



# anaging Innovation for the Creation of Value in Banking

Work Project based on "Millennium bcp's Website: Challenges and Differentiation in a Mobile World", a Business Project developed in collaboration with Millennium bcp

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### 1. Brief Context of the Business Project

### 1.1. Company Overview

Banco Comercial Português, S.A. (Millennium bcp, hereafter) was founded in 1986, and since its inception it has paved its way to being the largest private financial institution in Portugal with over 2.3 million customers and a market share of approximately 20%. The bank has always been synonym with innovation, dynamism and financial strength (see appendix 1 for extended information on the bank). The bank is in the midst of a restructuring plan to be completed by 2017 (see appendix 2), and the fulfilment of the commitments made with the European Commission is one of the biggest challenges to the bank's current business model. A revision of the strategy to create the conditions for growth and profitability – and their sustainability – is key to remaining in a leadership position.

### 1.2. The Business Project Challenge

The upheaval in banking poses a need to shift resources and its consumer base to channels of business that reduce costs while fostering growth. This is especially relevant for Millennium bcp, given pressures to reduce the number of branches¹ and the inevitability of lost business here, hence needing an investment and a strategy focused on remote channels. With this in mind, the business project aimed at defining an Internet strategy with proposal of innovative functionalities and services to increase the number of online users (see appendix 3 for project structure). However, this challenge quickly broadened in scope, as data showed the problem might not be in the functionalities offered but in the strategy in place. Hence, the project intended to also give direction on the communication methods and governance changes that foster Internet banking (IB) penetration and the adoption of a digital strategy by all stakeholders, while promoting the increase in sales from these remote channels.

### 1.3. Market Overview

The online banking market revealed how certain trends were key to its inception and to the development of its potential. Proliferation of remote devices with Internet access, biometric advances and development of digital infrastructures in banking allows for a more ubiquitous and digital connection between consumers and businesses. The ways consumers become knowledgeable of the best financial decisions are changing the sources of information and tools they seek to have to be more independent (requiring such independence in the form of knowledge sharing and functionalities, offered on every device). Moreover, relationships are becoming more interactive and technologically sophisticated, as customers seek for connected, enhanced, multichannel 24/7 experiences, and expect more predictive innovation (i.e. fuelled by the study of customer behaviour to forecast future needs). All this, linked with other factors such as reputation, trust and usefulness are key in IB usage.

<sup>&</sup>lt;sup>1</sup> The channel with highest contribution to revenue



While online banking adoption is relatively high in some countries, Portugal still remains at very low levels, rounding 25.3% (see appendix 4). These numbers are even lower for Millennium bcp with customers mostly active in ATM and branches, while only 24% are online (see appendix 5), and little to no growth in online adoption. This can be explained partially by the proportion of ATMs and branches per 100,000 adults (see appendix 6 & 7).

### 1.4. Online Banking at Millennium bcp

Millennium bcp has paved the way as a pioneer, and when reaching out in different customer channels it was no different, launching the first IB service in Portugal in 1997. Since then, its platform has been continuously improved, re-launched and adapted to new devices through the use of a simpler user interface and the launch of the mobile banking (MB) app. However, in terms of results, the channel has lagged behind, with a contribution to overall sales of less than 10% (see appendix 8). Moreover, the scope of functionalities does not seem to drive usage, since IB is clearly in a leading position on offerings, while MB has a much narrower offer but has reached double-digit growth during the last year. This trend can also be seen in the number and value of transactions made in the channels (see appendices 9 to 12).

What is more, in looking further at the causes of stagnation, some internal barriers were identified, namely the lack of institutionalization of the platform, lack of resources stemming from a governance structure that does not recognize IB as a crucial business channel, and an internal mindset that refuses to shift to a digital strategy. Regarding satisfaction of customers, the high evaluation puts the bank's website at the top of the country, while the perceived low technological advancement is a dimension to be worked on (see appendices 13 to 15).

### 1.5. Summary of Conclusions

The analysis allowed for the drawing of several conclusions relative to where are the biggest gaps. These issues could be grouped in six strategic themes (see appendix 16) that are to be the focus of the Internet and Mobile department: 1) *Employee commitment* to a digital strategy; 2) *Increasing sales in IB*; 3) *Improving communication*; 4) *Using social media* to boost business; 5) Making the *website a personal tool* for users; and 6) *Managing innovation*. Moreover, these themes are all focused on reaching the revised IB channel and business goals (see appendix 17). For a more extensive review of the recommendations made refer to appendix 18. In the recommendations made, innovation management aimed at ensuring the bank keeps pace or spearheads the creation and establishment of products, services, marketing and processes that shape the future retail banking environment. This topic will be broadened throughout the following section.



### 2. Managing Innovation for the Creation of Value in Banking

### 2.1. Innovation in Millennium bcp

While Millennium bcp has always been linked with innovation and historically considered the most innovative bank in Portugal (see appendix 19), its strategy not always followed the same path, especially in the midst of a turmoil where financial results were made priority and everything else secondary. Moreover, since the digital channels remain a minor priority to the bank, innovation in this department comes in the form of incremental improvements or new functionalities that are led by the technical team. This comes with several issues: innovation is sometimes inconsistent since customer-focused teams are not in line with technical-development teams; and innovations do not have a strategic nature because they are chosen on the basis of what can be done fast at the moment with the available budget.

Overall, in the bank, there have been drivers of innovation, such as the "Mil Ideias" program, fostering the sharing of ideas freely by employees, which were then voted to be implemented; key departments that deal with the development-to-market of new ideas (the Direct Banking department being one of them); and ad-hoc projects developed by cross-department teams. Millennium bcp is missing a central strategic innovation agenda, backed up by its leadership and put into place in an interdepartmental manner by its employees.

### 2.2. The Need for Innovation Management

Given these issues, a key recommendation regarding innovation management was made in the business project: the creation of an innovation committee, to dedicate the appropriate resources and ensure a systematic and planned design, monitoring, evaluation and adaptation of emerging ideas, to proactively develop new products, services and processes (see appendix 20 for responsibilities and legitimacy of the committee). However, innovation management need not be only responsive and can be more intrinsic to the bank, and this means being inherent to its culture in daily processes and behaviours. What is more, it must have a potential of contagion so it is not confined to the walls of a committee but a standard in the entire company.

Thus, this work project aims at raising awareness to the importance of having in place systems that allow for the explicit management of an innovation process so that more value is created. It offers a set of four tools and best practices that serve as materials for the development of a culture and management system for innovation. It does not aim to build, nor does it provide the strategy, key cultural aspects, KPIs or other metrics for the system, as it is believed this should come as part of a companywide co-creation process, but aims at providing the inputs that will start, foster and flourish such discussion.

### 2.3. Overview of Concepts

Innovation can be defined as an invention that has produced economic value in the marketplace (Byers et al., 2011), with impact and utility resulting in benefits for the



organization and society (IPQ, 2007). It can be distinguished from creativity, which relates to "the ability to use imagination to develop new ideas, new things, or new solutions" (Byers et al., 2011), which then leads to invention. Creative thinking and a "culture that sustains a creative process that enables team members to engage and interact with ideas and new solutions" (Byers at al., 2011) are seen as key features to the generation of new ideas. Furthermore, Sternberg et al. (1997) defined six resources of a creative enterprise: 1) Knowledge in required domain; 2) Intellectual abilities to recognize patterns, redefine problems, and envision and analyse possible solutions; 3) Inventive thinking; 4) Motivation toward action; 5) Opportunity-oriented and openness to change; 6) Contextual understanding that supports creativity and mitigates risks.

However, the key issue is bringing such inventions to the market, which requires routine processes. Innovation can come in the form of new products/services, new internal processes, new marketing methods or organizational changes (IPQ, 2007). Additionally, innovation can differ in nature. It is incremental if it builds on existing products/services/channels to offer small improvements to the value of the offering (Gallouj & Weinstein, 1997); or it can be strategic if it creates fundamental changes to the business model in order to create a sustainable competitive advantage, although this is relatively rare in retail banking across Western Europe (Efma, 2013). Byers at al. (2011) further divided innovation in technological ventures in incremental, architectural (if the core is unchanged but links between modules are reinvented), modular (if the links remain unchanged but components are new), or radical/disruptive (if both the modules and their architecture shift). While these innovations can stem from within, they can also take the form of open innovation (Chesbrough, 2003), consisting in the "capturing of value by systematically collaborating with outside partners. This may happen from the 'outside-in' by exploiting external ideas within the firm, or from the 'inside-out' by providing external parties with ideas or assets lying idle within the firm" (Osterwalder & Pigneur, 2010). Lastly, for the purposes of this project, innovation refers to any invention that is new to the bank or its stakeholders, hence not being necessarily pioneer. The implications are that benchmarking in banking, technology and related fields and adaptation to the bank remain relevant (although to a smaller extent). Still, they won't be considered the main driver of innovation.

### 2.4. Overview of Innovation in Retail Banking

According to the Efma report (2013), innovation is becoming more central in retail banking. 60% of banks now present an innovation strategy (comprised of objectives, processes, prioritization and measures of success), compared to only 39% in 2009. In line with this, the investment in innovation was decreasing in most banks in 2009, whereas in 2013 77% said they were increasing their investment in innovation and only 5% decreasing. Furthermore, 76% of banks believe they are becoming more innovative, mainly focused on channel innovation (not as much in processes). Gallouj & Weinstein (1997) referred to internal and external factors influencing innovation in banking. The first encompassing the type of strategy followed, the



involvement of management, the human capabilities, the processes in place to promote innovation and the effectiveness of their communication. The latter suggested several stakeholders, such as clients, competitors, partners and governments and institutions (regulations) as well as the competitive landscape.

IT systems come as the number one obstacle in innovation, and especially silo based IT systems, which affect the biggest corporations<sup>2</sup>. IT changes also slow down innovation, as reported by banks going through system changes or mergers. Another great barrier is the organization culture and silos, while regulation can be a significant barrier mainly for small banks. Innovation capabilities can be improved through several other capabilities, such as: business process capabilities (increasing business process speed, agility and efficiency), ability to customize products, seamless multichannel integration, having a single customer view and enterprise-wide systems (Efma, 2013). Open innovation still scores low in terms of effectiveness for banks, but it is considered a key capability to have. Moreover, partnering with IT companies and other suppliers yielded best results, while investments in start-ups were the least effective. Lastly, the most common metrics for assessing the results of a focus on innovation are revenue growth and customer satisfaction, while direct profitability measure on innovations is less common.

### 2.5. Development of a System for the Management of Innovation

The following subsections aim at introducing the steps that can introduce an organization to the challenge of turning innovation into a strategic capability. Each is based on a specific framework derived from existent literature and best practices (including implementation manuals) and to follow the recommendations of this work project it is essential that these materials be independently read, as they will offer the detailed description of how to perform. The proposed development of such culture and system cover four dimensions: 1) Scoring the initial state of innovation; 2) Guidelines to set the system; 3) Tools that will foster the absorption of ideas according to the bank's business model; and 4) Confluence of the aforementioned with a culture that will help guarantee their continuity and success.

### 2.5.1. Innovation Scoring

The first step in starting a system to manage innovation is understanding where the bank scores in terms of its innovation capabilities. To do so, Millennium bcp should follow the Innovation Scoring Manual (COTEC, 2007) to diagnose and measure its innovation performance and potential. The scoring sheet, which aims at answering 43 questions (see appendix 21), divides the diagnosis in four dimensions: 1) Conditions; 2) Resources; 3) Processes; and 4) Results. The way in which scoring is done needs to be previously defined and the reading of the manual is required. It is important to note, before scoring, that "approach" and "application" differ, being the first relative to the organization's perspective to the topic, and the

<sup>&</sup>lt;sup>2</sup> the average time to market of new offers in big banks is around 12 months, versus 6 months for small banks



latter relative to the way the organization in fact acts upon it. The score for each question  $p_i$  (i = 1, ..., 43) can take a value between 0 and 4, being it the minimum value between the partial scores of "approach" and "application". Global innovation score (GIS) is the weighted sum of the relative scores of each question, diverging between 0 and 1000. For every question there is a weight  $\alpha_i$ , hence the final score can be calculated through the following formula:

$$GIS = \sum_{i=1}^{43} \left( \alpha_i \times \frac{p_i}{4} \right)$$

All dimensions consider several elements in their scoring. *Conditions* are divided in culture, leadership and strategy. *Resources* encompass human capital, organizational competences and external relations. *Processes* include management of the research, development and innovation (RDI), learning and systematic improvement and protection and valuation of results of the activities. Lastly, *results* consider financial & operational, market and society (see appendix 22).

This tool is proposed as an initial stage to evaluate the current innovation setting of Millennium bcp. Furthermore, given the project focus on the direct banking department, innovation scoring can be applied to both the department and to the entire bank separately, as a guideline for further understanding of the gaps between the strategy being followed by this pioneer department versus the entire bank. It is expected that the department alone will fare higher in GIS than the bank, and while this cannot be taken as fully representative of the gap between the innovativeness of both, it can serve as a reference point for further strategy formulation. It is advised that this tool is revisited with a frequency relevant to the bank to check for the continuous improvements of all the facets it encompasses.

### 2.5.2. Portuguese Norm on Research, Development and Innovation

As a second stage, it is proposed that the establishment of an innovation process follows the Portuguese Norm 4457 (IPQ, 2007), a certificate companies attain to attest their excellence in innovation. It is expected that a culture of innovation will be fostered, and the necessary processes, behaviours and budget allocation will be in place for Millennium bcp to achieve such certificate. The attainment of this certificate poses several benefits: 1) It requires the creation of a strategic agenda for innovation; 2) It forces the active and continuous management of innovation processes; 3) It quantifies results so that the process can be constantly improved; and 4) It boosts the image of the bank, by serving as an official stamp for stakeholders that the bank is in fact in the forefront of strategic innovation management.

The system of management of RDI follows a continuous four-phased approach of Planning-Executing-Verifying-Acting. It serves as a reference for the bank to improve its performance putting an emphasis on the RDI management system as a core method in the creation of knowledge and its transformation in economic and social wealth (IPQ, 2007). It follows a model of chain interactions in innovation for the economics of knowledge (see appendix 23). The model proposes three interfaces that allow for the transfer of economically productive



knowledge. They give strength to the necessary organizational capabilities, linking those to the existing knowledge and bridging with knowledge-to-be-acquired, in order to transform such knowledge into innovations that have an economic value. Norm 4457 goes on in detailing the requirements of this management system, in terms 1) *Management*, including responsibility, authority and accountability of the system managers (refer back to Innovation Committee in appendix 20) and top management involvement; 2) *Planning*, including interface management, knowledge creation, ideas management, opportunities' evaluation and project planning; 3) *Implementation*, including activities of managers, competences, training and cultural shift, communication across the organization and documentation; and finally 4) *Evaluation*, including analysis of results, internal audits and improvement plans.

Following such guidelines will not only bring an official certification to the bank, but foster structural changes, giving a backbone to the entire system of managing innovation. Moreover, in terms of governance, following the proposal of an Innovation Committee, it is recommended that the Head of RDI leading this board, responsible for the implementation of all processes described throughout this work project, is part of the executive team of Millennium bcp, having a direct and final word on decisions regarding RDI.

### 2.5.3. Outside-In Innovation and the Business Model Canvas

The third stage of innovation management relates to putting in place the processes to take advantage of open innovation and manage it effectively. This model created by Chesbrough (2003) (see appendix 24), is linked with the business model canvas (Osterwalder & Pigneur, 2010) (see appendix 25), to illustrate where the bank can take advantage of an open business model, by opening up its research process to outside parties. Through this model, Millennium bcp can better exploit its own RDI process through an outside-in innovation process, by "integrating outside knowledge, intellectual property, and products into their innovation processes" (Osterwalder & Pigneur, 2010). Hence, following the canvas, in *key partners* Millennium bcp must find the crucial industry analysts and technological companies that will offer invaluable knowledge; in its *key activities* it must add activities that allow for the collaboration of R&D with external parties; in *resources* it must include such networks that allow for the collecting of such external knowledge; and its *cost structure* can be redefined to include the purchase of outside knowledge, but at the same time allowing for a better ROI in its internal RDI team, including reduced time-to-market.

Outside-in innovation can also come in the form of continuous gathering of information from customers, both to understand the dynamics of this group and forecast which innovations will be relevant for them, and to receive direct feedback on what is currently being done so that incremental innovation in line with the overall strategy can be in place to create value for the users. The Innovation Committee is advised, hence, to lead customer intelligence summits to generate knowledge that is applied to the innovation process, using the user surveys currently in



use by Millennium bcp. Lastly, outside-in innovation can be broadly seen as any form of "outside" creativity that generates value, this also including interdepartmental sharing of information. This comes to reinforce the importance of an entrenched innovation strategy for the entire bank, taking the best ideas of every field/department.

Lastly, the exercise of reviewing the entire business model of the bank is crucial to shift the internal mindset that sees digital banking as a complementary service. In fact, this project started with the assumption that the business model is being put to question *if* the bank wants to keep profitability levels. Hence, the business model canvas must be a tool used for the recreation of Millennium bcp's model, taking into consideration the competitive pressures and requirements from the financial consolidation process. This will allow to demonstrate that 1) The revenue streams are being reduced, hence the need for diversification; 2) The cost structure can be revised and improved as a consequence; 3) New key activities, resources and partners will be needed to guarantee the inflow of the right capabilities in this new business model. 4) This can be acquired/developed if the bank has in place a system of management of RDI.

### 2.5.4. Innovation Culture Canvas

Finally, none of these tools are complete if culture does not follow. In fact, an immensity of companies have fallen for the "we have to innovate" trap, by investing millions in processes that do not have top management or an intrinsic culture backing them up, thus resulting in millions of euros in investment wasted. The innovation culture canvas (BIC, 2013) (see appendix 26) is a tool sustained by five dimensions: 1) Diverse inspiration, harnessing ideas from different sources; 2) Resilient leadership, providing direction and a sense of priorities; 3) Experimental space, to foster the generation of ideas and inventions; 4) Agile processes, in the form of incentives, idea platforms, client-centric and result-oriented tools; and 5) Maternal heart, in the form of creating connections that allow for co-creation among departments and different stakeholders. BIC (2013) further schematize this as an input-output process, where an innovation culture as input generates clear innovation outcomes (see appendix 27).

This tool serves as an exercise to break down the different steps of the system of innovation management (norm 4457, IPQ, 2007) and understand their role in fostering a culture of innovation. The juxtaposition of both models is depicted in appendix 28, helping conclude this four-phased development of an innovation management system.

### 2.6. Conclusion

The composite result of innovation management made of an innovation scoring manual, guidelines for the planning, creation, execution and maintenance of an RDI management system, restructuring of the business model of Millennium bcp taking into consideration an open model of innovation and finally fostering the innovation culture at all levels of the organization will be key in creation of knowledge, and in turn innovations that will create value for the bank, in an continuous process (see appendix 29).



### 3. Reflection on Learning

The development of a 4-month business project together with Millennium bcp allowed for the application of previous knowledge, but more importantly it posed several opportunities for learning new approaches, tools and even the refinement of personal and interpersonal skills. It also allowed for an acknowledgement of areas of interest for future experiences, by influencing the way banking, digital banking and digital platforms in general were perceived. The following section allows for a more detailed description of this reflection.

### 3.1. Previous Knowledge Learned from the Masters Program

Our masters has taught us to turn big problems into small more manageable tasks, whether through projects or simply reflected in our time management in our time as students. This structured approach in which every step would serve as a building block for the following one was crucial in getting organized and planning or entire project, as well as in keeping us on track throughout its duration. Regarding the analysis made, the knowledge gained previously in market research and consumer research were fundamental in gathering the relevant data for a thorough evaluation of the context. As we realized that the project could be larger in scope, knowledge previously gained in courses like Human Resource Management, Corporate Strategy and Organizational Behaviour were key in understanding the intricacies of generating big changes in an organization, especially in a traditional industry. Because these changes were disruptive to the employer-employee relationship, there was a severe resistant to change, hence creating internal barriers that lead to a slow down and even negatively impacted the efforts of the department – and bank – in successfully implementing and growing these channels as a central part of business.

### 3.2. New Knowledge

In terms of new knowledge, the BP allowed for a closer look at the banking industry. This was a sector I had previously no interest in and very little knowledge, but in analysing the market, the bank and its consumers, I gained a new understanding of the main factors influencing and the building blocks of digital banking. In terms of project management, this project allowed me to have the tools to be able to structure the development and successful management of projects. Lastly, the project allowed me to have an insight on digital markets in general, and on several digital platforms, not from a personal or social point of you, but this time with a business orientation. This comes as new insight that might come useful in the future, as I have understood that digital platforms are increasingly becoming a fundamental tool in reaching a broad base of stakeholders and actively engage them with brands and businesses.

### 3.3. Personal Experience – Strengths, Weaknesses and Plan for Development

Throughout the project I was able to understand some of my main strengths and weaknesses. Regarding strengths, I realized I was good at guiding the team towards a plan and from there to action, being the link between the members, and the person they came to for questions or issues. I was also instrumental in keeping the links of communication with the



advisors clear and constant, and being the final organizer of all the information in a way that could be presented to our stakeholders. A key strength during this project was my realization that I did not let frustration of team members not working keep me from working myself and I always stepped up to satisfy the intended deliverables. Regarding weaknesses, what I noticed the most was that I have a strong lack of confidence in team members when they fail once, and I tended to micromanage or oversee everything that was done from then on to guarantee it followed the intended path and had enough quality.

Regarding this major weakness, I think it can affect me immensely in contexts with teams with diverse individuals. First, I must give room to understand the expectation and work methods of different people, so that I do not feel they fail me just because they do something unexpected. Then, allowing for others to take the lead sometimes and not jumping immediately to that position, trusting that others can do the job as well or better than me. Also, understanding that part of teamwork relates to delegating, which again requires trust in the work of others. Besides, this allows me to be better at the parts that are my responsibility because I have more time to focus on those and to balance the work of the project with all my external responsibilities. Lastly, giving up on the responsibility to make the final version of documents letting others take the lead will also help me manage and increase trust in others' work.

### 3.4. Benefit of Hindsight - What Added Value & What Should Have Done Differently

Looking back at the entire project and comparing to what I have heard from other experiences, what added most value in our project was the close relationship among the team, advisor and company, and the constant and free flows of communication amongst all groups. This allowed for decisions to be made fast and for the team to take on the lead of the project (with the advisors only passively controlling). Moreover, what was crucial in our project to have such insightful analysis of the three dimensions of market, company and consumer, was that – besides our own research – the company was very open to a project of collaboration, and provided us with all the resources needed to dig deeper into our topic (from confidential reports, to interviews, to using Millennium bcp's facilities to work).

In retrospective, what lacked the most in our project was more times of meetings with the five members of the group (where all were available and – more importantly – actually showed up), to discuss the information that was being gathered and have a common understanding of the knowledge we were attaining and the direction in which the project was evolving. This would have been key to guarantee that at all times a common vision and direction was being taken and sub-groups would not try to change direction based on lack of information of what was really happening with the project. Moreover, these moments would have also been useful for the lively discussion of ideas and to go deeper into our set of recommendations and implementation, which I think was the section that was not as good as I would have hoped it to be. Still, given the constraints of a reduced team, due to inactivity of some members, I believe that the ones that worked did a very good job at keeping each other motivated to guarantee that the project was still delivered to our standard of excellence.



### **References List**

- •Banco Comercial Português, S.A. (2013) *Relatório e Contas*. Retrieved from: http://ind.millenniumbcp.pt/pt/Institucional/investidores/Pages/RelatorioContas.aspx
- •BIC, Business Innovation Culture (2013). Retrieved from: http://www.bic.sg/innovation-culture-canvas
- Byers, T., Dorf, R., Nelson, A.J. (2011). *Technology Ventures: From Idea to Enterprise*. McGraw Hill. Third Edition
- •Chesbrough, H. (2003). The Era of Open Innovation. MIT Sloan Management Review, N° 3
- COTEC (2007). Innovation Scoring: Manual de Apoio ao Preenchimento do Sistema de Innovation Scoring da COTEC
- Efma & Infosys Finacle (2013). *Innovation in Retail Banking: Simplify Technology to Innovate*. 5<sup>th</sup> Annual Edition
- Finalta (2013). *Digital & Multichannel Benchmarking Study*. V1.0 (Confidential report produced for Millennium bcp)
- •Gallouf, F. & Weinstein, O. (1997). Innovation in Services. Research Policy, 26, p. 537-556
- •IPQ, Instituto Português da Qualidade (2007). Norma Portuguesa NP4457: Gestão da Investigação, Desenvolvimento e Inovação (IDI): Requisitos do sistema de gestão da IDI. Termo de Homologação N.º 11/2007
- Marktest (2014). *Dashboard Internet Banking*. *Millennium bcp* (Confidential report produced for Millennium bcp)
- Osterwalder, A., Pigneur, Y. (2010). Business Model Generation. John Wiley & Sons
- Sternberg, R., O'Hara, L.A. & Lubart, T.I. (1997). *Creativity as Investment*. California Management Review



### Bibliography relevant for Section 1 (i.e. used throughout the Business Project)

### **Millennium bcp – Internal Documents:**

- Visão Estratégica para o Site de Particulares (DBD Dinamização de Negócio) (2013)
- Plano Estratégico 2014. Investimentos e Poupanças. (2013)
- Plano Estratégico 2014. Mobile. (2013)
- Plano de Ações Comerciais. (2014)
- Monthly Review Banca Direta. Comité de Retalho. (2014)

### Reports, Papers & Articles

- Bain & Company (2012). The digital challenge to retail banks
- Banco Comercial Português, S.A. (2013) Relatório e Contas. Retrieved from: http://ind.millenniumbcp.pt/pt/Institucional/investidores/Pages/RelatorioContas.aspx
- Cisco Visual Networking Index (2011). Global Mobile Data Traffic Forecast, 2010-2015
- Cognizant (2011). Consumer Internet Banking
- ComScore (2012). The Netherlands and France have the highest penetration of online banking users in Europe
- Couto, J.P., Tiago, T., & Tiago, F. (2013). An analysis of Internet Banking in Portugal: the antecedents of mobile banking adoption. International Journal of Advanced Computer Science and Applications
- EFMA Journal Sep-Oct 2013
- EY (2012). The customer takes control. Global Customer banking survey
- EY (2013). Winning through customer experience. Global Consumer banking survey
- Finalta (2013). *Digital & Multichannel Benchmarking Study. V1.0* (Confidential report produced for Millennium bcp)
- Finalta (2012). Online and Mobile Benchmarking Study. Key findings (Confidential report produced for Millennium bcp)
- Loureiro, S., Kaufmann, H., & Rabino, S. (2013). Intentions to use and recommend to others: an empirical study of online banking practices in Portugal and Austria. Emerald
- Marktest (2014). *Dashboard Internet Banking*. *Millennium bcp* (Confidential report produced for Millennium bcp)
- McKinsey & Co (2012). Retail bank distribution 2015-Full digitalization with a human touch
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H. & Pahnila, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. Emerald
- Szoldra, P. (2014). "This Startup Is Going To Revolutionize The Credit Card You Already Have In Your Wallet". Business Insider. Retrieved from: http://www.businessinsider.com/ondot-card-app-2014-4

### Websites (Retrieved between February 1st 2014 and May 23rd 2014)

- Bank of America. Retrieved from https://www.bankofamerica.com/
- BBVA. Retrieved from http://www.bbva.com/TLBB/tlbb/ing/index.jsp
- CaixaBank. Retrieved from http://www.caixabank.com/home/home\_en.html
- Citi. Retrieved from http://www.citigroup.com/citi/
- Eurostat Europe. Retrieved from http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/
- Millennium bcp. Retrieved from https://millenniumbcp.pt
- NAB. Retrieved from http://www.nab.com.au/
- UBS. Retrieved from https://www.ubs.com/global/en.html
- Worldbank. Retrieved from http://www.worldbank.org/



### **Appendix**

### Appendix 1 – Company overview (adapted from *Relatório e Contas 2013*)

Its growth has been both organic and inorganic and the bank has been consolidating its international presence. Over the last decade it has made an effort to strengthen its image and position through a consolidated single brand (*Millennium*). In 2013, the BCP Group showed a consolidated net income of -740 million euros (a 39.3% annual homologous increase). It was also able to significantly reduce its operating costs in Portugal by -15.1% from the previous year. Moreover, in terms of liquidity it showed its focus on deleveraging, by reducing the ratio of net loans to deposits to 117% at the end of 2013 (versus a ratio of 128% the previous year). The sustained efforts of Millennium bcp to adapt to the competitive conditions of the market have paved the way to an increase in its market capitalisation over the last two years, being that at the end of 2013 it stood at 3,279 million euros, a 121.9% annual homologous increase.

### Appendix 2 – Restructuring plan (adapted from *Relatório e Contas 2013*)

The bank is in the midst of a restructuring plan to be completed by 2017, with formal commitments with the Directorate-General for Competition of the European Commission, which has established demanding goals and deadlines for the repayment of the 3 billion euros to the Portuguese State for the bank's 2012 recapitalization process. Among these goals are measures for the reduction of staff related costs, and these measures are already being implemented through the reduction number of employees and branches (while it maintains one of the strongest presences in terms of branches – 774 in 2013 – this number is being gradually reduced).







### Appendix 3 – Business project structure (Business Project, 2014)

Where are we?

What is missing?

Where should we go?

How should we get there?

Internal Analysis

Market Analysis

Consumer Analysis

Characterization of the gaps and alternative strategic options for the Internet plan

Recommendation of an Internet strategy

Development of a high level implementation plan

1

- Definition of Millennium bcp's online strategy
- Definition of Millennium bcp's mobile strategy
- Definition of Millennium bcp's overall strategy
- Analysis of the website with current functionalities / services
- Benchmark and definition of competitors' best practices
- · Analysis of the banking industry
- Analysis of the online banking industry
- Evaluation of the evolution of online banking, its interaction with mobile banking
- Definition of main trends and estimation of the expected evolution in the online banking industry
- Evaluation of the current regulatory aspects in the industry
- Analysis of the online banking consumer in terms of demographics and psychographics to create a market segmentation
- Analysis of their consumption patterns and usage behavior
- Analysis of consumer satisfaction and consumer needs

2

- Comparison of the "as-is" analysis at internal, market and consumer level
- Definition of the gaps in Millennium bcp's online strategy

3

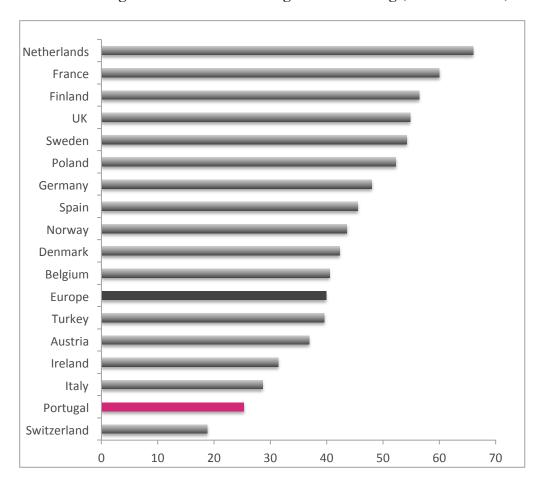
- Definition of an adjusted online vision and strategy for Millennium BCP
- Evaluation of the strategic fit of the recommendation with the bank's overall strategy
- Evaluation of the ease of execution of the proposed options

4

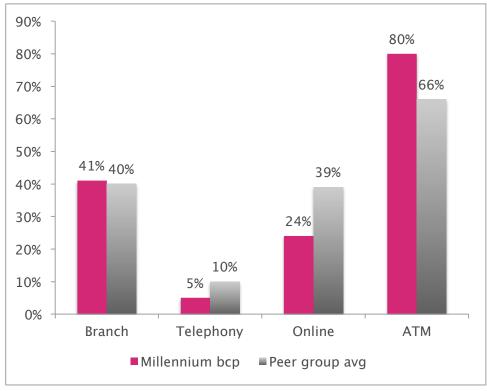
- Definition of key metrics and KPIs for the short and medium run to evaluate and guide implementation actions
- Characterization of the key actions for the execution of the strategic plan
- Definition of the main risks in the implementation plan



**Appendix 4 – Percentage of Internet users using online banking (ComScore.Inc, 2012)** 



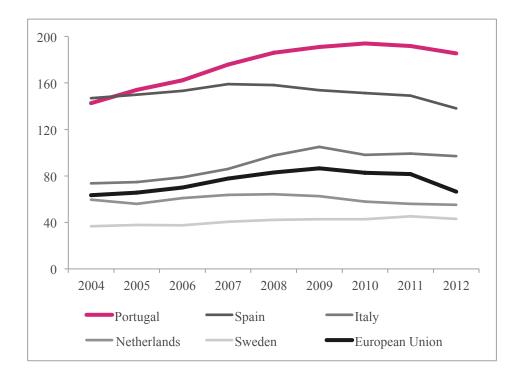
Appendix 5 – Currents account customers active in channel / total active personal current account customers (Finalta, Millennium bcp, 2013)



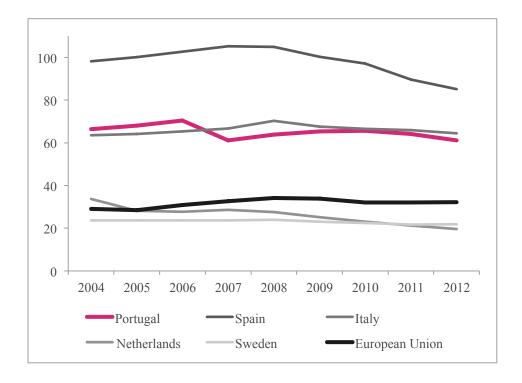
Page 17 of 32



Appendix 6 – Number of automatic teller machines per 100,000 adults (Worldbank, 2012)

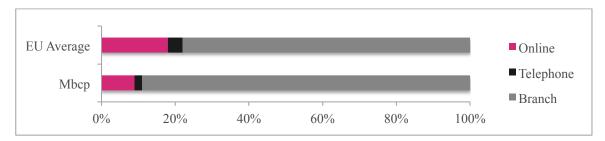


Appendix 7 – Commercial bank branches per 100,000 adults (Worldbank , 2012)

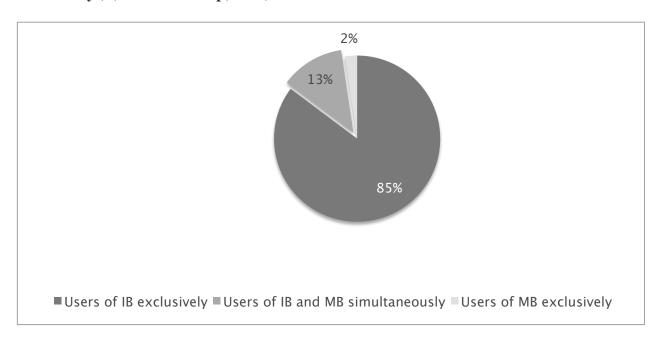




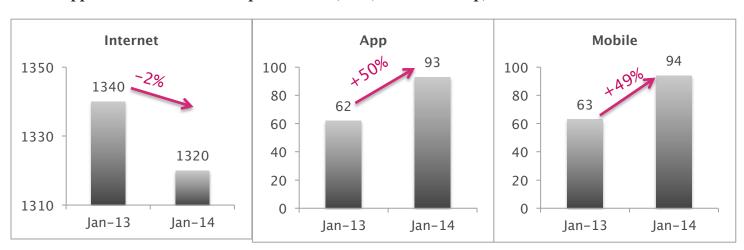
### **Appendix 8 – Channel mix as percentage of bank sales (Finalta 2013)**



Appendix 9 – Breakdown of digital users (base: 475,283 users) by IB and MB (login in the last 90 days) (Millennium bcp, 2014)

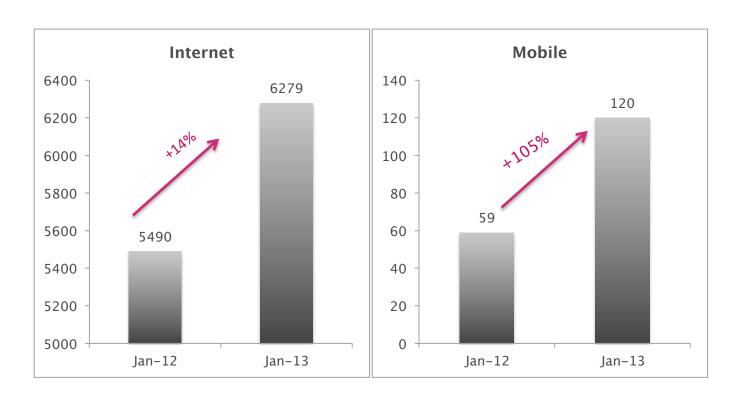


**Appendix 10 – Number of operations x 1,000 (Millennium bcp)** 

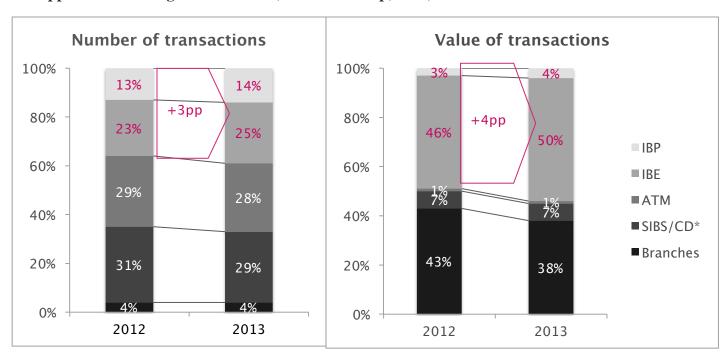




Appendix 11 – Transaction value of operations x 1,000 million euros (Millennium bcp, 2013)



Appendix 12 – Weight of channels (Millennium bcp, 2013)

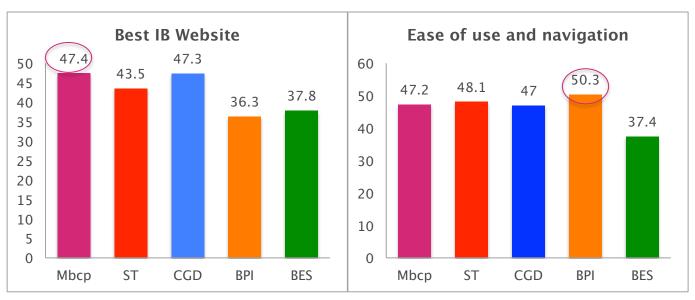




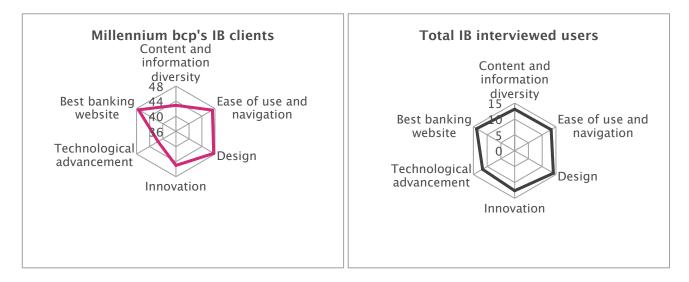
Appendix 13 – Global Satisfaction with homebanking (Millennium bcp, 2013)



**Appendix 14 – Satisfaction comparison with local competition (Marktest, 2014)** 



Appendix 15 – Perceived image of bank's website (by percentage of times each attribute was associated with Millennium bcp's website) (Marktest, 2014)





# Appendix 16 – Issues raised in the gap analysis and grouping into strategic themes (Business Project, 2014)





### Appendix 17 – Business and channel goals (Business Project, 2014)

# Increase sales and commissions Increase number of operations Increase market share in online transactions Reduce operational costs





### **Appendix 18 – Description of recommendations (Business Project, 2014)**

### Employee commitment

Aims at 99% adoption of IB over the course of a 10-month program. It is proposed to foster employee involvement, usage and commitment with IB.

### Increasing sales in IB

Aims at accelerating sales and commissions in IB, by readjusting price incentives and product bundle packages on selected products for exclusive placement in IB. A committee for the development of new online retail products is proposed, turning the IB into a cross-department priority.

### Improving communication

Aims at informing and persuading customers in order to reach mass migration to Millennium bcp's IB. Communication is improved in the form of campaigns that touch upon different types of needs, from security to self-actualization, by selling benefits of IB as both a rational pros and cons evaluation and also as a lifestyle; and in the form of contests that aim at higher education and involvement with the digital platforms.

### Using social networks to boost business

Aims at developing and embedding a standardized approach to take best advantage of current and future highly relevant social networks and online channels to communicate effectively, boost brand image and create a robust channel for interaction and engagement. Recommendations propose a focus on Facebook, LinkedIn and YouTube as the largest reach platforms currently, with guidelines of activity for each.

### Website as a personal tool for users

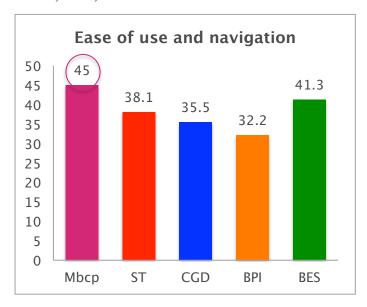
Aims at guaranteeing the website has a pivotal role in business and user experience, with continuous improvement to maintain a leadership position in satisfaction and functionalities, while boosting the channel as a revenue stream. Extra features were proposed that aim at more independence of customer behaviour while being first of their kind in the Portuguese market, such as the geographical authorization or the financial simulator.

### Innovation management

Aims at ensuring the bank keeps pace or spearheads the creation and establishment of products, services, marketing and processes that shape the future retail banking environment. An innovation management committee is proposed, to foster and oversee innovation initiatives.



## Appendix 19 – Most innovative website (% of clients that identify their IB as the best in this dimension) (Marktest, 2014)



### **Appendix 20 – Innovation committee (Business Project, 2014)**

Innovation Management Committee

6. Innovation management

### Objectives

Foster and oversee new Innovation Initiatives that support Millennium bcp in staying relevant in terms of emerging trends related to new services, products and processes

### Meeting Frequency

Biannual

### Composition

Members: Contact Centre (Internet & Mobile Support), Internet & Mobile (Innovation Mobile Investments, Content Management, Enterprise Solutions, Business Dynamics)

Third-party members: Relevant experts in field of IT, digital CRM, and Retail Banking Industry

### Functions

- In-depth research, monitor and analyze emerging and mature high-impact trends that might influence and shape the retail banking environment, more specifically within the customer relationship, process and product innovation, marketing and governance areas
- Formulate possible future scenarios in how these trends may impact bank-customer relationship and its underlying business processes, directly related to Millennium bcp's operations and within compliance of current retail banking legislation
- Devise and propose responsive strategic options to each scenario. These can range from adopting best practices from competitors (national and international), proactively develop own projects to pioneer new products/services/processes in-house in collaboration with relevant companies and acquisitions/licensing of applications and systems from relevant companies
- Define a project team that is in charge of combining identified options within respective division to write formal project proposals of solutions that have high probability of success
- If proposals are approved, kick-off and oversee projects, track success of implemented solutions (adoption rate, customer feedback, usage rate, etc.) and evaluate whether it should be continued or not

### **Powers**

This committee has decision making powers in all matters related to innovation projects except of final decision whether to approve/refuse a certain project. Latter is limited to executive level. Meaning, the committee is in charge of allocating resources that are needed for designing proposal, executing project, rolling out solutions, evaluating adoption, and reporting overall success to executive level



### **Appendix 21 – Innovation Scoring Board (COTEC, 2007)**

		Approach					Application					
		Inexistent	Reactive	Defined	Integrated	Excellent	Weak	Underdeveloped	Reasonable	Very Developed	Excellent	Weight
	Culture											
	1. The values of the organization promote the adaptability,											20
	experimentation, learning and continuous change.											
	2. The values of the organization promote international openness.											15
	3. The internal communication in the organization encompasses											20
	diverse perspectives, resorting to formal and informal mechanisms of information and knowledge sharing.											
	4. The culture of the organization stimulates entrepreneurship and the											20
	ability to assume risks, without punishing failures.											
	Leadership					•	•					
	5. Top management transmits an innovative vision, guiding the											20
<b>~</b>	definition of objectives and strategy for the organization.											
Ž	6. Top management promotes systematically the adaptation of											15
CONDITIONS	leadership structures in order to deal with change.										_	1.5
IDI	7. The leadership structures promote the emergence of ideas for the development of innovative activities, through the accountability and											15
O	autonomy of its employees.											
$\mathbf{C}$	8. Top management commits to and takes responsibility for the											20
	management of innovation.											
	Strategy											
	9. The organization has an innovation strategy, clear and shared,											20
	involving employees in its definition.											
	10. The innovation strategy translates into an action plan with											20
	objectives and quantitative goals of medium and long term.											20
	11. The organization has a marketing strategy that supports and gives importance to innovation activities, consistent with the business											20
	model and processes.											
	12. The organization has an external monitoring process, which is											15
	used in the definition and implementation of the strategy.											
	Human Capital											
	13. The organization has a human capital policy oriented towards											20
	innovation.											15
	14. The organization has a policy of training of employees oriented towards innovation.											13
	15. The organization stimulates and supports creativity and											20
	innovative initiative from employees.											
	Competences											
ES	16. The organization systematically identifies, evaluates and plans											20
RC	the evolution of its organizational capabilities.											
00	17. The organization has specific competences in the management of											20
RESOURCES	RDI activities.  18. The organization has technical competences appropriate to the											20
R	fulfilment of R&D activities.											20
	19. The organization has specific competences associated to activities											15
	of production and/or provision of services.											
	20. The organization has specific competences associated to the											15
	fulfilment of marketing activities.											
	External Relations											
	21. The organization develops actions of systematic collaboration in impossion with external antities											20
	innovation with external entities.					<u> </u>	<u> </u>					



4	22. The organization potentiates different forms of networking.								10
	Structures		· ·	-			1		
	23. The organization has an organizational structure dedicated to the activities of RDI.								20
	24. The organization has the adequate structures for the management of knowledge.								15
	25. The organization has the information and communication systems that potentiate innovation.								10
	Management of activities of RD	)I	·	_					
	26. The organization develops systematic processes of planning,								35
	organizing, monitoring and control of the RDI projects.								
	27. The organization develops systematic processes in order to								30
	understand the needs, expectations and opportunities in the market.								
	28. The organization has systematic processes for the creation, identification and selection of ideas and concepts of new products,								30
	processes, services and business and/or organizational models.								25
1	29. The organization develops systematic processes of interdepartmental collaboration.								23
S	30. The organization has well defined routines for the forming and		_	+	+		+	+	20
PROCESSES	definition of the mandate of project teams.								
ES	31. The organization has processes of systematic management and								25
00	evaluation of the innovation activities.								
Ž.	32. The organization develops systematic processes for innovation in								25
_	the management of the activities in the value chain.								
	Learning and Systematic Improve	men	ıt						
	33. The organization incorporates the obtained learning in its								25
	activities.								
	34. The organization has systematic mechanisms for adoption of best practices.								20
	Protection and Valuation of Results		•				•		
	35. The organization has defined processes for the evaluation and								25
	decision regarding protection and valuation of its intellectual capital								
	and of the results of its RDI activities.								
	Financial and Operational								
ı	36. The RDI activities have a positive contribution for the financial	per	forma	nce	of t	he			60
1	organization.						$\perp \downarrow$		
	37. The intellectual capital of the organization has a positive contribution for its financial performance.								25
	Market								-
	38. Innovation has a positive impact on the market share of the organization.	aniz	ation	and	on i	its			60
S	expansion to new markets.								
RESULTS	39. The evolution of the weight of new products and services in the overall business								40
	volume is positive.								
RE	40. The contribution of innovation to the image and prestige of the organization and its								30
	products is positive.			. 1					30
	41. The innovation activities of the organization have a positive impact in its business sector.								30
l									
	Society  42. The innovation activity of the organization has a positive impact in terms of qualified								25
1	job creation and creation of externalities.	n te	1111S C	n qu	ıaiiil	eu			
43. The innovation activity of the organization has positive implications in the sphere of									30
ı	sustainable development.	J113		. spi		J1			
									1000



### Appendix 22 – Description of the elements in each dimension (adapted from COTEC 2007)

### **Conditions**

- 1) Culture, reflecting on the adequacy between organizational culture and the dynamics inherent to innovation;
- 2) Leadership, evaluating characteristics and styles that may stimulate innovation; and
- 3) Strategy, relative to creation and implementation of strategic orientations of the organization.

### Resources

- 1) Human capital, evaluating how management of HR is guided towards innovation;
- 2) Organizational competences, analysing the most relevant capabilities for innovation and competitiveness;
- 3) External relations, examining the way external collaborations are boosting innovation; and
- 4) Organizational structure, which will support innovation.

### Processes

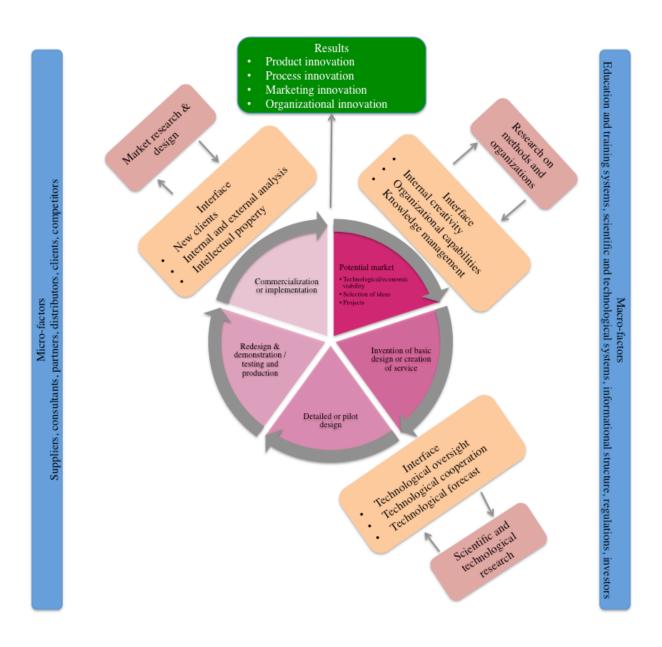
- 1) Management of the RDI activities, evaluating all the processes in the development of such activities;
- 2) Learning and systematic improvement, relative to the active use of obtained learning; and
- 3) Protection and valuation of results of the activities.

### Results

- 1) Financial and operational, looking at individual performance;
- 2) Market, evaluating relative performance; and
- 3) Society, looking at the impact it creates in the world.

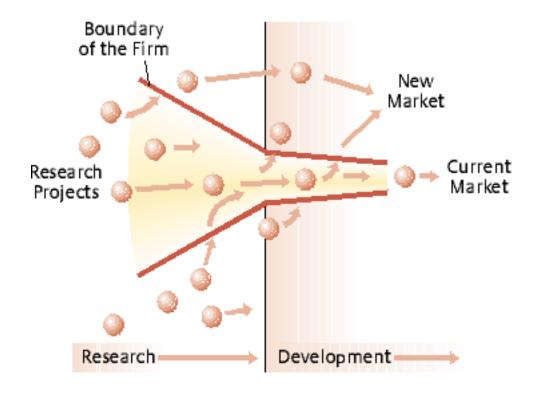


# Appendix 23 – Model of chain interactions in innovation for the economics of knowledge (IPQ, 2007)

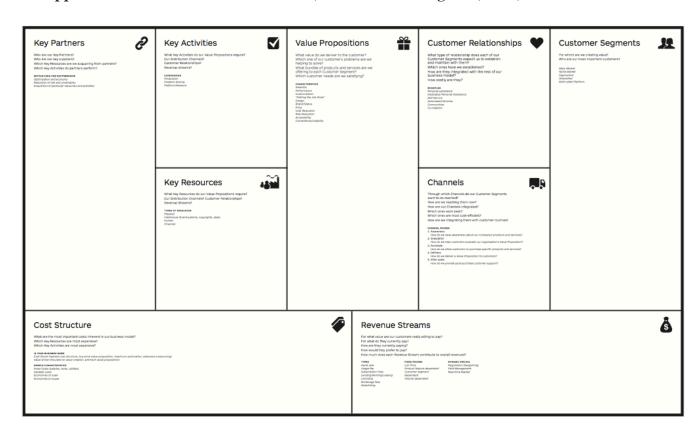




### **Appendix 24 – Open innovation model (Chesbrough, 2003)**



Appendix 25 – Business Model Canvas (Osterwalder & Pigneur, 2010)

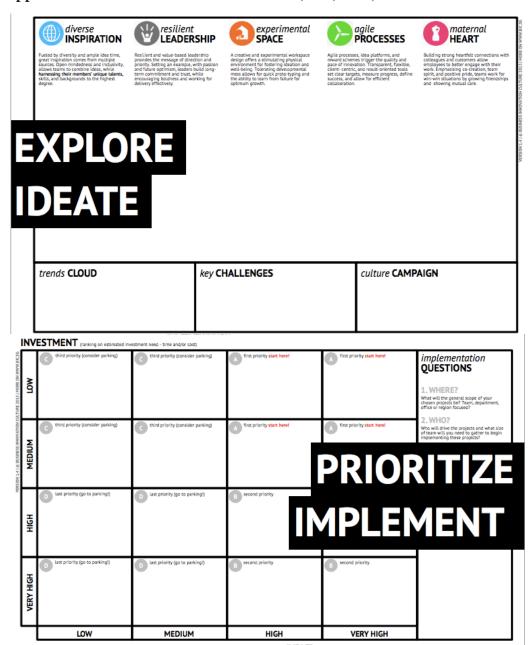




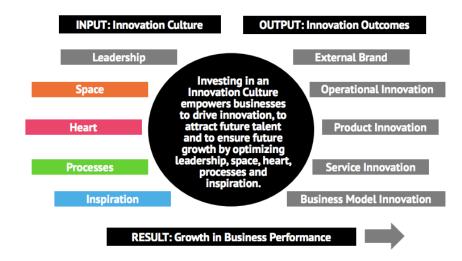




### **Appendix 26 – Innovation Culture Canvas (BIC, 2013)**



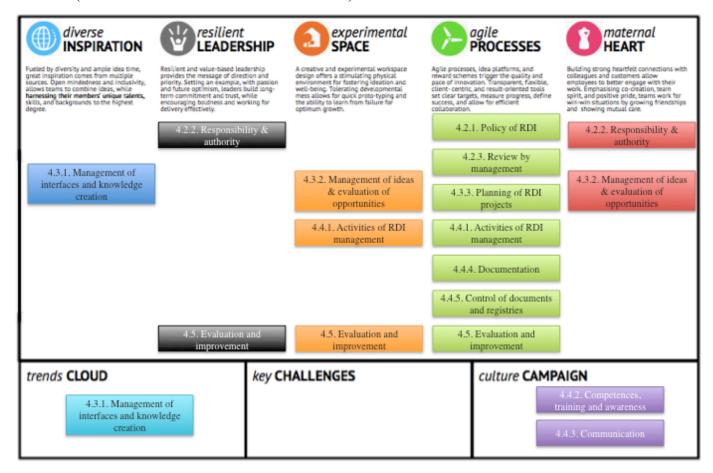
**Appendix 27 – Benefits from an innovation culture (BIC, 2013)** 





### Appendix 28 – System of RDI management in the innovation culture canvas

(Added boxes refer to sections of NP 4457)



**Appendix 29 – Continuous process of innovation management** 

