



Corporate Business Model for Managing Innovation

Final Report Master in Engineering
with emphasis in Design Management

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CHAPTER 0

O-I PROJECT DRAFT

In this chapter we will find the facts and antecedents that motivated the development and the proposal of this project. In 2010, I started my career path at O-I, as a Product Manager for O-I Colombia. In the performance of this role, I was involved in the creation of the New Product Development Process establishing the front and back end interaction, allowing to impact not only the process in Colombia, but also in the other Latin America's O-I countries. This path opened a door for Innovation as an opportunity to bring added value for the customers and the company at all levels, creating a strategic process to manage it.

This chapter, from the Historical Summary of O-I through the Methodology, is part of the proposed draft presented to O-I and EAFIT University in order to obtain the approval of execution for this project. For this reason, it is written in present tense, at the time I was in charge of product management in O-I Colombia, and the leadership of the innovation process for O-I Latin America. I left the company in 2015, however I continued to work on this project until its completion in June on 2018.

0. CHAPTER 0: O-I Project Draft

0.1 Abstract & Key Words

This project report presents the complete process followed to propose finally a Corporate Innovation Model to Owens Illinois, O-I. The chapter 0 presents the project draft, that was approved prior to start the development. The next chapter 1, presents the innovation diagnosis analysis of O-I done at the beginning of the project in order to identify the opportunities for the proposal, then on chapter 2, a benchmark analysis was performed with four important companies with presence in Colombia which have Innovation models already implemented. In chapter 3, it is presented an overview of the theoretical perspective from the book *Managing Innovation*, (Tidd & Bessant, 2013) identifying the key elements that along with the benchmarking and the opportunities of O-I, support the final proposal of the model presented in chapter 4. O-I is the world's leader manufacturer of glass containers, with presence in America, Europe and Asia Pacific.

Key Words: Strategy, Innovation, Corporate innovation model, glass smart™, Benchmarking, Managing Innovation, Innovation Strategy, Innovation Culture, Innovation Process, Metrics.

0.2 Historical Summary of O-I

Michael J. Owens founded O-I in 1903 as Owens Bottle Company. In 1929 it merged with the Illinois Glass Company to become Owens-Illinois, Inc. O-I is currently the leading glass containers manufacturer in the world, with 81 plants in 21 countries of North America, Latin America, Europe and Asia Pacific. It has more than 24.000 employees all over the world, 1.900 patents, more than 49.000 customers in 86 countries and every year, more than 600 new product solutions are launched to the world market.

In 1958 Owens Illinois started operations in the Colombian market, and around the year 2.000, completed an expansion process, to build what is known today as O-I Colombia, a company formed by 4 glass production plants: Envigado (glass containers), Zipaquira (glass containers), Soacha (Covet-premium glass containers) and Buga (table ware).

In Colombia, the glass containers business unit (70% of the total sales of the company) is divided in 5 categories: non-alcoholic beverages (NAB), beer, spirits, food and pharmaceuticals.

This business unit attends most of the global brands and top customers, as well as medium and small growing customers with high development potential (Star Customers).

Another important business unit is O-I's tableware unit, with the brand CRISTAR, which manufactures glass products for final consumers and the institutional channel.

The last and newest business unit is COVET, specialized in high premium glass containers for different categories, mainly spirits.

Figure 1 shows the three business units explained above.

Figure 1: O-I Glass Containers, Tableware CRISTAR, COVET



Source: O-I

0.3 Background

Facts - Antecedents

For many years, O-I Colombia's model or business style was focused on production only, where tons sold constituted the most important indicator, regardless of where (or to whom) this glass was sold. In 2009, this model initiated a transition process, switching to a model totally focused on the market, where O-I looks forward to be a strategical partner for its customers, through a deep knowledge of the market, the final consumer and the customer's facilities such as filling lines, logistics, distribution channels, etc.

Under this perspective, the company has created and implemented the **glass smart™** methodology for the glass containers unit (core business) starting in O-I LA, a new business

model that looks for the development of a deep comprehension and study of consumer and market trends, the needs of whole value chain, the distribution channels and the customers, the environment in general, to identify opportunities and provide customized solutions according to each customer in the current and potential segments and different business categories where O-I and glass containers operate. Figure 2, shows the methodology of **glass smart™** which is a step by step process (lineal) starting at the O-I Strategy definition, ending with the Control phase. More information about **glass smart™** will be presented in detail in the DIAGNOSIS chapter.

glass smart™ as a new business model (total innovation for O-I) has started with six different disciplines and team interactions which all combined, provide a different customer approach:

- A) **O-I Strategy:** Where the business manager and the marketing team propose and define the strategy of the project they want to initiate or build. This project can be an O-I Value selling project (100% identified and proposed by O-I), Customer Driven (identified and requested by customer) or Innovation (projects that include one of the current O-I Global Innovation Platforms).

Figure 2: O-I Glass Containers



Source: O-I

- B) Total Account Penetration:** The key contacts and influencers for a successful project approval are identified and considered in this discipline or stage of the process. To know the marketing, technical, logistics, supply and other teams involved in the project (from the customer) is one of the most important steps for a correct execution and success.
- C) Consumer Back Input:** All the relevant information for the project, from sources such as the market, channels, consumer, among others, is collected and analyzed to build and support the strategy and define the objective and requirements the project should accomplished.
- D) Customer Back Input:** All the information regarding the customer, such as technical restrictions, filling line requirements, logistics, as well as O-l's internal technical information is collected and analyzed to support the defined strategy, assess the feasibility of the project and reduce the time to market.
- E) Launch Strategy:** In this discipline or stage, all the activities concerning the planning of the launching such as PR (Public Relations), press release, internal communications, marketing activities, etc; are executed along with the customer's involvement.
- F) Control:** This discipline supports and follows-up on recently launched new projects, analyzing the market behavior, growth and metrics in general to evaluate performance and sales.

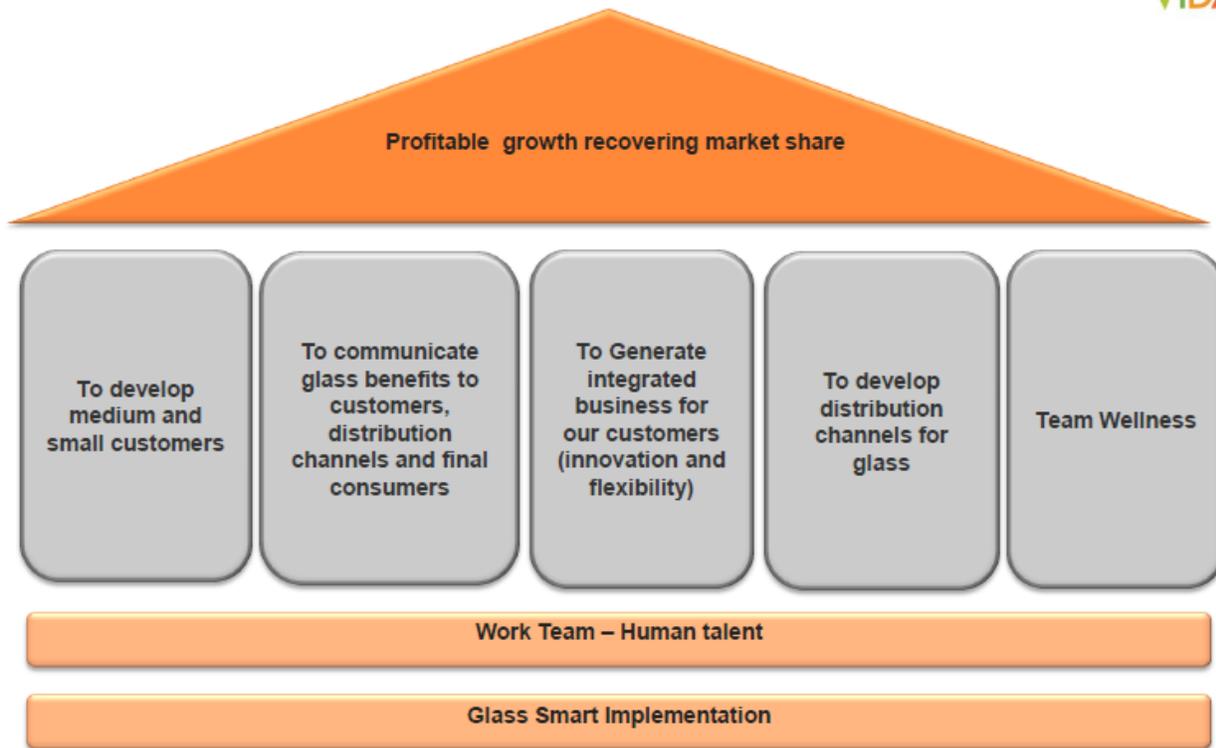
Figure 3 shows the Marketing & Sales strategic plan for Glass Containers, developed and supported by the **glass smart™** implementation, playing a key role in its execution.

Once **glass smart™** was created and started, the focus of the Marketing and Sales (M&S) structure changed into "Business Units", each of them specializing in market categories (Food, NAB, AB's) and lead by a Business Manager in charge of the development of the strategy and growth, supported by an Account Manager for the daily functions of different customers and accounts.

Figure 3: O-I Glass Containers strategic plan

General Strategic Plan

2014

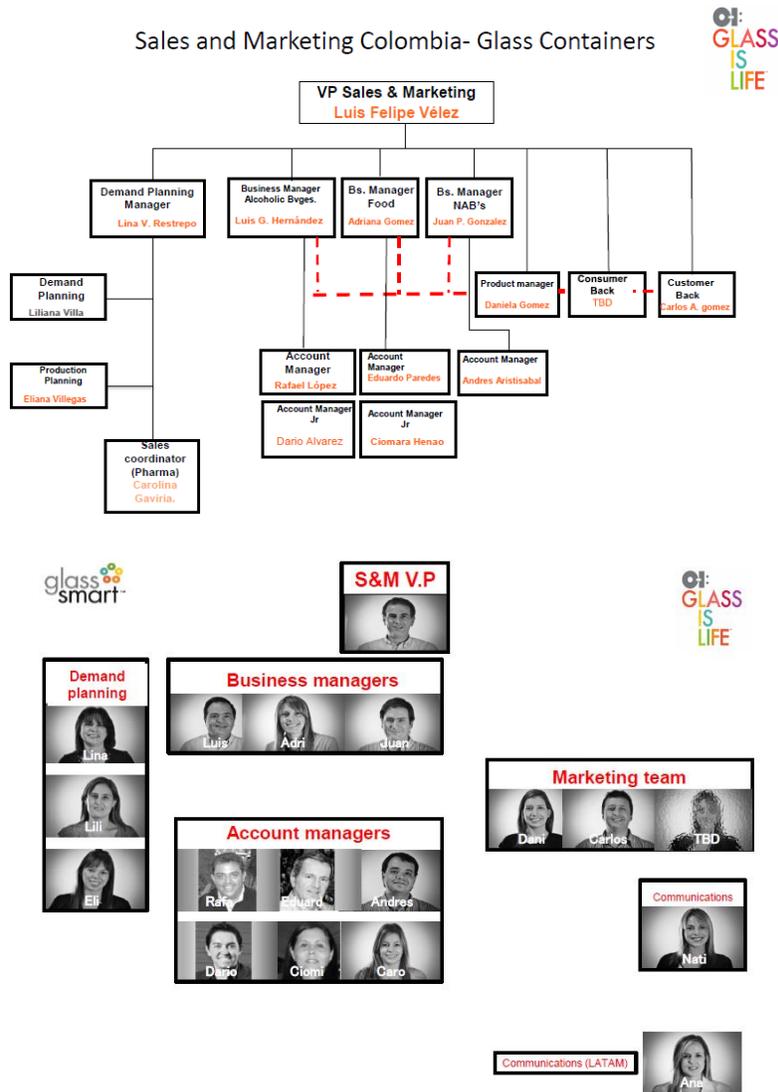


Source: O-I

Some new roles were added also to the M&S team, in order to support this new way of doing business: Consumer Back Manager, Product Manager, Customer Back Manager and Communications Manager, all of these roles basically involved in the different marketing activities of the GS projects: to build the future of the company.

In figure 4, the M&S structure is shown (Sep2014):

Figure 4: The Glass Smart Team



Source: O-I

During the first 3 years of **glass smart™**'s implementation, the consumer back discipline and the whole system was more focused on "knowledge": Knowledge of the market, the final consumer, categories, distribution channels, etc.; developing projects on a completely different way as always, a new strategy, but with no impact on the final consumer's decision.

With the implementation of **glass smart™**, the use and application of the design activities experienced an important change as well. As a manufacturing company, O-I's design used to be only technical and operative, focused on technical drawing developments and our customers were the ones bringing the ideas for their products.

The role of the Product Manager within the GS, structured around the year 2013, allowed to change this history, and challenged the system to build a product marketing strategy in all levels of the organization: strategic, administrative and operative.

This process involved a complete review, diagnosis and improvement of the current NPD (New Product Development) process focused on a better speed to market as well as procedures and protocols to organize the complete value chain process. This first stage took place during 2010 and 2011, some of these activities included:

- O-I's Internal process for NPD: Engineering design, mold design and fabrication, production (samples or first campaigns).
- Improve flexibility and times to market.
- Decoration process procedures included.
- Budget estimation
- NPD metrics
- NPD protocols for big customers: BAVARIA – POSTOBON - COCA COLA

This diagnosis was supported as well with the graduation project of the Design Management Specialization (EAFIT University) that was completed with a proposal of improvement of the NPD, briefed on Figure 5.

Figure 5: NPD Process Improvement



Source: Design Management Specialization Project – Daniela Gomez

Currently, the product management process as a design management activity, has succeeded in achieving a strategic level, supporting the corporate priorities and the **glass smart™** process (as it is shown in figure 6) based on:

- 100% customer focus. Total commercial interaction with customers.
- Support the **glass smart™** process and the Business Categories Strategic Plan, for the project development.
- Innovation alignment with the corporate strategy: focus on the commercialization of global platforms projects.
- Customer engagement, with proposals for new opportunities.
- Concept design attached to the initial design process where O-I now identifies and makes proposals directly to customers: total involvement in the creative process.
- Regional Support on product management & innovation to the O-I LA countries.
- Innovation as a core value advantage for the **glass smart™** process.

Figure 6: Product Management Process



Source: O-I – Created by Daniela Gómez

On 2013 a team from O-I LA (different countries members) were called together to analyze and improve the current **glass smart™** methodology and create **glass smart™ 2.0**. The new model is shown in Figure 9.

There were no substantial changes from the initial model, but the idea now was to use all this knowledge and generate an impact on the consumer and to influence their perception or preference of glass as a packaging material. One example of this, is the consumer communication campaign on the most important media, launched between 2014-2015. Never before O-I in the world had implemented a similar campaign directed to consumers. Thanks to the diagnosis and analysis of **glass smart™** this was made possible: O-I Colombia is the pilot and leader of this initiative.

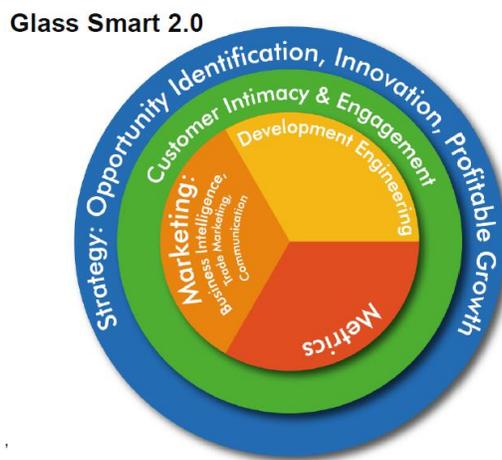
On the following links, the series of TV commercials launched can be observed:

- Vidrio es Vida –Náufrago <https://youtu.be/9BP2YeEphU>
- Vidrio es Vida –Naturaleza <https://youtu.be/JOdTp4ueWhs>
- Vidrio es Vida –Celebración <https://youtu.be/p8zqC2BJx08>
- Vidrio es Vida –En la playa <https://youtu.be/nXu3RjPA7rQ>

- Vidrio es Vida –Seducción <https://youtu.be/zMBDwFz8O38>

The new **glass smart™** 2.0 (figure 7) received the approval of the core team of O-I LA. However, the process definition for implementation started with the development of this master project and will be further explained in detail in this report (chapter 1), following the diagnosis stage.

Figure 7: glass smart™ 2.0 model



Source: O-I New glass smart™ 2.0 model. Graphic created by Daniela Gómez and the Agility team

This progress on the Business Model improvement, since the implementation of **glass smart™** in 2013, has changed little by little the DNA of the O-I's teams work dynamics, generating the perfect space to start and promote an innovation culture: an opportunity to reinvent how we do our job with integrated participation of the different and multidisciplinary teams.

This is our reason to believe in this project.

Problem Approach

O-I Colombia has been transforming its business model previously focused exclusively on production (Business-to-Business) into a business model focused on customer needs, market and consumers (Business-to-Business-to-Consumer). This change occurred in 2010, led by the

M&S team in an effort to achieve profitable growth for the company and its customers, considering O-I as a strategic partner and marketing the glass benefits.

glass smart™ is the methodology created and developed by O-I to lead this change, this however, implies a transformation in the organization and the way O-I works at all levels to address the business and product development and growth with a new and different approach and mindset.

The opportunity to create a strong model that crosses the organization and helps us to entrench and adopt innovation as an engine and culture, where all of us are the best inventors, creators and developers of “iconic, trustworthy, versatile, sustainable and beautiful ideas in glass.” (<http://www.glassislife.com>).

To summarize, the Corporate Objective for O-I in the long term of an Innovation Model is:

“Create, promote and embed the culture of Innovation and design at O-I Colombia as a pilot, and then at O-I LA, through the creation and development of a methodology with an INNOVATION COPORATE MODEL in order to make more effective and efficient the development of **glass smart™** projects, driving the profitable and sustainable growth of the company and building great brands through glass for the consumers”.

¿How do we do this?

Analyzing and diagnosing our current processes and activities at different levels of the organization and studying successful innovation models as well as the most recent theory and bibliography to propose a customized model for O-I’s strategic plan.

Justification

The competitive environment of O-I and the internal context of the organization present various and complex matters or elements that require flexible and innovative responses. The more rigid an operating system in a company; the much more complex is for the idea generation process to provide solutions for the everyday challenges of developing new businesses.

Flexible systems however, are characterized by providing multiple solutions and possibilities; allowing creative solutions to deliver flexibility and increased options to reach customers with a suitable or sometimes, customized solution. Competitive pressures require a faster delivery of new products and services; today's businesses are under increasing pressure to innovate before the competition does.

Today, many theorists in innovation management speak about the term "reinventing the organization, (Tidd & Bessant, 2013) as a way to find new ways of doing things. This new start however, requires new ideas and new ways to view and deal with situations: creative perspectives.

Organizations need perspectives and creative solutions to conceive new products, services and process ideas, marketing strategies, allocation and use of the different resources: Creativity and Innovation are the magical words that can lift the organizations, their different areas and process higher levels of performance. The "technology of creativity" can multiply and magnify the power of the human brain in organizations.

There are many ways that enable and facilitate an organization to become a source of idea generation and development; that is the purpose of this project.

The development of this project has a high importance and impact on the organization and involves and requires proper innovation management, from a structured research and deep understanding of the organization and the business process, which allows to develop a program (processes, tools, methodologies, spaces) that suit the specific needs of O-I in Colombia (as pilot implementation) and O-I Latin America.

0.4 Objectives

General Objective (This Project)

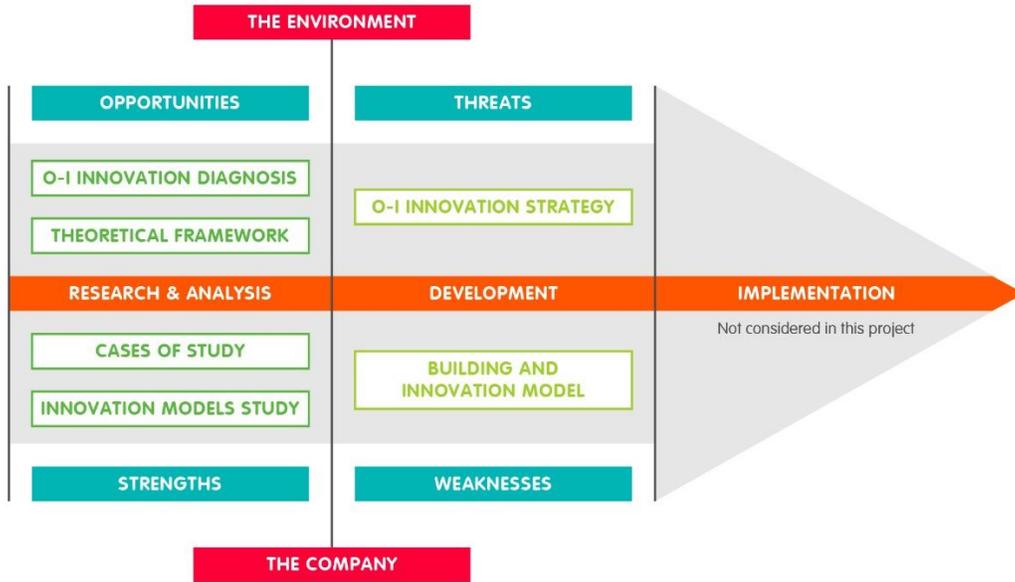
Framed within the corporate objectives previously explained, this project pretends to develop a strategy and proposal for a corporate business model for Innovation and design management at O-I, according to the **glass smart™** methodology and the corporate strategic priorities, developing a deep diagnosis and using different research and analysis work from the most recent trends and publications, as well as successful cases of study in different companies.

Specific Objectives (This Project)

- Analyze the company and the internal process of Innovation at O-I and the global strategy to build a diagnosis to define O-I's current situation, identify good practices and improvement points and build a starting point for the final proposal.
- Research and study different sources, authors, experts and strategic databases about corporate Innovation & strategy in order to make a deep analysis and build the bases and the structure for a customized model for O-I, based on the experience got at O-I Colombia.
- Research and analyze innovation models in other companies in Colombia, to have referents for the proposal as well as best practices to understand how are they facing the innovation challenge.
- Build the final proposal for the corporate innovation model, according to the conclusions of the previous work, as well as performance indicators and an implementation plan.

0.5 Methodology

Figure 8: Methodology of project development



Source: Daniela Gómez

CHAPTER 1

O-I INNOVATION DIAGNOSIS

Introduction

In this chapter, we will find a complete review of the Innovation process status inside O-I starting with the global strategy, throughout all the global processes concerning Innovation and carrying out a deep review inside O-I LA (the region of Latin America) where O-I Colombia is located.

The main topics addressed in this diagnosis were: O-I STRATEGY & CORPORATE LEADERSHIP, PEOPLE & CULTURE, REGIONAL STRATEGY & **glass smart™**, PRODUCT INNOVATION & TECHNOLOGY, MARKETING INNOVATION & COMMERCIALIZATION and finally METRICS. The methodology of this analysis proposed a review of each topic, and at the end of the chapter all the conclusions and opportunities identified in each topic were summarized.

It is important to mention that all this DIAGNOSIS was part of my role as Product Manager of O-I Colombia and Innovation Leader for O-I LA, and it was as well the starting point for the modeling of this master project. All the development and analysis found in this chapter, is part of an initiative lead by my role as Product Manager for O-I Colombia and later used by the VP of Business Development and Marketing and Sales of O-I LA as a support to present his strategic plan and commercial process for the region to the core leadership team of Latin America.

The objective of this chapter was to evaluate the company in terms of Innovation to propose all the key elements needed **to have a tailored Corporate Innovation Model for O-I LA**, based on the gaps and opportunities found, plus the analysis of the referents (study cases) and the latest theory available about this matter (chapter 2 and 3).



1. CHAPTER 1: O-I Innovation Diagnosis

Before we start, it is important to understand that O-I has been focusing specifically in product & technology Innovation. Technology means new ways to produce and manufacture glass, and the main subjects around this type of innovation are: furnace, melting glass, blow & blow, press & blow and NNPB manufacturing processes, glass colors, quality inspection systems, etc. Although this is an important innovation for O-I and part of what the company can perform well today, this project will be more focused on “front-end Innovation” more related to the commercial process and the final product, the different paths or ways to get different results facing the front side of the story: the consumer, the market and the customer. This means that the type of Innovation we are going to achieve here is closely related to the marketing strategy, the design management process in a strategic and corporate level and across all the organization. In O-I Colombia and Latin America this perspective is considered part of the **glass smart™** process itself and relates to more than the product: it is a whole new way to do business different from O-I’s history and tradition.

Figure 9 shows the proposed methodology for the analysis around O-I’s Innovation diagnosis and the topics, beginning with the corporate strategy, up to the metrics; all the themes viewed from the reality of the company, that allowed us to understand this project’s starting point. In **Annex 1** the full report of the diagnosis developed during this project can be found.

Figure 9: O-I’s DIAGNOSIS methodology



Source: Created by Daniela Gomez

This diagnosis started in August of 2014 as part of a new role assigned to my position as the leader of Innovation for O-I Latin America, in addition to the role of Product Manager for O-I Colombia.

Never, before this moment, innovation had been more important for the company, and Colombia was one of the countries with the highest levels of involvement in Innovation, aligned with the corporate strategy, especially since October of 2013, when the full global O-I team traveled to Colombia for a week to participate in a co-work process of deep understanding of our market, challenges and needs to increase the position and market share of glass in our context.

The prospect for this meeting started in the first place with the relation I had as the leader of Innovation for the region with the Global Product Innovation team (no other O-I LA countries or staff members were involved at the moment) and due to this close team work, the opportunity to invite them to Colombia to initiate an Innovation project arose.

This gathering constituted as well a big opportunity to connect our Marketing Team with the O-I Global Commercial base in Perrysburg, OH – USA, where O-I's headquarters are located. This turned October 2013's meeting into an even bigger event, led by the Colombian M&S team, generating opportunities to open new ways of work between the O-I Global Team and Colombia regarding not only innovation but the marketing and commercial process as well.

Due to this fact, my role as a product manager took more relevance in the organization not only for the experience in **glass smart™ (as part of the team who started the implementation at O-I)**, but also because it was a good opportunity to work closer, as any other country of LA, with the global Innovation team where most of the leaders and resources are located.

Another fact was the arrival of a new leader: Federico Restrepo as the VP of Business Development, Marketing and Sales for O-I LA. At the time, Mr. Restrepo had more than 20 years of experience, especially in Innovation, and played key roles in Kimberly Clark both in Colombia and overseas.¹ Working closely to him allowed me to find a new sponsor for this

¹ On his last role Mr. Restrepo was the CEO of Kimberly Clark Colombia.

master project and a key mentor not only for my academic process, but additionally a key leader who could support a transformation inside O-I around an Innovation culture.

As part of the starting point for this diagnosis, we had a quick design thinking session with the team to build the definition of the dreamt INNOVATION for O-I and to discuss that "INNOVATION was not only":

- Product Inventions
- Creativity
- **glass smart™** as an isolated process that only concerns the marketing & sales teams.
- To generate many ideas
- New product engineering /technology
- One process of the company
- What is done by marketing & sales

One of the challenges was to change the Innovation meaning into a definition that was built together and that has become the base for the innovation model proposal, as it is seen in figure 10:

Figure 10: O-I's Innovation meaning

Innovation is an complete ecosystem across the organization, articulated by different processes & elements that together apply new solutions for the business, break paradigms and create new ways to develop opportunities and reach our company strategy and growth.

Source: Elaborated and proposed by Daniela Gomez

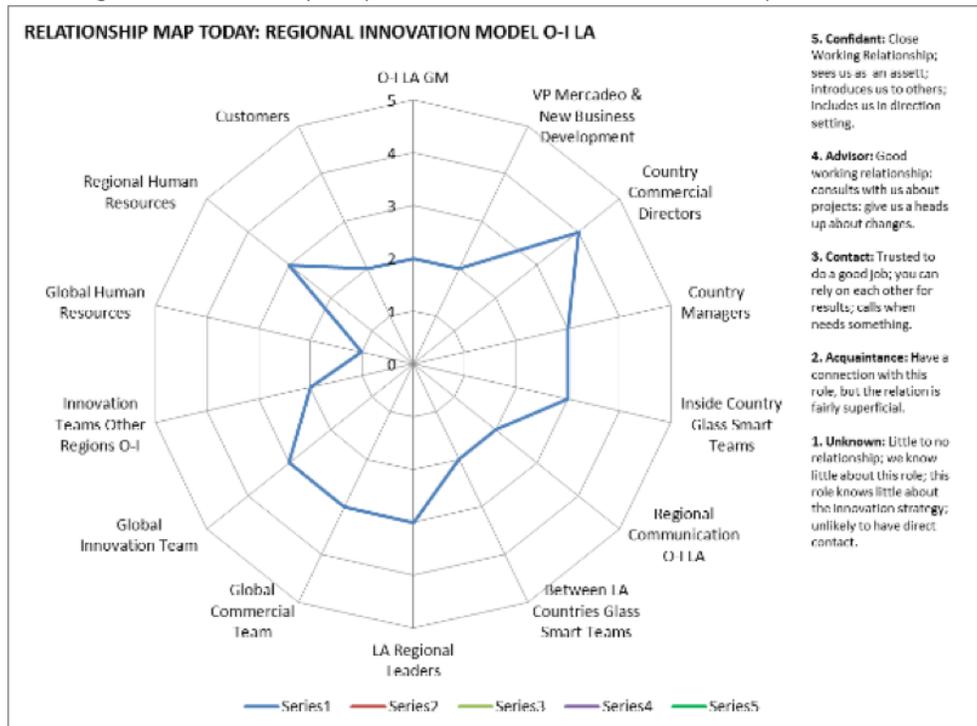
The development of this diagnosis was very important to Mr. Restrepo and the O-I LA CORE TEAM to get to know and understand O-I in this matter. That is why it took around three months to be developed and it was presented to the LA core team in November of 2014 as part of the strategic plan Mr. Restrepo was starting to build for the region.

One of the first steps to execute an accurate diagnosis of how O-I had been working, was to create a "Relationship Map" to understand the current status of Innovation inside the organization. In order to do this, the most important stakeholders during the entire process,

that is, the teams that are essential to make innovation happen inside the company, were identified.

They were ranked in a level from 1 to 5 (5 being the indicator of a strong and confident knowledge and relation) in order to know how much they were involved and how much information they had about **glass smart™** and the Innovation processes. Figure 11 shows this analysis where the level of engagement of the most important stakeholders in the innovation process is measured.

Figure 11: Relationship Map to measure innovation with the key stakeholders



Source: Created by Daniela Gomez

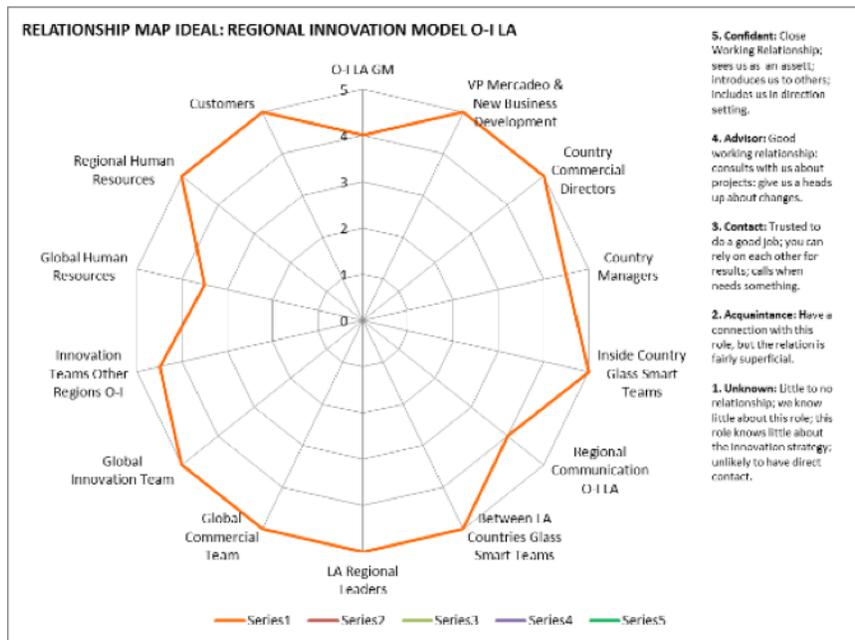
The stakeholders shown in figure 3 are key to influence innovation implementation. These are the teams and leaders that should deeply believe in the process to fulfill an innovation strategy.

In the current Relationship Map none of these members in the organization presented a proper level of involvement or engagement, some of them, such as the VP of Marketing & New business development, the Regional Communication O-I LA, the Communication between **glass smart™** teams in LA countries, and the Customers, were lowly ranked (level 2) and far

from the ideal score (level 5). These results indicated that the innovation process was far from the appropriate situation and aspiration level they should have inside the regional process.

Some other stakeholders such as Country Commercial Directors, Country Managers, Inside Country **glass smart™** team, LA Regional Leaders, Global Commercial Team, Global Innovation Teams, weren't ranked as low because they had contact with these processes and trusted in **glass smart™** performance and relied on it, actually most of them were at level 3, and just two of them were at level 4, but still needed to be on a higher scale, therefore, they were compared to an ideal case (Figure 12) of how these teams should be working after developing an Innovation Strategy and implementation model.

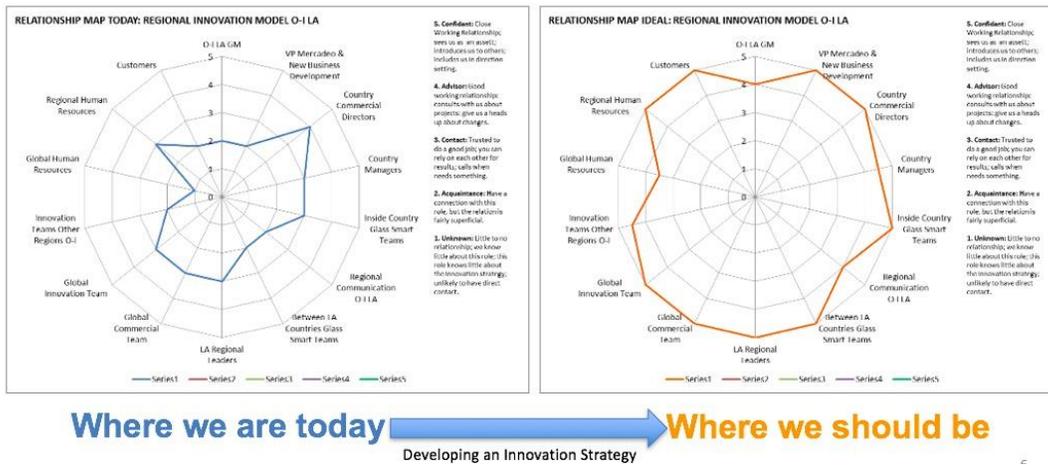
Figure 12: Ideal Relationship Map to measure innovation with the key stakeholders



Source: Created by Daniela Gomez

Now, compared to the ideal map, it was identified that most of the stakeholders needed to be highly and correctly influenced by **glass smart™** and the Innovation strategy, to get to the ideal working model for O-I, in which every team works as near and informed as possible (figure 13). Having a close relationship between the stakeholders and the **glass smart™** team is an essential asset in order to guide the decision-making process and have a successful implementation of the innovation O-I's culture.

Figure 13: Developing an Innovation Strategy



Source: Elaborated and proposed by Daniela Gomez

Furthermore, it is important to understand that having just a structure will not bring a company to a successful innovation model, according to the Managing Innovation (Tidd & Bessant, 2013), integrating technology, marketing and a well thought organizational change is a must, it should in fact, integrate a set of 7 components that allow the company to create an innovative environment based on specific aspects.

These aspects are the main referents to understand O-I Colombia’s situation regarding its ideal innovation culture; the main challenge is to build the kind of organization where an innovative behavior can flourish.

The goal of an Innovation model, seen from the macro lens, is to enable the company to integrate not only the structure, but also a global vision, its individuals, teamwork and an atmosphere of high involvement in design and innovation, as it is established in the 7 key components, summarized in figure 14.

Figure 14: Components of an Innovative Organization



Source: Adapted by Daniela Gomez from Managing Innovation (Tidd & Bessant, 2013)

First, a shared vision of leadership and the desire to innovate will lead the company to break paradigms and the top management to a commitment, which today does not exist or is still not appreciable. O-I Colombia doesn't count with this component, because even though **glass smart™** has started their innovative processes, there is still a lot of ignorance about the subject and poor communication between stakeholders.

Second, there should be an appropriate structure that allows creativity and its integration throughout all the processes of the organization, provided by **glass smart™**.

Third, identifying key individuals such as promoters and champions will energize the company and the other people, facilitating innovation.

Fourth, effective team work will maximize the participation of each member to solve problems; here it is important to clarify that this component is not found in O-I because **glass smart™** Colombia works separately from other **glass smart™** 's teams from LA, which disables teamwork. In fact, it is difficult to find team work inside and between different areas of each LA country.

Fifth, a High Involvement in Innovation, where everyone participates in activities performed by the organization and these are continuously improved. The lack of this component is related to the previous key component (effective team work).

Sixth, a Creative Climate where great ideas are supported and motivated, and the final component, but equally relevant, is an External Focus, providing an internal and external customer orientation creating an extensive network for work and communication. These last two components are achieved only with the successful implementation of an Innovation strategy model, which is the purpose of this project.

It is necessary to understand that when companies are able to create this extensive networking throughout their processes, they usually go beyond a structure, and use the key components previously discussed as a main guide to chart their goals. This needs to happen for O-I Colombia not only to allow innovation and creativity but also to embrace it. The main goal of this diagnosis was to make a deep analysis in every stage, understanding how it involves and affects innovation, finding gaps and opportunities that will allow the proposal of a holistic innovation model for O-I LA.

After analyzing the Innovation process of O-I LA regarding each of the components that comprise it (O-I strategy & corporate leadership, People and culture, Regional strategy & **glass smart™**, Product innovation and technology, Marketing Innovation and metrics), this analysis will also allow O-I to compare the current innovation process and current corporate strategic vision, establishing global and regional differences, opening doors for improvements in regional terms. Latin America, perhaps, has already strong parties when considering the consumer market, but when considering innovation, creativity, design, conceptual tools and equipment there's still a big opportunity to improve.

Also, in the next chapter O-I LA innovation levels will be compared to literature and recent authors and theories, as well as other innovation models that have been successful implemented in well recognized companies. It will allow to build and propose an ideal Corporate Innovation Model for O-I.

1.1 O-I Strategy & Corporate Leadership

Global O-I Strategy

As a multinational company, this analysis was made starting from a global perspective, this means, from the global leadership team located at O-I's headquarters in Perrysburg, Ohio; where the CEO and his direct reports lead all the operations in the four regions and their countries. These four regions are: North America, Latin America, Asia Pacific and Europe. Briefly, to understand the structure, each region has a regional Director who reports to the CEO and at the same time, each country manager reports to him. In parallel, the country's VPs reports directly to each country manager, as well as their pairs globally.

At the end of 2012, the CEO and his leadership global team, signaled a new phase in O-I's strategy, aimed at increasing the competitive advantage and improving the ability to execute. This new direction evolved into a three-year plan that built on the strategic priorities and included structural cost reductions, as well as investment in R&D and innovation capabilities².

However, as it was explained before, this innovation for O-I is basically technical, focused on R&D (engineering), technical capabilities, and product innovation more from the science of glass than considering the final product and not even the customer. Some examples of this are the development of the black and red glass, melting and production process, etc. Lean Six Sigma (LSS) has been an important capability developed globally to support the regions and countries in different engineering process improvements (considered as Innovations for O-I).

As part of these new phase of strategy, an O-I's ambition statement was published: *"Our ambition is to be the world's leading maker of brand-building glass containers, delivering unmatched quality, innovation and service to our customers; generating superior financial results for our investors; and providing a safe, motivating and engaging work environment for our employees"*³.

² Taken from the O-I Strategy, O-I's global intranet – "O-I HOME"

³ Taken from the O-I Strategy, O-I's global intranet – "O-I HOME"

The elevator speech that supported the strategy, declared internally as a lead for all the teams is: *“Our three-year strategy builds off the work we started when our strategy was launched in 2007. It helps establish our place as a leader in the global glass industry, with unmatched quality, innovation and service for our customers; superior financial returns for our investors; and a safe motivating and engaging work environment for our employees. To achieve this ambition, we must prioritize our initiatives and resources with an increased focus on operational excellence.*

*Over the next three years, we must define and strengthen our competitive advantage in the glass container business by reducing structural costs and investing in innovation and R&D; improving our ability to execute; delivering high value for our customers; and optimizing our global asset base”.*⁴

Finally, the three-year plan is explained in figure 15 to give a clear understanding how O-I will execute the strategy:

Figure 15: Three-year plan – O-I’s strategy



Source: O-I

⁴ Taken from the O-I Strategy, O-I’s global intranet – “O-I HOME”

To achieve this goal, O-I must prioritize the initiatives and resources with an increased focus on “operational excellence”. It will define and strengthen the competitive advantage in the glass container business by:

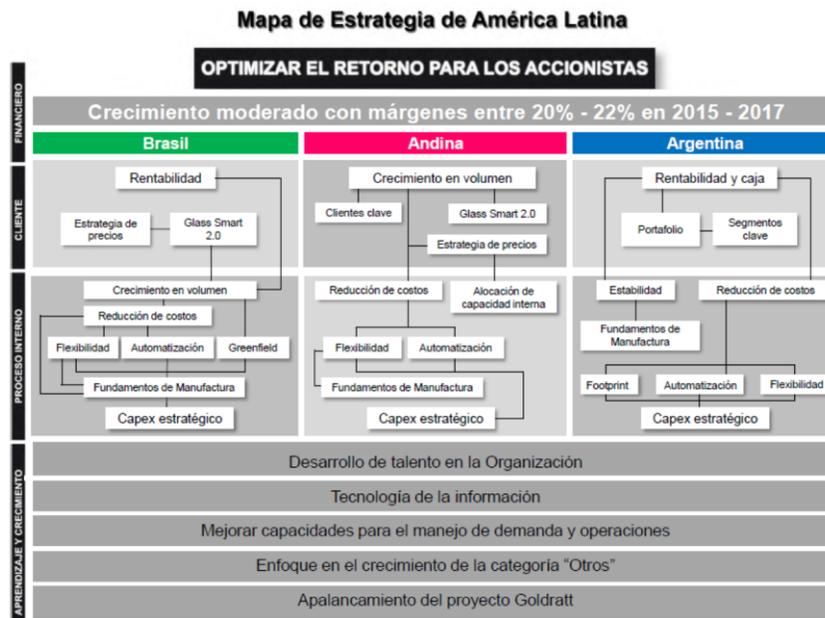
- Reducing structural costs.
- Investing in Innovation and R&D.
- Improving the ability to execute.
- Delivering high value for the customers.
- Optimizing the global asset base.

If we refer to a definition of Innovation as an integrated system, as will be presented in the next chapter, where we analyze different theory and models, O-I’s concept of innovation and its strategy is contradictory. It mixes cost reduction and optimization, manufacturing performance and other very technical issues with innovation, employee’s motivation and the delivering of high value for the customer. When being more flexible and adaptable should be a guideline to make innovation happen. It is demonstrated, and specially in practice at O-I, that when production performance is the priority and is measured strictly in teams, innovation finds a barrier as it implies sometimes risks, break paradigms, as well as think and do everything different. O-I’s KPI’s (performance indicators) are still designed only to get metrics on costs, efficiency, tons melted and packed, etc.

Regional O-I LA Strategy

When the global strategy is declared, it is a mission of each region to transfer this guideline into a regional strategy that better meets the specific needs and requirements in order to achieve the goal set by the global team. The figure 16 shows the Strategic Map defined for Latin America.

Figure 16: Strategic Map for O-I LA



Source: O-I

The map is divided in three sub-regions as Brazil, Andina (Colombia, Ecuador, Peru) and Argentina that have different situations and requirements. It is clear that those priorities regarding cost reduction, manufacturing performance / operational excellence, profit, etc; are included as it is in the global strategy. However, there are some important differences or gaps identified: first and most important, innovation is not a core priority in the LA strategy; second **glass smart™** shows its importance on the "customer stage" specially for Brazil and Andina, as Argentina is an operation recently bought and is still at a stabilization stage. But for the global team **glass smart™** it is not even declared in the global strategy, as it has started and is a lead only in Latin America.

As long as the implementation of **glass smart™** is successful in O-I LA (as it has been demonstrated to be), it would be adopted and implemented by other regions, which are already inquiring for more information and about successful cases to understand it better. But, on the other hand, if innovation is not included in the LA Strategic Map, the regional and country teams are not going to give the importance and relevance in their daily work, which

will still be focused on operational performance and processes, products, costs, machinery and technology; in other words, the company will remain focused on technical aspects and the global strategy will be met partially and Innovation will remain on paper.

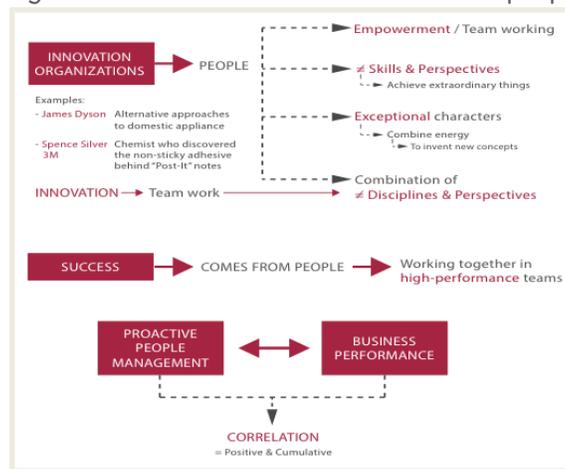
Another very important issue is that every day it is more difficult to **create motivating work environments** due to the high pressure to meet the KPI's, even though this aspect is established in the global strategy.

1.2 People & Culture

Before starting with the development of this topic, the following definition and description are taken from the book "Managing Innovation" (Tidd & Bessant, 2013) where it is explained that **success of innovation comes from people and their development.**

The figure 17 illustrates this idea in more detail:

Figure 17: Success of Innovation comes from people



Source: Adapted by Daniela Gomez from Managing Innovation (Tidd & Bessant, 2013)

Innovative organizations are responsible for people's empowerment and team work development, encouragement of different skills and perspectives and create exceptional characters, which is what leads people to obtain extraordinary achievements, working together in high-performance teams and increase the success of the business.

O-I Human Resources Strategy

O-I has a global Vice-President of Human Resources for the entire organization, whose team leads the roles in each region and country. The most important responsibility of this global HHRR team is to define the strategy of human resources (figure 18) aligned with the global strategy.

“The Human Resources function enables the business strategy by ensuring the design and delivery of a high performing organization, the selection of top talent, developing and rewarding people and promoting our culture”⁵

Figure 18: Global Human Resources Strategy



Source: O-I Global Intranet – O-I Home

The strategy in human resources is basically to design an effective organization in management performance, compensation, learning and development, and a workforce planning, where everything is about organizational culture.

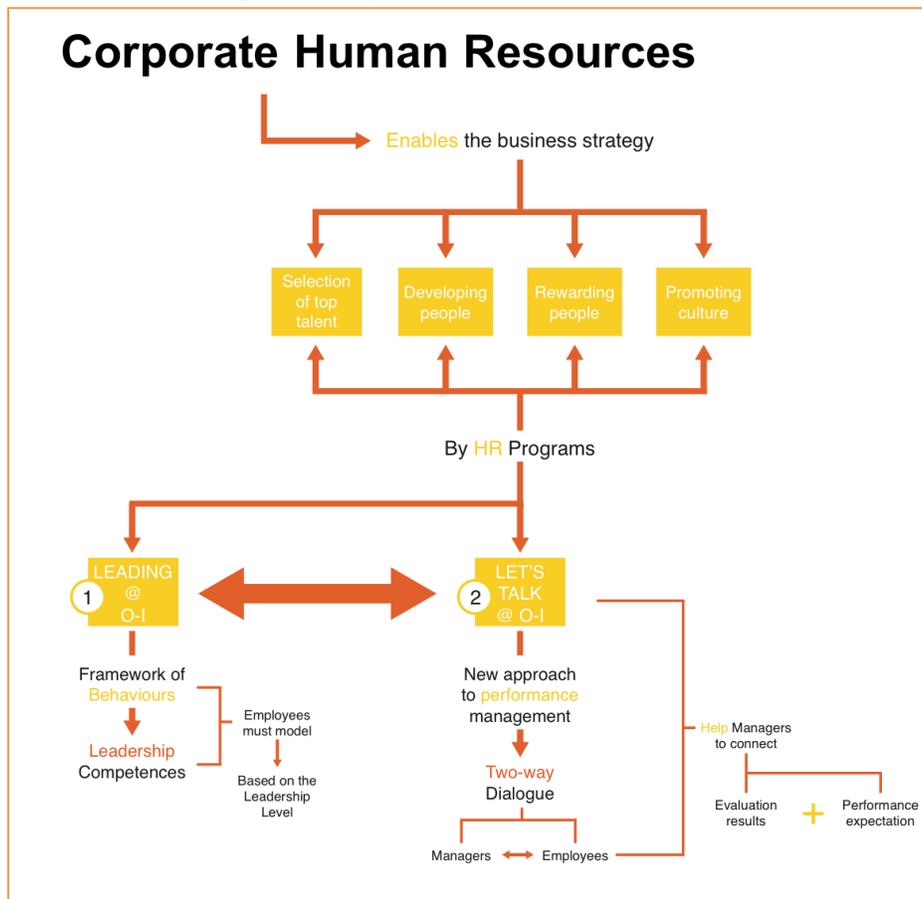
¿How does O-I do that?

Through four main pillars: the selection of top talent, developing people, rewarding people and promoting a culture. This is done using two human resources programs: **Leading @O-I**, which is a behavioral framework to develop leadership competences that all O-I employees should have, based on levels of leadership; the other tool is called **Let's Talk @O-I**, which is a new approach or scope to develop management performance, which works as a two-way

⁵ Taken from the O-I's global intranet – "O-I HOME"

dialogue where bosses, directors and managers connect the assessment results to the performance expectations that they have from each employee. Figure 19 explains this model methodology:

Figure 19: Corporate Human Resources model



Source: Adapted by Daniela Gomez from O-I HHRR strategy

Leading @O-I

Leading @O-I, is the program that develops competences in different leadership levels, as it is explained in figure 20 and figure 21. It is a strategic document that was developed by the OI HR team and that has been globally applied. In O-I there are five leadership levels and the competences defined should be developed differently depending on each of them.

Figure 20: Leading @O-I



Source: Adapted by Daniela Gomez from O-I HHRR strategy

Leading @O-I is an umbrella concept that generates tools, training and a support strategy to develop the skills of O-I leaders and give them a clear understanding of the performance expectation that the company has on them and the expected success. It allows to reinvent O-I and use them to compete in today's markets.

The program has six competences that all leadership levels must have, but their performance changes from one to another one. INNOVATION is one of these competences, and is defined as: *“Generates and champions new ideas, approaches and initiatives, and creates an environment that nurtures and supports innovation. It Leverages fresh perspectives, breakthrough ideas and new paradigms to create value in the market, encouraging new ways of looking at problems, processes or solutions”*. To see the complete brochure, please go to **Annex 2**.

Figure 21: Leadership Levels - Leading @O-I



Source: O-I - Leading @O-I's brochure.

INNOVATION as a competence related to each leadership level is understood as:

- Individual Contributor: Improve Processes.
- Front Line Leader: Identify Improvements
- Mid Level Leader: Think Creatively.
- Business Unit Leader: Innovate.
- Senior Unit Leader: Display Vision.

Let's Talk @O-I

“Let’s Talk @O-I is a new approach for performance management globally developed in 2013. Since performance management leads directly to a high effective business, HR has focused intensely on creating a value-added process that is engaging and inspiring”.⁶

Some of the exciting things about this program are:

⁶ Taken from Let’s Talk @O-I Brochure, O-I Home

- Focus on the discussion. It's not about the final rating but about performance conversations between managers and employees.
- Building on the foundation of Leading @O-I, the company is deploying a new fully articulated leadership competency model.
- Selection of six critical leadership competences for the entire organization.
- Emphasis of the importance of the manager as a coach.

The six critical leadership competences are: Financial Acumen, **Innovation**, Results Orientation, Building Relationships, Engage and Inspire, and Courage.

The figure 22 explains in detail the evaluation form, used by the manager and the employee for the conversation and improvement plan. There is a mid-year and a final-year review.

Figure 22: Let's Talk@O-I Evaluation form

Leadership Competencies												
Employees at O-I will be evaluated against these six critical leadership competencies to focus our entire workforce's efforts on achieving the company's strategic Objectives. Managers and employees can identify additional competencies to focus on for development. The definitions of the competencies can be found in the Leading@O-I brochure.												
Selected Competencies	Assessor	Mid-Year Review					Year End Review					
		Highly Effective (5)	Occasionally Exceeds (4)	Meets (3)	Occasionally Meets (2)	Needs Development (1)	Highly Effective (5)	Occasionally Exceeds (4)	Meets (3)	Occasionally Meets (2)	Needs Development (1)	
Financial Acumen	Employee	<input type="checkbox"/>										
	Manager	<input type="checkbox"/>										
Innovation	Employee	<input type="checkbox"/>										
	Manager	<input type="checkbox"/>										
Results Orientation	Employee	<input type="checkbox"/>										
	Manager	<input type="checkbox"/>										
Building Relationships	Employee	<input type="checkbox"/>										
	Manager	<input type="checkbox"/>										
Engage and Inspire	Employee	<input type="checkbox"/>										
	Manager	<input type="checkbox"/>										
Courage	Employee	<input type="checkbox"/>										
	Manager	<input type="checkbox"/>										

Comments	
<i>Additional leadership competencies assessment should be captured in this text box.</i>	
Employee: <input type="text"/>	Manager: <input type="text"/>
Overall Leadership Competencies Assessment	
5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/>	

Source: Source: O-I - Let's Talk@O-I's evaluation form.

The type of INNOVATION expected for each level, especially for the first three, is actually poor and short if we compare the vision of Innovation explained at the beginning of this chapter:

“...a complete ecosystem across the organization...”. Each team member, of any leadership level, should be encouraged to be an active part of this ecosystem and not only given to develop operational tasks or activities.

¿What is the link between Let's Talk@O-I and Leading @O-I?

The Leader Competency Model introduced in **Leading @O-I** is the platform on which O-I is building some of its current processes, such as Let's Talk @O-I and others. The competencies describe “how” each leadership level should achieve their responsibilities. **Let's Talk @O-I** is the program that allows all the employees and their managers to evaluate the performance and the expected results according to each role and level, based on the six critical leadership competencies.

Innovation is a core competence for O-I and the strategy that the entire organization and employees must model. However, there is a big opportunity for it to be potentiated in all levels, but specially in Individual Contributors & Front Line Leaders, more focused on the integrated ecosystem we pretend to develop on this project proposal “generating new ideas, approaches and ways to do things”.

It is also important that all employees have at least one COT (Performance Objectives) in the **Let's Talk @O-I** that encourage them to grow and develop the Innovation skills that the organization requires to meet the goals in the strategy, as well as a motivation and a compensation program to promote the Innovation culture across the organization.

1.3 Regional Strategy & glass smart™

The purpose of this section is the presentation and analysis of **glass smart™** (figure 23) as a core process for the O-I LA strategy (explained in detail in the first part of this diagnosis, see Figure 16), as well as to understand its evolution from 2010 until 2014, where O-I LA started to talk about **glass smart™ 2.0** (a new version, with some important changes in the model, however, the purpose remains the same).

Figure 23: glass smart™ Logo



Source: O-I LA corporate material

glass smart™ is a complete new business model methodology for O-I LA, which goal is to generate a **profitable growth** by developing a deep understanding of consumer trends, channels and customer’s needs, opportunities and economic drivers to provide **customer tailored solutions** to the current and potential segments O-I serves.⁷

Figure 24 explains the circular process, stage by stage of **glass smart™**, starting from **O-I Strategy** until the last stage called **Control**. The detail of this process (each step), was explained in the previous chapter.

Figure 24: glass smart™ process



Source: O-I

glass smart™ process was implemented by the O-I LA core team and its implementation started in O-I Colombia (Peldar) around 2010, led by the marketing and sales team, as a

⁷ Source: O-I's internal material.

proposal for a clear and comprehensive methodology for conducting and creating new businesses in order to promote innovation itself, and as mentioned before, generating new sales for the company in current or new potential segments. It was considered a vehicle used for the development and implementation of projects, as well as an umbrella to guide the Innovation process.

As a matter of fact, the **glass smart™ 1.0**, when started in 2010, embraced the methodology as a circular & lineal cycle which proposed 6 steps that turned into phases, each of them done one after the other as shown in Figure 26. Some roles as the Product Manager⁸, the Customer Back Manager, Consumer Back Manager and Communication Manager, were exclusive acquisitions for the team in order to make **glass smart™** happen and had a significant impact in the success of this process in O-I Colombia as leading country in the methodology.

Something important to clarify is that **glass smart™** started as a skill or capability only for O-I LA. The rest of regions of O-I were not using this methodology. Part of the process that occurred with the global role that I developed as O-I regional leader for Innovation in LA, was precisely to help the teams to adopt **glass smart™** in other regions and countries of O-I as a benchmark successful experience we started in Colombia and LA.

Coming back to the implementation of **glass smart™** in Latin America, each country created different teams for the marketing and sales structure, even though the process suggested a unified structure for each of them. There was not a regional leader or a role in charge of the tracking and support of the execution of **glass smart™**. Nevertheless, Colombia was the only country that followed this guideline.

This structure was well conceived, but problems arose when each country's Commercial Manager applied their own criteria. Although the **glass smart™** process was theoretically the same, roles and focus were different, generating, among others:

- A negative impact on the efficiency of the CONTROL phase. This was considered one of the weakest phases in **glass smart™**.

⁸ The Product Manager was the role in charge to create the New Product Development process as well the one who started to talk about Innovation as an integrated process for O-I, related to the commercial process. I was the first Product Manager that O-I LA had which means that was a role totally created under the glass Smart™ process with big influence of the Design Management post graduated course I did in UNIVERSIDAD EAFIT at that time.

- The CUSTOMER BACK process and the NPD process were exclusive phases due to unique roles of them in Colombia, but not in the rest of the countries.
- A non-existing proper and unified process to monitor whether the projects were completed successfully, having a special impact on the metrics and indicators to compare and measure **glass smart™** execution in the region.

In 2014, the regional President Andrés López for O-I LA (current CEO of O-I globally), promoted a project named AGILITY, to evaluate and improve some important processes in O-I LA, one of them being **glass smart™**.

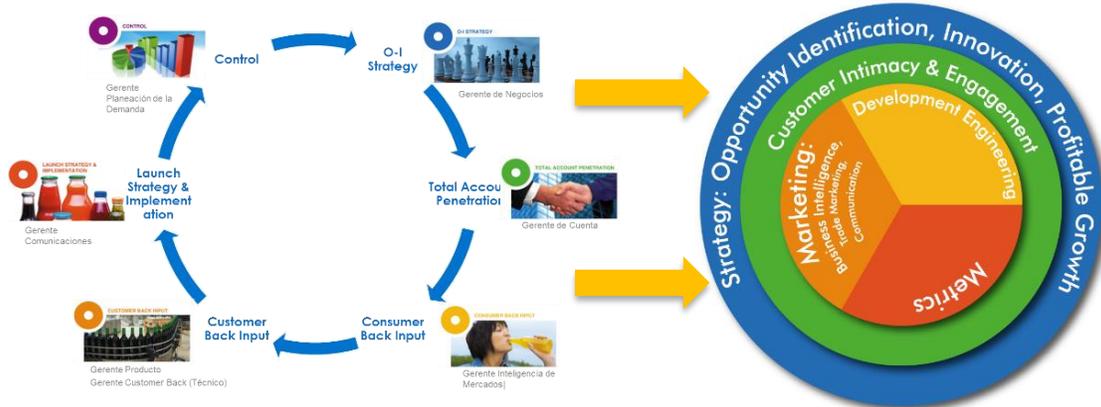
People from various countries were chosen for the development of this analysis with an external advisor from **ACCENTURE**⁹: Regarding **glass smart™**, the team was built considering three people from Colombia (in which I was included), one from Peru, one from Ecuador and one from Brazil, all involved in different areas from Marketing and Sales.

The process of AGILITY took around 6 months and one of the main subjects and concerns was the fact that there were some differences on how each country used to run **glass smart™**, not only from the process, but also from the structure.

As a result of our job and analysis, we proposed a new methodology transforming some details in the process, shown in figure 25:

⁹ Accenture solves our clients' toughest challenges by providing unmatched services in strategy, consulting, digital, technology and operations. We partner with more than three-quarters of the Fortune Global 500, driving innovation to improve the way the world works and lives. With expertise across more than 40 industries and all business functions, we deliver transformational outcomes for a demanding new digital world.

Figure 25: from glass smart™ 1.0 to glass smart™ 2.0



Source: New **glass smart™ 2.0** proposal. Graphic created by Daniela Gómez and the Agility team

The most important points to improve or develop with **glass smart™ 2.0** were:

- Achieve regional alignment on the execution process as well as in structure as a key for excellence execution and also for tracking and metrics.
- Conceive the methodology as a circular process, where there are no “stages” but disciplines (Strategy, Customer Intimacy & Engagement, Marketing, Engineering, Metrics) that can be developed all at the same time by different roles/teams.
- The innovation process, managed not only from the back (inside O-I focused on R&D and product development), but also at the front, with a commercial and customer focus, will be developed under **glass smart™ 2.0**.
- **glass smart™ 2.0**. needs to be implemented across the organization and not only as a matter that concerns Marketing & Sales teams only.

The **glass smart™ 2.0** model developed as part of our work, shown in figure 26, considers a more complete process from strategy to metrics, involving not only the customer (from the commercial, marketing and technical perspective) but as well as the internal different areas

as a key for success (engineering, production, quality, sales, procurement, logistics); also a more integrated vision of the marketing process with a 360° perspective.

Innovation is actually a declared process under this model with a strategic role embracing the whole system and not only as a product or R&D discipline.

Figure 26. glass smart™ 2.0 model

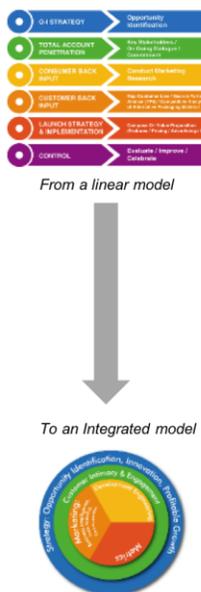


Source: New glass smart™ 2.0 model. Graphic created by Daniela Gómez and the Agility team

Figure 27 was prepared to explain in more detail the macro differences between glass smart™1.0. and glass smart™2.0. (from a linear to an integrated model) considering each of the disciplines proposed in the AGILITY analysis.

Figure 27: From glass smart™ 1.0 to glass smart™ 2.0

Pillar	From	To
Marketing	<ul style="list-style-type: none"> A Consumer Back Model- Focus on understanding consumer and strong product proposals Atomized projects 	<ul style="list-style-type: none"> Marketing 360 model – Deeply understanding of all 4P to reach a clear diagnosis and a strong business case proposal <ul style="list-style-type: none"> Price (OI, customer, channel, product, promotion) Game changer projects / all other projects fully integrated with the category strategy
Development Engineering	From Customer Back Model – Focus on understanding customer sites/lines and capabilities opportunities + quality support (some countries)	<ul style="list-style-type: none"> An integrated engineering – Front (customer deeply understanding) and Back integration (all key support areas as business partners: Design, Logistics, Quality, Manufacturing) Quality support activities completely eliminated High focus on key game changers projects & the innovation process
Metrics	<ul style="list-style-type: none"> Highly complex & not consistent measurement process (data is manually generated and consolidated) 	<ul style="list-style-type: none"> Fully integrated & consistent local/regional pipeline (automalized & simple process) Clear local /regional pipeline owner Clear metrics with fully visibility to all organization (Manufacturing a key partner to define future capabilities) Consistent follow-up process on all key launched projects
Customer Intimacy & Engagement	<ul style="list-style-type: none"> From isolated customer intimacy and engagement actions Create good relations beyond procurement areas 	<ul style="list-style-type: none"> Clear & structured customer intimacy plan- stickiness and zippering (based on customer segmentation) Consistent plan highly focus on deeply understanding the customer needs
Strategy, Identification, Innovation	<ul style="list-style-type: none"> OI innovation atomized actions Strategic definition centralized on BM or in marketing manager 	<ul style="list-style-type: none"> OI innovation as a key growth driver (redefine innovation strategy, structure, resources) Marketing manager and BM fully integrated in the strategy definition



Source: O-I Agility Project - Graphic Created by Daniela Gómez for O-I

At the end of 2014 the O-I LA Team (President of the Region Miguel Alvarez and his board of directors) approved the new model for glass smart™2.0. presented by the regional team and the new VP of Business Development, Marketing and Sales for O-I LA, a recent regional role for all the Marketing and Commercial strategy in LA including **glass smart™** and the Innovation process, which would enable the alignment and the follow-up process required for a successful execution.

As it was explained before, the process definition for the review and implementation of the new **glass smart™2.0.** as well as the diagnosis developed in this chapter were definitive for the development of this master project. Up to this point all the stages and analysis required from the different teams of O-I to achieve the approval of **glass smart™2.0.** have been presented. These steps were necessary to propose a Corporate Innovation Model, as the main purpose of this project.

The perfect space to initiate and promote an innovation culture starts here, the opportunity to change the DNA of the O-I's teams work dynamic, with the opportunity to reinvent and find new ways to do the day by day job, with an integrated participation of the entire organization.

1.4 Global Product Innovation & Technology

O-I's innovation has been highly focused on Product Innovation and Technology. The objective of this phase of the project is to explain in detail how the Innovation process is structured from the global strategy, who are the team members recruited for this process and what are the O-I Innovation Platforms developed and given to the regions and countries in the world of O-I for implementation.

Global Innovation Strategy

While O-I is being transformed into a B2B2C company, in parallel the global communication team has been leading a new campaign called "Glass is Life™" (www.glassislife.com) which states:

"Our global movement for glass, Glass Is Life™, is based on the human reasons to choose glass: taste, health, sustainability and quality. Glass Is Life supports our belief in glass as a modern package of the future. Glass Is Life succinctly characterizes our company's belief in the power and beauty of glass".

The figure 28, shows some of the believes or reasons to choose glass:

Figure 28: GLASS IS LIFE™ - reasons to choose glass.

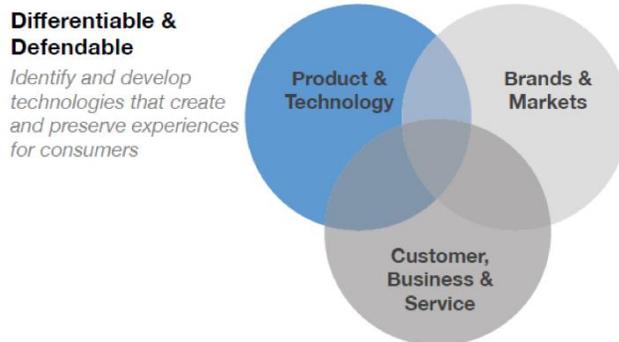
GLASS IS BACK
 GLASS IS INNOVATIVE
 GLASS IS SUSTAINABLE
 GLASS IS PREMIUM
 GLASS IS BRAND BUILDING
 GLASS IS GAME CHANGING
 GLASS IS GROWTH
 GLASS IS HERE TO STAY
 GLASS IS LIFE™

Source: GLASS IS LIFE™ campaign.

All the organization is adopting this initiative with big efforts to break all paradigms and contribute from the different areas and departments to build on this promise value. In this part of the report, we will talk about The Global Innovation Team and Strategy, concerning specifically Product Innovation and Technology.

Figure 29 was developed starting the year 2015, and it was the first attempt of the global team to define a strategy for Innovation. Even though it considers other elements besides the product (brands, market, business, services, etc.) the only item that has been treated in a deeper way is **Product & Technology**. The other two, were just starting announcements on paper of what “should be” with no structure or teams supporting them, and were not developed, due to changes and movements of the leaders in charge.

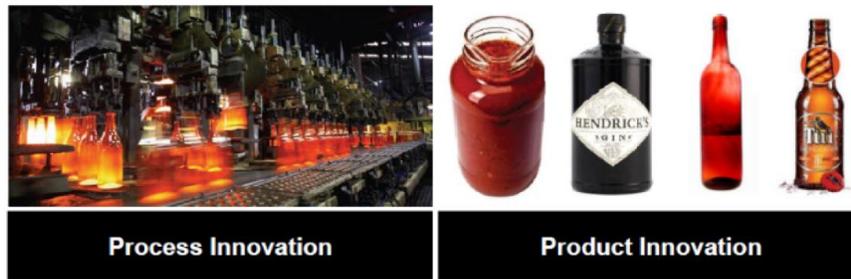
Figure 29: Innovation Strategy & Product Innovation & Technology axis



Source: O-I Global Innovation Team

The Product and Technology team has a declared objective: make glass **“Differentiable & Defendable, which means identify and develop technologies that create and preserve experiences for consumers”**. Product & Technology is focused on working in process and product Innovation as key areas for Innovation at O-I (figure 30).

Figure 30: Process Innovation Vs. Product Innovation



Source: Adapted from the O-I Global Innovation Team material.

This report is focused on analyzing the Innovation from the **Product Innovation** perspective, which is the topic behind the purpose of this master project. “Process Innovation” is beyond the scope and the study objective, as it is more related to what we call “the Science of glass” where areas such as production and engineering are leading it. The Process Innovation strategy is led by Ludovic Valette Global VP of R&D and his team.

The team or structure defined to perform the **Product Innovation** strategy is shown in figure 31, where a Global Product Innovation VP leads a team of three managers (one per platform) plus a Global TPS (Total Packaging Solution) leader, as well as two Innovation Project Engineers.

Figure 31: Global Product Innovation team



Source: O-I Global Product Innovation Team

One of the most important resources for this team is the **O-I's Innovation Center** (figure 32), located in the headquarters in Perrysburg, OH, USA; inaugurated in 2014 and that serves to both Innovations: process and product.

Figure 32: O-I's Global Innovation Center



Source: O-I

The Innovation Center is a combined R&D and pilot plant facility, which began operations in September 2013, and has rapidly established itself as a valuable asset to the company. Through the Innovation Center, O-I seeks to advance new concepts in glass production and qualify emerging technologies that could revolutionize the process of melting and forming glass.

"Innovation is a key component of our long term strategy," said Al Stroucken, chairman and CEO at that time. "This Innovation Center demonstrates our belief in glass as the optimal packaging solution and our confidence that we can shift some of the paradigms around glass manufacturing."

The 24,000 square foot facility, which is approximately one-tenth the size of a typical manufacturing plant, houses a 20 metric tons furnace, two production lines and inspection equipment. **On one line, through an iterative process of ongoing improvement, sample bottles and trials for new products are made, significantly reducing the time needed to produce exactly the right bottle and minimizing disruption to the manufacturing plants.** The other line is dedicated to research and development and is being used to develop new technologies and processes for melting and forming glass. In its first eight months of

operation, the innovation center team has already produced more than 40 sample bottles for customers and internal development purposes.

Regarding the process to achieve **Product Innovation** development, even though the team has a declared process (see figure 33), where the first step is to “IDENTIFY” a market opportunity, the reality is that this team has worked completely isolated from the regions and countries and their “real life”. The opportunities identified ended as “ideas” they strongly believe the market needs, but when commercialization process in each region-country starts and is required, we found a more “**push than a pull-market**” process.

Figure 33: Product Innovation Process



Source: O-I Global Product Innovation Team

As an example of this, as mentioned before in this report, in 2013 the O-I team of Marketing and Sales of Colombia invited the entire Global Commercial team (where product Innovation is essential) to participate for a week in a full agenda of activities to understand the market, distribution channels, and customers. The team was deeply surprised when they understood, among others, specific characteristics of this market that are not even considered as challenges we face day to day, such as:

- Returnability was a key matter for the NAB’s & BEER dynamic and growth in LA and it doesn’t exist in USA and most of the other O-I’s regions.
- What we call in Spanish “The Traditional Channel” referring to the small and not-well-formed neighborhood stores in Colombia where there are thousands of them spread all over the country and represent a big portion of sales for most or the brands in FOOD, NAB’s, SPIRITS & BEER categories, is a completely “unknown channel” for the USA

market and this dynamic needs to be fully understood in order to propose strategies to make glass stronger.

If we look at the product pipeline on development of the Product Innovation team, most of them are inventions that don't match our needs or are difficult to commercialize.

It is hard to believe that a multinational company such as O-I has not developed proper channels and networks between teams to transfer information (both up and down) to help and support innovation. That is why a good question arose:

¿How can O-I Innovate if the global team in charge is not well-connected to each region and countries and their realities?

As a result, the Global Product Innovation team has been working isolated in the past years, along with the global commercial team, developing three Innovation Platforms (developed as O-I Brands) called: **VERSA™**, **VERA™** & **VORTEX™**, as it's shown in figure 34. Those platforms are proposing product solutions that are not always necessary for the market needs, even though they are beautiful and innovative, but sometimes the commercialization process becomes complex due to this reason.

Figure 34: O-I Innovation Platforms



Source: O-I Global Product Innovation Team

Under these platforms, O-I has launched some product solutions such as VersaFlow & VersaFlip, an easier pouring system for FOOD; Black Glass, a new color that is also beautiful as it brings more UV protection specially for beer brands; and the Internal emboss, a VORTEX solution that enhances the flow of liquids to improve the sensorial experience of the consumer when drinking a BEER or any other beverage. Figure 35 illustrates these advancements:

Figure 35: Versaflow, Versaflip (VERSA), Black Glass (VERA), Internal Emboss (VORTEX)



Source: O-I Global Product Innovation Team

To understand these platforms, we will see each of them in detail, as well as its product pipeline in development by the Product Innovation team.

VERSA Platform

VERSA is a glass packaging solution that provides functionality, enhances consumer's experience and ensures safety (figure 36). It transforms consumer experience with food in glass, creating value in taste, health and easy enjoyment. It also provides frustration-free packaging solutions in glass: multiserve, easy open, easy pour and table-beautiful.

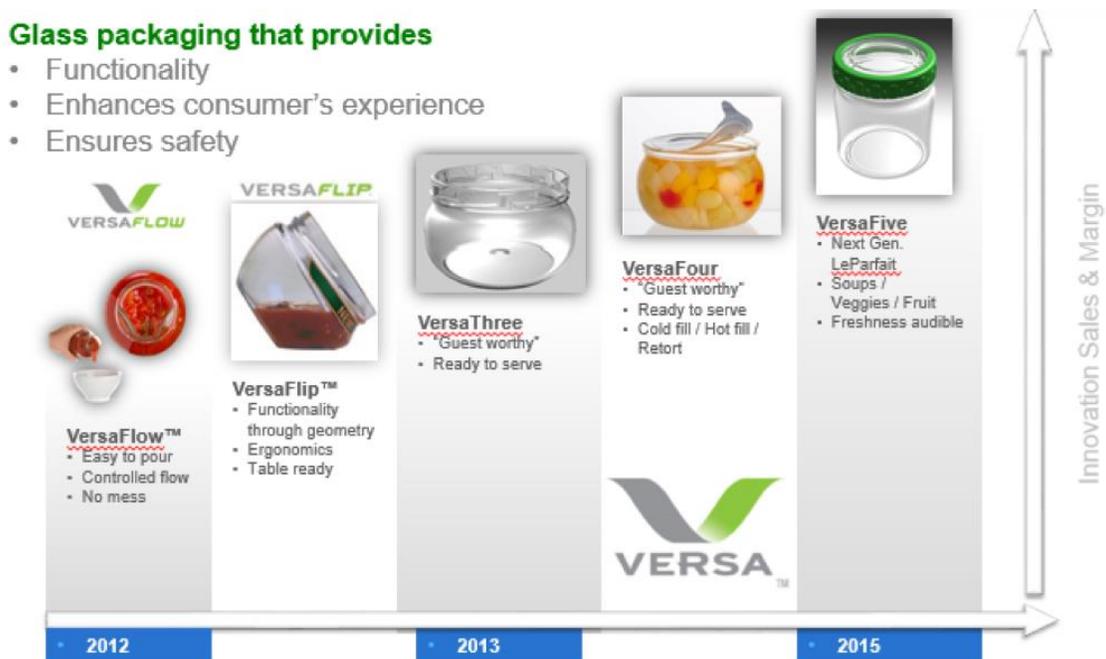
Figure 36: VERSA Platform



Source: O-I Global Product Innovation Team

In figure 37, a brief description of the product development pipeline is presented. It illustrates the projects the team worked on during the years 2013, 2014 & 2015.

Figure 37: Product Pipeline VERA – Projects Developed



Source: O-I Global Product Innovation Team

VORTEX Platform

VORTEX is a beverage glass packaging platform that is divided in two lines: Flow Management & Temperature Enhancement (figure 38). The first one is focused on providing enhanced flow, disrupted flow, aesthetics and improvement of the lip feel. The second one is focused on providing faster cooling and a longer cold feeling.

Figure 38: VORTEX Platform



Source: O-I Global Product Innovation Team

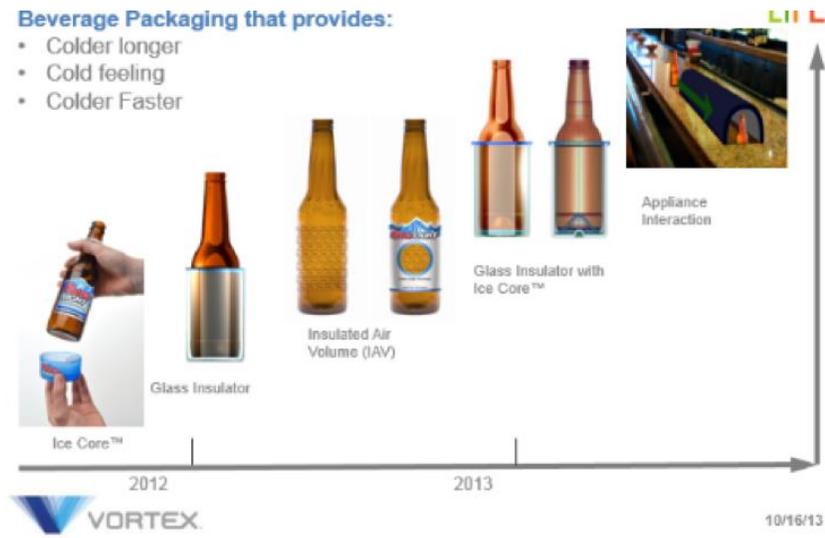
Figures 39 and 40 show both product pipelines of all the projects in development in 2013.

Figure 39: Product Pipeline VERA – Projects Developed Flow Management



Source: O-I Global Product Innovation Team

Figure 40: Product Pipeline VERA – Projects Developed Temperature Enhancement



Source: O-I Global Product Innovation Team

VORTEX broadly defined, is another Innovation platform that exists to cultivate better experiences for beverages brands, changing the game on the shelf, opening, ritual and consumption. It adds tangible, emotional and measurable performance differences to the sensory experience for beverages brands.

VERA Platform

VERA is a platform created to protect brands developing new glass colors or developing new technologies to provide safety solutions to our customers. It ensures brand futures with impenetrable shields for authenticity and integrity, also enhance tracking with smart data solutions. VERA acts as a warrior for brand authenticity, safeguarding against UV degradation, stonewalling hackers, and tracking habits. See figure 41.

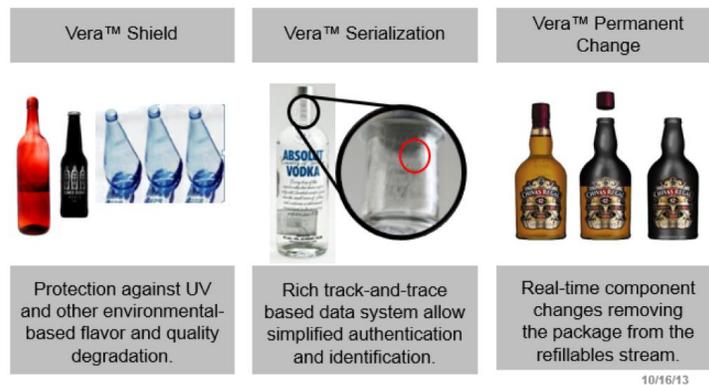
Regarding the product pipeline projects for VERA, there are three main solutions the team has worked on: VERA Shield provides protection against UV and other environmental-based flavor and quality degradation; VERA Serialization provides rich track-and-trace based data system that allows simplified authentication and identification through a matrix data code embossed in the glass bottle; in VERA Permanent Change a real-time component changes its color, removing the package from the refillables stream or it is exposed to clear light avoiding counterfeiting, and it constitutes a special high-tech solution for the spirits industry. See figure 42.

Figure 41: VERA Platform



Source: O-I Global Product Innovation Team

Figure 42: Product Pipeline VERA – Projects Developed Temperature Enhancement



Source: O-I Global Product Innovation Team

It is important to mention that when a commercialization opportunity emerges, the Product Innovation team supports the process with the customer from the technical perspective in terms of testing, sampling, caps, labels, etc. However, all the interaction with the customers and the business case preparation to present a “proposal” for the use or presentation of an Innovation from these platforms, is made by the marketing & sales team in each country.

An important gap, especially for a company like O-I with a complex production process, is that for each product innovation, there is still no proper training on technical, engineering, design and quality aspects to have a successful or at least an easier process for the go-to-market. This is a common complaint of the internal teams in O-I LA plants, as they have felt excluded

from the creation, testing and in general the whole process and claim that these product innovations are handed to the plants when there are already customer's commitments that cannot be undone.

1.5 Innovation Product Launches in O-I LA

Even though the commercialization process of Product Innovation has been a difficult and complex process, some of them have become real projects in LA for some of the O-I customer's brands. Some examples of this cases are:

Club Colombia Black Glass Special Edition SABMiller - VERA Platform - Colombia

Club Colombia is one of the most important brands of premium beer in Colombia produced by SABMiller. Every Christmas, the brand used to launch a special edition and for 2012 this new presentation inspired in a "black Champagne bottle of 1000 ml" was launched (figure 43). This product was on the market, every Christmas for around 4 years in a row.

Figure 43: Club Colombia special edition of 2012 – Black Glass – VERA Platform



Source: SABMiller Colombia

Skol Beats Extreme Black Glass AMBEV- VERA Platform – Brazil

This launch of AMBEV has a black packaging, that intends to refer to the nocturnal environment. The Skol Beats Extreme (figure 44) arrived to market shelves and nightclubs in long neck versions of 330 ml and sleek Tin of 269 ml. "The Skol Beats Extreme was born to be the beer of the night, and accompanies the consumer in all styles of ballad" explains Maria Fernanda Albuquerque, marketing manager of Skol.

Figure 44: Skol Beats Brazil – Black Glass – VERA Platform



Source: AMBEV Brazil

PILSENER LIGHT Blue Glass SABMiller - VERA Platform - Ecuador

Cerveceria Nacional de Ecuador (SABMiller) launched in Blue Glass a special edition of the PILSENER LIGHT brand in 2014 (figure 45). A refreshing light beer, special for the summer.

Figure 45: PILSENER Light – Blue Glass – VERA Platform



Source: SABMiller Ecuador

PAKITA Dulce de Leche and Cream Cheese VersaFlip- VERSA Platform – Colombia

PAKITA is a dairy products brand founded in 1969, which disappeared in the year 2000 when it was bought by PARMALAT, a Dairy company that took out the brand from the market. However, the brand PAKITA was relaunched in 2015 by a new group of investors and some of its traditional products came back to the market in Medellin, Colombia. Most of its portfolio use glass as packaging material and Versa Flip was one of the O-I innovations used for the spreadable products, see figure 46.

Figure 46: PAKITA Dulce de Leche and Cream Cheese– VersaFlip – VERSA



Source: PAKITA

1.6 Marketing Innovation & Commercialization

One of the weakest processes in the current Innovation strategy is the commercialization of the inventions resulted from the Global Platforms in each of the O-I countries and customers. As it was explained before, most of these product innovations were not the result of a deep study of the local markets or customer’s needs. That is why, currently when an innovation is ready to be launch, there is an official announcement (usually a light Power Point Presentation) for the marketing and sales teams of the region and countries, which is more informative.

At the end of 2014 and the beginning of 2015, Casey Ingle was named as the Global Marketing Innovation & Commercialization Manager for O-I. Mr. Ingle came from NIKE, with a wide experience in front-innovation and had the challenge to build the strategy in order to gather a team that could support the regional and country teams for marketing and commercialization of innovations developed by O-I, as well as to redefine and align the process with the Product Innovation division in order to have more “pulled from the market” challenges. This means projects that come from the O-I markets, the customers and their needs.

By the time this diagnosis was developed, Mr. Ingle proposed and defined the strategy and purpose of this new area, however, a team was not defined and months later he left the company to work for a different tableware glass company.

The implementation of this strategy failed as well, due to a lack of a leader and the big changes the corporate and global team underwent: the most important, Andres Lopez (current O-I LA Director) was named the new CEO of O-I (effective in 2015), which brought several changes to the structure, especially considering his background, being more focused on manufacturing than any other topic.

However, briefly in this section we will explain the strategy proposed for the Marketing Innovation & Commercialization process, which will be worthy of the Innovation Model to be proposed in this project. It is important to mention that I had a supporting role in the team that worked with Casey Ingle in the definition of this strategy, regarding the experience on **glass smart™**, as well as the Innovation and Product Development process already implemented in O-I LA.

What is marketing innovation and why does O-I need it?

The definition and scope of the “word” INNOVATION has dramatically changed over the past 3 to 5 years. Customers now look at innovation in multiple dimensions and no longer consider it purely a technical space.

Brand and Marketing have taken the innovation lead and it’s critical that O-I build the capability in this space to generate the pull:

- O-I is an idea rich company, the need now is to connect ideas with businesses and brand opportunities.
- Adjacent to that, there is a need for rapidly transfer knowledge to the regions and respond to the need for commercial materials and value propositions.

O-I needs to generate business growth and build competitive distance for the company and glass.

The Marketing Innovation strategy pretended to build a new capability, a new Innovation practice adjacent to Product Innovation: *“New capability rooted in COMMERCIALIZATION of existing Innovations and front-end IDEATION of new innovation based on regional/customer’s business opportunities and macro cultural trends”*.¹⁰ (figure 47)

Figure 47: Marketing Innovation Strategy prepared and presented to the Colombian team



Global Marketing Innovation
Colombia Commercial Team
August 20th, 2014

O-I: HONEST,
PURE,
ICONIC
GLASS

Source: O-I, worked by Casey Ingle & Daniela Gomez

Multilayered Innovation teams consisting of strategists, designers and project managers: **glass smart™**, PHNX BRANDS (global concept design team), etc.; driven by market, focused on opportunities. See figure 48:

¹⁰ Marketing Innovation and Commercialization Strategy presentation.

Figure 48: Marketing Innovation Strategy – New Capability



Source: O-I, created by Casey Ingle & Daniela Gomez

An active participation in regional customer engagement and pitches is required, and there were two priorities or core deliverables in this strategy:

- Existing Innovation to markets.
- New ideas / Spaces / Opportunities to innovate around.

The team and disciplines proposed for this strategy are shown in figure 49:

Figure 49: Marketing Innovation Strategy – Teams and Disciplines



Source: O-I, created by Casey Ingle & Daniela Gomez

To end this section, it is important to mention the relevance of **glass smart™**, as a process to support the front-end innovation of this strategy. This means a good execution of this process in O-I LA, especially in O-I Colombia as a benchmark and its participation on the construction of this proposal. This confirms the idea and purpose to keep the Corporate Innovation Model proposal of this master project under the **glass smart™** umbrella, as it was thought at the beginning of this analysis.

1.7 Innovation Metrics

As it was shown in figure 9 at the beginning of this chapter, the last element analyzed during this diagnosis by my role as Product Manager and Innovation leader are the Metrics for Innovation. This is especially important if we consider that “control” is actually the last stage or phase for **glass smart™**. As most of the theory suggests (see chapter 3), metrics are a central element of an Innovation strategy. However, O-I Globally, especially in LA doesn't have a proper system or program to measure Innovation according to the strategy. There were not even well definitions of KPI's regarding or measuring innovation results.

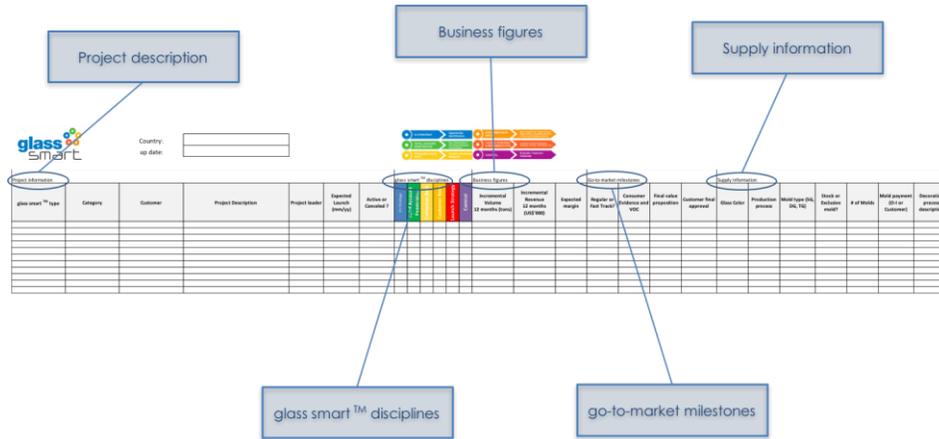
Only in 2013 an O-I LA Marketing Manager (Gustavo Caillaux, based in Peru) requested a report on Innovation Metrics for the first time to the role I was appointed as Innovation leader for O-I LA. In response to that, and clarifying its importance and urgency, the solution proposed was to create some unified figures for the region regarding the NPD **glass smart™** Pipeline that months before was being prepared manually by each country.

The NPD **glass smart™** Pipeline was an Excel Format designed by me as Product Manager in Colombia to report all ideas and projects in development according to the following classification: O-I Value Selling Projects, O-I Customer Driven Projects and Innovation Projects (those using a proposal under the product Innovations from the global platforms). This classification was taken from the global strategy and **glass smart™** and explained in detail in the previous chapter.

Just when the role of Innovation Leader for O-I LA was assigned to my position, my first action plan was to travel to each country to train the teams regarding the NPD **glass smart™** process of O-I Colombia and to make the NPD **glass smart™** PIPELINE format official in order to unify

at least manually the Latin America information. Figure 50 shows the format used for the NPD Pipeline designed for O-I Colombia and then replicated in LA.

Figure 50: NPD Pipeline - glass smart™

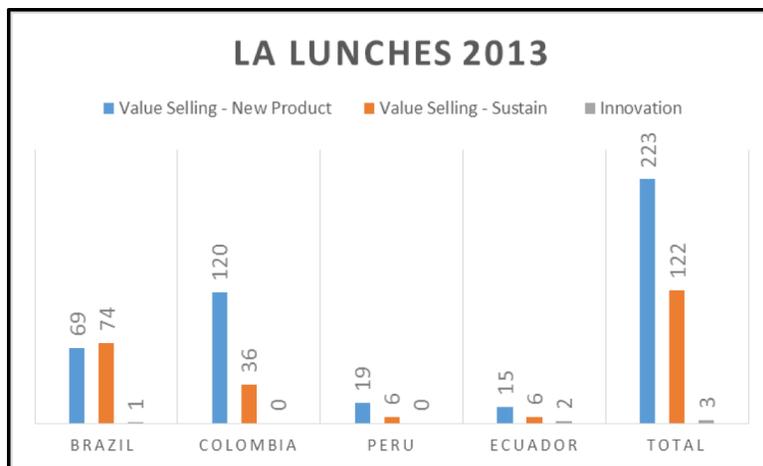


Source: O-I, proposed and created by Daniela Gomez

The pipeline was an excellent resource, however its success and accuracy depended on an appropriate filling process by each country in order to have trustable and reliable information. Each month the pipeline leader of each country sent the file for a regional compilation.

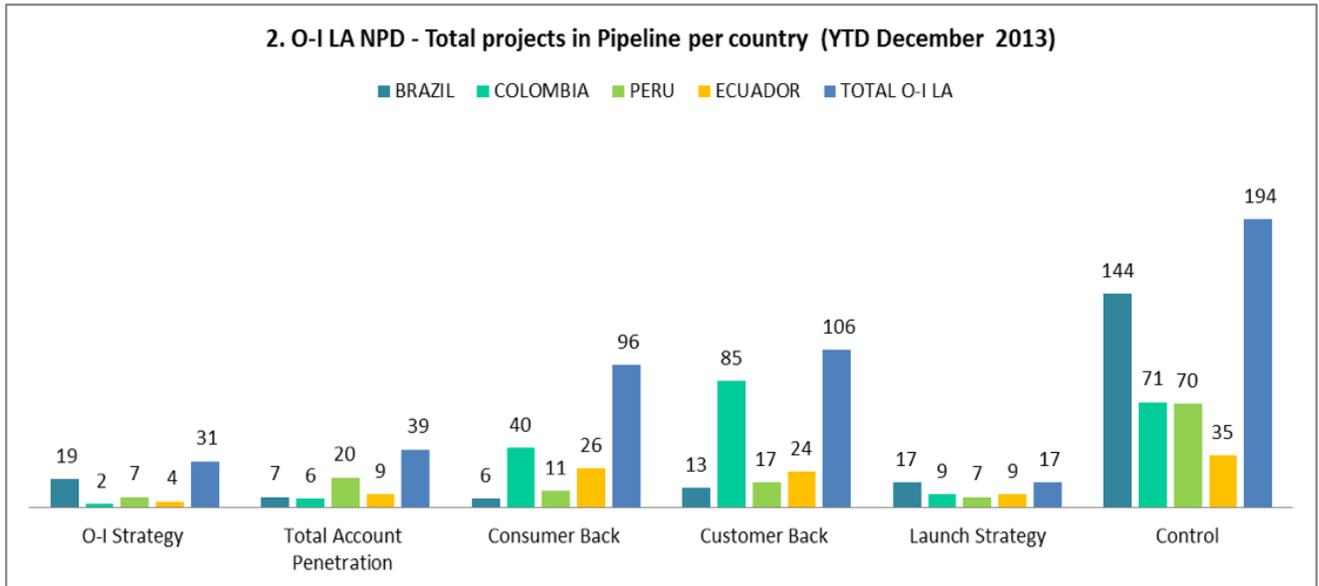
The following figures, 51 to 53, show the most important metrics designed by my role from the Innovation Pipeline implemented during 2013 and 2014. In **Annex 1**, the complete chapter of metrics can be reviewed.

Figure 51: glass smart™ launches (2013 example)



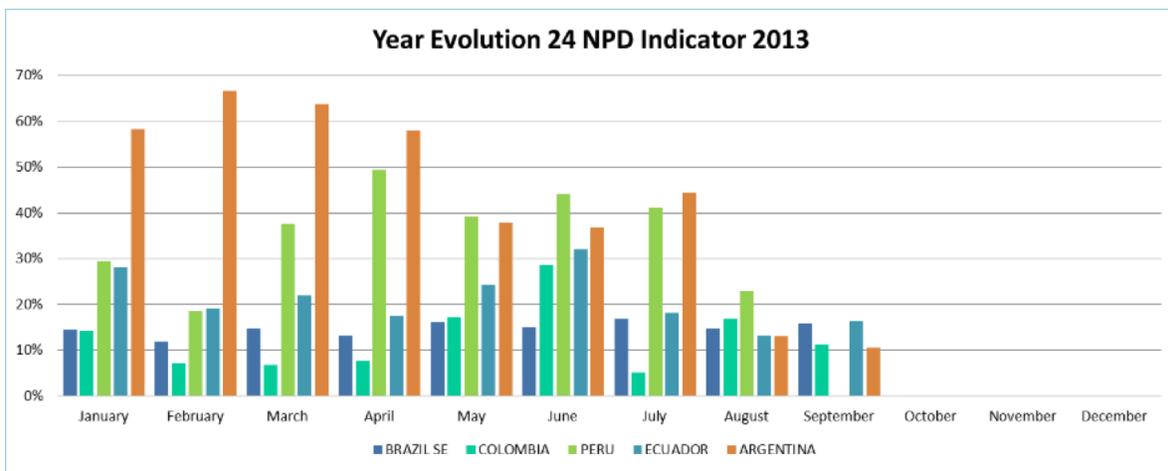
Source: O-I, proposed and created by Daniela Gomez

Figure 52: Total glass smart™ projects in Pipeline per country and per stage (2013 example)



Source: O-I, proposed and created by Daniela Gomez

Figure 53: % NPD glass smart™ on total sales per country



Source: O-I, proposed and created by Daniela Gomez

Even though this was a first try in order to measure Innovation, a company like O-I requires a better metric definition and system in order to give relevance and importance to the Innovation strategy as well as a more practical and automatic method to calculate them. Is also important to well define an innovation metric strategy that covers indicators beyond the pipeline or NPD: Impact on sales, employees' contribution, speed to market, revenue, among

others, that allow O-I to capture real value, benefits and learning from Innovation. (Tidd & Bessant, 2013)

1.8 Diagnosis Conclusions

About O-I's Strategy

- Analyzing what is established in the global O-I Strategy, which is fully supported on innovation, quality and service, increasing competitive advantage and improving the ability to execute based on structural cost reduction, plus investing in R&D capabilities in terms of technology, clearly is more a strategy supported in saving costs and improving innovation tools.

As a consequence, the reality is that O-I's countries are focusing on technical and manufacturing aspects and no longer routing the effort to motivate and engage customers and workers around innovation, this for instance, shows a clear gap between the corporate and the region strategy, in which today innovation doesn't have the same objectives and expected results declared on the O-I's strategy.

- The three-year plan presented to execute the global strategy for the different teams of the company creates confusion when compared to the regional strategic map (O-I LA). If we take a closer look to the plan framework it is evident that the strategy is still far from approaching a proper innovation process, therefore another gap appears when Innovation is or could be perceived as not important or relevant for the region as its not declared or considered in the regional LA map. It is key and vital that Innovation is included in the regional strategy map to gain the importance on each team's objectives and roles.
- Regarding the three-year plan as well, the questions THE WHY, THE WHAT and THE HOW O-I will meet the goals, innovation is understood as a context that does not necessarily involve the user and client, being a strictly technical process that is leaving aside the most important requirement of the market: the consumer needs. Innovation, as a corporate strategy, should have a scope beyond R&D, product development &

innovation. The innovation strategy should be more focused in the front end of the company, emphasize in the market, marketing discipline and the customer relationship. We are still not strong in business & commercial innovation.

- When analyzing the three-year plan step-by-step, the different objectives are creating a further distant coherence between the regional and corporate strategy, most importantly, a gap is presented when Innovation does not support the strategy in Latin America as a statement, but it could be considered as an opportunity for increasing our market share position and growth.
- The Top management is committed to Innovation globally and less regionally, but we still need to integrate all different elements, so Innovation can flourish successfully.
- There is not enough regional networking with corporate teams nor consistently corporate / local teams regarding Innovation.
- The company should understand Innovation as a key element of the corporate strategy, but also as a whole and complete ecosystem across the organization.

About People & Culture

- There is a Strategy alignment gap between the corporate & the region that affects the Human Resources process, as well as each country's strategic plans in O-I LA. As it has been observed, Innovation as a core priority for the global strategy is not even considered in O-I LA's strategy. The same situation, but in reverse happens with **glass smart™**, a very important process for the Latin American region but not for the global company strategy.
- Innovation could be perceived as not important or relevant for the region as is not declared or considered in the regional LA map of strategy.
- There is not enough regional networking between corporate teams and no consistent corporate / local teams supporting Innovation.

- The competency of Innovation, as a corporate strategy, should have a scope beyond product development & innovation.
- Innovation is not supporting the strategy in Latin America as a statement, but it could be an opportunity to increase our market share position and growth. This is an important conclusion that turns into an opportunity for the proposal of this project.
- Innovation is a core competency that employees of all levels must model. It is one of the six competencies evaluated yearly in Let's Talk@O-I. This is a good start to support the proposal of an Innovation Model.
- There is a Global HR Strategy that allows to develop and work on innovation as a core competency at O-I.
- Innovation has a big opportunity to be potentiated in all levels, but specially on Individual Contributors & Front Line Leaders, more focused on being proactive and propositional throughout the Innovation process. "Generating new ideas, approaches and ways of doing things".
- All or most of the employees should have at least one COT's on the Let's Talk@O-I that encourage them to grow and develop innovative skills.
- At O-I LA, there is a need to permeate and appropriate the innovation culture in all the key areas of the organization. The closest areas working towards innovation are only marketing and sales under the **glass smart™** umbrella. However, those areas at the back, such as manufacture, engineering, quality, among others, are still far from an innovation culture.
- A full integration between the complete human resources area is needed, in order to develop a strategy that enables engagement and inspiration in all the internal teams

to innovate. As well as being able to develop innovation skills or competences, that currently are not being developed by human resources in all the company areas.

About Regional Strategy & glass smart™

- There is a gap in the regional alignment in **glass smart™ 2.0** to start the implementation process. The model needs to be fully developed in a detailed process, so far there is only a graphic model approved by the core LA team.
- The Innovation process, under **glass smart™**, is still at a product development stage, mainly for O-I Platforms: VERA, VERSA & VORTEX
- The **glass smart™** process today, doesn't have specific roles pushing and pulling innovation. The day to day activity and dynamics make it difficult to achieve innovation results according to the company's expectations and moreover to the corporate model.
- Innovation in **glass smart™** is happening in an isolated way in each country (with continuous contact with corporate) but there is no regional alignment and networking to save and unify efforts and resources.

About Product Innovation & Technology

- O-I's Innovation is today more oriented to product and R&D. There is a strong team working for product innovation in charge of these developments in each platform (VERA, VERSA & VORTEX).
- O-I LA region has been building and working in a pipeline in these platforms, but we need a stronger support for marketing and commercialization.

- There is a very good separate interaction between each of the LA countries and the product Innovation team, but there is a need for more interaction as a region, unifying a strategy.
- Even though most of the platforms have been presented to key and top customers in different scenarios and through different proposals, there are not as many projects in development as the O-I Global team would like to have. For example, Glass Colors Innovations could deliver great value to customers, but high volumes of production are required (making the investment interesting only for few customers). These product innovations (platforms) were not conceived from the market or customer needs perspective, but from an internal idealization. The challenge is to find customers or projects where these solutions could fit. That is why the Innovation process should be pulled by the market and their requirements. Today, platform innovation solutions are coming from O-I to the market.
- O-I needs stronger support in TPS (total packaging solution) for product innovation for customers: for example, caps, filling lines, inspection, other capabilities, etc. that sometimes are difficult to solve in a short time.
- There is a high product involvement support and material to develop projects, but still marketing and commercialization support is not enough.
- Most of the internal teams at O-I, different from marketing, still have not enough knowledge about the platforms, this is critical especially for implementation, considering that these product innovations have high technical and engineering requirements during the production process.
- Black Glass & Red Glass are some of the most accepted Innovations customers would like to acquire, but sometimes expectations are higher than O-I's delivery capabilities,

for example the required production volumes, the type of glass process available (depends on the furnace of each plant in relation with the color change), the final tone that the process can reach, etc.

- There is no proper training and technical support for the manufacture and plants' teams to secure a successful implementation for the go-to-market and launch process.

About Marketing Innovation & Commercialization

- This recently created team, is aimed to support a more execution focused Innovation process, looking for a successful place in the market for projects.
- Even though this is a global process, **glass smart™**, as a good practice, is the methodology adopted by the Marketing Innovation Team and its operation, which means **glass smart™** is seen as a benchmark process based on marketing & commercialization focus.
- At the beginning of 2015, this team was still at an early stage of creation, still there is no strategy or action plan officially defined. However, opportunities for improving our innovation commercialization process are widely recognized.

About Metrics

- All the metrics information about the Innovation pipeline and launches was prepared 100% manually by different contacts in each country (using a format designed to compile the information in Excel) and summarized by one person for the region. Between the years 2010 and 2015, I was the person who designed the metrics and prepared the regional report. There is no recent evidence that this work continues.
- Compiling information about innovation from the region is a complex process.

- Innovation metrics are not well and widely defined responding to the strategy or innovation model. Only the number of launches is reported as an Innovation effort in terms of tons and sales.
- There are no KPI's, performance or teams' goals attached to metrics for innovation at all leadership levels.
- There is no accuracy in the Innovation information for the region adapted to our current systems, specially driven by the change to SAP and the data that was migrated with the incorrect classification. There is no accurate historical information from previous years.

1.9 Identified Opportunities

After making this review throughout the Innovation at O-I in this diagnosis, the most important opportunities regarding each element were identified as a starting point for the next chapters and for the Corporate Innovation Model Proposal. Taking into account how to reduce the current gap in these aspects and analyzing with the study cases how other big companies are developing their Innovation Strategies were one of the most important exercises of this project. The opportunities are a key part of the project and further you will find how are crossed with the best practices of the study cases and with the Innovation theory suggested in order to make the final proposal for O-I's innovation strategy.

ABOUT O-I'S STRATEGY

- To include Innovation in LA strategy aligned with corporate objectives and expected results for the business.
- The definition and development of a whole Innovation Strategy for Latin America, unifying the region, efforts and resources.

- To create regional multidisciplinary teams across the region, involving all elements for a successful innovation process to engage with corporate teams in a defined and structured way.
- To develop an integral Innovation model for O-I LA.
- **glass smart™**, together with the CATEGORY STRATEGY, should be the umbrella for the execution of an Innovation strategy, both strongly aligned. A proper structure & resources for the region are required to achieve success.

About People & Culture

- The strategy in innovation is not recognized or understood in all leadership levels of the company connected to the customer front process. For this reason, there is an opportunity to generate a communication strategy with a consistent communication process to assist on the permeation of an innovation culture from the top management leaders to all levels.
- There is little or not enough encouragement to innovate in all levels and think “outside the box”. The company has a strong focus in avoiding risk, reducing losses, cost and being as efficient as possible. O-I is known for its non-risk taking culture organization and the current metrics, or indicators, do not contribute to have a continuous innovation system. This is an opportunity for innovation encouragement, and for people and teams to become active contributors. Developing reward and compensation systems, attached to clear goals and objectives aligned with Leading @O-I & Let’s Talk@O-I (O-I’s programs to develop competences).
- On the other hand, some teams are only focused on product innovation and are basically related to global innovation platforms, while other teams are not aware of what these platforms are about. The innovation process and its concept are much broader and deeper, and go beyond the product and the technology. There is an opportunity to spread a clear innovation strategy aligned with the company objectives

that ensure an appropriate and suitable knowledge transferring process for fast and effective execution.

- In different situations, teams and people both in regions or as part of an operation are working separately in specific functions or tasks, repeating processes and not being fully connected to the objective, which can lead to time loss, misunderstandings or errors. This is an opportunity to create multidisciplinary teams, networking, and a strong leadership to reach a clear focus completely aligned.

About Regional Strategy & glass smart™

- There is a need of a regional alignment in **glass smart™ 2.0** for a suitable implementation to support Innovation, and to create an action plan on this development with each O-I country to start this implementation.
- To build and develop an innovation strategy highly focusing on marketing & commercialization and strengthen adjacent elements beyond product: culture, climate, people, processes, performance evaluation, etc. O-I needs an Innovation Model.
- There is a need of a role or structure focused in marketing innovation & commercialization well aligned with the regional **glass smart™ 2.0** strategy, which will help us be faster and more effective.
- To develop a regional innovation strategy and networking process around **glass smart™ 2.0**

About Product Innovation & Technology

- There is an opportunity for a deeper involvement in the global commercial team for the complete process of the key glass smart projects, especially those of innovation, in order to prepare integral and strong proposals for the customer's brands.

- A knowledge transferring program for each country in the region concerning platforms, including a strong orientation for design, engineering & manufacturing team. Networking and more Global leverage collaboration required.
- A Road Mapping process with the **glass smart™** teams of LA aligned with the category strategy and our markets would be useful to generate pull solutions for innovation challenges that can add real value to O-I and its customers.
- To have regional facilities centralized in a country (for example black or red glass) to start innovation projects in order to put volumes together and be able to make faster introductions in the market and create demand. We need to be better prepared internally in the whole O-I chain to meet expectations with a positive impact.

About Marketing Innovation & Commercialization

- Establish a close team-work between all LA glass smart™ teams focused on an integral Innovation strategy supported by a strong marketing process (consumer, channels, communication, customer).
- There is a need for a strong presence and support of the global team in a regional and country level, regarding Innovation and commercialization.
- There is a need for robust market knowledge, information and insights to defend product innovations and present winner and disrupting proposals in glass for current and potential customers.
- O-I needs to work hard in the front and back side of customers.
- The global marketing strategy needs to be aligned with the category objectives in each region and every country. As it was shown in the strategic map of O-I LA, countries have different objectives according to each reality.

- Build a strong networking between the Global Innovation teams and the O-I LA region and its countries, specially O-I Colombia, as a pilot for this master project.

About Metrics

- Metrics should be designed according to our regional strategy and **glass smart™** process, aligned with the global strategy and reports that are currently presented to the corporate commercial team.
- The Pipeline management should be more automatic and in accordance to **glass smart™**. It would be ideal to have a tool considering all the Innovation metrics, so they can be extracted easily and automatically.
- A good training program is needed for this matter.
- Metrics should support the team work development and performance, as well as being aligned with the expected results across the company. Alignment with the Human Resources strategy globally and regionally.

CHAPTER 2

SUCCESSFUL CORPORATE STUDY CASES: INNOVATION MODELS

Introduction

In order to model a suitable proposal for O-I, in this chapter, we present the analysis of successful cases in companies that have already implemented Corporate Innovation Models aligned with their strategies and objectives.

Four companies with operations in Colombia have been chosen: **NUTRESA GROUP** a multinational food company and the most important in Colombia for this category; **ARGOS** in the cement industry, the leader in Colombia, the fifth largest producer in Latin America; **CORONA** a multinational company with six strategic business units dedicated to home and construction products and **3M**, a global innovation company that never fails to invent, and has 6 business units in different industry sectors. Over the years, their innovations have been aimed at improving day to day lives for millions of people around the world.

We will look deeply into these Innovation models with the objective of analyzing them and find opportunities and best practices to employ as referents for our O-I proposal.



2. CHAPTER 2: Study Cases - Successful Corporate Innovation Models

Considering the opportunities at O-I, identified in the previous chapter, two different researches were developed: The analysis of four study cases based on successful companies with Innovation Models (this chapter) and recent Innovation theory based on the book **Managing Innovation** from Tidd & Bessant (next chapter).

The four selected companies share a high level of recognition and top of mind position in Colombia as leaders in the sectors in which they operate. All of them are large companies, operating not only nationally, but also overseas. Besides their size and successful sales figures, the sense of Innovation as a core competence and strategy of growth is really what matters for this study.

The first step as part of the methodology used for this analysis, was a deep benchmarking research. Data collection was done between 2015 and 2016 considering multiple sources (secondary sources) such as their official websites and social media, articles and interviews with their leaders, published in the country's most important media, and the Annual Sustainability reports, among others. In all of them the concept of Innovation was present.

A complete research is summarized in **Annex 3** of this report, if further information is required. This chapter presents a thorough analysis of the researched information in order to identify key factors that will be considered in the final proposal for O-I, in connection with the opportunities identified in the previous chapter (O-I's Innovation Diagnosis) and the Innovation theory of the following chapter of this document.

Different tools and techniques of the Design Thinking methodology (figure 54) were used for the analysis of the collected information, such as brainstorming, mind-maps, mood-boards,

parallel analysis, etc.; using Post-it's as well, and building the different tables and figures found as follows in this chapter.

Figure 54: Analysis Techniques and Tools



Source: Created by Daniela Gomez

2.1 Why were these companies chosen, and what topics were considered?

NUTRESA GROUP was the first selected company. It has 45.600 employees and 8 business units. Today, it is the leader in the food segment in the country. Innovation is declared in its corporate philosophy and strategy as a core for the business value. Since 2009 they have IMAGIX, a model inside the company implemented to develop innovation processes. Human talent inside NUTRESA and its involvement in the strategy is the base for successful innovations.

The figure 55 was created to show briefly the key factors found in NUTRESA’s strategy and innovation processes:

Figure 55: NUTRESA – Key Factors



Source: Created by Daniela Gomez

CORONA is a manufacturing company operating in the home and construction business, and the electric sector. It has six strategic units in Colombia, Central America, Mexico, United States and Brazil, exporting their products to several countries around the world. Innovation has allowed CORONA to reach a strong position in developing successful products every year, maintaining a high vital portfolio index and working on its production processes to have more efficiency, low costs and excellence in operations as well as sharing best practices among the business units, with a standard innovation program. The figure 56 was created to briefly illustrate the key factors found in CORONA’s strategy and innovation processes:

Figure 56: CORONA – Key Factors



Source: Created by Daniela Gomez

ARGOS is a massive multinational company, dedicated to the production of cement and concrete, leader in Colombia and the fifth in Latin America. It has 388 plants of concrete and 12 of cement around the world. Its business model is based on the customer and the sustainable development which means: economic feasibility, respect to all people and responsibility and friendliness to the environment. That is why Innovation has a big impact on its overall strategy, highlighting human talent as the pillar of growth and differentiation. ARGOS is aware of the need to change and reinvent the business quickly, developing innovative products and processes to adapt itself to an ever increasingly competitive world. The figure 57 was created to briefly illustrate the key factors found in ARGOS’s strategy and innovation processes:

Figure 57: ARGOS – Key Factors



Source: Created by Daniela Gomez

3M is a global innovation company leader in each country where it operates since 1902. With 6 business units, 3M is an icon of innovation as a living culture. Innovation is the backbone of the strategy in which the employees are the principal actors, contributing with more than 1.000 launches every year. The success in the company combines ideas + talent + technology with the purpose of solving problems for people all over the world. The contribution of all 3M’s collaborators impacts the life of millions of people: 3M works to improve life on the planet. The figure 58 was created to briefly illustrate the key factors found in 3M’s strategy and innovation processes:

Figure 58: 3M – Key Factors

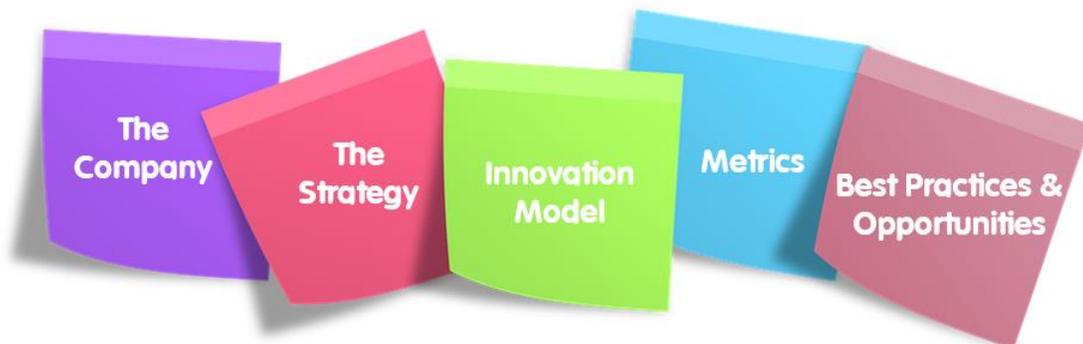


Source: Created by Daniela Gomez

Today, these four companies have strong innovation cultures operating in all levels of the organizations, delivering proven value to the business and contributing with measurable results to achieve strategic goals.

Figure 59 shows the 5 main topics that were used to analyze and compare the companies selected for the study cases. As mentioned before, more details on this research may be found in Annex 3, However, it is important to briefly describe the order in the methodology of the researching process.

Figure 59: Topics Analyzed on the Study Cases



Source: Created by Daniela Gomez

The Company: A compiled description of the core of the business, units and products or services it offers.

The Strategy: It is important to fully understand the strategy of each company, as it is the umbrella for Innovation as a corporate model.

Innovation Model: The core of the research. The objective was to study and understand as deeply as possible the essence and operation of each Innovation Model or System inside the studied companies to identify opportunities, ideas and best practices for our O-I Corporate Innovation Model.

Metrics: How is innovation measured in each company? An essential part of the methodology. Metrics are at “the end” of the process, where success and value of the innovation process are measured, and how it impacts the global company results.

The table 1 summarizes a comparative analysis of each company in four axes, briefing the reasons why these companies were chosen for this study.

In the first place it was important to review different sectors and segment companies, as well as to analyze companies similar in size to O-I in terms of sales and market share, the Innovation had to be important for the strategy and finally to have a corporate innovation model implemented or to define Innovation as a core of the business such as is the case of 3M, which doesn't have a specific program or innovation model, but it is itself an Innovation company.

Table 1: Comparative Table of the study cases

	CORE BUSINESS	ANNUAL SALES	INNOVATION STRATEGY	MODEL OF INNOVATION
	Processed foods 8 UEN'S	\$ COP 8,7 Billions 2015	By 2020 duplicate 2013 sales with v outstanding innovation \$11,8 Billions	
	Manufactures for home and construction 6 UEN'S	\$ COP 5,5 Billions 2015	Corona sustainable Innovation v Triple account Social - Financial - Environmental	
	Cement & Concrete 3 UEN'S	\$ COP 7,9 Billions 2015	Long-term sustainable growth v Innovation v Axis	
	Global innovation company 6 UEN'S Different sectors	\$ USD 30.300 Millions 2015	Innovation v We connect curiosity and work for the progress of the world	It does not have a model since 1902 innovation is an integral part of the 3M culture 3M Innovation

Source: Created by Daniela Gomez

The four companies, although very different in their core business, have many things in common. One is their experience operating not only in Colombia, but in other countries of the American continent and overseas. One of the things that calls for attention is that all of them have a clear understanding of the importance of the internal talent and people to be successful, especially in innovation, as it is explained by Tidd & Bessant (2013) and which analysis will be presented in next chapter: **Success innovations comes from people.**

Table 2 in the following page will present a comparison between the Innovation Models inside [NUTRESA](#), [CORONA](#), [ARGOS](#) and [3M](#). It is important to clarify that although 3M does not have a “proper” innovation model (with a name and a logo), it is one of the world icons in Innovation, thanks to an established methodology inside the company promoting a true innovation culture every single day and at all levels.

During the analysis of these four companies it became essential to identify how they manage Innovation, their structures in terms of people and teams to make it happen, as well as the resources and metrics to measure innovation success.

Focusing first on the common aspects of these four companies as best practices regarding the implementation of their Corporate Innovation Models we found:

2.2 A Strategy definition is important

The key element to support properly a model Innovation is the company strategy. Even though NUTRESA, CORONA, ARGOS and 3M are very different in their business object, all of them have a clear strategy definition that recognizes and includes innovation as an important factor to achieve the company objectives. This is the first step in our proposal for O-I and it needs a total commitment, validation and communication from the top leadership.

2.3 Innovation comes from People

All Innovation models of the four companies are strongly supported on their employees: the people or the internal talent as some of them call it. Most of the ideas and projects actually come from the inside of the company. This is even more visible in 3M. As an example, people have “free time” to innovate (15% of their time) or ARGOS with IDEAXION, that has created a complete collaborative network where employees can register their ideas and the rest of the organization can help, comment until they are implemented. The common issue here is that

these companies are truly convinced that “Innovation comes from people” so they have worked in their models to have a proper system and environment to make innovation prosper.

2.4 Invest in Innovation matters

Another key point for success in Innovation is the risk management in terms on resources or investments. A company that wants to have an Innovation system needs to understand that financial resources are required to validate and test the ideas, as well as have proper spaces and infrastructure for the innovation process. It is important to define how much of the resources are going to be designated every year for innovation. For example, ARGOS has defined a yearly fund of USD 1 million, where each idea can get up to USD 25.000 to be validated and implemented. NUTRESA, CORONA and 3M have a definition of a percentage of the sales to invest in Innovation. What is important is to have a proper system that guarantees a proper used of this resource, the evaluation process to decide where and how this investment is allocated and how results are measured.

2.5 Innovation needs to be Measured

This is probably the most important element for the leadership team of a company where an Innovation Model is implemented. Each company can define different metrics for Innovation, what is not an option is to omit the measuring of Innovation, sometimes a common mistake. To have well defined metrics with high impact for the business results is really what gives credibility to the process. From one side, to motivate employees and encourage them to innovate, and from the other side, to have solid bases for growth and really understand how the process in impacting or contributing to the business objectives.

As it is seen on the cases we analyzed some of the ways innovation is measure in the results are: Percentage of Sales from Innovation, Vitality of the Portfolio, Number of Launches or Innovation Successes, Intellectual Property from Innovation (brands, patents, etc.), Savings, Innovative Success per Employee, # Promoters of People Trained in the Innovation Program, etc.

Table 2: Comparison of Innovation Models – Study Cases

COMPANY	INNOVATION MODEL OR PROGRAMME	GLOBAL STRATEGY STATEMENT (UMBRELLA FOR INNOVATION)	INNOVATION STRATEGY DEFINITION	KEY DIFFERENTIATOR IN INNOVATION	STRUCTURE KEY INDIVIDUALS	CULTURE FOR INNOVATION	THE PROCESS	BUDGET / INVESTMENT	INFRASTRUCTURE RESOURCES	METRICS & RESULTS	REWARD PROGRAMME	INNOVATION EXAMPLES / CASES
		STRATEGY FOR THE FIRST CENTURY 2020 - 2025 is aimed at doubling the sales of 2015 in 2025 with a sustained return between 12 and 14% of the EBITDA margin 13% 2 x SCOP \$ 9 billion + 1 COP 1.1 billion	Promote profitable growth through Effective Innovation. The goal is to have: 1. Innovative successes per employee 0.3 2. Sales of Innovative Products: 15% 3. Portfolio with nutritional standards. Multiply by 2.5 the portfolio that meets healthy profile standards. The objective of EFFECTIVE INNOVATION is to support transversally the achievement of the strategic objectives of the Organization, taking advantage of innovation capacity as a lever for growth and the results obtained. For NUTRESA, effective innovation means the correct understanding of the needs of customers and consumers, which translates into products, services, processes or business models that provide solutions and add value.	The Living Innovation Culture The Leadership Commitment from the TOP "Our People, Our Brands, Our Distribution Networks". 204 people dedicated exclusively to R+D+i Innovation all-across the entire organization	Leadership Commitment from the TOP Corporate Innovation Manager & Team Corporate Innovation Committee 246 promoters of innovation 204 people dedicated exclusively to R+D+i Innovation all-across the entire organization	For NUTRESA it is essential to strengthen the adoption of innovation programs among employees, keeping in mind that the engine of innovation lies in human capital. The INNOVATION CULTURE strengthens an attitude of permanent change, provides a dynamic attitude and provides constant training.	7 processes that drive Effective Innovation: 1. Development of new products and services 2. Research 3. Prospective 4. Technological and Competitive Intelligence, 5. Open Innovation 6. Intellectual Property 7. Knowledge Management.	0.50% of total sales is invested in innovation, approx \$ COP 15,000 million in capital funds for Innovation in OUT OF THE BOX	Three pilot plants, three research centers and six R & D laboratories. INTELLECTUAL PROPERTY: 1539 Brands 8 patents (12 in Spanish) 9 Industrial Designs \$ COP 8.7 billions net Sales \$1.029 Billions EBITDA 60.5% Market Share	5,919 Innovative successes (which means that every 4 or 5 employees generated an innovative success) 362 Innovation promoters. PROGRAMMES: "Exemplary practices", "Innovative solutions" "Innovative successes" "Out of the Box". The results of the first month of sales exceeded the estimated budget by 500%. In addition, Evek obtained high levels of recommendation, repurchase and recognition by customers. OTHERS: Practicame 2020 Crunch CHOCOLITOS WATERS Chocolate Drink TOSM Greek Yogurt Cereal Bar TOSM snacks multi grain and organic corn LIVEN Aqua	Evek, disruptive innovation project of the Out of the Box program, which proposes a business model that moves away from mass selling, offering an experience on niche products at a point of sale within shopping centers and electronic platforms. The results of the first month of sales exceeded the estimated budget by 500%. In addition, Evek obtained high levels of recommendation, repurchase and recognition by customers. OTHERS: Practicame 2020 Crunch CHOCOLITOS WATERS Chocolate Drink TOSM Greek Yogurt Cereal Bar TOSM snacks multi grain and organic corn LIVEN Aqua	
		MEGA for 2018 4 x SCOP Sales of 2010 CORONA within its strategic focus, defines the Mission through the statement: "Corona will be a diversified multinational company of solutions and products for home improvement and new construction, especially in the Americas, generating shared value in economic, social and environmental terms through innovation." To achieve this purpose and make the business strategy a reality, it has declared six strategic premises. The first premise, which also supports the others is: "INNOVATE IN EVERYTHING WE DO".	The Innovation approach in Corona has a strong focus on Product Development. The CORONA innovation model is marked by the strategic promise of "Innovate in everything we do". There are four important points that make up this process: <ul style="list-style-type: none">• Innovative Products and Services• Best Organizational Practices• Development of a Culture of Innovation• Transformation Processes and information technology. Through innovation, CORONA seeks to offer the market innovative products, develop new and better manufacturing processes, implement better organizational practices and structure new business models.	Innovation is universal for the innovation does. Innovation is at the service of the strategy to amplify and fulfill all corporate promises. Open Innovation Practices aligned with different groups such as Associations, Universities, etc.	1,530 agents of change throughout the organization (People with Innovation DNA) The creation of two key areas: Business Development Coordination of External Networks	In the Innovation Culture in CORONA, we work with special emphasis on increasing the capacity for confrontation, acceptance of risk, mental flexibility and greater market orientation to "innovate in everything we do" in the organization, putting innovation in the service of strategy.	Phases: 1. Ideation 2. Implementation 3. Monitoring Supported by: Growth Platforms Product Development The CORONA KIT (Improvement Projects)	Investment in R+D+i 2.7% of the total sales	Structure to Innovate: Practices that works in a network with external entities to facilitate innovation processes. Growth Platforms: These projects seek to venture into new markets. The management of intellectual property protection initiatives, which seeks to protect all the innovative initiatives generated within the Organization. THE CORONA KIT An important axis of the innovation in CORONA has to do with the improvement of internal processes, which allows the organization to constantly identify good practices and replicate them to the different Business Units in a sustainable manner and achieve important savings.	Through the implementation of 422 projects with the improvement methodology of the CORONA KIT and the training of 134 people as agents of change along the entire productive chain, we have managed to restructure some costs and expenses, generating savings of \$ COP 26,265 million. Portfolio Vitality (Product Innovation): 43.7% • Sales growth: 7% • % Advance Internal Projects KIT CORONA: 75% - More than 100 projects	"Champions of Innovation" "Champions League of Innovation" "Innovation Week" "Alchemist"	VIDA 2016: This collection brings together a varied portfolio (of walls, decorations, floors, mosaics and accessories that respond to different styles and needs of the consumer). ESMENA: It is a combination proposal of trends, inspired by the essence of family and offers a wide range of novelties when mixing materials, softs geometric, three-dimensional surfaces with metallic touches and illusions optics that generate value. SMART TECH: VAILLUS CORONA made this collection with a great technological influence to serve with a touch contemporary and futuristic the table of Colombian homes.
		ARGOS has built a business model basing its value proposition on the recognition and understanding of the specific needs of its clients, who are clearly segmented. The company knows that it must reinvent itself permanently, being innovative in products and processes to adapt to a changing world and a demanding competitive context. There are 7 strategic priorities and INNOVATION is one of them: INNOVATION: To guarantee the continuous transformation and reinvention of companies towards sustainable competitiveness in the business world. It is one of the most important Material Aspects within the Materiality Matrix, with more relevance for the organization.	From 2015 and forward, generate at least 10% of the Company's income through INNOVATION. For 2025 there is a challenge to obtain 20% of the income from INNOVATION. Manage and implement all the ideas proposed by the collaborators, materializing them in serious and validated projects that provide an important added value to the organization.	Innovation is a corporate capacity that guarantees transformation and reinvention with a view to sustainable competitiveness. INNOVATION at ARGOS has a main premise: "to delight our clients, to extend the borders of the business model and to respect the environment". This is the "Architecture of Innovation". If there is one thing that ARGOS is clear about, it is that Innovation must be attractive enough to be able to compete with its employees' day to day.	Innovation Vice President as a key position for the strategy, with a direct team of 50 people. 200 mentors, acting as innovation ambassadors. 48 multipliers located in areas such as plants, for example, where access to the system is more limited. ARGOS also has an OPEN INNOVATION system.	ARGOS promotes and defines a Corporate Culture based on 7 Key Pillars for the successful development of innovation, which are: <ul style="list-style-type: none">• Collective achievement• Leadership• Sense of life• Transcendence• Respect• Learning• Flexibility "Day by day we live the culture of innovation from the key areas of Innovation Management, research, development, new business and alternative resources, so that ideas become realities that generate income, profitability, sustainability and competitiveness"	IDEAXION turn ideas into action its an inclusive innovation system 2011: stage of Preparation for innovation began with the design of IDEAXION. 2012: year of INVOLVEMENT, launching the program through the training of Innovation Managers and Mentors. 2013: year where INNOVATION formally began as a process with tangible results 2014 onwards: the growth process will take place, considering the amount of innovation in the ARGOS Culture and achieving 20% of Revenue from innovation by 2015.	After the evaluation of the ideas received through IDEAXION by the Innovation Committee, each idea can receive: USD\$3,000 to be validated. Argos allocates USD \$ 5 Million per year (with a ceiling of up to 15 thousand dollars for each project) for the validation of all those ideas that manage to pass the different filters. The initial idea goes through a process of introduction of New Products, a methodology that allows to maximize the successful introduction, but also gives an opportunity to manage and minimize risks.	IDEAXION - The Platform and Programme How are innovative ideas chosen? 1. Participating employees must enter their idea in the IDEAXION tool. 2. This will be evaluated by the innovation committee that meets every month. In this committee, compliance with the requirements is evaluated. 3. Then the idea goes to the implementation or anchoring for Validation phase. Each initiative may receive up to USD\$3,000 to be validated. 4. The validation of ideas approved as innovation is done under an ARGOS methodology, and must be correctly defined to guarantee the success and adequate investment of the allocated resources.	In 2016, 15.8% of revenue came from innovation, equivalent to US \$ 442.4 million. The benefits that Innovations can generate for ARGOS are: Income where the focus of the whole effort is on the contribution to growth. Revenues will be considered as new during the first 5 years Efficiency because of the nature of the business innovation is key to the performance of productive processes. The contribution is savings for those initiatives will be accounted for during the first year after its implementation.	"The Innovation Summit (cumbre)" The implementation and launch to the market of the ideas and the recognition of its inventors inside the organization is the main strategy to recognize people's talent and contribution in innovation. "Reverse logistics model for cement bags "Tacos Verdes" "Betting on alternative fuels."	Concrete Low Moisture + Ultra Low Moisture (USA) "Permeable Concrete (Colombia)" "Scheme of distribution in containers (Regional Caribbean and Central America)" "Capped automatic for vehicles." "Reverse logistics model for cement bags "Tacos Verdes" "Betting on alternative fuels."
		3M is a global innovation company that never stops inventing. It is its definition as the reason to be. This means INNOVATION is ALL AROUND the company's strategy. 3M's Corporate Strategy is based on two fundamental themes: People (their employees, their customers, their consumers) and sustainability, to innovate.	Innovation is an integral part of 3M's business strategy worldwide and fosters it through a culture that impacts both employees and clients. Since its foundation in 1902, the company has based on stimulating innovation. In order to develop solutions and products that improve people's lives. The success of 3M lies in the curiosity that combines ideas - talent - technology	The Culture of Innovation of 3M consists of 3 main axes: MANAGEMENT TEAM: The first task of management is to promote the innovative spirit. In 3M there is a whole philosophy of innovation, supported by CEOs since the 40s and 50s. COMPANY: As a company, it is essential to have the optimal resources and strategies to foster a culture of innovation. In 3M it is important to have clear metrics to measure the success of strategies and programs. PEOPLE: Sustainable innovation, as well as growth as a business and brand building, has been possible thanks to the fact that the company has people with unique behaviors such as: innovating, acting with integrity and transparency, developing others and oneself, inventing, acting with initiative and needs and Encourage collaboration and teamwork.	3M has 84,200 employees who "invent, produce and sell our products" in more than 200 countries, products that arise from the needs of customers and are supported by the more than 48 technological platforms that have made 3M a leading company in the main countries in which it operates. 8,200 scientists and researchers who collaborate day by day to develop products that transform and improve people's lives.	3M's collaborative culture encourages us to be close to customers and markets to create new inventions through pursuing unique combinations of technologies and ideas. People are the beginning of this chain reaction. It is the most important part of our culture of innovation, and as such, should be a priority, as they are for 3M. One of the secrets of 3M's innovation is that the people who work there do what they love.	For the development of innovative products and solutions, 3M follows a 7-stage process: Start with a general idea of the project to be developed. If an idea of innovation is promising, 3M develops multidisciplinary work teams where all will contribute their experience to develop and bring to market the proposed innovation. All these people are part of a team that includes the product until it is a success for future. The initial idea goes through a process of introduction of New Products, a methodology that allows to maximize the successful introduction, but also gives an opportunity to manage and minimize risks. The above means that having a defined process for innovation, allows sustainability of business innovation, as well as the timely establishment of responsibility and roles.	3M employees allocate 15% of their working time to develop projects of their personal interest that can become promising innovations for the company, using the tools of the companies that are normally outside their division or work. 3M Design Center Design is one of the strategic activities of the business and is conceived 100% in a collaborative manner.	35 Research and Development Centers worldwide. 48 technological platforms 3M employees allocate 15% of their working time to develop projects of their personal interest that can become promising innovations for the company, using the tools of the companies that are normally outside their division or work. 3M Design Center Design is one of the strategic activities of the business and is conceived 100% in a collaborative manner.	1,000 new products every year. 24,755 patents around the world. As a result of innovation, 3M has the goal of achieving 30% of its annual sales coming from products developed in the last four years, the most surprising of all is that in recent years they have achieved this goal thanks to the continuous development of new products.	The recognition and the creation of an "inclusive Culture" where every single employee contributes to develop successful products that improve people's lives is maybe the biggest reward for 3M. There are team challenges rewarded in many different ways in every country when the objectives are achieved. ** 3M Dynamic Mixing System	** Scotch-Brite® "Greener" Clean ** POST-IT® ** 3M Transportation Safety Roadshow Truck ** Scotch® Tape 3030 Premium Automotive Refresh Masking Tape ** 3M Paint Preparation System (PPS)™ revolutionizes paint mixing and spraying ** 3M Dynamic Mixing System

Source: Created by Daniela Gomez

2.6 A Corporate Culture built for Innovation

This could be probably the most challenging and difficult aspect of innovation. The culture is actually the result of a well implemented model or system in a company. It does not appear from the beginning. Naturally some things contribute: A good strategy definition, commitment to leadership and a consistent system where people feel involved and as a part of it. The real evidence of successful Innovation is when all the aforementioned elements of the model are present and integrated as part of the day by day processes.

2.7 Best Practices

However, there are some differentiating aspects regarding each company and the way the manage innovation. These aspects have become good examples to follow, a benchmark to use as a referent that has helped us build the final proposal presented in the last chapter of this report. This is what we call **“best practices”** and for each company we would like to describe what we have identified.

In **NUTRESA’s** case, the most important opportunities or best practices in its model are:

- Total integration of the Innovation Model with the Corporate Strategy.
- Creation of a CULTURE for innovation, which builds a high sense of commitment in employees.
- The Commitment of the leaders of the organization at the top positions.
- The design of clear metrics to constantly measure the impact of Innovation in the company's results.
- The development of Innovation promoters within the organization.
- Reward and recognize employees who contribute to innovation.
- Investment in Infrastructure: Laboratories, R & D Centers, Pilot Plants.
- Destination of 0.5% of Sales to Innovation.

- Intellectual Property Management.

In the case of **CORONA**, the most important opportunities or best practices are:

- The use of Open Innovation with Innovation Institutes, Universities and different research groups.
- Technology and Knowledge transferring process between the different business units and operations.
- Continuous Improvement through innovation that generates substantial savings to the organization and optimizes and refreshes the processes.
- The constant award and recognition to talents, ideas and innovation projects through the different programs of the PRISMA model.
- “Innovation at the service of the Strategy” is a statement that has promoted the appropriation of the culture.

In **ARGOS**, the most important opportunities or best practices are:

- Innovation as a strategic area, with its own vice-presidency and dedicated team, that is focused on the consistent implementation of the Culture of Innovation in the organization, with guaranteed, measurable and quantifiable results.
- Structured and well-defined model for the management, validation and implementation of ideas: With a process, an evaluation committee, a fund for validation that has been proven to work.
- A process that was born with adequate preparation: definition, planning, training and progressive and consistent implementation to achieve the results.
- The results are of a team and not individually.
- Total involvement of leaders at the highest level.
- Important metrics of high relevance for the strategy.
- The Center for Innovation, as a space that inspires and allows open innovation to happen. In

- Integration with the academy and its creative potential.

Last but not least, **3M** an icon for Innovation which best practices identified are:

- Innovation as the core and backbone of the business.
- The 3M Design Center as a space to work on innovation in a collaborative, strategic and structured manner.
- The development of a culture of Innovation from management as one of the key premises of the business.
- The space that the company gives its collaborators to innovate: 15% of their working time.
- Investment of the sales in the Research & Development process.

To end this chapter, we have built a table, shown in table 3, to cross the O-I identified opportunities in the Innovation Diagnosis (previous chapter) with the best practices analyzed with the four companies of the study cases.

As shown in table 3, most of the opportunities identified for O-I are covered within the Innovation strategies and models of NUTRESA, CORONA, ARGOS and 3M. However, if there is one to be chosen, ARGOS would be the most suitable referent for O-I, taking into account the similarity of the business, the capabilities and the possibilities to develop an Innovation Model at O-I.

Table 3: Crossed Analysis – O-I Innovation Diagnosis and Study Cases

O-I OPPORTUNITY (Diagnosis)	O-I INNOVATION ELEMENT				
To include Innovation in LA strategy aligned with corporate objectives.	O-I Strategy & Corporate Leadership	X	X	X	X
The definition and development of a whole Innovation Strategy for Latin America.		X	X	X	X
To create regional multidisciplinary teams across the region, involving all elements for a successful innovation process to engage with corporate teams.				X	X
To develop an integral Innovation model for O-I LA.		X		X	
glass smart™, should be the umbrella for the execution of an Innovation strategy.					
The strategy in innovation is not fully recognized or understood in all leadership levels. There is an opportunity to generate a communication process to assist on the permeation of an innovation culture from the top management leaders to all levels.	People & Culture	X	X	X	X
There is little or not enough encouragement to innovate in all levels and think "outside the box". Developing rewards and compensation systems, attached to clear goals and objectives aligned with Leading @O-I & Let's Talk@O-I.		X	X	X	X
The innovation process and its concept are much broader and deeper, and go beyond the product and the technology. There is an opportunity to spread a clear innovation strategy that ensures an appropriate and suitable knowledge transferring process for fast and effective execution.		X		X	X
There is an opportunity to create multidisciplinary teams, networking, and a strong leadership to reach a clear focus completely aligned.				X	X
A good training program is needed for this matter.		X		X	
To build and develop an innovation strategy highly focusing on marketing & commercialization and strengthen adjacent elements beyond product: culture, climate, people, processes, performance evaluation, etc		X		X	
There is a need of a role or structure focused in marketing innovation & commercialization well aligned with the regional glass smart™ 2.0 strategy.		X		X	
There is an opportunity for a deeper involvement of the global product and commercial team for the complete process of the key glass smart projects.	Product Innovation & Technology	X	X	X	X
A knowledge transferring program for each country in the region concerning platforms, including a strong orientation for design, engineering & manufacturing team.			X	X	X
A Road Mapping process with the glass smart™ teams of LA aligned with our markets would be useful to generate pull solutions for innovation challenges that can add real value to O-I and its customers.				X	X
To have regional facilities centralized in a country to start innovation projects.		X		X	X
Establish a close team-work between all LA glass smart™ teams focused on an integral Innovation supported by a strong marketing process.	Marketing Innovation & Commercialization	X	X	X	X
There is a need for a strong presence and support of the global team in a regional and country level, regarding Innovation and commercialization.		X		X	X
O-I needs to work hard in the front and back side of customers.		X	X	X	X
The global marketing strategy needs to be aligned with the category objectives in each region and every country.				X	X
Build a strong networking between the Global Innovation teams and the O-I LA region.		X	X	X	X
Metrics should be designed according to our regional strategy and glass smart™ process, aligned with the global strategy.	Metrics	X	X	X	X
The Pipeline management should be more automatic and in accordance to glass smart™.		X		X	
Metrics should support the team work development. Alignment with the Human Resources strategy.		X		X	X

Source: Created by Daniela Gomez

It is worth mentioning that through the scope of the 4 studied companies' models, new opportunities arise (Ones which had not been initially identified during the diagnosis phase), and that are quite important for the final Proposal to O-I in order to certainly implement a robust and integral Innovation Model.

The next chapter will explain, from the theoretical perspective of Tidd & Bessant (2013) some additional key elements that are important for the Innovation Strategy at O-I.

CHAPTER 3

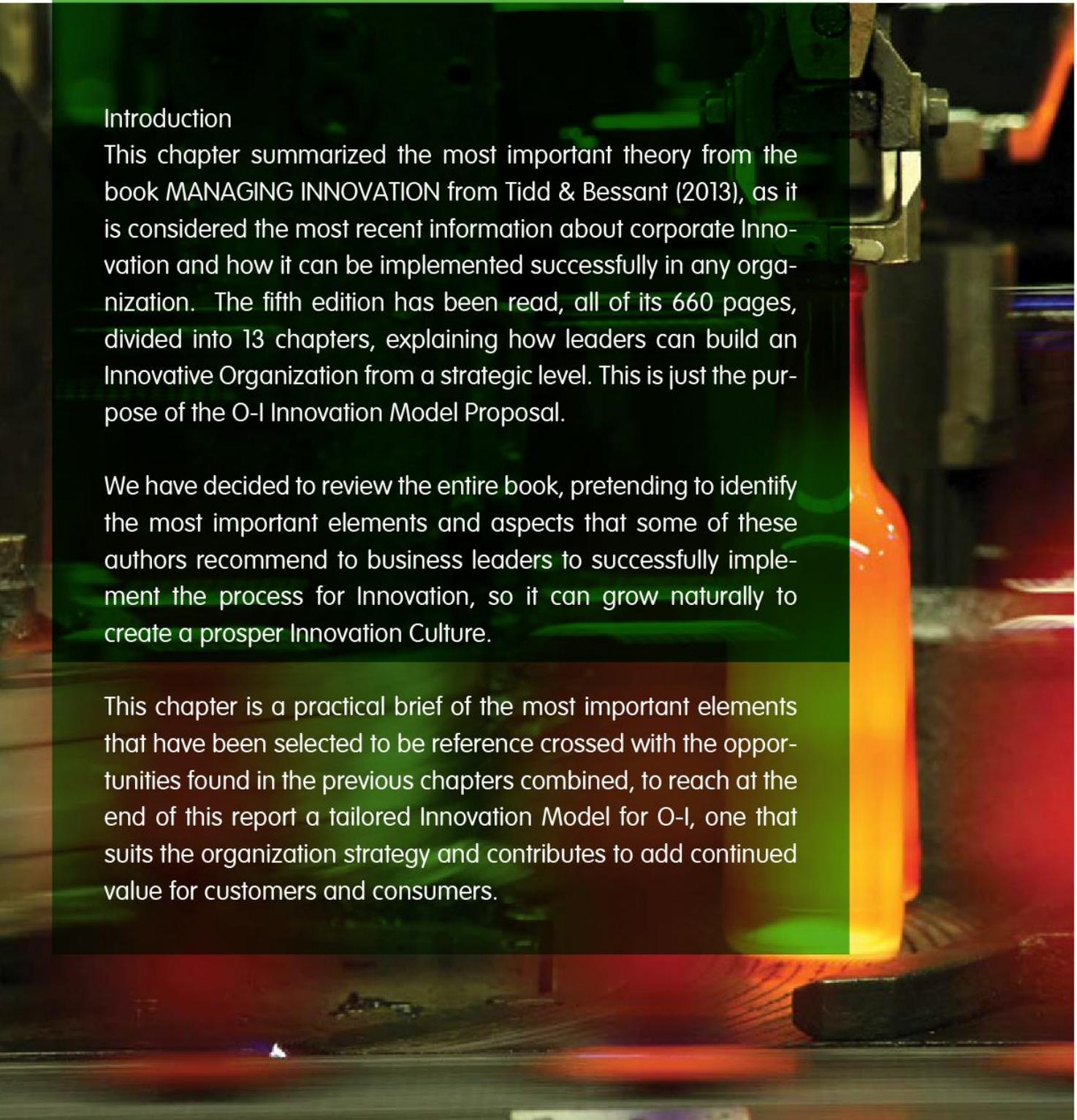
THEORETICAL FRAMEWORK

Introduction

This chapter summarized the most important theory from the book *MANAGING INNOVATION* from Tidd & Bessant (2013), as it is considered the most recent information about corporate Innovation and how it can be implemented successfully in any organization. The fifth edition has been read, all of its 660 pages, divided into 13 chapters, explaining how leaders can build an Innovative Organization from a strategic level. This is just the purpose of the O-I Innovation Model Proposal.

We have decided to review the entire book, pretending to identify the most important elements and aspects that some of these authors recommend to business leaders to successfully implement the process for Innovation, so it can grow naturally to create a prosper Innovation Culture.

This chapter is a practical brief of the most important elements that have been selected to be reference crossed with the opportunities found in the previous chapters combined, to reach at the end of this report a tailored Innovation Model for O-I, one that suits the organization strategy and contributes to add continued value for customers and consumers.



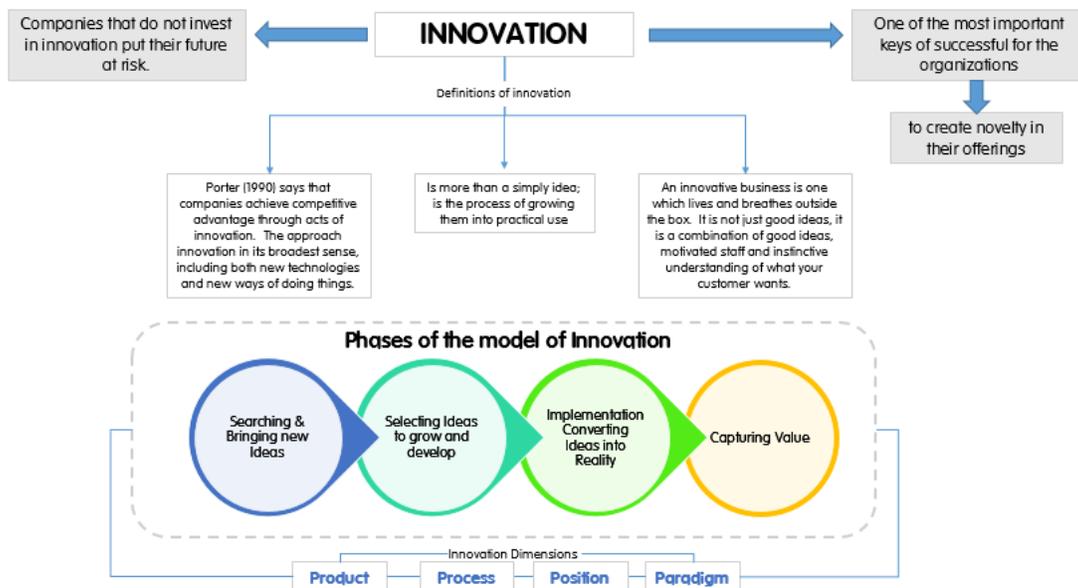
3. CHAPTER 3: Theoretical Framework: Innovation Management s

After reading the book, some chapters are considered a key element for this project. As part of the methodology, these chapters were analyzed and summarized in the following figures in order to have a guideline of the important information highlighted from the text. This means that this part of the theory is key to be considered at the final proposal (next chapter) as it covers some of the opportunities previously identified.

This chapter as well is valuable for the leaders and teams in general at O-I in order to understand the importance of Innovation and guide them on the implementation phase of the model. It can be used on the training program to facilitate the appropriation of the proposed Model.

In the current competitive world and context, innovation becomes in one of the most important keys of successful for the organizations and companies, because it offers a competitive advantage specially for those organizations which can mobilize knowledge and technological skills and experience to create novelty in their offerings. O-I is certainly one of those organizations. The figure 60 briefly shows what is innovation and why it matters.

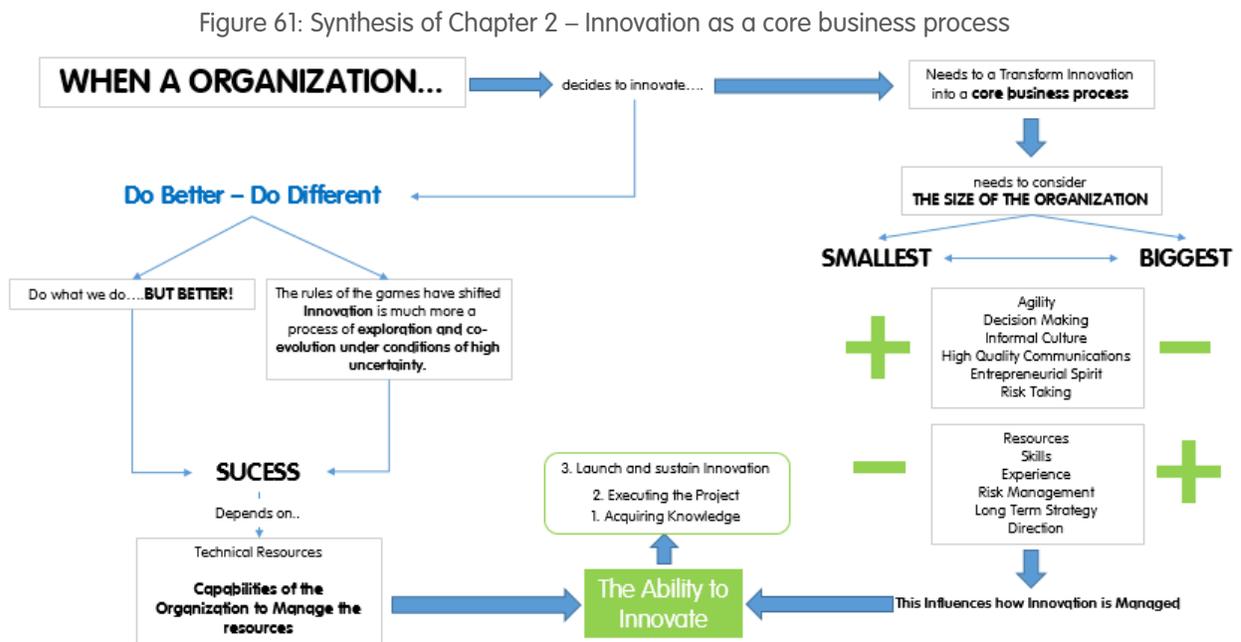
Figure 60: Synthesis of Chapter 1 – What is Innovation and why it matters for O-I



Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

One of the most important learnings an organization needs to apply after its leaders decide to “Innovate” is transform Innovation into a core business process. Each organization must find its own particular solutions and develop this in its own context to Innovate.

The figure 61 summarized the most important elements that any organization needs to take into account when decides to innovate.

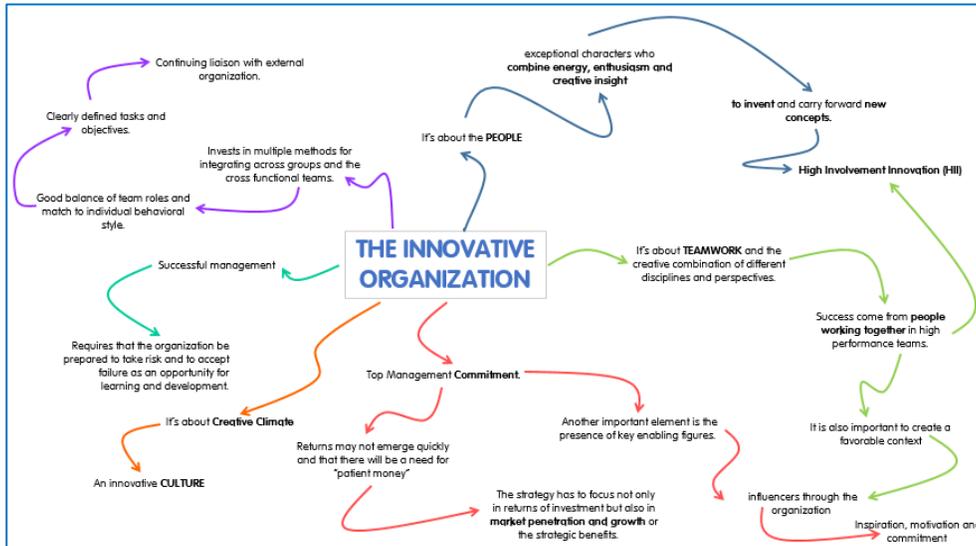


Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

Steve Jobs said that innovation is about the people you have. Every human being comes with the capability to find and solve complex problems, and where such creative behavior can be harnessed amongst a groups of people with differing skills and perspectives extraordinary thing can be achieved. At the individual level, innovation has always been about exceptional characters who combine energy, enthusiasm and creative insight to invent and carry forward new concepts. Innovation is increasingly about teamwork and the creative combination of different disciplines and perspectives. Success come from people working together in high performance teams and everything starts with the Top Management Commitment.

Figure 62 is a Mind-Map that compiles and connect the most relevant ideas of the third chapter con the book of Tidd & Bessant.

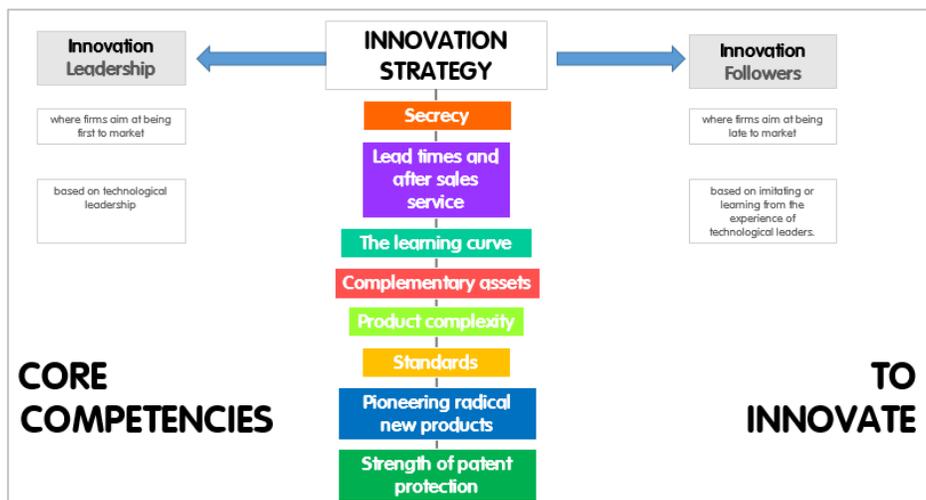
Figure 62: Synthesis of Chapter 3 – Building the Innovative Organization



Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

Once a company has decided to Innovate, the next step in to develop an Innovation Strategy. About this matter, the figure 63 explains both types and highlight the most important elements to achieve it.

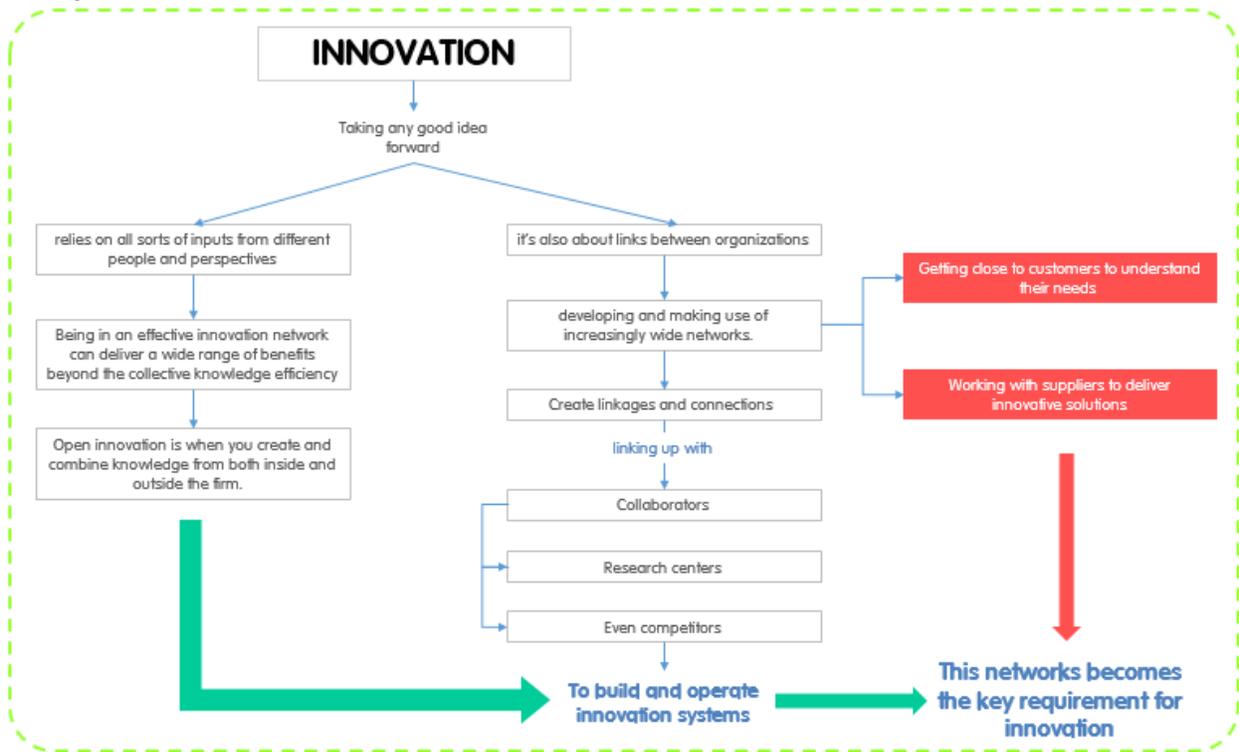
Figure 63: Synthesis of Chapter 4 – Developing an Innovation Strategy



Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

It's easy to think of innovation as an "act". In reality taking any good idea forward is also about links between organizations, developing and making use of increasingly wide networks. These networks become the key requirement for innovation. As it is shown in figure 64, networking is very important to "operate an innovation system" as a key requirement.

Figure 64: Synthesis of Chapter 6 – Innovation Networks

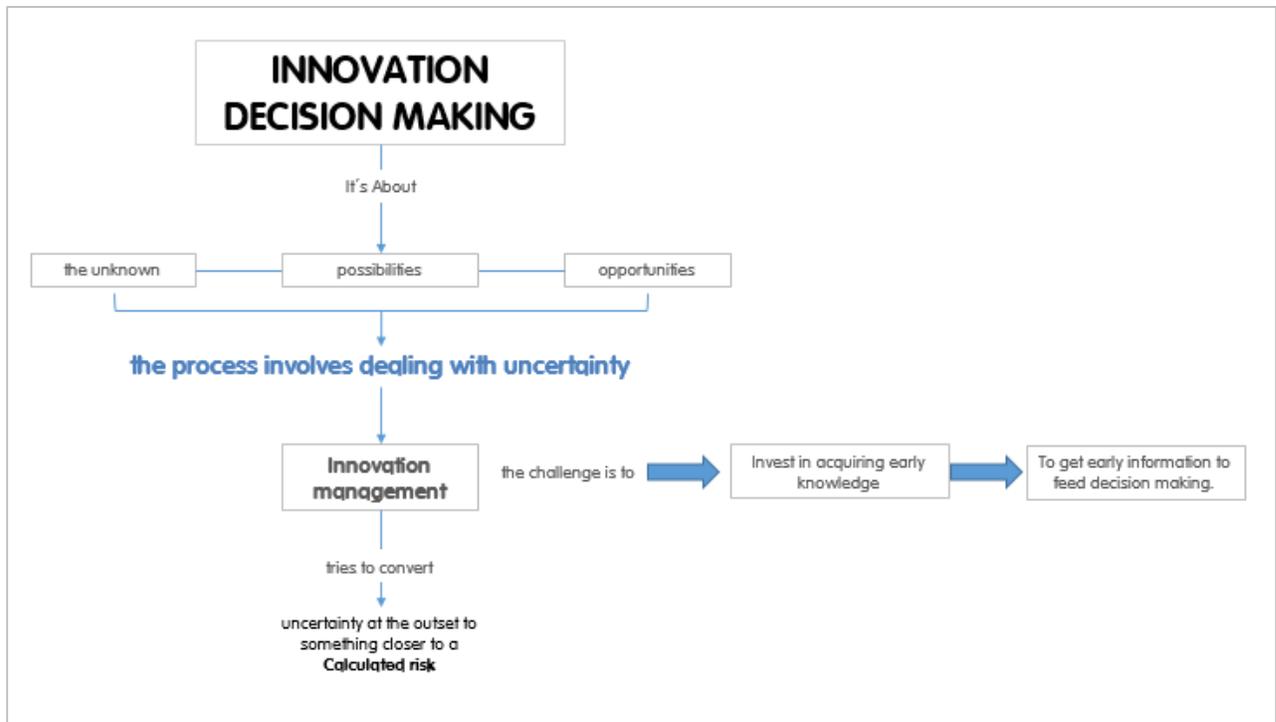


Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

Of all the things we could do, what are we going to do? Organizations cannot afford to innovate at random, they need some kind of framework which articulates how they think innovation can help them survive and grow and they need to be able to allocate scarce resources to a portfolio of innovation projects based on this view.

The challenge of innovation decision making is made more complex by the fact that isn't a simple matter of selecting amongst clearly defined options. The figure 65 explains some elements of the decision making process in Innovation.

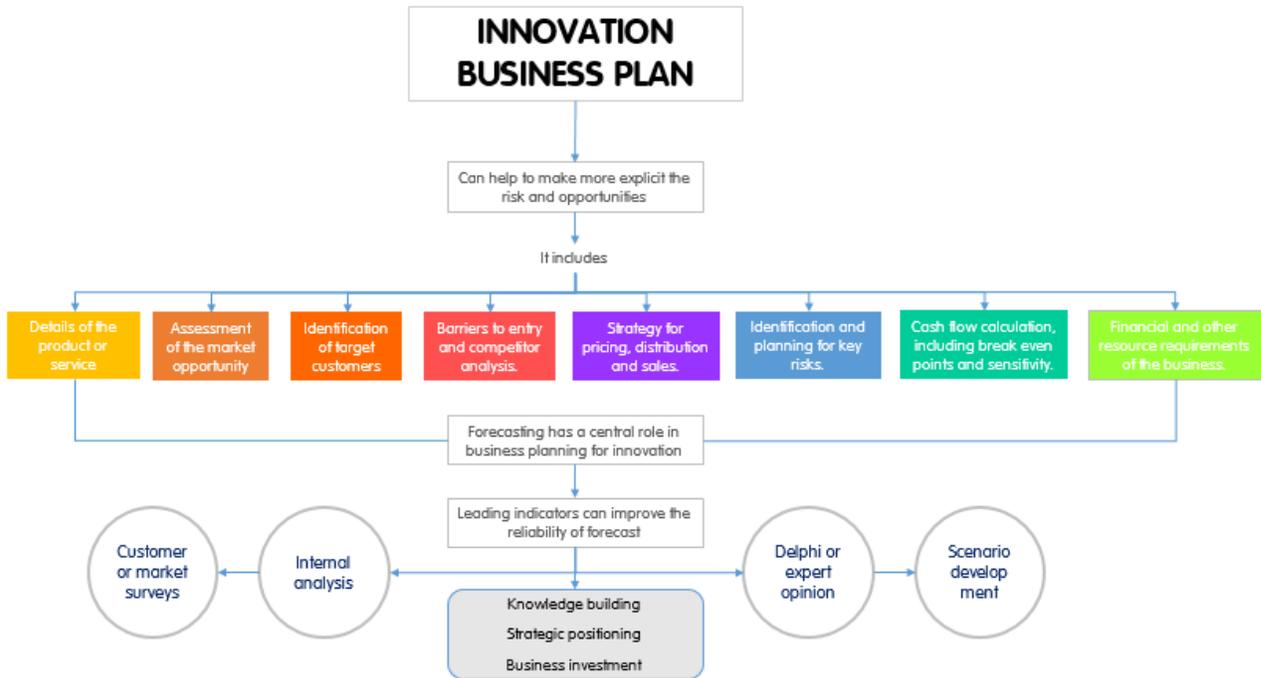
Figure 65: Synthesis of Chapter 7 – Decision making under uncertainty



Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

The chapter 8 of the book talks about Building the Innovation Case. A business plan can help to make more explicit the risk and opportunities, expose any unfounded optimism and self-delusion, and avoid subsequent concerning responsibilities and rewards. The figure 66 explains what is included to build an Innovation Business Plan.

Figure 66: Synthesis of Chapter 8 – Building the Innovation Case



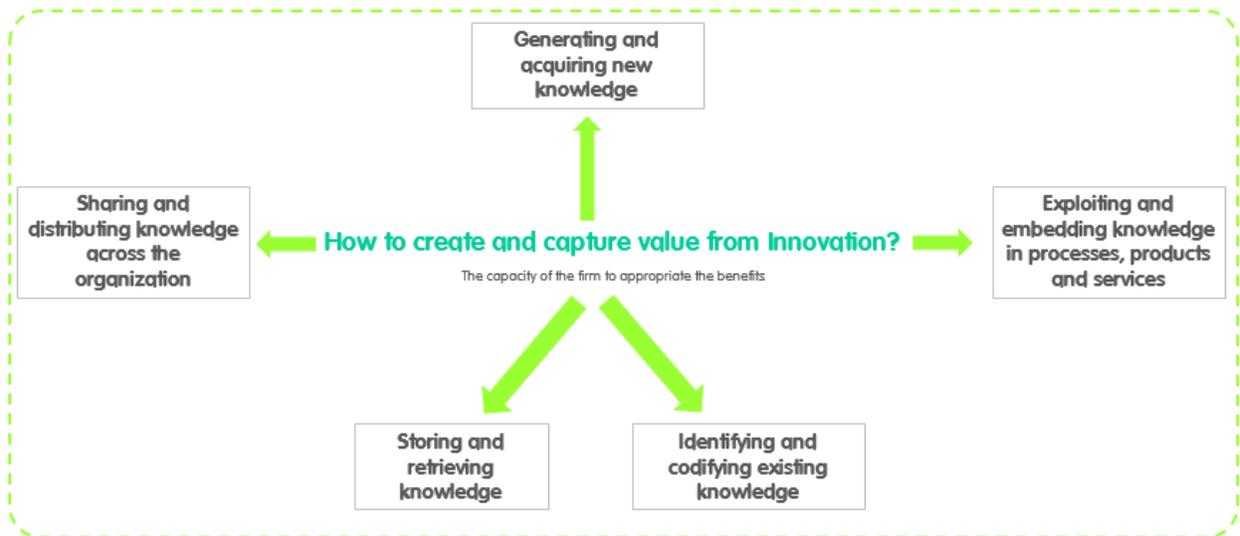
Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

One of the central problems of managing innovation is how to create and capture value.

The figure 67 shows how value can be captured from the innovation process.

Technological leadership in firms does not necessarily translate itself into economic benefits. The capacity of the firm to appropriate the benefits of its investment in technology depends on: its ability to translate its technological advantage into commercially viable products or processes, for example, through complementary assets or capabilities in marketing and distribution, and its capacity to defend its advantage against imitators.

Figure 67: Synthesis of Chapter 12 – Capturing the benefits of innovation

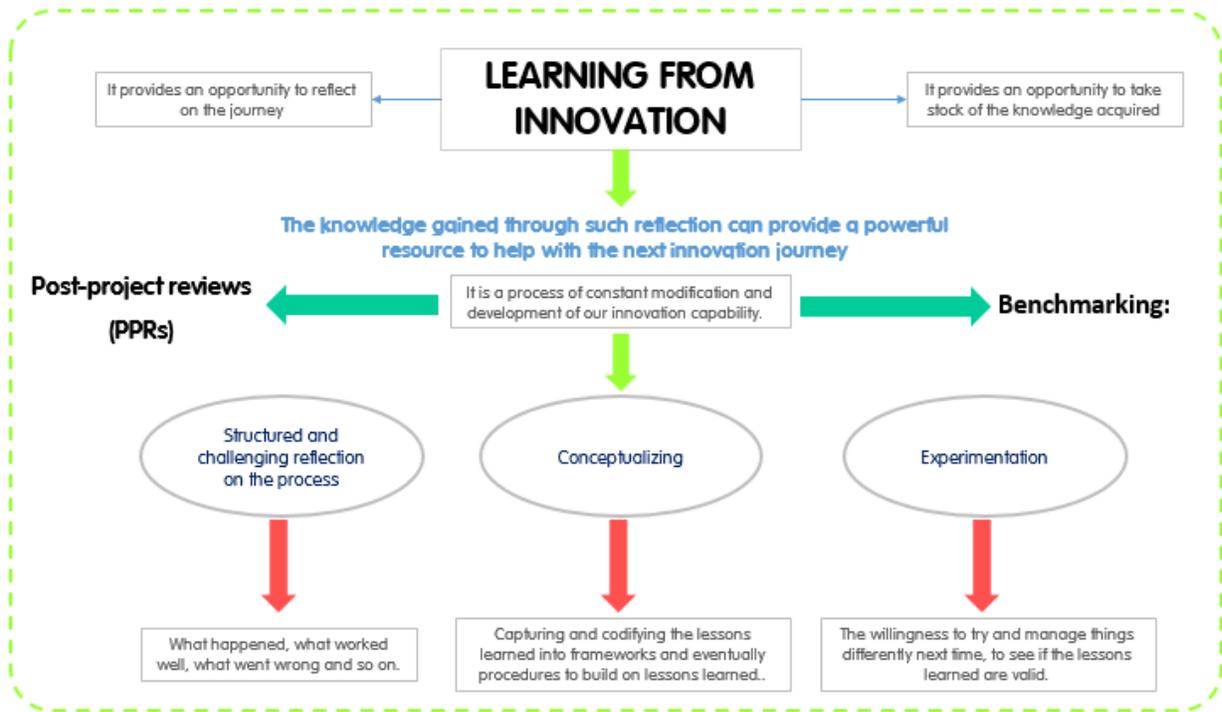


Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

Last but not least, we have analyzed the chapter 13 of the book. Successful innovation implies the completion of this risky, adventure and a happy ending with valuable returns on the originals investments. But it also provides an opportunity to reflect on the journey and to take stock of the knowledge acquired through an often difficult experience. It's worth doing this because the knowledge gained through such reflection can provide a powerful resource to following projects to develop.

Not all innovation is successful, but the opportunities for learning from failure are also considerable. Understanding what doesn't work on a technological level, or recognizing the difficulties in a particular marketplace which led to non-adoption is useful information to take stock of and use when planning the next expedition. Experience is an excellent teacher, but its lessons will only be of value if there is a systematic and committed attempt to learn them. The process suggested by the authors, is summarized in the next figure 68.

Figure 68: Synthesis of Chapter 13 – Capturing learning from innovation



Source: (Tidd & Bessant, 2013), adapted by Daniela Gomez

With this figure we finalize this chapter. To get to know deeper information please refers to **Annex 4**. However, it is fully recommended to read the complete book, especially for those leaders who wants to start an Innovation strategy inside their companies. It is really an “easy to understand” text, that explains or guides very well everything that needs to be consider to Build an Innovative Organization.

CHAPTER 4

O-I CORPORATE INNOVATION MODEL

Introduction

Finally, after taking a long trip inside O-I's current situation, as well as analyzing what other major and important companies are doing regarding Innovation and what the most important and relevant authors are suggesting, it is time to present our proposal for O-I's Innovation Corporate Model.

This is the final part of the report, where we will explain how the Innovation Model is integrated to the current strategy and how it operates at all levels of the organization. At the end of this chapter, we will present the complete process, methodology and tools, as well as the metrics and the impact for the company's people and the culture.

Some of the elements of the Model were already implemented, some others are about to be, and even though there are now new members in the team, the essence at O-I and the challenges of the company continue to make it the right moment for even more successful Innovation processes to come.

4. CHAPTER 4: O-I Corporate Innovation Model

As it has been explained along this report, the Diagnosis of O-I's innovation (Chapter 1), where the opportunities for the company were identified, is the starting point and the first reference to build or design an Innovation Model and strategy to manage innovation. These opportunities were crossed not only with the study cases analyzed in the previous chapter (see Table 3), but also with the Innovation theory found in the book "Managing Innovation", (Tidd & Bessant, 2013) used as the most recent reference where Joe Tidd and John the authors propose some key elements and considerations for a better Innovation implementation at a corporate level.

In this chapter we have concentrated all the important components for the proposal of the CORPORATE BUSINESS MODEL FOR MANAGING INNOVATION AT OWENS ILLINOIS, O-I. To explain it better, we have decided to begin from the macro elements such as the strategy, to the micro-details such as tools and other elements that compose the model.

In the current competitive world and context, innovation becomes one of the most important keys of successful for the organizations, because it offers a competitive advantage specially for those organizations which can mobilize knowledge and technological skills and experience to create novelty in their offerings. (Tidd & Bessant, 2013).

As it is suggested by Tidd & Bessant (2013), there are some components that define an Innovative Organization (figure 69). As you will find, the proposal for O-I is based on these components as it is a true conviction that the success in Innovation depends on the excellence of their implementation inside the company. It might be helpful to remember, that these components were presented at the initial Diagnosis of O-I and were thoroughly explained in chapter 1.

Figure 69: Components of an Innovative Organization



Source: Tidd & Bessant (2013) – Adapted by Daniela Gomez

Implementing an Innovation system or model is not a short-term project or goal. As it happened in ARGOS, it requires perseverance and consistency and also a STEP BY STEP process in certain order that can prepare the organization, its leaders and their teams to innovate and at the end permeate a culture. As it is mentioned by Tidd & Bessant (2013): *Success in innovation relates to the overall innovation process and its ability to contribute consistently to growth. Is not a one off success in the short term but sustained growth through continuous invention and adaptation.* That is why the first step O-I model proposes is “to plan” how Innovation is going to be implemented during its first years, the figure 70 explains the phases of the model:

Figure 70: O-I Innovation Model Phases



Source: Created by Daniela Gomez

The proposal defines that there should be three Phases for the Innovation process at O-I: The first one occurs during the Year 1, where the whole organization needs to **“Get ready for Innovation”**, and a strategy review has to be made from the global and regional perspective along with the preparation of the structure, the different programs, and to align the Human Resources strategy, the platforms and metrics that will measure the results of Innovation.

On the second phase the company will start the **“Implementation of Innovation”** after a proper preparation. The global leadership team and the innovation structure will start launching the Model in each region and country and the different teams and areas will start a formal training program that will prepare them to innovate. Then, a regional Road-Mapping session will take place in order to identify the market challenges for glass.

Innovation will formally start using the different platforms and tools, and additionally, some big events around the model will take place. This phase will last 2 years, however since the beginning the Innovation team and committee should be running reviews and learning sessions inside the company to evaluate and redefine what is required to adjust the Innovation Strategy. The innovation process is cyclical and every time a cycle ends, it should be revised and evaluated to review learnings, make adjustments and improvements. It is a process that never ends.

The last phase is actually the starting point of Innovation as a culture that never should end and always needs to be reinvented: **“Capturing Value from innovation”**. At this point, O-I should be getting results from Innovation: The defined metrics should be reflecting the hard work of all teams, and value should be added to the business strategy and customers and consumers should be perceiving already.

From now on, all the three phases, their components and proposal requirements will be explained in order to understand such suitable model. Some of these components will be accompanied with the tools or elements that this work proposed to be implemented. However, O-I could adapt or propose any new elements considered necessary, making sure all key points are included and maintained, as all of them are important to ensure an integral and successful strategy.

4.1 Phase 1: Getting Ready for Innovation

The Innovation Plan during its first year starts with a deep and detailed preparation of all different matters and “legs” to help “innovation happen”.

Everything starts with the Top Management Commitment. (Tidd & Bessant, 2013)

Global O-I Strategy

The first thing required to be unified across all the organization and in every single area is the definition of what Innovation is for O-I, as it is show in figure 71. This definition was built on a design thinking session I led in 2014 with O-I LA team members and was presented in the strategy plan to the core team of the region at that time:

Figure 71: O-I Innovation Definition



Innovation is a **complete ecosystem** across the organization, articulated by different processes & elements that **together apply new solutions for the business, break paradigms and create new ways to develop opportunities** and reach our company strategy and growth.

Source: Created in a team session in 2014, led by Daniela Gómez

The model proposes to keep it, as it accomplishes what is expected from Innovation as a culture once the company is adapted.

Let's remember O-I's ambition statement: *"Our ambition is to be the world's leading maker of brand-building glass containers, delivering unmatched quality, **innovation and service to our customers**; generating superior financial results for our investors; and providing a safe, motivating and engaging work environment for our employees"*¹¹.

This ambition statement has a suitable definition to give a place to our Corporate Innovation Model so it is suggested to keep it, as the umbrella to cover the global strategy. The key words here are: **"brand-building glass containers, innovation and service to our customers...as well as providing an engaging work environment for our employees"**

It is true that due to the nature of O-I as a manufacturing company, excellence in operations, cost reduction understood as processes optimization and product and process technology expressed in R&D investment, are important matters that cannot be overlooked. The strategy should consider them, but the strongest and most visible side should be focused on the customer, the glass as brand builder, sustainability and how Innovation is at the service of this strategy.

Figure 72 proposes a redesign of O-I's Global strategy. If you compare it with the one presented at the beginning of this report (figure 15), you will notice that the essence of the elements is actually the same, but INNOVATION as one of the core competences of the business, has a higher importance embracing the whole strategy.

¹¹ Taken from the O-I Strategy, O-I's global intranet – "O-I HOME"

Figure 72: O-I Global Strategy Proposal

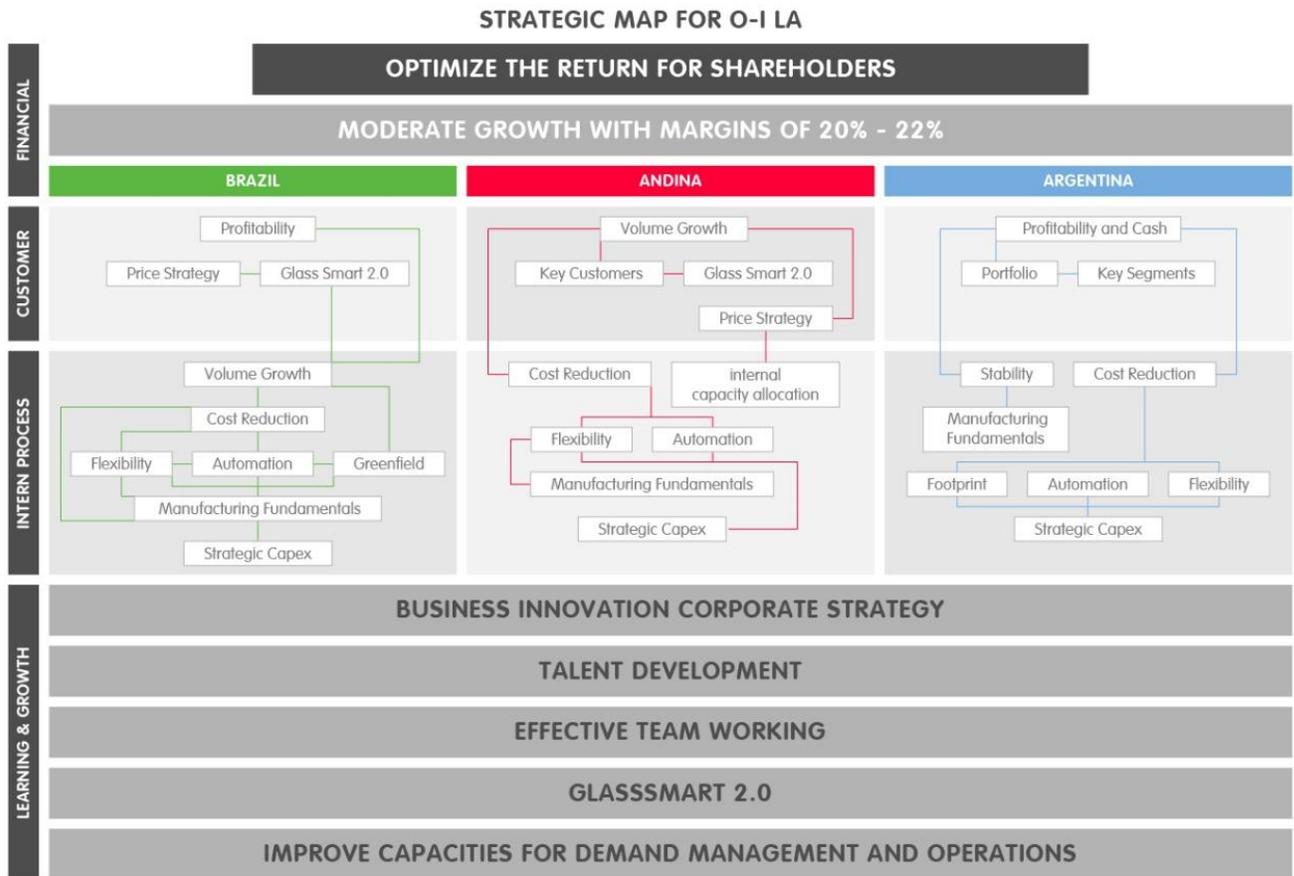


Source: Redesigned by Daniela Gómez

In the figure above, three external elements support the whole O-I Strategy: **INNOVATION**, **SUSTAINABLE DEVELOPMENT** and **PEOPLE & CULTURE**. In the center the purpose: “O-I as a **Brand Building Glass**”. The eight circles around are the strategic priorities in which every single area should develop their plans every year to achieve the final purpose. This small change in the way the elements are presented gives more weight and value to Innovation for the organization.

Starting from the global strategy, each region should build the strategic map, giving to Innovation the same importance and relevance. As we have started this project based on O-I LA, we have adapted or redesign its strategic map, moving or adding some elements in order link the global strategy and support it, as well as to give more relevance to **g glass smart™**, see figure 73.

Figure 73: O-I LA Strategic Map



Source: Redesigned by Daniela Gómez

Last but not least, there is **glass smart™** as a business model proven and successful only in Latin America as part of the isolated strategy each region used to have. Due to the good results of **glass smart™** in O-I LA and specially in O-I Colombia, this project proposes to “globalized” the **glass smart™ 2.0** version as a key model to support the global strategy on the “Service to our customers” and “Delivering High Value” strategic priorities and to be in the first place the Umbrella for Innovation, as it was explained in the O-I’s Innovation Diagnosis chapter.

To remember its definition: “**glass smart™** is a complete new business model methodology for O-I LA, which goal is to generate a **profitable growth** by developing a deep understanding of consumer trends, channels and customer’s needs, opportunities and economic drivers to provide **customer tailored solutions** to the current and potential segments O-I serves”.¹²

¿Why should **glass smart™ 2.0** be the umbrella for Innovation?

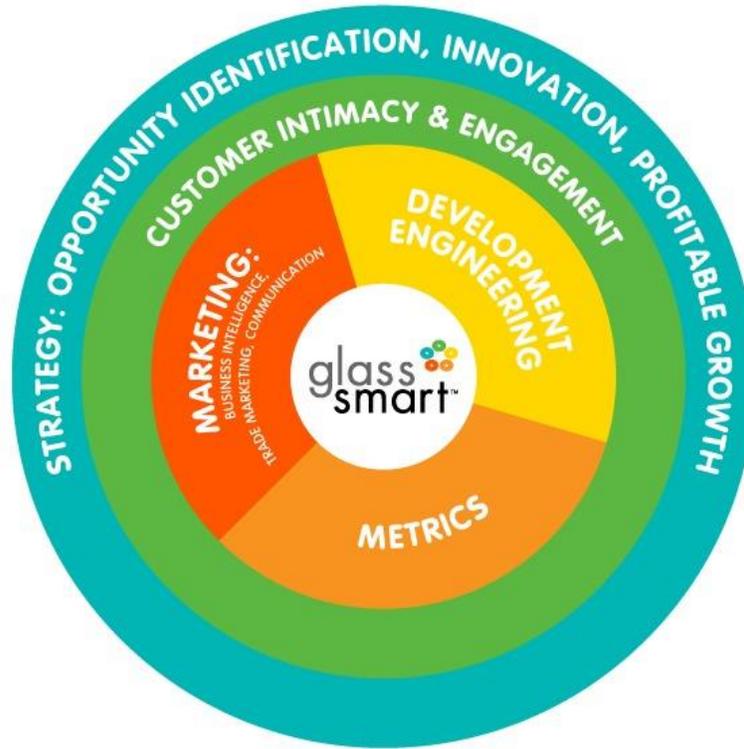
It’s simple, **glass smart™** fits completely in the strategy, because it looks for profitable growth and at the time it delivers value to customers through the deep knowledge of the market and the final consumer. Definitely, after being part of the team that led and develop **glass smart™** as pioneers, I am completely sure that **glass smart™ 2.0** will help O-I to work and deliver Innovation not only from the back-end of the company (product – technology – manufacturing) but from the front-end as well: consumer, market & customer, solving the challenges the company faces every day and pulling Innovation.

Figure 74 proposed a model for **glass smart™ 2.0** integrating all disciplines in a circular structure, which means that everything happen simultaneously, where customer engagement is important and Innovation is a core strategy covering the whole process to give profitable growth.

It’s simple: Multidisciplinary teams and individuals, working together tailoring solutions to the market, increasing the speed to market and focusing on the customer and final consumer to succeed.

¹² Source: O-I’s internal material.

Figure 74: O-I glass smart™ 2.0



Source: Created by Daniela Gómez as part of the Agility team with some adaptations

4.2 The Innovation Strategy: Creating The O-IDEA LAB

After a Global Strategy definition and a regional alignment, we can define a strategy specifically for Innovation as a core priority for the organization, that will support the Model and all of its elements.

Innovation is the way O-I delivers “brand-building glass”, strengthening the perceived value for customers and consumers as well as for stakeholders and collaborators. Starting from this concept on the strategy, figure 75 proposed the structure of the Corporate Innovation model for O-I: The O-IDEA LAB.

The O-IDEA LAB is the proposed name for the Innovation model at O-I and involves a long-term commitment with a **structure, resources**, programs to promote a **culture** of innovation and pursue the company objectives. Thorough this model to manage Innovation, O-I seeks

to develop glass containers that meet the market challenges and needs to achieve the strategic priorities.

Figure 75: O-IDEA LAB Model



Source: Created by Daniela Gómez

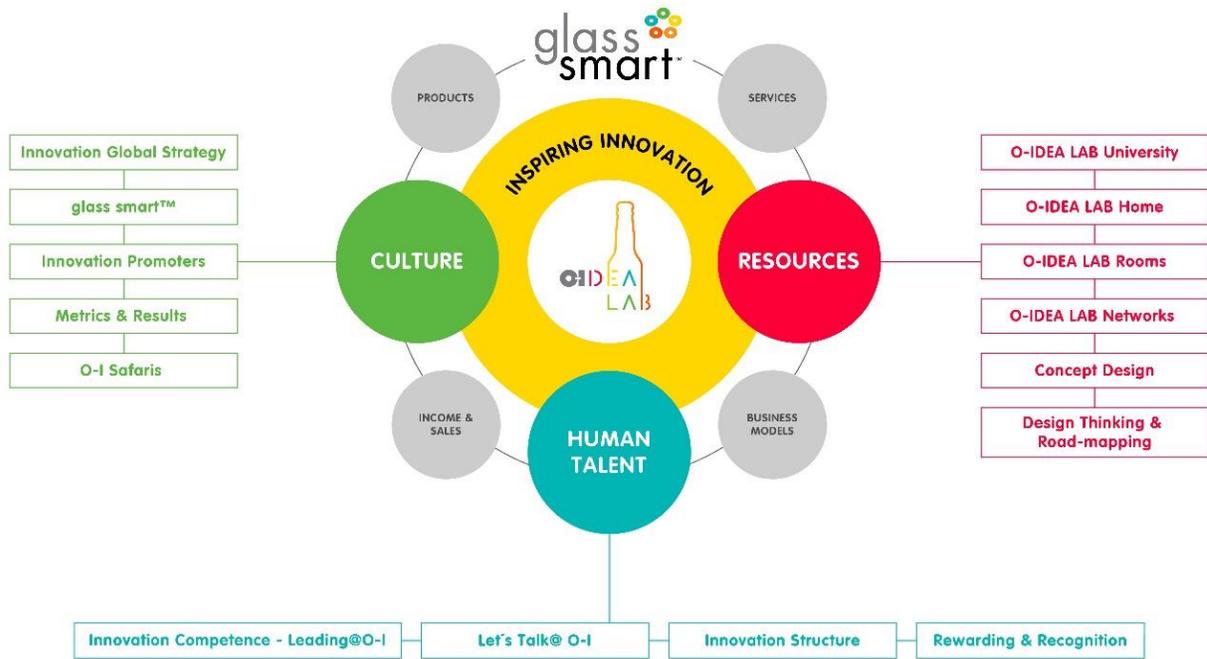
Likewise, innovation, as a strategic priority, [gets O-I Closer to final consumers, gives glass relevance](#) to get market share and merges with our fundamental activities to achieve excellence in our operations through optimization, continuously improving, cost savings and allows the company to achieve a more sustainable value proposition.

In other words, O-I IDEA LAB is the model to achieve all the goals of each region, country and area of the organization in order to achieve the strategy.

Figure 75 shows the Corporate Innovation Model proposed for O-I and it is the graphic way to define it, as do ARGOS, NUTRESA AND CORONA. The fact that the proposal has an image and an “Brand” helps to build internal positioning within the employees and different teams as well as to create a culture around it. It is important also because it compiles all the important elements to work and explains the value that can be captured from innovation.

The model is under **glass smart™ 2.0** as explained before. Three priorities are the backbone of the proposal: **Human Talent, Resources and Culture**. Each of them contains different elements that compose it and articulate the complete system in order to make it work properly, as it can be seen in figure 76. We will explain each in detail along this chapter.

Figure 76: O-IDEA LAB Model Detailed



Source: Created by Daniela Gómez

4.3 Human Talent

As it has been explained before (Tidd & Bessant, 2013), “Innovation Success comes from people”, which explains why this is the first priority that needs to be developed before a model launch.

There are different requirements that are suggested and O-I needs to define and make sure are implemented during this Phase 1.

Innovation as a competence on the Leading@O-I and Let's Talk@O-I

Figure 22 y 23, at the Diagnosis chapter of this report, explains how these two human resources programs currently work. As a reminder, **Leading@O-I** is the model that defines the different leadership levels and the 6 competences that every single employee at O-I must model in their process. Innovation is already one of the six competences globally defined to be evaluated at **Let's Talk@O-I**, however there is a big opportunity for redefinition as described for each leadership level. INNOVATION currently is understood as:

** **Individual Contributor**: Improve Processes.

** **Front Line Leader**: Identify Improvements

** **Mid-Level Leader**: Think Creatively.

** **Business Unit Leader**: Innovate.

** **Senior Unit Leader**: Display Vision.

The proposal here is a wide and open definition that allows everybody, regardless of their level or hierarchy, to propose new ideas, participate, think creatively, identify or improve processes, display vision: In other words, **INNOVATE**.

¿How should Innovation be defined at Leading@O-I and Let's Talk@O-I?

Competence definition:

Innovation is the ability to modify things, even starting from forms or situations not previously thought. It implies devising new and different solutions to problems or situations required by the position itself, the organization, the clients or the segment of the economy where the company operates. (Chaux, 2014)

Parting from the idea to build an inclusive Innovation system, it is suggested for this competence not to have a leadership level classification. As it has been explained before, Senior and Business Units Leaders need to display the global and regional strategy, and Innovation is already proposed as a core priority to achieve the company's objectives.

Regarding the performance evaluation, **Let's Talk@O-I**, the suggestion is for Human Resources to define a unique scale for all levels of leadership in terms of Innovation as it is proposed in table 4, to be included at the Leading@O-I Brochure.

The definition of the Innovation Competence is proposed based on the Innovation meaning built for O-I, previously explained, the Global Strategy and the Innovation model aligned with **glass smart™**. As one of the opportunities identified in chapter 1, the proposal suggested to have a more open definition applied to all leadership levels, as the intention is that everyone will to innovate. The three scales defined in Leading@O-I (Highly Effective, Meets Expectations, Needs Development) contains statements that accomplish the Innovation meaning and strategy and facilitate the performance evaluation process.

Table 4: Innovation Competence – Leading@O-I

INNOVATION COMPETENCE - Leading@O-I (applies to all leadership levels)		
HIGHLY EFFECTIVE	MEETS EXPECTATIONS	NEEDS DEVELOPMENT
Has a clear vision of the business, which allows him/her to generate innovative and timely proposals, long before the competition.	Focus his/her work, professional development and own life with the freedom of criteria and creativity, without being attached to preconceptions.	"Perceives the need to give new answers to atypical problems, and strives to provide them on time."
Generates non-traditional projects, with dynamic structures or teams and adaptable to the needs of the business, without being guided by prevailing styles.	He/She is consulted by peers and subordinates, because is recognized for his ability to approach problems or difficulties from new approaches, and may propose unexpected alternative solutions.	Can propose improvements or innovative solutions to simple problems when you have the appropriate time and advice. Some times is difficult to solve situations or problems given.
Design creative business solutions that anticipate the needs of customers and usually surprise and delight them.	Idea and carries out innovative solutions for management problems, clients or their people.	Is intellectually curious, likes to be informed and learn different things, and tries to apply this knowledge if he has a chance.
Leads business groups and is required in professional teams or areas for his contribution of creativity and innovative vision that allows him to solve very complex situations that others have not been able to solve.	Generates habitual discussion spaces and tools that promote the development of new ideas; consult opinions and establish concrete mechanisms for the promotion of continuous improvement, creativity and innovation in its field of action.	He/she has prejudices and preconceptions that influence his way of seeing the issues and that reduce his ability to respond freely and spontaneously.
Promotes a style of management and connection with the dynamic and creative environment and business, providing coaching to its people to work in the same approach.	Trains and develops continuously and is part of teams that work on the development of creativity and innovation.	He/she feels uncomfortable in new situations or in non-traditional contexts or work environments. Repeat ways of doing and thinking without taking into account contextual changes or past experiences.

Source: Created by Daniela Gómez

As the final, but not less important recommendation, in order to help innovation to flourish as a Culture, every O-I's employee should have at least one objective related to Innovation according to his role at the Let's Talk@O-I. This objective defined using the SMART

methodology¹³ (Specific, Measurable, Actionable, Relevant, Time-Bound) is different from the competence evaluation, since it is actually a goal that according to the period of evaluation, the employee will pursue. Once achieved, this objective should change, and it never fails to part of each evaluation, no matter the area or level.

Government Model for Innovation (Innovation Structure)

One of the most important things identified in the benchmarking analysis with the companies' study cases, and also reinforced by Tidd & Bessant (2013) is that an appropriate structure is required to implement a corporate model of innovation. In fact, all the four companies have a defined Innovation structure, but each case is different depending on the needs, world or regional presence, facilities, etc.

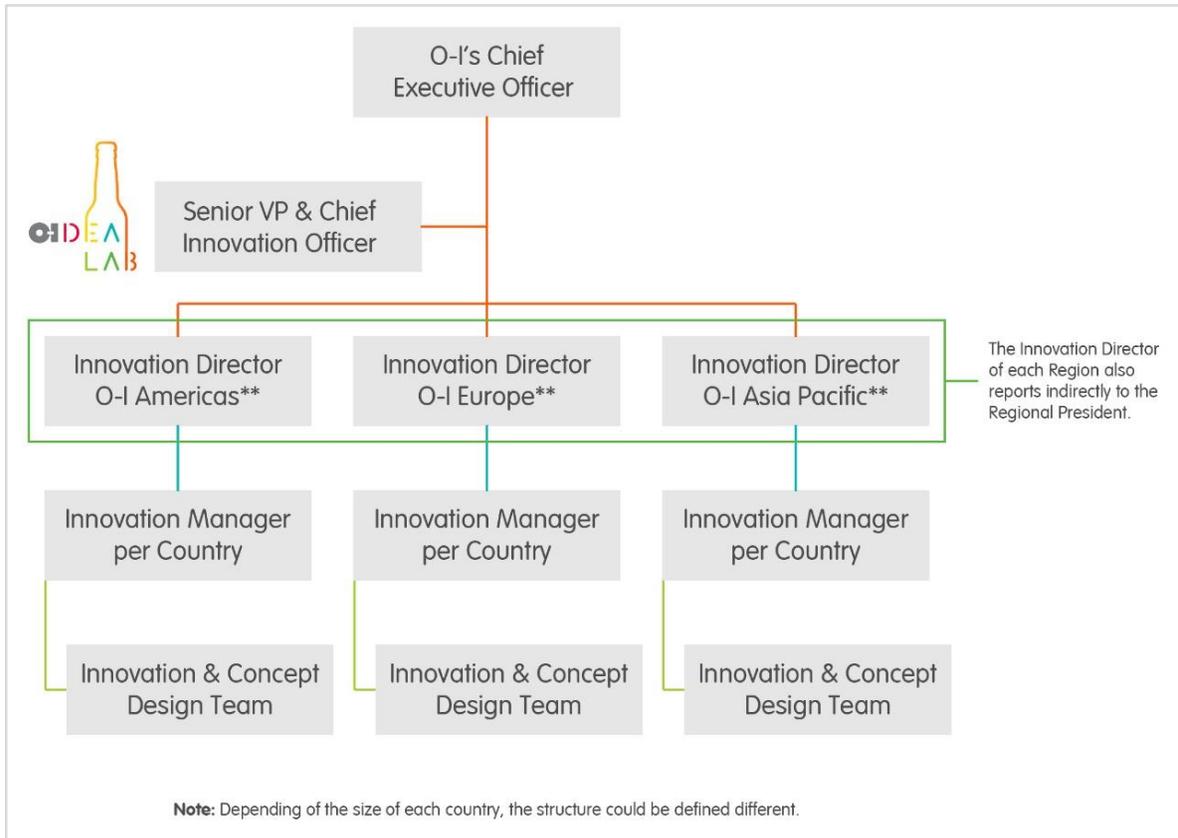
For O-I, this project suggests an Innovation Structure (figure77) that starts with the Global Team (just as the rest of areas at the company such as Marketing, Financial, Operations, etc.). The top position suggested is a Senior Vice President & Chief Innovation Officer (CIO)¹⁴ who plays a key role as "Organizational Sponsor" as it is suggested by Tidd & Bessant, (2013). The Global Product Innovation Team will report directly to this new position, as explained in the Diagnosis Chapter.

As O-I has a structure in each region and country, figure 77 explains the suggested team to manage innovation at O-I and that will ensure the appropriate implementation of this model covering all O-I's regions and countries, limiting the responsibilities and accountability to each operation but guaranteeing a strategy direction. Each Innovation manager per country plays a role of sponsor and guide to the local teams to lead properly Innovation, facilitating the adoption of the culture, the resources management and the successful implementation.

¹³ Methodology created by George T. Doran, to define an objective.

¹⁴ To see the O-I's leadership team go to: <http://www.o-i.com/About-O-I/Leadership/>

Figure 77: O-I's Innovation Structure



Source: Designed by Daniela Gómez

Currently O-I is making an important movement integrating North America and South America into one business: O-I Americas. This means one single region led by Miguel Alvarez as president, which includes the recent acquisitions of operations in Mexico and Bolivia.

Thus, O-I is divided in three regions: O-I Europe, O-I Asia Pacific and O-I Americas.

According to Figure 77, each region should have an Innovation Director, who reports directly to the CEO, but also reports indirectly to the President of the region, who is ultimately responsible for the overall results of each operation. It is important to notice that the structure proposes one **Innovation & Concept Design Team per country** (services that

most of the time are supplied by freelances) and that in Latin America and Colombia demonstrated to work well with customers and that, besides increasing the company's capabilities, generated a highly perceived value for the customers, accelerating the speed of the projects to reach the market, and making more feasible products as this team is led directly by O-I. The use of concept design at O-I LA, started with my role in the company as a Product Manager and due to the **glass smart™** implementation in O-I Colombia.

The structure proposed above has a key role in the implementation of the Corporate Innovation Model: In the first place, this team will facilitate and be at the service of the marketing team in order to support the new business development process from the head of the Marketing and Sales Teams (regionally and per country). Which means **glass smart™** operations.

Also, the Innovation and Concept Design Team will lead the different programs and capabilities for Innovation with the same purpose: Allow Innovation to happen, generate new businesses and deliver and capture high value from innovation.

The Innovation Committee

All O-I's employees should have the opportunity to create and contribute with ideas to build Innovation projects. They should also have the chance to be part of multidisciplinary teams to work on the company's challenges and many other initiatives around the Innovation system.

This is why each region should have an **Innovation Committee**, formed by different regional leaders of O-I. The Committee should meet monthly and according to a specific agenda and be led by the Regional Innovation Director, to make decisions in all matters concerning the O-IDEA LAB: O-I's Innovation Model.

The figure 78 proposes how the Innovation Committee should be structured.

Figure 78: O-I’s Innovation Committee



Note: Depending of the size of each country, the structure of the committee could be defined different.

Source: Designed by Daniela Gómez

The committee should be formed by different leaders of each region where is suggested to include, beside the Innovation Managers per country, the Marketing and Sales VP, the Operations VP (technical) and the three key positions of **glass smart™**: Marketing Manager, Customer Back Manager and Product Manager.

Depending on how each region is structured (there may be some differences between regions) some of the positions recommended could change. However, it is important to consider that the “multidisciplinary” element of this team is highly relevant.

Innovation Promoters

Every employee has the opportunity to become an Innovation Promoter. This is a very important “human resource” at a local level, as each operation requires facilitators that drive innovation in all aspects: projects, competence, creativity, among others.

At the beginning of the O-IDEA LAB Launching, the first Innovation Promoters will appear, once the first training of the O-IDEA LAB – University is completed. This outstanding behavior in innovation could as well be valuable for a career at the in innovation team inside O-I in a future.

Rewarding & Recognition

One of the most important elements of an Innovation Model is how the company rewards and recognizes people's talent and involvement in Innovation.

The O-IDEA LAB needs to include this component, especially because of the company's nature (highly technical manufacturing), which makes it really easy to get lost or just give up in the idea of innovating. It's easy also to get caught in the day by day activities or problems, and forget completely about how to think out of the box.

As a conclusion, to have a rewards system helps a lot the culture of pursuing Innovation.

During the first 3 years of the Model, this project suggests to have the following programs and initiatives in order to accomplish the presented objectives.

O-I DEA Bottle-Points System

This is a very simple rewarding system (figure 79) that allows each employee get "bottles" or points that every year can be transformed into money. Employees will get **bottles** every time they participate in the different Innovation programs according to the annual Innovation Plan. The value (\$) of each **bottle** will be defined by each operation, in the local currency.

Figure 79: O-IDEA LAB Bottle Points System Logo



Source: Designed by Daniela Gómez

To exchange bottles per money is only possible at the end of a calendar year, once the employee completes the performance evaluation Let's Talk @O-I. To be able to change their bottles, employees must have at least a **“meets expectations”** score on the evaluation at the end of the period.

The Innovation Strategy should define in detail this system, however, here we present a proposal to apply to the innovation model, in table 5:

Table 5: O-IDEA LAB Bottle Points Table



PROGRAM	CONDITION	BOTTLES
O-IDEA LAB - Home	Present an Idea on the Platform	
O-IDEA LAB - Home	Get an Idea approved	
O-IDEA LAB - Home	Be part of a team to validate an Idea	
O-IDEA LAB - Home	Get an Idea Implemented	
O-IDEA LAB - Home	Be part of a team that implemented an Idea	
Let's Talk@O-I	Get a "Highly Effective" result on the Innovation Competence	
O-IDEA LAB - University	Get a graduation certificate from the program with a score of 90% or higher	
O-IDEA LAB - Challenge	Be part of a team that solve a challenge	
O-IDEA Innovation Safari	Be part of a team invited to world Innovation Safari	
O-IDEA LAB - Awards	Be a winner of a golden bottle (Innovation Award)	
Global, Regional or Local Awards	If the company or a customer nominates a product result of the O-IDEA LAB program and it wins global, regional or local prize	

Source: Designed by Daniela Gómez

O-I IDEA LAB – Innovation Awards

This is a global annual event where all the greatest innovations of the different countries are awarded (figure 80). This initiative is led by the Global and Regional innovation team and every year the location will change according to the decision of the Global Innovation Committee, after analyzing the Innovation activity and performance of each O-I operation.

Figure 80: O-IDEA LAB Innovation Awards Logo



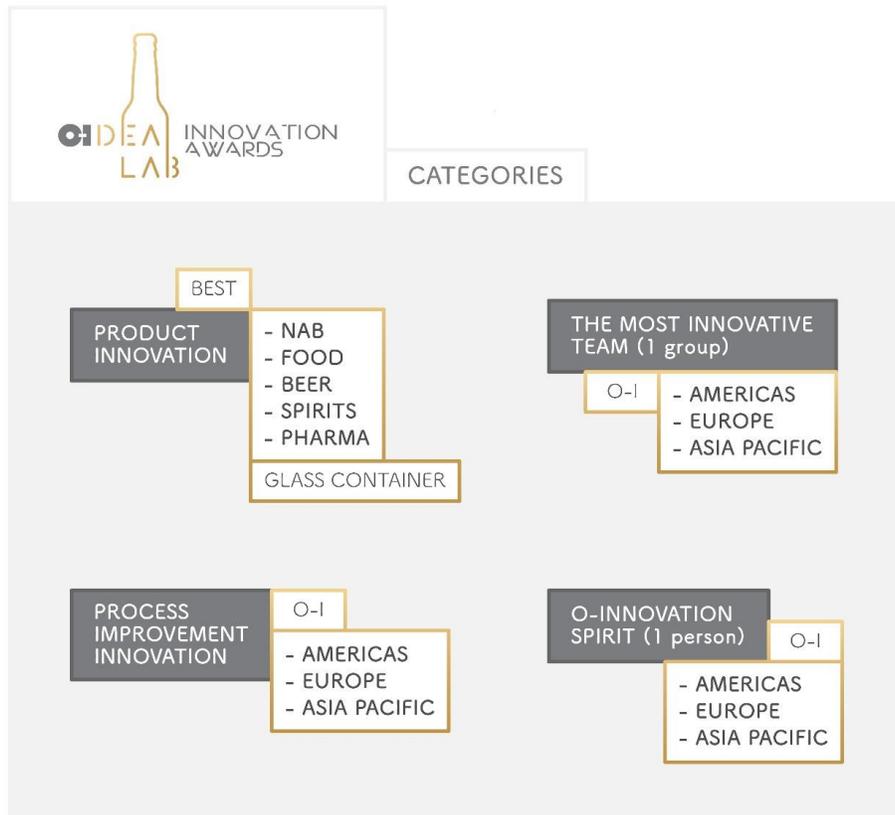
Source: Designed by Daniela Gómez

The winners will get the “Golden Bottle” as a recognition, in each category awarded.

From January to September, O-I’s employees will nominate and vote through the O-IDEA LAB-Home the different available projects. In October, the Global Innovation Committee will define the winners and the nominates and first places will receive an invitation to attend the Gala Event: Flight Tickets and Lodging.

Figure 81 suggests the different categories that will be part of the Innovation Award:

Figure 81: O-IDEA LAB Innovation Awards Categories



Source: Designed by Daniela Gómez

Apart from Product Innovation, other categories are proposed, motivating also the process improvement, the team work performance and the individual Innovation spirit.

For Product Innovation, three projects will be nominated in each O-I Category, such as NAB (non-alcoholic beverages), FOOD, BEER, SPIRITS & PHARMA, and they will be selected from all O-I's regions.

For the other three categories, one winner will be selected per region, chosen by the Innovation Committee according to the Innovation performance throughout the year.

O-I Idea Challenges

Every year, after the Road-Mapping sessions (which will be explained later), different market challenges will be defined. The definition of a market challenge is basically an identified need with a complex level to be resolved and that cannot be worked out by current processes or in a short time, but that can represent a huge achievement for the company and for the customer.

As an example, the spirits market in Latin America has a visible problem with alcohol counterfeiting. The local and government liquor companies struggle every day with this issue. According to Caracol Radio, (2017) 34% of the Spirits in Colombia are counterfeited.

This is clearly a challenge for O-I. To Find a solution to this problem could represent big sales for O-I as well as a barrier to help protect the customer's business.

Whenever there is an O-I Challenge (figure 82), the O-IDEA LAB will be able to nominate a multidisciplinary team with the skills to solve it. This team could be formed at a country or regional level. Another possibility could be for this situation to be seen as an "open" challenge, where any employee or even external people, can apply to provide a solution.

If the challenge is solved in time and form, the team could be rewarded monetarily, or with experiences rewards such as: "[A complete trip to Russia 2018](#)", to mention an example.

Figure 82: O-IDEA Challenges Logo



Source: Designed by Daniela Gómez

4.4 Resources

After the Human Talent priority, the Innovation Model requires some elements that we have called **"Resources"**, to operate properly. This includes basically the different programs or processes that will help Innovation become a reality, and are an essential part of the implementation phase. It is quite easy to say: "We have an Innovation Model", but to get an organization to Innovate, permeate all of its levels and flourish an innovation culture is a different thing, and as it has been mentioned before, a matter of time, patience and perseverance, especially when it comes to the commitment of the leaders of a company.

That is why the following elements have been selected and included in the whole of the process, in order to be implemented with rigor, methodology and strategically.

The different elements that make up the model and are considered the resources, are presented as follows:

O-IDEA LAB – Home

This is the online platform or website of the Innovation strategy to keep the system connected and updated. Through the O-IDEA LAB Home the organization and its employees will have access to:

** News, Information, articles of interest.

** Access to the O-IDEA LAB University to take available courses and surveys to obtain training certificates from it.

** Register an Idea in the system to be evaluated according to the pipeline process.

** **O-IDEA Pipeline:** Where all the ideas are managed according to the process stage. Users can interact, comment and help the Innovator to develop the idea.

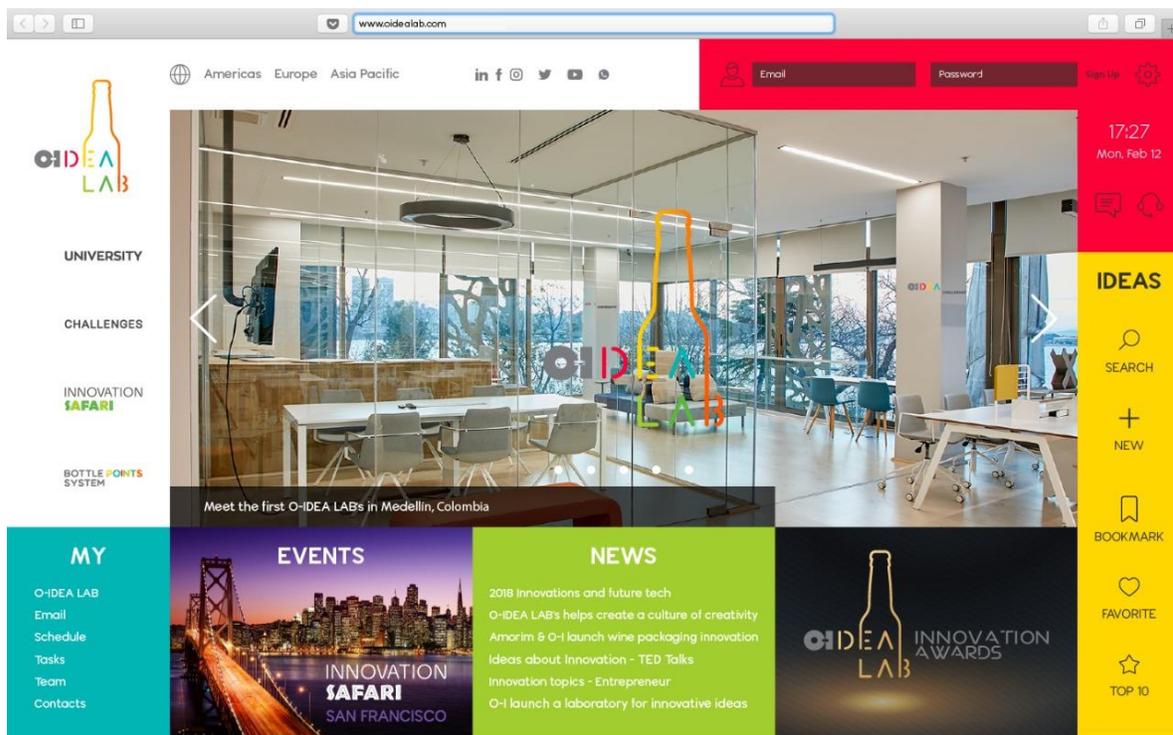
** **The Bottle Points System:** Where users can follow every year how many bottles they have earned across the different programs.

** The **O-IDEA NETWORKS**: Through the Platform, the category Networks will be able to be in touch, upload files, documents or make comments.

** All the different initiatives of the Innovation Model at O-I.

The site will be launched globally, but once in the Home page, the user will select the region to which he is part of and will be able to navigate on the platform across the different options. Figure 83 shows a concept of this space.

Figure 83: O-IDEA LAB Home Layout



Source: Designed by Daniela Gómez

O-IDEA LAB – University

After the O-IDEA LAB launching in every region, the next step is the people’s training. It is important prior to the beginning of all the different innovation programs and initiatives, that all employees complete a basic and simple virtual training about why Innovation matters for O-I, through the O-IDEA LAB University program (figure 84).

Figure 84: O-IDEA LAB University Logo



Source: Designed by Daniela Gómez

Via e-mail, all employees will receive an invitation to complete the program with a username and password to access thorough the O-IDEA LAB home. It is a requirement to have completed and passed the program to participate in the different programs of O-IDEA LAB system. In other words, every O-I's employee must complete Innovation University. The 85 figure shows the different proposed modules and topics.

Figure 85: O-IDEA LAB University program



Source: Designed by Daniela Gómez

After completing each module, the employee will receive a survey that should be passed with at least an 80% score to move on to the next one. After completing the 4th module with

90% or more on the total score, the employee will receive the first “2 Bottles” on the reward system and a diploma or certification. The employee will receive also a quick Challenge Invitation to wake-up their creativity and get more “Bottles” if completed.

O-IDEA LAB’s: Creative spaces for everybody

The O-IDEA LAB’s are creativity rooms (figure 86). Each O-I office or location should have one. These are inspiration spaces to let ideas fly. The room will have “free places” for any employee who needs it to work in new ideas. There will be tables for innovation meetings and customers and other external teams could be invited too.

The Labs will have members from the **Innovation Team** facilitating their use, managing the different available tools and resources.

Inside the Labs, the **design thinking sessions** will take place, as well as design and innovation discussions, brain-storming sessions and in general all the different activities scheduled by the Innovation Team.

These will be the spaces to run the Road-Mapping sessions also.

Figure 86: O-IDEA LAB’s concept



Source: Kadikoy Municipality of Istanbul, (2018). IDEA is the new public co-working area of Istanbul. [online]. Retrieved from <https://www.behance.net/gallery/63674805/IDEA-KADIKOEY-CO-WORKING-SPACE-INTERIOR-DESIGN> and adapted by Daniela Gómez

O-IDEA NETWORKS: Talents Connected

About networks Tidd & Bessant (2013) mentioned that Smart firms have always recognized the importance of linkages and connections, getting close to customers to understand their needs, working with suppliers to deliver innovative solutions, linking up with collaborators, research centers, even competitors to build and operate innovation systems. This networks becomes the key requirement for innovation.

In O-I's model, each market category of O-I will have an O-IDEA NETWORK team (FOOD; NAB, BERR, SPIRITS) formed by people from Marketing & Sales, Design & Innovation, and other areas in order to share, discuss and work on different matters or even challenges regarding Innovation in their categories. In this space, best practices or successful cases will be shared and they can even be replicated in other countries once presented. The Network will meet each month through a teleconference call and once a year in person to attend a category related event: a fair, congress, conference, seminary or other, previously approved by the Regional Innovation Committee and which can certainly add value to the organization. As a result, each O-I Network has to share an annual brief report of the valuable activities of the year, successful cases, practices and other experiences that can be shared across the company.

As an example, when I was part of O-I Colombia, we started to have a Networking meeting with the design teams of all regions as own initiative. After several months of conference calls and meetings we have the chance to attend the HOW DESIGN LIVE in Boston, US. This was a really worthy experience for all of us: we met our colleagues, exchange a cultural experience as well as part of our ideas, challenges and projects. This is what O-IDEA Networks is about.

Innovation is increasingly about teamwork and the creative combination of different disciplines and perspectives. Success come from people working together in high performance teams. (Tidd & Bessant, 2013)

O-IDEA Innovation Days

The Innovation days (as well called “engagements”) are a methodology to work on ideas and innovations with customers, that I started with the team in O-I Colombia around 2012 as part of the **glass smart™** implementation. We designed and performed some of the Innovation days with major and key customers such as SABMiller, POSTOBON, COCA COLA, NESTLE, among others; obtaining great results and impact on customers and moving forward O-I Driven projects on pipeline to achieve the strategy. This project proposed to implement Innovation Days with customers but as a formal program in the model in all countries and regions once the models gets into Phase 2.

An O-IDEA INNOVATION DAY will include design thinking sessions along customer’s teams and O-I’s teams to co-create as well as to present, according to their categories and brands, tailored solutions giving shape to different opportunities previously identified that O-I pretends to shape into projects on the O-IDEA pipeline with the customer, and that can represent additional sales for glass.

4.5 Culture

The culture is the third and last priority of the O-I’s Innovation Model. Talking about culture sounds easy sometimes, but it is the most difficult challenge for any company when it comes to Innovation.

As explained before, the Innovation Culture is the result of a very well implemented system or model, which is just the purpose of this project.

The Culture priority starts with the [inclusion of Innovation as a core priority in the global strategy](#), passing on to the regional strategies formulations. It starts with a visible [leadership commitment to innovation](#) from the top, and moving on to all areas and teams, as one of the most important factors to embed it.

glass smart™ as a business model to generate new opportunities, is the umbrella for Innovation and plays a key role on this priority. With **glass smart™** the objective is to get O-I glass closer to consumers and be a real brand-builder, delivering high value for O-I's customers.

It is time to Innovate

As a company policy and following the steps of 3M, all O-I's employees will have the chance to spend between 6 to 8 hours per week of their working time to invest in Innovation. This means that by looking for new ideas and projects on the O-IDEA Pipeline, everybody will have the opportunity to be part of the system. Here, the O-IDEA LAB is ready to receive all those with ideas to develop, and the Innovation team would assist persons or groups that are on the innovation mood every day.

O-IDEA Innovation Safaris

If there is something that can be used to the fullest in this process of Innovation in O-I, is its multiculturalism, the different markets in which glass is present today and the global presence of the company. Taking the idea from an initiative or a program of the department of Product Design Engineering of EAFIT University (with a similar purpose) and from the fact that one of the most motivating things for an employee at O-I specially, is to travel, meet new places and people, this project proposed the O-IDEA Innovation Safaris (figure 87).

Figure 87: O-IDEA Innovation Safari Logo



Source: Designed by Daniela Gómez

The SAFARIS are planned to start during the second year (PHASE 2) and also to be considered as a “prize” for Innovators (people and teams with outstanding performance at the O-IDEA LAB), which is an attractive opportunity to have a complete experience around Innovation in O-I.

An **O-IDEA Safari** through the Innovation Team, should define a city where O-I has operations (offices and a manufacturing plant), tickets and lodging for all the attendees, and an agenda that includes:

** A guided visit to O-I’s offices and facilities, and team meetings.

** A city tour from a cultural perspective: architecture, museums, iconic places, etc.

** A market dive-in, to understand distribution channels and the different category dynamics where O-I’s glass is present (similar to an exercise we developed in O-I Colombia with the global team in October 2013), as well as launches to the market that can be good benchmarks for the rest of the operations.

** Visits to key customer’s facilities to get to know their reality, projects, production plants and challenges from a closer point of view.

As an objective, there should be between one and two O-IDEA Safaris every year.

Metrics & Results

Once the O-IDEA LAB starts, after the first year, the **Innovation Promoters** will be introduced. This is another key measure of a culture obtaining results. As more O-I’s employees engage with the program, the more promoters there should be. In parallel, the Innovation Pipeline should grow as more and more employees start getting bottles as part of a **high-involvement innovation activity**. (Tidd & Bessant, 2013)

Customers need to engage with O-IDEA LAB too, since the final purpose is to deliver value to them. Phase 2, where the implementation starts, considers a launching for key customers to introduce the new corporate Innovation model of O-I. However, this should not occur at the beginning of the process, since a certain advance in the process is required.

To ensure well defined metrics in and after the process is really a very important part of a Corporate Innovation Model. As a matter of fact, if we remember the study cases of the previous chapter all companies have well defined metrics to measure Innovation Results.

Figure 88 explains the metric scheme proposed for the O-IDEA LAB model.

For O-IDEA LAB, this project proposes two kind of metrics: the first group are metrics of the progress of the Innovation process, and the second group are direct impacts that should become visible in some of the current figures for any company such as sales, launches, etc.

Regarding the Innovation Process, the model suggests to measure the Ideas Received and manage on the pipeline according to the **glass smart™** process, as well as Type of Ideas Implemented. It suggests as well to measure Innovation Promoters and People Trained on the O-IDEA LAB University.

The O-IDEA Challenges (created and resolved) along with the measure of the “bottles” earned should be included too.

Regarding the company overall results, after Innovation Implementation, the model suggests to measure: Sales Per Innovation, O-IDEA Launches, EBITDA Per Innovation, as well as Market Share of Glass per Category. (figure 88).

The metrics should be measured by country and then consolidated by region. Both, countries and regions will have the same defined metrics. As W. Edwards Deming said: “If you don’t measure it you can’t improve it”. (Tidd & Bessant, 2013).

Figure 88: O-IDEA LAB – Metrics & Results

INNOVATION METRICS (COUNTRY – REGION)

FROM THE PROCESS

TOTAL IDEAS RECEIVED



TYPE OF IDEAS IMPLEMENTED



INNOVATION PROMOTERS



PEOPLE TRAINED (O-IDEA LAB UNIVERSITY)



O-IDEA CHALLENGES

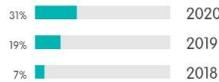


BOTTLE POINTS EARNED

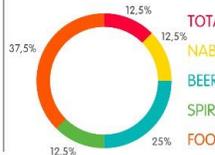


FROM THE OVERALL RESULTS

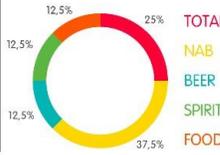
SALES PER INNOVATION



MARKET SHARE OF GLASS



O-IDEA LAUNCHES 2020



EBITDA PER INNOVATION



Note: The numbers used on the infographic for the metrics are only an example.

Source: Designed by Daniela Gómez

4.6 Finally, how does the Innovation Process for the O-IDEA LAB work?

Once the model and its different elements have been explained, it is important to understand the Innovation process designed and how this is related and connected to **glass smart™**.

As it is suggested by Tidd & Bessant, (2013): The model of innovation has four key phases. 1) It starts searching and bringing new ideas to the system. 2) Then select from that set of options the variants most likely to help to grow and develop: which choices give the best

chance of standing out from the crowd? 3) Next phase is implementation, converting ideas into reality.

The O-IDEA LAB process proposed starts with a Fuzzy Front End (FFE) stage (Koen et al. 2007) where all the different activities to identify the opportunities to Innovate are developed. In this part of the process we found the annual Road-Mapping Sessions, The O-IDEA Networks, as well as the market researches (quantitative and qualitative) to validate those opportunities and then take the decision to develop a new product. At the FFE stage is where the employees identify and define their ideas as opportunities prior to make the decision to register them at the O-IDEA LAB Home.

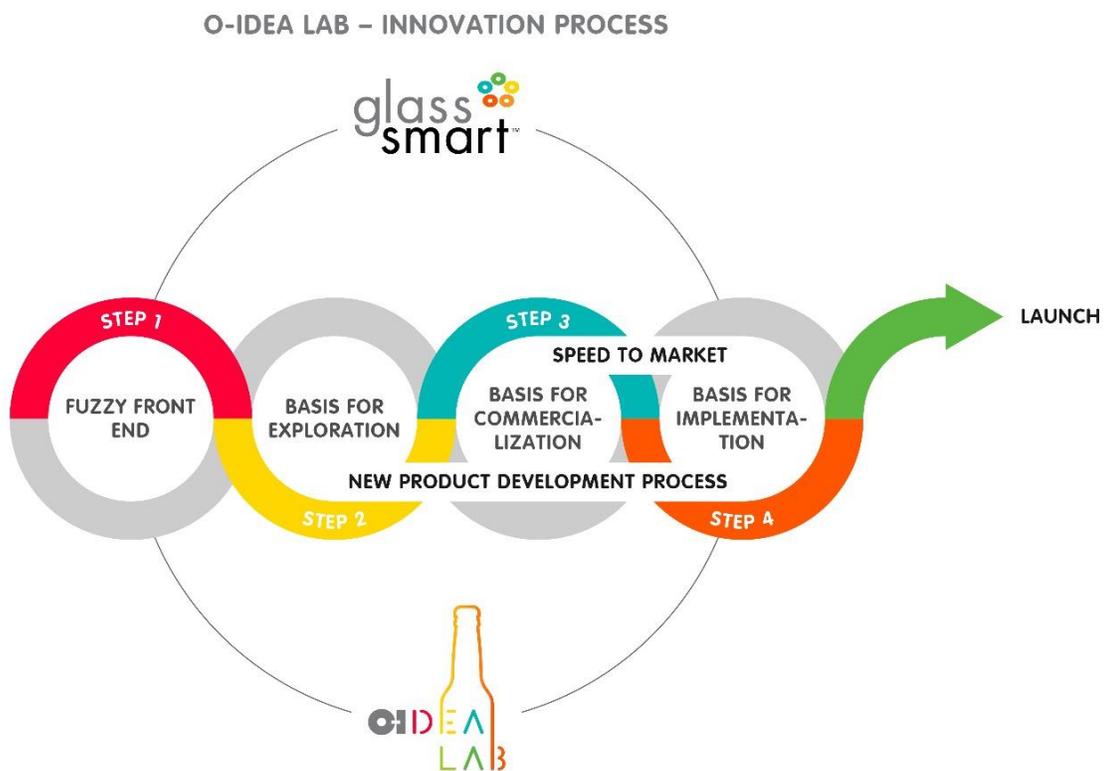
When an opportunity is identified, even if it is by the Marketing & Sales Team, the customer or an employee, it should be evaluated through methodology before defining a [New Product Development](#). This is very well explained in the **glass smart™** process designed by my role in 2015 and is the defined path for every time an idea is registered at the Innovation Platform (O-IDEA Home). To see the complete **glass smart™** process designed, review **Annex 5**.

The **glass smart™** process for the generation of new businesses suggested three main stages:

1. **Basis for Exploration:** Once an idea is defined as a potential opportunity, the process starts, where an idea is explored from three perspectives: The Market, The Customer Facilities and O-I's capabilities. If the idea is feasible, a strategic brief will be created to continue with the next step. Here a set of activities are developed, associated with preparing the market into which it will be launched. It involves collecting information on actual or anticipated customer needs and feeding this into the product development process, whilst simultaneously preparing the marketplace and marketing for the new product. (Tidd & Bessant, 2013)
2. **Basis for Commercialization:** Here the **glass smart™** team at marketing, prepare a complete business case that can be presented to one or more customers in order to get their approval and continue with the implementation.

3. **Basis for Implementation:** The last part of the process defines all the aspects of the product, especially technical, considering not only the customer’s facilities but also O-I’s, as well as testing and prototyping in order to validate a product prior to launching. Once the project has been validated and passes this stage, it is ready to be launched into the market. Figure 89 presents the complete O-IDEA LAB Innovation process that will guide the entire work under **glass smart™** as it has been proposed along this report.

Figure 89: O-IDEA LAB Innovation Process



Source: Designed by Daniela Gómez

As a conclusion before moving to Phase 2, the **O-IDEA LAB** is a holistic and integral approach to manage innovation as one of the core priorities of O-I’s strategy in order to create a complete environment and a suitable **Culture** to get the best of the **Human Talent**

of the organization in order to achieve the expected results declared in the strategy, creating a complete model with the appropriate **Resources**.

The next part will be dedicated to the explanation of how to build the Innovation Annual plan and the proposal of how to perform PHASE 2: Implementing Innovation.

4.7 The Annual Innovation Plan proposal

The methodology of the O-IDEA LAB model proposed that during the last months of every year, the company must start preparing the annual plan for Innovation.

It is always important to have a plan: clear objectives and to guarantee all the activities and initiatives are scheduled accordingly along the next year in order to define a scope and how the objectives are going to be achieved, as well as to prepare a budget.

The regional Innovation Directors are the ones who will lead and prepare the Annual Innovation Plan with each team, but in order to do so, this Model suggests an easy tool designed that will help to have the same process around the three regions and of course consolidate one plan faster. The Annual Innovation tool developed and proposed is the **Annex 6**.

Road-Mapping sessions

At O-I, as it has been identified and explained before, the big opportunity is to work in Innovation by analyzing the market challenges and identifying where the greatest value for our customers could be, their final consumers and the business. Innovations should be pulled by the market.

The Regional innovation team has a big responsibility and task, preparing and leading every year **The Road Mapping Sessions**. This is a guided way of “work” per category (NAB, BEER, FOOD, SPIRITS) where according to an agenda, different activities take place in order to analyze the categories, the market researches and data, listen to the voice of our

customers through our marketing & sales teams and create the opportunities on which the plan will be based the following year to generate new businesses.

The suggestion is to invite several multidisciplinary teams according to each category with people from:

** O-I's Marketing & Sales from different countries

** O-I's Manufacturing & Quality from different countries

** O-I's Supply Chain from different countries

** O-I's Innovation & Design Team from different countries

** Customers (people from marketing of our most strategical customers).

** Consumers of the Category on agenda (

** Suppliers: Molds, labels, caps, etc.

** At least one person of the rest of O-I's areas to each session such as: Financial, Human Resources, etc.; looking for a mix that allows that different people from the O-I's countries can attend the different category sessions.

As Tidd & Bessant (2013) suggested: Understanding user needs has always been a critical determinant of innovation success and one way of achieving this is by [bringing users into the loop at a much earlier stage, a co-evolution of innovation with users.](#)

Using Design Thinking¹⁵ tools and other techniques, the Innovation Team will guide the group through different activities and at the end of the day we will have a pipeline of opportunities that later will be analyzed, evaluated and prioritized by the Regional Innovation Committee to build the Annual Plan.

¹⁵ To know more about Design Thinking we suggest: "Design Thinking en español": <http://www.designthinking.es/home/index.php>

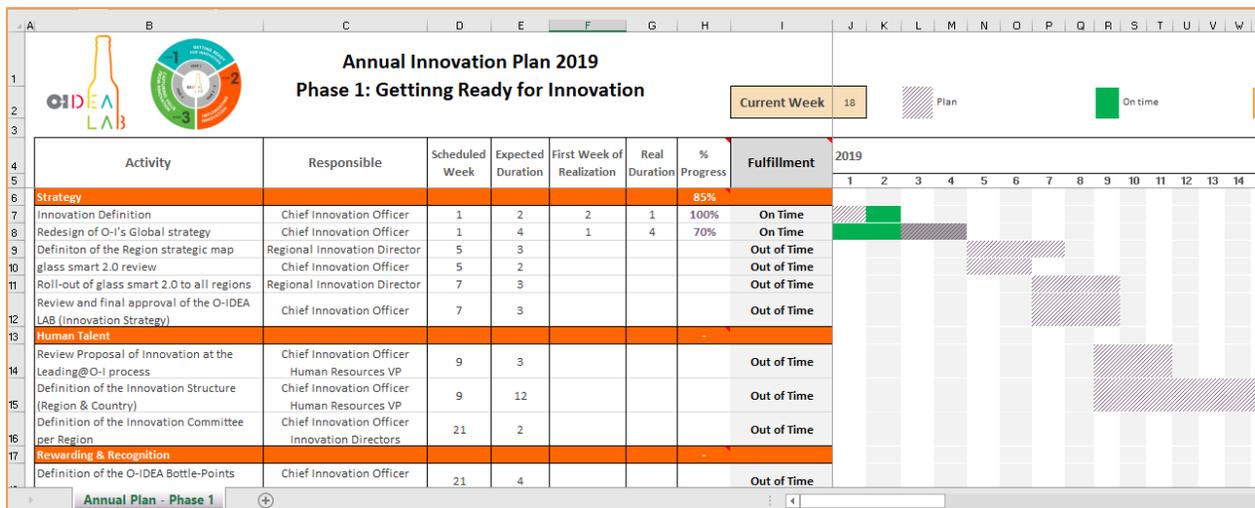
Market Analysis from the Road Mapping Sessions

The Regional Innovation Team will meet to analyze in detail the results of each Road Mapping session and will prepare a report to be presented to the Innovation Committee. Here all the big opportunities will be evaluated in terms of potential, opportunity to cover more than one country or customer, level of difficulty, possibly required investment, among others.

After reviewing the report, the Regional Innovation Committee, will define priorities and key areas to work on the annual plan (the format suggested to compile and work out the Annual Plan is in **Annex 6**). The Innovation team should schedule the next year of Innovation by week, defining clear activities and deliverables, as well as the people responsible for it.

Figure 90 shows the Innovation Plan of PHASE 1 (Getting Ready for Innovation), where all the topics and initiatives appointed in this chapter are coordinated to achieve the objectives and prepare the organization for Innovation.

Figure 90: Innovation Annual Plan of PHASE 1



Source: Designed by Daniela Gómez

4.8 Phase 2: Implementing Innovation

Once the company has been prepared for Innovation and each of the elements of the model are well defined as explained in the previous section, it's time for implementation. Let's remember that Phase 1 was proposed to last one year and now Phase 2 should occur through the following two years before O-I can start to obtain value directly from Innovation.

O-IDEA LAB Launching

Prior to the beginning of the implementation and to give the appropriate importance to the program, the project suggests to develop a Launching with a "Road-Show" across all regions and countries of O-I. This idea of the Road-Shows has been used before in O-I, especially in O-I LA, where as an example, the regional president visits each country to communicate or launch any important process or program for the organization.

Here, the proposal is to design and prepare a big event per country to launch the O-IDEA LAB:

** The Global and Regional Innovation Team will travel to each country with a one-day agenda to launch de O-IDEA LAB Model. The attendees will have the opportunity to hear directly from their leaders how the Global Strategy has been defined and how it connects with the regional country objectives.

** The Human Resources strategy that connects the Innovation with the Individual performance needs to be part of the agenda too.

** Each of the programs and resources of the O-IDEA LAB will be explained in detail in a practical or theoretical way.

A different place such an auditorium or a Hotel Conference room can be the place for the main event. This launching event needs to be very emotional, inspiring and engaging for the employees and needs to be planned taking care of every single detail.

The Road-Shows are certainly going to be a marathon for their organizers, as they need to be performed and completed as soon as possible to start the real day by day process according to the plan.

The Road-Mapping Sessions Results & the Annual Plan

It is important to remember that these sessions were developed at the end of Phase 1, prior to building the annual plan currently in process. One of the most important points of the Road-Show is to communicate the biggest results and the prioritization given to all the opportunities identified and that are now part of the Innovation Annual Plan. The entire organization should be aware of the full content of the Annual Plan.

Employees' Innovation training

Once each country is visited, the access to the O-IDEA LAB Home needs to be available and the assignments to all people need to be quick in order to complete the training program of the O-IDEA LAB University.

The goal is that [during the first three months of the second year \(Phase 2\), O-I is able to achieve at least 50%](#) of the employees' global full training and preparation process to innovate. It is important also to present the rewards and recognition system, how it works, and its potential, if there is an active participation.

Participation Begins

After the training and step by step, the first Innovators are expected to appear at the O-IDEA LABs (which should be already operational) as well as the first new ideas at the O-IDEA Home. During the introduction of the innovation system, a close follow-up and communication support is required in order to ensure people's involvement.

The Innovation Pipeline should start operating by the fourth or fifth month, and it is expected to have at least 20 ideas per country already in process in that moment.

As a strategy to push a high Involvement towards innovation and promote the culture development, during its first months of operation the O-IDEA LAB Model will announce the date for the following events:

1. **The First O-IDEA INOVATION SAFARI per region:** The best scores on the O-IDEA LAB UNIVERSITY will be called to a quick O-IDEA Challenge. Formed in groups, previously defined by the Innovation Committee, the employees will have one month to solve it. The Best two teams will go on the mission to discover more innovation overseas! The final destination for the SAFARI will be chosen and announced by the committee at the beginning of the communication, and as a general rule, this time it should be in a country of a different region for each case.

2. **The O-IDEA LAB Launching for Customers:** Using a format similar to the Road-Show, each country will invite the customers to know about O-I's Innovation: Programs, Resources and how they can be part of it. This event is suggested to have place after the first six months of operations of the O-IDEA LAB internally, in order to prepare the different teams and key areas to Innovate.

3. **The first two O-IDEA Innovation Days:** Two customers per country need to be selected depending on their strategic position and potential for O-I, according to the strategic plan of the Marketing & Sales team. The planning, preparation and Implementation will be in charge of the marketing team and the first Innovation Promoters will be involved in the entire process.

Annex 7 compiles all the graphic design proposal developed for the O-IDEA LAB image.

4.9 How is this project proposal concluded?

According to the plan, years 2 and 3 are for implementation. This means that once year 2 is close to end, the Innovation team should get the first metrics per country in order to review results and then consolidate them by region.

It is suggested to run an Internal Survey in order to have feedback of the process from its principal actors: The employees. The results of the survey, along with the metrics of the first year, can be socialized in living sessions per country and the Innovation Team can obtain important learning analysis to adjust the strategy and build the Plan for year 3 according to the results and the compiled information. It's worth doing this because the knowledge

gained through such reflection can provide a powerful resource to help with the next innovation journey. (Tidd & Bessant, 2013)

The regional Innovation Team and the committee will meet annually in order to review the overall results, redefine the strategy if required, define action plans and close the year to be able to have the drivers and directions for the next Annual Innovation Plan.

Once Phase 1 and Phase 2 are completed (first two years of the process) and the Model is working properly in the entire organization, is expected that O-I can start: [CAPTURING VALUE FOR INNOVATION](#).

As mentioned before, Innovation is a system that reinvents itself all the time and continuously. Amongst the main requirements in this stage is the willingness to learn from completed projects. (Tidd & Bessant, 2013)

Finally the expectation of this work and project is to make a real contribution to O-I. It would be an honor that this proposal or some of its initiatives become a reality and hopefully these months of research, analysis and work could have tangible and positive effect for organization, helping to design and deliver brand-building glass containers all over the world.

5. Conclusions & Recommendations

- In a general perspective, this Corporate Innovation Model proposal, as it was declared at the beginning of this work, responds to an identified need in O-I while I was part of the team of Marketing & Sales at O-I Colombia playing a role as Product Manager and leading the Innovation in Latin America. The final result is a mix of components analyzed along the chapters and crossed with the opportunities identified in the diagnosis. The study cases and the book of Tidd & Bessant (2013) were the most important inputs to find the different elements and best practices that finally were used to proposed the O-IDEA LAB. At the end, the real context of the companies studied and practical cases played a key role in the strategy defined as considering only theory could not be the most suitable alternative for O-I.
- The analysis of the Innovation status at O-I (diagnosis), explained in Chapter 1, was the exercise that promoted and leveraged the development of the entire project and the following chapters. This work was done while I was still part of O-I's team and had the opportunity to complete this chapter from the inside of the company allowed me to have a lot of detail and privilege information from primary sources as well as consider my own experience in the process. It took several months complete it, but at the end all this job was worthy as it was used as well by the VP of Marketing and Business Development of Latin America to proposed the strategic plan for the region in 2014.
- According to the objectives proposed, it was decided to start first with the benchmark and study cases of other companies already with Innovation strategies and models implemented. It was analyzed that this part of the process could have a bigger impact just after the diagnosis as it could allow me to compare the opportunities and gaps identified with real cases and demonstrate how other companies are doing it. It could certainly be motivator and useful to have referents of what other companies of similar characteristics are doing towards Innovation to make the decision start. It is also a reality, that Innovation could help companies not only to achieve its objectives, but also to be sustainable in time

and keep growing or even to gain a better market share position. The companies selected were appropriate and really good examples also in the overall strategy.

- Regarding the theoretical research, it was decided to focus the research on Tidd & Besant, (2013) and their book *Managing Innovation*, consider one of the most important and recent literature in Corporate Innovation Management. The entire book was read and analyzed, selecting the most important elements and topics that could be useful for O-I leaders, developing infographics of this information to allow an easier and entertained way acquired this knowledge. The chapters and information selected were the most relevant to complement the benchmark analysis of the companies and being able to have a complete theoretical and practical framework for the proposal. The initial objective pretended to evaluate multiple sources regarding Innovation theory, however it was not considered necessary and even practical, as Tidd & Bessant have their book with a very complete scope and were highly recommended by the tutor as well as other academic sources.

- In my working experience, even after leaving O-I, I have proved that today it is almost unthinkable that a big or multinational company does not know or consider innovation as a process to achieve its corporate goals. Also Innovation, little by little, is becoming a “must” for companies of any nature and size. All of them within the reach of their possibilities can Innovate and have the best source to do it: Their employees.

- Talking about my personal experience during this project, I would say it was a whole Innovation Experience itself. Imagine a scenario in which a company that I was once a part of, and from which I inherited the love for glass, makes me feel a part of it again. Actually and truly honest, it makes me imagine myself being part of the implementation of making this dream come true. I believe in Innovation just as I believe in glass. I am completely sure that O-I glass can make Innovation happen.

- With my current experience in consultancy, Innovation does not only refer to final products. It is possible, it is necessary, to submit all the matters of a company to the innovation process: planning, control of processes, final products, production, human resources, financial, marketing & media, transport, everything. In short, nothing is

forbidden to offer a dynamic look, adaptable to the times and eager to go one step ahead of the changes of business life.

- One of the biggest learnings in this process is that Innovation requires, with rigor, the participation of a human group. Everyone in the area of influence and interest, from the initial idea, through its implementation and placement in the consumer scene, can bring innovation. Companies need to learn how to capture value from that, because there are the answers or solutions to many challenges.
- Finally, as a recommendation: It is important for O-I to find a group of leaders willing to Innovate. It is not easy, but is not impossible and if this work has the chance to become a reality, the company should be aware that taking into account one or two ideas will not make a company Innovative. Consider the 7 components suggested by Tidd & Besant (2013), look at the study cases and even research more, but above all: Make Innovation a core and strategic priority for the leaders and for the global strategy.

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