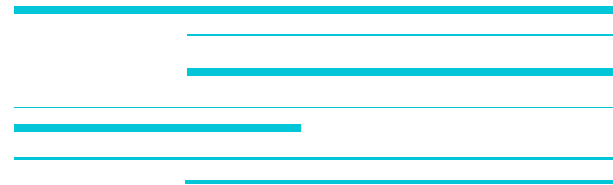


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Addressing the Innovation Challenge in Big Companies



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1 A TRANSFORMATIONAL ODYSSEY

“There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things”¹

Traditional telco business served a well-defined need that consisted in person to person remote communications which later extended to machine communication. Today we are in a completely different universe. Digital ecosystems have radically shifted the well-established paradigms enabling endless possibilities, adding extra layers of richness and complexity and dramatically accelerating products timescale. Users and machines all over the world are hungry for new products and services at an increasingly high pace, to serve them effectively Telefonica has embraced the Digital Telco strategy.

To create new digital telco businesses in a turbulent context we have to lead and build a sophisticated capacity for continuous learning. It is people who learn and lead, no one else, so the only way is to unleash people’s talent. The organization has to evolve from hierarchical, verticalised and process-centred to talent-driven, where people take the responsibility and are empowered to propose, defend and execute innovation projects with autonomy.

Under those circumstances we have experienced a way to address the innovation challenge: start with small initiatives, be ready to make mistakes, learn along the way and constantly improve how things are done. All this requires a deep cultural transformation and a totally new environment to foster innovation; none of these happens magically overnight.

Lean Startup entrepreneurs start small, aim high, fail cheap and fast and, most importantly, learn along the way and close the feedback loop thus accelerating the way to success for the whole organization. Most of the projects die spending just few resources but some will survive to disrupt the industry and create exponential growth. Therefore Lean Startup has offered us a good tool to apply these practices to innovation projects in a big corporation like Telefonica.

This is exactly how we began to work two years ago; we came up with the seed of a model to set up a fresh and motivating environment where things would be done in a different way. As one of our innovation project leaders explains it *“all this implies a big mind-set change when building a project. It is totally different and has impact in all the stakeholders, from internal customers to the team, the leaders... It is a process that changes people. It optimises the quest effort to find new opportunities. It should always been applied”*.

We have encountered plenty of friction, less than expected though, since we belong to a large organisation not designed for the way we work.

¹ Machiavelli, Niccolò (1513), “VI”, *The Prince*.

We have written this document because we wish to share our ambition, learnings and experiences with anyone wishing to start or already in the middle of a transformational odyssey like ours. The contents of this document not only reflect our experience and learnings, but also those of some of the people that have led or worked in the teams in charge of the innovation projects developed using this new framework. We call them our pioneers!!!

2 LEAN STARTUP IN A BIG COMPANY

“...despite the methodology’s name, in the long term some of its biggest payoffs may be gained by the large companies that embrace it”²

2.1 Why Lean Startup?

Low-hanging business opportunities are not part of our landscape. Actually quite the opposite, opportunities need to be created, grown, evolved and matured through a discovery process designed to thrive under uncertainty. Lean Startup³ clearly identifies the specific needs of highly uncertain environments and sets up a strategy to increase the success rate under those circumstances. This is why we thought Lean Startup was the way to go at the execution phase for early innovation at Digital Telco such as Telefonica, **now we have learnt that it does work.**

Lean Startup practices encourage the teams to be their own critics because decisions are made by the team based not on arbitrary milestones but on market validation and ability to demonstrate the validity of key assumptions. This is a great tool to avoid the dangers of “innovation by committee” and helps identify opinions as such.

2.2 How we got Lean Startup going

From the very beginning we truly believed that to get the best results the keys were iterative execution and team diversity. Most projects were encouraged to carry out Lean Startup execution in order to enable us to explore, spot, prototype, and develop efficiently in a wide range of technological areas.

At the same time it is relevant to point out that in our perspective Lean Startup does not necessarily fit all projects. Even before initiating the execution we check the risks the projects are facing (whether customer risk or invention risk or both). Some projects (actually these are a small fraction) had to cope only with invention risk. In those cases we just let the great technological talent in house do the job; they know how to do best. Other possibility is that the project is in such an early or exploratory stage

² Blank, Steve, *Why the lean startup changes everything*, Harvard Business Review (May 2013), <https://archive.harvardbusiness.org/cla/web/pl/product.seam?c=29512&i=29514&cs=72931baa3b05f76aca8090b33db139b>

³

The objective of this whitepaper is not to explain Lean Startup methodology itself, in fact there is already excellent literature on the subject, our recommendations would be:

Blank, Steve Dorf, Bob, *The startup owner’s manual*

Ries, Eric, *The Lean Startup*

Maurya, Ash, *Running lean*

Lopez de Ávila, Mario, de Miguel, José Antonio et al, *El estado del arte del emprendimiento Lean en España*

that rather than Customer Development and Lean Startup methodology they need to use approaches like Design Thinking and other ideation tools.

Based on Lean Startup the three reference pillars of the framework we have applied to innovation are:

- I. **Start small and aim high:** the level of ambition in our innovation projects must be high. They need to bring the possibility of a global reach and the potential to make an impact in everyday life and business. This does not mean that they will burn lots of resources to start with or that they need to show full potential from day one, quite the contrary. Projects, specially at the beginning, work just with bare minimum resources, and then investment increases as the project progresses with validated learnings. The less uncertainty the more budget.
- II. **Iterate fast to achieve efficiency** in each of the maturation stages. This means scaling down the initiatives that are too early in time, immature or unfocused while fueling up the ones that show traction. Therefore, product investment decisions conducted along the process rely not only on technological trends, but also on a profound understanding on which markets the digital customers will form in the upcoming years.
- III. **Fail fast, fail cheap and make sure you learn along the way.** Instead of devoting large quantities of energy and resources to increase the individual success chance of a few projects we've thought it wiser to lower the overall risk by minimizing the failure cost for each project.

2.3 Highlights on what we did

Based on the three pillars of the previous section we:

Decreased upfront risk with finer project granularity. So we now we have smaller size projects focusing on business and technology feasibility. That is, focused on verifying assumptions and clearing out uncertainties. To achieve that, we have also stimulated an experimentation and prototyping culture, with early market testing and validation and with fast iterations, establishing periodic evaluations where teams make decisions according to the learnings.

By default, minimal assignment of resources which make projects be lean. If a project requires to carry out more work beyond what was originally specified, additional budget may be requested and the budget extension decision is made in a VC way, incrementally according to project stage, results and next steps plan.

Projects **performance review based on the learnings and experimentation results** rather than according to traditional milestones; this means the objective is not to complete the projects within a given period of time and budget but to learn and experiment as much as possible with minimal resources and time, while at the same time achieving market validation.

Debriefing and dissemination: Once innovation projects are completed special attention and focus is put to analyse and decide the best way forward. And whenever a project is proactively killed, it goes through a post mortem and debriefing session and key learnings and suggestions for improvements are clearly identified and stated. So there is always a reflection about the innovation projects results. Knowledge transfer (knowledge capture and dissemination) and, if applicable, IPR protection (mainly by patent filing) activities are carried out as well.

Encouraged multidisciplinary teams, so that there is regularly a mix of profiles (technological, user experience, scientific research, business, etc.) Our first-hand experience is that these teams produce noticeably better projects. Purely technical people tend to lack customer and business perspective besides being biased towards a “solution first approach”, while proposals solely based on insights or business opportunities are harder to action and tend to be weaker at the “non replicable differentiation” aspect. In any configuration business experts also proved to have very positive impact on the outcome, for this reason we try to embed MBA students in the teams and encourage conversations with business experts as part of the process.

Have a **well balanced portfolio of core business-aligned and disruptive projects**. And **balance bottom up vs. top down innovation** to strategically spot the most promising opportunities and still get the positive Black Swans⁴. Bottom up is essential to foster intrapreneurship and to create a cultural change. Any employee can propose ideas, which, at the same time, translates into a continuous pipeline of fresh ideas.

Specialized Lean Startup/Customer Development training for all people taking part in innovation projects, even if there is no customer risk in those projects. Hypothesis validation by means of experimentation and incremental building can be applied to all projects and has proved to be a good methodology.

Create a small team of Innovation Managers to take care of the innovation cycle. This team is also devoted to encourage and stimulate innovation, to assess and support projects at any point, to apply the Customer Development methodology and take part in the periodic projects reviews, offering advice and ideas on how to go ahead.

Leverage on customer insights and user trends knowledge since most powerful innovation projects are those that have a good combination of customer insights and technical solution.

⁴ Taleb, Nassim Nicholas, *The Black Swan: The Impact of the Highly Improbable* (2007)

The art of killing when projects are not able to find the value proposition, customer's pain, or the right solution in the given amount of time. It is important that some project managers develop this ability as it makes the innovation department much more efficient. By being able to close down a project we are granting another team to be successful with another idea. But we should not kill a project without having a debriefing session (or process) to make the most of the project learnings and ensure we are going to make use of those learnings. This way we will avoid the frustration that killing the project can produce in the team when their work and efforts go nowhere.

Open Innovation has proven to be also a very good tool to complement our skills with best-in-class companies and institutions and collaborate with startups to accelerate technology adoption. And it is also a good way to involve customers as part of the project and iterate together to ensure the solution you are building tackles the customer real problems and make it differential. We open up strategically to the outside world not only to get ideas from external sources, but to develop Open Innovation partnerships and to foster cross-pollination between areas.

Implement a Mentoring Program combining internal and external people to support projects with the new methodologies, navigating the organization and providing with external mentor's out-of-the-box perspective and challenge. We assign a mentor to support projects with a clear customer risk to help them embrace the Customer Development methodology. The external mentor is a professional with solid experience in startups mentoring and business, with an extensive contacts network (far beyond Telefonica), with deep understanding of the entrepreneurship ecosystems and good knowledge of Lean Startup/Customer Development methodology.

We have mentoring meetings with teams every two weeks. All meetings start with the questions "What have you learnt in the last two weeks?" and "What has surprised you?" And before the meeting ends, we ask the teams another pair of questions "What are you going to focus on during the next two weeks?" "What are the biggest uncertainties you have to clear up and how are you going to do it?" This will make it clear that every two weeks teams must have learned something and cannot come empty-handed to the meeting. In those meetings we also keep asking "Which is the problem you are solving?" and when this questions is answered we ask "Which is the value proposition?" until we get a clear answer.

3 THE EXPECTED: CHALLENGES IN A LARGE COMPANY

Being part of a company such as Telefonica has important upsides. In the first place it is possible to have access to high value non-replicable assets: platforms, infrastructures, global communication facilities, 300 million customers, sales channels and European and Latin-American footprint, PR resources... In the second place, getting to talk with relevant stakeholders is a lot easier; it is very unusual that anybody would not be willing to hold a conversation with Telefonica. But big companies also pose big challenges.

3.1 Cultural change

In words of one of our pioneers *“It is important that Lean Startup is understood as **a mindset and not a process**. That is Lean Startup biggest challenge. It is also **a challenge much more cultural**.”* Applying Lean Startup practices implies also a significant **cultural change and mindset shift from “achievers and performers” to “pioneers and explorers”**. Our pioneers describe this shift as:

“It is a new approach that looks for quick advance by adding value instead of starting from something more ‘chewed’. What has been really new is the focus on going very soon to the market and begin very early to sell to achieve validation. This learning is really valuable.”

“ It has been really nice to be able to make our own decisions based on lean validations, instead of investing a lot of time and effort to execute some closed requirements that may not necessarily have been validated previously in the market.”

“What is different is the way of defining the product/service. In the past you concluded an offer with the requirements that came from ‘above’ and you had no visibility of the product. Now we define a solution that could lead to a real product.”

“With agile methodologies we have learned to build things in a more iterative way and Lean Startup implementation has meant the climax; before starting to code we are already talking to the customer and that allows us to be in touch with reality.”

“It has been a very positive experience especially in the initial phase when you don't know if your idea is the answer to what the market is demanding. It allows you to be aware of what you have and what you lack as well as identify your target audience. Besides, it gets you out of the office and gives you the chance to get rid of preconceived ideas that you have without having validated them in the market.”

Innovation and culture are tightly linked so building a stimulating environment around learning, experimentation and prototyping is essential. The only way to do this effectively is leading by example, actually letting teams work in this way and taking advantage of communication opportunities to further disseminate. Corporate organizations are very fast at spreading the word; we have learnt that just by walking the talk the key messages permeate the organization.

3.2 Finding intrapreneurs

Finding intrapreneurs is not an easy task, it is also important to understand that entrepreneurs and intrapreneurs share many traits but still are not the same kind of people.⁵ Good news is that after a few months people with the right talent start to emerge and become visible and then what we have done is reassign them into other innovation projects or refer other teams to them for advice, learnings and example. In this way little by little we are building a network of skilled people that can support innovation projects.

3.3 Bootstrapping possibilities

The resources costs are not the same as in a startup, and bootstrapping possibilities are very limited. Innovation projects in an early stage normally have a ring-fenced budget and can progress without too much hassle. However when innovation projects become more mature and need acceleration, they start competing for resources and attention with “incumbent” projects. That situation is very difficult to manage properly and this is the point where many innovation programs fail. Finding a solution for this trap is our next objective. At this point what we have learnt is that decided sponsorship from high level executives is decisive.

3.4 Dealing with corporate politics and processes

Get Upstairs in the Building: strong, sustained internal support for successful internal venturing is needed⁶. Dealing with corporate politics and processes is unavoidable if you want innovation projects to move forward in a large company. Our pioneers dedicate a significant part of their time to deal with

⁵ Myller, Larry, *Intrapreneurs Are Just Like Entrepreneurs...NOT!* (15th January 2014), <http://www.forbes.com/sites/larrymyler/2014/01/15/intrapreneurs-are-just-like-entrepreneurs-not/>

⁶ Chesbrough, Henry, *Why Internal Ventures Are Different from External Startups* (26th March 2014), <http://www.xconomy.com/san-francisco/2014/03/26/why-internal-ventures-are-different-from-external-startups/>

them (one of our pioneers estimated that 30% of his time was devoted to this task). Processes in large companies are designed to serve large-scale requirements, therefore these are usually ill suited for innovation projects, which are small, very agile and go through very quick changes.

“One of the biggest challenges has been the corporate politics. I wasn’t taking it into account and it plays an essential role in the project.”

“In a big corporation you have to keep informed the largest possible number of people, ‘making lots of noise’ in the corridors, even to people who are not interested in your project or that could make some objections. You have to adapt lean startup to the context, you cannot apply it as it is, you may even have to add some personal learnings that are not in the books”

“The biggest challenge is organisational. We had a lot of stakeholders: the product organization, the local companies, the innovation organisation... each one with a different vision. Applying lean startup in a big company is difficult, there is a lot of bureaucratic issues and a trend to cling to their own beliefs. Many people have a role in the decision-making process. You cannot apply lean startup in a pure way; you have to adapt the methodology to the company’s philosophy.”

In some situations we have found in the organisation **reluctance to admit and act upon lean evidences and validations coming from innovation projects**; unfortunately those learnings cannot beat some executives’ beliefs. In many cases these learnings can be useful in other areas, for other company products or services, etc., and **it can become frustrating not having a way to gather all this evidences and validations and a mechanism to share them with the rest of the organisation to take advantage of them**. In words of one of our pioneers *“you gather evidences and they don’t believe you until they beat their heads against the wall.”*

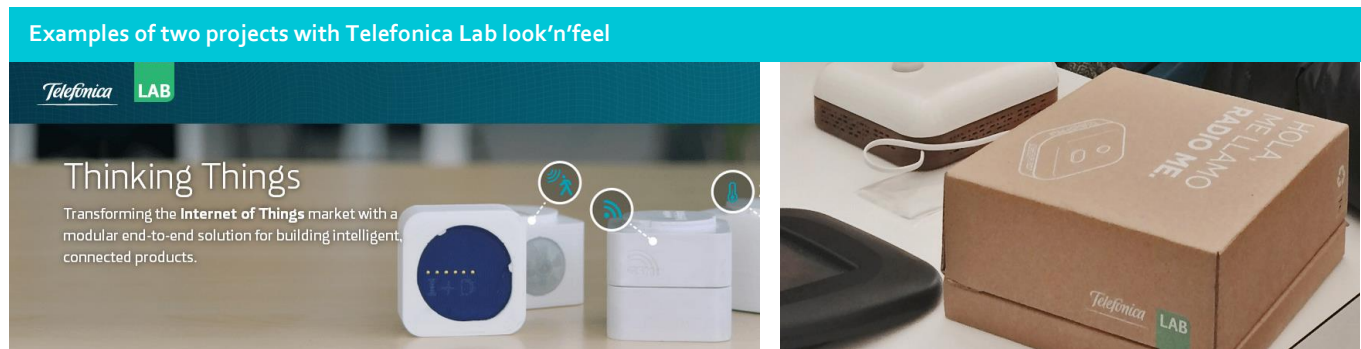
We have dealt with this reality by engaging with people in charge of corporate processes, explaining them what we do and which are our needs and maintaining regular conversations on project status. Although not ideal this has proved very useful. Regarding politics there is just one golden rule: get decided commitment and support from top management. Additionally effective communication of activity, progress, contribution and results of innovation into the right forums and boards further consolidates innovation value and helps find champions for the projects.

3.5 Branding

Being able to rely on Telefonica’s brand is a great advantage. However, making use of the established brand when launching experiments and tests is not always the right approach. The expectations created when any service or product is launched under the main brand are very high and this is often

incompatible with the objective of experiments which is to learn as much as possible as cheaply as possible. There are mainly two complementary solutions for this:

- Use white brands for experiments in a very early stage.
- Develop an intermediate look'n'feel, Telefonica Lab in our case, so that customers are aware these are not regular Telefónica's products, but experimental and innovation initiatives with a different status, where alpha and beta versions are provided instead.



In any case our strategy has been to **establish a fluid relationship with the branding unit**, explaining them how we work and agreeing the strategy with them beforehand. That makes the process a lot easier.

3.6 Experimenting in B2B environments

Telefonica creates not only B2C products but also B2B products. Applying Customer Development to B2B environments in a big company is not easy either, especially when you need to talk to customers or test your solution with them. In most of the cases you need the sales force support to contact them. The sales force can be really helpful and provides the teams with an advantage startups usually don't have. They have already an established relationship with the customer and they can easily "open doors" for you. That sales force will also sell the product in the future, so it is good to involve them and have their opinions into account as soon as possible.

But expectations need to be tackled as they have different expectations; sales people tend to quickly include the project in the portfolio while what the project team wants most is to learn about the problems of the industry. Another risk you have to manage is that when talking to a customer hand in hand with a sales person the customer could identify you as a sales person too and not as a person who works in an innovation project and wants to learn. It is also worth mentioning that, in some cases, contacts with other companies can be conditioned by the brand Telefonica, because in many cases the people or companies you contact are already Telefonica's customers, and in some cases this can prevent us from evaluating whether there are really early adopters willing to pay.

In the **Thinking Things**⁷ project we have learnt that the best way to apply Lean Startup and experiment with a B2B customer is take about five medium-sized enterprises to begin testing instead of a large company, because, at least in the initial stages, the important thing is having the opportunity to learn rather than selling our solution to a major customer.

In another project in the B2B arena, thanks to the robust and extended network of trust relationships of the founder, they were able to flip the situation completely by engaging the sales people in the project and in the process. The team spent time explaining sales team how customer development worked, they explained how at the beginning it is about learning not about selling and the sales people understood that in the long run they and their customers could reap the benefits. As a result they managed to engage the sales people in project providing support and relevant learnings for their customer development work.

3.7 Measuring innovation success

Innovation exacts a new way of measuring success. Using common practice analytical methods and KPIs to manage innovation can destroy it. Therefore, **non-traditional KPIs have to be defined** in order to reinforce the autonomy and cultural values that innovation brings to foster technology differentiation and strategic value creation. So these new metrics will be in general more qualitative than quantitative and should take into account that we are looking for mid/long-term results. Thus metrics around validated learnings should be relevant KPIs to measure the success. Nonetheless, KPIs such as new products send to pipeline or number of killed products are among the ratios that we use. These ratios are significant because they give us a sense of how the innovation activity is flowing, we have to avoid “traffic jams” of existing initiatives that prevent us from running promising new ones.

It also is necessary to make the business/product areas understand and be aware of these innovation success criteria, so that people working in the innovation teams should not be mistreated compared to those people who work in the core products of the company.

⁷ A project with the aim of transforming the Internet of Things market with a modular end-to-end solution for building intelligent, connected products. <http://www.thinkingthings.telefonica.com/en>

4 THE UNEXPECTED: THE PROBLEM'S PROBLEM

As one of our pioneers explains it *“it’s important to refocus on the problems in a deeper way and not just assuming things.”* **One of the biggest challenges our teams have faced is to understand properly the problem statement**, as well as defining appropriately the hypothesis and how to validate them. In some cases the teams had to take a step back, identify the problem and validate it.

As a company with a high percentage of technical profiles we are biased towards putting the solution first, reverting this tendency is essential but challenging. When we started to put Lean startup into practice there were difficulties and concerns that we thought of beforehand but interestingly enough this wasn’t one, we only became aware afterwards.

Every innovation starts by solving an existing problem, meaning by that if we cannot find the problem there is little room for innovation success. Another way of state it is finding “the pain”. Finding the pain means finding real market answers from real customers to the following questions:

- What is the pain?
- Who has the pain?
- Where is this pain?
- When does this pain happen?

Additionally, we should find market answers for:

“How is this pain being solved today?” If the answer to this question is “it is a problem that is not being solved...” then we might be suspicious of being wrong. Real problems have real solutions, we can innovate and bring efficiency to the problem or noticeably better solutions, but real big problems are being solved in one way or another.

We can admit that sometimes is hard to find a problem and that sometimes customers can have difficulties in verbalising the problem, but we need to be sure that we can help them articulate the problem for us, never the other way around. Meaning we cannot expect a customer to repeat what we believe is his/her problem.

For that reason it is not recommended at the problem understanding stage to disclose the suggested solution or even mention it. Remember, **solutions will always come after the problem is stated**.

5 ACHIEVEMENTS AND LEARNINGS

“Today’s successful leaders will be those who are most flexible of mind. They will have the ability to embrace new ideas and routinely challenge old ones. They will be alert to learning from others and quickly adapt from the best.”⁸

5.1 Achievements

Lean execution has changed the way we are building products in our innovation projects. In this section we describe some outstanding and disrupting activities that our teams have made and are still making to get aligned with the Lean Startup methodology.

Teams getting out of building to have face-to-face conversations with customers

You can’t learn what customers want by sitting behind your desk and running some tests. You can’t either wait for others doing it for you.

In a more traditional environment each person in the team has a concrete role and the user/customer research experts are the ones speaking and interviewing users/customers directly. The usual way to recruit those users is to hire a specialized company that would recruit users and bring them to your premises to interview them. This has proven to a very effective approach for mature projects with fewer uncertainties. But when you are starting an innovation project, with scarce resources, in a Customer Discovery phase, where the big questions you have to answer are “is the problem I’m trying to solve really a painful problem?”, “who has that problem?” and “does my solution solve this problem in a better way than existing solutions?” you have to find a different way of achieving your goal. And Lean Startup forced our innovation teams to get out of the building themselves to have face-to-face conversations.

In one of the projects, the team went to the queue of an important museum in Madrid and to very busy streets in the city centre, and made **30 interviews in a day** to validate the problem.

⁸ Peters, Tom, *Attributes of Great Leaders*, <http://leadersin.com/programmes/tom-peters-on-the-attributes-of-great-leaders-2>

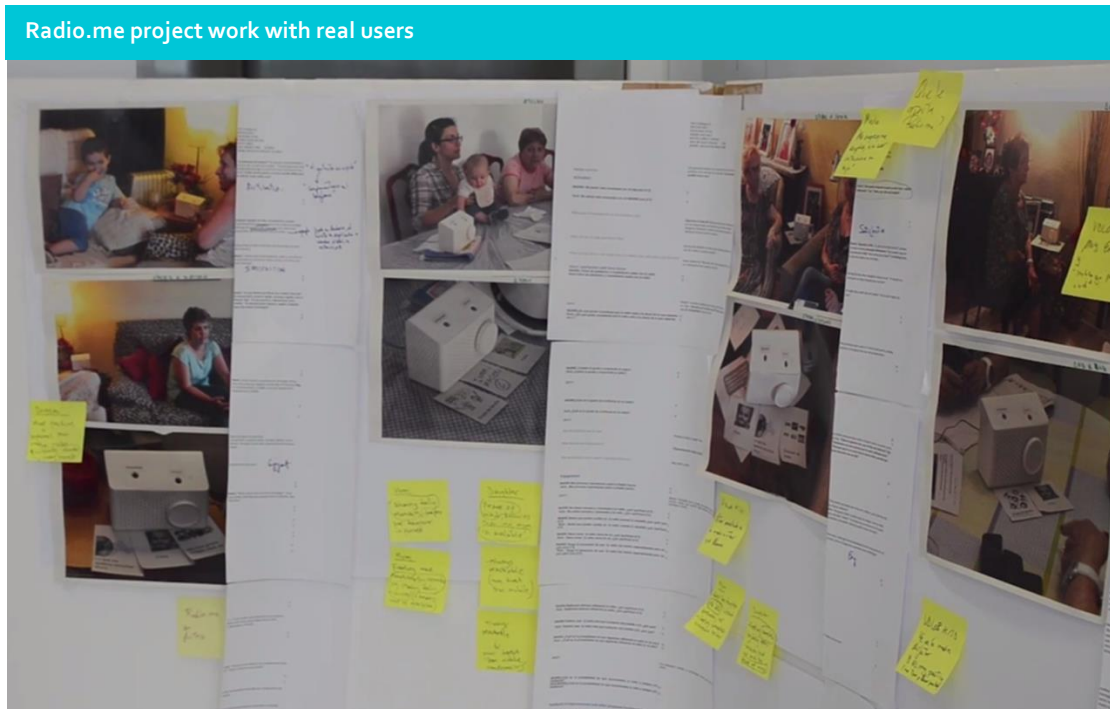
A project team interviewing people in Madrid



Several examples on that direction have shown us that before writing a line of code we need to understand what problem we are trying to solve –if there is any– and how customers would like it to be solved. Interviews are a great qualitative tool to make progression. They should be counted in dozen units, and can only be conducted by the project team. Through experience we have realized that when a project is stuck and somewhat lost in most cases the best remedy is to go for more interviews or experiments.

At its initial stage, the target markets of one of the projects were UK and Germany, where the problem they were trying to solve was supposed to be bigger there, but after getting out of the building and talking face to face with some users in Spain the team found out that people in Spain with a second home (Spain is the European country with more households, 36.2 %, with a second home in ownership for vacation) had that problem too and it was more painful than in Germany or UK.

Radio.me⁹ project was initially a solution for communicating the elderly with their grandchildren. After 50 “guerrilla” interviews in the street and parks the team discovered that the real pain was when the elderly wished to communicate with their very busy daughters and sons who in turn wanted to show that they were available and cared about their parents.



Getting out of the building was one of the things that surprised most our pioneers (many of them engineers) but they also considered it the most enriching experience:

“For me, the most useful aspect of lean startup is having a first-hand talk with people.”

“The most enlightening learning is how much you can save on speculation if you get out of the building from the day -1.”

“What has surprised me most of lean startup are the user interviews. I have never had a direct and active participation in speaking with users. That has been the biggest personal change I have experienced.”

“The most important experiments were the interactions with customers.”

“It has been very enlightening to get out of the building and check that something very interesting for you might not interest a potential customer at all.”

⁹ A project with the aim of providing a device designed to help people communicate with less technological family members. http://www.getaradiome.com/index_en.html

Validating every step with customers

Learning what the customer needs and what it is really valuable for them is the key of progress.

A casual visit from a IT facilities European department of a well-known fashion retail company, resulted on a “on the fly” demo from one of our innovation teams which allowed them to learn that 95% of the employees of that company were women interested in fashion, so they realized that the look’n’feel of the product they were building in this project should be like a mirror.

In another project, the solution for a certain problem had been discussed and agreed with a central department of a potential customer (a big retailer) that had been previously involved in the problem research. But when the solution was also shared with the department in charge of the shops of the same customer, the team found out that the solution was impossible to apply in the shops. Fortunately the prototype that had been used for the solution validation was a cheap one and had taken little time to develop.

Pivoting when the main hypothesis are invalidated with early market tests

When an important hypothesis is invalidated it is time to pivot the project; that means to make a correction to test some new hypothesis about the customer, the problem, the solution, and the like.

One of our projects started with a big challenge that had come out from another innovation project (that project had done some previous work and even built a prototype). The team received a lot of pressure to give continuity to what had been done, but the interviews and all the feedback received pointed out that they had to change the approach and even to discard much of what was already done. They changed the focus, discarded much of the work already done and made a great number of guerrilla interviews to validate the new hypothesis.

In another project, after getting out of the building and make 42 problem interviews, they found out that people had that problem but they already had a solution that worked perfectly for them. So they had to pivot from B2C to B2B customer segment, ecommerce and financial sector in this case, because they found out they had a painful problem that wasn’t properly solved and the solution the team was proposing was noticeably better than the existing ones.

Limited resources, bootstrapping and fast iterations to reduce risk

Bootstrapping means eliminating waste through the maximization of existing resources before spending efforts on new or external resources. Our innovation projects have by default a minimal assignment of resources which makes the teams be lean. Besides, the agile method of working emphasizes empirical feedback, team self-management, and striving to build properly tested product increments within short iterations.

Having a very limited budget, most of our teams were working according to their workload. If a colleague of another team wasn't really busy and could contribute with some skills and/or time to the project, he/she was temporarily recruited.

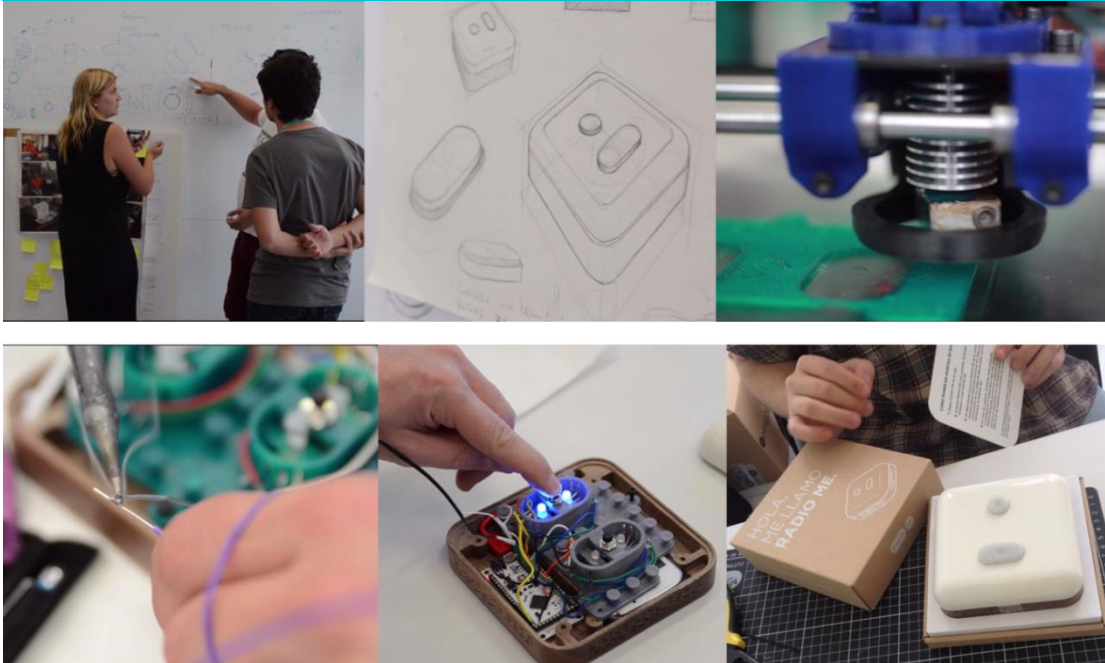
In one of our projects, the leader even used his own car to travel to another city to talk to a customer and decided to make himself the interviews without any help, although he hadn't done it before, in order to save money.

Lean Startup also made a project team change their mind-set when they realized there was no need to do something perfect to launch a landing page; it was more important to get feedback as soon as possible, the agile way of working was most important and useful.

Something similar happened to the Radio.me team that wanted to test willingness to pay and planned to launch a pre-commercial prototype to get inputs. They realised it was more important to launch, learn and iterate fast than having a fully-fledged prototype. It was an extremely healthy exercise to deselect features until only what the team believed to be the very core of the job to be done remained. This not only saved money and time but also forced the team to take a very structured approach towards what was exactly the core value proposition.



How the Radio.me prototype that was commercially launched was built



Intrapreneurship: lean business mentality and team empowerment and autonomy

A culture change is needed to make the teams become responsible on their own of positive change. In our innovation projects everyone has worked as a joint team, not as separate entities waiting for locked instructions without speaking again between them before finishing the job. They were doing things together and working together on the outcome. Making decisions together. As a result, everything has been much more agile and with the expected results out of working like a startup. Besides we have found out that people in our teams value ownership and autonomy, so these are not just a way to foster intrapreneurship but a reward on their own, in words of our pioneers:

“Product ownership, having the opportunity to own the processes, is really significant.”

“Get comfortable with being uncomfortable, be ready to get out of your comfort zone and have passion. It is like a roller-coaster ride, with ups and downs but you have to enjoy it and not face it with fear.”

“I have always had entrepreneurial spirit. For me working like this is a reward, I am doing what I want to do.”

They even demand more autonomy and ownership:

“I would like this to be more like a startup, and be able to have resources from one day to another and enjoy autonomy. The truth is that I envy entrepreneurs’ freedom.”

Besides, Lean Startup promotes a culture of intellectual frankness that encourages teams to be their own critics. If the team feels that learning and experimentation are conclusive enough in the sense there is no way to continue, they may feel free to challenge their own activity and propose to pivot at any time or even kill the project. Actually, some of our innovation projects have been stopped by their own project leaders (founders in many cases). The leaders were the ones who suggested ending the project from the very first moment they realised something was not working and they were getting nowhere, despite all the personal motivation, efforts and time put on it.

Accelerate the innovation

We have realised that Lean Startup has allowed us to accelerate the innovation cycles, through many short iterations within the projects. With a more traditional methodology innovation projects would mainly focus on getting working prototypes which aligned just with the initial specifications in a timeframe of around 4 months. Only after the initial prototype was available the team would start thinking about how to include the development in the roadmap or how to add it to an existing product. Reality checks with the market in general were not part of the innovation process itself that would usually only happen at the end of the project. The innovation projects which apply Lean Startup start generating meaningful learnings in 1.5 months or less. We have estimated this means an acceleration factor of 2.6. This means we figure out if a project/products makes sense at least 2.6 times sooner than before.

More with less

With a lower budget than in previous years where more traditional approaches were applied, we have estimated that we have been able to increase in a 45% the number of innovation projects while reducing in average a 48% the medium budget invested for each of them. These numbers mean two essential things:

1. We have actually reduced the overall risk by augmenting the granularity of the bets and minimizing the cost of failure for each individual project.
2. We have significantly increased the chances of having relevant impact in business since within the same timeframe and budget there are many more opportunities to learn and figure out how, and how not to, to build a particular product or service which makes money.

5.2 Learnings

Training people in Lean Startup/Customer Development methodology is very important to be able to change the way teams work, but it is not enough. In a company where most of the employees have a deep technical background and expertise they need guidance and advice on how to apply these new methodologies. Most of them have never interviewed an actual or potential customer; most of them

have never gone out of the building. With a combination of training and of support and assessment from Innovation Managers and especially from external mentors, teams have been able to overcome the main roadblocks we have found teams have.

How to start? Which is the first step?

Each project has a different situation that requires a different approach. In some cases we have technological solutions in search for a problem worth solving. In others, there are projects with several potential customer segments where the team doesn't know which one they should try first. Or projects with many stakeholders with unclear role yet: who is the customer, who makes the purchasing decision... In all these cases the mentor's experience has proven to be very useful by offering criteria and tools to make decisions or ways to move forward.

Most of the teams don't know which of the Business Model Canvas nine elements they should start with and when to move to the next ones

At the beginning of a project we usually propose to start working with the Value Proposition Canvas¹⁰, this way they focus on the customer segment and the value proposition elements, the ones they should start with. Then, in each phase, we tell them which elements they should focus on.

Most of the teams think an MVP –the Minimum Viable Product– is a small functional version of their product or service

We encourage small experiments as an alternative to what technical people are used to, that is start coding from the very beginning to make a prototype. This can be perceived as almost counterintuitive and for this reason it is important to explain them that an MVP is the faster and cheaper experiment you can possibly design to validate (or invalidate) a hypothesis. Depending on what you are trying to validate and the stage of the project, it can even be a mockup in a piece of paper.

Teams also need help to understand how to measure the results of an experiment and to make decisions according to those measurements

For example, most of the teams don't know how to design or make a problem interview, how to reach potential customers and interview them, the number of interviews they should make, how to evaluate results or which metrics need to be used.

Teams tend to try to test everything at once, and therefore designing very complicated experiments

You must teach them how to determine what they want to test and to test by stages, they cannot test all at once. So you have to sit down with them, help them to raise the hypothesis, and, as it is not possible to validate all at the same time, build a matrix of uncertainty vs. risk-perception for their business model. The ones with higher risk and higher uncertainty are the assumptions teams must begin validating.

It is also important to avoid perfectionism

You do not need a perfect experiment (landing page, prototype...) to test an hypothesis; the important thing is launching it as soon as possible and start iterating. So we help teams to apply the simplicity

¹⁰ Osterwalder, Alexander. <http://businessmodelalchemist.com/blog/2012/08/achieve-product-market-fit-with-our-brand-new-value-proposition-designer.html>

criterion, it is more important to launch something as soon as possible and test it than waiting to have a the best possible look'n'feel experiment or a prototype with more functionality. Teams have to understand that the sooner you validate the sooner you get rid of uncertainty, they have to learn it as soon as possible.

In most of the projects, teams don't know what is the expected outcome of each Customer Development phase

This must be clear from the very beginning and expressed in a language they can understand. So, for example, when the project starts, what we tell them first is that they have to focus on collecting evidence of a real and painful problem/need with a solution that is currently unpleasant, so there is clearly room for improvement. Of course our solution has to be better than the existing ones and 1) It solves the problem; 2) It does not create more problems; and 3) There are no insuperable obstacles that prevents the solution from being adopted.

The intrapreneur has to deal with the corporate politics and look for stakeholders, and that takes a lot of time

So it is very important to make the project spread and be known. At the same time, we have to be careful since we run the risk of functionality hyperinflation when we are developing a prototype, because usually the project leader wants to be ambitious and include more functionality than needed (that is to make it so showy that internal stakeholders' buy-in is ensured), but on the other hand, lean learning requires simple things that will allow a rapid learning. Balance is critical in these cases.

Willingness to pay

Teams must understand that the only realistic test to measure customers' willingness to pay is sales, that is, when they pay for the product or service.

6 CONCLUSIONS AND RECOMMENDATIONS

We have learnt that **lean innovation can help us to break the commercialisation glass ceiling that innovations usually face, thus reducing risk and minimizing resource consumption**. In addition it has proven to be a good way to identify innovative and intrapreneurship talent within the company.

But **we have also validated that it is an extraordinary motivational tool** because it gives employees more autonomy, mastery and, last but not least, a purpose¹¹. People value ownership (having the opportunity to own the process); they even consider it a reward. It profoundly changes people: when we asked our pioneers if they would take something of this way of working with them, the answer was always a resounding “yes”. Once people try this way of working and building things, they would find “frustrating” going back to traditional ways, because they realise the value they are creating.

For these two reasons, in spite of the difficulties, we strongly recommend applying Lean Startup in corporate environments taking into account the following:

1. **Top executives of your company have to understand what customer development and market validation means**, as well as how teams work in the Lean Startup way, the autonomy and speed they need, and the type of experiments that they can make.
2. **Be ambitious and be global**: projects need to scale quickly in global markets and global companies. You need to be ambitious and try to solve global problems, or at least significant issues within your company’s footprint, as most of the problems can be found in that space, and later it will be easier to scale them up.
3. **Stick to benchmarking**, check what is out there as an already established solution and which companies are trying to solve the same problem. If someone is already testing or trying to solve the same thing as you it does not mean that there is no opportunity, quite the opposite. However you need to be very aware of what is going on in your area of opportunity,. By knowing your competitors you gain market acumen, can frame the problem better and even get new ideas and focus on your strengths better. Always benchmark as soon as you have a rough idea of what you want to do.
4. **Do not be afraid of partnering with the best**, in our case our competitive advantage will always be our huge base of customers that can leverage any solution and a big scale in no time. By partnering with technology developers or market leaders, you gain competitive advantage and market acumen.
5. **Commit people from business and product organisations as soon as possible**. In order to get market traction, market insights, access to customers (through shops, B2C...) you need to ensure the company involvement. Most of our innovations projects that have seen the market light used Telefonica’s resources and market connections.

¹¹ These are the three things that really motivate us according to Dan Pink, http://www.ted.com/talks/dan_pink_on_motivation?language=en

6. **Lean Startup implies a cultural change, a different way of doing things.** People have to learn how to make things different, but in essence Lean Startup is common sense. Make sure you provide support and guidance for the teams. For example you could replicate our strategy of internal Innovation Mentors. Also train your people, when they start a project is when it is most needed and when it works best. Finally rely on external mentors with a critical and different point of view, who can always challenge projects and teams.
 7. **Bear in mind that the selection of trainers and mentors is key.** The trainer has to be someone that can provide his/her personal experience as an example, someone that engages people, with a good combination of theory and practice. When the trainer is like this, our experience is that after the training phase people feel enthusiastic about Lean Startup and are anxious to start applying it, so you have the willingness to make an effort, change their mindset and give it a try. The external mentor must have a good network and solid experience as mentor in the startup world and in business. This person must be also able to adjust and apply his/her expertise to the context of your projects and your company.
 8. **Be ready to explain why what you do now can be better than what was done before,** build your own internal metrics, maybe the “Innovatio Acceleration” and “Doing More with Less” indicators can be of help.
 9. **Last but not least don't forget to learn and review your innovation framework and model periodically,** to learn continuously and to rely on the lessons learned to change, evolve and improve how you do things. Basically eat your own food and... be lean my friend!
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