

ANNUAL REPORT

2016 - 2017





Criterion 1

Main Problem (Challenge)

Did you know that 20% of the electric consumption of your home corresponds to electronic devices that are permanently plugged but not in active use, producing unnecessary expenses and leading to a potential domestic fire risk? According to the "Instituto para la diversificación y ahorro de energía (IDAE)", a fifth part of the electric consumption in houses is misused for the simple action of maintaining the devices plugged permanently, which is equivalent to an annual expense of US\$160.

In addition to this, there are more than 90.000 fires produced due to electrical failures made by these same devices, which translates to material losses that reach millions of USD and hundreds of human lives (only in the Grenfell Tower fire in London, 79 people died).

Finally, it is noteworthy to say that 80% of the energy usage worldwide corresponds to fossil fuel¹, creating several damages to the ozone layer due to the alarming CO₂ emissions, and where 29% of the houses are current users of it.

Solution

e-Plug is the solution to everyday problems of electric consumption! This intelligent plug connects wirelessly to your domestic internet and you can supervise it remotely with a mobile application.

The main features of the e-Plug are:

- Turn on/off connected devices
- Timing on/off function
- Visualize consumption graphics in real time, with an estimated value of the KWh you use in local currency.
- Set the power limit of the devices
- Generate alerts of electric overconsumption
- Automatically turn off devices in cases of overconsumption or electric failure



Value

e-Plug contributes to home security and comfort, guaranteeing family wellbeing and real conscience about electric consumption, reducing CO₂ emissions, giving Earth a break.

If e-Plug was incorporated to the total number of houses built in Chile in 2016 (385.000), the costs of electrical losses would reduce significantly, saving over US\$63.000.000, corresponding to 299 MWh.

Criterion 2

Resources

Our SAGE e-Plug team has been working since 2016 to acquire resources and build the prototype, who has different stages such as hardware and firmware development, application design and the corresponding certification under international standards.

Despite the short amount of time for the product kick-off (November 2016-July 2017), a large demand is expected. This encouraged us to keep looking for resources to finish the product development and its mobile application.

The following information corresponds to the financial report of the incomes, outcomes and expected income for 2017-2018:

Financial Report e-Plug - SEB August, 2017

Considered income until June 2017

Donations	CLP	USD
Escuela Industrial San Antonio	\$ 5.440.000	US\$ 8,000
Other Income (private)	\$ 999.600	US\$ 1,470
Total donation income	\$ 6.439.600	US\$ 9,470

Prototype production expenses

Firmware	\$ 1.700.000	US\$ 2,500
Hardware	\$ 1.700.000	US\$ 2,500
Mobile App	\$ 1.020.000	US\$ 1,500
Transport	\$ 1.020.000	US\$ 1,500
Phone expenses	\$ 680.000	US\$ 1,000
Sub-total	\$ 6.120.000	US\$ 9,000

Positive balance: \$ 319.600 US\$ 470

Expected Income 2018

3000 e-Plug units	\$ 102.000.000	US\$ 150,000
-------------------	----------------	--------------



Being the e-Plug a high tech social innovative product, it requires an investment process, which will permit the business growth.

The business positive balances will be reinvested in development of new technologies inside the company.

Criterion 3

Business sustainable practices

The e-Plug is more than just a home automation device that turns on and off appliances. It represents a sustainable practice by energy power saving, home safety, comfort and technology inclusion.

Due to its functional characteristics and easy application, the impact of this product has generated interests in many business and organizations that contacted us to request for samples and to know more about our product.

Additionally, we won a sponsorship of the "Asociación Chilena de Eficiencia Energética" (ACHEE), being recognized for generating awareness of energy saving and giving sustain to the energy efficiency national plan.



Criterion 4 Succession plan

Our company has defined during 2017 a series of steps that will allow the business succession over time. The e-Plug company is formally established in Chile as an enterprise called "Nova Creatio SpA", which permits the ongoing innovation related to sustainable practices to improve people's life quality and care of the environment.

e-Plug has defined a business plan with clear and concise goals, with strategies to achieve them, which backs up our technical abilities as a team.

During 2017, as a team we have positioned the e-Plug brand, linking it with people and companies such as:

- The "Asociación Chilena de Eficiencia Energética" (ACHEE) sponsorship, for helping the energetic efficiency plan of Chile.
- Real estate companies that request a pilot in their buildings, expecting a huge demand of the product for the following years.

Our business has defined as part of the strategies of the succession plan, the application for government funds to validate the product commercially. In June 2017, e-Plug was selected as one of the 600 finalists among 2,256 projects at a national level, for one of the most important government funds in Chile, "Capital Semilla 2017" of CORFO (In Spanish: Corporación de Fomento de la Producción).



Finally, we would like to mention that, we keep working in strategies that will enable to keep growing and improving our product, such as:

- Patent and Brand of our product.
- Electric certification by the "Superintendencia de Electricidad y Combustibles" of Chile. (SEC)
- Commercial Launch of the e-Plug.

The commercial ratification of the product will allow, not only to present it in the national market, but also in the international one, considering that the automatic control and the home safety are just now beginning to be known in other countries; this opens the possibilities to deliver our product to the international markets.

Criterion 5 Use of the Internet and Social Networks

To maintain our presence in the market, the information of our product in these communication tools, will also allow us to create a relationship with the clients.

Because of this, the SAGE e-Plug team has chosen this media, to show their achievements, progress and information, through social networks such as:



Facebook



Twitter



Youtube



Web Page (QR code)

The result has been that each SAGE e-Plug publication has generated a closer bond with those that follow our activity.

Our team has obtained several publications in official newspapers, and interviews in local media, such as:

- "El Líder", San Antonio, Chile newspaper, on November 14, 2016
- "Iglesia en Salida", magazine of the Chilean Catholic Church, published in Melipilla, an important town near Santiago, on February 2017
- "El Mercurio de Valparaíso", an important newspaper, on July 2017





Summary

Our SAGE e-Plug team has developed an intense process of preparation for the world championship "SAGE Global World Cup Ukraine 2017".

This experience has promoted the development of different skills between the members of the team, such as; academic progress, personal growth and, above all, leadership to be able to teach and prepare young entrepreneurs.

By the way, the impact of our team in our school community, has helped to create a space for the students interested in our motivations, and willing to be part of our process.

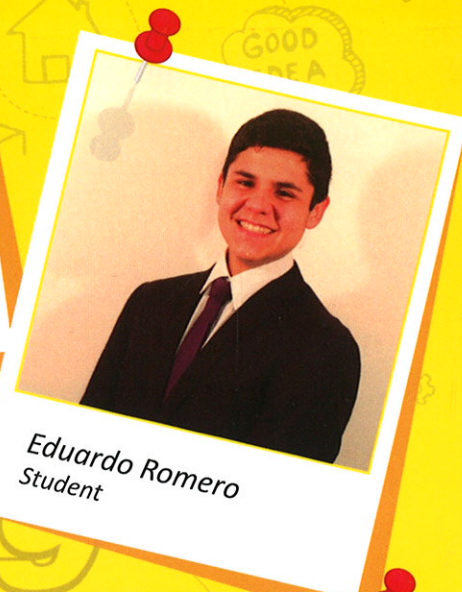
There are more than 30 projects in preparation to participate in different contests in this year 2017, in Chile.

Finally, as the motto of every SAGE team, we shall continue to work in the mission to reduce the environment contamination, generate the real energy saving awareness, and help to promote the home safety. All this should create a social impact that will be present for many years.

e-Plug TEAM



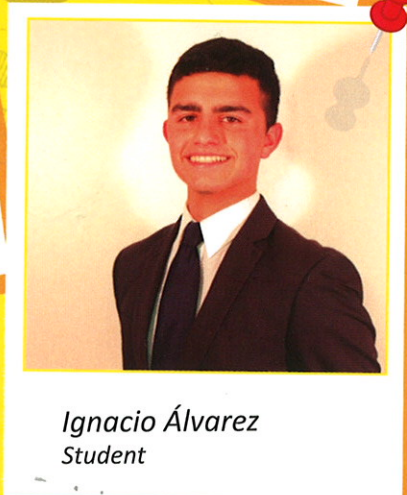
Eleazar Baeza
Teacher



Eduardo Romero
Student



Patricio Orrego
Student



Ignacio Álvarez
Student



e-Plug