CASE STUDY

El Salvador: Fuelling the country's development through Education

The social and economic impact of jp.ik technology-based educational projects

Executive Summary

Technology plays a crucial role in providing access to quality Education, when pedagogically driven. When Education reaches wider quality standards, it has a positive impact on the social and economic development of countries. In this scenario, the inclusion of technology from an early age in educational environments is simultaneously a challenge and a mandatory requirement for participation and success in globalized societies.
The Presidency of El Salvador is investing in Education as a national priority, in response to the vulnerabilities observed in the national Education system and in society itself.

The Presidential Programme *"Una Niña, Un Niño, Una Computadora"* (A Girl, A Boy, A Computer) was launched in 2015 under the supervision of the Salvadoran Ministry of Education, with the mission of improving the quality of the country's Education, guaranteeing that teachers have the necessary knowledge to use technology in an educational context and promoting equality of opportunities for students in the access to ICT.

The basis of this initiative lies in the national production of the technological resources - baptised as *Lempitas* - to be given to each student and teacher. Another fundamental pillar of this initiative is teacher training, on behalf of a meaningful integration of technology in a teaching and learning context.

For the execution of a national project of this importance and reach, the Government of El Salvador selected jp.ik as the partner entity for the design, implementation and management of the project. jp.ikz became responsible for the manufacturing of educational devices, the technical and pedagogical training of the local entities and the entire project's consultancy on medium and long term.

Inaugurated at the beginning of 2016, the industrial unit has a daily production capacity of around 100 technological devices. In its first year of activity, 32 thousand *Lempitas* are expected to be assembled; those will be delivered to 1.177 public educational establishments of El Salvador.
In the first three years of the project, it is expected a production of 90 thousand devices.

With a huge potential for diversification and growth, the programme *"Una Niña, Un Niño, Una Computadora"* will continue to benefit from the supervision, consultancy and support of jp.ik in El Salvador, confirming itself as a successful implementation of the technology-based educational projects of jp.ik.

Education Transformation in El Salvador

In 2014, out of a population of 6.1 million people, 1.62 million Salvadoran students were enrolled in primary and secondary school. With a very young population, El Salvador was lagging behind the ideal numbers: between 2009 and 2014, students enrolled at all levels of Education in the country decreased by about 2.7 percent.

Faced with this scenario, the Presidency of El Salvador named *"Security, Education, and Employment"* as the main priorities for the country, also envisioning Education as the basis of social and economic growth, with an impact on all the other axes of society. The watchword was "improvement" and it should reach security, enrolment rates, school infrastructure, teaching quality and technological resources.

The Presidential Programme "Una Niña, Un Niño, Una Computadora" began to take shape in 2011, but it was only in 2015 that it was officially launched by the former Minister of Education and current President of the Republic of El Salvador, Salvador Sánchez Cerén, under the supervision of the Ministry of Education.
This ambitious programme of transformation of El Salvador society is based on three axes - equipment, connectivity and teacher training - and has two primary objectives:

(1) That each Salvadoran child has access to a computer at their school or educational centre;

(2) That the Salvadoran teachers use the best technological tools in their day-to-day, as well as in their professional development and career progression.

The target audience of the programme is thus the students and teachers of all the public educational institutions of El Salvador that have not benefitted yet from technological resources, as well as all the members of the educational community.

The master training strategy for the pedagogical integration of the technology in a learning context will reach thirty-five thousand teachers, with the second phase of the operation already underway, with recourse to b-learning platforms.

In addition to the Presidential Programme *"Una Niña, Un Niño, Una Computadora"* the Salvadoran Government is also focused on the National Literacy Programme, the National Teacher Training Programme and on the training of the National Education Council.

"The key issue here is the preparation of the Teacher, so that good use may be made of the resource that is being provided in the classroom, to speed up and reinforce what is being taught and to guarantee better quality learning by the students"

Erlinda Hándal,
Deputy Minister for Science and Technology of El Salvador

jp.ik technology-based educational projects and experience in LATAM

As a long-time visionary for the best contribution of ICT in people's lives, since 2008, jp.ik has been a prominent stakeholder on the Education market, with a very unique value proposition – the ability to design, execute and deploy turnkey Education projects and solutions worldwide.

The know-how acquired in these projects make jp.ik the referral partner to integrate technology in Education, under a "glocal framework" – using global understanding and expertise to act locally, addressing the specific needs and context of each country and client.

This type of project is covered by three key dimensions – Technology, Engineering and Training – which define Inspiring Knowledge Ecosystem, including a vast range of associated competences and services:

(1) The design and management of the technological-educational project;
(2) The identification of relevant local partners;
(3) The implementation of industrial units in situ, including technical assistance centres;
(4) The definition and implementation of logistics services to support the project;
(5) The specialised technical training of the workforce;
(6) The pedagogical training of the educational agents: from the elements of the Ministry of Education to the learning community;
(7) Permanent consultancy in monitoring the life cycle of the project.

jp.ik has been working closely with Government's Leaders, Education ministries teams' and relevant stakeholders to develop integrated end-to-end solutions to address high-level and policy implementation needs, as well as the needs from Students and Teachers.

This value proposition is based on a model of knowledge transfer, professional development and job creation, with an impact that covers not only the educational community, but also the economic, social and political spheres of the region. The ultimate objective of these projects is to promote, in the medium-term, the sustainable development of societies.

jp.ik is present in over 80 countries, with more than 20 large-scale Education Projects implemented, 9 million student devices deployed and more than 500 master trainers (with the capacity to reach thousands of teachers) directly capacitated. The LATAM region represents its main market in the last 8 years.

Specifically in LATAM countries, there is a long-term focus on sustainable economic development underpinned by quality Education accessible to the entire population, which is in line with jp.ik's business vision. jp.ik has been working in this region since 2009 on national educational initiatives, having begun with the design and delivery of technological solutions, and having then evolved towards integrated technological projects to transform Education systems. Bolivia, Venezuela, Argentina, Uruguay, Mexico, Panama and Brazil are the main countries with which jp.ik has worked side by side.

"Together with the Salvadoran Government, we have transferred technical and technological knowledge, and trained dedicated, passionate and highly talented workers. Our experience played an important role, but Salvadoran intelligence and hard work marked the difference on this very special project"

Jorge Sá Couto,
Chairman of jp.ik

Una Niña, Un Niño, Una Computadora
(A Girl, A Boy, A Computer)

Based on its experience in LATAM, jp.ik has been creating a body of solid and sustainable knowledge on the economic, social and educational reality in this region.
After some isolated contracts to supply educational devices in previous years, and given the ambition of the project *"Una Niña, Un Niño, Una Computadora"*, the Government of El Salvador selected jp.ik as the partner entity for the design and implementation of the local production unit of the devices to be delivered within the scope of the programme.

The refurbishment of an old centre of equipment reconditioning services represented an initial public investment of $778.616 USD, giving birth to the first technological assembly plant in El Salvador, with a unique model in Central America.

From the viewpoint of Industrial Engineering (the key component of this project), jp.ik provided the following services:

• Engineering Services for the Definition and Design of the assembly line, including the definition of the Production and Optimisation Processes, Production and Maintenance Plans as well as Hygiene and Occupational Safety Plans;

• Training Services, in order to sustain the knowledge' transfer needed to guarantee the greatest possible autonomy of local industrial managers.

Regarding Local Technical Support, jp.ik provided a technical team of specialists to support the local managers in industrial production, providing permanent support to the project and minimising impacts, namely in modules such as Technical Support, Diagnostics and Quality Control.
At the same time, jp.ik provided supplementary support services, guaranteeing the fulfilment of all the contracted requirements, such as the Creation of BIOS and customised software images, the permanent supply of equipment, industrial tools and all the components necessary for the assembly of the devices.

The production unit of the project *"Una Niña, Un Niño, Una Computadora"* is located in the city of Zacatecoluca, 61 km from the country's capital, San Salvador. The factory extends over a total area of 3 thousand square meters, including the warehouse spaces, technical and engineering areas, production line and administrative services.

The assembly line is designed to respond to the following 10 production stages: (1) Internal logistics; (2) Preparation of raw materials with delivery to assembly posts; (3) Assembly; (4) Updating of firmwares and calibrations; (5) Mechanical and Cosmetic Inspection; (6) Automatic quality control; (7) Software installation; (8) Final (functional and cosmetic) quality control; (9) Packaging; (10) Storage.

At the same time, there are also other ongoing processes to support the handling of non-conformities and reverse logistics.

With a production capacity of about 100 computers, the implementation of this unit enabled the creation of 20 (direct) jobs, associated to the Assembly and Support, Quality Management, Operations and Logistics areas.

"Our aim is to obtain an inclusive social and economic impact from the computer assembly plant. The importance of this project in the economic sector lies in, as a country, having the experience and ability to sustain our own development."

Salvador Sánchez Cerén, President of the Republic of El Salvador


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Instalación de
software y control
de calidad
EL SALVADOR
MINISTERIO DE EDUCACIÓN

Creating impact in Education. Building the future of a nation

"This project stands out as one of the most important references in terms of sustainability in the last few years"

Salvador Sánchez Cerén, President of the Republic of El Salvador

The official inauguration of the factory of Zacatecoluca, which took place at the beginning of 2016, was marked by the words of the President of the Republic of El Salvador, Salvador Sánchez Cerén.

The Ministry of Education of El Salvador baptised the educational devices as Lempitas, since he wished to make reference to the River Lempa, the largest river of the country and one of the largest of Central America.

Until the end of the first year of production in the country, the programme "Una Niña, Un Niño, Una Computadora" is expected to deliver 32 thousand Lempitas to students and teachers of 1.177 public educational establishments, while at the same time establishing all the conditions for connectivity in these educational centres. With this first investment, it is estimated that the country will be able to decrease the digital divide over a period of three years.

The implemented industrial unit is strategically oriented towards educational purposes. However, in the medium-term, the Government of El Salvador intends to increase its specialisation capacity, production volumes and quality levels.

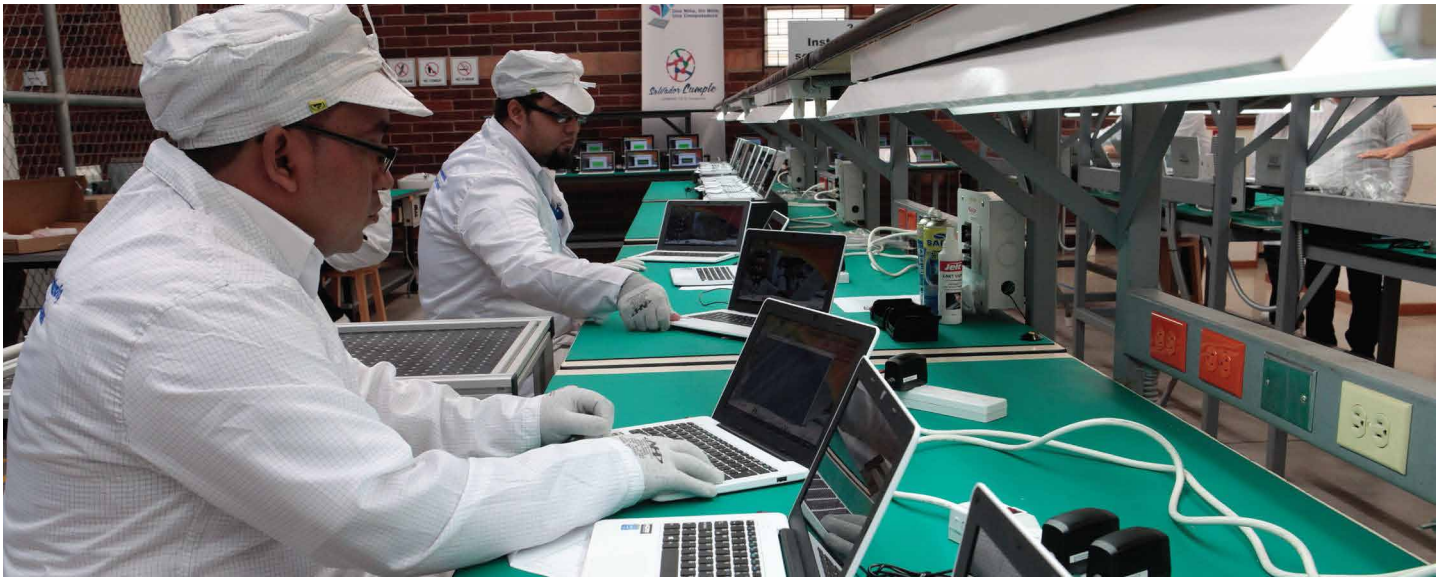
Only in this way will it be possible for production to gain customisation competences and to diversify the offer, in order to enter other vertical sectors of the local IT and electronics market.

"Una Niña Un Niño, Una Computadora" is a clear representation of the way in which jp.ik believes that technology can contribute to a Quality Education and Sustainable Development of Countries, through its reach, transversality and total integration of technology in the different dimensions of society.

El Salvador is shaping the forefront of its evolution, improving the economic and technological competitiveness index of the country by transforming its Education system. By promoting equality of opportunities in the access to the best technological resources, transferring knowledge and experience in what concerns meaningful ways to use and benefit from them, El Salvador is building a society of qualified professionals, with the competences to guarantee the sustained growth of the country.

"El Salvador is an example for many other countries that do not want to remain in the past in terms of Education"

Jorge Sá Couto, Chairman of jp.ik



jp.ik is number one in the world in implementing innovative large scale Educational projects. Our ambition is to transform Education through Technology and transform the World through Education.
The integrated approach developed by jp.ik – "Inspiring Knowledge Ecosystem" – covers three key pillars of a technology-based education project: Technology, Engineering and Pedagogy. With the educational ecosystem, jp.ik delivers more than technology, assuring the knowledge transfer as a key success factor for the long-term sustainable development of communities. www.jpik.com | marketing@jpik.com.

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