

Study of Social Entrepreneurship and Innovation Ecosystems in the Latin American Pacific Alliance Countries

Case Study: Upasol, Chile

Fundación Ecología y Desarrollo

Office of the Multilateral
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CASE STUDY UPASOL, CHILE



**Multilateral Investment Fund (IADB) ·
Fundación Ecología y Desarrollo**

July 2016



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1. Introduction

Name: Upasol	
Description	Non-profit rehabilitation center for disabled children and adults with kinesiology, speech and occupational therapy services. The center is financed by the revenue generated from a community recycling service for domestic waste.
Founded	1998, Chile.
Legal format	Non-profit association.
Num. employees/volunteers	Rehabilitation centre: 6 paid staff, 3 volunteers; Recycling centre: 6 paid staff, 4 volunteers daily (total 12 staff).
Geographical reach	Coquimbo, La Serena, Chile.
Certifications/ awards	National Prize for Environmental Protection (2007), Cepal Prize for Social Innovation (2008).
Social innovation variables	
1. Innovation type	The self-sustaining community model is the key innovation. The community supports the recycling service, which in turn generates revenue for the rehabilitation center. Upasol is considered an open innovation, with the founder keen for others to copy the model.
2.Social impact	4,000 people attended at the rehabilitation center so far, 50,000 tons of waste recycled per month and 692 people trained in providing recycling services.
3. Financial sustainability	The organization broke even in 2011 and currently 65% of the revenue is generated by the recycling services, and the remainder is from grants.
4. Key Partners and Support ecosystem players	International organizations were key in financing the early stage. Currently local and regional hospitals and disability services are key collaborators.
5. Scalability and Replicability	Upasol does not aim to expand its own service to other locations, however is active in openly sharing the experience for others to replicate the model across Chile and Latin America.
References	www.upasol.cl

2. Local Social Issue and the Challenge

Upasol aims to combat two very different social challenges, first the lack of access to rehabilitation services and social integration for disabled children and adults and second the high levels of waste to landfill in the Coquimbo region.

Lack of rehabilitation services for disabled children and adults

According to the National Disability Fund, over 2.5 million Chileans suffer from some sort of disability. Of these, less than 30% are employed and over 50% live in poverty. Social stigmas around disabilities prevent these people from becoming productive members of society, particularly in the more remote areas of the country.

The public sector in Coquimbo provides very limited physical rehabilitation services for disabled children and adults in the region. Private sector treatment is not affordable for the majority of the population. This situation is common across Chile, however Upasol only works in Coquimbo in La Serena region.

In this region 12.9% of the population suffer from some degree of disability and only 6.5% receive rehabilitation services.

Lack of recycling services and unsustainable waste management

Recycling is becoming a growing concern in Chile with only 7% of the 6 million tons of waste generated annually across the country recycled. There are no public recycling services in La Serena region and only a few private initiatives for recycling, such as Triciclos. These existing services are insufficient to provide a sustainable waste management system in the area, with high levels of waste going to landfill.

Households do not have an adequate waste treatment service and have to manage their own waste as best they can with the limited services available. This results in contaminated land and water systems across the region. This is also a common challenge across Chile. In the Coquimbo region 483,739 tons of solid waste are generated every year.

3. Solution and Social Impact

Upasol's primary mission is to provide rehabilitation for disabled children and enhance the employability of disabled young people and adults, through high quality rehabilitation programs that improve their chances of creating a micro-enterprise as well as becoming more integrated into society at large. Upasol also has a secondary environmental mission to raise awareness around sustainable resource use.

Rehabilitation center

Upasol operates a rehabilitation center in the city of Vicuña, in the Coquimbo region where kinesiology, speech therapy and occupational therapy are delivered to children and adults with a physical or mental disability. The center is financed through the profits generated by Upasol's recycling center located in *Compañía Alta La Serena* where the local community take their domestic waste to be recycled. This service involves the collection, storage, sorting and commercialization of domestic waste. Some of the beneficiaries of the rehabilitation center work at the recycling center alongside other local people from the community.

Recycling center

The objectives of the recycling center, which defines itself as a social enterprise, are as follows:

- Development of a productive value chain whereby materials can be recovered and reused as the primary material for other products.
- Generation of employment for people with disabilities in different parts of the value chain.
- Involvement of the local community as main provider of the waste to be recycled.
- Development of social and environmental education programs for the community, particularly for children, to generate environmental awareness.

Social impact

A total of 4,000 people have benefited from the services of the rehabilitation center and an average of 50 children are attended every month. This impact has increased by 85% over the last 5 years. 692 people have been trained in the recycling center and 50,000 tones of waste are recycled per month. This figure has increased by 74% over the last 5 years.

4. The Social Entrepreneur



Patricio Santander is the founder and is currently Executive Director of Upasol. His mission is twofold, on one hand to provide decent, professional rehabilitation services to disabled children and adults and help them get back into employment and on the other hand achieve this through a self-sustaining model that also generates a culture of environmental awareness around sustainable resource management.

Patricio and a group of parents with disabled children set out in the late 1990s to do something to address the fact that in their region of Coquimbo there were no services for disabled children. In 1998 they registered the non-profit organization, Upasol, which stands for “Union of Solidarity Parents and Friends.” To finance the center Patricio and the other co-founders decided not to ask for donations from the community but to create a social enterprise to generate revenue from managing and commercializing with the vast amounts of unmanaged waste in the region. They began with recycling just 400kg of waste per month to finance the rehabilitation services for children.

“The way we involve the community in the project is important. We don’t ask for money, but we ask for waste and people come to our center and give us their rubbish. People feel connected to the organization and by bringing their waste feel that they are supporting the rehabilitation,” Patricio Santander.

Patricio claims that today the rehabilitation center could be entirely financed by the recycling business, however he continues to attract income from donations and other sources to be able to continue expanding and improving the services on offer.

Patricio has been a key figure in the creation and ongoing development of Upasol and he recognizes that the support he was given from NESsT was crucial in helping him to develop a sustainable business model. *“NESsT provides an incredible learning opportunity for any organization that wants to stay focused and achieve their objectives. Now we know that we can keep dreaming but dream while doing,”* states Patricio.

While Patricio’s motivation is to achieve Upasol’s mission in the Coquimbo region, he is also very active in sharing the experience with others, and hopes that the model will be replicated by other organizations. *“This is a small initiative that is perfectly achievable by any type of organization. In all parts of the world there are social needs and there is rubbish. The key is converting that into a business, and we like to share this experience which might serve as inspiration for others,”* comments Patricio.

5. Business Model

Upasol's rehabilitation center for men, women and children is financed largely by the profits generated through the recycling center, which collects, processes and commercializes domestic waste. The waste is brought to the center by the local community and once it has been sorted and processed, is transported to Santiago where it is sold to several waste management companies.

5.1 Characteristics

The rehabilitation center provides kinesiology, speech therapy and occupational therapy for children and adults. It also has a repair service for orthopedic apparatus, including wheelchairs, crutches and walking sticks. These materials are donated to Upasol, repaired and maintained by the team of professionals and in turn donated to the patients. The following priorities for the center have been established in a participatory way, involving all of the men and women with disabilities who have attended the center as well as their families and those who work at the center:

- Provide the community with a rehabilitation center run by health professionals and adequate equipment for them to carry out their work.
- Operate a social enterprise to deliver recycling services and generate finance for the rehabilitation center.
- Raise awareness in the community on environmental issues, with a clear objective of generating an environmentally conscious culture, as well as the creation of strategic networks with local public and private institutions.
- Involve the community with the efforts made to achieve these goals.

The recycling center collects various types of material including cardboard, paper, glass bottles, plastic bottles, nylon, scrap metal and different types of metal. The materials are delivered to the center by the local community and the local authorities. They are then stored, categorized and sent to Santiago to be sold. At the center there is also an environmental education center for young people where children are taught how to correctly manage waste as well as how to generate solar energy, and use solar cookers and dehydrators.

5.2 Fee structure or pricing model

Target beneficiaries do not pay for the rehabilitation services, they are entirely donation based and the services are financed through the revenue from the recycling center and donations from various organizations. 65% of the costs of the rehabilitation center are covered by the revenue from the recycling center, and the remainder from institutional grants.

5.3 Target

Upasol targets children and adults who suffer from a physical or mental disability from the region of Coquimbo, La Serena and La Vicuña in the Valley of Elqui, Chile. In this region the characteristics of the population are as follows:

- 32% live in rural areas
- 12.5% live below the poverty line
- 72% of the beneficiaries of Upasol are women, who are also the main supporters of the center as mothers of children with disabilities

6. Social and Financial Performance

6.1 Social Impact Performance

6.1.1 Social impact achieved

Upasol is considered to have a high social impact in its locality for the reasons outlined below:

- The initiative has been created in a very remote area with a very high percentage of rural population who are underserved both in terms of services for the disabled as well as recycling.
- In Chile only 9% of waste is recycled so the recycling center has great potential for social impact, as well as converting the waste into an economic resource.
- Social capital is developed in the community through the generation of networks, strengthening of relationships between the local population who deliver the waste to the center and the workers.
- It is estimated that each member of the community currently generates 1kg of waste per day, and this would usually go to landfill polluting the land and ground water.

6.1.2 Social impact measurement

The social impact is measured in two ways, first in terms of beneficiaries to the rehabilitation center and second in terms of beneficiaries of the recycling center and waste recycled. As mentioned earlier a total of 4,000 people have benefited from the services of the rehabilitation center and an average of 50 children are attended every month.

A regular questionnaire is sent out to the community on the perception of the key activities carried out, which enables small adjustments to be made to improve the quality of the programs and maximize their social impact. The results of this questionnaire are fed into a monitoring system, which measures progress towards goals and targets. Progress is reviewed on a quarterly basis.

6.2 Financial Performance

6.2.1 Revenue and Expenses

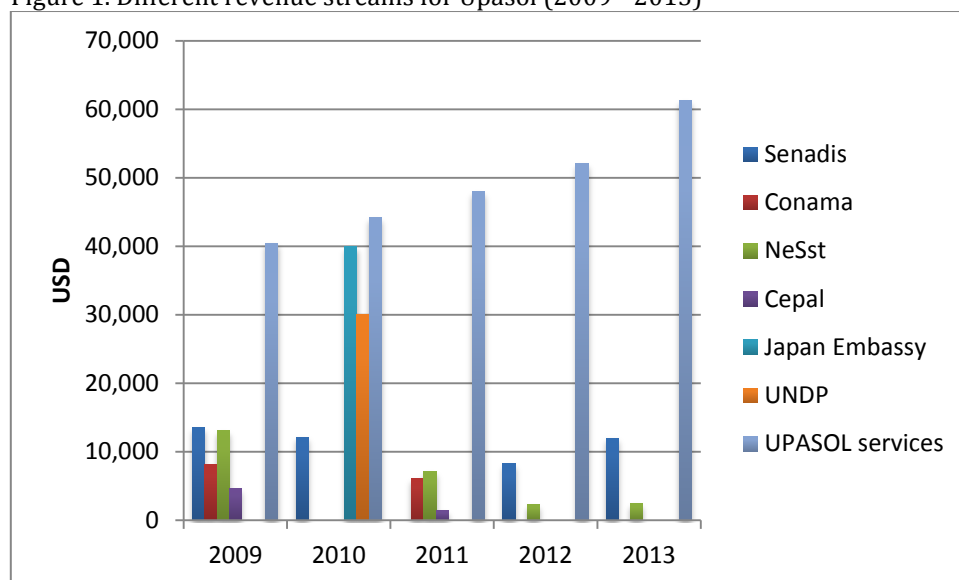
The rehabilitation center is financed by several sources of revenue and since the start of operations has operated under a strategy of diversifying income streams. The two main sources of income are:

- 1) Resources generated by the recycling center
- 2) Public and private grants and in-kind support in terms of training, marketing and promotion

An important characteristic of the recycling center is that the only overheads are the transportation costs, as the waste material is delivered free of charge by the local community

to the recycling center (this includes paper, cardboard, glass, metal, scrap waste and other materials). The center also has regular volunteers which also help to keep running costs low. Figure 1 shows the different organizations that have supported Upasol over the years, as well as the steady increase in revenue from Upasol services (the recycling center).

Figure 1. Different revenue streams for Upasol (2009 - 2013)

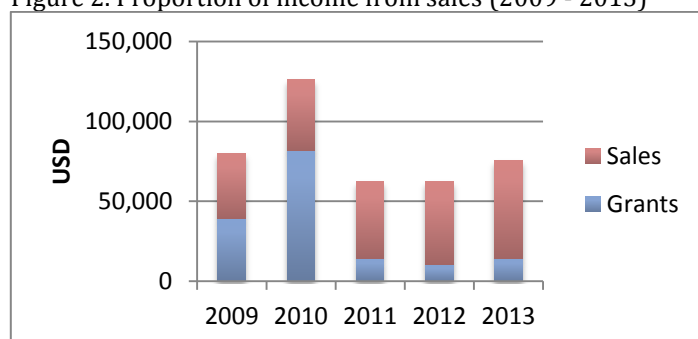


6.2.2 Proportion of Income from Sales

Currently 65% of the costs of the rehabilitation center are financed by the revenue generated from the recycling center, with the rest from donations. This percentage has been increasing over the years since 2010, when only 35% of total income was generated from sales. Projections for 2016 are for 80% of total revenue to be generated from sales.

Significant donors to Upasol over the years include the Japanese Embassy, CEPAL, United Nations, Unicef, Government Ministries and NGOs, especially NESsT, which has donated to the organization since 2007. Figure 2 shows that after 2010 grants significantly diminished and although this was a significant change in revenue, the organization in the same year consolidated the recycling business and was able to sustain itself with income from sales.

Figure 2. Proportion of income from sales (2009 - 2013)



7. Business Development and Ecosystem Evolution

Upasol has been operational for 18 years and has grown from the small family-oriented circle of patients to a financially sustainable rehabilitation center offering services for adults and children in the community as well as generating an environmental culture and employment through recycling. The process can be categorized into three stages: Start-up Stage, Early Stage and Growth Stage.¹

Table 2. A summary of Upasol's business development milestones from 1998 to 2016

Stage	Year	Description
Start-up	1998	Registered as non-profit association in Chile.
	1999	Rehabilitation center opened with a gymnasium, kinesiology, speech therapy and occupational therapy.
	2000-2004	Early negotiations with local partners and first services delivered on a small scale.
Early	2005	Local government provided property for the rehabilitation center.
	2007	National Environmental Protection Prize. NESst started supporting Upasol, with business plan and strategic advice. Financial reporting began.
	2008	NESst financed the purchase of a lorry and Upasol won CEPAL environment prize.
	2009	Grants from Senadis, CONAMA, NESst, total of 50% of income from grants.
	2010	Grants from Senadis and around 40,000 USD from Japanese Embassy and 30,000 from UNDP. 65% of income from grants.
Growth	2011	Grants from CONAMA, NESst and CEPAL. Recycling business started to consolidate and generated 77% of revenue.
	2012	NESst continued to support and operations continued to grow. Senadis (National Service for Disability) recognized Upasol as a Community Based Rehabilitation Scheme and continued to offer financial support. Started to provide services for adults in new program in collaboration with the Regional Health and Hospital Network.
	2013 - 2016	Support continued from local public and private institutions to support functioning of recycling center, which provided 65% of the costs of the rehabilitation center with projections for 80% in 2016. Upasol promoted the model in other countries and across Chile.

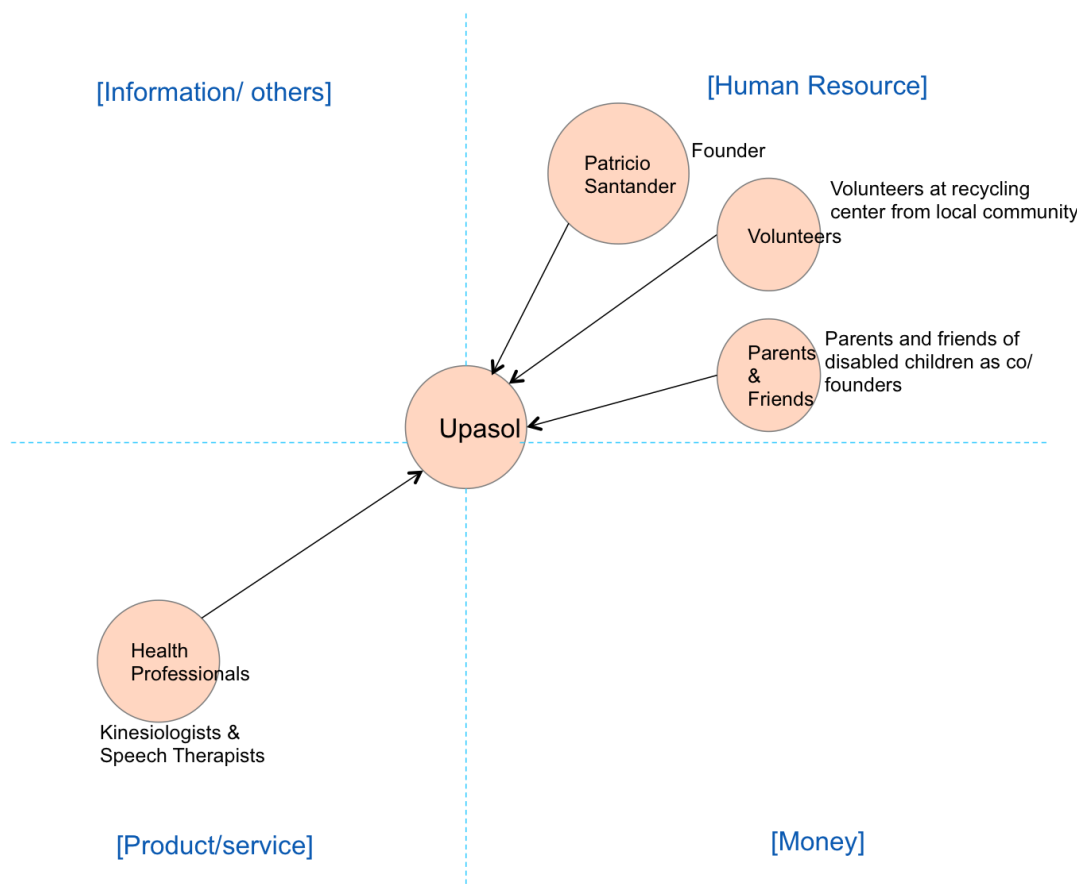
¹ **Start-up stage:** a preparation period for setting up a business or an enterprise. An entrepreneur's team develops a business idea and a business model. In some cases, they have product/service prototypes which are not fully developed or tested. **Early stage:** A period from business initiation until business scale-up. An entrepreneur's team may first deliver its products/ services in a test market to examine its business model. Also, the team may file patents or obtain licenses, if necessary. Once the business model is consolidated, it starts its business. However, the business remains quite small due to lack of capacity and resources. It may reach a breakeven point at the end of this period. **Growth stage:** A period after scaling up the business. The business exceeds the breakeven point and increases its sales, number of beneficiaries, the market share etc. The team revises the business model in order to sustain and/or expand the business, if necessary. In some cases, the team starts to investigate new products/services.

7.1 Startup Stage (1998 – 2004)

7.1.1 Milestones

During this phase only a very small amount of services were offered, to the family members of the founding group of entrepreneurs. Patricio Santander registered the organization as a non-profit association and started to offer rehabilitation services to a very reduced number of people, largely within the extended family circle of co-founders. In 1999 the rehabilitation center was opened in La Serena, with a gymnasium, and rehabilitation services. From 2000 to 2004 the organization slowly built up a network of relationships with public and private institutions in the region. These would later become significant supporters of Upasol. At this point the recycling operation was also very small and run on a voluntary basis.

7.1.2 Key supporters



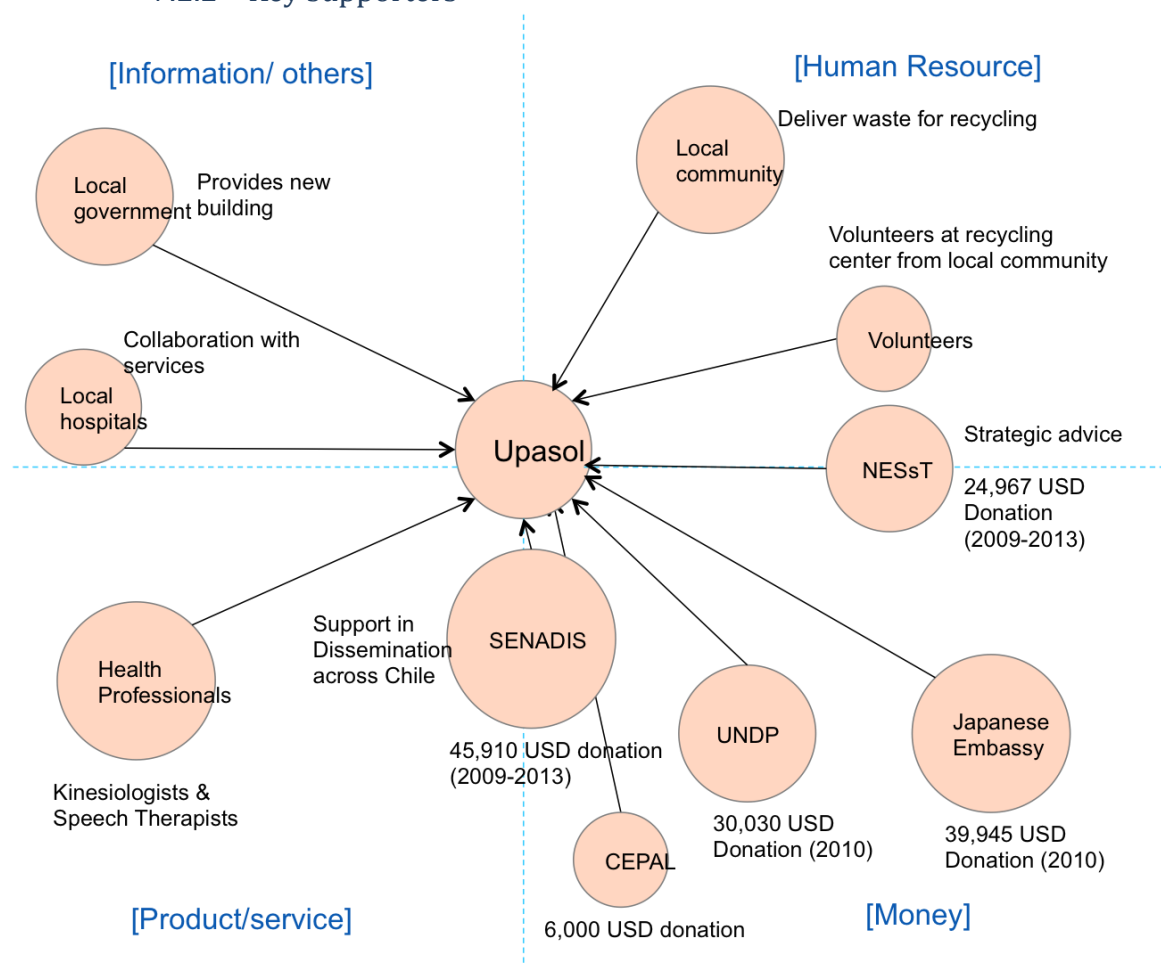
7.2 Early stage (2005 – 2010)

7.2.1 Milestones

This stage began with the local government ceding a larger site for the rehabilitation center which meant that a more professional service with equipment could be delivered and more people could be attended. During this early stage Upasol began to receive considerable donations from both national and international organizations. After the organization was recognized and supported by NESsT in 2007, it later caught the eye of the Japanese Embassy,

which supported with machinery for the recycling. The Spanish Foundation *CONAMA*, organizer of the National Congress for the Environment, donated equipment for solar energy programs. At this time CEPAL and UNDP and the National Service for the Disabled also made donations. This support enabled Upasol to purchase the relevant equipment, invest in infrastructure and prepare itself for a future stage of financial sustainability. NESsT helped Upasol during this stage develop a robust business plan, long term strategy and means of measuring progress.

7.2.2 Key supporters



7.3 First growth stage (2011 – 2016)

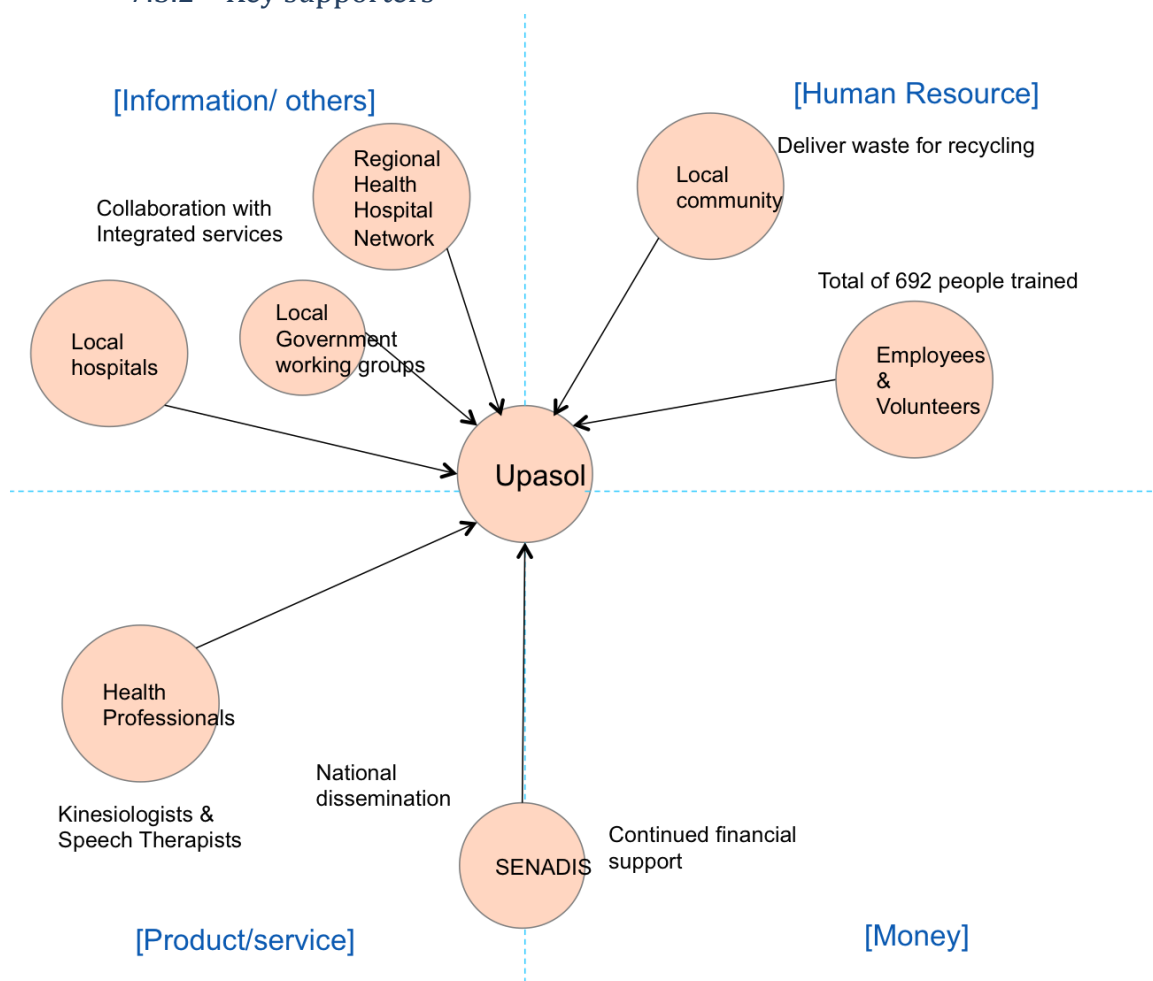
7.3.1 Milestones

2011 marked the year when Upasol had the majority of its income from sales. 70% of costs were covered by the revenue generated from the recycling center. Upasol started to work closely with hospitals (public and private) to enable the beneficiaries to access a wider range of rehabilitation services. In 2012 Upasol began to offer services to adults as well as children, in collaboration with the local hospital. During this stage Upasol began to disseminate the

model to other Latin American countries (with the support of CEPAL) and also actively participate in national Disabled Services and Environmental networks to help influence policy in both areas.

Upasol is no longer an isolated rural initiative and is now connected to the national disability services. Upasol and its patients into the national hospital network in collaboration with regional and national organizations.

7.3.2 Key supporters



8. Scalability and Replicability

The Upasol model could be easily replicated in other regions as a self-sustaining community based rehabilitation service financed by a recycling service, bringing positive social and environmental benefits. In addition the organization has developed a rigorous monitoring program thanks to the support of NESsT, which is additional know-how that could also be transferred to other organizations replicating the model. However, evidence of this replication is not available.

With the support of CEPAL's Social Innovation program and the Kellogg Foundation, Upasol has presented the initiative to different institutions in Mexico, Colombia, Peru and Ecuador and regularly disseminates the model across Chile. Upasol has also presented the model to several health initiatives in the Coquimbo region as a model to be replicated.

Upasol's philosophy around scaling and replicating the model is to present it as an open innovation, whereby other organizations can take up and adapt the system to their own needs. Upasol's strategy is focused on consolidation and expansion of the rehabilitation center and recycling service in the Coquimbo region. Although the organization and particularly Patricio is active in disseminating the model elsewhere, there is no specific strategy to monitor or control the replicability of the model. For this reason there is currently no data on uptake of the model elsewhere.

9. Final Reflections

Upasol has reached a point of financial sustainability for the rehabilitation center with the diversified strategy of revenue generated by the recycling center covering, grants and local in-kind support. Active participation in local health and environment related forums and networks has also facilitated the ongoing support from local institutions and the community at large.

Key milestones

- In 2005 the local government gave Upasol free access to a site to run the center from, and at this stage the organization was able to open up the services to the wider community. This marked a significant advance from the initial reduced operation.
- 2007 was also a key year as NESsT starts to support Upasol, with finance and most significantly support in developing the business model, strategic plan and monitoring processes.
- 2011 was another significant moment as Upasol became financially sustainable, generating 77% of its income through the revenue from the recycling center, proving the model.

Challenges for growth

One challenge for growth is the limitation on the services provided in the rehabilitation center. The team of professionals is small, largely speech therapists and kinesiologists. This means that other areas of medicine are often unavailable for the patients, and collaborations with external organizations are required to provide a full service. Upasol has achieved this through collaboration with hospitals and often will redirect its patients to other centers if needed.

A second challenge is to develop and expand the market for the recycling services and products, as the sector is still relatively unknown in Chile. Also the team has a limited capacity in terms of management and this has been addressed through training programs with support from NESsT.

Contribution to social innovation and systemic change

At the community level Upasol has made a significant contribution to the generation of an environmental culture, as the local community donates the waste to the center and also participates in several other activities such as renewable energy trainings etc.

Upasol also participated in several national public and private working groups, contributing to the design of public policy in areas of rehabilitation and treatment of people with disabilities as well as in the recycling sector (how to classify different waste streams etc.). Amongst these Upasol participates in the National Service for Disabilities (SENADIS) and the Regional Secretariat for the Environment. Upasol also participates in a national program called “Rehabilitation through Community” where the experience is shared across the country.