

Geneva Challenge 2020

Empowering Modern Mongolian Nomads to contribute to the
Sustainable Development of their Country–

A Platform Solution to address Social Inequality



GerBound

Invest in People. See the Impact.

Abstract

The following paper proposes a platform solution to the vast problems of Mongolia, which are rooted in the history of the country and manifest themselves in a variety of ways in the peri-urban areas of Ulaanbaatar (Ger areas). The recent urban migration of traditional nomadic herders into these Ger areas has shed a light on the social inequality inherent in the Mongolian society. Local innovators lack the social, as well as human capital to actively contribute to solving these issues. The majority of successful local efforts are headed by Mongolians that studied or worked abroad, tapping into their newly-developed network overseas to receive funding and support. **While the Mongolian innovation ecosystem lacks the resources to foster local projects, there is an untapped potential of Mongolian diaspora that is able to fill these gaps. We propose a platform, GerBound, that matches these two complementary parties and allows Mongolians from abroad to contribute to local projects through donations and expertise. The platform provides resourceful Mongolians overseas with a channel to transparently evaluate local initiatives and then fund or support the project with expertise, mitigating brain drain and contributing to the sustainable development of Mongolia.**

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Content

1. Introduction.....	4
2. Problem description	5
2.1 Historical context: About nomads and global business people.....	5
2.2 Challenges for rural nomads and urban migration.....	5
2.3 Resulting problems in the urban area.....	7
2.3.1 Limited employment opportunities, discrimination and exploitation.....	8
2.3.2 Quality of education	8
2.3.3 Air pollution.....	8
2.4 Problem definition and our approach.....	9
2.5 Gaps in the Mongolian innovation ecosystem.....	9
2.6 Untapped potential abroad - the Mongolian diaspora as a missing piece.....	11
3. Our Platform Solution – GerBound	13
3.1 Target user segment.....	14
3.2 Value Proposition - Matching of local projects and international supporters	15
3.3 Elements of collaboration.....	17
3.3.1 Financial contribution	17
3.3.2 Contributing with expertise	18
4. From Idea to Business.....	19
4.1 Key Partners.....	19
4.2 Short-term planning.....	20
4.3 Long-term planning.....	21
4.4 Channel partners and communication	22
4.5 Feasibility and proof of concept.....	22
5. Platform governance, monitoring and evaluation.....	24
5.1 Platform governance.....	24
5.2 Monitoring and evaluation plan for project performance	24
6. Risk assessment and mitigation.....	26
6.1 Ethical risks	26
6.2 Political risks.....	27

6.3 Platform strategy risks	28
7. Conclusion	29
Appendix.....	30
Appendix 1- Poor sanitation, hygiene and insufficient waste management.....	30
Appendix 2 - Filtering mechanism for projects.....	32
Appendix 3- Our project journey.....	33
Appendix 4 - GerHub collaboration.....	34
Appendix 5 - Knowledge transfer model	35
List of References	36

I. Introduction

Since transitioning to democracy in 1990, the real GDP per capita in Mongolia has more than doubled. Within less than four years, however, Mongolia moved from being the world's fastest growing economy in 2012 to receiving the 4th highest IMF bailout in history in 2016 (IMF, 2017). Since then, social inequality in Mongolia has deepened and the poverty risk has significantly increased (UNDP Mongolia, 2019). The severity of the situation becomes nowhere as visible as in the outskirts of Ulaanbaatar.

Throughout the past decades many nomadic families have moved to the fringe areas of Ulaanbaatar as economic and ecological challenges significantly increased the pressure on the fragile nomadic lifestyle.

The term *Modern Nomads* is often used to refer to Mongolians who practiced nomadic pastoralism using modern technology such as smartphones and solar panels, but are increasingly migrating into the urban areas of the country (Smith, 2014). A second meaning, refers to those Mongolians who leave the country behind to study or work abroad.

Both of these groups can be seen as 'symbolic' for Mongolia's development after the transition from a socialist to a capitalist system and perfectly illustrate the dichotomy inherent in the society. While a small share of the population could profit from the economic upswing of the market economy and receive access to world-class education abroad, other traditional nomadic families soon fell behind and saw themselves confronted with poverty.

Previous initiatives trying to reduce this inequality have proven to be difficult to implement given the country's unique context. Flores and Samuel (2019) therefore argue that in order to make Mongolia's economy more competitive, while preserving its cultural heritage, initiatives have to be developed in a collaborative effort with the local community. While literature shows that there is local innovation activity in Mongolia, nomadic families do not have the finances nor the social capital to implement and scale their ideas.

Our paper therefore proposes a platform solution called *GerBound* that addresses these local gaps. Ger is the Mongolian word for the traditional nomadic tent, but literally translated also means home. With respect to this deeply rooted cultural heritage, the name *GerBound* was chosen to reflect the integration of the *Modern Nomads* living outside of Mongolia in the social development of their home country.

In the following, we will start with a description of the causes and effects of social inequality in Mongolia. Based on that problem definition, our solution is derived and presented. Afterwards, we describe the implementation, followed by platform governance and potential risks, before we conclude.

2. Problem description

2.1 Historical context: About nomads and global business people

Although this paper wants to elaborate on the social challenges of contemporary Mongolia, many aspects of social inequality today occur on the background of the country's turbulent history. The historical account will show that social inequality is not a recent phenomenon but instead, is historically rooted in the history of Mongolia transitioning from a socialist regime to free market economy.

During the socialist era between 1921-1990 the state owned the country's livestock, which provided the basis of living for Nomadic families. Meanwhile, the government established a social welfare state along an institutional model, which reportedly led to lower levels of social inequality, providing universal health coverage, guaranteed employment and free education for everyone (Smith, 2014). Mongolia soon achieved an outstanding reputation within the socialist countries for their 10-year school system and the high literacy rates throughout the population (Sanders, 1987).

Although formal measures suggest that inequality was relatively low in Socialist Mongolia, scholars found that soon informal networks developed as a way to exchange "favors of access". Consequently, some people received access to preferential treatment depending on their position in the country, which laid the cornerstone for corruption (Dalaibuyan, 2012).

With the dissolution of the Soviet Union in 1990, the informal networks became more monetary and instrumental in character (Ledeneva, 1997). To transition to a market economy as quickly as possible, Mongolia applied a radical "shock therapy", which involved the cutting of social services and the privatization of collective companies and herds.¹ The informally well connected people received privileged access to the privatization of state-owned assets. Many nomads, having no prior experience with capitalism, quickly cashed out their share of the collective (Smith, 2008). Also, it reportedly became even more difficult for disadvantaged groups to enter the elite circles (Dalaibuyan, 2012).

While for large parts of the society, vital products such as bread were rationed, a small number of Mongolians could benefit from the new market economy and shop in the 'museums of capitalism' - large stores in Ulaanbaatar selling exclusive products from the Western world. According to Bayartogtokh (2017), by now more than 99% of the stocks listed on the Mongolian Stock Exchange are owned by 5% of all shareholders, illustrating how two 'parallel societies' have developed in Mongolia.

2.2 Challenges for rural nomads and urban migration

A major part of the economic growth in Mongolia is associated with the mining industry. While the mining boom came without a doubt to the benefit of the Mongolian economy, the nomadic people in the countryside were the ones suffering from the negative consequences, as mining is heavily tied to carbon

¹ A CNN press article from 1998 describes how Harvard students were sent to Mongolia to teach the locals about capitalism. Subsequently, a stock exchange was opened in a former cinema, where herders could trade shares in local companies. Shortly after the Harvard students left, the newly trained Mongolian bankers lost 80% of Mongolian foreign exchange reserves speculating on foreign markets (CNN, 1998).

emission and environmental pollution. The recent change in climate, desertification, soil degradation and overgrazing of herds, increase the pressure on the fragile lifestyle of nomadic pastoralism, giving rise to the extreme inequalities in today's society (Dierkes, 2012).

There has been a higher frequency and severity of a naturally occurring phenomenon known as Dzud ("white death") in the past 30 years, "severe winter weather storms in which extreme cold, heavy snow and strong winds prevent cattle and other animals from feeding over long periods of time" (Batchuluun, 2005). The higher frequency of Dzuds coupled with an increased amount of droughts during the summer months leave the livestock of herders more vulnerable to these natural disasters (Hahn, 2018).²

Recently, the frequent occurrence of dzuds has led to a mass migration into the urban areas. After the transition to market economy the organization of herders in collectives ("negdels") was abolished, removing access to a minimum of income, subsidized staple food and support during natural disasters. This now leaves herding communities solely reliable on their livestock and increases their vulnerability to calamities (Mearns, 2004). Furthermore, spatial mobility and urban migration were restricted under the socialist regime through a travel permit system, preventing herders from leaving their administrative districts (Sanders, 1987). The removal of this system, combined with increased pressure on the traditional nomadic lifestyle, led many herders to move to the capital city Ulaanbaatar in hope for a better economic situation (Benwell, 2013).

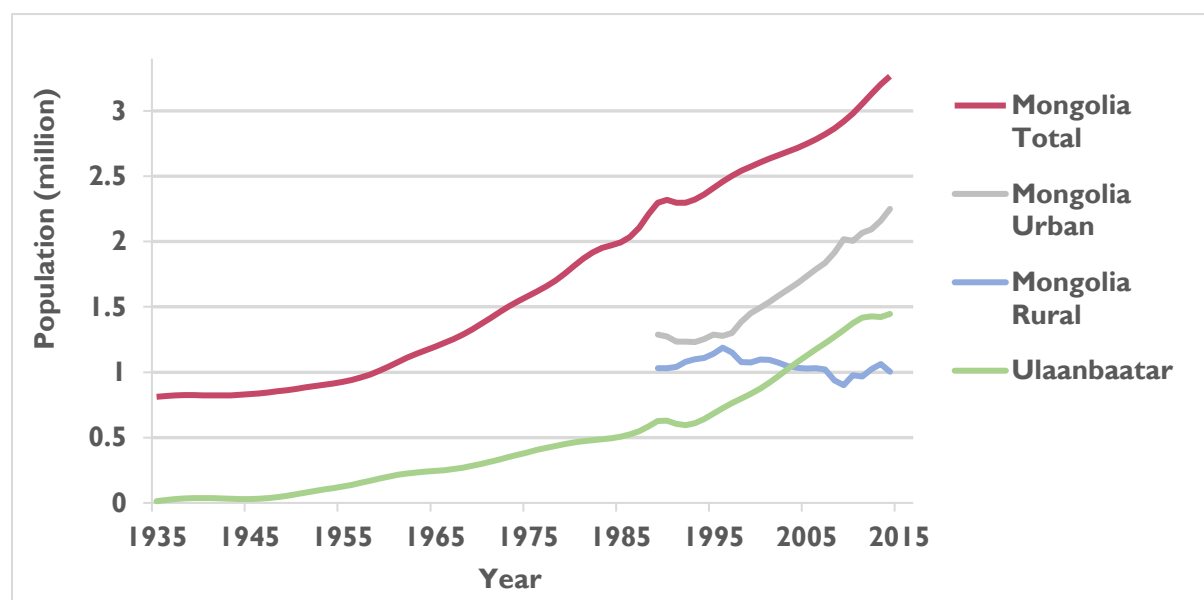


Figure 1: Historical development of the population in Mongolia and Ulaanbaatar (Source: National Statistics Office of Mongolia, 2018)

The resulting urban migration into the capital city can be seen in Figure 1, which demonstrates the reduction of herders remaining in the countryside and the increased share of the total population residing

² During the Dzuds in the years 1999-2001, 25% of the national livestock perished, resulting in economic losses up to 1 billion USD (BBC, 2000). Approximately 11-12 million animals died, 70% of the pastureland was negatively affected and over 12,000 nomadic families lost their entire herd, with many more remaining with too few animals to sustain their lifestyle as herders (Hahn, 2018). Meanwhile, Mongolia's gross agricultural product decreased by 40% and the national GDP fell by 38% (Mongolian Statistical Yearbook 2003).

in Ulaanbaatar. Every year approximately 30-40,000 new herders settle in at the outskirts of Ulaanbaatar in so-called Ger areas, where approximately half of the city's population of 1.6 million people lives (Mayer, 2015). According to the Law on Allocation of Land to Mongolian Citizens for Ownership, every Mongolian national is entitled to claim 0.07 ha of land as his private property, which has facilitated the process for herders of moving into the Ger districts, but complicated the development of a functioning infrastructure system (Buxbaum et al., 2016). Initially, the USSR built the capital with an infrastructure for a maximum capacity of 600.000 people, which was already surpassed in the year 2000 (Altai, 2013).

The majority of Ger area inhabitants still live in their badly insulated traditional nomadic tents or in poorly constructed wooden houses.³ The formation of these peri-urban areas reveals the underlying social divide between nomads and the urban population and manifests itself today in strikingly visible ways, which will be further examined in the following chapter.

2.3 Resulting problems in the urban area

The migration of the traditionally nomadic people into the Ger area (Figure 2) fueled the development of a variety of complex issues, such as high levels of unemployment and poverty, poor access to quality education, severe air pollution and inadequate waste management. Given the fact that these problems are complicated and heavily intertwined, this paper will only briefly touch upon these issues to demonstrate their severity in Mongolia.



Figure 2: View of Ulaanbaatar with Ger areas in the background (GIZ, 2018)

³ Approximately 40% of the dwellings in the ger area are gers, while 60% are one or two-story (wooden) houses. Overall there were 86,000 gers, 106,000 houses and 179,000 apartments in the capital city in the year 2014 (Hill et al., 2017).

2.3.1 Limited employment opportunities, discrimination and exploitation

Ger area inhabitants often report difficulties finding a job, as they lack the necessary qualifications and face discrimination due to their age, gender or background as herders (International Organization for Migration, 2018). As a consequence, they often end up working in informal, often illegal, physically intensive labor jobs under inhumane working conditions, where pay is low and frequently delayed or never paid out at all. Almost 45% of the ger area inhabitants are under the poverty line compared to only 16% of residents in formally planned areas (UNDP Mongolia, 2019). While the unemployment rate in the capital lied at 11.6 % in 2019, the unemployment rate in the Ger areas stood far above this number at 60%. Furthermore, many of the herders that migrate into the city lack official documentation and thus lack important access to government support systems like health care or social services, which further increases their vulnerability and risk of exploitation in the capital city (Beasley, 2018).

2.3.2 Quality of education

While only 4% of the children living in formal urban areas did not attend school in 2013-2014, the number was considerably higher for children living in the Ger area with 14% (Bayarsaikhan, 2017). The most prominent reason for school dropout and illiteracy in poor families is child labor, as families lack the financial means to send their children to educational institutions and require the children to contribute to the income of the household (Gerelmaa, 2005).

The education Gini coefficient, which measures the inequality for educational attainment in Mongolia's population, has declined between 2002 and 2012 for all educational levels, but not for the tertiary education, reflecting the continual low share of university students coming from the Ger area (Banzragch et al., 2019). While the privileged families can afford to send their children abroad for higher education, a much larger share of Mongolia's youth consists of children from the Ger area, who lack access to these opportunities. While the share of uneducated people in rural areas is approximately three times higher than in urban areas, the high concentration of people and overcrowdedness in the Ger area leads to significantly worse problems, as schools are filled to their maximum capacity (Pastore, 2009).

2.3.3 Air pollution

Air pollution has officially been declared a state emergency by the Mongolian government in 2017 and a health crisis for children by UNICEF in 2018 (UNICEF, 2018). The current air pollution levels exceed the recommended safe standard of the WHO up to 10 times, which is mainly caused by the 800,000 residents living in the Ger districts (Lim et al., 2018). One household burns on average ~5 tons of coal and ~3 tons of other cheap material like wood or plastic for cooking and heating every year (Guttikunda, 2008). As the area lacks the necessary infrastructure to reliably generate electricity for the households and the majority of people cannot afford any other method to heat their poorly insulated Gers or wooden houses during the winter months with temperatures below -40° Celsius, the locals resort to burning coal as their cheapest option to withstand the cold, despite being aware of the severe negative health consequences for their families (GIZ, 2018).

There has been a rapid increase in respiratory and cardiovascular diseases, birth complications, and neurodevelopmental disorders linked to exposure to hazardous air particles, which most negatively impacts young children and pregnant women (Hill et al., 2017). Air pollution in UB is estimated to be

responsible for 1,400 deaths annually and 40,000 disability-adjusted life years. Approximately 29% of cardiopulmonary deaths, 40% of lung cancer deaths and almost 10% of all deaths in UB are attributable to air pollution (Allen et al., 2013).⁴ In addition, the long-term health consequences for children growing up under these conditions, such as reduced IQ, decreased pulmonary function and neurodevelopmental disorders, further exacerbate the disadvantage of the Ger area residents. These descriptions provide only a snapshot and do not capture the full extent of the vast problems in the Ger area.⁵

2.4 Problem definition and our approach

In conclusion, there are many severe and wide-ranging problems resulting from the social exclusion of nomadic herders, that together work as a negative downward spiral for Ger area residents and contribute to further increase the social divide between them and the residents of formal urban areas. Although the problems are very concrete in the form of air pollution and unemployment for example, the causes are often complex and multifaceted. Few, if any, of the Ger area problems can be classified clearly as an economic, social or environmental problem. Moreover, social inequalities somewhat normalized throughout the years, as manifested in the lower quality of social services accessible to the people living in Ger areas.

In order to address the increasingly complex problems of Mongolia, one needs to deviate from incremental, sector-specific development initiatives. The UNDP (2019) claims that trying to address the emerging challenges of local communities with traditional development approaches can lead to a 'relevance gap'.⁶ The UNDP tries to overcome this gap by establishing Accelerator Labs, which instead of imposing initiatives in a top-down manner, connects local projects to a worldwide learning network. According to Flores & Samuel (2019) grassroot organizations⁷ constitute an important and widely untapped resource for the sustainable growth of developing countries.

In the following, we will describe in more detail the current needs of the Mongolian innovation ecosystem and the role that the Mongolian diaspora can play to help scale ideas and thus service the Mongolian community more widely.

2.5 Gaps in the Mongolian innovation ecosystem

An extensive field study conducted by MIT further investigated the Mongolian innovation landscape and found that there is a lack of available funding, human capital, as well as low collaboration between the different stakeholders (Ong and McKnelly, 2016). While government funding is mostly only attainable for

⁴ The direct cost for the public health authorities in 2016 for children aged between 0-18 were 4.8 million USD and indirect cost in lost productivity were estimated to be 9 million USD. Both direct and indirect costs are projected to increase to 9.8 million USD and 18.4 million USD by 2025, respectively (UNICEF, 2018).

⁵ For a more detailed account of additional ger area problems, refer to Appendix I

⁶ The UNDP defines the relevance gap as the "difference between what UNDP has traditionally delivered" (2019, p. 4) and the changing nature of development needs. Traditional approaches are thereby characterized by centralized planning and control and high reliance on external experts.

⁷ Grassroot organizations are usually groups of people with common interests often immediately tied to challenges of local communities. These groups often have an activist/social-movement like character (Flores & Samuel, 2019).

larger enterprises, there is minor local venture capital funding available for social businesses. Bank loans are mostly inaccessible with average interest rates of 18-22 % p.a., requiring immovable physical collateral and a stable business history. As a result, **innovators rely on their personal resources and network for funding, often receiving financing from family and friends or personal connections to wealthy individuals in an informal way.** The very few available funding options lead to a competition and low collaboration between the different entrepreneurs trying to secure financing for their businesses.

Another study from McKeon (2016) conceptualizes the innovation process into four steps: ideation, incubation, acceleration and subsequent scaling (Figure 3). Almost all challenges that Mongolian innovators expressed during the study refer to the acceleration and scaling of projects. Relevant business knowledge (e.g. create business plan) is limited as universities still emphasize theoretical knowledge over practical skills. Moreover, **locals are reluctant to cooperate with the government as this means politicizing the entrepreneurial endeavour** (McKeon, 2016). Also many innovators miss the guidance of mentors, as illustrated by the following quote: “Had there been mentors or resources available to the startup in its earliest stages, the startup might have corrected its mistake and began product development much earlier” (Ong and McKnelly, 2016).

Meanwhile, most players of the Mongolian innovation ecosystem are operating in the ideation and incubation phase, with few organizations supporting local innovators in the later stage of the process. Consequently, **the local innovation community operates isolated from the international community overseas, with negligible foreign presence and interactions.**

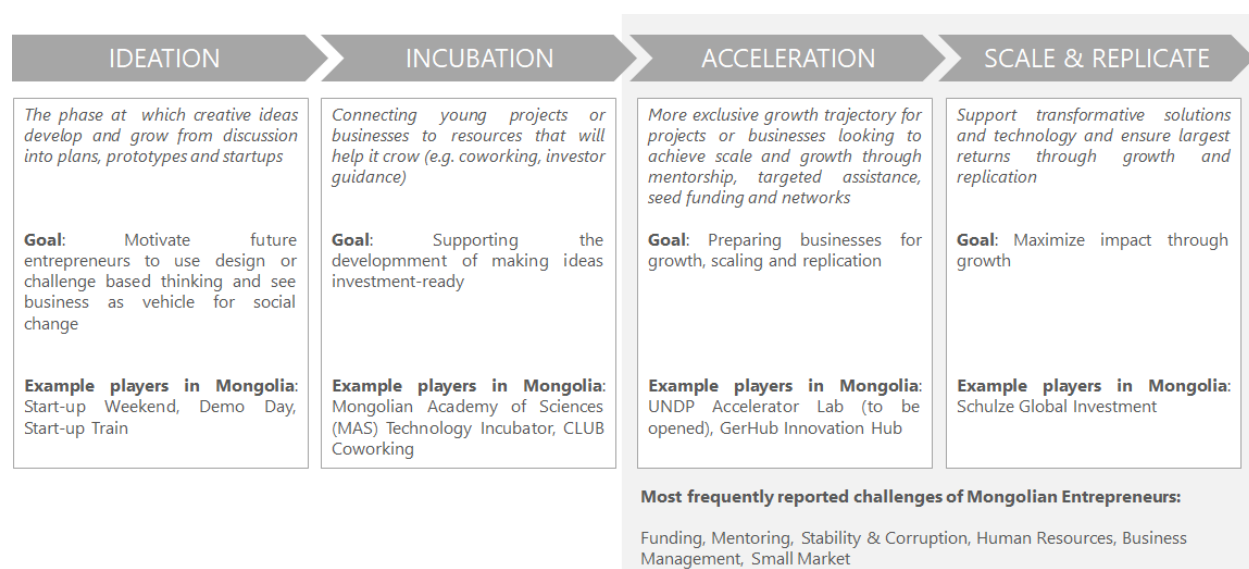


Figure 3: Innovation process and challenges in Mongolian ecosystem (Source: Adapted from McKeon, 2016)

Nevertheless, there are still a few local entrepreneurial endeavours that stand out. One prominent example is GerHub, which so far has reached several hundred Ger inhabitants with creative design workshops. Moreover, GerHub currently develops a so-called ‘Ger Plug-in’, which, instead of replacing the Ger as such, provides valuable additions to the structure such as improved sanitation and an underfloor heating system.⁸

⁸ For more information about GerHub and the Ger Plug-In visit <https://gerhub.org/>

Similar to most other successful efforts, GerHub is led by Mongolians who have studied and worked abroad, returned to Mongolia and leveraged their foreign network to import expertise and financial capital from overseas (McKeon, 2016). The organization currently cooperates with the Hongkong University of Science & Technology, Wharton School of the University of Pennsylvania and Stanford University. No such cooperation exists with a domestic university (Internal Document GerHub, 2020).

While Mongolians that live abroad are generally willing to contribute to the sustainable development of the country, not everyone can be expected to return to Mongolia and address the issues on the ground. This leads to enormous untapped potential, which will be shown in the next section.

2.6 Untapped potential abroad - the Mongolian diaspora as a missing piece

As Mongolia sent their brightest students abroad under the socialist regime to affiliated countries like Russia, Czech Republic or East-Germany, by 1988 there were approximately 10,000 students and 52,000 professionals studying outside of Mongolia (Wang and Erdenebayar, 2020). The total number of migrants has been rapidly increasing, reaching over 145,000 Mongolians in 2018 (5% of the total population), with unofficial documents reporting over 250,000 (Benwell, 2017; Ministry of Justice and Internal Affairs, 2019). The largest group is between the ages of 20-24 and while there are more than 25,000 Mongolian students studying overseas, there is a new generation of children born abroad to the migrants that left Mongolia during the socialist regime who are not reported in these statistics. Many of the Mongolians studying or working overseas remain abroad due to the higher quality of life and better economic opportunities compared to the prospects of returning to Mongolia (Loo, 2017).

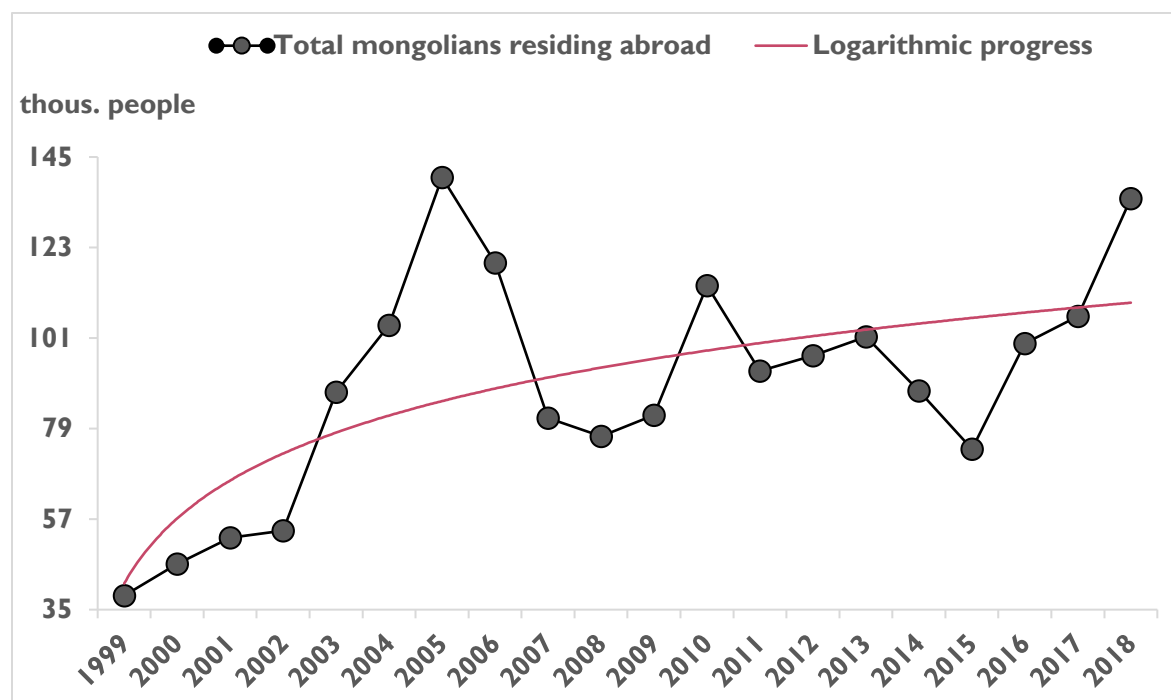


Figure 4: Total Number of Mongolian People Reside Abroad from 1999 to 2018 (Source: National Statistical Office of Mongolia, 2018)

While this outflow of human capital poses a potential threat to the country due to loss of labor and brain drain of talent, these migrants contribute heavily to the Mongolian economy in the form of remittance inflows to their families (Beine et al., 2008, Steinberg, 2017). In 2019, these inflows accounted for 3.5% of the country's GDP, making Mongolia one of the top 10 remittance receiving countries in East and Asia Pacific. These inflows of money have been shown to positively stimulate the economy through increased private consumption and domestic investment, but as 80% of all consumption goods are imported to Mongolia, this mostly fueled the demand for imported goods instead of local products and services (Wang and Erdenebayar, 2020).

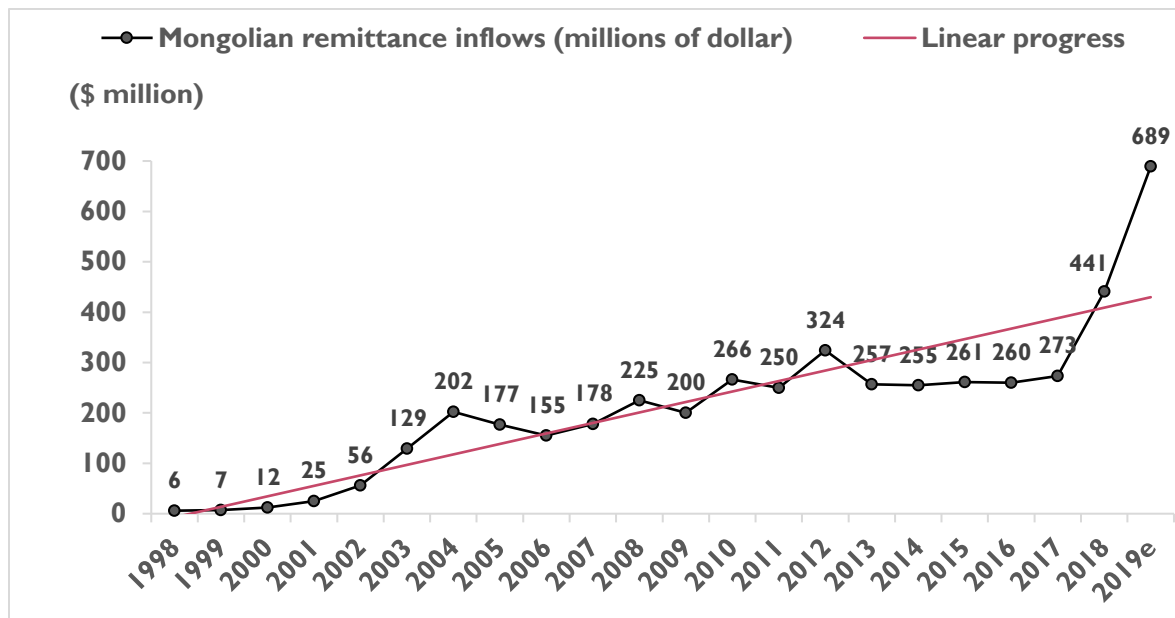


Figure 5: Amount of Remittance Inflows to Mongolia from 1998 to 2018 (includes 2019e - the expected value of remittances in 2019). (Source: World Bank Remittance Report 2019)

3. Our Platform Solution – GerBound

In order to address the local gaps in the Mongolian innovation ecosystem, a social network is proposed to match these two complementary parties - on the one side the Mongolian innovators, who are widely isolated from international partners, lack funding opportunities, as well as human and social capital to address the complex problems of the country, and on the other side the highly educated share of migrants abroad who possess the financial capabilities and expertise.

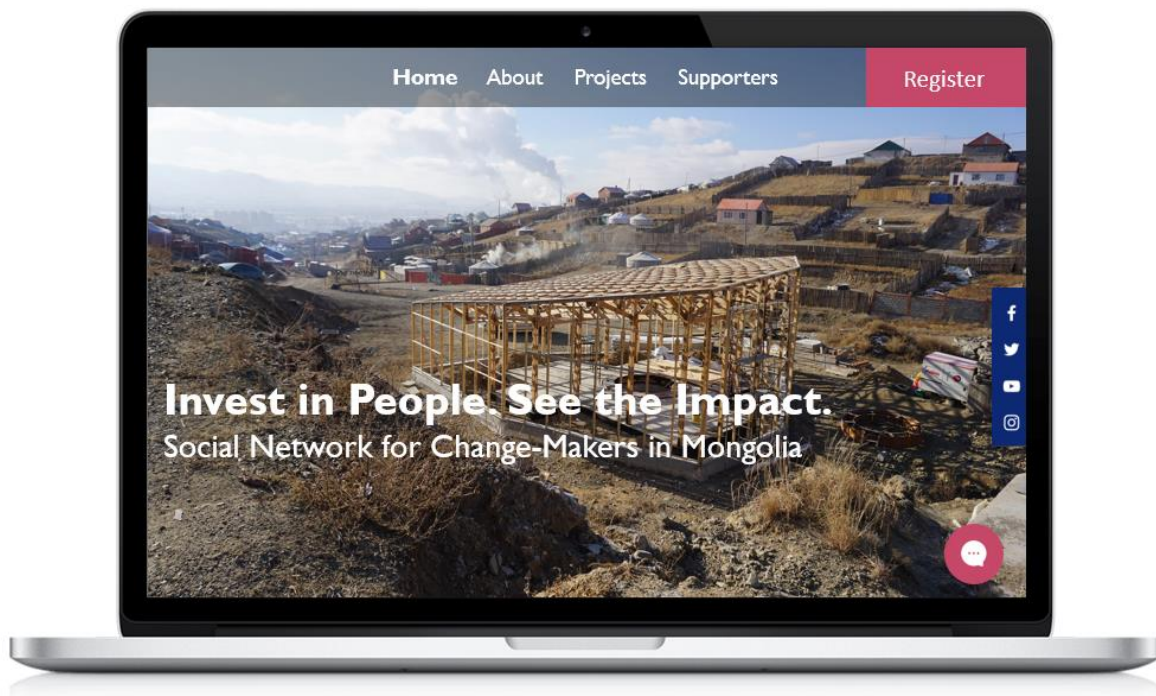


Figure 6: Landing page of GerBound

The two-sided platform allows both parties to register for free, create a profile and interact with each other. Social networks like Facebook play an important role in Mongolia, because Mongolians value informal and personal communication with *neg nutgiinkhan*, which are people with whom Mongolians share a common identity (Ong and McKnelly, 2016).

Mongolians often organize in closed Facebook groups with restricted membership to exchange information or coordinate initiatives. This compensates for the low involvement in formal associations, that are often avoided due to the fear of corruption. While during the time before 1990 more than 94% of all Mongolian workers identified themselves as part of a formal association (e.g. trade union), today only one third (33,8%) of Mongolians are active part of such an organization. Excluding membership in political parties, this number is below 10% (Dalaibuyan, 2012). GerBound will provide a more transparent channel for local and international Mongolians to collaborate, while maintaining the informal character of a social network.

The landing page advertises GerBound as a social network for change-makers (and not entrepreneurs) to appeal to both the local people, who work on the ground as well as the international Mongolians (Figure 6). Moreover, it is a very inclusive term as people, who do not consider themselves entrepreneurs might

well be willing to drive change. Generally the term entrepreneurship has a strong connotation in Mongolia. While some Mongolians treat entrepreneurship mainly as a fad developed by the privileged youth, others regard it as a title of respect, that only a selected few are worthy of. This, however, does not reflect the entrepreneurial reality in Mongolia, where a lot of innovations are actually generated in households (McKeon, 2016).

This platform thereby represents a win-win-win situation:

Firstly, local innovators receive the additional opportunity to raise money through crowdfunding. In contrast to financial support through the government and banks, this money is not tied to strict conditions and political duties. Moreover, the lack of expertise due to the missing ties to local universities and private knowledge partners is mitigated by the personal network of supporters. The paper will later describe in more details, how the Mongolian diaspora can contribute specifically.

Secondly, the international Mongolians get an transparent overview of what projects are being developed in Mongolia. Instead of donating money to an organization, supporters see directly what their money is used for, mitigating the fear of corruption. That way, they can extend the remittance payments beyond their immediate family and friendship network. Also, it provides the opportunity for different international Mongolians to work together and exchange knowledge across different disciplines. A complex project such as the Ger Plug-In needs people from various backgrounds (Architecture, Physics, Chemistry, Business etc.) that the organizations cannot directly employ.

Thirdly, the local communities benefit from positive spill-over effects. All projects listed on GerBound are tackling at least one of the UN Sustainable Development Goals and thus contribute to the inclusive growth of Mongolia. In the long-term, we hope that local projects will also use the platform to collaborate and exchange knowledge. Currently, Mongolians are hesitant to cooperate because the current funding sources are limited and contested.

3.1 Target user segment

The target users of our platform are further described in Figure 7. While the description of the international Mongolian is certainly an idealistic one and the attributes are by no means qualifying criteria, we saw that there are many candidates that would suit this profile. Many of these attributes are correlated, as Mongolians usually go abroad to study at a foreign university, which gets them into a well-paid job and access to a strong network. Also, we found that many local projects would suit our description. The main

challenge is thereby to make local Mongolians realize that they are in fact a valuable addition to our platform due to the connotation of entrepreneurship being exclusive.

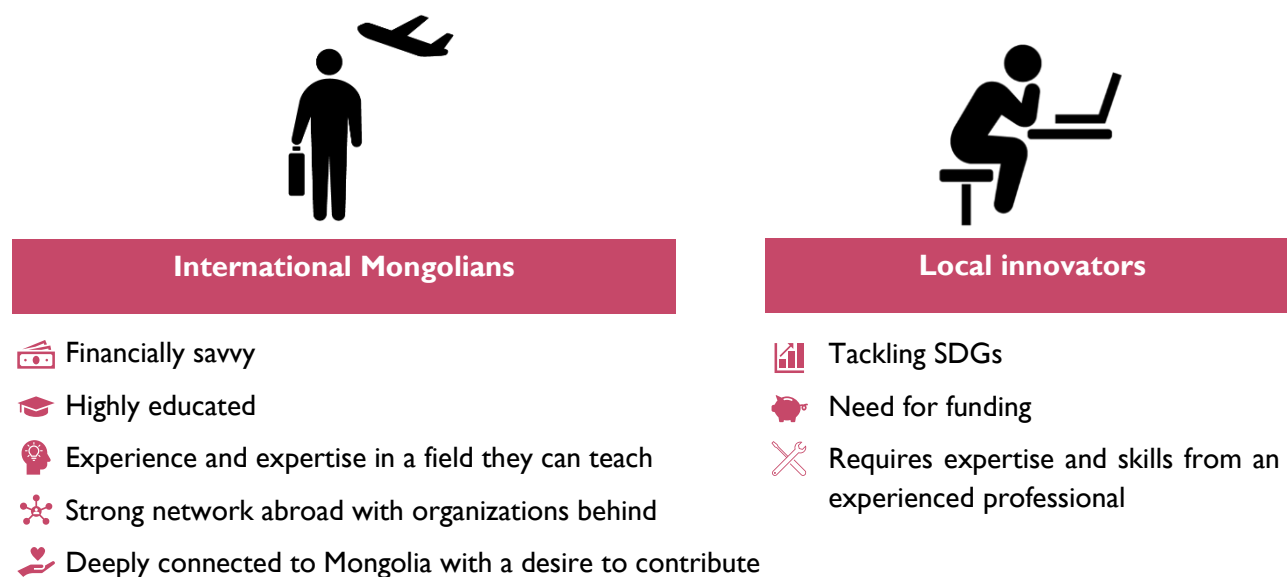


Figure 7: Profiles of users

3.2 Value Proposition - Matching of local projects and international supporters

When registering at GerBound with their email, both local and international users are asked to create a profile, indicating their education, work experience and other relevant skills. The information listed on the profile does not differ between project initiators and supporters. Besides the matching of project initiators and supporters, supporters can also connect with each other (Figure 8). That way, international Mongolians can also team up and support a project in a collaborative effort. Also, users can optionally disclose on their profile what efforts they have already supported, which further increases the network effect. During our research we have seen that many of the projects inside and outside of Mongolia were initiated by a small group of friends, who wanted to develop a project together. Based on the information provided in the profile, users can be filtered according to where they live and what background they have.

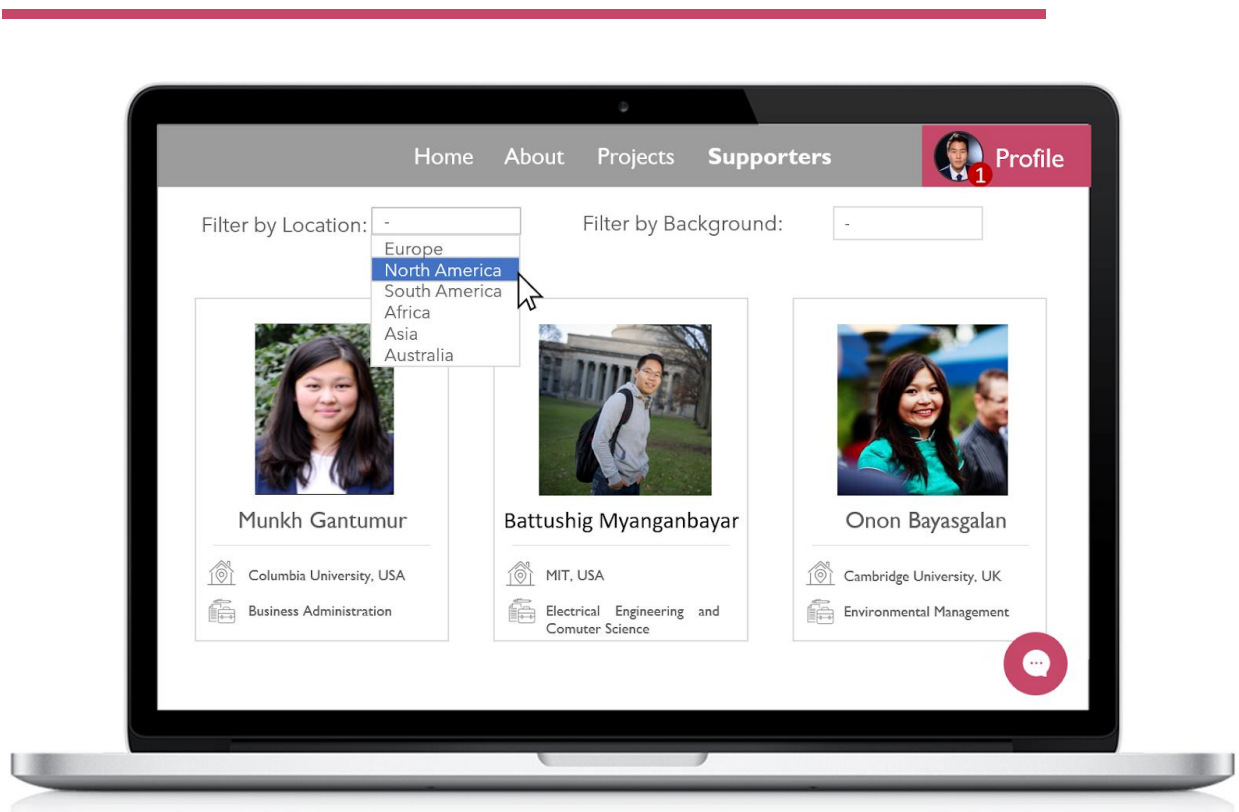


Figure 8: Interface showing potential supporters of projects

Moreover, users have the possibility to explore the different projects in Mongolia (Figure 9). All listed projects provide a clear description of the goals, relevant background details, current project updates and their individual needs for financing and expertise. The listings can also be filtered using the Sustainable Development Goals they address. Users cannot only see the updates and progress of the projects they follow, but also the activity of other users they have interacted with, such as if someone has become a supporter of a project.

It is important to mention that project pages always have direct references to the user profiles of the initiators. Also, the listings are on a 'project basis', which means that users do not support organizations as such, but concrete projects (e.g. Ger Plug-In). That way potential supporters do not invest in a 'black box', but specifically see what their contribution is used for and what people are standing behind the project. This should further reduce the mistrust that many Mongolians have in formal associations.

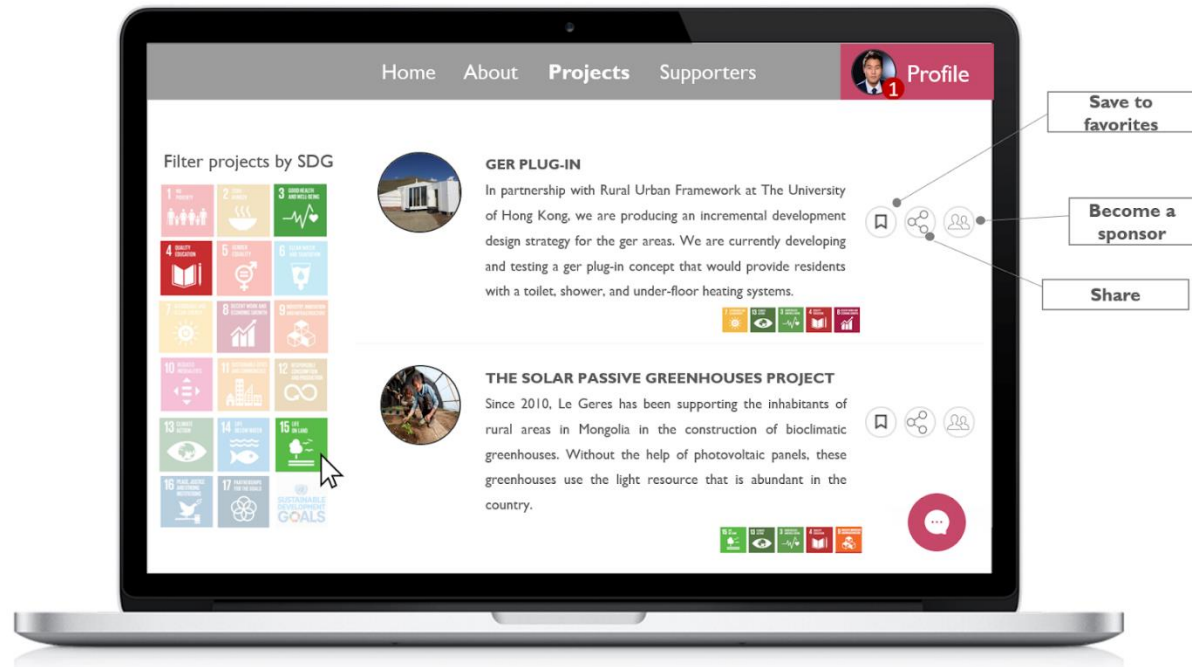


Figure 9: Interface showing projects listed on GerBound

3.3 Elements of collaboration

Supporters can contribute to the local project both with financial capital as well as with expertise. We are well aware of the fact that the concrete design of the platform has a substantial impact on how fruitful this collaboration between project initiators and supporters finally is. Therefore, we are currently planning iterative workshops to validate how the collaboration is most attractive for all parties involved.

3.3.1 Financial contribution

Generally, GerBound aims to provide local projects with the possibility to raise additional capital. We are currently discussing whether this should work through a one-time donation and/or (smaller) monthly payment, as both of these funding mechanisms have advantages and disadvantages. A one-time investment would allow project initiators to attach a clear purpose to the funding goal (e.g. investment in new machinery or certification of product). This also makes the capital raising more adjustable over the course of the project. Especially in the beginning, project initiators often incur high costs that require additional capital. Having a relatively large sum 'secured', might provide initiators with additional security and commitment to follow through with their endeavour. Potential supporters, however, need to be asked if they would be willing to commit a comparably large sum at once or if they would rather contribute a smaller amount of money and see how the project evolves along the way. Patreon is an example of a crowdfunding platform mainly for artists, where supporters, in exchange for a monthly contribution, receive an exclusive membership with access to unpublished work of the artist. The same logic could be

applied to the support of GerBound projects, where project initiators can provide frequent updates about the progress of their project.

3.3.2 Contributing with expertise

Similarly, the design of the knowledge exchange on the platform needs to be weighed carefully. Currently, we are discussing whether knowledge exchange should happen through a one-to-one mentorship program and/or a collective crowdsourcing effort.

A mentorship program would likely help to exchange more intimate, deep knowledge resulting in a closer and more trustful relationship. The strong personal involvement, however, would also mean that fewer people could contribute and no collaboration between supporters is possible.




A second option would be to provide project supporters with discussion forums, where they can help contribute to questions and issues raised by the project team. Also, sponsors could apply to become part of a 'Task Forces', that works on a topic relevant for the progress of the project. As an example, the Ger Plug-In could publish on their project page that they need people supporting them with the creation of a business plan for an upcoming funding round. That way, supporters with relevant expertise can participate and share knowledge in a collaborative effort. The knowledge could, however, potentially be more superficial and less personal.

Finally, it is important to mention that both of these design elements interact with each other. Monthly payments might have a positive impact on how often supporters contribute with expertise, as they are continually reminded of the project. Also, it likely creates a feeling of membership, commitment and ownership of the project. The Swedish platform Trine has managed to create a similar engagement around investment in solar energy in developing countries. Meanwhile, a single financial contribution would most likely be more closely associated with actual philanthropy. A potential option would therefore be to let project owners decide what mechanism they prefer.

4. From Idea to Business

4.1 Key Partners

In order to receive a steady pipeline of both diaspora and local startups we are in contact with Mongolian networks abroad as well as with local startup communities, focusing on ideation of projects and not the subsequent acceleration. **One group of partners provide GerBound with local projects and the other with potential project supporters.** As the networks for international Mongolian select their members for example based on academic performance and professional track record, this filtering mechanism allows us to receive the right kind of user for our platform. Thus, members of these talent networks are less likely to engage in fraudulent behavior, as their backgrounds have been already screened before and they are representing their network. Similarly, since the local startup incubators support high-potential projects and evaluate them thoroughly, these projects are also more trustworthy and suitable for our platform.

Name	Description	Role in project	Status
	Mongolian Young Leaders Network MYLN	Founded in 2009 as a non-profit organization, MYLN is a highly selective network of 120 Mongolian talents studying or working abroad at leading universities, such as Cambridge or Columbia University. Their vision is to create a network of Mongolian young leaders from diverse fields to contribute to the development of Mongolia and bring positive change to the society.	Pipeline for International Mongolians Agreed to collaborate
	Association of Mongolian Students in America AMSA	Founded in 2011 as a non-profit organization, the goal of the AMSA is to create a network and database of the best Mongolian students and alumni around the world, and to participate in educational, economic, and philanthropic activities in Mongolia and internationally.	Pipeline for International Mongolians Contacted
	Breathe Mongolia	Founded in Feb 2019, Breathe Mongolia - Clean Air Coalition is a non-profit organization made up of global Mongolians and professionals working together to reduce air pollution in Mongolia. Their many activities include fostering collaboration between public, private and nonprofit	Pipeline for International Mongolians Agreed to collaborate




		stakeholders and active global citizens who are willing to act on the issue.		
	Startup Mongolia	<p>Founded in 2011, Startup Mongolia's goal is to develop the local startup ecosystem, and provide entrepreneurs and startups in Mongolia with:</p> <ul style="list-style-type: none"> • Incubation and Acceleration: events and activities (e.g. a weekly radio show) • Mentoring and Management: Design thinking workshops and startup management (e.g. Business HUB) 	Pipeline for local Projects	Not contacted
	UNDP Accelerator Lab	Opening at the end of 2020 in Mongolia, the UNDP Accelerator Lab is a global learning network with satellite offices in different countries. UNDP thereby follows a similar approach in connecting local communities with global opportunities.	Pipeline for local Projects	Contacted and exchanged ideas
	Women's Business Center Mongolia	Established in July 2016, Ulaanbaatar's first women-focused business service center is committed to helping female entrepreneurs start and grow their businesses through educational workshops, one-on-one assistance, co-working and business facilities, and connection with local resources.	Pipeline for local Projects	Not contacted

Figure 10 List of key partners (Sources: Websites of organizations)

4.2 Short-term planning

During the initial stages of our platform, pre-selected local projects will be approached and then go through a filtering process where they will be evaluated based on specific criteria.⁹ These will be the first projects listed on our platform, including the Ger Plug-In and Right to Breathe, which have agreed to collaborate.

The first supporters will be those of the Mongolian Young Leaders Network, as well as from our personal network, who have already agreed to participate on our platform. These include MSc and PhD students, as well as more experienced working professionals in the field of consulting and IT. Thus, the first local projects and potential supporters will be manually placed on our platform and consequently introduced to each other.

⁹ For a detailed description of the filtering mechanism for projects refer to Appendix 3

The initial users of our platform will be used to validate our business model and to collectively iterate structural topics like funding and expertise, but also general user experience. For this, representatives from both sides, international Mongolians as well as local project owners, will join workshops 30, 60 and 90 days after the launch of our platform. The goal of this iteration process is to gather first user data, further refine our business model and optimize the functionality and interface of GerBound.

During the initial stages of the project all the costs that arise to develop and launch the platform can be covered by our team, as we possess all the necessary competences, with two of our members having a technical engineering background and the other two members having a business background. We do not pay out any salaries to our team, and monitoring of the platform can be handled by us in the short-term. However, additional funds and investments in developers will support the rapid development and launch of GerBound.

4.3 Long-term planning

In the long-run we will integrate the networks for Mongolian students and professionals living overseas as continual suppliers of new users for our platform. These networks are regularly growing with new students and professionals going abroad. MYLN is the most noteworthy example, as they are a highly selective group of professionals that have studied diverse topics at world-leading universities and are now working for well-renowned companies. Their mission and strategy is aligned with GerBound's, as they are intending to bring together Mongolia's best talents to address the problems of their country. However, these networks abroad are constrained by the geographical distance to implement their ideas. GerBound provides a channel to share their expertise with the local ecosystem in Mongolia and contribute financially.

Similarly, we will collaborate with local innovation hubs as a platform that helps to accelerate and scale projects which match our specific criteria. The most noteworthy example is StartUp Mongolia, which organizes a variety of different events for idea generation, training and education for the implementation, limited amount of funding and community spaces for the local population. GerBound perfectly complements these efforts by providing access to expertise and financing from abroad.

As a long-term vision, we want to establish GerBound as the main connector between all suitable Mongolians living abroad and qualified local projects in Mongolia, creating full transparency on our platform to enable a transparent matching process.

In the long-run we are going to establish ourselves as a non-profit organization. To generate the necessary income we will introduce a certain percentage fee upon the completion of a project's funding goal as our revenue model. This fee will be openly and transparently communicated to all platform users from the beginning, mitigating the fear of corruption or embezzlement of funds by any of the team members behind GerBound. Similar to the projects on our platform, we will provide clarity for what the generated income will be used for in regard to platform maintenance and updates. Other for-profit fundraising platforms like Kickstarter take ~10% of the donations. We aim to stay below this level, as it is not our goal to make any profits. The exact fee will be calculated during the iterative workshops of the initial stages, depending on factors such as anticipated platform traffic, amount of donations, and maintenance costs. Should the revenue exceed the cost at the end of a year, we will donate the funds to a project of choice based on feedback from the platform users.

4.4 Channel partners and communication

Similar to other companies in Mongolia, we will leverage the high media consumption and utilize social media to promote our platform. For this purpose we joined local Facebook groups, such as Young Mongolian Entrepreneurs and will use local influencers that are in our personal circle of friends, like Podcasts and Shows with Temka with over 100,000 subscribers to increase awareness for GerBound. Another well known local figure that agreed to promote GerBound with a reach of over 110,000 people on Facebook is the former Minister of Health, Lamjavyn Gündalai, who is the uncle of one of our team members. In addition, he is informally well connected within the startup community in Mongolia and is willing to introduce us to the different initiatives for a potential partnership. Furthermore, the facebook pages of MYLN with over 20,000 likes and AMSA with 27,000 followers can also be used to raise awareness for our platform.

We will reach out to Unread.today, which is a nascent but popular alternative blog/news site that amongst others examines one startup per week to promote the Mongolian startup community, with the objective to write and publish an article about GerBound. We aim to also reach the generation that moved abroad during the socialist regime and did not return to Mongolia. As this group is older, they potentially possess more resources and expertise, with strong ties to the country where they originally were born and raised. Our current plan is to reach their children through these above described channels, and then reach the older generation indirectly through word-of-mouth advertising of their children.

4.5 Feasibility and proof of concept

Crowdsourcing and crowdfunding are fairly new concepts in Mongolia. The first successful crowdfunding project was launched during the winter of 2016 by Onon Baysgalan to address the problem of air pollution. Her “100 air purifiers campaign” raised approximately 10,000 USD and distributed air purifiers to 6 hospitals in Ulaanbaatar (Baysgalan, 2016). Similar to other Mongolians that actively work on the local problems, Onon studied at Environmental Management abroad at Yale University in the US. Her fundraising campaign specifically outlined the problem it is going to address, what the cost for an air purifier is, the funding goal and who the beneficiaries are. Frequent status updates were made in the form of pictures and videos, being completely transparent about the use of funds. Our platform will educate users on each project in a similar way, providing full transparency on background and specific allocation of funds for every individual project.

The Mongolia based NGO GerHub is currently cooperating with a variety of universities abroad, but still expressed the need for advisory in business plan development for their Ger Plug-In project. The local founder Badruun Gardi and our team member Zelmeg Otgontogoo, whose parents' background is from Mongolia, agreed on a 6-week formal collaboration, which will function as the first test of the knowledge and expertise exchange that we aim to facilitate through our platform. The activities include the establishment of partnerships in Sweden and Germany with research institutes and architecture firms, as well as strategic advisory on the market entry into Western and European countries for an export business of traditional nomadic cultural items.¹⁰

¹⁰ For more details about the collaboration see Appendix 4

Besides positive project testimonials, there is also support from the literature for our platform GerBound. As a study from McKeon (2016) found, “[...] many Mongolians already identify strongly with the values of social entrepreneurship, what is lacking is connection to preferential financing and specialized networks to help these entrepreneurs maximize their social impact.” Numerous reports describe a new generation of entrepreneurs and a movement that is driven to work on the problems of the country in new creative ways. The shortage of ideas in the innovation system was not found to be an issue, but rather the lack of available support and technical assistance. A study by Chuluunbaatar et al. (2011) on the Mongolian innovation system has shown the positive impact of higher social capital on local university students intent to implement their business idea, which is what GerBound is able to provide to the community. Other studies support this idea, arguing membership in a network provides social capital and better access to resources within that network (Adler and Kwon, 2002; Bandiera et al., 2008; Batjargal and Liu, 2004; Blyler and Coff, 2003; Cope et al., 2007).

On a complimentary note, the cultural identity of Mongolians was researched by a variety of papers, identifying a deep connection to Mongolia that spans across the different social classes and the desire to contribute and give back to the country. Most noteworthy is the public virtue of loyalty to the “nutag” (homeland in Mongolian) (Sneath, 2018).

The success of knowledge transfer depends highly on the individual capacities of the two parties and the type of knowledge transferred, but most importantly on the relationship between knowledge transferee and receiver (Narteh, 2008).¹¹ Studies show that the knowledge transfer of migrants can be hindered by language barriers, as well as their acceptability and social recognition as “outsiders”, which is linked to their nationality and ethnicity (Williams, 2007). Therefore, we claim **the cultural proximity between international Mongolians and local Mongolians allows for a more effective knowledge exchange and cooperation, as they share the same language and understanding of the Mongolian society.**

¹¹ For an illustration of the knowledge transfer process refer to Appendix 5.

5. Platform governance, monitoring and evaluation

5.1 Platform governance

According to Van Alstyne et al. (2016), platform owners need to carefully weigh different access and governance mechanisms. While a more exclusive platform architecture can help avoid fraudulent behaviour, it significantly reduces the network effects. In the starting phase of our project, we will start with a few hand-picked project initiators and supporters. This will help us to be in close contact with users and identify potential loopholes and improvement potential. In the following, we will increasingly leverage our network partners (e.g. UNDP Accelerator Lab), as they will provide us with a pipeline of credible partners.

Over time, we will become more inclusive once we see that our matching mechanisms work smoothly and more projects are being listed (with some organizations even having multiple projects listed). Nevertheless, all users on our platform need to fulfill certain requirements.¹² These requirements will be communicated in advance to reduce the fear of corruption and ill-founded project exclusion.

5.2 Monitoring and evaluation plan for project performance

Similar to our platform governance, also our monitoring and evaluation processes will change over time. For the beginning, we find it sufficient to differentiate between two main groups of key performance indicators (KPIs) that we will keep track of. The first group of KPIs refers to GerBound's internal efficiency. We hope that over the time, we can increase the efficiency of our internal processes and make our platform mechanisms (e.g. screening of candidates) more self-sustaining. In fact, we hope that the different mechanisms reinforce each other over time. As an example, a more efficient acquisition process of candidates through our network partners might reduce the time spent for the due diligence and screening of users.

Besides running smoothly, we hope that the platform will continuously generate positive spill-over effects (external efficiency). In order to keep track of the quantity and quality of featured projects, we are planning on publishing a yearly report of all the projects that were sponsored through our platform. This will also help GerBound to establish itself as a thought-leader in Mongolia. Table 1 and 2 provide an illustrative list of relevant KPIs.

¹² For an illustration of the filtering mechanism refer to Appendix 2.

Table 1: Internal Efficiency KPIs (Process-based)

Internal Efficiency KPIs (Process)	Description
Time GerBound spent on screening and due diligence per user	Total amount of time that GerBound needs to invest to validate the suitability of users willing to sign up to the platform
User acquisition costs	Total amount of yearly marketing costs associated with acquiring more users divided by total users signing up per year.
Bugs/errors (website)	Total number of bugs/errors on website per year
Total number of fraudulent projects	The number of projects which fail to provide transparent accounts for the usage of their funds.
...	Other relevant KPIs will be added after iterative workshops

Table 2: External efficiency KPIs (impact-based)

External Efficiency KPIs (Impact)	Description
Overall satisfaction of supporters	Overall satisfaction of supporters based on survey responses each year
Overall satisfaction of project initiators	Overall satisfaction of project initiators based on survey responses each year
Total number of users per year	The number of users on the platform, independent on whether they have invested or not per year.
Projects listed in total. per year	The number of projects opened on the platform per year.
Capital subscribed in total per year	This total volume invested on the platform per year, regardless of the success of the round.
Cases completed in total. per year	The number of projects which are successfully financed on the platform per year. Successfully financed means the target amount is reached and the money could be transferred to the project owner.

6. Risk assessment and mitigation

The ability to identify risk within the early-stage of a venture will have a significant impact on future performance. Most entrepreneurs fail to conduct a thorough risk assessment, which results in a failure of 90% of the startups within the first five years (Bednár and Tarišková, 2017). The table 3 will provide a conceptual overview of our risk assessment and is the foundation for the following chapter.

Table 3: Risk matrix with respect to impact and probability

		Severity of Impact		
		Minor	Moderate	Major
Probability	Probable	Medium	High	High
	Possible	Low	Medium	High
	Unlikely	Low	Low	Medium

6.1 Ethical risks

Significant ethical cost may arise with the emergence and monopolization of online platforms. The nature of the platform per se is rather unimportant, but the interaction between platform members. It is important that users and organisations interact in good will. Individuals should have the choice to whom they give money, attention or data. The following table 4 gives an overview of potential ethical risk factors and their severity.

Table 4: Potential ethical risk factors and their severity

Risk	Description	Risk severity	Mitigation action
Unfair screening process of supporters, locals and projects	The filtering mechanism for locals, international Mongolians and projects excludes suitable candidates.	Medium	Carefully chosen and transparently communicated exclusion criteria (see governance chapter)
Value extraction and exploitation of locals	Exploitation of the local innovators by users and the theft of intellectual property.	Low	Thorough background checks on local projects, as well as requiring projects to transparently

Value extraction and exploitation of supporters	Exploitation of the supporters by projects and the theft of intellectual property.	Low	communicate the usage of the funding. Similarly, project owners and supporters give reviews to each other after their collaboration ends.
Negative effects on the local market and ecosystem	<i>GerBound</i> might have unpredictable negative consequences for local businesses and the innovation community, e.g. through competing with local angel investors or funders.	Low	Thorough background checks for locally supported projects and collaboration with local incubators.

6.2 Political risks

This section assesses how political risk, and political developments more generally, are impacting *GerBound*.

Table 5: Potential political risk factors and their severity

Risk	Description	Risk severity	Mitigation action
High level of local corruption	The deeply rooted corruption in Mongolia might negatively impact the perception of <i>GerBound</i> as another corrupt business.	Medium	Full transparency on business model, fees, team and strict monitoring of the listed projects.
Weak court and vague law	The Mongolian government might forcefully become involved in the project for their personal benefit.	Low	Foreign company registration
Political pressure and instability	Unstable laws and unpredictable reforms can have a detrimental impact on the requirements for foreign investors financing local projects in Mongolia.	Low	Monitor political developments closely and adapt business model

6.3 Platform strategy risks

Applying the right platform strategy to create the necessary environment is crucial. The following table will give an overview of risks with respect to our platform.

Table 6: Risk related to platform strategy

Risk	Description	Risk severity	Mitigation action
Unprotected financial transactions	The platform transactions might not be secured or subject to cyber crime.	Low	Partnering with an online payment solution company like e.g. Klarna.
Low interaction between locals innovators and internationals Mongolians	International Mongolians do not support local projects due to a mismatch in expertise, financial capacity or interest, or low availability of suitable projects.	High	Scale quickly and have many users, as well as a variety of different local projects to choose from.
Risk of low engagement	The platform users are not stimulated to enter the platform, share their ideas and engage with each other.	Medium	Repeated status updates from projects and users on the platform, as well as marketing of <i>GerBound</i> through channel partners.
Risk of poor match quality	Supporters and local projects might have a negative experience during the collaboration and then lose interest in <i>GerBound</i> .	High	Monitoring of successful matches and feedback loop of user experience for improvements.
Risk of negative network effects	Abusing the platform for any other needs. For example, Telegram is a preferred choice as a communication channel for criminal organisation. Such misbehaviour needs to be watched and monitored.	Medium	Allowing users to report abuse and monitoring suspicious behavior.

7. Conclusion

The complex problems in Mongolia are deeply rooted in history and fuelled by the urban migration of nomadic herders. The social inequality inherent in the Mongolian society is manifested in a variety of ways in the Ger area of Ulaanbaatar. In order to empower the local community to address their issues, and leverage the untapped potential of the Mongolian diaspora, we propose a platform that matches these two complementary parties.

GerBound enables the international Mongolians to fill the funding and expertise gaps of the local innovation ecosystem by supporting projects that help Mongolia achieve its SDGs. For this, we have already established partnerships with local projects, as well as with international supporters who are willing to contribute with their expertise and financial resources.

As the next steps we are going to support a local project, the Ger Plug-In, and gather relevant feedback for the launch of our platform. Then, together with the first hand-picked users we will iterate the platform processes and features in more detail. At the same time, we will leverage our existing contacts to deepen our partnerships with the international networks for Mongolians abroad and the local startup community in Mongolia, to ensure a steady supply of platform users and projects.

Given the unique history of Mongolia, the vast untapped potential of diaspora and the deep desire to contribute to their home country known as nutag, we see tremendous opportunities for our platform. Based on first market feedback and the strong partnerships we were able to build with other Mongolians, we are confident in the concept of GerBound. Therefore, we believe this platform is not only limited to the Mongolian context, but can be transferred to other countries that share similar characteristics. Despite the fact that Mongolia's case is rather unique with the strong connection people have to their country, the concept of a platform that leverages the capacity of its diaspora to support local projects is also scalable to other countries. Thus, the idea of creating a tailored version of another "Home"Bound platform for the specific case of another country is plausible.

Appendix

Appendix I - Poor sanitation, hygiene and insufficient waste management

The sanitation system in the Ger area lacks a drainage system, safe water supply and improved sanitation technology. There are approximately 80,000 self-built unimproved pit latrines, which cover the resident's sanitation needs (Uddin et al., 2014). The same study identified water kiosks as the main source of water for the majority of inhabitants, while others also utilize unprotected private boreholes and springs. The transportation and storage of water occurs almost exclusively in plastic containers, which are oftentimes secondhand and unhygienic. In addition, low awareness for the health hazards and the wide-spread engagement in unhygienic practices are the norm in the Ger areas. Sensitive areas like schools and hospitals also lack the appropriate facilities and practices. As a result, residents are often exposed to contact with pathogens, such as E. coli, that result from the contamination of water sources, and frequently suffer from diarrhea and other water-borne diseases (Girard, 2009, Uddin et al., 2014).



Picture Source: Retuers, Inside Mongolia's Ger District (2013)

The Ger areas lack a centrally planned waste management and sanitation system that disposes the 0.956 kg/capita of solid waste that is produced there every day, which is four times the amount produced in the formal housing areas (Batsuuri, 2010). There is infrequent waste collection, no central collection points and poor awareness and education of the residents (The Asia Foundation, 2014; Altantuya et al., 2012). Only 50% of all the waste goes to a dumpsite, while the other half ends up on illegal dumpsites, river basins, open fields, and accumulates in the environment (Uddin et al., 2014). These unplanned disposal

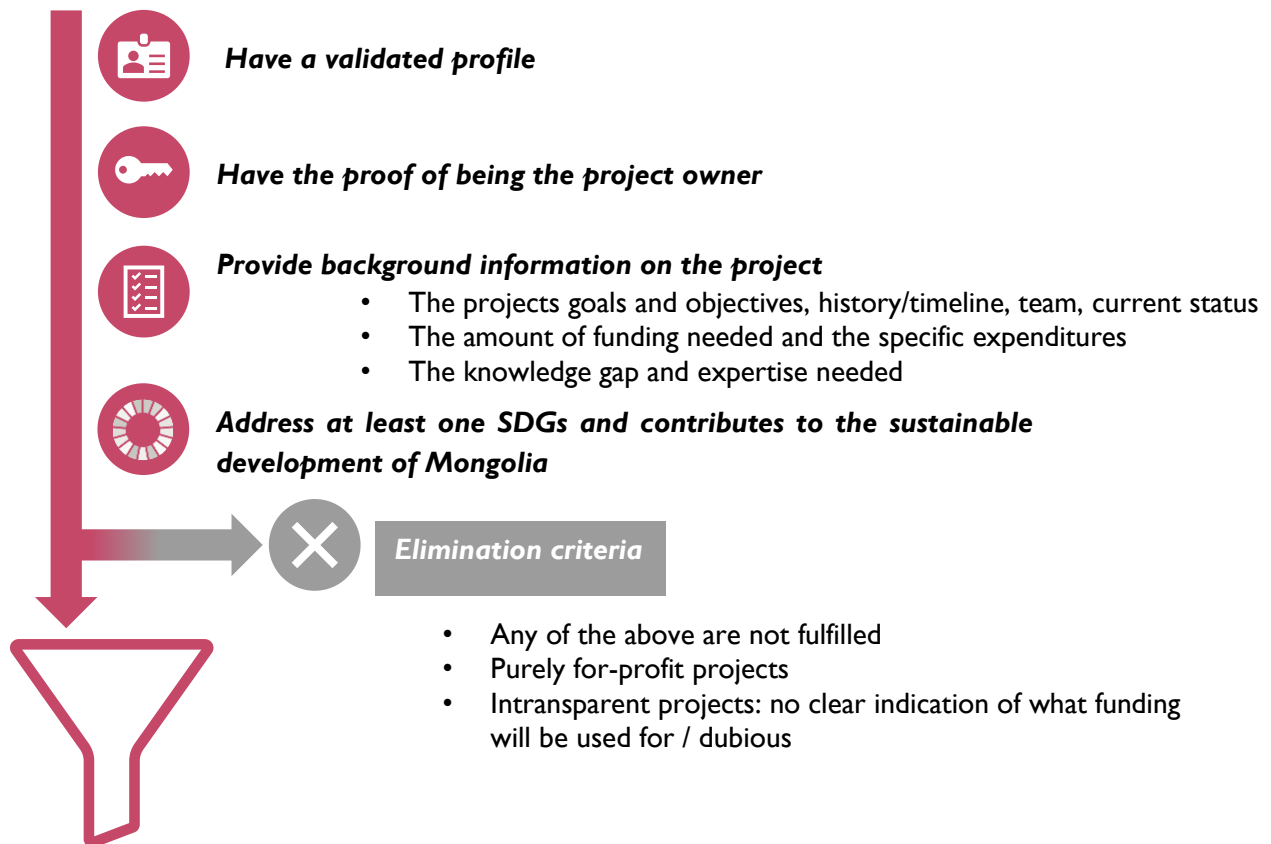
sites are often the living grounds for hundreds of scavengers in the search for recyclable wastes to earn an income and bear high risks for exposing residents to waste-borne pathogens (Altantuya et al., 2012; Batjargal et al., 2010).



Picture Source: The NY Times, 'We Don't Exist': Life Inside Mongolia's Swelling Slums (2017)

The toxic waste produced from the combustion of coal, which contains heavy metals like arsenic, is often dumped on yards or streets and poses severe risks for soil and ground-water contamination. In addition, the disposal of greywater occurs into pit latrines, soak-pits, yards or roads, causing severe environmental pollution and health hazards (Uddin, Li, Mang, Ulbrich, et al., 2014). The lack of a drainage system leads to frequent floods, which exacerbate the health risks of Ger area residents.

Appendix 2 - Filtering mechanism for projects



These criteria will be further iterated together with the platform users during the workshops. Thus, they present by no means an absolute or complete filtering mechanism.

Appendix 3- Our project journey

The importance of involving the local community in development initiatives can also be illustrated by how our project has evolved over the last four months (see below). Trying to find a solution to the air pollution problem, we soon realized that air pollution is a symptom of a much deeper social inequality problem. Therefore, imposing a technology in a top-down manner, is likely going to fail, which can be illustrated by the adverse effect of the Ulaanbaatar Clean Air Project in 2012. The project distributed improved and more efficient stoves to households living in the Ger district. While the stoves in fact cause less air pollution once they burn, they require a different technique to ignite them, which produces more harmful pollution. Since locals were not educated on how to use these stoves, they treated them like the traditional ones and ignited them whenever they turned off, resulting in worse pollution levels (Lim et al., 2018).

Together with the RISE Research Institute of Sweden, we found that a chemical process called photocatalysis could be a potential way to reverse indoor air-pollution.¹³ To discuss how the process could be applied to the special context of Mongolia, we are currently planning to host workshops with both local and international partners. Seeing the potential synergies of this knowledge exchange between local change-makers and international partners, we tried to come up with a mechanism that replicates this form of collaboration for other issues. We found that many Mongolians living abroad in fact possess valuable expertise and access to social and financial capital. Connecting the Mongolian diaspora to the local innovation ecosystem is therefore at the core of our platform GerBound.



¹³ The RISE Research Institute of Sweden developed a “Smart Paper”, that could provide a low-cost alternative to clean air. For further information refer to ri.se website

Appendix 4 - GerHub collaboration



Jacob & Marcus Wallenberg Center for
Innovative and Sustainable Business Development
SSE House of Innovation
Social Innovation Scholarship

Letter of Approval for Zelmeg Otgontogoo

June 1, 2020

Dear Selection Committee,

I'm hereby writing this letter to certify that Zelmeg Otgontogoo will be doing a 6-week summer internship with GerHub from June 9-July 21, 2020. GerHub is a nonprofit social enterprise based in Ulaanbaatar, Mongolia. We seek to develop innovative solutions to some of the most pressing issues associated with the rapid urbanization taking place in Mongolia. One of the core aims of our organization is to tackle the issue of air pollution in Ulaanbaatar, one of the most air polluted cities in the world.

We are interested in engaging Zelmeg in two ways:

- Researching and developing connections with potential partners from Sweden, and more broadly Western Europe & Nordic countries. We are interested in seeking collaboration opportunities with interesting individuals, organizations, and companies that can provide unique perspective, expertise, and technologies that could be applied to the challenges we face in Mongolia.
- Conducting a market analysis and strategic advisory for entry into the Nordic market for our new initiative aimed at exporting Mongolian products to an international market. This project is crucial for the financial sustainability of GerHub and we're placing heavy emphasis on developing the venture in the coming months. We are currently lacking expertise in business and finance, so support in that area is vital.

We understand that the skills and technologies needed to tackle our nation's challenges are not necessarily in existence within Mongolia. Therefore, from the outset, GerHub has placed heavy emphasis on forming partnerships with world-leading institutions and individuals from a variety of fields. So far, we have worked extensively with partners across North America and Asia but find that we are lacking in network and support from the Nordic countries. We believe establishing partnerships with Sweden and beyond is importance due to the similarities in climate.

Our engagement with Zelmeg will be purely digital given the current circumstances. Please feel free to contact me at badruun@gerhub.org for further details.

Sincerely,
Badruun Gardi
Co-Founder & Chairman

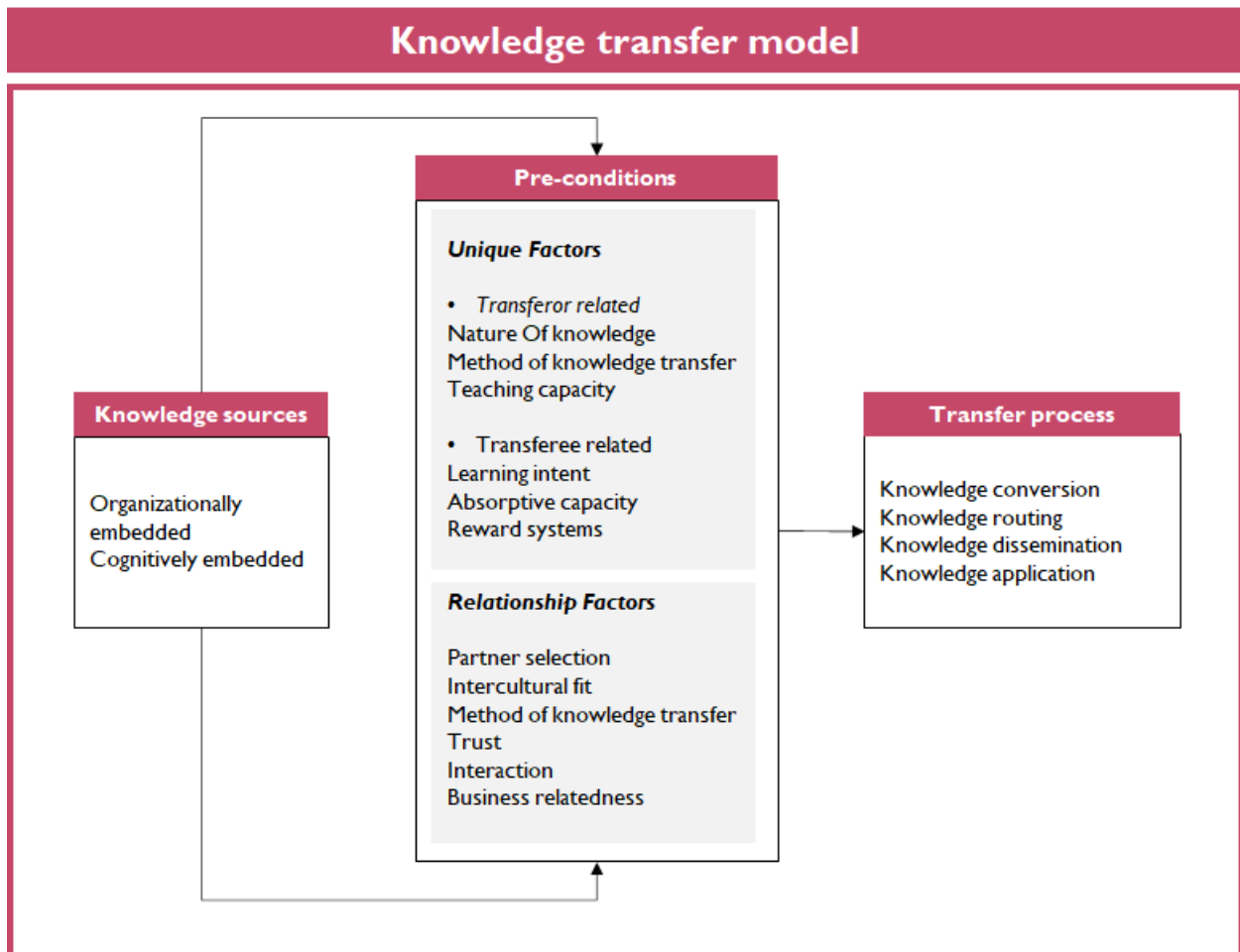
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Appendix 5 - Knowledge transfer model



Adapted from Narteh (2008)

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