

ENERGIA

Design for evolving
scenarios

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TERRA MED

ZERO ENERGY
MEDICAL
ASSISTANCE



POLITECNICO
MILANO 1863

Politecnico di Milano,
School of Design, Product Service System Design,
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Small acts, when multiplied
by millions of people **CAN**
TRANSFORM THE WORLD

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Let's start from the beginning. We are six people coming from five different countries. We are a versatile group of product and communication designers and researchers. We call ourselves the **Lazy Susan** - a product that spins around the table, bringing together an array of dishes and flavors.

Why? Because we have different cultures, strengths, experiences, and viewpoints, we all bring something to the table. So what could be better than naming ourselves a product that symbolizes union and harmony? This ideology extends to our problem statement and project development on TerraMed, A medicine cold storage concept. **The value of being human and our ability to bring forward change.**

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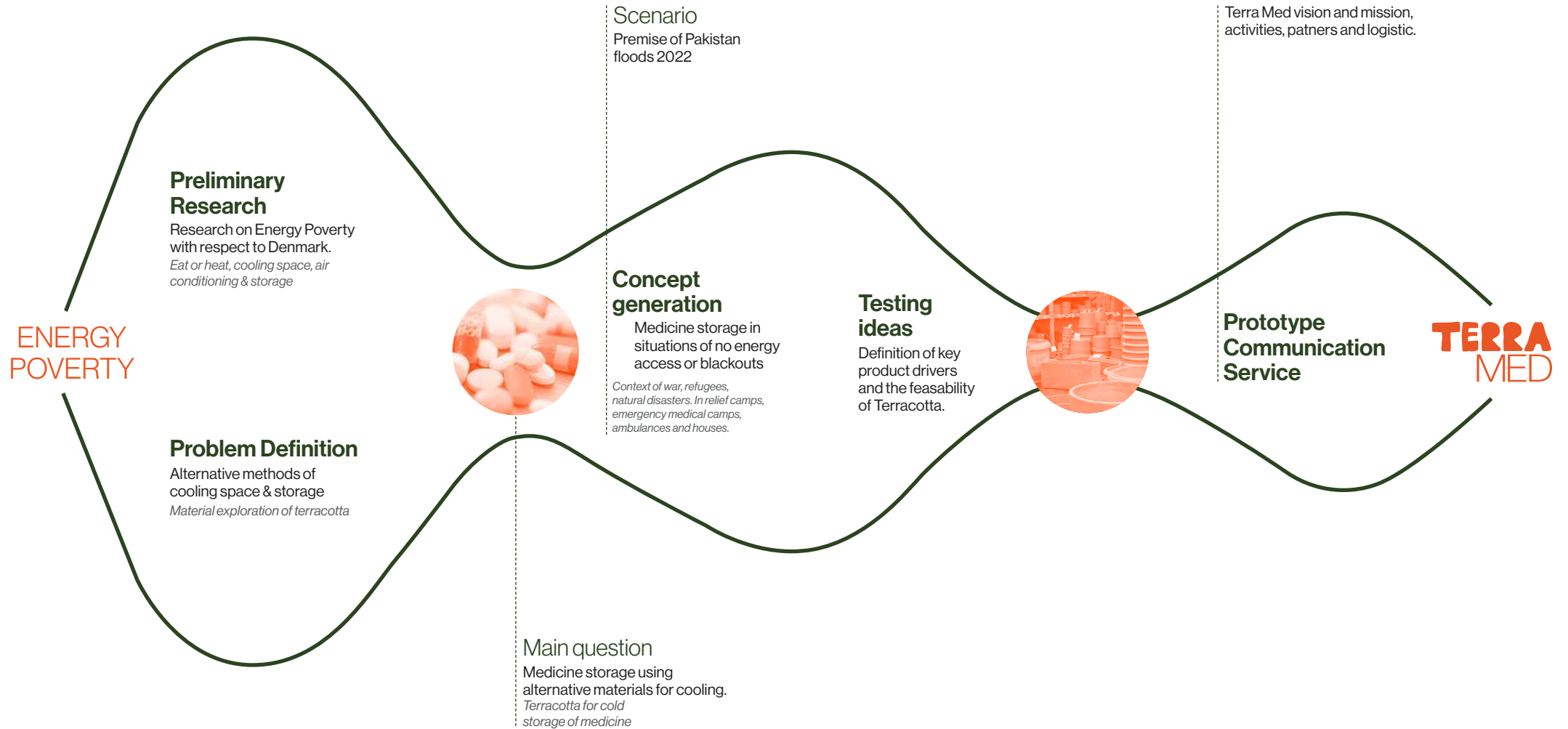


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Terra Med PROCESS



Opportunity AREA

Energy Poverty. Access or Intermittence is one of the most tenacious predicaments humanity is facing. Energy services are essential for basic human protection and dignity, two of the core ethical aims of humanitarian assistance. Energy services provide for cooking, lighting, heating, clean water and other necessary services needed for survival. However, situations like no energy access, intermittent energy (black outs) are especially evident in the world's most challenging contexts — *War (Ukraine, 2014-now), Climatic Disasters (Haiti, earthquake in august 2021, Pakistan Floods 2022), conflicts and rehabilitation of refugees (Sudan, Syria, Ukraine)*. In these situations basic necessities become scarce ranging from food, water, hygiene, medicine, treatment and energy. These catastrophic events both natural and man led are responsible for huge amount of deaths, injuries, ailments and rehabilitations in the world.

War and conflict. Armed conflict causes injury, displacement, sexual violence, and death, but it also continues to impact people's lives and health long after the front lines have shifted. War devastates health systems, hampers access to medical supplies, and disrupts vaccination and other disease-prevention efforts, heightening the risk of outbreaks.

Natural disasters. Earthquakes, floods, tsunamis, and major storms can force people to flee their homes and cut off access to safe water, health care services, and transportation, affecting the lives of tens of thousands in a matter of minutes.

Refugees and internally displaced people. More than 82 million people — or 1 in 95 worldwide — have been forcibly displaced from their homes, fleeing conflict, persecution, natural disaster, or other hardships. On the move and in camps they are often forced to live in precarious conditions, cut off from essential services including health care.

Epidemics and pandemics. Millions of people around the world still die each year from infectious diseases that are preventable or treatable. Those at highest live in poverty or other precarious conditions, with limited access to health care and vaccinations.

At a time when the humanitarian system is overstretched and underfunded, nothing could be more urgent.

The co-relation of Energy with Medical Infrastructure & Resources. In the context of Health and Medicine, Energy dependent medical devices have become an indispensable part of modern healthcare. This essentially means that energy is required for systematic and stable functioning of the medical infrastructure like medical equipments used for both storage and treatment. Examples include, cardioverter-defibrillators, cold storage required for medicines, injections and other devices.

Organisations like UNICEF, Doctors Without Borders etc are working where there is an extreme need of treatment and medicines without the availability of essential resources — medical infrastructure, storage, equipment and energy.



Zoya in Khairpur, Pakistan during the floods of 2022.

Overview. This story narrates the life of a 17-year-old and how her days take a more brutal turn during the catastrophic floods in Pakistan. **Zoya lives in Khairpur with her father, one of Pakistan's developing but rural areas.** Her father gets monetary assistance from the government and works as a shopkeeper nearby. Zoya goes to the neighboring municipal school in the morning and then helps her dad in the shop [1]. **She also takes care of her dad's medication and treatment as he underwent a bypass surgery six months ago and requires constant assistance.** They only have a small fridge at home where they store food, groceries, and medicines. Sometimes when it is scorching, Zoya opens the refrigerator and keeps her face in front to feel the cool breeze. She is happy that her studies are going well and that her father's health is improving. Her father works hard at the shop, and she sometimes worries that he is not taking care of himself. She is extra careful around her dad because she also doesn't want him to feel incapable. After all, he is ill, but at the same time, she subtly keeps on helping him so that he doesn't stress himself a lot. She misses her mother, who died due to tuberculosis when she was ten years old and wishes if she had been slightly older, she could have taken care of her mom too. Life is slowly getting better, they are making stable money in the shop, and on weekends Zoya and her father watch cricket matches with the neighbors on their television while enjoying a good meal. The monsoons are coming, and Zoya is excited because it is her favorite season!

September 2022 - The Onset. It has been raining quite heavily in the last months of July & August, with increasing disruptions in daily life. At first, it started with minor roads and potholes filled with water and 3-4 hours of electricity blackouts expected during the monsoons, so life went on. However, as the month passed, it became harder for Zoya to come back from school every day and help her father in the shop. Zoya soon realized this year wasn't like every other monsoon and prayed for the rains to stop. **Due to consistently increasing water levels and submerging of some streets,** her dad could not open the shop in the last

few weeks. She also saw fewer children in school every day. Her father was becoming increasingly agitated while staying home, and taking care of daily rations was difficult. The monetary assistance from the government came in monthly. It was also far away, where Zoya usually had to take a bus to travel to the nearby city and collect money from the assistance office. This month it was impossible to go because all roads and ways were blocked, and public transport was now non-functional in her area. **They were also experiencing increasing electricity blackouts with 6-8 hours of no energy, and in the hot summer months, all vegetables, food, and storage were perishing.** Every evening Zoya, her father, and other people gathered at her neighbor's house to watch the news and discuss the situation. There was generally banter because they were getting frustrated at the worsening situation. This made Zoya anxious about what might happen next. **The rain wasn't stopping, and water had now started to enter her house.** A condition of panic began to arise in the community where. People needed to figure out what to do. Amidst the alarm, she realizes her worst fears when she notices her father only has a week of medicine left. **There is no access to local government dispensaries or clinics for assistance and treatment, as many buildings are partially submerged.** [2]

Temporary Shelter & Relief Camps. The village head and council soon ensure that help is on the way, and **some central authorities are coming to aid the situation.** He also asks everyone to pack some clothes and essentials in a small bag because there could be a possibility of finding shelter in a camp [3-4]. What essentially came as a ray of hope becomes instant dread for Zoya. She anticipates her father will not react positively to leaving home, and she starts to think of ways she will convince him. She also goes to the village head right after the announcement and asks, *"Bhaiya Ji, when are they coming? Do you know if they are going to have medicines for my father? Can you ask them?"* The village head soon realizes her concern about her father and tries to soothe her. As the evening descends, Zoya finally hears vehicle ignition and tires. **She sees a few trucks and jeeps with a big blue logo saying "UNICEF."** They gather everyone in groups, distributing food, hygiene kits, and clothes. By nightfall, Zoya finds herself in a camp shelter with mats on the floor, and



[1]

a big plastic shed as the roof. There are 20-25 camps like this, and all are on an elevated hilltop where water hasn't yet accumulated. Though tired, her father is helping other people find tents and guiding them to the men wearing red and blue jackets identifying as volunteers. She asks one of them if she can get medicine somewhere because her father is ill. The volunteer then points to a camp further north where she can find doctors and treatment. Somewhat relieved, **Zoya walks to the base with her father over a kilometer away** [5], explains the situation to the doctor, and gets her father checked [6]. **The doctor administers the medicine to her father, but there is one big problem. The medication must be stored at 22 degrees and will expire if kept in hot temperatures. There is no other way except to come to the medical camp every day and get it from the doctor.** Knowing the situation and assessing her father's condition, the doctor allows Zoya to collect the medicines daily without her father traveling with her. **Now Zoya has to travel a kilometer and back every day and wait in line for at least 2 hours because many people need treatment and assistance. She is exhausted and is starting to develop symptoms of a fever** [7].

She fears who will take care of her father if she falls sick. There are a lot of mosquitos around, the doctor fears — could it be malaria? She wishes for better days or a solution to make her life easier.

(This scenario is partially real and circumstances have been verified by informants from Pakistan.)



[2]



[3]



[4]



[5]



[6]



[7]

WHAT WE ENVISION

The use of an alternative material to create a product to store medicines in extreme situations, like war, natural disasters, and blackouts.





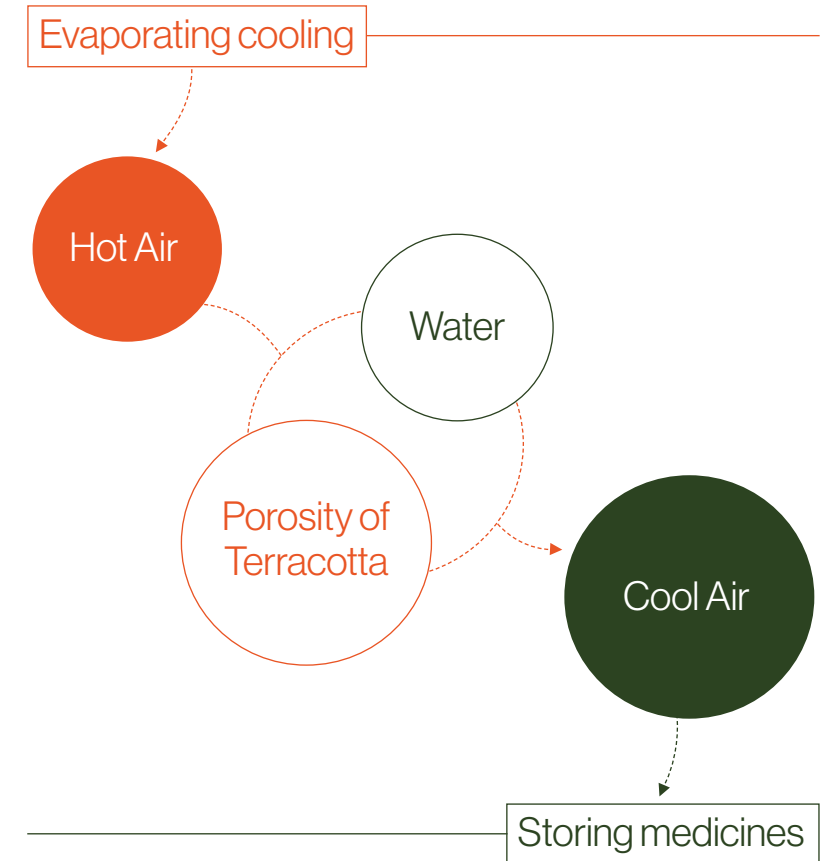
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CONCEPT



Terra Med is bringing solutions from the sustainable practices of the use of Terracotta. Terracotta material is porous, allowing water to evaporate from its surface. As the water evaporates, it absorbs heat from the air, cooling it down. This process is called evaporative cooling which is a passive cooling system that uses the natural process of evaporation to cool the air.



The benefits of terracotta evaporative cooling are:

LOW COST

This type of cooling system is relatively inexpensive to install and maintain.

ECO FRIENDLY

It does not require electricity or other energy sources, making it an environmentally friendly option and it does not require any additional equipment or maintenance.

NATURAL COOLING

The natural process of evaporation provides a natural cooling effect.

ACCESSIBLE

It can be used in both indoor and outdoor spaces.

Additionally, it can help reduce the amount of dust and pollen in the air, making it a great choice for people with allergies, plus it is a safe and non-toxic way to cool the air, as it does not use any chemicals or other hazardous materials.

The sustainability of terracotta evaporative cooling is excellent, as it is a natural and renewable way to cool the air.



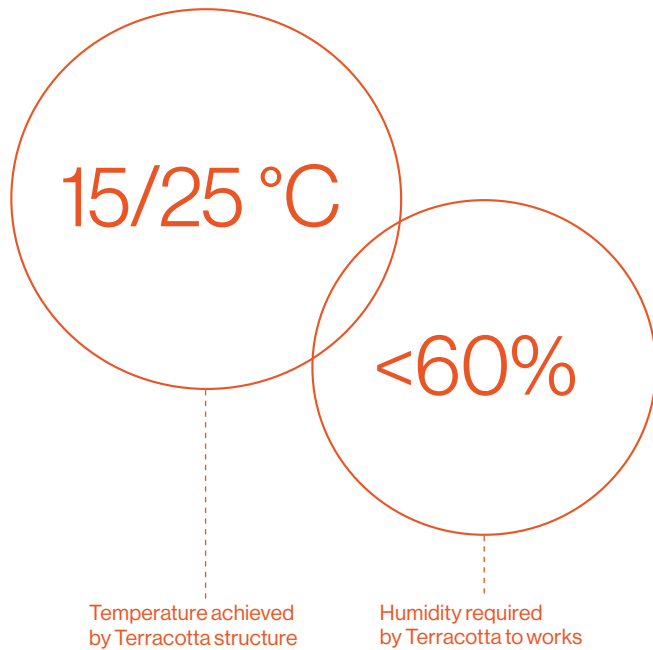
Terracotta structures that offer a natural way to cool air, designed by Ant-Studio.

The limitations of terracotta evaporative cooling are that it is not suitable for all climates. It is most effective in hot, dry climates, as the air needs to be dry in order for the evaporation process to work.

Additionally, it is not suitable for areas with high humidity, as the air will not be able to absorb the water from the terracotta material.

Reason why, Terramed considers that terracotta solutions should be meant for regions with less than 60% of humidity

When Terracotta works?



Temperature/Humidity

	20%	40%	60%
40 °C	28 °C	32 °C	36 °C
35 °C	24,5 °C	28 °C	31 °C
30 °C	21 °C	24 °C	27 °C

Where is this feasible? In 23 countries

Today 60 countries are helped by international organizations such as MSF and UNICEF but only 23 countries have the right humidity range to store medicines by evaporating cooling

Africa

COUNTRY	HUMIDITY LEVEL
Burkin Faso	48/55%
Chad	43%
Eswatini	68%
Ethiopa	60%
Guinea	65%
Mali	40/50%
Mozambique	66%
Niger	24/49%
South sudan	40/60%
Tanzania	40/60%
Zimbabwe	60%

Asia and Pacific

COUNTRY	HUMIDITY LEVEL
India	56/69%
Pakistan	53/60%

The Americas

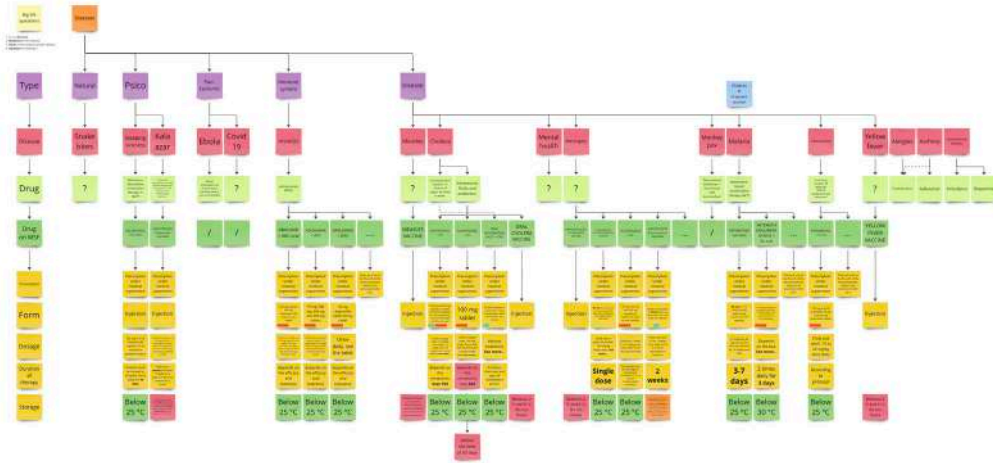
COUNTRY	HUMIDITY LEVEL
Bolivia	40/60%
Haiti	43/60%
Panama	40/60%

Europe and Central Asia

COUNTRY	HUMIDITY LEVEL
Afghanistan	36/70%
Greece	60%
Italy	50/70%
Kyrgystan	40-60%
Russia	66%
Ukraine	40%
Uzbekistan	40/70%

Which medicines is it possible to store with terracotta?

The Terracotta structure thanks to the evaporating cooling properties can achieve temperatures between 15 to 25 °C. For this reason we collected data, we found diseases according to the countries, then we found medicines according to the diseases. After checking the temperature to store these medicines we define the final medicines that are possible to store by terracotta.



Some diseases, some medicines

Sleeping sickness

NIFURTIMOX-EFLORNITHINE
COMBINATION THERAPY, OR NECT

Meningitis

CHLORAMPHENICOL FLUCONAZOLE

Malaria

ARTEMETHER, LUMEFANTRINE,
ETHAMBUTOL

HIV / AIDS

ABACAVIR, ATAZANAVIR, DARUNAVIR

Cholera

AZITHROMYCIN, DOXYCYCLINE,
ORAL REHYDRATION SALTS

Cardiovasculare Diseases

AZITHROMYCIN, DOXYCYCLINE,
ORAL REHYDRATION SALTS

Med search RESULTS

Dosage

Need good communication
and personalization of the care.

Duration
of therapy

Month Weeks 10 Days Daily

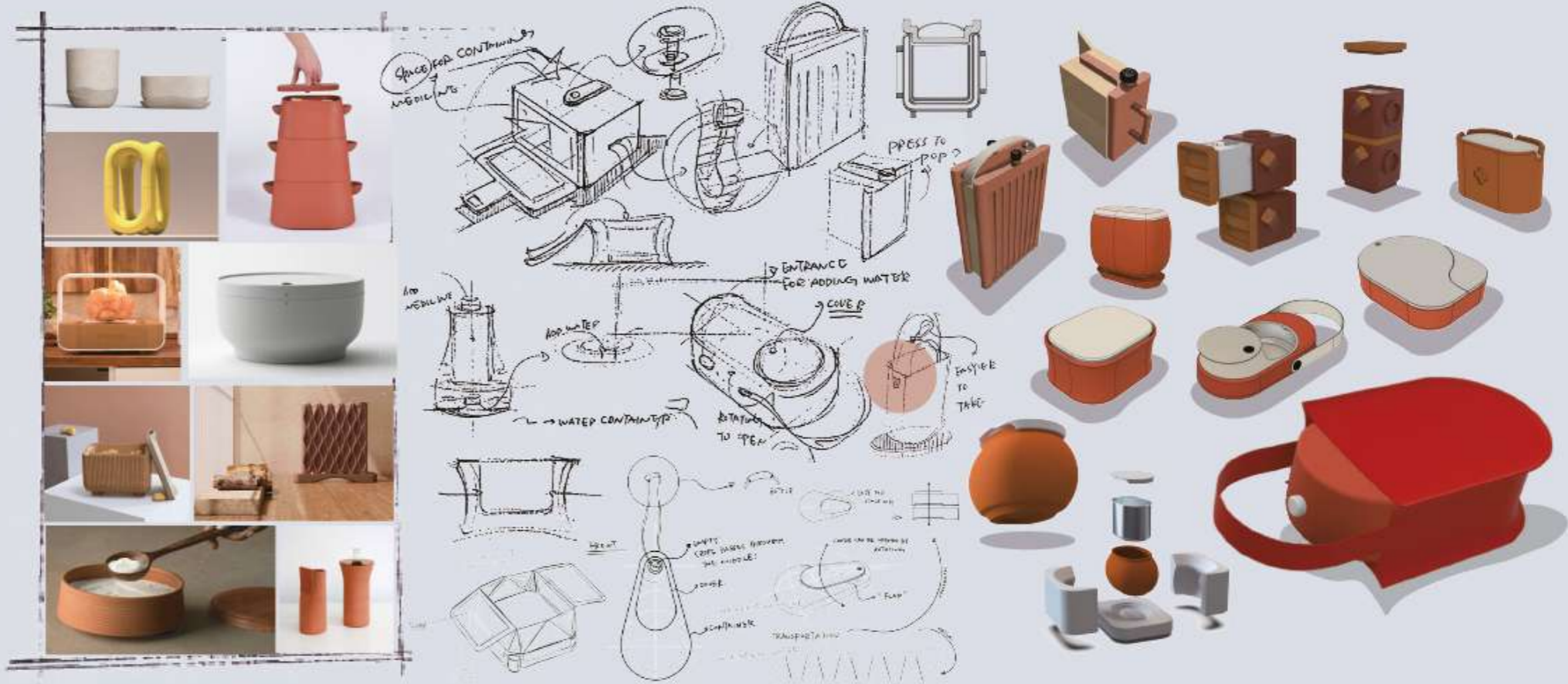
Type

Capsules Tablet Powder

An ecological, low cost, **ZERO ENERGY** alternative solution to cool, preserve and store medicines in order to increase accessibility for patients in need of treatment in extreme situations.

Inspiration was taken from case studies such as:

- Energy-free air conditioner** by Sarang Sheth;
- Modular terracotta Clay pot food fridge** by Shawn McNulty-Kowa;
- The Dunsta** by Alexandra Fransson.







The handmade aspect of terracotta represents every single product's uniqueness, embracing all imperfections and bringing out a feeling of warmth and openness.



How to use **TERRA MED**

Terramed is a product services system that requires to comply with our quality management process to assure the product and service quality standards. To achieve this, Terra Med provides resources, and instructions through each phase of the supply chain.

Product manufacturing

To start the cycle of production, technical resources and guidelines have been developed for the manufacturer network to comply with quality in each delivery. (See annex Page 86)

Shipment

A standardized label template with filling and packing instructions is implemented to send the product from the manufacturer to the local point.



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Handling

Handling indications and care instructions are included in the product for the doctor to fill as a prescription document to describe the patients' treatment.



Delivery to patient

The cooler and bag are delivered to the patient personally by the doctor to have one-to-one contact at the moment of the medical appointment for further instructions on the treatment



Product use

Instructions are given to the patient about the care and use of the product, as well as the refill of medicine and disposal.



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THE CASE

The product consists in a terracotta cooler, composed by a storing space for medicine with a cap, and a water container space. A water-proof bag which is meant to achieve portability and transportability easier for the user and well as more comfortable.

The bag includes and outside pockets where the medical instructions for each patient are described.



SERVICE SYSTEM



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Our service involves the production and distribution of terracotta medicine storage containers to people in need, who are often in vulnerable situations such as floods, war, and refugee camps. The service also includes support and guidance from trained medical professionals, who are available on the ground to provide medical treatment, distribute the containers, and ensure that they are used properly and safely. The organization relies on individual donors, other NGOs, and companies who fulfill their corporate social responsibility, by donating funds to TerraMed to keep the operations running. The funds are then used to purchase raw materials, manufacture containers, package and transport the final product to the end user.

Terra Med's system is designed to be highly effective, efficient, and sustainable. We use best practices to produce our containers, and we work closely with the end users, the on-field personnel and the donors to ensure that the service is tailored to meet the needs of the vulnerable people we serve.

Keywords:

Medicine Storage

The core service of TerraMed is to provide storage solutions for essential medicines in vulnerable situations.

Terracotta

The unique properties of terracotta are leveraged in our containers to provide a cooling mechanism for the medicines.

Vulnerable Populations

The service is aimed at providing assistance to people in extreme need, who may be in vulnerable situations such as floods, war or refugee camps.

Aims & TARGET

- To provide affordable and reliable storage for essential medicines to vulnerable people in extreme need
- To provide medical assistance and support to vulnerable people in need, through the distribution of terracotta medicine storage containers and support from trained medical professionals.
- To develop a sustainable and scalable system for producing and distributing the terracotta medicine storage containers.
- To build strong relationships with individual donors, other NGOs, and companies that support the organization to provide ongoing funding for the production and distribution of the containers.
- To provide transparency and accountability to the donors about the usage of their funds.

Keywords:

Medical Assistance

The service includes medical support and assistance from trained medical professionals.

Transparency

The service aims to provide transparency and accountability to the donors about the usage of the funds.

Sustainability

The service is designed to be sustainable and scalable, so that it can continue to support vulnerable people over time.

SYSTEM MAP

In the entirety of our system (Business to Customer), we have 3 phases:

The Funds — Funds come from private donations via individuals, company donations (interested third parties), and purchase orders.

Production and Logistics — The funds are then transferred to start manufacturing and send the finished product to the correspondent warehouse.

Product Lifecycle and End of Life — Products are stored in 3rd party warehouses or local points to be delivered to the people in need of the product. When the product loses its functionality or is damaged, they are collected and sent back to the manufacturing unit(s) to provide a second life or reuse of the material.

Legend

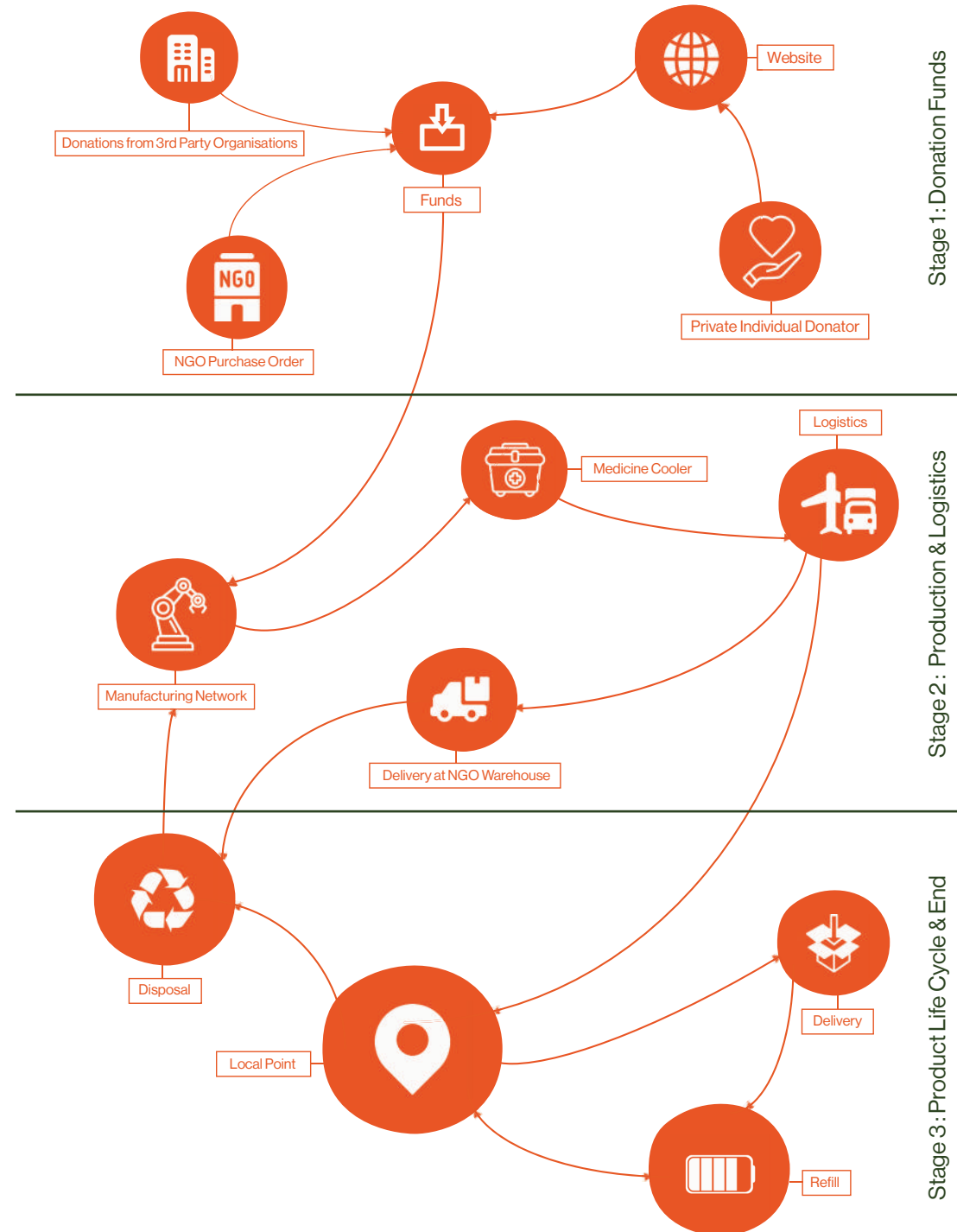
Local Point — These could be local, public hospitals, government dispensaries or emergency medical camps. It is essential that these points have a medical personnel in place.

Logistics — The product (made to order) is shipped in the required quantity from the local manufacturing unit(s) to either the third party organisation's warehouse like NGO's, Relief and Medical or to the local points.

Manufacturing Network — These are a network of resources and raw materials based on distance, availability and accessibility consisting of an artisan network skilled at making terracotta products, a textile network (could consist of both waste fabrics and new based on above mentioned factors), silicone or rubber additives etc. Different manufacturing units need assembling and packaging wherein the terracotta manufacturing unit could do the same.

Refill — After usage of medicine contents based on treatments, medicines need to be refilled especially in cases of chronic diseases. The Medical Personnel can advise and suggest case to case.

Delivery — The product is then handed over to the end user i.e. vulnerable, in need of assistance and healthcare, in distressed situations in need



Donations from 3rd Party

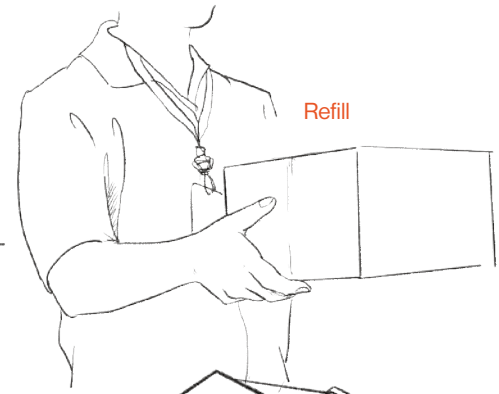


NGO

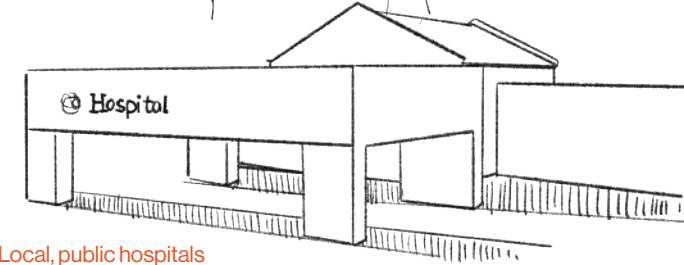
Purchase Order



Delivery at NGO Warehouse



Refill



Local, public hospitals

Private Individual Donator

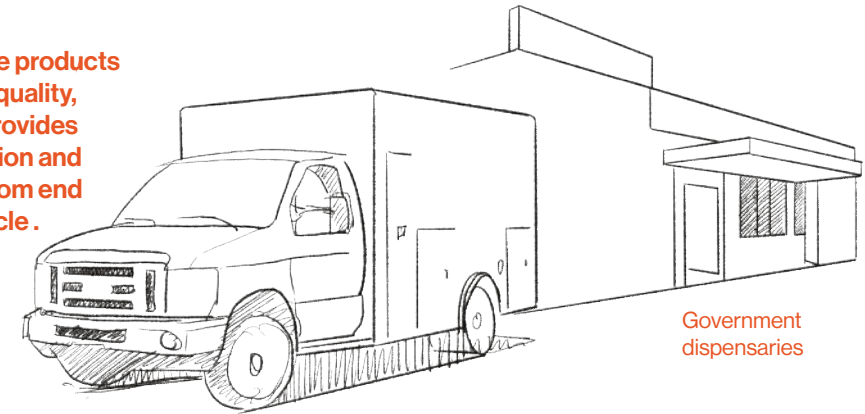


Funds



Terra Med System

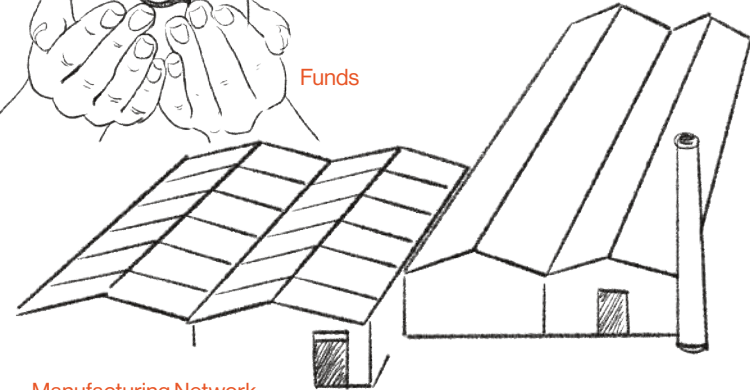
To assure the products and service quality, Terra Med provides the information and resources from end of the life cycle .



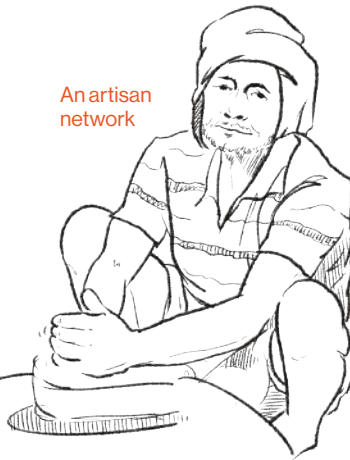
Government dispensaries

Delivery

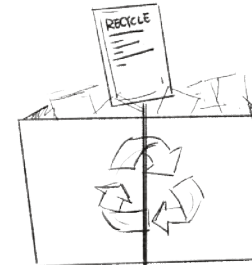
Manufacturing Network



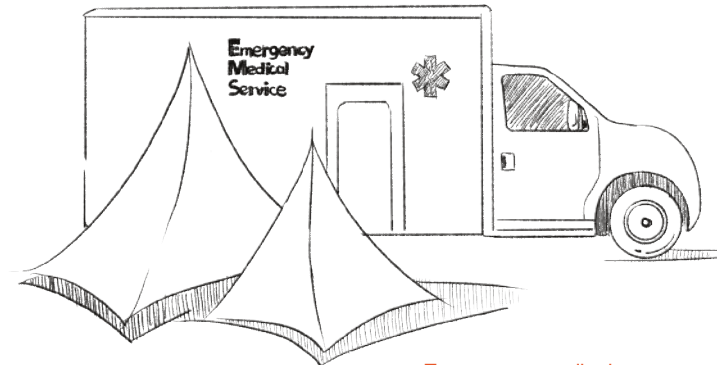
An artisan network



A textile network



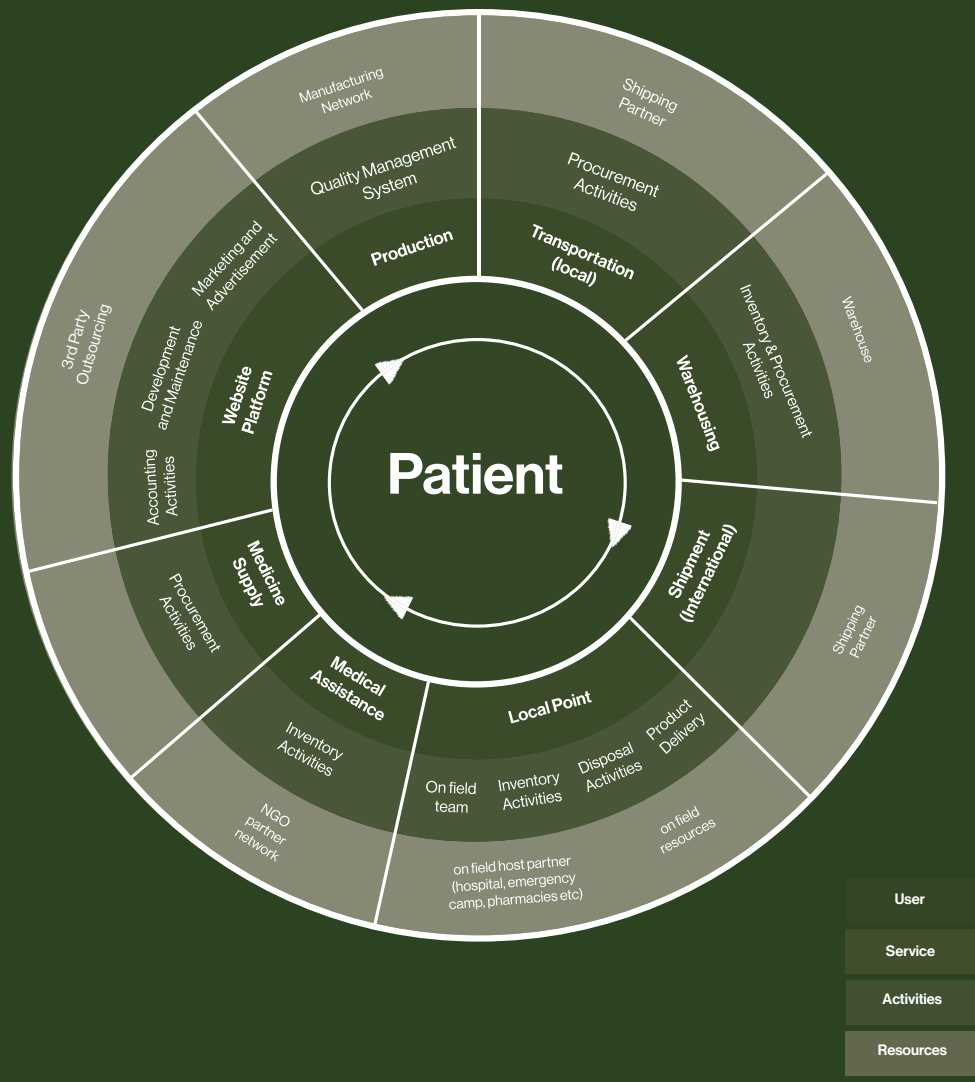
Disposal



Emergency medical camps

ECOSYSTEM MAP

In this ecosystem map, the patients who need access to cooled medicine could be considered the central focus or the main beneficiaries of the product and the charitable services provided by TerraMed. The product and the services are intended to meet the needs of these people and improve their quality of life via offering assistance. Other elements of the ecosystem, such as the raw materials, suppliers, donators, and digital touch points, all play a role in supporting the development, distribution and dismantling or re-use of the product.



MAIN ACTORS

The service requires 3 different categories of front stage actors involved during the services and delivery. Each actor is indispensable for the end user to access the final product.

The Customer

The first category of a front-stage actor in the service delivery process is the donator, who provides the funds that support the production and distribution of the terracotta medicine storage containers. They could be an individual, an NGO purchase, or a company looking to fulfill its corporate social responsibility or simply wanting to donate.

They play a critical role in supporting the production and distribution of terracotta medicine storage containers. Providing the financial resources that are needed to purchase the raw materials, manufacture the containers, and package and distribute the finished products.

They may also be involved in other aspects of the service delivery process, such as deciding how the funds will be used and communicating with the other front-stage actors and the end users. The donators need to have a clear understanding of the needs of the end users and how their donations will be used to meet those needs. It might also be helpful for the donor to have a way to track the impact of their donations and see the results of their contributions. This can help to build trust and encourage continued support.



MAIN ACTORS

On-Field Resources (Doctors, Medical Personnel & Volunteers)

The on-field personnel who is available at the local points and in direct contact with the end users (patients) are the second category of front-stage actors in the service delivery process. These actors include doctors, other medical personnel, and volunteers. They play a critical role in providing medical assistance and support to the end-users, and in ensuring that the terracotta medicine storage containers are used effectively and safely. The on-field personnel is responsible for a variety of tasks, including:

- Providing medical treatment and care to the end users, filling and explaining prescriptions.
- Distributing the terracotta medicine storage containers to the end users and demonstrate how to use them.
- Monitoring the use of the containers and providing support and guidance as needed during refills.
- Collecting feedback from the end users about the containers and their experience using them, especially during refills.
- Reporting any issues or problems with the containers to the appropriate parties



MAIN ACTORS

End Users (Patients, Distressed and in Need of Medical Assistance)

The end user who needs access to cooled medicine, is the final category of front stage actor in the service delivery process. They are the ultimate beneficiaries of the service, and play a critical role in ensuring that the service meets their needs and achieves the desired outcomes. As front stage actors, the end users are responsible for a variety of tasks, including:

- Receiving and using the terracotta medicine storage containers to store and cool their medicines.
- Following instructions for using the containers properly to ensure that the medicines are stored and used safely and effectively.

It's important for the end users to have a clear understanding of how to use the terracotta medicine storage containers and the importance of storing and using their medicines correctly. It may also be helpful for them to have access to support and guidance from the on-field personnel and other front stage actors as needed.



PROTO PERSONA

End User

AGE: 15 +

Situation

Just got aggravated by an emergency event, lost most or all of their belongings including vital medicines for their health.

Needs

- Find medical assistance.
- Explain and ask the medical treatment they need.
- Get the medicine they need.
- Take continuous doses of medicine.
- Store Medicine efficiently.

Frustrations

- An emergency event aggravated their situation.
- They don't understand who to ask for medical assistance and where.
- They are uncertain of what's next, and this creates ambiguity, panic and further distress.

Desires

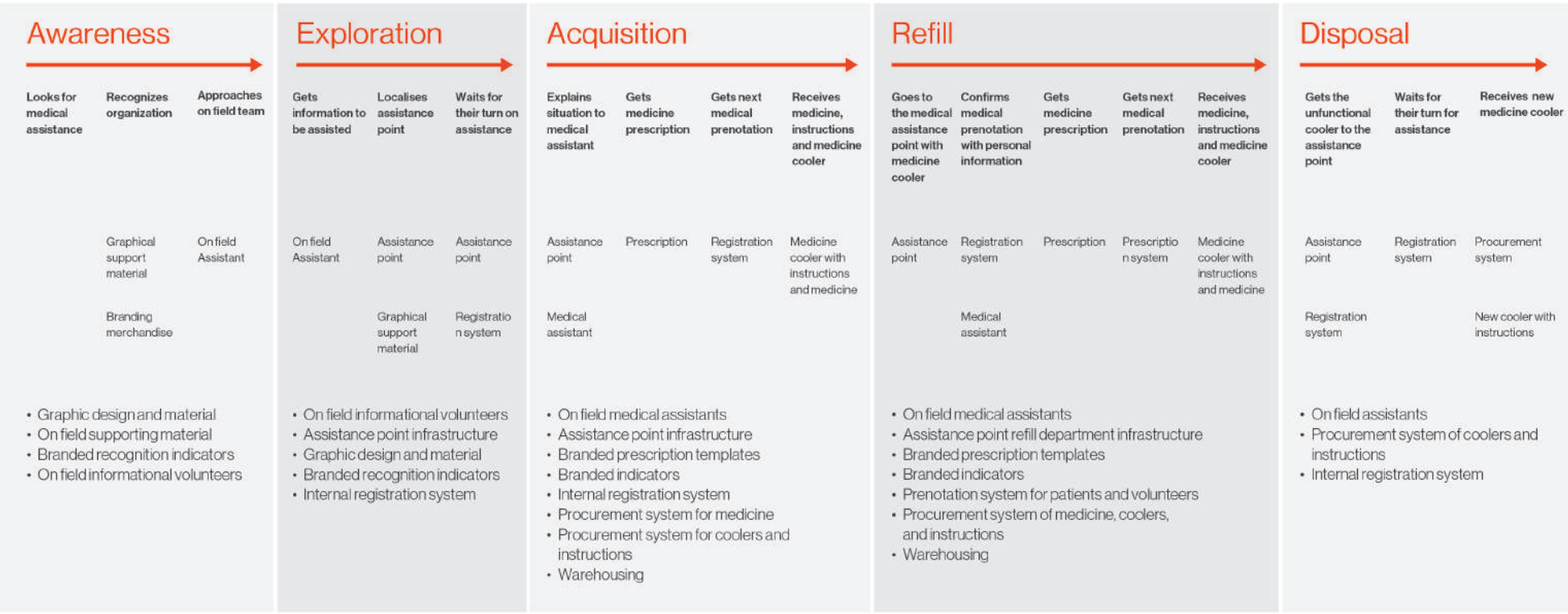
- Take their proper medicines as soon as possible (chronic diseases).
- Figure out an affordable and reliant way to store medicines.
- Understand where to get medical assistance.

End User's JOURNEY

Action

Touch points

Supporting processes

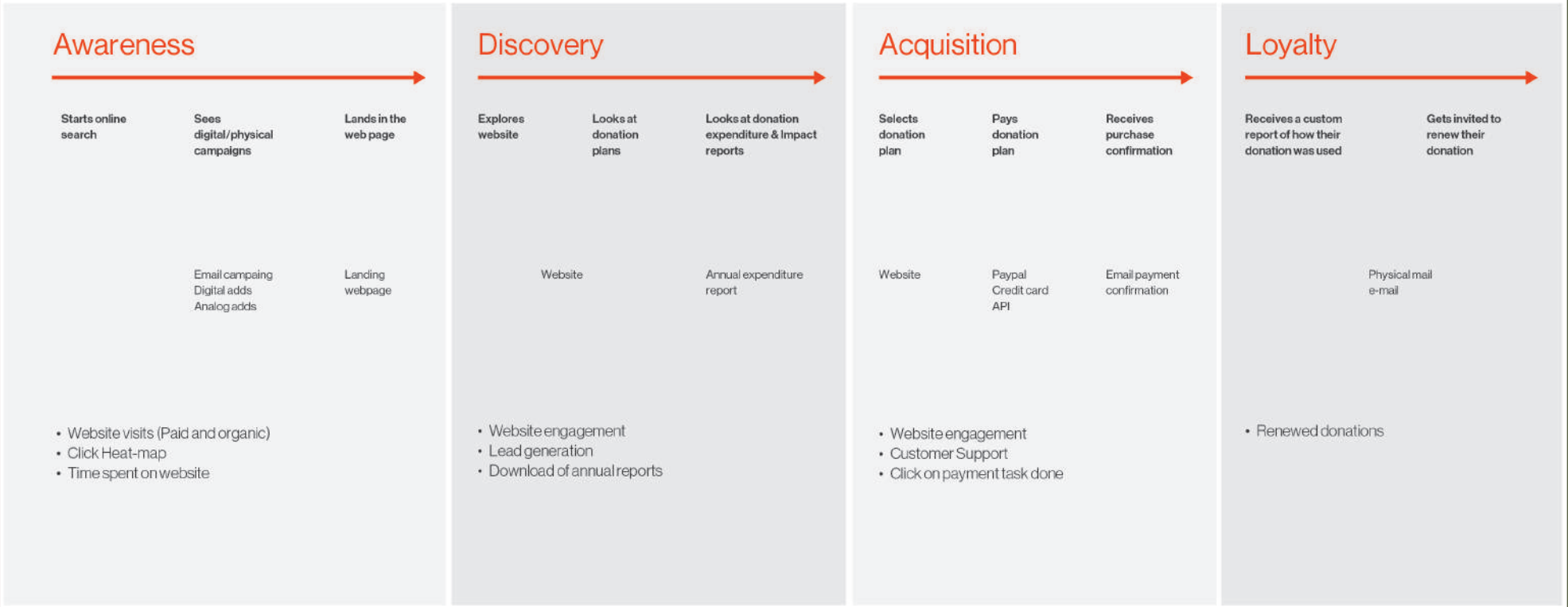


Individual Donator's JOURNEY

Action

Touch points

Key Metrics



PROTO PERSONA

Customer

AGE : 18-55

Situation

An individual donator, NGO looking for a purchase or a company looking to fulfill its corporate social responsibility or simply wants to make a donation.

Values & Behaviour

- Likes to participate in social practices, events and volunteer in charitable organisations.
- Believes they can make a difference with small actions.
- Interested to follow and know more about projects making significant impact especially for the vulnerable.

Source of information

Follow Up & Expansion

- Internet platforms.
- Social Media.
- Events.
- Malls and commercial centres.
- Word of mouth.
- Friends and colleagues.
- Magazines and News.
- Email (through marketing or through sales/direct).
- Customer support (automated and personal).
- Online content (website, promoted profiles, partner sites).
- Phone calls.
- Face-to-face, Referral.

Goals & Needs

- Information about the organisations and causes supported.
- Transparency and accountability from the organisations.
- A sense of personal fulfilment and connection to the causes.
- To be able to select specific use and location for contribution.
- They want to understand why they should keep helping in the chosen regard.

Doctor's JOURNEY



BRANDING



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Energy-dependent medical devices have become an indispensable part of modern healthcare. Energy is required for the systematic and stable functioning of the medical infrastructure like medical equipment used for both storage and treatment. Examples include cardiovascular-defibrillators and cold storage required for medicines, injections, and other devices.

But what happens when there is no energy? This is the start of something that treads that pathway. We are offering a solution that works either way.

Vision

We aspire to create a society characterized by a network of philanthropy, where everyone has the opportunity to live a healthy life and support those who are vulnerable by providing medical aid.

Mission

Our goal is to provide individuals with the means to live healthy life, support those who are vulnerable, and offer medical assistance whenever possible. We operate in 23 countries, providing zero-energy solutions for storing medicine to people facing extreme challenges such as internal conflict, natural disasters, epidemics, and war. By empowering people with these resources, we hope to improve their quality of life and help them overcome adversity.



WHY WE DO THIS?

For people, their health,
and their rights.

ABOUT US

Who are we?

Terra Med is a Humanitarian organization aiding people in extreme scenarios like internal conflict, natural disasters, epidemics, and war by giving them an off-grid, zero-energy solution to store medicines. Our product, service, and system are aimed at those in dire need of care and medication with limited or no availability of essential resources, especially energy. Our values are inspired by the "Universal Declaration of Human Rights"; the recognition of dignity and equal and inalienable rights is the foundation of freedom, justice, and peace in the world.

What do we do?

Terra Med is a Non for profit organization (NGO) that aids people through its product and independent network, providing an alternate solution for cold storage of medicines in extreme situations where there is intermittent or no access to energy. Our brand uses terracotta, a porous, sustainable, and versatile ceramic, to build a zero-energy solution that decreases the temperature inside the product using evaporating cooling properties when interacting with water and air.

Terracotta and its constant use in history, ranging from its versatile benefits to cool homes, storage, and cool air, we have positioned it in new scenarios, especially where it is most needed creating new opportunities and solutions. We manage the Terra Med service via a vast supply chain from national to local centers taking into account local resources and their efficacy in 23 different countries.

Art. 1

All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

1948, Universal Declaration of Human Rights. Palais De Chaillot, Paris.

BRAND VALUES

Human

We focus on the value of being human and how every human has the right to healthcare.

Collaborative

Our brand develops two networks, one inside the brand and one outside, with other humanitarian organizations like UNICEF & Medical Without Borders.

Impartial

We don't make distinctions about needs based on nationality, race, gender, religious belief, class, or political viewpoint. Instead, our goal is to assist any human being who requires assistance wherever, whenever.

Accessible

We cannot function without making our products and services as accessible, outreached, and consistent as possible. We make sure where there is a need, there is Terra Med.

Sustainable

All our services, supply chains, and products are made keeping the planet, its resources, and people in mind. Each decision we make ensures that from the start of something to its end cycle.

Our brand carries the values of our **VOLUNTEERS.**



Main GRAPHICS

Naming

“Terra Med” combines “terracotta” and “medicines,” the fundamental components of our brand. The name highlights the use of terracotta and its properties in the healthcare setting and the production of medicines. The tagline “zero energy medical assistance” is included in our logo to emphasize our brand’s focus on energy efficiency in the medical field.

Logo

We have chosen to create a clean and simple logotype that incorporates two different fonts. These fonts were selected to represent the two main components of our brand, as reflected in our name. The first font, which is customized, captures the irregular and porous nature of terracotta, while the second font, a sans-serif font, represents the medical aspect of our brand. We have designed two versions of the logo: one that features the words in separate lines arranged in a rectangular grid, and another where the words are on the same line.

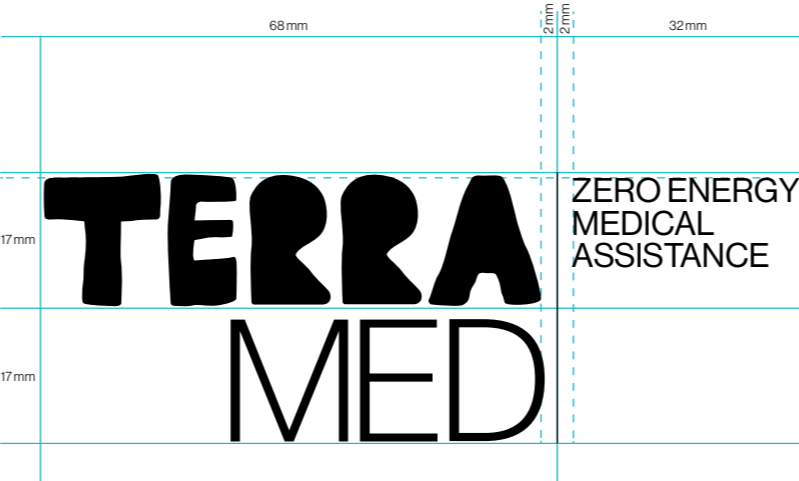
The first version is intended for use on packaging, video and digital screens, t-shirts, tents, and flags at our Terra Med local point; while the second version is meant for use on headed paper.

Terra Med Colour

The primary color of Terra Med is orange. This color was chosen because it stands out in contrast to the tones of the environment and extreme situations, and is easily recognizable due to its brightness. The second color of Terra Med is green.

Typography

Terra Med has two fonts for its communication materials, such as the logo. The first font is Neue Haas Grotesk, which comes in light, regular, and medium weights. The second font is a customized one that captures the essence of terracotta. We chose to have a second, hand-crafted font in order to better represent our values and create an uplifting and positive communication strategy for private donations.

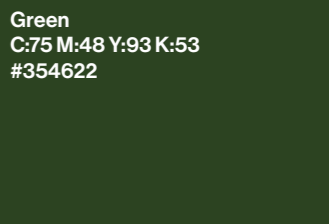
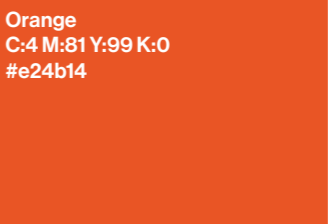


Neue Haas Grotesk 45 Light
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Neue Haas Grotesk 55 Roman
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

Neue Haas Grotesk 65 Medium
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMN
OPQRSTUVWXYZ



tone of voice

Our communication style is direct but respectful, formal, responsible, and positive. We aim to secure donations from both the private and public sector, and our tone of voice allows us to convey the severity of the problem while maintaining a positive outlook. We understand the real conditions faced by the people we serve, but we believe it is important to start our communication with hope and optimism. In addition, we strive to always be transparent and honest in our communication, as we believe that building trust with our donors is crucial for the success of our mission.

We speak in a way that is: Direct but Respectful, Urgent, Responsible, Encouraging.



CAMPAIGN

Poster campaign

Through our street campaign, we want to achieve people and possible donor telling both our stories and our values. The slogan "At the right place for human right" want to connect donors with the final user, the goal is to show that thanks to our service are possible to make something for people living in extreme scenarios and be at the right place to join the big challenge of human rights realization.

Visually we use black and white pictures, where our volunteers are helping people in extreme situations, our fonts in black and orange and an orange line that emphasize the content of the picture. The repetition inside the copy permits the creation of an effortless, simple campaign, allowing a recall value and increasing emphasis on our purpose.



AT THE **RIGHT**
PLACE FOR
HUMAN **RIGHTS**

TERRAMED



Support Terra Med
#IHAVEARIGHT



AT THE **RIGHT**
PLACE FOR
HUMAN **RIGHTS**

TERRAMED



Support Terra Med
#IHAVEARIGHT



Website and Instagram page reference

Logo



Call to action to donate

Black and White picture from a our local point in Africa

Social campaign

Terramed's Instagram page is going to narrate the storytelling, purpose and mission highlighting the heart and soul of our brand. We highlight campaigns like **#Ihavearight** which showcase the scenario at the grassroots urging our potential target customers to take action.

Terramed's Twitter Page is a collective of information & action taken by the brand involving transparency in funding, product development and also highlighting the service from start to finish. We show everything to our customers & users.

Additionally we can have hashtags like **#terramedassist** & **#terramedinaction** to further emphasise different criteria of our community.

Campaign Medicine on the Move — This campaign aims to raise awareness of TerraMed's mission and products by showcasing the benefits of the terracotta medicine storage container and the challenges of storing medicine in difficult environments. By using Instagram, Twitter, and Facebook and engaging tactics such as Instagram Live Q&A, the campaign encourages donations and support for the organization, targeting individuals, NGOs, and companies that support health, medicine, and vulnerable populations causes.



Awareness campaign

Tents, T-shirts, jackets, flags, and any sign of Terra Med are a way to be seen by people seeking assistance. T-shirts are worn by doctors and volunteers from our local point. With these simple tools, people can find a place to get care.

Small logo on the front of the t-shirt

Communication hashtags



Big logo on the back of the t-shirt



The place where people can find Terra Med volunteers, take the terracotta box with the medicines and refill.

The patient is given a
CARE INSTRUCTIONS to
fix the care and explain how
to use the terracotta box.





People can find information about their cure by looking at the care instructions. During the acquisition part, doctors or volunteers add the medicines to the terracotta box and fill in the information on the document. Then they write the medicine name, dosage, refilling time, frequency, and additional comments.

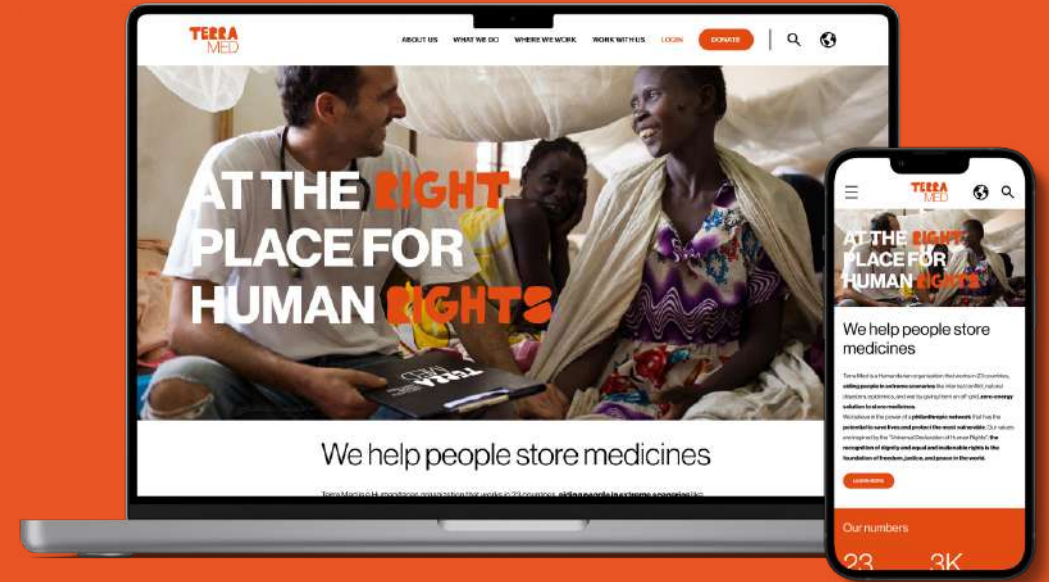


People on the care instructions could also find the explanation about how to use the terracotta box. The document it's designed to leave space for translation into the local language if the people don't know English.

WEBSITE

The website is one of the primary touchpoints of our product service system. Here the customers (individual or NGO) can explore the reality of TerraMed with text and pictures by understanding why we exist and our business values and discovering what we do on the field and where we work. The website aims to create awareness among people, help them find out about the product, and collect donations. Transparent and effective communication should drive people to the donation page and donate to the cause, becoming then a customer. Existing customers can follow up on their donations on their profile page, accessible through the login button. Some people might embrace our values and apply them to work with us. On the “work with us” page, the user searches through volunteering offers across our local points in 23 countries and can decide to work in one of them.

Explore the website

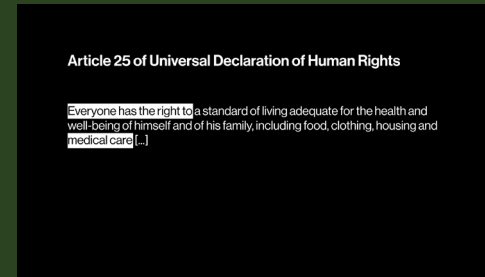


Building a story that communicate meanings

We built the video by starting with the payoff of our brand **at the right place for human rights**, and we began to tell a story of rights by showing the 25th point of the Universal Declaration of Human Rights [1], which also represents the right to medical care. A right that is only sometimes guaranteed to people. So we show all countries where we work with pictures or videos of extreme scenarios that people are living [2].

We need action [3] to help these people, which is when we arrive. We show all the processes to make [4], donate [5], ship, and use [6] the product and the journey that all the people make to deliver the TerraMed cooler to the final use. Then, after a rewind that takes us back to the Universal Declaration of Human Rights, we make our statement: We're making more accessible access to medical care for all the people [7]. Finally, we give the object to the final use and show our name, "Terra Med, medicine cold storage" [8].

Watch the video



[1]



[2]



[3]



[4]



[5]



[6]



[7]

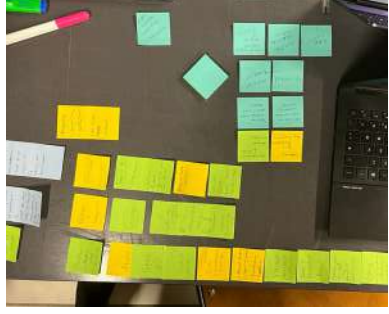


[8]

ANNEX

Our design process	84
Technical drawings	86

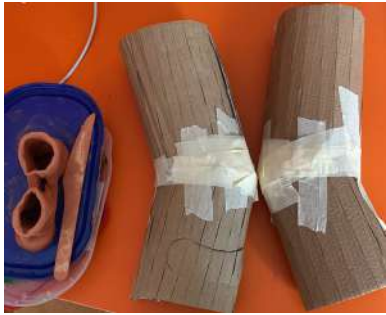
Our design **PROCESS**



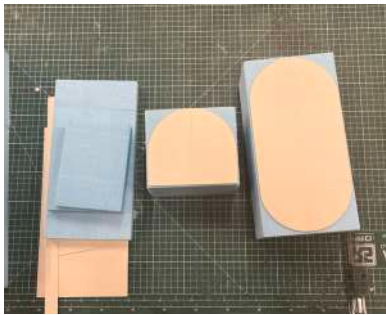
Brainstorming



Concept ideation



Prototypes



Make the mold

Make the product



Make the case



Final product



The Miro Board



Download technical drawings



#	Component name	Material
1	Cooler	Terracotta
2	Hook	Fabric
3	Cap	Rubber
4	Cover	Plastic
5	Strap	Fabric
6	Top	Fabric
7	Front cover	Fabric
8	Side	Fabric
9	Front and Back	Fabric
10	Pocket	Fabric

	Politecnico di Milano School of Design Innovation studio A.Y. 2022-2023 - PSSD	Date: 24/02/2023 Content: B.O.M and assembly	Students: Claudio Sisti Feng Zhenyi Hernandez Valdez Ruffo Matteo Tappi Verica Yerasinia Haruna Group: Lazy Susan	Teachers: Valentina Auricchio Stefania Brotschert Maria Corcholo Fabio Di Liberto Ilkka Suppanen
	Paper:A5 Scale:1:5	Table #1		

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EVOLVING
for scarcity