ANNUAL REPORT
2016 - 2017

e-Plug
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 the 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 fuel, 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:
- a. Turn on/off connected devices
- b. Timming on/off function
- c. Visualize consumption graphics in real time, with an estimated value of the KWh you use in local currency.
- d. Set the power limit of the devices
- e. Generate alerts of electric overconsumption
- f. 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:

<table>
<thead>
<tr>
<th>Financial Report e-Plug - SEB August, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considered income until June 2017</td>
</tr>
<tr>
<td>Donations</td>
</tr>
<tr>
<td>Escuela Industrial</td>
</tr>
<tr>
<td>San Antonio</td>
</tr>
<tr>
<td>Other Income (private)</td>
</tr>
<tr>
<td>Total donation income</td>
</tr>
<tr>
<td>Prototype production expenses</td>
</tr>
<tr>
<td>Firmware</td>
</tr>
<tr>
<td>Hardware</td>
</tr>
<tr>
<td>Mobile App</td>
</tr>
<tr>
<td>Transport</td>
</tr>
<tr>
<td>Phone expenses</td>
</tr>
<tr>
<td>Sub-total</td>
</tr>
<tr>
<td>Positive balance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Income 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000 e-Plug units</td>
</tr>
</tbody>
</table>

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 the 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.
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)
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.