

**Maldives  
Matter  
Project**

An aerial photograph of a tropical beach. The foreground shows a narrow strip of white sand beach bordered by dense green vegetation. The water is exceptionally clear, showing various shades of turquoise and light blue, with visible coral reefs and sandy patches beneath the surface. A small white boat with a canopy is in the water, and several people are visible on the beach and in the shallow water. The sky is bright blue with scattered white clouds.

**IMPLEMENTING**  
**CIRCULAR ECONOMIES**  
**IN THE MOST**  
**ISOLATED PLACES**



**CONTACT INFORMATION**

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THE NETHERLANDS**

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# TEAM



**MELCHIOR BOS**  
Co-Founder

Projects that go further than just a standard solution intrigue Melchior. Attention to detail and combining multiple aspects are what keep Melchior busy. During his many dives all across the globe, including the Maldives, he experienced first-hand the problematic and dire conditions. Working on this integral solution project is therefore in line with what he stands for.



**SEBASTIAAN BROUWER**  
Co-Founder

During his life, Sebastiaan has traveled in more than fifty countries, visited hundreds of foreign cities and did more than 30 long-distant hikes through nature. He saw the urge and need for a change in the world. During his study of Architectural Engineering he aimed to make a theoretical change and now his drive is to implement this in a practical way as a project leader.



**STAN VAN STRALEN**  
Co-Founder

Stan always had the desire to add something positive to this world, which is why after being confronted to dire situation of the Maldives during our field trip in 2017 it left him motivated to continue were the study project ended. The situation on the Maldives shows the devious way materials are handled but also gave an opportunity to rethink this.



**THOMAS EDES**  
Co-Founder

Thomas is eager to have a positive impact on the world. It's not always that such a beautiful and clear opportunity arises. Here Thomas can put to work what he have learned in his education, and learn much more in the process. Therefor working on the Maldives Matter Project, is a no-brainer for him.



**TRANG PHAN**  
Co-Founder

Trang did her research in greenhouses during her master course at the TU Delft. Back then the complexity and diversity surprised her in a postive way. The amount of impact you could make by implementing such techniques is significant. She believes firmly in the huge potential of greenhouses and circularity.

# VISION

**“TO REDUCE THE AMOUNT OF IMPORTED FOOD, TO EDUCATE THE LOCAL COMMUNITY IN HIGH PRODUCTIVITY HORTICULTURE AND TO IMPLEMENT A CIRCULAR ECONOMY”**

# ADVISORY BOARD



**AISHATH AZFA**  
Sustainable Development Consultant

Azaf has been involved with the project since the collaboration between the United Nations and the TU Delft. After working for 7 years for the UN, she is now a independent sustainable consultant. Azaf supports the contact between the Netherlands and the Maldives. In the board of advisors her field of expertise lies in the social implementation.



**AMIT PARULEKAR**  
Former Head of Finance at ABN-AMRO

Amit has more than 20 years of international finance and banking experience, strongly believes in performance culture where people matter and results count. Within the board he is the advisor on finance and business.



**RAYMOND PIJPERS**  
General Manager at Accenture

Throughout Ray's career, innovation, technology and business always went hand-in-hand. First at KPN and the Dutch knowledge institution TNO and the last 12 years as Managing Director at Accenture, a global consultancy and technology firm, where he supports teams and clients with moving into-the-new. Within the advisory board he supports the team on the topic of strategic business development.



**ROB BAAN**  
CEO and owner Koppert Cress

Rob Baan is a renowned entrepreneur within the agri-food world. He worked in 70 countries and became a number one expert in this field. He is constantly striving for solution based approaches, understanding cultures and diving into what really matters: help to make the world more healthy. Within the board he is the advisor on entrepreneurship in the agri-food sector

# MEET OUR PARTNERS



## VAN DER HOEVEN HORTICULTURAL PROJECTS

A renowned greenhouse builder that realized projects all over the world. Capable of delivering high-end horticultural projects for almost all climate types. They are contributing towards to project by in kind technical support.

So far we closely worked together and gave there endorsement through a letter of recommendation.



## TOPSECTOR HORTICULTURE NETHERLANDS

One of the nine indicated topsectors of the Netherlands. This governmental organisation aims to maintain the high level of the Dutch horticulture industry. In this moment the Netherlands is the biggest exporter of food in the world after the USA. Now let's export these techniques.



## NGO LIVE&LEARN MALDIVES

The NGO L&L has the goal to educate, mobilise communities and facilitate supportive partnerships in order to foster a greater understanding of sustainability. They strive towards a sustainable future.



## SODAFABRIEK SCHIEDAM

The former soda factory and grain warehouse built in 1795 offers a vibrant and lively workplace to execute sustainable ideas. The SodaFabriek facilitates us a space for our self-constructed office.



We have very close relations with Delft University of Technology and UNDP Maldives. The project has its roots in these two organisations.

Wageningen University and Research is contributing to the project in a consult on the project. Currently a team of six master students is sitting full time on the project.

# MEET THE SMALL ISLAND DEVELOPING STATES

## WHO ARE THE SIDS AND WHAT ARE THEIR CHALLENGES

Small Island Developing States (SIDS) are a distinct group of developing countries facing specific social, economic and environmental vulnerabilities. SIDS are recognized as a unique case both for their environment and development at the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, held in Rio de Janeiro, Brazil (3-14 June 1992).

Common challenges faced by SIDS are: having a narrow resource base depriving them of the benefits of economies of scale; small domestic markets and heavy dependence on a few external and remote markets;

high costs of energy, infrastructure, transportation, communication and servicing; long distances from export markets and import resources; low and irregular international traffic volumes; little resilience to natural disasters; growing populations; high volatility of economic growth; limited opportunities for the private sector and a proportionately large reliance of their economies on their public sector; and fragile natural environments. Therefore, they are highly disadvantaged in their development process and require special support from the international community [1].



They are separated in three geographical locations which are Caribbean, Pacific and AIMS (Africa, Indian Ocean, Mediterranean and South China Sea).  
**Caribbean:** Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, Puerto Rico, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, United States Virgin Islands.  
**Pacific:** American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, Vanuatu.  
**AIMS:** Bahrain, Cape Verde, Comoros, Guinea-Bissau, Maldives, Mauritius, São Tomé and Príncipe, Seychelles, Singapore.

# OUR APPROACH

## CONTRIBUTE TO CIRCULARITY

We aim to implement circular economies regarding food and waste streams in the world's most isolated regions: the Small Island Developing States. By realizing local and sustainable food production, generating renewable energy, creating circular food and waste streams, upcycling materials, conducting a knowledge transfer and enhancing the local economy by providing jobs we try to bring more independency towards these Island States.



IMPLEMENT CIRCULAR ECONOMY



ENHANCE LOCAL COMMUNITY



RAISE INDEPENDENCY



# WHY WE DO THIS

We have the responsibility of taking care of the planet. When we were finished with our master course on the Maldives and experienced the need for action, we stepped in.

We formed a plan to solve the problems the SIDS are facing: the Resilient Island Foundation was born. Developing concepts to plans, and plans to reality focussing on three pillars: Sustainability, impact and economic feasibility.

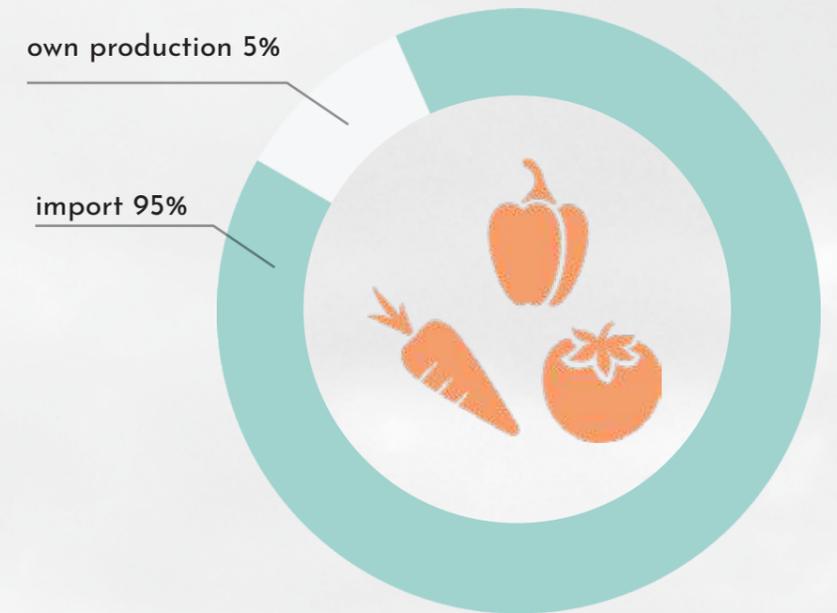
Developing large scale, financial feasible projects with a big impact. Profits go to solving other problems that require financial investments

Problems such as the solid waste management, plastic soup, coral bleaching, protecting animal habitats, marine environments and safeguarding islands from floodings.



## IMPORT DEPENDENCY

Like all Small Island Developing States, the Maldives import a huge percentage of their food consumption. A staggering 95%. But why? The techniques exist to produce locally, anywhere in the world!



## UNBALANCED CASHFLOW

The Maldives are heavily dependent on the few external and remote markets and their own export is very little due to their limited resources. They rely heavily on fossil fuels which are all imported. This results in a very large outgoing cashflow and relatively little to the local economy.



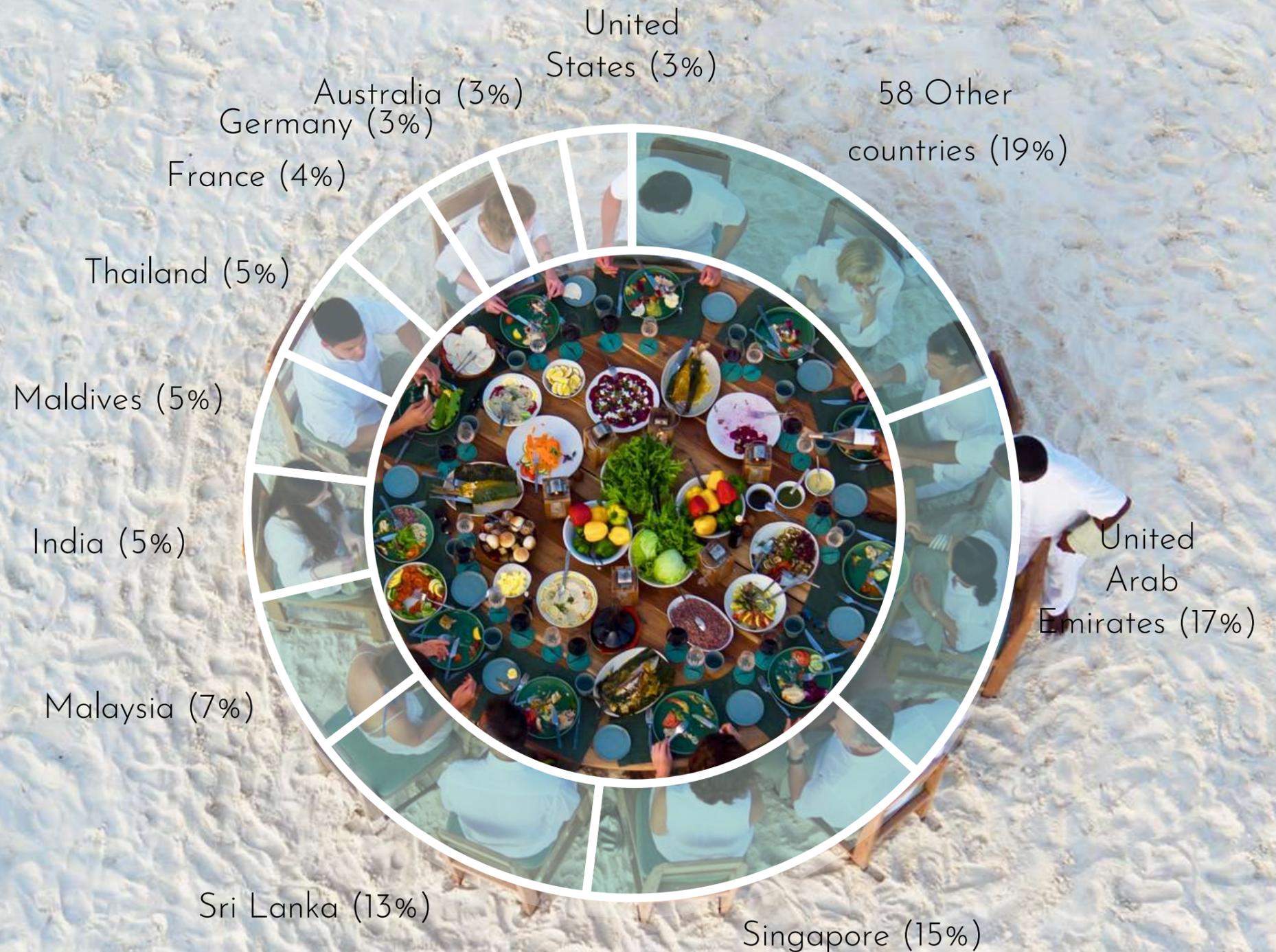
# FOOD SOURCES

The Maldives are largely dependent on food import to cater the growing population, expatriate community and the large number of tourists visiting the country. Shockingly, a 100 percent of rice, flour and sugar are imported [2].

The worldbank shows that the Maldives can cater a value of 5% of it's food sources, as seen in the visual [3].

The UAE, Singapore and Sri Lanka are, value wise, the three main importers for this Island nation. India is also one of the main importers, quantity wise. That being said, Maldives' imported food comes from all over the world, ranging from Australia to Germany, and from India to the United States [4].

It makes you think, doesn't it?



2. <https://wits.worldbank.org>, 2014, website visited 2019  
3. Food and Agriculture Organization, Maldives country programming framework 2013-2017, 2012  
4. Maldives Customs, import data, 2018

# WHY THE MALDIVES?

Almost everyone thinks the same when they hear 'The Maldives': paradise. We cannot deny the fact that it is a gem in the world. However strengths come with weaknesses.

During a master course at the Technical University in Delft we did a project as students on the Maldives. This was in collaboration with the UNDP Maldives. They stated the two large problems the Maldives are facing: Firstly, high dependency on imported produce. And secondly, a huge solid waste management problem.

When we visited the Maldives we saw the urge of the problem. We met local island- and atoll councils, visited the islands and local agricultural projects, walked knee deep through heaps of waste on Thilafushi, heard stories of the tsunami in 2004 and experienced their isolated position.

The Maldives are the lowest lying country in the world and are on the frontline of

climate change. The urge to change today's system of is here the highest. If we make the Maldives a sustainable showcase, we will be able to copy the system towards the other Island States. Let's start circularity.

Our network on the Maldives is very big. UNDP deputies, atoll presidents, Maldivian celebrities, the European Ambassador, ministers of Agriculture and Environment and many more. Our foundation is ready to start the biggest agricultural project in the Maldives.

So are we.



**“FOOD SECURITY AND ADEQUATE NUTRITION FOR ALL IS WHERE SUSTAINABLE DEVELOPMENT STARTS.”**

José Graziano da Silva, FAO General Director

## FAST FACTS MALDIVES

- 430.000 inhabitants
- 1194 islands
- Capital: Malé
- 196 inhabited
- Dhivehi
- 130 resorts islands
- 30% of GDP from tourism
- 1.4 million tourist annually



\*Timeline not to scale

# SOLUTION

## INNOVATIVE GROWING

The highly-productive and circular greenhouse produces crops that cannot be grown with the current climate. This high-end greenhouse will be able to grow vegetables and fruits that now are being imported. This results in more independency of the Maldives, more efficient land use, enhance the local economy, stimulates more innovation in the agriculture sector and will have a CO2 positive footprint.

## RENEWABLE ENERGY

Sustainable and innovative techniques will deliver renewable energy and cooling for the greenhouse and local island. The project will get its electricity from renewable sources such as the sun, wind and biomass. This is essential for an isolated location like this.

## PRODUCE

It is able to fulfill the need of the customer's high demand and consistency. The locally produced crops will be shipped to local islands, resorts and Male'.

It will improve the way how it is currently done: produced in a distant country, shipped and cooled by multiple parties. This is inefficient and very unsustainable.

We produce locally and deliver it directly to the customer: sustainable and more efficient.

## DESALINATION

100.000 liters of water per day. The desalination plant will provide water for the crops and village.

Droughts and water shortages are still appearing in the Maldives. We will contribute towards water security so no fresh water has to be imported.

## LOCAL ECONOMY

It will enhance the local population. The sustainable greenhouse will generate local jobs and will boost the local economy significantly.

## EDUCATION

The Maldives Matter Project will facilitate a trajectory to educate local people to work in the greenhouse. In this way we bring innovation to the Maldives.

## BIODIGESTING

From organic waste to sustainable energy production. This will diminish the locally produced waste.

## WATER STORAGE

Rainwater usage as efficient as possible. The plants can survive for two months without rain due to the buffer.

# WHO WILL GAIN?



LOCAL COMMUNITY



MALDIVIAN TOURIST INDUSTRY



PLANET



EDUCATION



HIGH QUALITY FOOD



LOCAL FOOD PRODUCTION



JOB OPPORTUNITIES



FRESHER



RESPONSIBLE WASTE TREATMENT



FRESH WATER SUPPLY



CONSISTENT DELIVERY



RENEWABLE ENERGY PRODUCTION



INNOVATION AND ECONOMIC GROWTH



LESS COOLED STORAGE SPACE



LESS IMPORT



SAFE ZONE FOR FLOODING

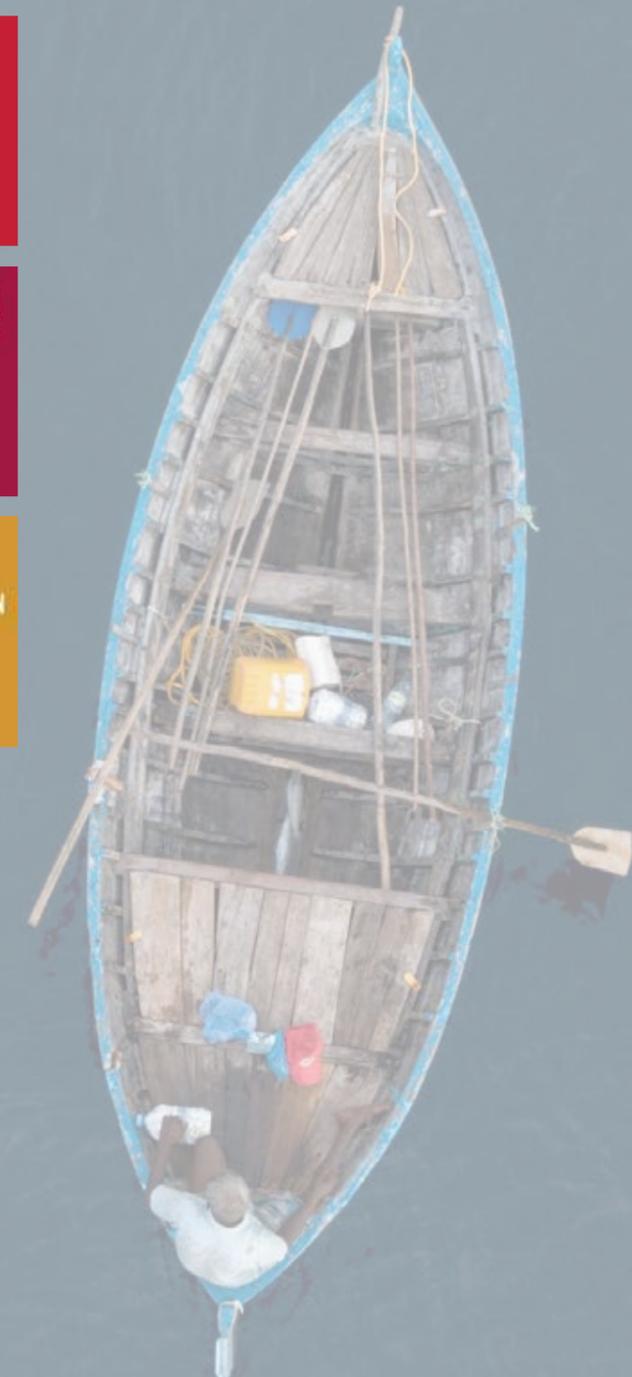


SOLUTION FOR ORGANIC WASTE

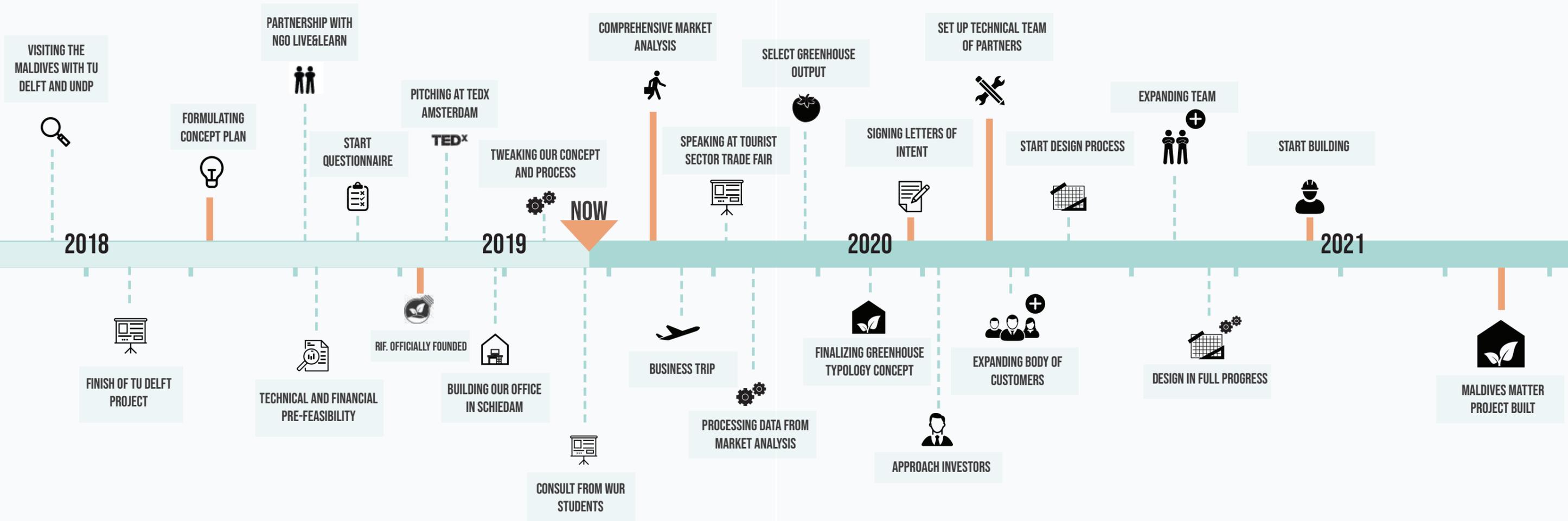


CO2 POSITIVE FOOD PRODUCTION

# SUSTAINABLE DEVELOPMENT GOALS



# TIMELINE



## LONG TERM GOALS

### SHARING ACQUIRED KNOWLEDGE - EDUCATIONAL PLATFORM

Whereas the realization of a turn-key project seems like the final phase, but that is just the starting point. Equally important are aftercare and the sharing of knowledge. These are two of the long term goals of the Resilient Island Foundation.

Sharing horticultural knowledge via an educational platform in the Maldives will benefit the local community and participants. There is a general low level of appreciation and knowledge of the fundamental physics behind greenhouse technology, as Deakin University put it. This can and should be improved. It's one of the essentials to increase horticultural practise in the Maldives, in order to make this nation less dependent in regards to food import.

### WASTE STREAMS

Circularity, some would say the epitome of sustainability, is something RIF strives for. While the Maldives Matter Greenhouse is the first step towards an independent Maldives, other projects need to follow in order to fulfill our dream. Treating waste as a resource, instead of a burden is crucial for a follow-up.

In this follow-up we create and realize business cases for processing plastics, organics, metals, paper, textile and other waste streams.

### TOWARDS THE OTHER SIDS

This greenhouse project in the Maldives will be the first of its kind. But that's just the beginning. With 56 other Small Island Development States worldwide, there is plenty of growing potential. Similarities these Island nations have in common will be helpful when implementing similar projects there. Of course each continent, country, region and location is unique. But having gone through similar phases before will help each greenhouse project become better and better, more sustainable and circular.

# WHY BECOME A SPONSOR?

## IMPROVE THE WORLD

When you contribute to the project you contribute to the world. The project supports nine SDG's directly.

Local food production, independency towards the isolated and less CO2 due to import.

Be the change you want to see in the world.

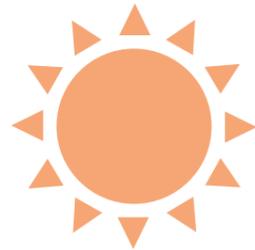


## GET EXPOSED

We let people know that you are supporting us.

We speak on big events, get published on local, regional and national news.

This will enable you to get your moment to shine, anywhere anytime.



## MEET FELLOW MINDED

During our events you have the possibility to meet fellow minded stakeholders. Some are small some are huge.

In this vivid sector we act we are able to connect you to the person you want: students, specialists, gamechangers:

You name it.



TEDx Amsterdam 29/11/2018



HortiHeroes UnConference 12/10/2018



# EVENT

Resilient Island Foundation

## WHAT

The event will consist of several sessions. There will be speakers from all different backgrounds, stands and drinks to conclude the evening.

We will give a presentation about our journey so far, our main sponsors will have the opportunity to speak and there will be talks from important stakeholders of our project.

More information follows.

## WHEN

We are organizing an event in January 2020. The exact date will be released soon.

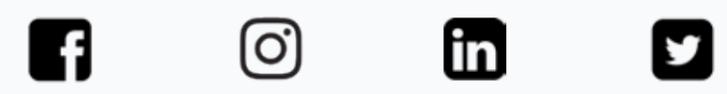
Location and exact time to be announced.

## WHO

This event is the ideal time to bring together stakeholders, interested people and all parties involved. An opportunity to get to know the technical, social and financial partners who are all working hard to make this project come to life. Here we present the opportunity for people to get to know each other better.

All the sponsors and partners will receive tickets for the event.

## FOLLOW RESILIENT ISLAND FOUNDATION IN THE MEDIA



[www.resilientisland.com](http://www.resilientisland.com)

# SPONSOR PACKAGES

Sponsor packages are listed below. All are negotiable and adjustable. We are open for additional propositions. The amount of funds are shown in Euros. However this amount can also be transferred into other currencies or in kind. Every contribution is being truly appreciated!

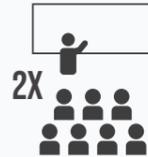
The sponsoring is well spend. For more information about the project budget or our financial plan check out the next page. For more information you can always contact us!



Together be  
**FRUITFULL**  
PLATINUM SPONSOR: € 12.500,-



The world will know that you are our main sponsor



A lecture at the TU Delft and a private lecture from us at your office



Speaker at the event



Company's logo at all our email traffic.



Let's  
**GROW**  
GOLD SPONSOR: € 7.500,-



Your logo on all our posters, leaflets and brochures.



Your logo/product on display in the greenhouse.



Your logo on our work-shirts.



Your logo on all our explainer and promo videos.



Your personal stand at our event



Small  
**STEPS**  
SILVER SPONSOR: € 2.000,-



Two free tickets to our event



Your logo, hyper-link and personal message on our website.



+ facebook



+ LinkedIn

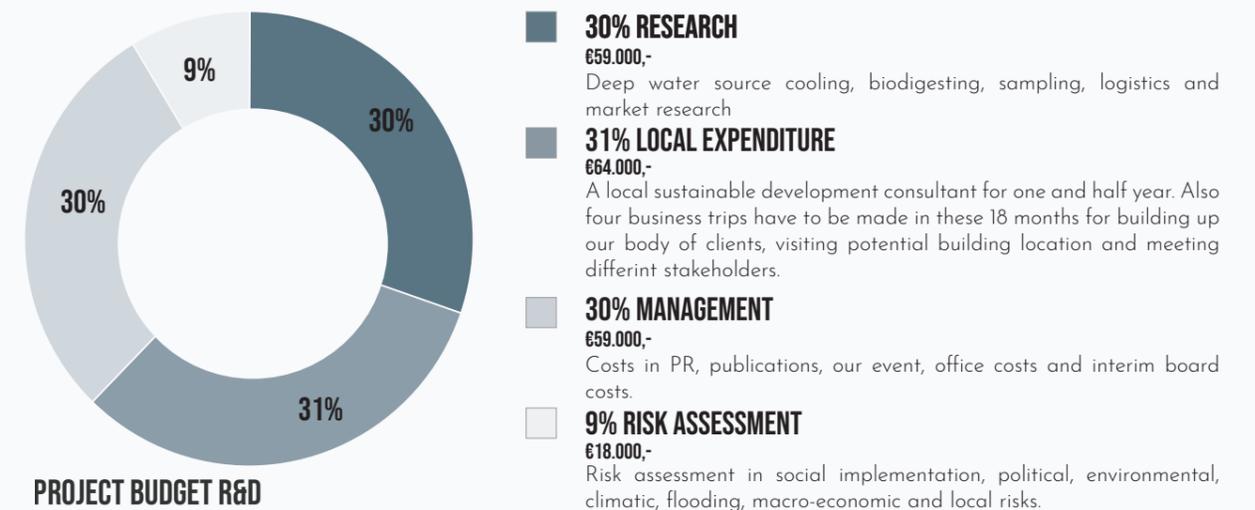
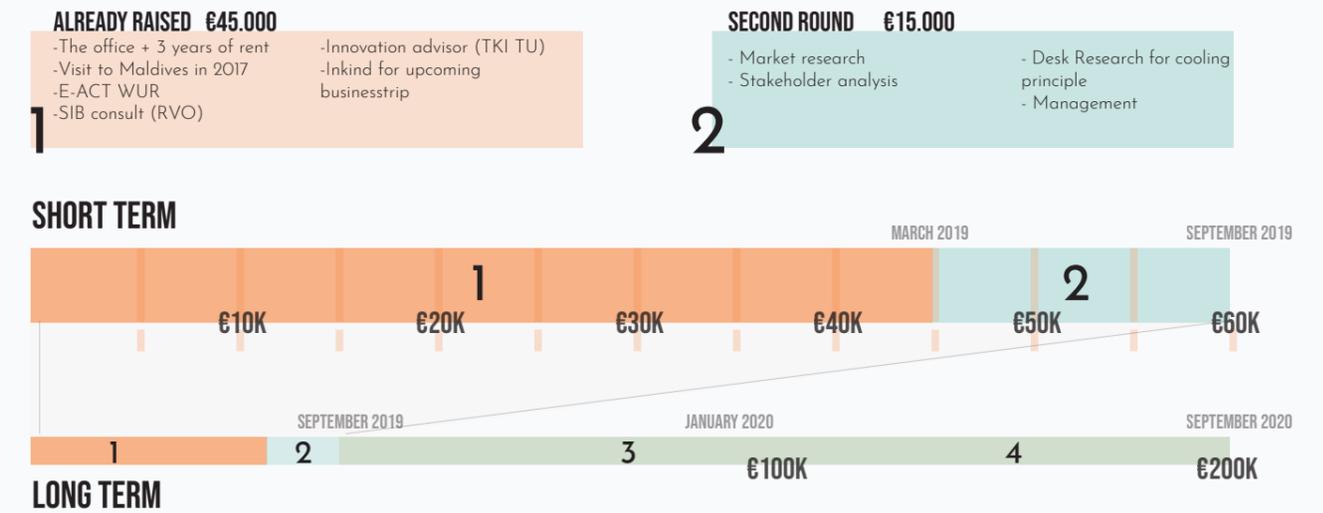


+ Instagram

# PROJECT BUDGET & FINANCING PLAN

The total budget of our R&D is €200.000 and is for a **time frame of one and a half year**. It consists of research costs, risk assessment, management and local expenditure. The costs are elaborated next to the pie chart. In our R&D phase we need to do research in all the technical implementations of the

supporting facilities. In the lower pie chart our financial plan is shown. Our sponsors are the most valuable financial partners. Also a large part of the needed funds are trying to cover with in kind. For more information about our project budget or our financial plan, please contact us!



# COLLABORATIONS



THANK YOU

شُورَا عَزِيْزَةً