

teplo

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Social Venture Plan
Competition 2019

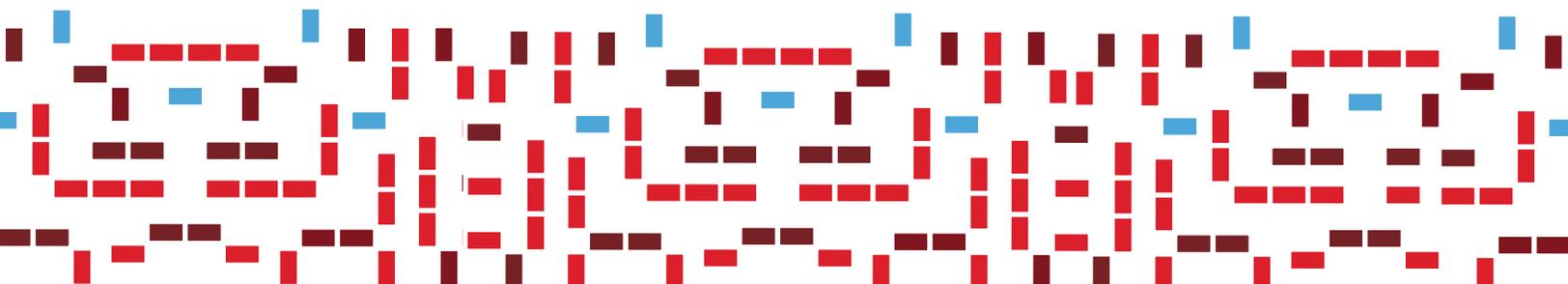
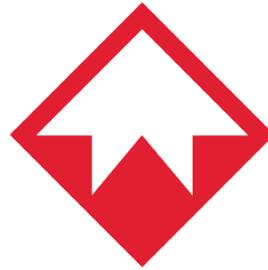


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Teplo is founded on the principle that, when in pursuit of shelter and security, an individual's quality of life should be improved, not compromised.

Executive Summary

There is a need for adequate shelter for those experiencing displacement in cold weather climates, and Teplo proposes a solution. In places like Ukraine, conditions of government instability and local conflict have led to an increased number of Internally Displaced Persons (IDPs) and refugees in the past few years. The standard shelter deployed in these situations by aid organizations is not sufficient for the below-freezing winters in Ukraine. At best, these individuals and families are provided flimsy tents, but often, they must resort to constructing shacks from scavenged garbage.

Teplo confronts the problems associated with shelter in cold weather climates by providing a simple, robust, and efficiently designed housing unit. Our product is an easily deployable, pre-fabricated, and low-maintenance solution which will provide protection and safety year-round, particularly during the winter. By combining high structural integrity, safe and self-contained heating, and an efficient insulation system, Teplo revolutionizes the approach to cold weather sheltering.

Optimized for large-scale deployment, the Teplo unit is prepared to meet the immediate needs of IDPs and refugees in Ukraine, and someday across the globe. By selling directly to humanitarian aid organizations, we ensure that these much-needed units arrive safely on-site. Though there are suitable products for warm weather shelters, the glaring hole in the market leaves agencies scrambling to “winterize” inadequate housing. By purchasing the Teplo unit, these maintenance costs would radically decrease and leave the beneficiaries with added benefits: physical shelter to protect against icy winter conditions, and the psychosocial benefits of restored privacy, security, and dignity.

Consider partnering with us by donating to our cause or investing in our company. A partnership with Teplo means you are taking an active role in the restoration of displaced persons’ dignity and well-being. At Teplo we firmly believe that, when in pursuit of shelter and security, an individual’s quality of life should be improved, not compromised.

Vision Statement

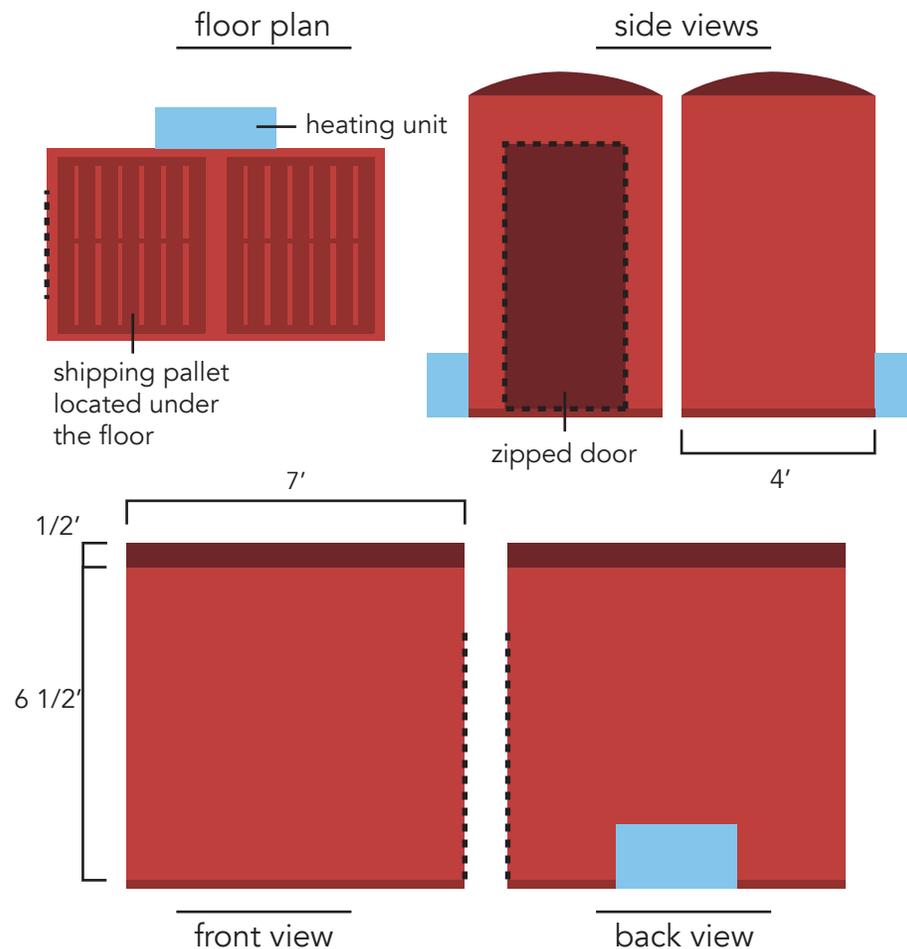
A world where displaced persons can find sustained rest and restored dignity through means of sanctuary from cold climates.

Mission Statement

Introduce a higher standard of shelter in cold weather climates by selling the Teplo unit to relief agencies and organizations, to be deployed in communities of internally displaced persons and refugees.

What Is the Teplo Unit?

The Teplo unit is a semi-permanent, self-heated, thermally insulated shelter which provides protection from cold weather climates. Due to its collapsible metal frame, it requires only basic hand tools and a few hours to assemble and can remain erect for years. Once plugged in to the power grids on-site, it provides warm accommodations thanks to the radiant heating system. The unit is roughly the size of a three-person tent and boasts weather-proof insulation to ensure maximum heat retention and protection from the harsh climate. Teplo units provide shelter to individuals and families who would otherwise be forced to brave cold winters in flimsy, insufficient tents, which are the only currently alternative accessible solution. Through the combination of these elements — the telescoping collapsible frame, the radiant heating system, and the weather-proof insulation — Teplo units provide protection to those who desperately need it. Providing a sense of security and privacy to people struggling to secure shelter when in uncertain situations also restores a sense of human dignity, which is a driving passion at Teplo.



Strategy

Due to ongoing political crises and conflicts in Ukraine, there are currently over 1.3 million internally displaced persons (IDPs) within Ukrainian borders, the majority of whom do not have sufficient shelter accommodations.¹ Many struggle to find adequate shelter while seeking long-term housing, and settle for shelter that is immediately available yet insufficient. Unfortunately, these temporary solutions are usually flimsy, insufficiently insulated tents, which causes life-threatening problems during Ukrainian winters. The major problem is an unmet need for adequate shelter in refugee camps and communities of forcibly displaced persons; the Teplo unit is an innovative and completely unique solution to this problem. Teplo units are marketed to the relief agencies that work to provide aid to forcibly displaced persons, including the United Nations High Commissioner for Refugees (UNHCR), International Federation of Red Cross and Red Crescent Societies (IFRC), and Global Shelter Cluster. By selling Teplo units directly to these agencies, our product can efficiently reach those who need it most. The technological elements in Teplo units make them an easily deployable, weather-appropriate, and cost-effective solution to the housing crisis in Ukraine and other cold-weather regions where forcibly displaced persons are seeking refuge.

Ultimately, Teplo desires to restore a sense of human dignity through meeting the basic human needs of shelter and warmth for people who face many daily challenges in uncertain situations. Teplo units not only provide adequate shelter in harsh conditions, but also restore a sense of privacy for people in refugee encampments by providing insulation from the outside world and a private space to rest. Forcibly displaced persons already experience so much uncertainty in their status — legal, geographic, and otherwise.² For instance, it is common for women and children to experience abuse in shelters from adult men who find themselves alone. To have a place that is personal provides those vulnerable to abuse greater peace of mind.³ Teplo shelter units provide these people with increased feelings of security through the confidence that they have a place to sleep at night: a reliable and weather-appropriate shelter. This ultimately is a step towards restoring the sense of human dignity of people experiencing displacement.

“many people are left vulnerable before finding a place to live.”

1 Ukraine Ministry of Social Policy, Registration of Internal Displacement, report to UNHCR; retrieved from <https://bit.ly/2CZaLzr>

2 World Bank Group, “Forcibly Displaced: Toward a Development Approach Supporting Refugees, the Internally Displaced, and Their Hosts” (2017). Retrieved from <https://bit.ly/2inMHso>

3 Human Rights Watch, “Buffeted in the Borderland.” Retrieved from <https://bit.ly/2TmPmrO>

Financial Statement

Teplo is a non-profit, business-to-business company. Our model defines our company in the way we approach everything we do; our market is not the final beneficiary, but rather the aid agencies and international actors that will distribute our products to the people who need it. Selling directly to inter-governmental organizations (IGOs) under a business-to-business model also lowers the final cost of each unit because IGOs such as the United Nations are exempt from paying taxes and duties when purchasing products.⁴ To decrease manufacturing expenses, we have decided to use Sourcify, a company that specializes in finding overseas manufacturers to produce and ship products. Specifically, they will locate a Chinese manufacturer for Teplo to simplify shipping logistics.

Teplo has found potential investors who are interested in supporting the Teplo mission, especially in the early stages to cover startup costs. These donors include people with backgrounds in social entrepreneurship and business development, and would support Teplo as “angel investors” who are seeking very little in return for their help. Revenue will come from selling our product to agencies for \$890 per unit and we are projected to sell 1600 units in the first year with a 30% increase in years two and three. Our expenses will come from the manufacturing of the product, Sourcify’s payment fee, shipping costs to Ukraine, paying employee salaries, paying a coworking fee for office space at Works Progress, and marketing efforts.

As a non-profit, we will find a further revenue source through a donor base that will be maintained by the help of our board of directors as well as the support of our Executive Director. We will seek grants from foundations and other organizations to supplement our funding needs as well. We have future plans to implement a subscription app that relief agencies can buy to accompany their Teplo units which will provide a recurring stream of revenue. As Teplo expands, we will run into increased expenses from raising employee salaries and possibly opening a manufacturing location in the US.

⁴ United Nations Procurement Division, “Frequently Asked Questions.” Retrieved from <https://www.un.org/Depts/ptd/frequently-asked-questions>

Market Research

Consumer Market

Teplo follows a business-to-business model; our immediate consumer market includes the United Nations High Commissioner for Refugees (UNHCR), International Federation of Red Cross and Red Crescent Societies (IFRC), and Global Shelter Cluster, which provide humanitarian aid and support to encampments of forcibly displaced persons. Since 2016, the UNHCR has spent over \$20 million USD on building and repairing shelters for IDPs in Ukraine.⁵ These budget reports indicate that building and repairing shelters are some of the largest expenditures, including provision of tents and tarps for people as primary means of shelter. These are insufficient to keep people warm and healthy, especially during the winter in Ukraine, and are also economically inefficient. Tents provided by the UNHCR are constantly replaced after collapsing under snow or being swept away in floods, incurring extra and unnecessary costs.

By relocating these funds spent on inefficient shelter solutions and instead purchasing Teplo units, the UNHCR and other agencies can increase their efficiency and implement long-term solutions to the housing crisis for displaced people in Ukraine. The durability of Teplo units outperforms flimsy tents, thanks to the sturdy frame and anchoring system technologies. For more information, see the Physical Concept Overview section.

The insulation and heating technology of Teplo units can also decrease other budgeted expenditures of aid agencies, especially medical and health care costs. Severe negative health outcomes are incurred from people being exposed to harsh elements without shelter, especially during the winter. Attending to these preventable health care needs is costly to aid agencies and local government infrastructures. Implementing Teplo units will be a cost-effective alternative to the waste of limited aid dollars on unsustainable, insufficient solutions.

The founders of Teplo have personally spoken with the Honorary Ukrainian Consul, Valeriy Goloborodko, and confirmed that the unit produced by Teplo is an ideal solution for the overall housing crisis in Ukraine. Honorary Consul Goloborodko remarked that “there is great need along the front lines of the war for fast and dependable shelter [...] many people are left vulnerable before finding a place to live.”

⁵ UNHCR Ukraine Operations Budget, retrieved from <https://bit.ly/2pZY1zi>

Advertising & Marketing

With consideration for our market, Teplo has decided to seek an approach to marketing that will entail face-to-face interactions. At Teplo, we understand that presenting the depth of the issue and providing an explanation about the product (or even showing the unit itself) is best conveyed in person to get a potential buyer or investor excited about our solution. This marketing strategy will entail the development and maintenance of interpersonal networks under the supervision of our Director of Marketing. Teplo will fervently attend conferences such as The North American Refugee Health Conference ⁶ and Aidex's Global Humanitarian & Development Aid Event.⁷ Through this outreach, Teplo will demonstrate engagement with the issue of improper sheltering for displaced persons and connect with those individuals who are already participating in combating this issue.

Our Executive Director, in conjunction with the Board of Directors and their connections, will nurture relationships in the international community. By ensuring that our Board is comprised of well-connected and passionate professionals, we ensure a platform for Teplo to thrive. Not only will this group of individuals instill and foster a passion for our cause, they will enable Teplo to secure far-reaching relationships within our consumer market. In conjunction with these efforts, our Executive Director will maintain relationships with agencies to promote long-term commitments to the purchase of our unit.

Teplo will evaluate the need for revenue and consider selling advertising space to partners as time continues. In the intermediary, only agencies such as the UNHCR will have the opportunity to have their logo printed on the unit. Our dedication to the preservation of human dignity makes our founders hesitant to allow big-name brands and companies to advertise on our units. We are committed to carefully considering the appearance of the shelter units which will become the private spaces and residences of individuals and families.

Beneficiary Market

The primary beneficiaries of Teplo units will be refugees and Internally Displaced Persons (IDPs) living in cold weather climates like Ukraine. Since the Crimean Annexation in 2014, the violent armed conflict in Ukraine has been the most extreme since the Cold War. Even with a tentative ceasefire with Russia since 2015, there are still active conflict zones in Donetsk and Luhansk.⁸ Over 1.3 million

⁶ North American Refugee Health Conference, northamericanrefugeehealth.com

⁷ Aidex's Global Humanitarian & Development Aid Event, aid-expo.com

⁸ BBC, "Ukraine Profile - Timeline." Retrieved from <https://www.bbc.com/news/world-europe-18010123>

Beneficiary Market (cont.)

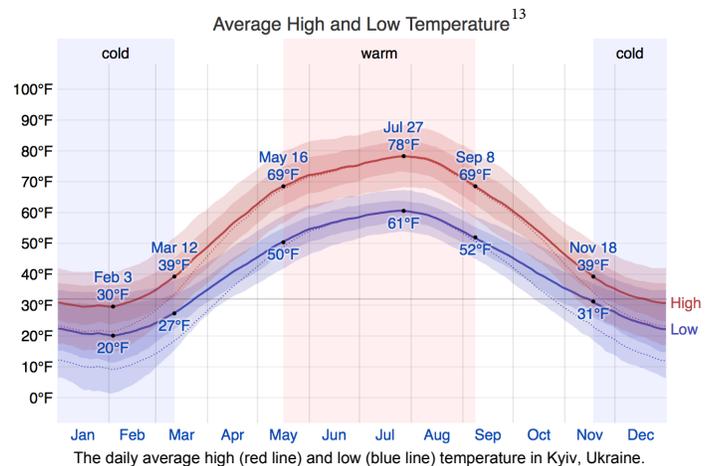
Ukrainians still have legal Internally Displaced Person (IDP) status,⁹ and hundreds of thousands of homes and businesses has been destroyed. These IDPs struggle to find adequate shelter during their transition period after fleeing their homes in pursuit of safety. Consequently, many IDPs in Ukraine are forced to find shelter in tents, shacks constructed from scavenged materials, or dilapidated abandoned buildings.¹⁰

This housing crisis is especially a problem during winter in Ukraine, when temperatures are at or below freezing on average, and substantial snow storms are frequent.¹¹ In 2012 a reported “big freeze” swept through Northern Ukraine, substantially affecting those who were without shelter from situations of displacement.¹² These outcomes led

to extensive and costly intervention by the Red Cross as they deployed 400 volunteers and set up clinics and shelters to serve those who were affected by the conditions. The story of a 42 year old man who was found asleep in the snow and then passed away shortly afterwards highlights the deathly consequences from inadequate shelter. Presently, individuals in camp settlements have the option to heat their own shelters using stand-alone diesel heaters, which are loud, costly to run, and can expose residents to harmful fumes and fire hazards in crowded settlements of camps and lean-to shelters. However, even these heaters are not always available for large numbers of people, so they are not a reasonable long term solution.

Presently, individuals in camp settlements have the option to heat their own shelters using stand-alone diesel heaters, which are loud, costly to run, and can expose residents to harmful fumes and fire hazards in crowded settlements of camps and lean-to shelters. However, even these heaters are not always available for large numbers of people, so they are not a reasonable long term solution.

This is not a sustainable way to shelter anyone during long winter months, even with the limited resources of aid agencies. An affordable, well-insulated, and self-sustaining shelter designed for cold climates would solve a complex problem in an already-established market and save lives in the process. There is no current product filling this deficit in the market — until now with the Teplo unit.



¹⁰ UNHCR, “How We Shelter.” Retrieved from <https://www.unhcr.org/how-we-shelter.html>

¹¹ World Climate Guide: Ukraine, Retrieved from <https://www.climatestotravel.com/climate/ukraine>

¹² IFRC, “Coming in From the Cold: Ukraine Red Cross Responds to the Big Freeze.” Retrieved from <https://bit.ly/2Uq5AwP>

¹³ Weather Spark, “Average Weather in Kiev”, Retrieved from <https://bit.ly/2TCP9Qm>

Reporting

Teplo's In-Country Coordinator (ICC) is placed in Ukraine to provide an accurate picture of how our shelters are doing on-the-ground. While primarily based in Kyiv, they also spend a significant amount of time traveling to assess the condition of Teplo units and facilitate positive relationships with the community of relief aid providers. We chose Kyiv, Ukraine's capital city, due to the well-established presence of the UN and IFRC there; this better enables us to foster partnership. A primary base in Kyiv also considers the safety of the ICC amidst the ongoing armed national conflict. The ICC is in consistent communication with the Seattle-based Teplo team. The Director of Design receives her feedback and reports of any issues, and the Vice President of Operations relies on her role to facilitate quality control. For more information, see the Personnel section.

Once every year, Teplo sends the Director of Operations, Director of Design, and Executive Director to Ukraine for two weeks in order to establish personal relationships with the residents of the refugee camps and the camp administrators. By having the on-the-ground, first-hand experience of seeing the shelters in their final environment, the Teplo team will have a better understanding of how the units are used in the field by the beneficiaries. From this understanding, we can make all necessary improvements to meet any unforeseen needs. Forming personal relationships with the residents and administrators benefits our company because it leads to better feedback and a more holistic understanding of the beneficiary population.

Market Competition

Currently, there are only a handful of adequate shelters on the market, but even less with warming capabilities. The United Nations Refugee Association cites the use of light tents and "dual shelters," which are essentially mud and straw shelters with corrugated iron roofs, which are used in warmer climates.¹⁴ An alternative product designed to address the need for competent housing is the Refugee Housing Unit (RHU) which the UN distributes in collaboration with IKEA. RHUs also follow the boxed shelter model and provide an inexpensive, relatively sturdy shelter which can be easily shipped and universally deployable on a large scale. However, while RHUs and similar products have proven effective in warm climates, they do not address challenges faced by the colder camps of northern Europe, including below-freezing winter temperatures, high winds, and heavy snowfall and rain.¹⁵ The failure of RHUs to address these challenges renders them useless in cold weather climates and results in a continuing need for a sufficient solution; the Teplo unit will be the first to truly meet this need.

¹⁴ UNHCR, "How We Shelter." Retrieved from <https://www.unhcr.org/how-we-shelter.html>

¹⁵ World Climate Guide: Ukraine, Retrieved from <https://bit.ly/2t8XT4X>

Social Impact

In order to ensure that Teplo remains focused on our vision of a world where displaced persons can find rest and dignity through means of sanctuary from cold climates, we have picked three of the Sustainable Development Goals (UN SDG) laid out by the United Nations¹⁶ to align our company with.



Good Health & Well-Being

In accordance with UN SDG #3, the Teplo unit will improve the overall health of its users by eliminating the multitude of risks and hazards that are created by extreme temperatures combined with lack of shelter. By offering a climate-controlled and reliable housing unit, people experiencing displacement will feel restored senses of dignity, privacy, and security, leading to positive outcomes in well-being and overall sense of human dignity and self-worth.

Sustainable Cities & Communities

The Teplo unit contributes to the UN SDG #11, by challenging the status quo of sheltering displaced persons. Safety, which is one of the central elements of SDG #11, is the primary concern of Teplo. The implementation of the Teplo unit in the settlements of Ukraine will provide inhabitants refuge from the unsafe, harsh conditions in a place where the average temperature in the winter is below-freezing.¹⁷ Freedom from these conditions allows for deeper investment and increased development in cities and communities as people engage beyond basic survival.

¹⁶ United Nations, “Sustainable Development Goals”, Retrieved from <https://bit.ly/1Qk5cqI>

¹⁷ World Weather and Climate Information, “Average Monthly Temperature in Kiev, Ukraine.” Retrieved from <https://bit.ly/2H3Gtw>

Responsible Consumption & Production

Teplo aligns with the UN SDG #12 by making all possible efforts to reduce operational waste in the production, usage, and maintenance of the shelter. By repurposing shipping materials for use in its assembled state, the shelter leaves minimal material waste at its deployment site. Creating a long-term housing solution also serves to diminish waste streams associated with compromised shelter disposal by reducing the shelter replacement rate; while current shelters are replaced several times a year, a Teplo unit can last up to four years without any additions or upgrades. Finally, by leveraging efficient insulation and heating elements, the Teplo shelter drastically reduces energy consumption and safety concerns associated with traditional heating methods currently being used to winter-proof shelters.

Sociopolitical Factors

Refugees and IDPs often have precarious status in their host communities, both legal and social; the local host community populations are often resentful of the perceived economic burden and even potential security risks that arise when refugees and IDPs are hosted. Refugees and IDPs who take on a semi-permanent residential status in these host communities meet social resistance from locals, who often only want to extend hospitality with the caveat of its temporary nature.¹⁸ Any measures that communicate a long-term residential status of refugees in the countries in which they have sought safety may result in negative reactions from host communities.

Reports from Human Rights Watch state, “More than half of the migrants interviewed by Human Rights Watch who had been returned from Slovakia and Hungary said that they were beaten or subjected to other physical mistreatment upon return to Ukraine.”¹⁹ This backlash is due to the incorrect perception that incoming refugees and IDPs only bring negative economic outcomes for host communities, and the lack of awareness in host communities about the slim chances of repatriation for most people who become forced migrants. Thus, the need for a suitable solution is urgent and can be used as a platform to educate host communities about the real economic benefits of a growing population thanks to resettled refugees/IDPs, and the realities these refugees/IDPs face in their future opportunities.²⁰

18 NewsDeeply, “The Real Economic Cost of Accepting Refugees.” Retrieved from <https://bit.ly/2x3tylq>

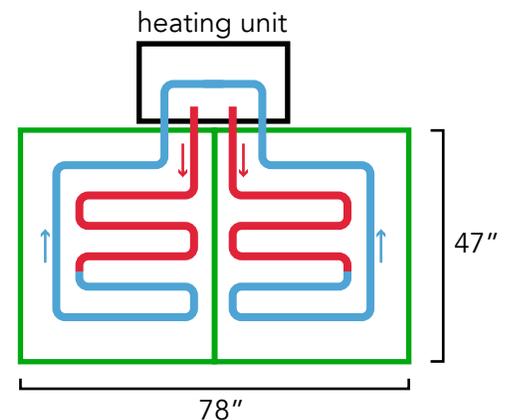
19 Human Rights Watch, “Buffeted in the Borderland.” Retrieved from <https://bit.ly/2TmPmrO>

20 World Bank Group, “Forcibly Displaced.” Retrieved from <https://bit.ly/2inMHso>

Physical Concept Overview

This unit is ultimately designed to serve as a climate-controlled general sheltering system. It can be assembled using only basic hand-tools (such as a screwdriver) requiring minimal technical know-how. The units will be shipped with written instructions printed in Ukrainian, English, and Russian, alongside pictures depicting step-by-step set-up. With an assembly time of just two hours, this shelter is truly user-friendly. There are three basic components to the system: a self-contained radiant heating system, a telescoping metal frame, and a thermally insulated weather-proof outer shell protected by robust marine fabric.

The majority of the heating system is contained in an insulated heating unit connected to the nearby power grid located on-site. This heating unit box will sit directly outside of the shelter, and connect directly with a network of pipes below the shelter flooring. The heating unit contains an electrical resistance water heater, an electric pump, and an expansion tank to prevent failure of the pipes due to excess pressure. The pipes are filled with a mixture of water and antifreeze to ensure continuous flow in below-freezing temperatures. As hot liquid is pumped from the heater, it goes out of the box, and into the network of pipes underneath the floor of the shelter. Liquid flows through the entirety of this network, and then back into the water heater to be reheated and circulated. The water heater is always on, and maintains a liquid temperature of 100 degrees Fahrenheit.



Inside the shelter, a temperature sensor relays data to a small computer. When the interior temperature drops to a specified low point of 60 degrees Fahrenheit, the computer tells the pump to turn on, and heated liquid will begin to circulate below the floor of the shelter. As heated liquid circulates, the interior temperature of the shelter will rise. Once the temperature reaches 64 degrees Fahrenheit (our target temperature), the computer shuts the pump off until the temperature drops back down to the lower temperature threshold. Thanks to the self-regulating radiant heating system, the unit achieves perfect temperature balance.

The expanding frame collapses down to the footprint of one pallet for transport. See Appendix C for more detail. Additional components, such as the heating unit and the insulated fabric, will fit inside the collapsed frame. The Teplo unit's ability to break down into a compact form is essential as it minimizes transportation costs from the production site. This frame system is secured to the

Physical Concept Overview (cont.)

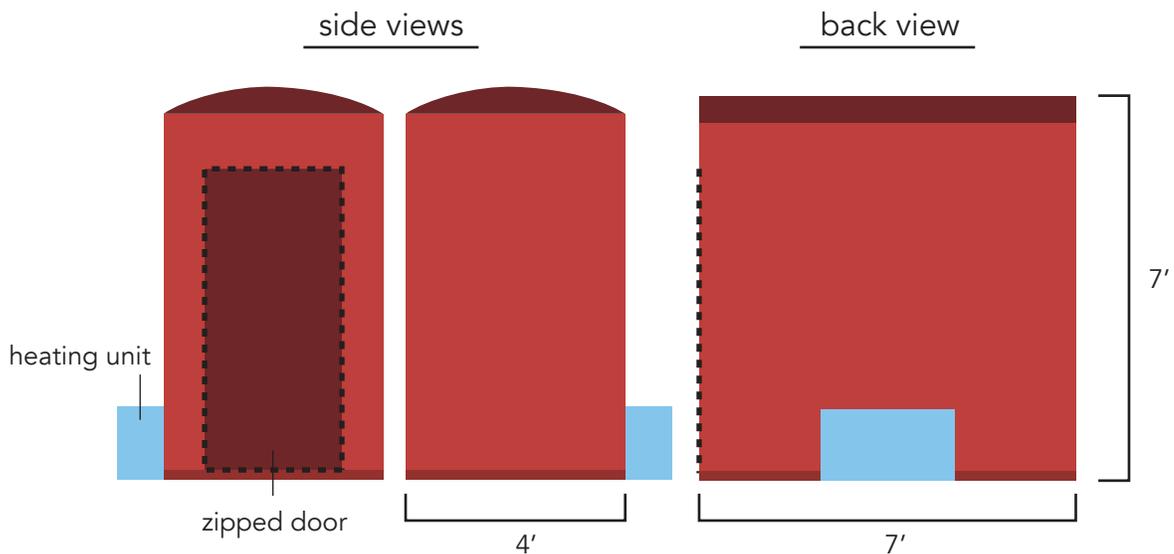
ground by an anchoring system consisting of repurposed shipping straps and spiral stakes designed to withstand gale force winds.

The weather-proof outer shell is insulated to USDOE energy efficiency standards, with R 17.5 insulation and a completely watertight marine fabric outer layer. Some of the shipping materials are used to facilitate insulation once the units arrive. The arched roof facilitates rain and snow run-off. The combination of waterproofing and high degrees of insulation ensures thermal stability and energy efficiency.

- Basic Technologies**
- 1 telescoping metal frame
 - 2 radiant heating system
 - 3 weatherproof shell

There are other features in the unit in addition to these three main technologies. Inside the shelter are electrical amenities, such as a basic reading light and one outlet for charging small devices such as cell phones. Updates on the unit will include a shelter management application. For more information, see Appendix B.

The Teplo unit is built to provide reliable shelter for four years under normal circumstances. The size of the unit is comparable to that of a three-person tent at 7'x7'x4', weighing a total of 120 lbs. The unit can be taken apart and rebuilt up to 3 times before it starts to lose any structural integrity. This ensures that the unit can be broken down, transported, and reassembled should outside circumstances dictate a move.



Production

Teplo plans to hire Sourcify to outsource our manufacturing process. Sourcify is a production sourcing company that connects entrepreneurs with factories overseas for a small percentage of the total order cost. Teplo chose to partner with Sourcify because they are committed to actively work to protect businesses by connecting them with trusted and vetted overseas factories.²¹ We will send Sourcify our product specifications and they will identify an appropriate production solution in China. Sourcify will then act as an ongoing facilitator between Teplo and our Chinese manufacturer. By outsourcing our production, we have chosen the most cost-effective way to manufacture our product because we will not need to invest large amounts of capital in factories or equipment. We can produce one unit for \$560 including material and labor costs, shipping, and the Sourcify finder's fee.

After three years of outsourcing our manufacturing process to a Chinese manufacturer, we will examine our finances and the demand for our product in order to determine if we should discontinue outsourcing and begin to produce the units in a factory in the United States. We will use a pull system of production since we will have set contacts with the relief agencies that have a specified amount of units needed. The pull inventory system will work best for our company because we can be confident about the amount of inventory we need and will not lose money due to excess inventory. After three years, if we decide to bring our production into the United States, we plan to continue with our just-in-time method of inventory to ensure that we are able to fulfill demand and decrease holding costs for inventory.

Distribution

The factory in China will be placed in charge of distributing our product to the Ukrainian camp. Overseen by Teplo's Director of Operations, we will remain in constant communication with the factory to ensure there are clear instructions. These include direction on how many units to send, where to send it, and when to send it based on our contractual and forecasted obligations. We will rely on the knowledge and familiarity with the region, of our manufacturer located in China to source the best raw materials. Teplo will take an active role will be to work actively with aid organizations to in order to coordinate the receiving of our units.

When collapsed, one ISO standard shipping container (8'x8.5'x40') will be capable of holding 48 shelters fitting on a small footprint of one standard pallet, and the reusability of the pallets and other shipping materials in the structural design of

²¹ Sourcify, "Everything You Need To Know About Manufacturing in China." Retrieved from <https://bit.ly/2XJCGJV>

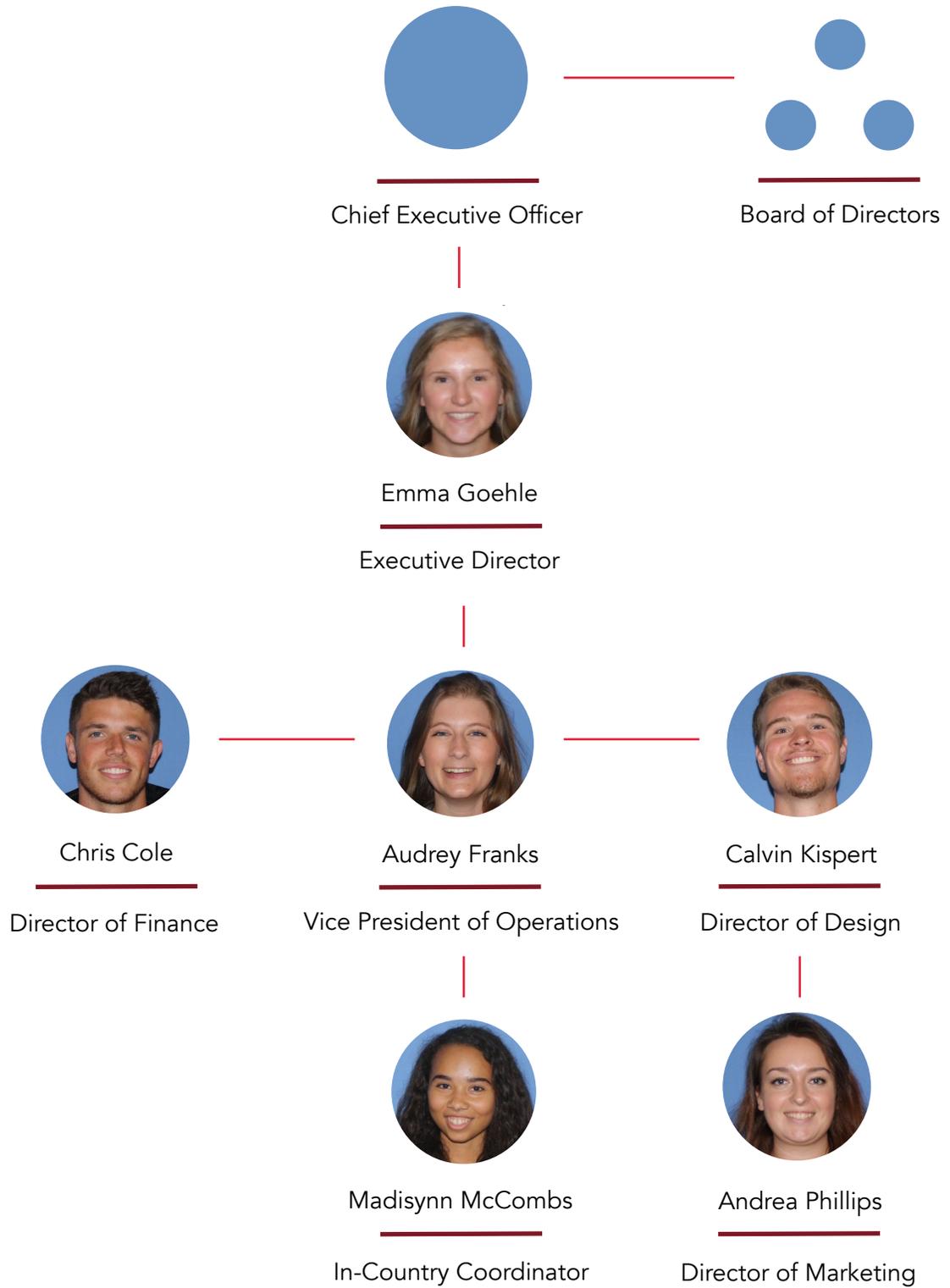
Distribution (cont.)

the final unit will greatly decrease waste at the final destination. For the Year 0 run of 1,000 shelters, shipping costs from China to Ukraine will amount to a total of \$43,291.50, or roughly \$43.29 per unit. An instruction manual will be included with the product, written in English, Russian, and Ukrainian, while including demonstrative pictures illustrating each construction step to ensure simple and consistent assembly. As a function of quality control, the In-Country Coordinator will continuously monitor and report the condition of the received products, and provide feedback to the Director of Design on how the shelter deploys on the ground.

Operations Chain



Personnel



Personnel (cont.)

During the first three years of operations, our company will consist of seven full-time employees. These include the following:

Chief Executive Officer — In order to equip our organization with the best possible leadership, we have chosen to bring in a CEO who is not within our current team. As CEO, they will: manage overall operations, seek out relations with various relief organizations, and touch base with each department to maintain employee morale. We have spoken with an individual, who has a background in relief and development work particularly in the area of refugee crisis, about the prospect of joining Teplo. She also currently serves as the executive director of an international health organization with more domestic and international interventions. She is passionate about our mission and is interested in exploring this new career.

Executive Director — Emma Goehle will drive business development through constant contact with global aid organizations, fostering relationships with key decision-makers to drive lead generation and growth opportunities, while providing insights from these interactions to influence the business vision. Her previous experience with working for Pilgrim Africa, a non-profit based in Uganda, has made her the ideal choice to handle customer service management (CSM). She also has experience in developing and maintaining donor relations, a crucial aspect to the success of our company.

Vice President of Finance — Chris Cole will ensure that we have sufficient capital to maintain operations and cover all expenses. He will also oversee the outsourcing of accounting work, and lead in the continual development of the business model in reaction to market conditions. Chris is qualified for the position due to his expertise in management, his exposure to corporate finance, and his experience in investment decision-making.

Vice President of Operations — Audrey Franks will be in contact with Sourcify and the factory in China to ensure a clear definition of product and supervise the production and supply chain operations including manufacturing and distribution. Audrey is majoring in Business Administration and has professional experience in facilitating coordination between people. With strong written and oral communication skills, she will make sure Teplo's supply chain runs smoothly and effectively.

Personnel (cont.)

Vice President of Design — Calvin Kispert will constantly be searching for ways to improve the design of the Teplo unit and make it more efficient, while working closely with the Marketing Director to create consistent messaging and visualization for the product. He will gather feedback from the In-Country Coordinator in order to fix design errors, add new features, and better communicate the product's benefits. As the engineering mind behind the Teplo shelter, Calvin has a holistic understanding of our product and its innovative technological base. He is the best-equipped member of our team to ensure maximum quality and the continued improvement of the shelter's features.

Marketing Director — Andrea Phillips will be seeking ways to advertise from a business to business perspective and make sure the public views our product, and company, in a favorable manner. She will also be in charge of seeking out and establishing corporate partnerships in order to further our customer base. With a background in business and psychology, Andrea is uniquely qualified to identify the needs and desires of the consumer and beneficiary markets, as well as the public at large.

In-Country Coordinator — Madisynn McCombs will operate on the ground in Ukraine to manage reception, deployment, and long-term viability of the product. She will also provide direct feedback on the product to the director of design to influence further product improvements. Madisynn has background and experience in global development, refugee crises in refugee camp settings, intercultural communications, reconciliation work, and resolving various emergency situations related to homelessness and housing crises. Madisynn also has experience in measuring customer satisfaction and impact measurement of development projects, making her uniquely qualified to monitor, measure, and communicate the efficacy of Teplo units in Ukraine.

Board of Directors — Comprised of stakeholders from various backgrounds. They will have diverse expertise in areas such as UNHCR partnerships and manufacturing. The board will contribute to the decision making process however, they will not act as ultimate power. Each board member will be required to provide a \$2,000 “buy-in” at the time of their entry to the board position. Annually, board members are expected to provide \$1,500 minimum to the organization.

Financial Overview

Start-Up Costs & Funding

Our asking startup cost is \$100,000 and would be financed through a combination of buy-ins from the board of directors plus capital from angel investors. We will also continuously receive donations from individuals and businesses who support our cause and believe that improvement in shelters is necessary for people who have been forcibly displaced. After evaluating our projected revenue for the first three years of operation, we have concluded that outsourcing is the best logical financial model to decrease costs across the board. However, due to the potential for high growth in the long term, we will reevaluate our model of outsourcing and assess any changes that need to be made after year three.

Operating Costs

For the first three years, our operating costs will include a Sourcify production fee, manufacturing expenses, administrative expenses, shipping expenses, and equipment expenses in our office. These costs are subject to change after the first three years due to various factors. These include bringing production stateside, using different manufacturers, hiring more employees, and adding shipping locations due to the expansion of our market consumer and beneficiary markets.

Cost & Pricing

Our unit will be priced at \$890 for the first year and increase by approximately 3% and 2% for years two and three, respectively. Currently, our manufacturing expense per unit is \$560 and will see minimal increases year over year. We calculated this cost based on the price for raw materials when ordering more than 1000 units at a time, which discounts the overall price because we are buying in bulk. The difference between production cost and selling price will be used to cover shipping expenses, market research, employee salaries and other administrative expenses.

Risk Analysis

After our extensive market research, we have determined there is a clear need for our product. However, there are still some risks regarding the demand for Teplo units. The main risk factor lies in the possibility of our product not being picked up by relief agencies like the United Nations High Commissioner for Refugees (UNHCR). To combat this risk, we will put maximum effort into establishing deep connections with relief agencies that lead to fruitful, long-lasting partnerships. Additionally, we will use a pull inventory method in which we will not begin manufacturing the units until an order is accepted, thus guaranteeing the revenue. Our low levels of inventory at any given time is one of the key components to our model.

During the first three years Teplo has an average current ratio of 2.27 which indicates low liquidity risk. Also, donations and investments from people who support our cause will allow us to operate with a small amount of long-term debt. This is demonstrated by a safe debt-to-equity ratio of 0.63 in our first three years, meaning that for every dollar of equity we raise we only take on 63 cents of long-term debt.

Another risk would be a mechanical failure in our heating system or damage to the shelter infrastructure. To minimize this impact each unit would be shipped with a few backup parts, like extra panels, which would be utilized should one aspect of the shelter fail. Our In-Country Coordinator will also be on site to assist with technological and structural malfunctions.

Income Statement

Income Statement			
	For Year Ended December 31		
Year	1	2	3
REVENUE			
Total Revenue	\$ 1,424,000.00	\$ 1,932,000.00	\$ 2,632,000.00
COGS	\$ 896,000.00	\$ 1,222,200.00	\$ 1,694,000.00
<i>Gross Profit</i>	\$ 528,000.00	\$ 709,800.00	\$ 938,000.00
Operating Expense			
R&D	\$ 30,000.00	\$ 36,000.00	\$ 42,000.00
SG&A	\$ 273,300.00	\$ 298,300.00	\$ 323,300.00
<i>Total Operating Expense</i>	\$ 303,300.00	\$ 334,300.00	\$ 365,300.00
Operating Income	\$ 224,700.00	\$ 375,500.00	\$ 572,700.00
Tax Expense	\$ 47,187.00	\$ 78,855.00	\$ 120,267.00
Net Income	\$ 177,513.00	\$ 296,645.00	\$ 452,433.00

Balance Sheet

Balance Sheet Year Ended December 31				
Year	Beg. Balance	1	2	3
<u>Assets</u>				
Cash	\$ 100,000.00	\$ 177,513.00	\$ 296,645.00	\$ 452,433.00
A/R	\$ -	\$ -	\$ -	\$ -
Inventory	\$ -	\$ -	\$ -	\$ -
<u>Total CA</u>	\$ 100,000.00	\$ 177,513.00	\$ 296,645.00	\$ 452,433.00
Gross PPE	\$ -	\$ 18,300.00	\$ 18,300.00	\$ 18,300.00
Less: Accum. Depr.	\$ -	\$ -	\$ -	\$ -
Net PPE	\$ -	\$ 18,300.00	\$ 18,300.00	\$ 18,300.00
<u>Total LTA</u>	\$ -	\$ 18,300.00	\$ 18,300.00	\$ 18,300.00
Total Assets	\$ -	\$ 195,813.00	\$ 314,945.00	\$ 470,733.00
<u>Liabilities</u>				
A/P	\$ -	\$ 23,000.00	\$ 33,000.00	\$ 89,000.00
N/P	\$ -	\$ 34,513.00	\$ 113,645.00	\$ 282,000.00
<u>Total CL</u>	\$ -	\$ 57,513.00	\$ 146,645.00	\$ 267,433.00
Long-term Debt	\$ -	\$ 38,300.00	\$ 48,300.00	\$ 103,300.00
<u>Total LTL</u>	\$ -	\$ 38,300.00	\$ 48,300.00	\$ 103,300.00
Total Liabilities	\$ -	\$ 95,813.00	\$ 194,945.00	\$ 370,733.00
<u>Shareholder's Equity</u>				
Shareholder's Equity	\$ -	\$ 100,000.00	\$ 120,000.00	\$ 100,000.00
Total Liabilities & Stockholder's Equity	\$ -	\$ 195,813.00	\$ 314,945.00	\$ 470,733.00

Statement of Cash Flows

Statement of Cash Flows				
Year	Year Ended December 31			
	0	1	2	3
Beginning Cash Balance		\$ 130,000.00	\$ 426,000.00	\$ 749,200.00
<u>Cash Flow From Operations</u>				
Net Income	\$ -	\$ 177,513.00	\$ 296,645.00	\$ 452,433.00
Plus Depr.	\$ -	\$ -	\$ -	\$ -
Less Accounts Payable	\$ -	\$ 23,000.00	\$ 33,000.00	\$ 89,000.00
Less Notes Payable	\$ -	\$ 34,513.00	\$ 113,645.00	\$ 282,000.00
<u>Net Cash From Operations</u>		\$ 120,000.00	\$ 150,000.00	\$ 81,433.00
<u>Cash Flow From Investing</u>				
Equipment	\$ -	\$ 18,300.00	\$ 18,300.00	\$ 18,300.00
<u>Net Cash From Investing</u>	\$ -	\$ 18,300.00	\$ 18,300.00	\$ 18,300.00
<u>Cash Flow From Financing</u>				
Net Equity Raised	\$ 100,000.00	\$ 120,000.00	\$ 100,000.00	\$ 40,000.00
Net Donations Raised	\$ 30,000.00	\$ 36,000.00	\$ 43,200.00	\$ 51,840.00
Plus Net New LT Debt	\$ -	\$ 38,300.00	\$ 48,300.00	\$ 56,000.00
Plus Net New Bank Borrowings	\$ -	\$ -	\$ -	\$ -
<u>Net Cash Flow From Financing</u>	\$ 130,000.00	\$ 194,300.00	\$ 191,500.00	\$ 147,840.00
Total Cash Flow	\$ 130,000.00	\$ 426,000.00	\$ 749,200.00	\$ 960,173.00

Sales Plan

Sales Plan								
Year 1			Year 2			Year 3		
Product Price	Unit Sales	Sales in \$	Product Price	Unit Sales	Sales in \$	Product Price	Unit Sales	Sales in \$
\$ 890.00	1600.00	\$1,424,000.00	\$ 920.00	2100.00	\$1,932,000.00	\$ 940.00	2800.00	\$2,632,000.00

Expenses

Human Resources Plan					
Year 1		Year 2		Year 3	
Position	Salary	Position	Salary	Position	Salary
CEO	\$ 70,000.00	CEO	\$ 77,000.00	CEO	\$ 84,000.00
Executive Director	\$ 50,000.00	Executive Director	\$ 55,000.00	Executive Director	\$ 60,000.00
Director of Finance	\$ 35,000.00	Director of Finance	\$ 38,500.00	Director of Finance	\$ 42,000.00
VP of Operations	\$ 35,000.00	VP of Operations	\$ 38,500.00	VP of Operations	\$ 42,000.00
Director of Design	\$ 30,000.00	Director of Design	\$ 33,000.00	Director of Design	\$ 36,000.00
Director of Marketing	\$ 30,000.00	Director of Marketing	\$ 33,000.00	Director of Marketing	\$ 36,000.00
Total Salary Cost	\$ 250,000.00	Total Salary Cost	\$ 275,000.00	Total Salary Cost	\$ 300,000.00

Expenses (cont.)

Selling, General and Administrative Expenses					
Year 1		Year 2		Year 3	
Rent Expense	\$ 12,300.00	Rent Expense	\$ 12,300.00	Rent Expense	\$ 12,300.00
Salary Expense	\$ 250,000.00	Salary Expense	\$ 275,000.00	Salary Expense	\$ 300,000.00
Supplies Expense	\$ 5,000.00	Supplies Expense	\$ 5,000.00	Supplies Expense	\$ 5,000.00
Utilities Expense	\$ 6,000.00	Utilities Expense	\$ 6,000.00	Utilities Expense	\$ 6,000.00
Total	\$ 273,300.00	Total	\$ 298,300.00	Total	\$ 323,300.00

Research and Development Expenses					
Year 1		Year 2		Year 3	
Total	\$ 30,000.00	Total	\$ 36,000.00	Total	\$ 42,000.00

Manufacturing Expenses					
Year 1		Year 2		Year 3	
Raw Materials Expense	\$ 490.00	Raw Materials Expense	\$ 510.00	Raw Materials Expense	\$ 530.00
Sourcify Fee Expense	\$ 40.00	Sourcify Fee Expense	\$ 42.00	Sourcify Fee Expense	\$ 45.00
Shipping Expense	\$ 30.00	Shipping Expense	\$ 30.00	Shipping Expense	\$ 30.00
Total Cost per Unit	\$ 560.00	Total Cost per Unit	\$ 582.00	Total Cost per Unit	\$ 605.00
Unit Price*Units Sold	\$ 896,000.00	Unit Price*Units Sold	\$ 1,222,200.00	Unit Price*Units Sold	\$ 1,694,000.00

Total Expenses					
Year 1		Year 2		Year 3	
TOTAL EXPENSES	\$ 1,199,300.00	TOTAL EXPENSES	\$ 1,556,500.00	TOTAL EXPENSES	\$ 2,059,300.00

Future Plans & Projections

While currently the Teplo unit can hold three people, we recognize that not all families come in this size, so we are focused on adding the ability to connect our units together. With this in mind, the Teplo unit will be fully modular within year one of production as it is a high priority feature to develop. Being able to connect the units together would enable large families to stay within the same unit. Teplo believes that while these families are experiencing times of high stress and uncertainty, they should be able to have a shared, unified space.

We at Teplo are also always looking to expand our beneficiary market base and so after the first five years in business we plan to expand to more countries that are affected by severe cold weather. The problems of cold climate conditions and lack of shelter that IDPS face are not unique to Ukraine. In the first week of 2017, four refugees died of hypothermia at the Moria refugee reception center in northern Greece, prompting the Greek government to house the entire camp on Navy ships until the cold snap had subsided. Earlier this year, Syrian refugees in Lebanese camps faced consistent failure of shelters due to harsh weather conditions leading to the deaths of 16 individuals after a frigid January storm.²² These cases are farther south from Ukraine but show the same need exists for warmer, more reliable shelter for displaced persons across multiple countries.

Currently in development for the future of Teplo is the creation of an administrative app to aid in our reporting mechanisms. Since we offer a unique product for cold weather climates our hope is to become the premier name in providing relief shelter. With this in mind, we imagine entire encampments comprised of our units. We would sell a subscription to this app to the relief agencies and charge them a yearly fee. This app would have the ability to map out the placement of the units in the encampment, show what individuals are located in which units, and show if a unit is breaking.

The app would be equipped to monitor internal temperatures of the units as well as electricity usage. If either metric rose above or fell below an acceptable level, an alert would be sent to our in-country coordinator, the relief agency, and our director of design. Working together these parties would be able to diagnose the problem and implement solutions. In order to keep up to date on ways to better our shelter, the app will also serve as a means to report issues and request maintenance in the unlikely event our should require it. This app will provide more up to date reporting metrics on our units as well as a recurring stream of revenue. Teplo plans

²² AP News, “Storm Kills Syrian Girl in Lebanon, causes widespread damage.” Retrieved from <https://bit.ly/2EMDZPJ>

Future Plans & Projections (cont.)

on releasing this development within our first three years. See Appendix B for additional details.

As Teplo looks towards future expansion, we also recognize that not all countries will have the necessary infrastructure developed and accessible in the way Ukraine provides. To remedy this problem we plan on partnering with Nant, a company that produces air-breathing rechargeable zinc batteries. The batteries produced by Nant use zinc, oxygen, and energy from the sun to produce a sustainable, clean source of energy. This partnership will allow Teplo to expand to underdeveloped countries and simultaneously lessen our impact on the environment.

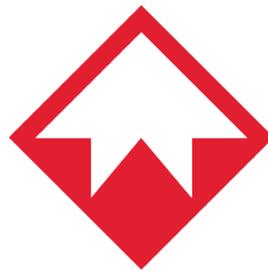
Another future expansion opportunity for Teplo is the venture into creating a unit that has heating and cooling capabilities. Applying Teplo technologies to create an insulated unit that maintains an internal cool temperature would expand our beneficiary population to include forcibly displaced persons in warm-weather climates who are seeking shelter that stays cooler than the outside temperature.

Additionally, we recognize that our unit could be put towards various applications within the United States. Teplo would work with local organizations to provide homeless populations with units in places that experience extreme weather conditions. If after three years we decide to bring our production back from overseas we would like to further consider this application of our product. Seattle's high population of people experiencing homelessness and frigid winter temperatures makes it the ideal place to test the openness of the United States market to our product with the mindset of further expansion.²³

²³ The Seattle Times, "Tiny Home Villages are a key Part of Seattle's Homelessness Strategy." Retrieved from <https://bit.ly/2tW1AuA>

Concluding Statement

At Teplo, we believe that providing refugees and IDPs in Ukraine with weather-proof shelters has implications that transcend far beyond having a warm place to sleep at night. In addition to benefiting overall health and well-being, Teplo units will increase feelings of security, reduce housing insecurity, and take a step in the direction of positive change by restoring a sense of human dignity. Regardless of circumstances or legal status, no one should sleep in below-freezing temperatures without sufficiently warm and safe shelter. We are truly passionate about our goal of making Teplo shelters available for those who need shelter security around the world. While our dreams are attainable, we cannot do it without the help and partnership of others who are also passionate about helping vulnerable people. Contributing to the Teplo vision will make an impact that would resonate with people all over the world. Contact info@teplo.com with any inquiries about investment and/or donation opportunities.



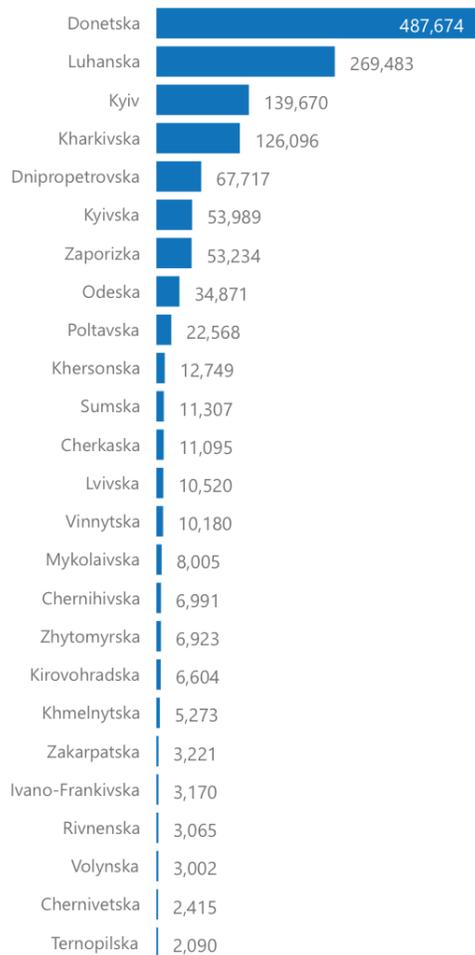
teplo

Appendix A-1

UNHCR | Ukraine Registration of Internal Displacement

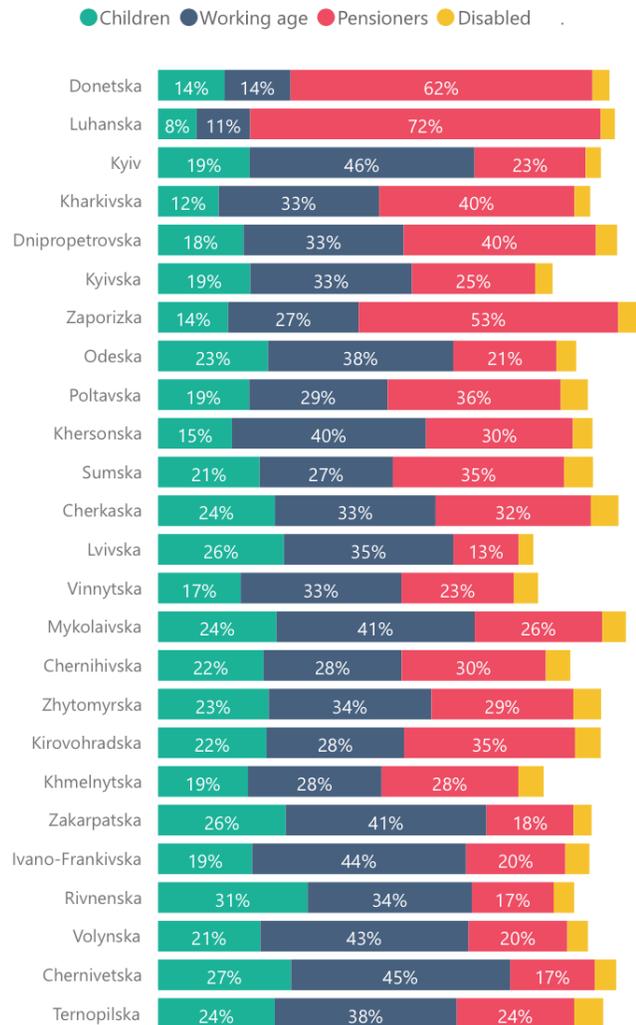
Source: Ministry of Social Policy (MoSP) / Last update: 5 February 2019

Number of registered internally displaced persons (IDPs) by Oblast



Contact: UkraineInfoManagement@unhcr.org

IDPs by Category by Oblast



This chart reflects the distribution of IDP categories to the total numbers of IDPs. The s

Appendix A-2

1,361,912

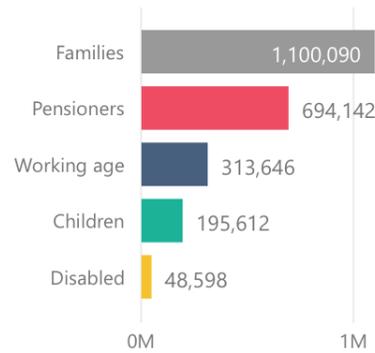
Registered IDPs in MoSP Database

Internal displacement figures are reported by the MoSP of Ukraine, and show the number of registered IDPs since the beginning of the conflict. UNHCR is not responsible for any inaccuracy.

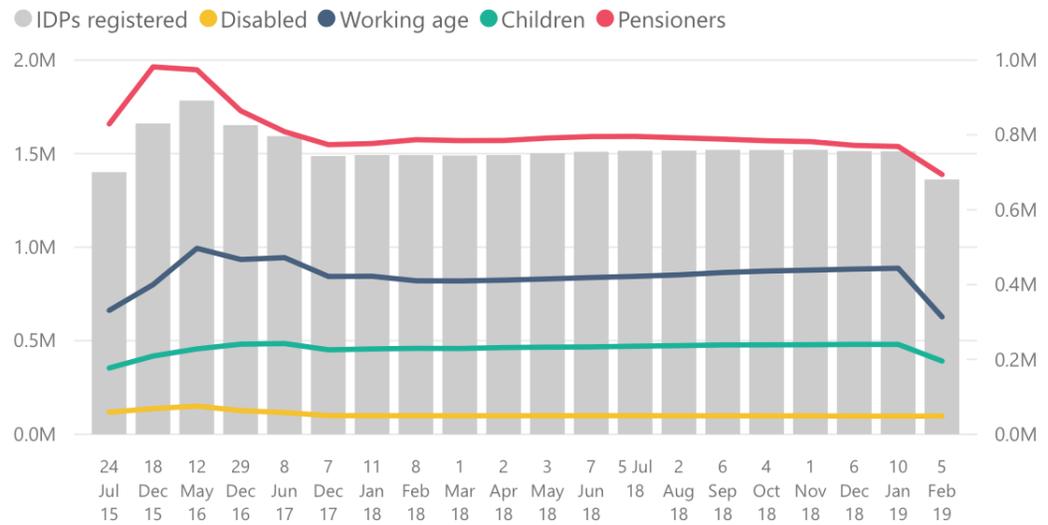
Distribution of IDPs by Oblast



IDP Categories



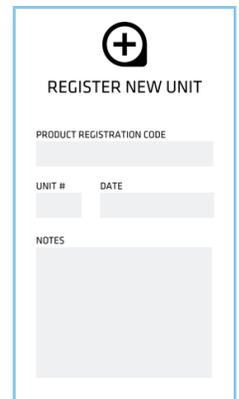
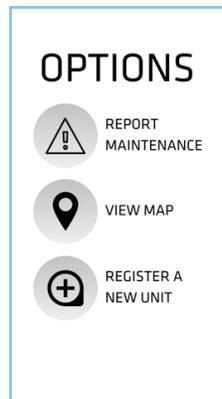
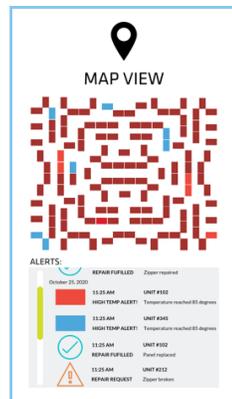
Categories (lines - right axis): Monthly trend



Ukraine Ministry of Social Policy, Registration of Internal Displacement, report to UNHCR; retrieved from <https://bit.ly/2CZaLzr>

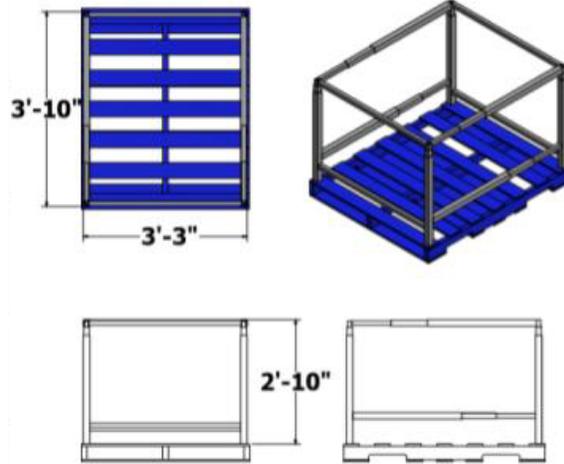
Appendix B

The development of the Teplo App in the near future will streamline reporting and allow for real-time updates on the condition of the units. Developing an app and charging a yearly fee for its use will also serve as another stream of revenue for Teplo. By offering the app in conjunction with units, Teplo incentivizes the widespread usage of the Teplo unit.

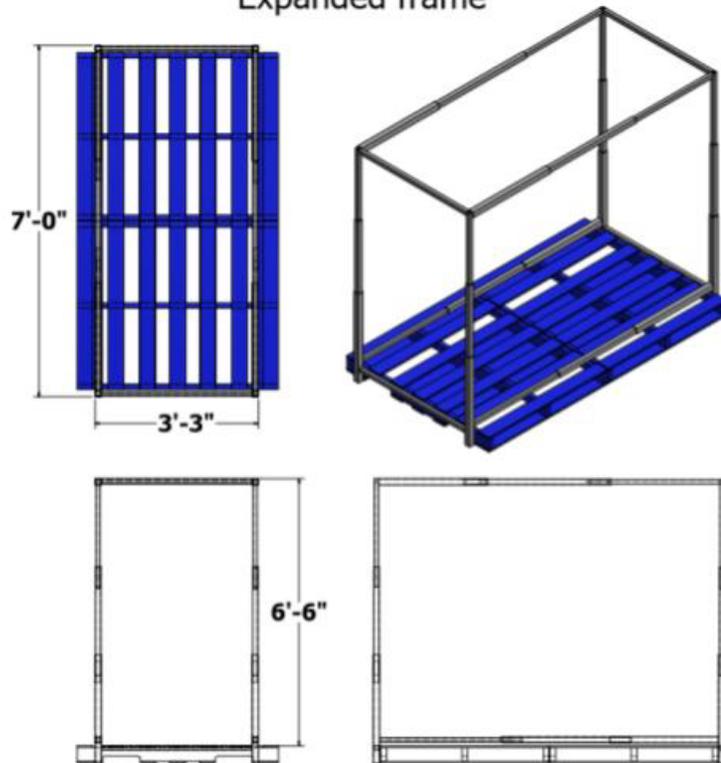


Appendix C

Collapsed frame



Expanded frame



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