European Committee of the Regions, 2020). Despite this partial autonomy, the Canary Islands are part of the European Union, which means they fall under EU jurisdiction. From a business perspective, this brings many regulations regarding data protection, competition and financial regulations. While these regulations bring some amount of additional effort, they also aim to protect businesses and ensure a fair competition. In addition, there are no import or export tariffs to any country in the European Union and the European business zone as well as no visa requirements for travelling or working. In addition to the very transparent fiscal regulations in the European Union, this greatly improves the potential for all Tenerife based companies to do business with other EU member countries (UKEssays, 2018).

The previously mentioned exemption from Value Added Tax in favor of the IGIC system, creates a unique situation within the EU, sparking criticism for potential tax fraud or tax avoidance. In 2013, the Canary government has launched actions to combat tax avoidance (Government of the Canary Isles, 2013).

In conclusion, the security and transparency provided by the European Union's regulations with the added benefit of the IGIC system, provide possibly one of the most favorable legal situations for businesses in all of Europe.

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3 Sustainable business models

3.1 Ocean Support

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3.1.1 Introduction

Plastic in oceans is one of our main problems globally. More than 300 million tons of plastic are produced every year for use in a wide variety of applications (International Union for Conservation of Nature, n.d.). At least 4.8 to 12.7 million tons end up in the oceans every year. It seems as the oceans have become one giant refuse bin for all manner of plastics. Unfortunately, the decomposition of plastic takes several hundred to thousands of years. Until then, it is separated into ever smaller particles, so called microplastic (WWF, 2020). Consequently, flora and fauna suffer enormously. Marine species ingest or are entangled by plastic debris, which causes severe injuries and deaths. Moreover, plastic pollution threatens food safety and quality, human health, coastal tourism, and contributes to climate change (Wabnitz & Wallace, 2010). There are a few organizations that fight against plastic on the beaches and coasts or even against the five huge garbage whirls e.g. "The Ocean Clean Up" (The OCEAN CLEANUP, 2020). But these actions require money. This is where "Ocean Support" wants to start. The idea is to act as a broker between the aid organizations and companies that position themselves as sustainable, like CO2 compensation.

The first location of the project should be Tenerife. The island offers the appropriate resources and is suitable for the pilot project due to its manageable size. Furthermore, the project can be adapted to other Canary Islands easily, if successful. The plastic problem on the islands is visible. The Canaries have tiny bits of plastic everywhere as the islands act as a natural barrier to the Gulf Stream and the Canary Current. As a result, they are a dumping ground for rubbish floating in the Atlantic Ocean, May Gómez, a biology professor at the University of Las Palmas de Gran Canaria, made clear (The Observers, 2019). Therefore, we should act now. On a long time-view, cleaning the beaches and oceans will not only have a positive influence on our planet it also helps the tourism and diving industry as tourists expect a flawless vacation paradise.

3.1.2 Description of the idea, product, services and sales strategy

For the main goal of "Ocean Support", plastic free beaches and seas, money is required. The first step to receive money is via donation. The sponsors should be addressed worldwide via internet. A prototype website is already set up (see presentation). The main target group are companies. But private individuals are also welcomed to donate. In return companies receive a certificate for their support. The donator can decide between different options: a yearly or monthly abo or an individual amount. The final pricing for the products is not set yet, as further research and interviews would be needed. Out of the perspective of a German sustainability manager that we have interviewed, a donation on a yearly basis or once a time would be

preferred (Interview, 00:10:08). Ocean support operates as contact person and agent for companies worldwide that want to compensate plastic. The purpose is to clean the beaches and coastal areas from garbage by supporting existing organizations and creating own initiatives. Next to that the consideration of investments in research for plastic reduction is also interesting for us. The collected plastic should be recycled afterwards. More detailed descriptions follow within the next topic Circular Economy Business Model.

3.1.3 Circular Economy Business Model

The aim of the circular economy business model is to keep materials in use as long as possible and also to preserve their value e.g. through plastic recycling. Thus, waste can be reused and natural systems like the ocean in this case are able to regenerate. Therefore, a re-thinking process including innovation and creativity makes it possible to build a restorative and sustainable economy in the long-term. Alongside the business opportunities there are also environmental benefits (cf. Ellen MacArthur Foundation, 2017).

3.1.3.1 Plastic Life Cycle

Despite all the problems caused by plastic, the demand for plastic is still clearly present. This is mainly due to cost advantages, durability and ubiquity. In the following the life cycle of plastic will be shortly introduced, since that is where Ocean Support would like to approach with its Business Idea. Firstly, the raw materials such as oil and natural gas are needed to produce plastic. The production process starts with the production of plastics in their basic form. This can be adjusted in dependence on how it will be used. Through additives the plastics can alter mechanical, chemical and physical properties. This means that additives can make it more adaptable like heat or bacteria resistant. The making of the plastic products depends on the planned usage. There are different manufacturing methods to create the final product. When it comes to the utilization the versatility of plastic is a huge benefit, because a wide range of products and items can be created from this material. The big problem that comes with plastic recycling is the plastic that is not recycled. It is estimated that only 9% is recycled and 12% is combusted, the rest ends up in landfills or in the nature. Especially the landfills are not the end of the plastic life cycle. Birds can pick it up and thus the plastic finally finds its way e.g. into the oceans. When plastic is not properly recycled and reused, the effect on the nature will last for a very long time. That is where the Business Idea of Ocean Support can be part of the solution and leave a positive impact on nature, as shown on the following illustration (cf. trvst, n.d.).

3.1.3.2 Circular Business Model Ocean Support

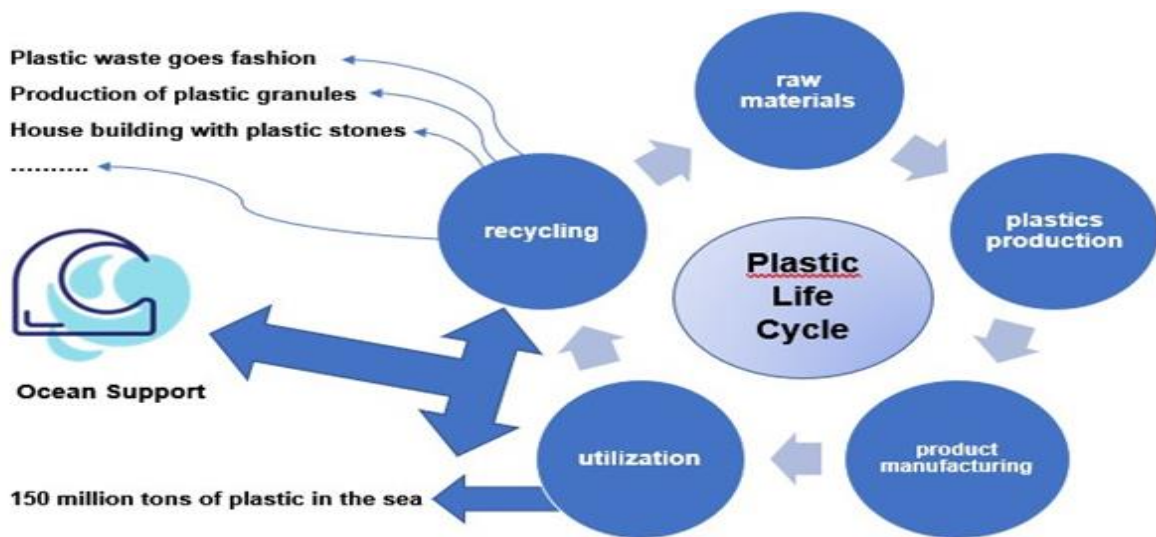


Figure 2: Plastic Life Cycle (own representation)

To reach the goal of plastic free beaches and oceans, the plastic needs to be collected in the first place. There are already local organizations like “Océano Limpio Tenerife” which can be supported by Ocean Support. Otherwise, own initiatives shall be carried out as well which could offer a salary for collected plastic. The gathered plastics can be used as raw material and thereby get recycled. There are many different potential customers which use recycled plastic, especially from the ocean, as material.

How could potential customers use the collected plastic:

- **Plastic waste goes fashion**

It is possible to produce clothing from recycled plastic fibers, especially nylon and polyester, which can be extracted e.g. from fishing nets. Alternative materials for clothing are needed, because the common chemical fibers and cotton leave gigantic ecological footprints. The ocean plastic is cleaned, then shredded and the resulting shreds are melted down into a fine yarn (cf. Billig, 2018).

- **Production of plastic granules**

With the production of recycled plastic granules, even plastic roads could be built. After heating to 180 degrees, it can be mixed with bitumen. Plastic roads shall be 60 percent more resilient than conventional pavements and would last up to three times longer in laboratory tests. The roads can even be recycled, e.g. the pavement can be recycled to build another road. In parts of India, it is already mandatory to use recycled plastic in road construction since 2015, that shows great potential for the use of Ocean Supports’ collected plastic (cf. Mau, 2019).

- **House building with plastic stones**

The Columbian start-up Conceptos Plásticosaus has developed construction elements made of recycled plastic with which houses, classrooms or emergency accommodation can be built within a few days. Any waste can be used, all various materials are melted down and poured into molds (cf. Zentek, 2019).

- **Plastic Energy Tenerife**

The chemical recycling group Plastic Energy, which already has two sites functioning at commercial scale in Spain, planned to build a new plant in Tenerife until the end of 2020 located outside the island's landfill site. Their plants can produce different products like heavy fuel oil, diesel, and a naphtha-like product called Tacoil (cf. Beacham, 2019).



Figure 3: Circular Business Model Ocean Support (own representation)

Therefore, Plastic Energy could be a first customer due to the geographical proximity, the need for plastic and the common vision of a circular economy. In the waste separation center of the landfill of Arico, called Complejo Ambiental de Tenerife, a new recycling plant will be built. This could also become a customer for the collected plastic. (cf. Wochenblatt.es, 2021). Ocean Support will not only provide plastic as raw material, but also plastic compensation certificates for companies like CO2 compensation. This money will be used again for the collection of the plastic and compensation for the supporters. Within this circle the result should be a positive influence on the oceans and nature in general as well as on the tourism and diving industry. The circular business model of Ocean Support brings only advantages for all parties involved.

3.1.4 Resources needed

For the entire business model to function successfully, each company requires a unique combination of certain types and a certain number of different key resources. This unique combination of types and quantities of a company's key resources can create, implement, maintain, deliver and serve its unique value propositions for specific customer segments (cf. Johnson, 2010, p. 39). The following resources should be considered as essential for the success of the business: funding, employees, industry know-how, premises and equipment (cf. Lock, 2012, p. 19; Brevis, 2008, p. 39).

The founding of even a small business is always connected with costs. Costs may arise from the rent, raw materials, employee wages, office supplies, license and permit fees. Even registering a business name, obtaining a business telephone line and printing business cards requires money. Accordingly, the company needs capital to cover the operating expenses until the business becomes profitable and self-sustaining. Financial resources can be obtained from a variety of sources. As personal saving is not an option, alternative financial resources should be taken into consideration. First, loans and lines of credit may be granted from financial institutions, private investors and even the government (cf. Nichols, 2013, p. 7). But here is important to take into consideration, that most lenders require an established credit history, something that new businesses don't have. In this case the loan could be obtained from a variety of small business factoring companies or invoice factoring companies.

In addition, many grants are offered from private and public sources to entrepreneurs of all demographics and personal situations (cf. Chron, 2020). For example, the EU LIFE program is the EU's funding instrument for the environment and climate action created in 1992. The current funding period 2014-2020 has a budget of 3.4 billion € (cf. European Commission, 2019). The program provides action grants for pilot and demonstration projects to develop, test and demonstrate policy or management approaches. It also covers the development and demonstration of innovative technologies, implementation, monitoring and evaluation of EU environmental policy and law, as well as best practices and solutions. The European Commission is particularly looking for technologies and solutions that are ready to be implemented in close-to-market conditions, at industrial or commercial scale, during the project duration. Projects receive a co-funding of up to 55% (cf. European Commission, 2020). One of the most important challenges facing the founder of any business is finding a team. In order to achieve success, any organization need to work with the specialists within the area of expertise and experienced professionals (cf. Holbeche, 2009, p. 3). However, usually such people are also needed by well established companies, which can offer not only a salary, but also a bunch of other bonuses. So here arises the question, where to look for qualified and experienced employees?

Strong and talented people can be recruited using a variety of methods. Many start-ups rely on referrals when looking for new employees. But word of mouth is not enough when there are always new positions to be filled. As a result, companies must advertise in order to attract the best minds. Firms can rely on conventional career portals such as Stepstone or Monster. However, these have the disadvantage that they are relatively expensive. The costs are often too high, especially for very young companies. Moreover, young start-ups often need special target group of dynamic employees who are interested in this kind of jobs and who like to adapt to the corporate culture of young and rapidly growing companies. Young firms need employees with a hand-on mentality who are flexible and ready to do pioneering work. That's why, it might be useful to use start-up portals such as "Gründerszene", "Germany Startup Jobs" or "Berlin Startup Jobs" for Germany (cf. Starting Up, 2020) and for example, "Infojobs" (cf. InfoJobs Empresas, 2020) or "JobFluent" (cf. Job Fluent, 2020) for Spain. Moreover, new workers could be recruited directly at the universities (cf. Herrenkohl, 2010, p. 109) on Tenerife, such as University of La Laguna (cf. Universidad de la Laguna, 2020) and Universidad Europea de Canarias (cf. Keystone Masterstudies, 2020).

Information and education are also important factors of success (cf. Field & Tunna, 2011, p. 253). Young companies need to understand the competition, their audience, industry and a service or product they offer (cf. Scarborough & Zimmerer, 2000, p. 285). The more in-depth knowledge the companies get, the better they will be to make smarter decisions regarding the direction of the firm. There are several ways to boost the company know-how.

First, as other companies often share their expertise young companies could benefit from their knowledge by following their websites and online publications (cf. De Burca, et al., 2004, p. 515). Also, attending conferences, seminars and presentations can give insights into new business trends. Moreover, educational resources can be found through professional trade associations that are geared toward the plastic industry, like Spanish Association of Plastics Industry (cf. ANAIP, 2020), IMAPC or AMEC (Asociación Española de Fabricantes de Maquinaria para Plásticos y Caucho; AMEC, 2020). Also, the local chamber of commerce like Santa Cruz de Tenerife Chamber of Commerce and Industry (La Camara, 2020) is a good source of information and help.

Every company should have a designated workplace, that will create a positive first impression on its future employees, clients and partners. Moreover, the needed physical resources include also a working telephone line, adequate information systems and effective marketing materials (cf. Brevis, 2008, pp. 39-40). This aspect of business planning can be one of the costliest (cf. Sanders, 2010, p. 42). That's why it is important to realistically assess companies' needs before making any purchases.

3.1.5 Competition

3.1.5.1 Direct Competition

Regarding direct competition, meaning companies or organizations that follow a similar business model in the same extent as Ocean Support is planning to do, there is only Oceans4Life in the Canaries (see Figure 4). Oceans4Life is a Gran Canaria-based NGO that cleans up beaches, sells environmentally friendly merchandise as well as certifications to companies that want to contribute to a clean Gran Canaria (Dass, 2020).



Figure 4: Overview on the Canary Islands (own representation, based on map from Wikimedia.org, 2021)

They are limited to Gran Canaria, not Tenerife, but it is possible, they may want to extend their operations to Tenerife. Oceans4Life uses volunteers and social media marketing to spread their message.

As it is a non-profit organisation and follows similar goals as Ocean Support does, a cooperation between both organizations may be of value to both. A direct threat from this competition is there, since the business model is similar, but since the organisation is small, not very visible and does only work together with local companies (Dass, 2020), the threat is not very big.

3.1.5.2 Indirect Competition

There are also a couple of clean-up NGOs or campaigns that don't interact with companies much and only organize to clean up beaches and cities (see map above):

- Tenerife mas sostenible (government campaign) (Climático, Área de Desarrollo Sostenible y Lucha contra el Cambio, 2020)
- Participación y Voluntariado Ambientales de Tenerife (Tenerife medio ambiente, 2020)

- Clean Ocean Project (Geirnaert, 2020)
- Avanfuer (Avanfuer, 2020)
- Aglayma (Aglayma, 2020)
- limpia Lanzarote (Limpia Lanzarote, 2020)
- Vigilantes Marinos (Vigilantes Marinos, 2020)

These organizations are on almost all islands of the canaries and are also restricted to their individual island as they work within their respective communities and organize via social media. A cooperation with these organizations might be valuable, although the majority is rather small and seems not very visible. A direct threat does not extend from these organizations, because they are mostly on a voluntary basis and the goal is common, so a cooperation may be in both our interests.

Competitor	Competitor
Tenerife mas sostenible	Volunatry Action on various parts of the island, clean-up
Participación y Voluntariado Ambientales de Tenerife	irregular voluntary campaigns for cleaning up the island
Clean Ocean Project	NGO for regular beach clean-up, maintained by selling "eco"-shirts, dresses, etc
Avanfuer	Voluntary Association for conservation and clean up
Aglayma	association of nature loving and socially conscious citizens with a mission to keep the island's coastline clean.
Lanzarote limpia	NGO, voluntary clean-up, mainly on beaches
Vigilantes Marinos	Ocean & Beach clean-up, promotion for "eco"-products
Oceans4Life	Beach Clean-up

Figure 5: Working fields of the competitors (own representation based on Avanfuer, 2020; Limpia Lanzarote, 2020; Agalayma, 2020; Vigilantes Marinos, 2020; Dass, 2020; Tenrife medio ambiente, 2020; Geirnaert, 2020; Climático, Área de Desarrollo Sostenible y Lucha.

3.1.6 Critical evaluation

After presenting the idea at the K-huddle, answering the first critical questions from outside the group and working with this input, we detected some challenges. First comes the challenge to the idea itself: The beaches of Tenerife are more cliffs than beaches in many cases. Therefore, it might be dangerous to collect plastic or trash in general in these places. We may need to expand our operations to the cities and touristic places to easier collect trash. Secondly, comes the question, if there are companies that would pay for such a certification. As we can see on our competitor Oceans4Life, this business concept is already established in a similar way (Dass, 2020). A connection with companies from outside the canaries may further develop our project. Finally, it can be said, that although this project may face challenges initially and may not be easy to establish, it is a viable possibility with the help of support from companies outside of Tenerife and the possible cooperation of one or multiple of the NGOs that clean up the beaches already.

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3.1.8 Appendix

Interview with Ursula Gilnhammer: Sustainable Manager at elaboratum GmbH

02.01.2020

I: Interviewer

R: Respondent

00:00:00

I: Hello Mrs. Gilnhammer. Thanks for your time. We are doing a research according to our business idea in our Master Program Global Business Development. Therefore, I will ask you some questions about your company and how you as a sustainable manager will see our idea out of an expert view. Let us start with the first question. Is plastic pollution a topic at your workplace?

00:00:36

R: Yes, it is an issue. We are searching for new sustainable alternatives right now. We would like to apply for Leaders for Climate Action this year. And of course, plastic is a topic therefore, we try to avoid single-use plastic, e.g. through Recup or Rebowl, maybe you know it. And personally, I'm also reading a book about it right now. There is the opinion that plastic is not to be demonized if it is properly separated, disposed and segregated. Alternatives in glass are sometimes not the most sustainable.

00:01:53

I: Thanks. You already mentioned that your company is searching for sustainable solutions. Can you tell me more about it? Is it only about plastic?

00:02:10

R: Yes, we are always searching for sustainable opportunities. As I just said we want to become Leader for Climate Action. And within the year 2020 we made already a huge effort. We calculated the environmental footprint of our company and our employees and invested in CO2 Compensation. So, we are climate positive, that makes us really happy. Moreover, we have the so called GREENInitiatives, where colleagues who are interested in sustainability go on research and make suggestions for improvement, e.g. reusable lunchboxes or just share interesting facts. And concrete sustainability means to orientate at the three pillars: avoid, reduce and compensate. For avoid we now moved to green power at our headquarter in Munich and

also thanks to corona digital meetings are more common than meeting face to face. For reduce or motto is trains over planes, and we try to search for customers close to our locations. For the third pillar compensation we in-vest in a local supplier who ensures that areas are built up by farmers with humus and this absorbs CO2 in the long term and regionally.

00:04:27

I: Nice insights. Does your company also donate in sustainable projects?

00:04:49

R: Well - We currently donated more than five thousand euros at anyway, a contact point for gay, lesbian, bi and trans* young people. The donation was part of our advent calendar. Next to that we support the local CO2 company yearly. In 2019 we compen-sated only flights by climate partner, but these are not donations in a direct way.

00:05:38

I: Do you think one solution can be investing money in clean up organizations?

00:06:01

R: So, I just mentioned Climate partner. They also support organizations that clean up and promote. That is also converted into CO2 equivalents. And we have also supported that. Since this year there is also a CO2 tax for German companies. And that is being expanded. For our company, this is interesting if you can also compensate for CO2. Many companies invest in good things for our environment already, but the CO2 tax forces everyone to do it and brings it into focus.

00:07:47

I: Great, let me now introduce you our business idea now: "Plastic in our Oceans is one of our main problems globally. There are a few organizations that fight against plastic on the beaches and coasts or even against the five huge garbage whirls. But these actions require money. Our idea is to act as a broker between the aid organizations and compa-nies that position themselves sustainable. Similar to CO2 compensation. The companies as sponsors should be addressed worldwide. In return they receive a certificate for their support." What do you think, would you donate as a company in plastic collection pro-jects?

00:08:40

R: Ocean Pollution is a global issue of course, but for us maybe it is less relevant because we support a very regional company. But companies at the sea may see this as more important as they have a direct connection to the ocean. But I can imagine that regionality is maybe not so important for all companies, as many are multinational organizations and Ocean Pollution is an international issue. And then there is another aspect. There are companies, that do clean up and work on a voluntary basis. But it's like we would say in German: ein Tropfen auf den heißen Stein. That's why it would be interesting to invest not only in companies that clean up but also in research. So, ideas we can pick up plastic quickly and easily. Especially if you think bigger and global. In the global context, the tons of plastic must be removed more efficiently. CO2 equivalent. Convert 1 ton of plastic into CO2.

00:09:53

I: How would you or your company prefer to donate? Once, monthly, something else?

00:10:08

R: Monthly rather not, this reminds me of a subscription model like Netflix or so. We would prefer to rather orient to how much the company consumes per year and then calculate that. So annually. Or one-time, as in the context of projects such as our Advent calendar.

00:10:51

I: Do you have any doubts about the project? Can you think about any risks or challenges the Business Idea Ocean Support might have?

00:11:07

R: There are viewpoints that come to my mind. First maybe a huge network is needed. Trust must be achieved. Trustworthiness is important to achieve, if it is donation based everything has to be transparent. Next certification is hard to get through, it must be accepted, and this is a long and challenging process, you must not underestimate it. And create references and attract big players are also good but hard to get at the beginning. It is not only the idea but also the implementation that needs to be done. And for that I see regional differences in recycling infrastructure quite challenging. If you want to expand your idea to other locations this is what I worry about. But overall, I like your approach.

00:12:47

I: Do you have any questions or further ideas?

00:13:12

R: Good luck with your idea.

3.2 Seawater Greenhouse

Efficient agricultural cultivation

Submitted by:

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3.2.1 Concept and Technology

The availability of two natural resources are especially high on the Canaries: Seawater and sun. By efficiently transforming seawater into fresh water using solar energy, the business idea of the Seawater Greenhouse was born. With this possibility the Canary Islands could get away from tourism again and become more independent from the missing rainwater in the region. Harvest failures would thus be a challenge of the past.

Seawater desalination is nothing new. However, in most cases the energy consumption of desalination processes is enormously high. Therefore, conventional desalination plants within agricultural production in arid areas have not been on the advance so far. A Seawater Greenhouse can effectively irrigate agricultural plants, produce drinking water, extract salt and nutrients from seawater, and supply itself with enough energy using only seawater and solar energy. (Dupree 2016)

A seawater greenhouse needs three inputs to function: the atmosphere, the sea and the sun. The entire process is based on the natural water cycle, but in an artificially controlled environment. Illustration 1 shows this functionality of the Seawater Greenhouse. (Castillo 2020)

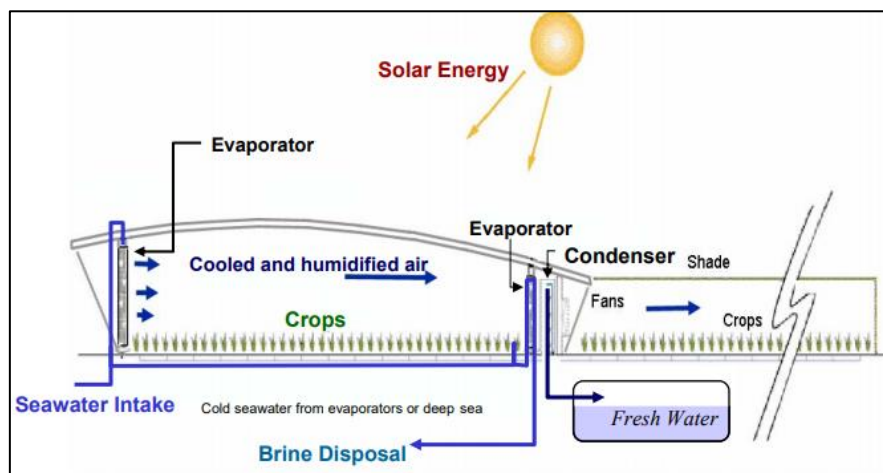


Figure 6: The functionality of the Seawater Greenhouse (Source: Paton and Davies 1996)

The front wall of the greenhouse consists of a seawater evaporator, which is a grid facing the prevailing winds. Dust, insects, pollen and salt spray are trapped and filtered and leave the air pure, humidified and cool in the plantation. (Castillo 2020)

Sunlight is selectively filtered by the roof elements to stop radiation that does not contribute to photosynthesis. The water is heated by a series of water heating systems on the roof, creating hot and saturated air that is sent to a condenser that condenses the steam into liquid fresh water by using cold deep-sea water. (Paton and Davies 1996)

The only energy input is needed to pump the salt water to the evaporation system and spray it over it under pressure. The pumps can be operated without problems with the help of the solar panels. Due to the air-permeable walls, the wind not only blows in, but also blows out. Cold, moist air is therefore also distributed to surrounding areas and has a kind of oasis effect. This can be used for further production. As a side effect, enough clean water is produced that even a drinking water pipeline can be installed to supply clean water to the plant operators. Moreover, since seawater is full of nutrients and salt, other valuable products, such as table salt, can be obtained through the evaporation process. (Dupree 2016)

With financial support to building the first prototype on the Canary Island of Tenerife, the European Community has enabled the design, construction and testing of the Seawater Greenhouse. The results of this one-year operation, validate the concept and demonstrate the potential for other arid regions. In addition, the quality and quantity of crop production has been outstanding. (European Commission 1993)

3.2.2 Sustainability and Circular Economy Model

The sustainability of the Seawater Greenhouse is the most important factor in favor of this idea. As mentioned above, desalination for growing agricultural products is nothing new. However, traditional desalination methods are usually quite costly and not eco-friendly as it usually takes enormous amounts of energy where solely solar energy is not sufficient enough. The conventional desalination techniques require enormous forces of high pressure and constant power as the water is pushed through a very fine filter membrane. (Klein and Verführth, n.d.)

Also, these discharge large amounts of salty brine back into the sea, disrupting fragile ecosystems that are already under attack from many other things. The seawater greenhouse model as a whole is quite eco-friendly. The leftover brine that is not used in the cooling cycle is evaporated and processed into salt again. (Berge and Fitzgerald, n.d.)

Furthermore, agricultural products need far more water in drier parts of the world because of the high evaporation rates. These problems do not apply to the seawater greenhouse: it requires four to eight times less water than conventional greenhouses as the condenser condenses the steam into liquid fresh water, so the climate inside the greenhouse is cooler and more humid than in conventional greenhouses, which leads to the process that plants will need less water. Cooling is usually very energy-intensive but with this idea the seawater is not turned into fresh water but into water vapour and cool air. The extracted seawater is trickled over the evaporator. Next, with the Seawater Greenhouse it is possible to make use of the wind that blows through the glasshouse walls from outside. As a result, the water evaporates and the air inside the greenhouse becomes cooler and more humid. (Klein and Verführth, n.d.)

In addition, this concept is also very energy-efficient through the usage of the atmosphere and the sunlight so that the solar energy is sufficient to power both desalination and irrigation of the plants. (Klein and Verführth, n.d.)

Looking at the sustainability of the concept of the Seawater Greenhouse it becomes clear that it can be described as a circular economy model.

In a circular economy, resources are kept in a recycling system for as long as possible. The materials should be used for several purposes and returned to the resource cycle as often as possible. The goal of a circular economy is the resource-efficient and sustainable use of natural raw materials, their reuse and recycling within a closed-loop system and the avoidance of waste. Furthermore, the implementation of a circular economy should not be in conflict with economic interests. (Sphera Solutions Inc 2020)



Figure 7: Circular Economy (Sphera Solutions Inc 2020)

As one can see, it is based on three easy principles:

- 1) Avoid pollution and waste
- 2) Keep materials and products in use
- 3) Regenerate/Recycle natural systems (Ellen MacArthur Foundation 2020)

The Seawater Greenhouse is a self-contained system. Salt is extracted, converted by solar energy and evaporated to agricultural products. The brine disposal is then returned to the sea as salt. Through the efficient usage of solar energy and the atmosphere, it reduces emissions to virtually zero and functions in a cycle in which the natural resources are always replenished.

3.2.3 Business Model Canvas

To assess the potential of the seawater greenhouse in Tenerife, the business model canvas has been utilized to analyze the relevant components of the business idea.

Value Proposition

The establishment of seawater greenhouses on Tenerife should allow for the eco-friendly production of organic food while protecting the ecological environment of the Canaries. The first phase of the concept is aiming at providing value to the socio-ecological environment on Tenerife by generating secure jobs and preventing farmers from crop failures in drought-prone areas. While the more reliable and sustainable agricultural model enhances the wellbeing of the people on Tenerife, the second phase targets the end-customers in Europe, who should be supplied with organic food that is produced, packed, and transported in a sustainable way. The proximity to the target market saves CO₂ emissions when supplying tropical and subtropical as well as out-of-season fruit and vegetables that would otherwise have resulted from long transportations of products from South America. The customer is therefore provided with a sustainable product in all aspects, addressing the trend and desire for a more sustainable lifestyle.

Key activities

The core activity in executing the value proposition consists of communication and creating connections, in order to provide the seawater greenhouse technology to big agricultural holdings. Thereby, regional adaptations should be considered to guarantee maximum effectiveness and efficiency of the technology. To make the project feasible, we would serve as an intermediary between the technology provider, local farmers, political parties, and private investors. Our responsibilities will be focused on convincing local farmers of the opportunities and potential of the seawater greenhouse concept for their agricultural holdings, connecting them with private and public investors, and promoting the relevance of the project to the “Green Deal” climate goals of the European Commission to guarantee political support and subsidies.

Key resources

For delivering the value proposition, some elementary key resources are required. Primarily, cultivatable land on Tenerife and access to modern seawater greenhouse technology are the most important assets for the successful implementation of the business idea. Additionally, due to the considerable influence of some old families owning water wells on the island and the attached lobby possibilities (Brüttgenbach, 2020), a powerful network of local authorities

(agricultural holdings owners, investors, government representatives) is another important intangible resource.

Key partners

In order to gain access to the required resources and establish the business model successfully on Tenerife, many trustworthy partnerships and alliances are required. The Seawater Greenhouse company, founded by Charlie Paton, has completed successful designs and constructions of seawater greenhouses in Australia, Abu Dhabi, Oman, and Somaliland. As Paton's first prototype has been tested on Tenerife, his knowledge about the impact of the environmental conditions on the design and construction of the greenhouse are essential from a technology perspective (Seawater Greenhouse, n.d. (b)). Furthermore, due to the considerable initial investment, political support might be needed for initiating the project as well as creating incentives for local farmers and acceptance among the population on Tenerife. Striving to be the first climate-neutral continent, the EU currently invests in environmentally-friendly technologies and supports whole industries to innovate. Therefore, within the scope of the "Green Deal", financial support and technical assistance can be requested from the European Union (European Commission, n.d.). Receiving subsidies from the EU, local agricultural holdings, which will be the key partners for establishing seawater greenhouses on Tenerife, might be interested in the new sustainable concept of the Canaries.

Customer segments

While the first phase of the concept addresses farmers with large agricultural holdings on Tenerife, the bigger picture should not be neglected when looking at the customer segments. The end-customers that are targeted with this business idea are consumers in Europe, that value organic and sustainably produced food. As the organic food market has shown an increase of 5.4 % in Western and 8.8 % in Eastern Europe between 2015 and 2016, a growing customer base is identifiable (Statista, 2020). This development validates the potential that is inherent in this customer segment.

Customer relationships

The initial target group of the concept is local farmers, that should be provided with the technology and connections. Thereby, trust and mutual acceptance play an important role in this partnership. Besides, the relationship between the end-customer and the food producer should be based on trust and transparency. As the end-consumer wants to know where the fruits and vegetables are from, how they were produced, and how this impacts their ecological footprint, full transparency over the production, packaging, and transportation has to be provided to the

customer. Also, the consumer relies on the quality of the organic products, which makes trust an important feature of the relationship between producer and consumer.

Channels

While shops specializing in organic food directly address the target group, a larger consumer base can generally be reached through the distribution in supermarkets. Whereas in the late 90s, specialized shops were the dominating distribution channel of organic food in the Netherlands and Germany (Michelsen, Hamm, Wyner, & Roth, 1999), the products have now more and more found their way into large supermarket chains. Thereby, for the promotion of organic food, certification labels are used to improve consumers' awareness of the existence of organic food products.

Cost Structure

A substantial initial investment for the design, construction, and technology consultancy of the seawater greenhouse is required. However, no particularly expensive resources are needed and the construction of the greenhouse can be adapted to local standards (Seawater Greenhouse Somaliland, n.d.). As farmers can benefit from year-round production of fruits and vegetables and operating costs will be lower as before (Seawater Greenhouse, n.d. (a)), the initial investment can be set off during the course of the operations.

Revenue Streams

Seawater greenhouses have several positive effects on the farmers' long-term margins. For example, the operating costs are reduced, the quality and quantity of crops can be increased, and some favorable side effects, like clean drinking water and salt, can be generated. Therefore, a small share of the profits can be used as compensation for our expenses.

3.2.4 Idea evaluation and critical reflection

Since the Seawater Greenhouse is an alternative to the existing water supply, it is important to address this area in advance. Gert Brüttgenbach, an expert who already lived in Tenerife, provided valuable input to the discussion of the business idea at the K-Huddle on Nov. 26, 2020 (see Appendix 1). He expressed some concerns about the project because the water supply in the Canary Islands is largely privatized. The owners are mostly very influential families of the islands.

Water is a rare resource in the Canary Islands. As the only Canary Island, La Palma has enough of its own water from natural sources. This comes from the mountains, where trade wind clouds meet forested mountain slopes thanks to the height of up to 1700 meters. The

piners comb out the clouds with their needles, causing mist condensation. The water finally penetrates the porous lava rock, purifying it naturally. (La Luna Baila 2018) Drilling is used to create drinking water tunnels in the mountains. These are called “galerias”. There are more than one million such drinking water galerias in the Canary Islands today. The majority of these galerias are privately owned by influential families. (Hasanovic 2014)

The galerias access the groundwater of the Canary Islands, attacking water reserves that have been formed over thousands of years and are now being consumed far too quickly. The result is dramatic lowering of groundwater levels and rising water costs. Since the public sector has only a small share of the water reserves, the communities are dependent on the private sources. (La Luna Baila 2020)

Regarding the private Ownership of water, Gert Brüttgenbach mentioned that it would be crucial to get help from the government and try to convince the farmer lobby to be able to compete with those influential private providers. In his experience, the attitude of the people towards new competitors and innovations from abroad is rather critical. The islands are predominantly run autonomously, largely self-organized, and people know each other. The islanders are very concerned about their own community and especially the farmers are an established group of people. Should the idea of the Seawater Greenhouses be implemented, doubts and headwind from the population are to be expected at first. For this reason, he recommended to gain the support of the government and to convince the farmer lobby with good arguments in a first step. In his opinion, one main argument to do so would be the fact, that no electricity or other resources are needed to run a Seawater Greenhouse, except for seawater and sun. (See Appendix 1)

This is also the cause, why a Seawater Greenhouse would be cheaper than a classic desalination process. But for both, classic desalination as well as Seawater greenhouses, there needs to be considered, that Seawater has a high salinity which is more aggressive on different materials than Sweetwater. Also, the discharge of the excreted salts must be considered in the planning. (Mutschmann and Stimmelmayer 2007)

The Canary Islands have already got a few desalination plants that feed the water system. However, these burn fossil raw materials and are therefore not sustainable. Since the technology of the Seawater Greenhouses is based on evaporation and is completely sustainable, this would be a sustainable alternative for the islanders. (Fraunhofer 2011) Another advantage would be, that fields can be operated year-round regardless of the weather. This will create secure jobs and allow stability for agriculture, which is often seasonal. It also has many positive effects for the environment surrounding a Seawater Greenhouse. This is, because the soil which is eventually depleted of nutrients due to the arid climate and years of farming, can be

resupplied with nutrients. Behind the greenhouse, where the circulating air exits, it also creates a humid climate where some plant species thrive in the open air. (Seawater Greenhouse n.d.)

In conclusion, the idea has a lot of potential, but should be carefully planned and implemented step by step by experienced people in cooperation with the government. Gert Brüttgenbach's final advice was, that the entry into the new market should first be accompanied by a prototype, a lot of convincing and cooperation with farmers. (See Appendix 1)

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3.2.6 Appendix

Memo of the expert interview within the K-Huddle via Zoom

Interviewee: Gert Brüttgenbach

Date: 11/26/2020

Questions:

1. Which enablers and hurdles will the business idea be facing?
2. How is the mood on the island? (Sociocultural background)
3. How should the business idea be adjusted or changed?

Memo of the discussion:

- It is an Island – you cannot just change the place, when the idea is not working like on a continent
- It is a balanced community, everybody knows each other, they do not accept strangers breaking in and want them to change things. So, we would have to convince the people first and develop it including them
- It is true that water is a rare resource, but:
- Water wells are owned by several old families with a lot of influence and lobby possibilities. There are no public seawater wells, they are all private.
- Local plantations distillate seawater to irrigate their plants already, they are energy intensive, high running costs
- Farmers are established group of people on the island that are running plantations and fields.
- That is why we must have very good reasons (such as savings of energy costs, no expensive resources needed, etc.)
- We will be confronted with concerns regarding the implementation process
- Saltwater is extremely corrosive
- Positive effect: leverage effect but we need the farmer lobby behind us
- Chance for us: Maybe we could convince the farmers with the lower costs for energy and it offers better environmental conditions humiliating the air that other plants can grow near the greenhouse
- Established prototype already exist on the island
- Many plantations are run more than 100 years and the nutrition is no longer in the soil à they have the problem of where to get better soil from.
- The Seawater greenhouses would provide a richer environment for them
- Interesting idea: Combine the plastic recycling idea with the greenhouses: produce plastic pots for plants and put them into the greenhouses
- This project is not attractive for students, as probably more experience needed
- We would need support and funds from governance to run the project and start with a prototype / test version and convince the famer lobby

3.3 OneMarket

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3.3.1 Business Idea development

In this section we would like to explain how we got started creating a business idea with a creative thinking approach. The first task we set ourselves as a team was a superficial research on Tenerife. The aim was to get impressions of how life, society, people, nature and economy are on the island.

For the development of our business idea, we have come together in a zoom meeting. At the beginning we have roughly discussed what we already know and whether there are already common ideas. A shared direction quickly emerged. Therefore, we have defined key words for the upcoming brainstorming session, which we would like to use as orientation: local, online platform, sustainable, food, being convenient.

For the brainstorming we used the online tool miro. During the session everyone could freely write down their thoughts and impressions. The key words were helpful because you could already narrow down the subject area. At the end of the session, we roughly arranged the points and made them usable for us.

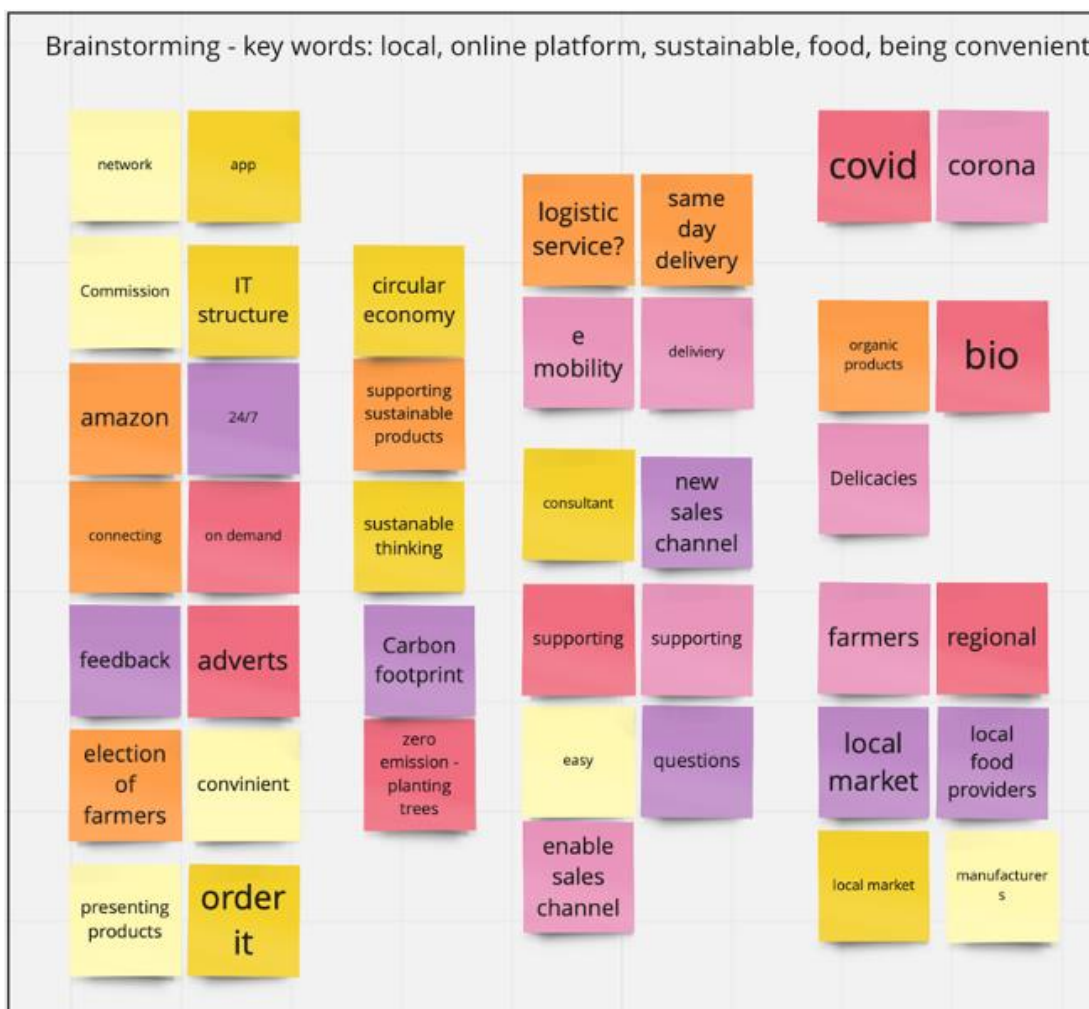


Figure 8: Brainstorming Result (own representation)

Now we have already collected some features and possible issues to discuss. In the next step we have created an additional Empathy Map (see Appendix 1). „This particular tool helps teams develop deep, shared understanding and empathy for other people. People use it to help them improve customer experience, (...) to design better work environments, and a host of other things” (Grey 2017)

All these methods helped us for a better understanding of the situation and what our rough idea could be at the End. With the structure, we gained through this procedure, we were able to formulate and fix our business idea.

3.3.2 Problem Introduction

Digitisation is inevitably progressing. It is not only advancing in the retail sector as such, i.e. stationary and online, but also in the catering industry. They have to adapt to the new market conditions, not only because of Covid 19, which is accelerating it, but also to avoid being left behind by competitors (Rock 2018).

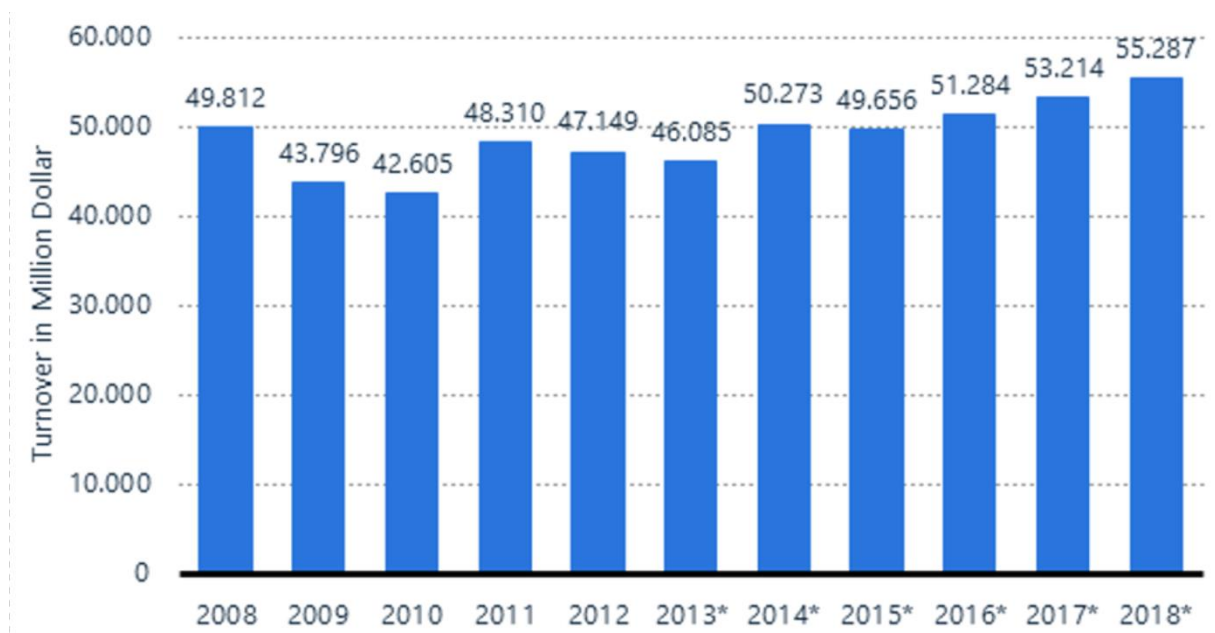


Figure 9: Turnover of restaurants, pubs, snack bars, cafés, ice cream parlours, etc. in Spain (Statista 2014)

The statistic is showing that the turnover of restaurants established in Spain has been growing steadily from year to year, making this an extremely important part of the economy. This means that the catering sector is very important in itself and delivery services are also affected. Finally, there is economic dependence (see Figure 9).

This means that with our idea, we want to connect food suppliers with consumers such as restaurants. Especially at the current time of COVID-19, going out in the evening to the restaurants is difficult because of the danger of infection. Therefore, we would like to solve the problem of the current lack of interaction between restaurant and consumer, and at the same time draw attention to sustainable products, which can be brought to the citizens through a delivery service. This way they do not have to do without the good Spanish cuisine (K-Huddle Session on 26th of November, Room of Cultural change processes).

3.3.3 Current situation

The number of unemployed is currently rising to almost 50% on the island of Tenerife due to dependence on the tourism sector. This is due to the Pandemic. Therefore, the citizens of Tenerife were asked to stay at home if possible to avoid the risk of infection. This means that the inhabitants of Tenerife go to restaurants less often and therefore enjoy local food less. This is particularly noticeable in the south of the island, where the younger generation tends to live. Here, for example, the demand for general delivery services is higher than in the north of the country (K-Huddle 26.11.2020).

The largest population group in the Canary Islands is between 35 and 45 years of age, both sexes. They are therefore open to digital business models, including delivery services. A further indication that the inhabitants of Tenerife are open to delivery services as such, that they do not eat together until late in the evening and like to do this outside their own homes, but due to the current situation, now like to have their food delivered by local traders. (Instituto Canariode Estadistica 2020) (K-Huddle 26.11.2020) (Interview 28.11.2020).

3.3.4 Business idea

3.3.4.1 Platform Introduction

Our vision with onemarket is to create a platform for the suppliers and consumers of food products. The main idea is that consumers can order locally produced food of good quality from their phones or computers. "Food products" include everything Tenerife can offer: vegetables, seafood, and meat to locally brewed beer. The order will then be fulfilled by the onemarket Logistic Service. They collect the orders from local fishermen, small manufacturers, or farmers and deliver it to the onemarket Warehouse. After the orders have been compiled in the Warehouse, they will be delivered by the onemarket delivery Service to the customers. onemarket strongly believes in food production on the Island and the inhabitants' demand for locally grown food. These two factors need to be brought together in one platform - the Supermarket for local food products - onemarket.

3.3.4.2 Circular Business Model Canvas

"The vision of the circular economy speaks of closed cycles of resources and materials, of products that are maintained, repaired, reused, and recycled to stay in use for longer, and of getting the optimum out of the resources invested into a product over the longest period possible" (Frauenhofer Institut for Reliability and Microintegration IZM).

In the following, a closer look will be taken at how the Platform onemarket contributes to a circular economy. Therefore, a Circular business model Canvas will be applied to describe the Business Idea of onemarket. First, in figure 10 a short overview will be given whereas each part of the Circular Business Model Canvas will be described in detail afterward.



Figure 10: Circular Economy Model (own representation) (based on Hoffmann 2018)

Value Proposition

onemarket's value proposition is based on the offer of an app in which regional and high-quality food can be offered and bought. In addition, onemarket takes care of the distribution of the food from the producer to the customer, thus creating a unique offer on Tenerife.

For the buyer, this means that he or she can easily find, compare and purchase typical Tenerife food. And that every day at any time conveniently via the app. The products offered will be varied and include foods such as fruit, vegetables, meat, fish, milk, eggs and drinks. Thanks to this wide range, onemarket will be the largest platform for regional food in Tenerife and make shopping easier than ever before. There is no need to visit markets on certain days of the week or to go to many different stores, which increases flexibility and saves valuable life.

Every manufacturer who wants to offer products is checked, evaluated and described in advance by the onemarket team. This gives the customer a precise description of where the food comes from and how it is produced. Through various certification levels, we also ensure that the customer receives exactly the products he or she wants. This creates transparency and trust.

For food manufacturers, onemarket means an additional distribution channel, which reduces their dependence on wholesalers and food groups and offers the potential to sell at better prices. While many of the small manufacturers cannot have their sales and marketing activities, onemarket offers the opportunity to market their own company attractively and to easily reach quality-conscious customers.

In one sentence: onemarket connects regional manufacturers with customers who value regional and high-quality food and delivers them directly to the customer.

Value Creation

The value of the business idea onemarket consists of four components.

The basis of the success and the greatest unique selling point of the idea is the platform, which can be achieved through the app. The concept is accepted by the sellers if we can offer a price advantage over wholesalers and supermarkets and reach a customer group that was not previously a buyer. On the customer side, onemarket becomes a success if we gain the trust of the buyers regarding the regionality and quality of the products, if the app is easy to use and if a simple ordering and payment process is guaranteed.

In addition to bringing local suppliers and customers together, the second major value is the delivery of the products. To make this possible we are planning an electric vehicle fleet and a

building that will serve as an administration and storage building. Compared to direct delivery from the manufacturer to the customer, a warehouse building offers the advantage that larger quantities can be collected from the producer, thus minimizing the driving effort. In addition, customer orders can be bundled and delivered faster. We want to generate all the energy we need through renewable energy, especially solar energy, to be a climate-neutral company. This is not only sustainable, but also a reason for the customer to use our service. We plan to build a warehouse near the city next to the highway to use the ideal infrastructure.

We create an additional benefit by introducing the suppliers and certifying the products. Thereby we support the producers with the marketing and create a sales argument by showing where the food is produced. Thanks to the certification of each product, we also make it easier for the customer to make a purchase decision.

This mixture of service and support requires the most important key resource by far, the employees. In order for the project to be a success, qualified and motivated employees are essential for the development and implementation as well as the handling of the on-going business.

Circular Business network

Our circular business network could be summarised into three main groups: Producer, Platform, and Consumer (figure 11). Onemarket is the Platform between food producers and food consumers. Food producers are Farmers, Fishermen, Manufacturers, and anybody who produces food on Tenerife with high quality. These products are the Key Resources for the Platform onemarket and therefore represent the offer for the customers. onemarket operates as a platform that connects the local producers with customers who are willing to pay a fair price for high-quality products. onemarket could be seen as an online supermarket for local products. Besides the food producers, food consumers are the main customers. They value regionally produced food and thereby support the local agriculture, fisheries, and manufactories' for food. As a result, the local food economy earns more money and improves their quality because they recognize the appreciation for their products.



Figure 11: Connections (own representation)

Financial Aspects

In terms of finances, our current planning is focused on how we generate revenue and which costs are particularly important. We are planning a three-tiered sales model (figure 12). The most important source of income will be the turnover-oriented commission model. For each sale by the sellers on our platform we will receive a pre-defined commission. Furthermore, sellers can place advertisements, which means that they are prioritized within the platform. The Google system serves as a model for this. As a last source of income, we will demand delivery costs, on the one hand to share the costs for the supplier and the customer, on the other hand to promote an order of larger quantities. This in turn will affect the commission income and will be environmentally friendly.

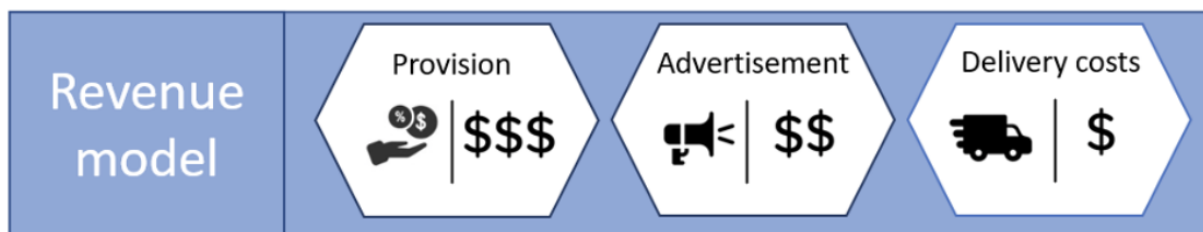


Figure 12: Revenue model (own representation)

For the most significant costs, we distinguish between costs incurred once at the beginning and the running costs.

The development of the app until it is ready for the market will require a particularly high expenditure of time and money. In addition, the marketing costs will be high, as sellers must be won and the awareness of the app on the island must be promoted. Since no income can be generated during this time, equity or debt financing is required.

The most important regular costs will be personnel costs, fixed asset costs and marketing expenses.

External Costs

Our business idea has an impact on the food market, society and the environment. With increasing business success, the market share is influenced by competing grocery stores, delicatessens and supermarkets. However, since onemarket supports local producers and our business model complements rather than substitutes supermarkets, we do not see much resistance from food suppliers. We even assume that we will be able to convince even more residents of a regional and high-quality diet if the buying of the right products is easy and convenient. In this way, we are driving forward a positive change in society through modern

digital possibilities. We would like to counteract the negative connotation of home deliveries by having a 100% electric fleet of vehicles powered by solar energy generated on our storage building. This emission-free storage and delivery minimizes the environmental impact of reduced private trips for food shopping and lowers the environmental impact of harmful transportation of goods to the island.

Stakeholder

For the long-term success of onemarket it is important to know about all the stakeholders of the project. Therefore, we identified all relevant Stakeholder groups and categorized them in four groups: Supplier, Customer, Organizations and other (figure 13). Matrices are a popular and effective method of prioritizing stakeholders. Therefore, the team rated the stakeholders of onemarket according to their power and interest on our service. The following figure shows that primarily customers and suppliers should be focused.

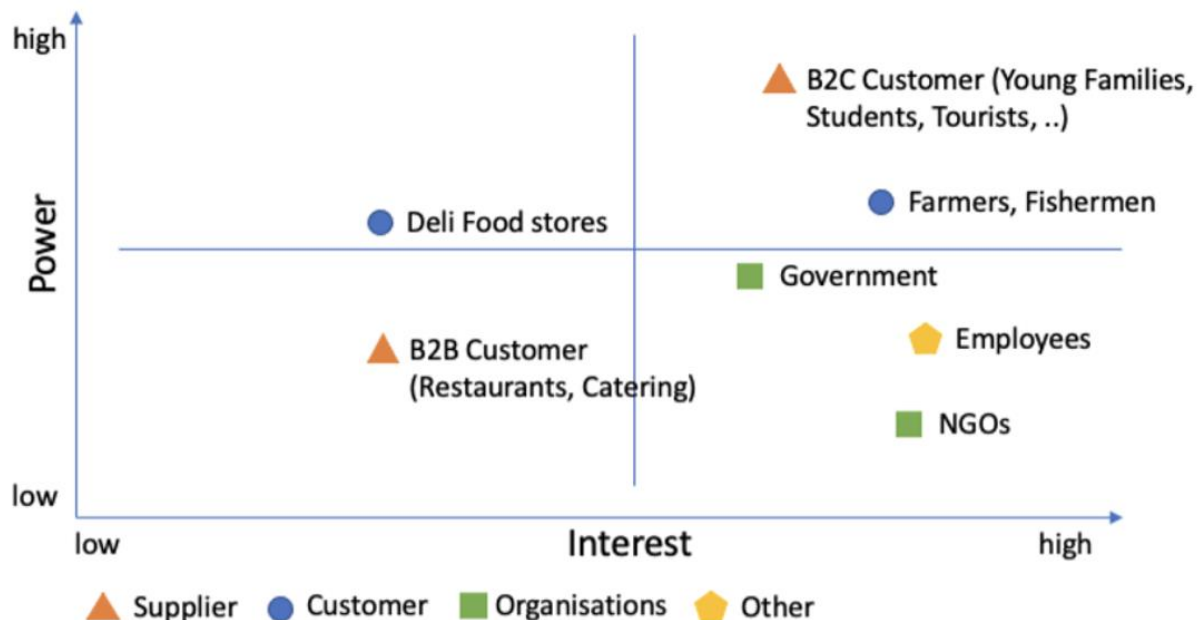


Figure 13: Stakeholder (own representation)

3.3.5 Future functions

On the last pages the business idea for onemarket was described in detail, however, it can be extended in different forms. In the following a few of them will be shortly introduced.

After the launch of the Platform there is the possibility to start building a community, because what all of the onemarket customers share is their preference for good food. Establishing a community could happen through recipe sharing, cook meetings or even through food sharing with the community.

Furthermore, to strengthen the thought of the circular economy, packaging and food leftover recycling could be offered. Therefore, the food could be wrapped in reusable boxes which could be collected with the next delivery.

Last but not least a function for supplier networking and the opportunity for workshops could on the one hand strengthen the community and on the other hand innovate the food production regarding sustainability and efficiency.

3.3.6 SWOT-Analysis

In order to take a holistic view of the business model, a SWOT analysis was conducted. It shows strengths, weaknesses, opportunities and threats for our business model.

Strengths

Convenience: We offer a convenient shopping experience of local products. This leaves more time for food preparation and community building.

Community: Our onemarket App actively supports the local culture in Tenerife. Food and communal eating are very important. Our app enables people to meet and have shared experiences. As a result, people living nearby can meet and have a community experience.

In addition, tourists, as well as newcomers, can quickly find connections in a new environment.

Weaknesses

Critical mass necessary for network effect: For the app to be successful in the long term and represent added value, a critical mass must be exceeded. If this is not the case, there is a risk that the app will offer too little added value for users and suppliers and will therefore not be successful. Due to complex interrelationships, an exact determination of the critical mass is not possible.

Unfortunate geographical location for expansion: Because of its geographic location, the potential market in Tenerife is very limited. If the service were to be introduced on other islands, a separate infrastructure would have to be built there first.

Opportunities

Longing for Community post-Covid: It is precisely because of the large fluctuations which are the reason for the measures taken to prevent the spread of the pandemic that the desire for new contacts and community may become increasingly apparent after this crisis. This could

lead to a positive network effect, which would make the app more attractive for the respective user.

Great opportunity for a Mindshift: Due to the current challenges and changes in the economy of Tenerife, it is necessary to consider business models other than tourism on the island. In this respect, local agriculture could be given a boost and increasingly cover the islanders' own needs. We could take advantage of the extremely challenging times and establish the application.

Threats

Small Market Size: The relatively small potential market is a cause for concern with regard to the introduction of the app. Without tourists, Tenerife has a population of just under a million (Council of Europe n.y.). Furthermore, further restrictions due to the pandemic could at least severely restrict community experiences.

Uncertainty: A further danger is the uncertainty of the reliability of potential partners. Since they have to get used to such a business model and to implementing a new service, there is a potential for errors, which can make the introduction of the app difficult, especially in the beginning.

3.3.7 Challenges and Opportunities

Uncertain times, such as the current pandemic, can be very challenging. But it is in the face of great challenges that new opportunities arise.

The app we offer can help support the economy on Tenerife and provide an alternative source of income for Tenerife's farmers. Customers also benefit from fresh, high quality and local produce. The app also offers new opportunities to get to know people in the area and create shared experiences. Thanks to rating systems, trust can also be built between strangers. In addition, the app is in line with the culture of the inhabitants of Tenerife, as eating out is often a community event.

However, in order to actually generate more benefits for both farmers and customers, the app must be used by a correspondingly large number of people in a certain environment. For the farmers, the extra effort for this additional distribution channel must be worthwhile. Furthermore, scepticism and tradition can mean that only a few suppliers can be found. This results in less choice of products and thus less benefit for the customer.

3.3.8 Conclusion

onemarket is a platform for food producers and consumers to solve the problem on the island due to long transport ways, high unemployment rate, and the decrease of local food producers. onemarket wants to strengthen food production on the Island and trigger the inhabitants' demand for locally grown food.

To offer onemarket for the public further research is indeed needed. To find out about food producer's pain points interviews with possible producers as well as consumers should be conducted. Furthermore, a detailed benchmarking should be carried out to be aware of potential risks and opportunities. To achieve the above mentioned targets a Team should be compiled that preferably consists of people with high market knowledge because Tenerife is a special market where information is easier accessible with insights into the culture and the ability to speak the spanish language.

As not being inhabitants of Tenerife is an advantage of our team, it is at the same time our biggest weakness. Through interviews conducted in the K-Huddle and research in academic papers, we could gain insights, however, to make precise statements about the potential of the platform, detailed research on the island is recommended.

After the successful establishment of onemarket in Tenerife, the concept can easily be adapted to different Markets. We see Tenerife as an Island with perfect test conditions, it is not too big but it has still enough inhabitants to gain insights into the potential of the platform.

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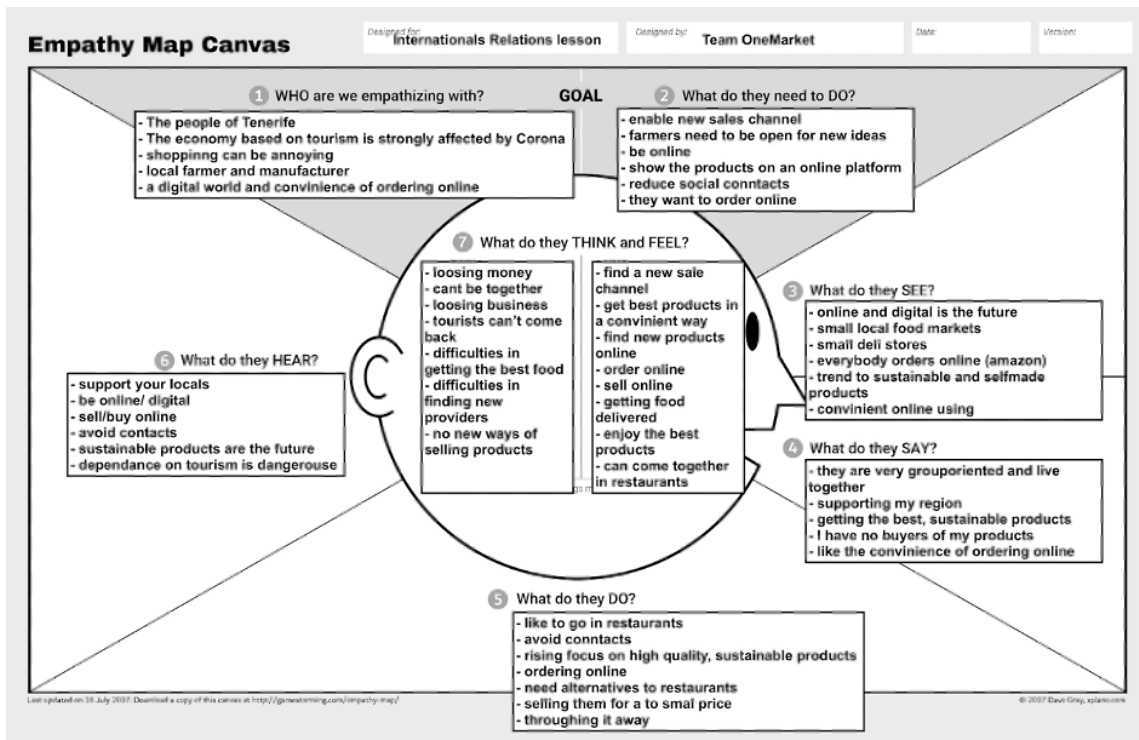
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3.3.10 Appendix

Empathy map



3.4 VINERIFE

Excite the world with Canarian wines

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3.4.1 Problem Introduction & Idea Generation

"We must diversify our economy, become more self-sufficient, for example in energy and food supplies, and more independent of international tourism." The 36-year-old Social Democrat Yaiza Castilla already realised the main problem of the Canary Islands even before the Covid-19 virus broke out. And now, that the virus is dominating the world, this problem becomes even more obvious: the Canary Islands' economy is not diversified enough and is far too dependent on tourism, which indirectly accounts for 80% of Canary Islands' economic output and directly for 40% of employment (Müller, 2020).

Another problem that the Canary Islands are facing, is the fact, that the islands and their economic model are not sustainable in terms of the parameters of the UN's Sustainable Development Goals (Crespo, 2020).

Therefore, there is an urgent need to not only diversify the Canarian economy but also to develop sustainable business ideas, that generate a sustainable and positive outcome for the Canary Islands and in particular the island of Tenerife.

In order to do so, a first brainstorming and research session was held to identify possible markets or sectors that can help diversifying the economy. One of the first ideas, that came up, was to diversify the agricultural sector since it consists mainly of banana and tomato growing as well as viticulture (Massot, 2011). After further research was conducted, the following main problems were discovered.

First of all, it could be found out that predominantly tomatoes and bananas are exported, while wine is mainly produced for domestic consumption (Massot, 2011). This is due to the fact, that the areas under cultivation for wine are not large enough to supply international markets although they are already larger than those used for banana growing (FlaskUSS S.L., 2020). Another reason is that the Canarian wine sector is composed of mainly small and medium sized wineries and vineyards that often lack financial and other resources as well as support to conduct effective and efficient marketing, promotion and sales strategies (Alonso Duarte & Liu, 2012). And last but not least, there is also the problem of generational renewal that many wineries and vineyards are facing on the Canary Islands. This results from the fact that there are very few young grape growers and other people who are willing to overtake a winery or vineyard which leads to disappearing wineries and abandoned vineyards (Alonso Duarte & Liu, 2012).

Further problems detected are the uneconomical production conditions for bananas and the increasing competition in this industry from the mainland as well as from Middle and Latin America. Uneconomical production conditions comprise for instance the high amount of water

needed for the growing of bananas, the high amount of chemicals used to ensure the quality requirements of bananas, the high production and labour costs compared to competitors, the falling purchasing prices and last but not least the ever-stricter conditions for receiving subsidies. Based on these factors, the situation is further aggravated by the fact that up to 20% of the harvest is destroyed every year in order to keep prices stable, which is absolutely unacceptable in times characterised by sustainability (privateHOLIDAY, 2013).

Out of all the mentioned problems above, in the team the first idea was born to expand the Canarian wine industry for the international market by using most of the cultivation areas currently used for banana production for viticulture. More precisely, this would mean that banana plantations would be reduced to the extent necessary to meet domestic demand, while the rest of the plantations would be used to expand viticulture.

However, after conducting an interview with Gabriel Morales Francés, a domestic winemaker and wine expert from the Canaries, this initial idea of using the banana cultivation areas for viticulture was quickly dismissed. In his opinion it would be very difficult or even impossible to convince the entire banana industry to sell their plantations as the banana industry is very well organised, they have a lot of connections to politics and also a lobby in Brussels. And in most cases the owners belong to the richer people of the Canaries, so they do not have any need to sell their plantations. However, according to Mr. Francés there is also no need to use the banana plantations for an expansion of the wine industry as there are a lot of abandoned vineyards that could be cultivated again (Francés, 2020).

Resulting from that, the main focus of the following business idea lies now on the expansion of the Canarian wine industry for the international market by reusing and recultivating these abandoned vineyards and by establishing a well-organised and well working wine cooperative.

In the following, the business idea and circular business model will be further elaborated by looking at the current situation of the wine industry on Tenerife, discussing the business idea using the Circular Business Model Canvas, highlighting the strengths and weaknesses of the idea by means of a SWOT analysis and by a critical evaluation in the end.

3.4.2 Current Situation

The Canary Islands, also Tenerife and their wine sector have for a long time benefitted from the tourists that visited the islands and the vineyards. Due to Covid-19, the situation is also totally different and there have barely been any tourists in 2020, that came to the island in order to spend their money on wine tours and the local products (Francés, 2020).

Currently, there are 42 percent of the whole wine growing area on Tenerife. There are about 19,770 acres of vineyards, of which approximately 5,000 acres are with D.O. status on Tenerife (Centelles, 2018). D.O. stands for designation of origin and represents the recovery of the wine industry of the last century in form of a cooperative of 5 bodegas insulares. They started building big wineries but were not really successful because the agriculturalists had not the required know-how, which turned out be a poor commercialization and structure of vineries. Even the viticulturists could not be paid. In total there are 11 D.O.s on the Canaries and about 200-300 wineries. In the 21st century, new very small wineries appeared, which produce between 100-500 bottles per year. The viticulturists on Tenerife are compared to the banana industry very badly organized. There are lot of fights between the them, because of lacking information and missing success. The vineyards are very small (less than 5000 square meters), that is why it is very difficult to produce in an economic manner, due to the very expensive production. Furthermore, they have to compete with cheap wine from the mainland (Francés, 2020).

In total there are five different regions on the island, Tacoronte-Acentejo in the North and Abona and Valle de Güimar in the South, Yconde-Daute-Isora and Valle de la Orotava (Centelles, 2018). They produce about 40 million liters of wine every year, of which the high-class grapes are Listán Negro, Malvasía and Gual (Viva Canarias, 2016). The wines of Tenerife and the Canary Islands reflect the geographical richness which is why the wines are typically reds and white wines, that have recognizable taste due to their cultivation region (Francés, 2020).

Moreover, the Canary region is known for their wine sector, because the wine culture is historically incorporated in the traditions of the local people. The maintenance of the quality is guaranteed by the Canary Institute for Agriculture. That's why there exist various regulations concerning the production factors, cultivation, grape varieties, storage, commercialization and the level of alcohol (Viva Canarias, 2016). In fact, due the geographical distance to continental Europe, Tenerife and the other Canary Islands were not affected by the plant disease phylloxera, which caused the extinction of many European vines (Alonso & Liu, 2012). So "avoiding this unfortunate event has proven crucial for the preservation of grape varieties introduced many centuries ago" (Alonso & Liu, 2012, p. 347). Therefore, there are grape branches such as Baboso Negro, Listán Blanco/Negro, Marmajuelo and Negramoll, which are totally new for wine connoisseurs worldwide (Alonso & Liu, 2012). In 2016, out of 1,652 wines there were 13 Canary wines honored by the Spanish vintners' association (Viva Canarias, 2016). Especially in the recent years, international demand for Canary wines rose in countries like China, the UK and the US. As well there are more and more sophisticated articles written by sommeliers about the various taste nuances and specific characteristics of Canary wine. There are already some wineries that are selling up to 90% of their wines internationally. They sell their wines through distributors, because direct sales would be really expensive. But the competitiveness

is decreased with Continental Europe, because of the higher custom taxes on Canary wine, the prices are even higher (Francés, 2020).

The best spots to grow wine are in the North of the island and in the volcanic areas around the Teide, because there the soil is more fertile and soggy. But as the Pestle analysis has shown, climate change is affecting the growth conditions of vine branches heavily. The overall global warming changed the different seasons and introduced more extreme meteorological events, such as heatwaves (Alonso & Liu, 2012).

That is unfortunate for wine growing because the plant needs cold winters and warmth and sunlight in springs and summers. Another issue that wine growers face is that water is a rare resource and the quality is very bad, which affects the quality of the wine and the harvest yield (Francés, 2020).

Another issue results from the unattractiveness from wine growing these days, that you need highly educated people with special know-how in order to cultivate a vineyard. But because of the bad prices for the grapes the wine business is not a profitable industry and the viticulturist are confronted with a lack of people to maintain the cultivations.

3.4.3 Circular Business Model Canvas



Figure 14: Circular Business Canvas (Hofmann, et al., 2018, p. 7)

Value Proposition

Initially, the value proposition of Vinerife will be clarified. The value proposition provides information about the needs and wants the business idea is aiming to meet and which problems can be solved through Vinerife. The needs and desires of various affected parties can be met here (Hofmann, et al., 2018, p. 6).

Probably the most important group is the winegrowers themselves. The establishment of an association of winegrowers in combination with the creation of a network for marketing and distribution purposes brings several advantages for the existing winegrowers. Firstly, costs can be significantly reduced by sharing production facilities and equipment. Furthermore, the merger of the originally small winegrowers increases their power and negotiating strength vis-à-vis third parties. In addition, direct sales beyond the national borders of the Canary Islands increase the total turnover as well as the margin, which ultimately makes the wine industry more profitable, lucrative and more attractive as a business sector again. Due to the increasing profitability and attractiveness, the currently fallow vineyards could also be recultivated, which in return would meet the need for a higher production volume. These points can ultimately create a secure, successful and better future for the individual small winegrowers.

In addition to the winegrowers themselves, Vinerife also creates a value proposition for other stakeholders of the Canary Islands, because through the development and expansion of the wine industry in connection with the creation of an association and network, the current jobs in this sector are secured on the one hand. On the other hand, additional new jobs will be created in various areas in order to be able to meet the expected increase in demand and to build up the association of winegrowers and their network in the long term. As a result of an increase in the employment rate, the financial security and purchasing power of the individual stakeholders will also rise.

However, the group of consumers in the B2B as well as the B2C sector should not be forgotten. In this area, one finds above all hotel restaurants and wine bars as well as wine lovers who are always on the lookout for new special taste experiences and high-quality wines. They can find satisfaction for this need in the unique style of Tenerife wines, which are often characterized by a beautiful density and filigree salty minerality, and their good quality. By building up an overarching cooperative as well as a distribution and marketing network, that makes the wine known beyond the borders of the Canary Islands and easily accessible to consumers, not only the regional consumption need could be satisfied (Kugelbrey, 2020).

Finally, the producers of vegan leather can be mentioned as an interest group in the B2B sector. Their need for more and more new and additional raw materials could be increasingly satisfied by the establishment of a winegrowers' association and the associated expansion of the Canary Islands wine industry. The increase in the amount of wine produced also increases the amount of the waste product pomace. Through the increasing amount of pomace, large manufacturers of vegan leather could cover their need for raw materials. But this is only a possibility for the future and should not be seen as a decisive value proposition of the original business idea (Francés, 2020).

Value Creation

After the initial identification of the various value propositions of the different parties, the main focus will now be on the value creation with its key resources, which are necessary for the creation and distribution of the value propositions (Hofmann, et al., 2018, p. 6).

Money is always a crucial factor in building up or expanding a business. However, in the following required elementary and specific key resources for the development of the wine industry in Tenerife and establishing a wine cooperative with a well-organized network will be described and explained in more detail. Money as a key resource will not be discussed further.

Land is one of the key resources. Here there is the possibility to reactivate and recultivate the fallow vineyards in addition to the currently cultivated vineyards. New land would only have to be developed to a limited extent. In this way, the demand for another key resource, the raw material, the grape, can be secured (Francés, 2020).

The described raw material, the grape, is probably the most important resource for the business model, because without excellent raw material, no high-quality end product can be produced for distribution, on which the new winegrowers' cooperative is based. Through systematic development and grafting, on the one hand plants can also be made more resistant to pests and diseases and on the other hand old grape varieties can be preserved and at the same time new special grape varieties can be created (Francés, 2020).

But even the best soil and raw material conditions cannot be used successfully without the key resource people. In addition to unskilled workers, skilled workers are particularly necessary for successful wine cultivation. Due to the geographical peculiarities, much of the work is manual and therefore pruning the vines, soil care, foliage treatment and thinning, as well as harvesting the grapes are essential points in the training of these workers. But it should be noted that not only skilled agricultural workers are needed. Trained staff in the organizational area, marketing and sales are also enormously important for the sustainable success of the association and the network (Francés, 2020).

However, no matter how well trained the workers may be, if they do not have the right equipment for the job, their work will not be crowned with success. This brings us to the next key resource: machines and equipment. With the right equipment for harvesting and pressing, the required quantity of grapes can be produced. In addition, the quality of the grapes and wines can be increased and assured.

While circular supplies are more prominent, there are different stages to the return of by-products. The island has a high availability of alternative power sources and a detailed plan to derive at least 45% of power from renewable sources with knowledgeable institutes working on the implementation and continuous opening of new wind parks as additional sources of renewable energy. Meaning the use of circular supplies is already underway (ITER, 2019; Why Tenerife, 2020). However, as mentioned, there are multiple stages to the return of by-products, where the first one is applicable for relatively small-scale productions. The second one will come into play further along time with economies of scale increasing. At first, the main leftover is pomace, which is the skins, seeds, and stems remaining after the crush (Vinifera, 2016). In the first stage of smaller wineries, by-products would be used for compost and to feed animals. As it is currently already done in some wineries (Francés, 2020).

The second stage would then be in a further advanced and grown wine cooperative here the pomace will be reused and made into fabrics. The significance of the investment is why this reuse can only launch with a pleasing effect of economies of scale. A pioneer in that field is VEGEA in Italy, using all sorts of biomasses and vegetable raw materials (VEGEA, N.D.). That poses two potentials for earlier application: Either the shipment of pomace to Italy and collaboration with VEGEA as a service provider or a cooperative of different agricultures on Tenerife to reach sufficient economies of scale and a variation of vegetable materials used to produce fabrics on the island. That way, all possible arrows in Fig. 2. would be considered.

Financial Aspects

The revenue model of Vinerife is mainly margin based. As a cooperative, we would be marketing the wine internationally and support the small wineries distributed across the island. As for that, a percentage of sales will go to Vinerife for the services. An additional revenue model would result from the sale of wine marc to VEGEA, producing vegan leather. In the farther future, it would also be possible to invest in technology for vegan leather and then generate revenue from the sale of that, without the service provider VEGEA (VEGEA, N.D.). As mentioned by Gabriel, wine from Tenerife is a relatively high-cost wine because of its quality, the scale of production, and the uniqueness of the wine from the island (Francés, 2020).

While not having many cost positions other than HR, a potential development would entail more significant investments in the future. The possibility for a system including shared production facilities brings costs of up to almost \$1 million needed as an equipment loan for production of 20,000 cases with twelve bottles at 750 ml (Fickle, et al., 2005, p. 10).

External Costs

Since the business idea is meant to be sustainable and is trying to further an existing sector, we aim to keep the external costs at a minimum. However, new developments are never without the risk of any external costs. Firstly, the environment, the carbon footprint would rise with increased distances of transportation. However, we would be aiming at the transport to be as environmentally friendly as possible by carbon offsetting shipments and using recycled and recyclable materials. Carbon offsetting is quickly done by calculating the impact and directing the amount towards counteracting projects, as done by, e.g., Carbonfund (Carbonfund.org, 2020).

The other potential disruption would be concerning the social system in Tenerife. Because we are entering an existing structure, we are not only depending on the collaboration with the wineries for a successful business but also aim for a positive impact in the industry. According to Gabriel, the need for support within the sector would justify such an idea if it collaborates and supports current structures.

Stakeholder

The complex system of stakeholders involved in Vinerife makes it a rather complicated business. To create awareness and compensate for the exports, some political representation is one of the essential supports we need, other than the local network of winemakers and the international network of hotels and restaurants. As analysed in the long run, investors and technological stakeholders grow in importance.

Economical	Political	Technological	Cultural
• Investors • Banks	• Political representation	• Skilled wine experts • VEGEA experts	• People from Tenerife • Hotels • Restaurants

Figure 16: Excerpt of stakeholders for Vinerife (own representation)

3.4.4 SWOT Analysis

The SWOT method analyses the company's internal strengths and internal weaknesses and compares them against the opportunities and threats of the external environment. The SWOT method is suitable for developing strategic options and strategy implementations (Paul & Wollny, 2020, p. 69).

Strengths

In terms of culture, Vinerife touches an essential aspect of the cultural life on Tenerife. The idea supports the community thought and shared economy aspect on the island because the central life happens outside the home in restaurants, cafes or bars, offering a variety of local and foreign liquors (Misenko, 2020). The idea rests on already existing knowledge of wine-making tradition, some of Europe's oldest wines come from the Canary Islands and with them specific cultivation techniques (Pin and Travel, 2020). So, no particular research and development efforts are needed to produce wine. The creation of a joint label and a wine growers' cooperative leads to synergies and cost efficiencies. Also, negotiation power and brand awareness are strengthened through the cooperative. In general, the business idea benefits from multiple customer and stakeholder groups.

Weaknesses

The business model's main weakness would be the winemakers' dependency as main partners and collaborator to create value. It is unclear whether the winemakers are optimistic about the business, including the circular economy idea and being open to work and cooperation. Establishing the business idea would mean high coordination, alignment and persuasion efforts. In addition, the island, therefore the business, lacks educated specialists in the wine sector. The few who remain, demand high salaries (Francés, 2020). Due to the low profitability of the existing business (Francés, 2020) the beginning of Vinerife could lead to financial bottlenecks.

Opportunities

Due to the rising turnover in Europe since the year 2012, with the exception year 2020, the wine business is a stable sector with potential growth (Statista, 2020). The wine recultivation in the higher peripheral areas would also be beneficial (Günthert, 2014, pp. 22-27). The European union financially supports the agrarian production of wine on the island, because of the generation of new jobs and against the general desolation of peripheral regions (Günthert, 2014, pp. 140-141). The European Union also supports establishing a circular economy in the wine industry because of the successful transformation of the winemaking process residues into reinforced polymers (European Union, 2017). Another positive factor is that Tenerife's climate supports the growth of healthy grapes, which are getting destroyed by the grape phylloxera in other parts of Europe, whereas "phylloxera never reached the islands" (Ortiz de Arri, 2017). Also "Tenerife is the island where the majority of the best Spanish wines in the Canary Islands are produced [...]" for example the Vina Norte de Acentejo from Tenerife, which is recognised as the best white wine in Spain (Pin and Travel, 2020).

Threats

As mentioned in the current situation subchapter, significant threats are the climatic issues like heatwaves lead to crop shortfall and water shortages, which will probably increase. Furthermore, fast growth is inhibited by the constraint of the vineyards' growing time, which take up to four to six years (Francés, 2020). The room for setting prices and skimming off high margins is limited in terms of export, because of the customs taxes. Also, the Spanish mainland competition is intense in terms of price and quality (Francés, 2020). Young people who already live on the island don't want to continue the wine making legacy (Francés, 2020) which could inhibit the growth of the business or even put it at risk.

3.4.5 Idea Evaluation & Critical Reflection

The business idea Vinerife also shows potential developing into a circular economy model while strengthening the financial aspect through alternative revenue sources. The support of the European Union in terms of the circular economy and the wine sector could be an argument to foster collaboration between the winegrowers. The joint label, a strong value proposition of the business, and the characteristics of Canary wines, its high-quality and exclusiveness, could beat the mainland competition. Cost efficiencies and synergies could improve pricing. The strong brand could also lead to a higher price premium for the products, generating higher margins. The possibility of a circular economy should be worked out further. This could keep young people on the island, because they might see circular economy model as a meaningful contribution to the economy. Furthermore, the business idea also focused on a cultural involvement and connects to traditions and local identity.

But there also remain some uncertainties whether the business concept can be put into practice. Currently the key strategic difficulties for the business idea result in a lack of resources in form of qualified workers. Therefore, the appeal to work in this area needs to be fostered by for example university programs. What can be observed is, that the universities on Tenerife tend to focus more on programs that help the people to leave the island to be able to work internationally. In order to make the island more attractive to young people it also requires structural approaches that provide incentives to stay on the island. Overall, must be considered that the business idea is environmentally affected and will face challenging times due to global warming.

Finally, there are some questions that remain open and require further research:

- Will the current wineries unite themselves under one brand?
- Will climate change force the wineries sooner or later to stop operating?
- Is there a way to make the wine branch even more resistant to environmental influences?
- Will the exclusiveness of the Canary wine be internationally recognized by the fine cuisine and will demand therefore grow?

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3.4.7 Appendix

Interview 1

The Wine Industry on the Canary Islands:

Interview from 17 December 2020 with Gabriel Morales Francés, a wine grower and wine expert from Tenerife.

1. How is the wine industry organised in Tenerife?

- The recovery of the wine industry started at the end of the last century and by that they started building big wineries (Bodegas Insulares) => 5 cooperatives, but they don't work that well; they are still existing today, but with less viticulturists, as the managing was in the hand of the agriculturists who had not the required knowhow for that => bad commercialisation and structure of the wineries => the viticulturists could not be paid
- In the 21st century new very small wineries appeared (between 100-500 bottles per year)
- Many small companies in most of the case
- Very small production
- Viticulturists are compared to the banana industry very bad organised, lot of fights between the viticulturists, often lacking information and knowhow how to be more successful => more union is needed between the viticulturists
- Problems with commercialisation but also with growing of the wine (climate conditions)

2. How many vineyards are on Tenerife? How many people are currently working in the viticulture sector on Tenerife?

- 5 D.O.s on Tenerife
- 11 D.O.s on the Canaries
- 200-300 vineries
- 5 Cooperatives built (don't work so well, are small, 1 million bottles each more or less, because of unknowing developers)
- Gabriel's small business: 5000 bottles per year, the wineries Gabriel is working for as a consultant produce between 20000-50000 bottles per year
- Vineyards are very small (less than 5000 square meters) => very difficult to produce in economic way, very expensive production => fight with cheap wine from the mainland
- 20 million grapes are processed more or less per year
- 50/50 red/white overall

3. Which regions are especially good for wine growing?

- Better spots for wine are in the north of the island
- It is easier to have enough water there
- Climate change makes it even more difficult to grow wine as wine needs cold in the winter and sun in the spring and summer but that is changing because of the climate change, not enough water, bad quality of water

4. Do you think you could grow wine in regions where bananas are grown?

- Banana industry is well organised because they have one central organisation which is represented, is working more or less and is rentable for agriculture
-> Lobby in Brussels

-> Fights between Banana farmers and wine farmers, turning banana plantations into wine is difficult (banana farmers are richer people and educated)

-> Who own Banana land have resources and connections to politics VS Distrust between vine farmers(?)

-> If you want to restructure -> You need to invest in vineyards! You need enough grape!

-> Artisan production is more important (without technology) because this is what makes the Canarian wine special

- It is not necessary to turn the banana plantations into vineyards because there are a lot of abandoned vineyards (2000-3000 hectares) => problem of generational renewal, future generations are not willing to overtake the vineyards as they are currently not very rentable
=> So, there is enough space for additional vineyards
- Additional growing competitor: avocado, as it is more rentable

5. How long would it take to plant / establish a completely new vineyard?

- More or less 4-6 years

6. How many workers are needed for the cultivation of a vineyard? Do they need any special knowhow, education etc.?

- Difficult to find people who are specialised, grape is not rentable now -> you struggle to pay specialists -> wine must be sold more expensive

7. What do you do with the rests of the grapes (the skin, the wine marc)?

- It is used for compost or for feeding animals
- Close the cycle: the things that you don't need give back to the soil
- Oil production out of seeds or vegan leather production (e.g. Vegea) is not possible as the amount of the seeds and the wine marc is currently too less and transportation is very expensive (20 millions of grapes are processed more or less on the entire Canaries per year compared to Spanish vineyards that produce alone over 10 million bottles per year)

8. Is Canarian wine already sold internationally?

- Good international critics for Canarian wine
- Starting to sell more wine internationally (e.g. US, Europe)
- But competitiveness is decreased because of custom taxes that increase the wine prices
- There are already some wineries who are selling up to 90% their wines internationally
- It is sold through distributors because direct sales are very expensive (if there would be union between all the small viticulturists and the government would help then there would be the possibility to develop a joint platform where the wines can be sold directly)
- Way to go: selling the wine in special and selected places (such as high-quality restaurants, special wine stores where experts can describe the story behind that bottle)
- Smaller tax percentages than rest of Europe

9. What makes the Canarian wines so unique?

- Completely different grapes (no grape phylloxera on the Canaries)
- Volcanic soils, island, climate, quality
- Exclusive, small production
- Produce curiosities, wine that does not exist in other countries
- Target group: wine lovers, experts

10. Are there already winegrowers' cooperatives on Tenerife?

- Cooperatives construct big winery without supporting small companies

11. Do you already use all your production capacity, fields, possibility to increase it?

- Cooperatives have big capacities, but do not have enough grapes
- But if they produce more wine, the prices will probably drop (the demand on the islands are more or less satisfied => international distribution is needed)

12. Have you experienced a severe change due to corona?

- After 2011 tourists cannot easily transport wine outside, wine is now sent more to countries. Concern: Missing clients because tourists are missing and retired people who live partly on the island (6 months)

13. Do you think the demand is currently satisfied or is there still potential to grow?

- Yes, there is potential in working more with especially common local restaurants so they offer the local wine but common restaurants want cheaper prices
So, more network, communication, marketing and advertising as well as education about these wines is needed
- More communication and marketing are needed to promote and describe the uniqueness and history of Canarian wines in order to better sell them internationally but also domestically (because the high price often deter people from buying it as they don't know anything about it)

14. Is there already a circular economy model in Tenerife? Would you be willing to share machines etc. with other winegrowers?

- Mechanisation is difficult and mostly not rentable, because a lot of hand work

Interview 2

The wines of the Canary Islands

Interview from 22 December 2020 with Engelbert Kugelbrey, Regional Sales Manager at 'Weinhaus H.M. Pallhuber GmbH & Co. KG' / branch Gessertshausen, on the wine industry and wines of the Canary Islands, especially Tenerife.

1. Wie groß ist das aktuelle Angebot an kanarischen Weinen/ Weinen von Teneriffa?

Nicht sehr groß. Auf den Kanaren sind lediglich 9.000 ha bestockt. (Teneriffa 2.500 ha) Ein Großteil wird regional vertrieben.

2. Wie hoch ist die aktuelle Nachfrage für Weine von den Kanaren, insbesondere von Teneriffa?

Im Gesamten nicht sehr hoch. Ich denke selbst im Premiumbereich.

3. Ist der Markt durch das aktuelle Angebot gedeckt oder besteht noch eine größere Nachfrage?

Der Markt ist wahrscheinlich durch das Angebot gedeckt. Die Spitzenerzeuger mit Exportgeschäften können vermutlich auf Rebflächen, Trauben etc. kleiner Produzenten zurückgreifen.

4. In welchem Preissegment bewegen sich die Weine?

Was hier zum größten Teil angeboten wird: 14€ - nach oben offen.

5. Welchen Preis sind die Kunden bereit zu zahlen?

Die Preise bewegen sich im höheren Rahmen. Ich denke nicht, dass der Verbraucher mehr dafür ausgeben wird, nur weil der Wein von Teneriffa kommt. Wie in der restlichen Weinwelt kann man natürlich durch die entsprechende Qualität, perfektes Marketing bzw. Image einiges erreichen.

6. Wie schätzen Sie die Qualität der Weine ein?

Gut aber nicht überdurchschnittlich. Grundlage für die Einschätzung sind die Bewertungen in renommierten Weinführern wie falstaff.

7. Welche besonderen Merkmale/ Eigenschaften werden den kanarischen Weinen bzw. den Weinen von Teneriffa zugeschrieben?

Durch die vulkanischen Böden, den Wind, das mediterrane Klima mit wenig Niederschlag werden die Weine eher alkoholischer - wirken aber dennoch filigran. Sie besitzen eine schöne Dichte und werden von einer filigranen oft salzigen Mineralität geprägt.

8. Wie schätzen Sie das Preis-Leistungs-Verhältnis der Weine ein?

Das PL-Verhältnis ist eher etwas schlechter einzuordnen. Hierfür ist wahrscheinlich das häufig arbeitsintensive Erziehungssystem wie auch die zusätzlichen Transportkosten (Insel) verantwortlich.

9. Wie schätzen Sie den momentanen Bekanntheitsgrad der Weine ein?

Der Bekanntheitsgrad ist meiner Meinung nach gering. Wahrscheinlich eher bei Kennern und Kanaren-Touristen.

10. Welchen Ruf genießen die Weine in ‚Kenner-Kreisen‘?

Kann ich leider nicht beurteilen. Sie besitzen auf jeden Fall eine eigene Stilistik.

11. Können Sie eine Einordnung der Weine im internationalen Vergleich vornehmen?

Meine persönliche Meinung - ich habe kanarischen Wein schon verkostet — mir ist er nicht als „Das Größte“ im Gedächtnis geblieben. Ich denke schon, dass sich stilistisch ähnliche Weine für einen günstigeren Preis beziehen lassen.

12. Werden die Weine eher von kleinen Weingütern oder größeren Genossenschaften/Zusammenschlüssen etc. hergestellt und vertrieben?

Es gibt eine große Kellerei auf Teneriffa — „Bodegas Inulares Tenerifa“. Ich denke mit 660 Mitgliedern und einer Jahresproduktion von 17.000 Hektolitern, wird der meiste Wein über Genossenschaften vertrieben.

13. Wie wichtig sind, Ihrer Erfahrung nach, den Kunden Aspekte wie Nachhaltigkeit, Fair-trade und Bio bei Weinen?

All diese Aspekte werden im Gesamten immer wichtiger für den Weinmarkt. Wobei gerade im Premium-Bereich der Kunde weniger darauf achtet. Hier zählen mehr positive Bewertungen (Presse, Weinbewertungen) und Image. Wird aber immer mehr kommen.

3.5 Working from Home Island

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3.5.1 Idea development and problem introduction

Following the ambition of developing a reasonable business idea the two assumptions functioned as core orientation: The characteristics of the island's location factors need to be considered and ideally made maximum advantage of. The business model needs to entail sustainable elements following a circular business approach.

With COVID-19 reshaping industries and our every-day-life, a basis for the idea was sketched moving quickly. Thereby the issue of Tenerife's economy being significantly dependent on the tourism sector (Cabildo de Tenerife 2021) and at the same the realization that the sectors wealth can be drastically affected by external factors (Deutsche Welle 2021), formed the starting point for considerations of a solution and thus the development of a value-driven business idea.

Moving forward the idea development implied the formulation, design and evaluation of respective elements of the business model canvas against the backdrop of the elementary idea going in hand with secondary research and empirical activities such as the conduction of interviews (See Appendix 2). The following content will expound the output of the undertaken efforts, illustrating the business idea amid its individual components and critically evaluating the practicability and value of the emerged business model.

3.5.2 Company overview

The core objective of Working from Home is a service to enable employees to work remotely on a beautiful island for a limited time. This way, employees do not have to work from home, but can work for a limited time at another location that is equipped for their needs. Working from Island connects employees, their employers, co-working spaces and accommodation. The USP is the connection of companies and their employees with coworking spaces and accommodation. Companies can enable their employees to work on a beautiful island for a limited time.

Both the employer and the employee can use this service with minimal effort because Working from Island takes care of the entire organisation. The employee can work productively and in a good mood in a nice place.

The most important stakeholders are the employees. Finally, the employees are the people who use the service and who must like the offer. The prerequisite for this is that the employees are allowed to work from another location for a few weeks. Especially due to the Corona crisis, more and more people must work from home. Some employees work from home for longer periods for the first time. The workspace at home is not always suitable for working from home or other things cause problems and lead to dissatisfaction. Digital nomads already take advantage of the benefits of working in a place where they feel comfortable. This often includes beautiful places that also offer the necessary infrastructure to work there. Our target group is anyone who would like to work in a different location for a few weeks and would like to use a service that makes this possible in an uncomplicated way.

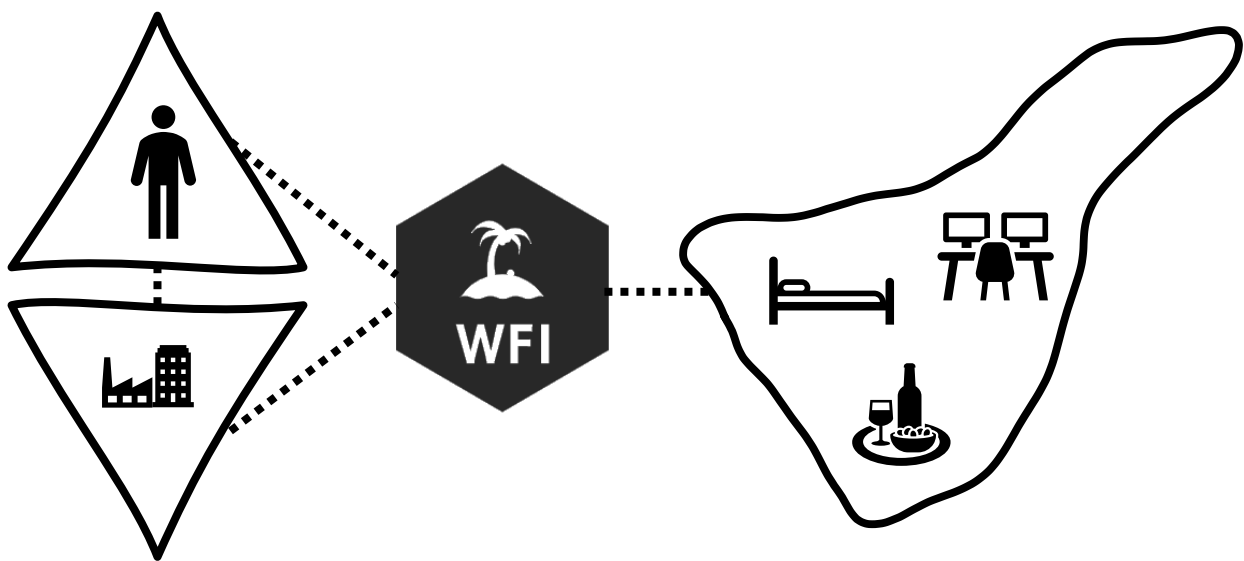


Figure 17: Stakeholder Working from Home (own representation)

The prerequisite for offering such a service are local accommodation and workplaces. When founding Working from Island, no accommodation or workplaces have to be bought or built. Depending on the financial strength, this would be conceivable but is not a prerequisite for founding the company. Later on, owning co-working spaces or even accommodation is an advantage in order to offer the best possible service and earn money in the long run. Contracts with coworking spaces and accommodations are possible at the beginning.

Coworking spaces are a good way to provide a workplace that can be used for a limited time. These coworking spaces should offer the following possibilities:

- Electronic access 24/7
- WIFI – Fast, reliable internet connection
- Conference call system

Further equipment would be desirable:

- Second Screen
- Beamer/Projector
- White Boards
- Scanner
- Printer/Print quota
- Coffee flatrate
- Moving walls - these walls can enable a space to be reconfigured for the needs of different users at different times of day, or can enable a user, from organisations to individuals, to reconfigure their work or home space as their own requirements change, without the need for additional building and materials.

Accommodations are necessary so that employees have a place to stay for the few weeks. Catering for employees can be provided by the accommodation or local restaurants.

Employers are another important part of the business idea.

Why should an employer offer its employees to work from an island? The attractiveness of the employer, the loyalty of the employees and the employee satisfaction could be improved. In addition, employees would get out of their familiar environment and could think "out of the box". Similar sectors could also be brought together and networking events would be possible. This could create at least a temporary Silicon Valley effect on the island.

In addition, further services could be offered to the employees. Going to a foreign place for a limited time is also associated with leaving the social circle. This can lead to negative effects, such as the feeling of loneliness. To counteract that, events could be offered for the people currently working there. Possible events could be guest lectures on specific topics, conferences, networking events, community events (Build local community) for employee wellbeing (sports, yoga, cooking together, exploring the island, sailing, urban gardening, hackathon, team building events, etc.), offers for the whole family and many more. It would also be possible to offer Working from Island at certain times of the year for certain sectors. For example, the service could be offered for a certain period of the year, for example to people who are working in marketing. Exciting lectures or events could be organised. This would allow people from similar sectors to network with each other.

What impact does the Corona Pandemic have on the business idea? There are two scenarios that are presented here.

The first scenario is that the Corona pandemic is contained by the vaccination and no longer plays a role. However, the world of work has already changed and there will be more opportunities to work from home. It will be much easier to fly to Tenerife and work from there.

The second scenario is that Corona will stay. In this case, there will be testing facilities before entry and safety will be maximised to avoid infection or being infected. Space situation may need to be adapted to Corona-friendly accommodation and coworking spaces.

In summary, the business idea can be represented by the mood board in the appendix.

3.5.3 Sustainability Approach

Sustainability is a key element in each step and sector of the business model of Working from Home Island. To begin, the business model is based on the idea of reusing existing real estates, instead of building new real estates. In the context of Covid'19, several hotels and tourism related buildings are vacant. Besides that, in the case of underutilized offices spaces from the city government for example can be reused by means of sustainable modification and maintenance. This strategy can lead to an increased utilization of publicly owned building and a countered urban sprawl and resources consumption simultaneously (AHK Spanien 2019).

Second, when choosing and modifying existing real estates, sustainability remains a central influencing factor. Implementing energy saving measures can not only improve the usage of the building but can also lead to a reduction of ongoing operating costs. Measures can be the use of solar-energy and improved building technology for flexible controllable and energy-efficient lighting and air conditioning, installing water efficient fittings and making use of rain water, planting native species and using sustainable materials for example. Energy expenses are usually the 4th or 5th biggest part of operating costs in commercial real estates (Kroll 2020). Sustainability certifications like LEED, for example, as a reference standard for green buildings (LEED 2020; EUROPEAN COMMISSION 2020). Analyzed in the location factors (see Chapter 2), Tenerife benefits of excellent conditions to develop green buildings. A further indicator of sustainable buildings is the aspect of a shared economy. By providing shared office space, equipment, technology and prospectively car and bike sharing models, the buildings also fulfil green building certification requirements (LEED 2020). Furthermore, creating a flexible interior by moving walls that enables users to reconfigure spaces as needed and to design a greater use of space can decrease the level of energy need (Kroll 2020; AHK Spanien 2018, pp.52ff.).

Third, enabling people to connect holiday and work on one place, reduces the numbers of flights and overall transportation emission. Due to the outstanding landscape, combined with excellent interned connection (whytenerife 2014), Tenerife offers several opportunities to create both, a holiday and a work environment. The business will connect and inspire people with

a new, innovative and sustainable way of working and living. Hence, working from Home Island makes use of synergy effects on the hotel and catering companies on the island and improves the overall economy, particularly after the times of Covid'19 and the need of recovery.

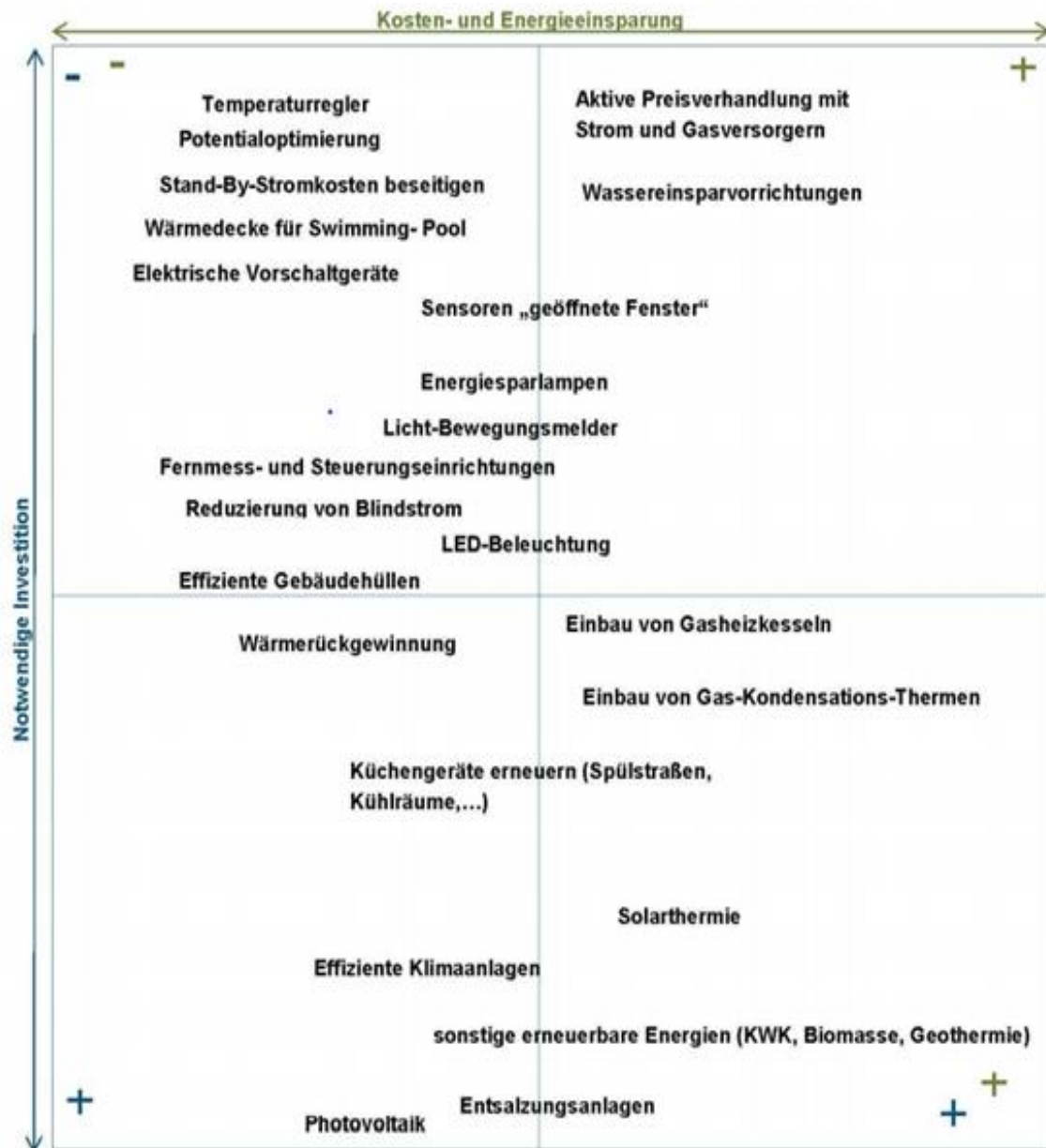


Figure 18: Cost-benefit matrix of energy saving measures in hotels (AHK Spanien 2018, p.64)

3.5.4 Circular Economy Approach

Working from Home Island is a sustainable business idea that includes the circular economy approach. Unlike conventional business models, Working from Home Island pursues the standards of circular economy business models. The value creation structure includes the user of the product as a central part of the value creation process. The collaboration with companies, freelancer and start-ups creates a circular business network through a value circle. While

companies benefit from upcoming talents and innovative ideas, freelancer and start-ups profit from valuable contacts and collaborations. The product and business idea delivers a service that is more valuable for the user than the ownership of a facility. Finally, the success of the idea is measured in a balance of ecological, social and financial indicators. (Hofmann 2018, p.3f).

The business idea follows the circular strategy as a service, by providing a remodified working environment and combining work with holiday. This service approach thinks tourism in a new way (Einarsson et al. 2020, p.4). Furthermore, when looking at Working from Home Island as a product, the circular strategy of reusing, repairing and refurbishing vacant hotels and publicly owned facilities, the circular strategy works on expanding the life span of existing buildings (see Figure 18) (EUROPEAN COMMISSION 2020; TUDelft 2021).

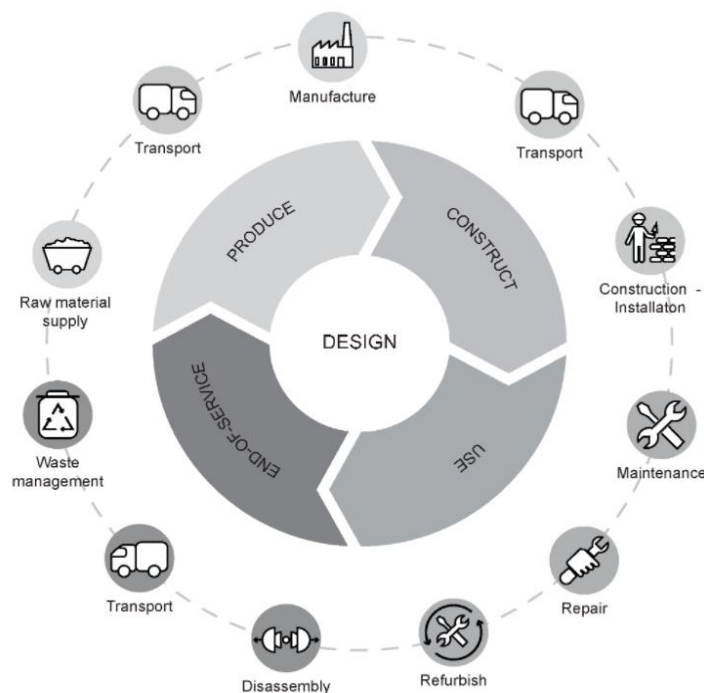


Figure 19: Life-Cycle of a Building (TUDelft 2020)

In case of reusing vacant facilities, Working from Home Island pursues EcoDesign strategies concerning the single life cycle stages according to the Fraunhofer IZM (Institut für Zuverlässigkeit und Mikrointegration) (Jokinen 2018a). These include tools concerning the materials, manufacturing, product, distribution, use and end of life. In order to modify use and purpose of the building, for example from a hotel to an office building, it will be focused on using renewable, low energy content materials. Optimally, the reconstructing will include recycled and recyclable materials and concentrate on non-toxic and local products. In this context, the second

stage of the life cycle, the manufacturing and reconstruction process will concentrate on creating as less production waste as possible. As the first and second step indicate, in life cycle stage 3, the final product of a kind of Co-working office buildings are refurbishments that enable an easier recycling process after the end of the building life span. The life cycle stage 4 concerns the distribution tools. This factor can be linked to the decreasing flights by combining work and holiday and the collaboration with eco-friendly transportation systems on place. Due to the sustainable modernization of the buildings, the business idea provides low energy consumption and clean energy sources by the solar-energy and water system and fulfils the eco-friendly requirements of the life cycle stage 6. Finally, in accordance to the last life cycle stage, the sustainable and flexible refurbishment of the buildings enables a further reuse after the life cycle. Materials can be recycled; technology and renewable energy systems can be improved and the internal design can be refunctioned into another utilization (Szita 2017, p.7; Jokinen et al. 2018a; Jokinen et al. 2018b).

3.5.5 The circular business model canvas

Circular Business Model Canvas

The core outcome from the perspective of defining a Circular Economy Business Model is that, “within a given system boundary”, the business idea and its value chain needs to “enable the regeneration of finite natural resources and keep products, components and materials at their highest value and utility” (Smith-Gillespie 2017, p.1). In terms of this business idea the focus should not only be put on tangible resources and products but also on intangible factors, such as knowledge management and other social factors.

Value Proposition

With the sustainable idea of refurbishment of used buildings, working remotely on Tenerife with the Working from home island, will create a place for (international) Co-Working and decentralized work. It solves the problem of escaping a triste and uninspiring working environment, back in the costumer's country of origin, while establishing networking opportunities and promoting sustainability. Moreover, it is an all-in-one solution to provide employer and employees easier access to a holistic approach on New Work.

Value Creation

The Business is focused on creating value, not only on the island but also to the foreigners working there. For creating this value cooperation as well as coopetition is needed. This implies a stimulation of creativity, transfer of knowledge and implementing entrepreneurial ideas (Bouncken et al. 2018)



Figure 20: Circular Business Canvas (Hofmann, et al., 2018, p. 7)

Circular Business Model Canvas

The core outcome from the perspective of defining a Circular Economy Business Model is that, “within a given system boundary”, the business idea and its value chain needs to “enable the regeneration of finite natural resources and keep products, components and materials at their highest value and utility” (Smith-Gillespie 2017, p.1). In terms of this business idea the focus should not only be put on tangible resources and products, but also on intangible factors, such as knowledge management and other social aspects.

Value Proposition

With the sustainable idea of refurbishment of used buildings, working remotely on Tenerife with “Working from Home Island”, it will create a place for (international) Co-Working and de-

centralized work. It solves the problem of escaping a triste and uninspiring working environment, back in the costumer's country of origin, while establishing networking opportunities and promoting sustainability. Moreover, it is an all-in-one solution to provide employer and employees easier access to a holistic approach on New Work. The sustainability factor sets this project apart from existing competitors, as it is an integrated key factor in each step of the process.

Value Creation

The Business is focused on creating value, not only on the island but also to the foreigners working there. For creating this, value cooperation as well as coopetition is needed. This implies a stimulation of creativity, transfer of knowledge and implementing entrepreneurial ideas (Bouncken et al. 2018). Companies, on and off the island benefit from the talent and innovative management, while a self-employed person and start-ups get advantage through valuable contacts and collaborations. Furthermore, people – despite their employee status - get the opportunity to experience the flexibility of a freelancer. This approach is highly in demand since more and more companies switched to remote working in 2020 (Courtney, 2020) and realized that both parties of flexible work arrangements benefit from increased performance, less work tress and employee turnover (Hyland 2000; see Appendix 2 and Appendix 3: “Team Work”).

Circular Business Network

To get the participation of all relevant actors in the value circle, it would be helpful to create a cooperative network. Different types of collaboration between hotels, restaurants, car rental companies and “Working from Home Island” are needed to create value for the customers, as well as the natives. Moreover, support in terms of realizing the targeted building infrastructure is crucial. This might include real estate owners (private and governmental) as well as construction companies and other local providers. The Customers, who are going to use the services of remote working can be characterized as international digital nomads who are living environmentally friendly and are interested in an alternative way of life. For companies, who are sending their staff to another work location, it is also a way for employers to create employee satisfaction and engagement.

Financial Aspects

Revenue is primarily gained by the bundles of services offered. The pricing is differentiated into several subscription models. Customers can either get daily, weekly or monthly passes for the Co-Working space. An accommodation can be booked separately or, if desired, in combination with the subscription. Primarily, the most important cost position, is the renovation and rebuilding of the real estate. Afterwards, maintenance costs, such as currant, water, etc. will arise. Sustainability, great environment, and an established synergy-network are the values

consumers are willing to pay for. Currently, they are paying for their commute to work or the rent for their apartment, while they would rather work in a more exotic environment. The target group likes to pay digital via PayPal, credit card or Apple Pay. Therefore, the paying system should run fully digital and online, so no exchange of cash is needed. The sales strategy will focus on online distribution channels, such as the company owned website, articles in epapers and social media (LinkedIn, Instagram) to not only attract customers, but also talent, to establish international knowledge-networks. The targeted audience is digital savvy, reads epapers like the SZ, FAZ or WELT and uses social media daily.

External Costs

Key resources and key activities might cause negative social and environmental impacts. This includes the factor that most comfortable way to travel to Tenerife would be by plane. This increases the emissions into the atmosphere and favors climate change, which lastly might lead to climate refugees. Since the beginning of 2020, about 14.000 immigrants came to the island and caused an enormous social burden for the islanders (WELT, 2020). Moreover, some opinions arise that digital nomadism is the new colonialism (Potor, 2016) This also impacts the social and environmental circumstances on the island, since some foreigners do not value and watch not out for their surroundings. Nevertheless, "Working from Home Island" tries to compensate these negative aspects through a more sustainable and ethical approach (See Appendix 3: "Social Issues"), backed by a code of conduct.

Stakeholder

For the long-term success of this ideas, various stakeholders are needed. For the cultural sphere the islanders need to realize the importance of other value creation streams other than the tourism sector, which is highly affected by the Corona pandemic. The special culture, flora and fauna needs to be represented by the residents living on island, as this is another USP for the project to attract foreigners. In terms of the economic success, the financial support through crowd-funding, subvention or investors is needed to realize the idea of reusing and rebuilding unused real estate in a sustainable way. Political and legal support, is another crucial factor for the realization of the project. To attract great talent and entrepreneurs, activities for easier Start-up founding and fast work permits for non-EU residents have to be implemented. For the technological infrastructure the connectivity by means of submarine fiber optic cable connection should be used and implemented in close cooperation with the providers.

3.5.6 SWOT-Analysis

Getting a better understanding of of “Working from Home Island” by a long-term view and in terms of defining objects and issues for further development, a SWOT analysis (see Figure 21) can be executed. The SWOT analysis helps to define potentials and risks for the business idea by analysing and depicting strengths and weaknesses (internal perspective) and opportunities and threats (external perspective) (Nieschlag et al. 2002, p.103ff.). In this case, a SWOT-Analysis is a suitable tool as the concept “Working from Home Island” still is in its early stages of development.

Figure 20 illustrates the core findings in a complexity-reducing way in the form of a matrix. Thereby the strengths and weaknesses representing the internal perspective on the value and performance of the product. These are derived based on the consolidation and condensation of the subjects of the previous chapters. The opportunities and threats representing the external perspective on the value and performance of the product on the other hand are derived from the initially conducted PESTLE Analysis (see Chapter 2) and further secondary research on the market environment such as relevant location factors and a competitor analysis.

Strengths

Given the fact that Co-Working Spaces already exist in many cities and considering that there have been (in-)direct competitors establishes on the island, one can say that Working from Home Island in the core ties in on a proven concept. Furthermore, the manifest of Working from Home Island is based on the following strengths. The sustainable character of the idea, implying the expansion of the lifecycle of buildings efficiently and improving building usage to save resources for building projects. Also, the main target group of Working from Home Island and the thereby followed intention of reducing the difference in working life freedoms and flexibility between permanent employees and freelancers. Summing it up, Working from Home Island is giving a well-known concept an innovative character.



Figure 21: SWOT-Analysis (own representation)

Weaknesses

A major challenge for the realisation and success of the business idea is the dependence on resources and administrative processes and stakeholders. The scope of the project that the implementation of the concept would ideally constitute is very high (See Appendix 3: "Costs"). At the same time, valid and recognised facts about the respective building infrastructure are still missing at this stat of the development process. These in turn are necessary for the further definition and elaboration concept of the model.

Opportunities

From a market environment perspective Working from ~~Home~~ Island is facing the following opportunities. The global sensibilisation for sustainability issues and the social trend for an environmentally friendly lifestyle that is emerging worldwide represent an opportunity in terms of the attractiveness of the idea for the demand side. This trend can also be tracked on the island. Active subsidy regulations and politically supported energy efficiency projects on the island (AHK Spanien 2018, pp.64-81; AHK Spanien 2019) thereby represent an opportunity for external support of the idea and a potential increase of resources for financials and knowledge hence the feasibility level for a timely and successful implementation. Incentive schemes FNEE, PAREER II or Programa Feder-PROCS for energy efficiency measures such as energy refurbishment and modernisation of already existing buildings and infrastructures of the public administration with the aim of reducing CO2 emissions (AHK 2018, pp.79f.) or the close cooperation between the municipality and the University of Las Palmas in the field of sustainability (AHK Spanien 2018, p.77) hereby need to be mentioned. Another trend that is turning out to be an opportunity is the one that gave rise to the very idea of Working from ~~Home~~ Island. The developments in the shift of work environments, accelerated by COVID-19 in 2020, which will potentially have a long-term impact on the way we work (Eurofond 2020; Global Workplace Analytics 2021; Emmett et al. 2020). Employees seek for more flexibility in terms of their working location, as e.g. three-quarters of EU employees in July 2020 want to continue working from home at least occasionally, even without COVID-19 restrictions (Eurofond 2020).

Threats

Existing competitors on the market need to be mentioned when addressing the threats Working from ~~Home~~ Island faces. The persistent pandemic also poses a danger for developing new business with its uncertainty for further development and related economic developments. Especially the yet unpredictable impact on travel activities and social distancing rules would place high on the risk management agenda of Working from ~~Home~~ Island.

3.5.7 Idea evaluation and concrete starting point

Reviewing Figure 21 opportunities and strengths are predominating. However, if a swot analysis wants to be used to evaluate a business idea, individual arguments also need to be weighted and e.g., continued with a rating model. At this point, such methodology is beyond the scope of this paper. Therefore, the following will concentrate much more pragmatically on how the idea, which can generally be assessed as attractive and value-added, can be pursued and optimized in order to ideally realize a project based on it.

Concrete starting points for the use of the potentials and further development

Based on the conducted SWOT-Analysis general directions for the future development of the idea can be deduced. Thereby correlations are identified between the strengths and weaknesses of the idea as well as opportunities and risks in the environment. Certain questions are guiding the process. These are listed below as sub-headings and are pursued in the following sections.

Strengths-Opportunities Combination: How can strengths be used so that opportunity realization increases?

The sustainable character of the idea ties in on the trend of an ecological sensibilization of society and the movement of energy measurement projects on the island. The motivation behind the business idea is also addressing developments in the shift of work environments. Thus, these aspects should be the read thread for addressing potential customers and stakeholder networks. Also, more field research needs to be conducted in order to mature the CE-approach (see Chapter 3.5.4) behind the concept of Working from Home Island.

ST - Strengths-Threats Combination: How can existing strengths be used to avert the occurrence of certain threats?

Threats like existing competition will be countered by fostering the Value Proposition of the business concept. This goes in hand with previous findings implying more field research and addressing the target groups (See Appendix 3: "Other") with a sophisticated communication concept building on the pillars of flexible working and a conscious society.

Regarding COVID-19 scenario planning will be conducted. Here, besides an ongoing survey of scientific, political and economic developments amid the course of the pandemic, it will be essential having the concerns of our target group and the success factors of the business model of Working from Home Island in mind (See Appendix 3: "Corona as a chance").

WO - Weakness-Opportunity combination: Where can opportunities arise from weaknesses? How can weaknesses be developed into strengths?

By following further field research putting the investigation of resource conditions (insights on potential stakeholder network, the prerequisites of administrative processes and building infrastructure) high on the agenda, the opportunities identified can become even more potential and realistic strengthening the Value Proposition of Working from Home Island.

WT - Weakness-Threats Combination: How can we protect ourselves from risks?

By deep diving in the definition and by constantly observing potential customers, risks can be overcome. Looking forward a potential market niche could be found in focusing on the regional market and neglecting the international perspective to again position our idea successfully against persistent competitors and pushing the attractiveness of the concept with the issue of becoming more independent from the tourism sector.

3.5.8 Conclusion and outlook

Recapitulating the elaborations represented in previous chapters, it can be stated that Working from Home Island has an enormous potential for shaping the economic and ecological situation on the Island of Tenerife in a sustainable way. A globalized world of work, the digital networking of society, technological emancipation and the importance and relevance of concepts and initiatives that push a cleaner and greener world are trending topics that will directly be addressed with the idea. In times of a global pandemic Working from Home island can be an answer to expected long-term consequences all social, economic and politically. Again, approaching the primary question “How could economically and ecologically sustainable business ideas for the Island of Tenerife look like in times of a global pandemic and beyond? “, which has been driving the creative process of the development of the business model, this work will be closed by summarizing the core pillars of the idea.

Working from Home Island offers innovative working environments and a sustainable sector on the island by providing...

- Flexibility and attractiveness concerning the location
- Creative knowledge-networks
- CE-compliant processes and resources

Nevertheless, following a pragmatic way of thinking there are still some uncertainties which are unused potential that needs to be exploited to increase the feasibility level for a timely and successful implementation of the business model. Looking forward the success of the business model remains with the following aspects respectively questions to be further researched and worked on:

- From what resource conditions (insights on potential stakeholder network, the prerequisites of administrative processes and building infrastructure) can Working from Home Island benefit from?
- What breadth of target definition is appropriate for both the short-term and the long-term design of the business concept?

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3.5.10 Appendix

Appendix 1: Mood Board

Our Motivation



VS



Our Starting Point

Nature, sun, adventure, vitality



International Hub



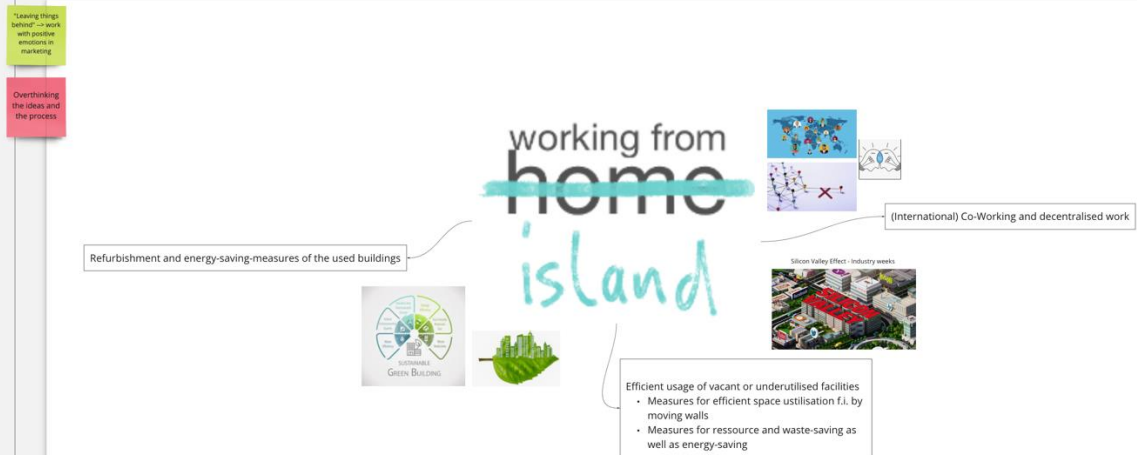
International online connectivity by means of submarine fiber-optic cable connection



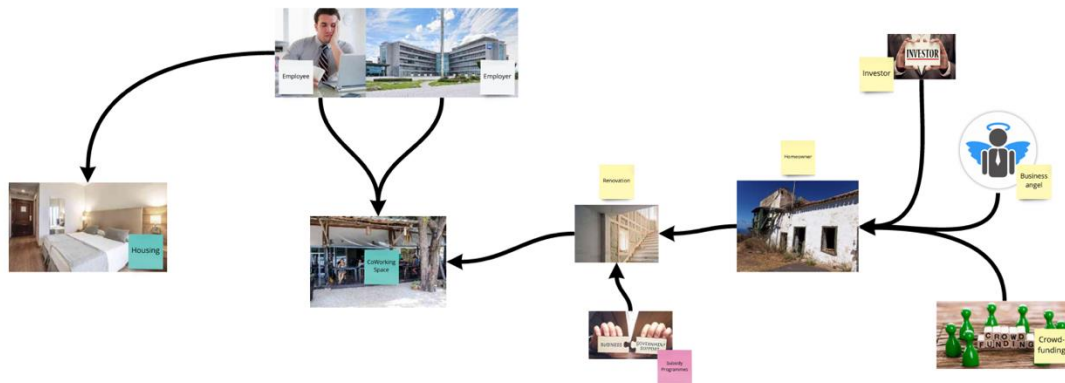
Subsidies for energy efficiency measures



Our Idea



Financials



Focus



Increasing utilisation <> Decreasing space need



Attracting talents <> Establishing knowledge-networks



Establishing synergy-networks

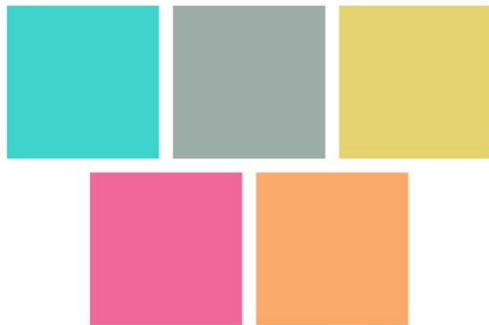


Contribute to a sustainable lifestyle on teneriffe



Being a role model for sustainable lifestyle

Marketing



Working from Island - Architects Daughter

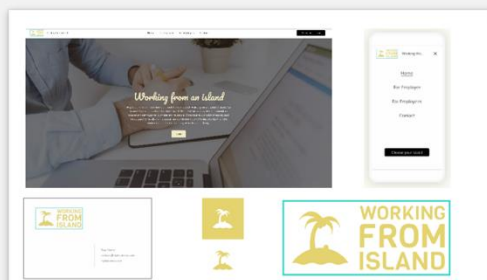
Working from Island - Courgette

Working from Island - Lobster

Working from Island - Noteworthy

Working from Island - Pacifico

WORKING FROM ISLAND - PERMANENT MARKER



Appendix 2: Interview

The chosen research design is exploratory research. Explorative research is about gaining a maximum of valuable insights from a small, unrepresentative sample. The primary data collected and their analysis are each of a qualitative nature.

Exploratory research

A semi-structured, personal interview strategy was used for the implementation. The advantages of a semi-structured interview are an adaptable way of conducting the interview as well as the possibility to ask questions for feedback and understanding.

Following the explorative research design, the interview is merely recorded. This type of documentation aims at summarising the content of relevant core statements.

Regarding the selection of suitable interview partners there are the following restrictions. (For the relevance of the results, only employers, decision-makers and employees of companies are interviewed who have already had experience with organisations that pursue similar supply models as the business model presented here. The potential interview partners are finally identified based on personal contact networks and are requested via a proactive enquiry. In this case one person have confirmed their participation. In view of the exploratory character of the implementation and evaluation, the manageable sample can be considered sufficient for pursuing the project.)

Protocol

The interview took place in person on 04.12.2020 at 20:00. The duration was 10 minutes.

Interviewer: Julia Zeller

Respondent: Bijan Khashabian, AVANTALION Consulting Group AG

Current professional position of the respondent: Managing Director

Question 1:

What is the motivation to enable a remote year in a coworking environment for your employees?

- Supporting the thought of such offerings to enable employees a flexible working environment which is well known for the so called "Digital Nomads".
- A very prominent motivation is employee satisfaction and thus employee loyalty by e.g. offering employees the flexibility of a freelancer.

- There are also cost drivers: When wanting to send an employee abroad to take a foot-step into new markets or to gain international experience, it often is a lot more expensive to organise everything through the own organisation. Working with such programmes is a discharge for our HR-department – The “all-inclusive character” is attractive.
- Also, you have the possible positive side effects of knowledge collaboration that such programmes bring along. The Employees knowledge but also mental and personal development is therefore another big driver.

Appendix 3: K-Huddle

Result Protocol K-Huddle

Date:	26.11.20
Time:	18:00-21:20
Event venue:	Online
Group:	2. Discussion: Working from Home-Island
Moderator:	Anja Puntari
Participants	Anja Puntari (Grasp-Network Founder) Nico Bretträger (Student) Klaus Deniffel (Student) Malte Höner (Student) Arne Riegert (Student) Carolin Smarzoch (Student) Romen Rodriguez-Gil (Tinerfeños) (Left befor Group Session 2)
Recorder:	Arne Riegert

1. Key Words:

The following keywords have been mentioned:

Obstacles:

- Corona
- Two Targets
 - o Individual People (digital nomads)
 - o Employees of companies
- High expenses
- Social circle
- Possessions
- Uncertainty
- Hesitation to move
- Immature market
- Remote-work culture is still in its early days
- Price
- Imitation

Leverage:

- Increasing remote jobs
- Great team
- Cooperation
- Increasing possibility for remote work
- Tenerife is a great place (probably among the best worldwide) to offer this service
- This is being promoted right now, e.g. https://english.elpais.com/economy_and_business/2020-11-10/not-just-a-tourist-destination-why-spains-canary-islands-are-hoping-to-attract-30000-remote-workers.html
- Ongoing Corona Pandemic
- Mental health

2. Results of the discussion

Five main areas of focus have emerged in the course of the discussion. These are the main focus areas Costs, Social Issues, Fear, Team Work and Corona as an Opportunity. In addition, other things were mentioned under the point Other.

The participants of the K-Huddle have chosen the pictures next to the thematic blocks. The pictures describe the corresponding texts or symbolise the headline of the particular thematic block. The pictures helped the participants to discuss the related topic. Interestingly, two participants chose the same picture.

Costs

High costs are an obstacle to the business idea.

These costs include the flight to Tenerife, but also to live there. If you want to stay longer in Tenerife, you will have to pay for accommodation there and your rent in your home country. One idea would be to rent out the flat in your home country. If you compare the cost of accommodation with other places like London, it is okay to live in Tenerife. Digital nomads try to organise everything themselves. Most of the time, digital nomads earn a lot of money. They stay longer in one place and get to know the culture and the people.

This discussion leads to the following tasks for our term paper. An affordable price system has to be found. Ideas must also be generated on how to reduce the price. For example you could rent out your flat in your home country.



Social Issues

The second topic deals with social issues. Some critical points have been mentioned here. When you go to Tenerife, you have to leave some "things" behind. You leave your personal environment and the corresponding culture. You leave your friends. All in all, you leave your social circle and that brings problems with it.

Therefore, the following tasks arise for the business idea.

The business idea has to be checked for social problems and ideas have to be generated to tackle social problems. The question is: How can the business idea help these people to stay on a "foreign" island?

For this purpose, offers for families could be created. In marketing and communication, the focus could be on the community. Appropriate pictures/etc. could be published on the homepage. A local community could also be built up. For example, cooking courses could be offered.



Fear

Another issue that has emerged is the feeling of fear. The fear in the business idea is that the business idea can easily be imitated. What to do about that? Instead of focusing on the obstacles, the team should concentrate on the positive aspects of the business idea. There is a reason why the team chose the idea and that needs to be kept in mind.

Therefore, the following task arises that should be worked on. What is special about the idea?



Team Work

A great team can have a great leverage effect on the business idea.

People and teamwork are crucial to the success of the business idea. Every team has team members with different skills. It is important that everyone does their job properly. If the team is in a bad mood, it is important to communicate this. Say what is on your mind.

The question was also asked, what makes a team a good team? Regular meetings and good communication help to become a good team. Everyone is engaged and drives the team forward.

This leads to the following thought that should not be forgotten. It is important to use different skills of each team member.



Corona as a Chance

The Corona crisis is both an obstacle and leverage. One obstacle is that the remote work culture is still in its early stages. It is a new and therefore immature market. Many questions can be asked and many problems need to be solved.

One leverage point is the increase in remote jobs. There is also government support for ideas like this. For example, the following:
https://english.elpais.com/economy_and_business/2020-11-10/not-just-a-tourist-destination-why-spains-canary-islands-are-hoping-to-attract-30000-remote-workers.html.

Furthermore, a mindshift is taking place towards doing remote work.

For all these reasons, the following ideas arise. There is a need to think about possible questions that the clients might have to the company. A Q and A could be created so that questions are documented and found before contacting the company. In addition, possible government support should be explored.



Other

Other points were mentioned in the course of the discussion. The question came up who the customers of the business idea are. Customers could be private individuals, such as digital nomads. Digital nomads usually make individual decisions about where they work. They mostly go to places they find nice. The second group of customers could be employees. Another customer group could be employees of a company.

The question came up whether it might be better to focus on only one customer group? Furthermore, a participant (Roman) of the K-Huddle shared an interesting link:

<https://www.meetup.com/es-ES/TenerifeTech/>. This is a meeting of a Tec-Club. They organise events in Tenerife. Many digital nomads are members of this club.

In April they talked about remote work and Corona. The team could get in touch with this club.

3. Conclusion

In the previous chapters, a factual conclusion to each business idea was given. This chapter serves as an overall conclusion and reflection, mostly touching the aspects of the working process.

Developing business ideas for a foreign environment combined with the Covid-19 travel restrictions and distancing measures has made this project kind of a long-distance project demanding an attitude of open-mindedness and flexibility of the contributors. The contributors faced a series of challenges, which led to several learning experiences that included working and collaborating virtually effectively and efficiently, communicating and sharing ideas using social media and other digital media, time management in a blended work-life environment and long-distance team building. Also, communicating with locals and experts, instead of having on-site workshops on the island now via Zoom and breakout sessions was a teaching experience.

The contributors have chosen an overall flexible and holistic team coordination model focusing on participation and room for self-organization in the working groups, which enhanced the creativity and supported the contributors' different working styles. Despite the complicated setting of not seeing each other, the main organizations, Carolin and Sabrina, provided guidance, regular team meetings and empathy while keeping the group on the right track. The collaboration did not stop within the group's borders; the Knowledge-Huddle event has led to a sense of a barrier elimination by collaborating with people from Tenerife. Most importantly, some business ideas could be discussed and enriched with the peoples' perspectives working and living in Tenerife. Each group separately, consisting of five people designated one person who was responsible for organizational tasks, such as the K-Huddle or team meetings. In addition, one person of the team was assigned to the PESTLE analysis, which together formed the analysis team. The remaining group members worked out and developed the business ideas. The division just described proved to be a helpful choice, as everyone was well connected and yet the individual groups were able to work very efficiently. However, the tasks of the main organizers were underestimated. In the end, three instead of two people would be useful. Overall, the contributors created business models, which touch different aspects of the island proceeding from the PESTLE analysis, incorporating the ecological sustainability. The ideas serve as first inspirations in terms of what might be and are theoretical frameworks at the current stage of development. In terms of applying the business ideas, further testing and research directly in Tenerife is needed.