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SUSTAINABLE STP'S MANAGEMENT TRENDS

PARALLEL SESSION 1

STPs and AIs. Evolution of models and strategies:
adapting to the new context

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THEME 1: STPs & AIs STRIKING THE RIGHT BALANCE: Technology, Business, People



SUBTHEME: STPs and AIs. Evolution of models and strategies: adapting to the new context.

Sustainable STP 's Management Trends

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SUMMARY

According to the data obtained by APTE (Spanish Science & Technology Parks Association), the current economic and social crisis has also influenced into the increasing number of STPs and companies installed or linked to them in Spain, i.e. it has become stationary or lightly declining. Nevertheless, there is a general conviction, that this process is going to be reverted but it will require, in any case, reconsideration in the new STP role, that is to say STP's challenge is their regeneration process¹. If at any time the infrastructures, buildings, office and labs with generous equipment made sense and really provide a differential value, it seems that today they are not enough elements to attract the best projects².

On the one hand, the human factor, is actually determinant: talented entrepreneurs and a powerful networking together with top universities and research centres combined with adequate and progressively continuous funding and, of course, a nice quality of life are the crucial factors to achieve an efficient ecosystem³. On the other hand, the management of STPs, traditionally, have been funded by the government for the processing of grants or by real estate business, land and/or offices, laboratories and workshops, with suitable teams to performing this function.

Nowadays, except for a few number of consolidated Parks with very low debts, most management companies are in a process of focusing its strategy, looking at business model, focus of the value proposition to strengthen and adjusting their teams with the purpose to give more agile and the most efficient response to the new requirements.

Based on the current situation, and through an exhaustive compilation of information from the Spanish Science and Technology Parks, APTE has tried to identify a desirable and suitable new balanced funding model. For such analysis, it has been using the Six Thinking Hats model⁴: White Objective, Green Creative, Yellow Positive, Black Negative, Red Intuitive and Blue Process with the goal of expanding the options of adding value to businesses.

The starting point is based on basic questions: Who is my Customer/Buyer/User? What is the key problem of my client? How could we solve it?

To move in this direction we have focused with a mind map by adopting a creative approach, incorporating added value and benefits. Leaving aside the already known negative aspects it has been tried to focus on the positive aspects and the reasons we have for cautious optimism.

Concepts such as open innovation and the combination of Lean, Scrum and Kanban methods have been used with the support of tools like Trello or Kimai. In every process there is always an intuitive component that is checked by various trial and error tests and a proper process of continuous improvement, providing discriminating value of wasted time and energy.

Projects and Processes based management combined with good indicators with appropriate metrics and achievable goals, which are reflected in a balanced scorecard, will allow its successful implementation.

The situation does not apply only to Spain, Europe as a whole has to be reinvented itself. It is required to define a new STP approach in order to strengthen the sustainability of the STP, helping to build the ecosystem and contributing significantly to the economic development of the area in which they are based on. A radical transformation of these entities for this new century is required.

Next steps? STPs has to apply to themselves the same advice the it proposes to their entrepreneurs: working under a StartUp perspective: STP's need to re-built the end user profile with an accuracy market segmentation and, whenever is possible, some specialisation. Co-working with the customers trying to understand the full value chain, in all the different steps of the companies, or establishing services and projects specifications are a due. The redefinition of every core and the

¹Annual Report 2012 and internal strategic analysis *APTE*

² Iberian Conference Huelva 2013 *Luis Sanz*

³ "The ecology of innovation" 2008 *Tapan Munroe*

⁴ Six Thinking Hats *Edward de Bono*

new strategic position, mapping the process to acquire and retain customers, calculating the Total Addressable Market Size, designing STP's Business Model, setting the pricing framework, mapping the process to acquire a customer and the cost of customer acquisition, identifying and testing the key assumptions, defining STP's Minimum Viable Business Product, show that “the dogs will eat the dog food” and finally develop a Product Plan⁵. Finally we propose a balanced funding model in order to guarantee the future of STP's.

INTRODUCTION

In accordance with the data obtained by APTE (Spanish Science & Technology Parks Association) in the last statistics of STP activity, the impact of current economic crisis on STPs is being softer than the other agents in the innovation system.

However, Spanish STP need to improve their funding model to be more competitive in the current system of innovation.

A key element of this process is to encourage park managers that the same advice they give their business to help them grow, they need to apply it themselves. Also, the main concepts of the new funding model are: sustainability, profitability, trial and error tests, design of new useful services that companies are willing to pay, networking at local, regional, national and international level, and capacity to give answer to the environment necessities.

The main objectives of this paper are:

- 1º) To know how is the current funding model of Spanish STP.
- 2º) To identify the different funding models and their particular characteristics.
- 3º) Analysing the various options for economic viability of the STPs managing entities.
- 4º) To suggest tools and process for moving towards sustainable entities

DATA COLLECTION

To propose an improved funding model for STPs, our first activity was to analyse the current situation.

First of all, we have designed a survey with some questions about three main aspects: percentage of revenue by activity, by source of them and prices of sale and rental per m².

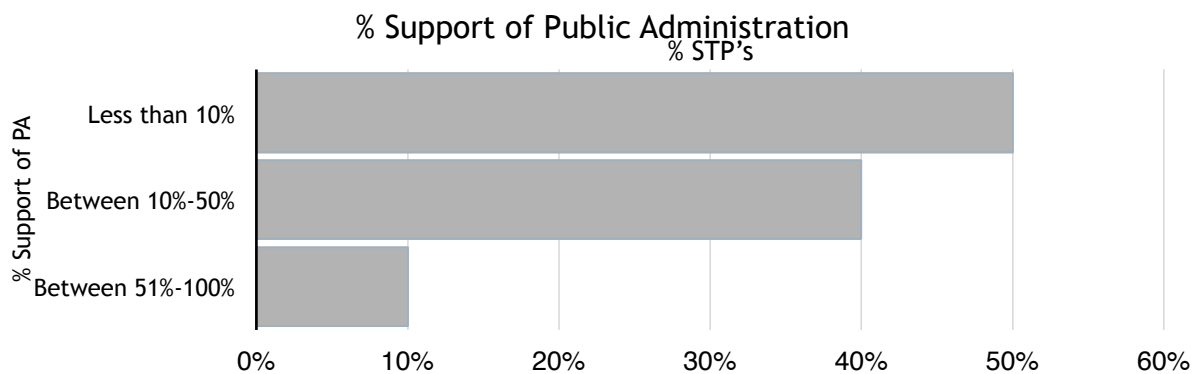
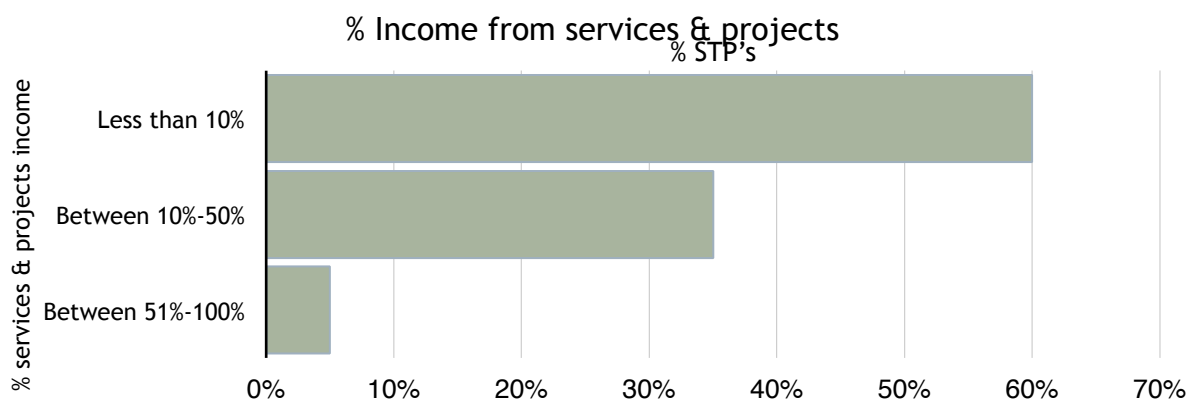
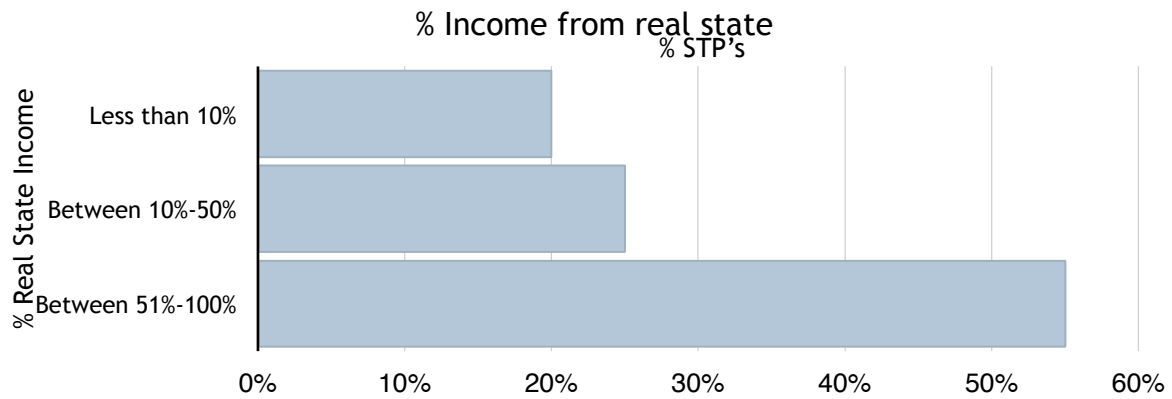
The survey was made with Google Drive to allow easy answer of the STPs with a link to an online questionnaire to our 45 operative STP located in 12 different regions: Andalucía, Aragon, Cantabria, Cataluña, Madrid, Valencia, Galicia, Islas Baleares, Islas Canarias, País Vasco, Asturias y Murcia. The survey was answered by 44% of STPs, so, we considered we had a representative sample.

Then, we have design a mind map to show all aspects to need an improvement to define a new funding model for the Spanish STPs. Also, to find an proposal of improvement for each aspect we have checked different theories about management, strategy and we proposed various tools that we believe could be improve the present funding model of Spanish STPs.

STARTING POINT

According to the survey results, the current economic model of science and technology parks has the following characteristics:

⁵ Disciplined Entrepreneurship *Bill Aulet*



If we talk specifically of managing entities and their income statements, in terms of the park management, we are interested in the different funding mechanisms into three groups: real state, services and projects and the contribution of public administration.

If we compare the three graphics, Spanish STPs still get most of them (55% of STP's) income through the sale land or renting office (more than 50% of budget) and not from services & competitive projects. Only 5% of STP's had more than 50% of income from service & projects.

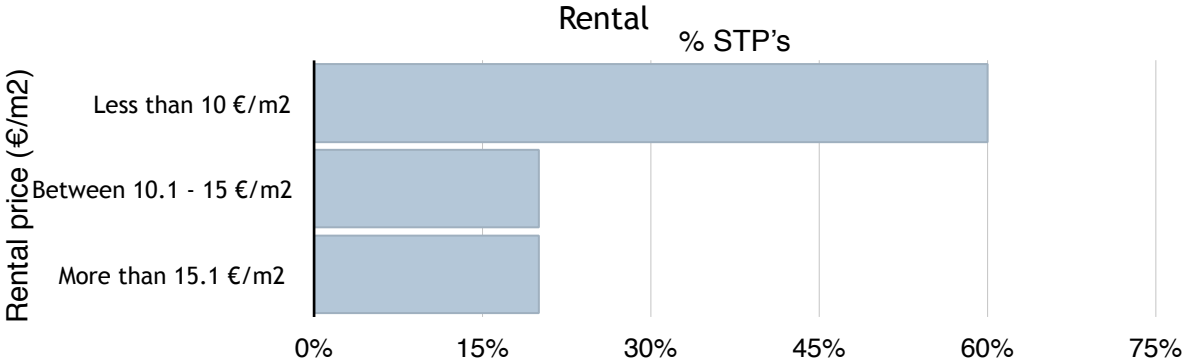
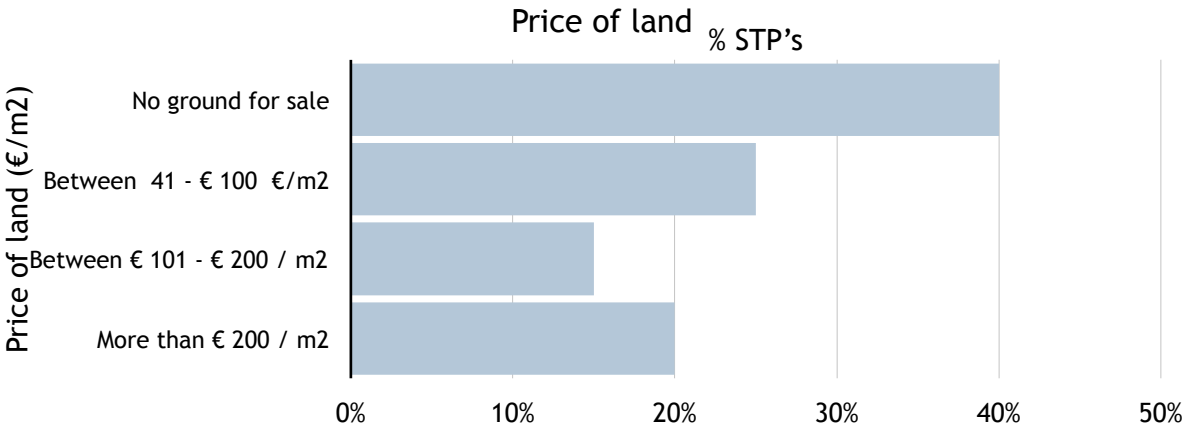
In other hand it's remarkable that only 10% of parks obtain more than 50% of income from public administration. And 50% of parks only received less than 10% of incomes from public administration.

Which means that the majority of STP's have today a financing model based on real state revenues, and very low incidence of services and projects, that are given away an some cases and poorly valued. Instead it appears that they are not dependent instruments of public funds, as could sense and has happened at other times.

In order to know, how much price of land and rental spaces are distributed, in the Spanish STP's we can see the following two graphs.

We see on the one hand and 40% of parks do not sell land. And prices are distributed, more related to the situation of the park and the reference prices of their environment.

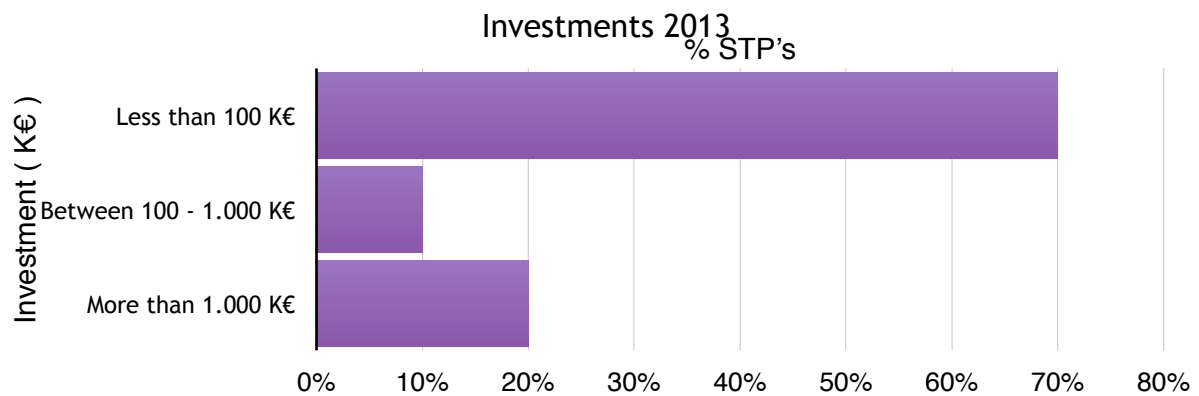
On the other hand is seen as mostly (60%) of the parks maintained rental price 10 €/m2 or less. Note that in many cases there have been adjustments arising from the economic situation.



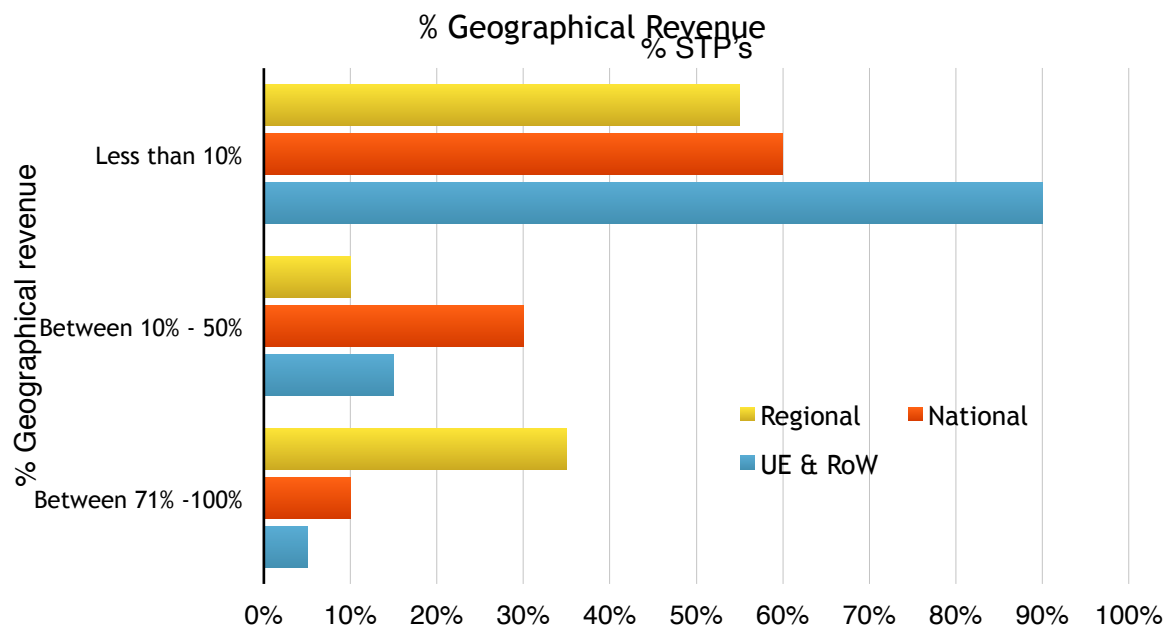
Another question are the balance sheets of entities, especially when considering the ownership of land and buildings. A note to this effect, consolidated parks most experienced, are generally written off and little or moderate debt. In contrast the new parks that have addressed implementation and construction into the crisis, have had more difficulties due to the burden of debt incurred, and the difficulty of generating funds fast enough to meet it.

Therefore the parks that have not undertaken major investments, and have been adjusted to a controlled and adjusted growth and with low debt, are those who are in an acceptable financial situation.

We can see the chart accompanying the limited amount of investments made in 2013. Only a small proportion of Parks have made any significant investment. 70 % of Parks invest last year les than 100 K€, and only 20% of them invest more than 1 million €.



Another interesting point is the one that refers to the geographic location of the sources of financing of the managing bodies of the parks. This information is summarised in the chart below, which have been grouped into three blocks regional funds, domestic and those from the EU or the rest of the world.



According the previous graphics, we can see how the Spanish STP get their incomes mainly from regional environment.

If we consider that now more than ever, it is important the internationalisation of our business, Spanish STP have a pending subject. (90% of STP's had less than 10% of income to UE & RoW)

It seems clear therefore that the managing bodies of the STP's have to do a deep reflection on our funding model.

This is just what we will see in the next section.

CONSIDERATIONS AND MANAGEMENT TECHNIQUES OF STP'S TO BE SUSTAINABLES

Basic questions such as: Who is our customer/buyer or user? What is the key problem of my client? How could we solve it?

To move in this direction we have focused with a mind map by adopting a creative approach, incorporating added value and benefits. Leaving aside the already known negative aspects it has been tried to focus on the positive aspects and the reasons we have for cautious optimism.

For classic models of Science and Technology Parks (STPs) to evolve, based essentially on both estate-related income and contributions made by subsidies from Public Administrations, towards a compensated, feasible income scheme that is sustainable over time, everything suggests that management agencies should engage in a re-invention and regeneration exercise that centres on providing timely and accurate responses to the requirements of various customer and user groups.

This strategic-based re-invention process can be carried out using several formulae. For us, it seems appropriate to deal with one of the options, that of attempting to use the same tools and methodology that we currently recommend to our StartUps.

To begin with, and as a summary, we must know and apply a series of basic principles from the Lean Method⁶.

Firstly, by centring our activity on generating the customer-perceived value, and not generating “rubbish”; that is, actions with no or little value for customers, which consume resources, and not do contribute to advance in or reach their objectives.

Secondly, we must be willing to carry out a learning process, during which we are sure to make mistakes, but at least these must be clearly identified as such, apart from being cheap and fast. By complying with all these three conditions, all that remains to be changed is the proposal made in each case until the successful one is achieved.

Finally, we must understand and accept that this is a process in which we re-discover our customers and progressively advance. It is not a matter of assembling large structures, but of constructing solutions with a dimension, capacity and quality that adapt to their requirements at all times.

As knowing the problem (“pain”) that we wish to overcome is essential as a starting point, identifying this requirement and, if possible qualifying it, is a fundamental requirement in order to be able to provide a suitable response later.⁷

We start from the basis that the vast majority of customers of STPs are companies and, therefore, our business will be clearly of a B2B type. Yet in order to respond to these companies’ requirements, it will be necessary to adequately divide the market into segments, identify groups with homogeneous requirements and attempt to provide a solution to their specific problem.⁸

Our customer is ever-increasingly more demanding, better informed, has many options, and is spread out and not in a single location.

As is usual in management, there is always a stage in the process that will prevent it from moving forward as quickly as we would like it to. (TOC)⁹. Here is where we should centre our services proposal by attempting to unclog and/or facilitate a solution to the conflict.

The only way to check if the proposed solution is appropriate is to validate it by at least three customers of this type. Evidently, if the solution is incorporated and validated by the three potential customers, this will be the signal that it actually responds to their expectations in quality and price terms. If this is not the case, it is necessary to provoke iteration (a minor change), or if

⁶ The Lean StartUps Method *Eric Ries*

⁷ Nail It Then Scale It *Nathan Furr & Paul Ahlstrom*

⁸ 24 Steps to a successful StartUp. Disciplined Entrepreneurship *Bill Aulet*

⁹ Theory of Constraints *Eliyahu M. Goldrat*

the response is negative, to switch (a more profound change) to another formula because the proposal is not adequate.

Asking correctly is no easy task. More often than not, we find we do not obtain the quality of the desired response, not because our speaker is more or less communicative or comes over more or less clearly, but simply because we have not asked the right question. This trial-and-error mechanism should take place¹⁰ swiftly and agilely in order to adopt the best alternative as quickly as possible. This process is that put forward by Steve Blank as the discovery of a customer to validate it.¹¹

Once we have obtained a validated proposal of a solution (service), it is the time to expand it and to present it to all the customers of a given market segment (niche).

This process should be repeated in all the market niches that we have identified in our park, and also beyond it, in the area we cover, for those currently linked to the ecosystem, and those that we can potentially capture according to the area/terrain we cover.¹²

Hence there will be several products (services) for distinct customers that are formulated differently. At times, making the solution personalised or tailor-made should be considered. As a general rule however, it is vital to make the solution as standard as possible.

The next step is to define a Business Model by applying the Canvas Method, which responds to our customers' requirements. It is here¹³ where an essential part of its success and sustainability lies. The ability to propose original business models, and to be able to modify a model and adapt it to an ever-changing setting, is¹⁴ critical to achieve sustainability. A good method to carry out the follow-up is the Lean LaunchPad.¹⁵

Although a business model has been validated which, in turn, is based on valuable solutions for our customers, it does not guarantee per se future sustainability, but it does make activity feasible.

After having identified and validated the services and the related business model, we still need to adapt the economic data; that is, check that income after deducting costs provides us with a positive, sufficient margin. There are two parameters that we must control: one is LTV (LifeTime Value), the total value we will obtain from each customer during its lifetime with us; the other is COCA (Cost of Customer Acquisition), the cost of acquiring a customer. The ratio between these two parameters will prove decisive to prioritise the most important niches.

We can only accomplish sustainability when we manage to incorporate innovation into our own organisation as a central point of action. This implies, on the one hand, the continuous improvement of processes and, on the other hand, the capacity to detect and adapt to our customers' changing requirements. In many cases, the speed of the response is just as important, or even more relevant, as its quality.

Having a good control panel with well-defined indicators of follow-up, and qualified and achievable goals,^{16 17} is an essential instrument to implement various improvement plans and to deploy suitable projects.¹⁸

¹⁰ The Mom Test *Rob Fitzpatrick*

¹¹ The StartUp Owner's Manual *Steve Blank & Bob Dorf*

¹² The Ecology of Innovation At Work. Silicon Valley *Tapan Munroe & Mark Westwin*

¹³ Business Model Generation *Alexander Osterwalder & Yves Pigneur*

¹⁴ Running Lean *Ash Maurya*

¹⁵ The Four Steps to the Epiphany *Steven G. Blank*

¹⁶ Balanced Scorecard *Robert S. Kaplan & David P. Norton*

It is worth highlighting at this point that the mix of products and services which customers require often undergoes change and evolution permanently, and that part of the management agency's success lies in detecting these requirements in good time and in providing a suitable response to them. This entails keeping in constant touch with companies by actively listening.

Identifying our user/buyer perfectly, knowing the person who finally makes the decision to purchase our product/service, and adapting our valuable proposal to their expectations are essential for success.

At this stage, we must stop and reflect on the human team that we have to bring about this change. In this process, this team's skills and attitude will be determining factors for success; along with its commitment and capacity to learn by doing. It is interesting to reflect, to identify what different types of work have to be done¹⁹, as well as the necessary complementarity.

On many occasions, it will be necessary to collaborate with other agents beyond the Parks' own management team, which could be the companies linked to it or other external ones. Above all, it will be necessary to collaborate with customers by Co-designing²⁰, Co-creating and Co-attempting in living.labs-type settings where we can try out various solutions before definitely launching them to the market.

Such collaboration will be carried out by working in a network with other interface agents because their teams' complementarity and experience will prove extremely interesting to be able to meet the quality objective of our response to customers (Chambers of Commerce, Business Innovation Centres, Technological Institutions, etc.).

This process is not free of competitors (or better still, coo-petitors). There are more and more agents in the ecosystem. Today's crisis has driven major changes in many entities, which have carried out, or are currently immersed in, major re-definition processes. We must pay special attention to not commit false competition with the Parks' own companies or consultancy firms with their own areas.

Public-private collaboration schemes, with clear competition game rules, will doubtlessly help improve and adapt the new services formulae proposed. Therefore, we feel that it is particularly interesting that we become the main promoter agents in dynamic areas of innovation.

CONCLUSIONS

In conclusion, we have tried to reflect in this paper the status of Spanish STP's at this time in relation to its funding.

We have seen that still hold a park model in which the specific gravity of the real state revenues raised.

It seems important to increase the proportion of future revenue from the provision of services and realisation of competitive projects. As for the dependence of public administration seems appropriate. It is observed that revenue should be increased both nationally and internationally facet, since earnings are now local and regional too.

Finally it has made a proposal for a working method, based on the techniques we are using in our startups, with some adjustments, it seems very apartment owned and applicable to our

¹⁷ The KPI Book *Jeff Smith*

¹⁸ Key Performance Indicators *David Parmenter*

¹⁹ Team Roles at Work *R.Meredith Belbin*

²⁰ Open Innovation *Henry Chesbrough*

management companies, which serve to define and validate a new model business to be viable and sustainable.

Each entity must find their own financial balance , which can help ensure the quality of care required by clients of the park and at the same time ensure the immediate future.

ACKNOWLEDGEMENTS

We want to first thank the group of directors Parks inspiring this article, which emerged in a pleasant evening in Gijon. The first graphs were created in coasters pub-bar.

Of course, thank also, the members of the Association who responded to the survey, without which we would not have been able to have the basic data and the Organisation of the meeting, for allowing us to exhibit our Spanish point of view.