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CriaLab at University - Environment co-promotion of creativity in Science and Technology Parks:

The case TECNOPUC / PUCRS

PARALLEL 3
Making STPs liveable and lovable

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Summary

This article presents the company statutes of the firm *CriaLab – Laboratório de Criatividade do Tecnopuc (Parque Científico e Tecnológico da PUCRS)* - CriaLab – the Tecnopuc Creativity Laboratory (of the PUCRS Scientific and Technological Park) associated more specifically with the Centre of Innovation. Founded recently – in 2011 – it is a space dedicated to the development of Creative Dialog, wherein individuals - and the companies/institutions they represent - can present their ideas, define problems, debate, negotiate, consider and create strategies to resolve difficulties while working in an environment that favours the creative processes (thus benefiting both society and business), and assist in the solution of complex problems by interactions with the various knowledge bases.

The first part presents the context, its concepts and principles followed by the theoretical foundation, the methodologies applied and the infrastructures available, as well as the prospects for the future. Finally, the partnerships, workshops and projects developed are described and the perspectives for possible developments in an environment of permanent innovation are considered.

1. Brazilian Context

Economically, in comparison with the rest of the world, the present moment is favourable for Brazil. Three phenomena are decisive in this context: (i) the long period of monetary stability experienced since the 90s; (ii) the increase in internal demand fuelled by the improvement in domestic income distribution and (iii) the constant growth of the international prices for exportation of the commodities that are the foundation of Brazil´s foreign trade. Despite this positive outlook, the development model observed demonstrates that important incipient fragilities will worsen if steps are not taken to add value to the economy, to improve income distribution for the entire population and to give greater attention to the relevant environmental aspects. This requires an

enormous effort by the society to develop solutions that are creative and innovative and which meet the challenges of sustainability – in its wider sense – using the human, physical, and financial resources available to this end.

2. Description of the Tecnopuc environment

A good portion of this complex scene is being handled energetically in dedicated spaces or areas known as Technology Parks, where expert contributions from academia, government and the market are aggregated in line with the requirements of business and based on the development of new technologies and innovation processes, products and services. The Triple Helix, configured by Hetzcovitz, is at its most dynamic when operated within the ecosystem of a Science and Technology Park (STP), such as Tecnopuc.

Considered one of the most important STPs in Brazil, Tecnopuc is composed of more than 5,500 people engaged in RD&I, and distributed in more than 80 companies, class associations and research laboratories, in two locations: the first, in the municipality of Porto Alegre and the second in Viamão, about 20 miles from Porto Alegre. In this environment, creativity is the key factor for developing innovative actions that ensure the ongoing development of its activities.

3. The CriaLab concept.

To meet this challenge the Creativity Laboratory (CriaLab), was designed and constructed within the Tecnopuc area and the new buildings were inaugurated in August 2011.

Briefly, the CriaLab is a space for dialogue so that persons and the companies/institutions they represent can share ideas, define problems, discuss, debate, negotiate, consider and develop strategies for problem solving, acting to accelerate the relevant creative process (that adds value to society and to the business) and to solve complex problems through interactions with the different areas of knowledge. This process is distributed in the areas of research (consideration of the creative phenomenon, in a creative manner - meta-creativity), education (development of innovative teaching practices) and extension (consultants and development of specific projects). Structurally, the CriaLab is constituted around three axes: **peopleware** (the action of the lab is focused on people and their ways of building relationships), **software** (fluid and dynamic interaction processes, using search technologies and storage information for the construction and materialization of connections through the development of collaborative mind maps) and **hardware** (modular environment, which enables movement, interaction, informality, welfare and use of equipment interaction, communication, record, allowing multiple accesses to the knowledge bases).

This combination of factors - highly articulated amongst themselves - are fundamental for the promotion of the social integration of the University with its scientific community, business and political environment, attracting new resources, encouraging new partnerships with other educational institutions and technology companies via strong links of interdisciplinary intervention.

Therefore, the objectives of CriaLab include: encouraging interdisciplinary connections between innovation and entrepreneurship and the resulting synergy and commitment between the people/interested parties; developing the cooperative spirit, characterized by the definition and systematization of joint actions; and encouraging problem definition and the solution of complex problems through a systemic orientation, capable of generating new business and knowledge.

The CriaLab is inspired in three distinct spaces, above all, temporally, but has as one of the links, meetings between different people in search of answers to and considerations of emerging issues of their time. Therefore, in the model proposed in this paper, there is no way to separate the three elements essential for the growth of creative and innovative thinking: environment, people and ideas.

Currently, there is a lot of commentary about the positive effect interdisciplinary meetings exert as an ideal locus for the emergence of trans-disciplinary phenomena. In an extremely complex world with enormous accumulation of specific knowledge, it falls to the University to redeem the sense of synthesis -understood here as the sum of the individual parts - the pursuit of dialogue between the different elements, the dialectic clash, and the formation of consensus, even if illusory and ephemeral. To provide people with a space in which to exercise their capacity to think - a space constructed with respect and dialogue with that which is different - is to restore the spirit of universality in the search for innovative and creative responses to the challenges of present and future times.

It is interesting to refer at this point, to Steven Johnsons' contribution when he sketched out seven patterns of innovation derived from the analysis of important inventions in the last seven hundred years, passing by the Darwinian Theory and the emergence of the web in his latest book: *"Where the good ideas come from "*. For this author, the densely populated environment of people and ideas is one of the explanations for why relevant innovations flourish.It is likewise of interest to recall some ancient history and see that civilization provides some instances of this process taking place in outstanding places. In Greek history one reads of the Oracle of Apollo, in Delphi, where people from all over ancient Greece, including kings and generals, went to predict the future. This Oracle was consulted in advance about every decision to be made, whether to wage a deadly war or peacefully to plant crops. According to the custom the question was put to the priestess of the Oracle, who, having fallen into a deep trance, was supposed to receive the power of knowing the secrets of the gods and thus could provide the petitioner with a prophetic answer. As the reputation of the Oracle spread, the City of Delphi also began to prosper politically and eventually grew into region of immense authority and wealth. The Delphic Oracle exerted its influence for over a thousand years, until, in 393 AD it was abolished completely by the Emperor Theodosius, who made Christianity the official religion of the Byzantine Empire.

The second inspiration goes back to the Italian Renaissance of the fourteenth and sixteenth centuries, which was centered in the region of Tuscany, and had the City of Florence as the major focus. This city had

concentrated the major artists, scientists and thinkers of the time, such as Leonardo Da Vinci, Michelangelo, Machiavelli, Petraca, Botticelli, Raphael and many others. So great was the production of knowledge and technology that the achievements of this epoch serve as the historical reference for the transition from the Middle to the Modern Age. At that time the principle ideas flowered in a fertile environment of intense learning. One of the most important informal spaces of creation were the *"botegas"* or coffee and wine shops where students came after the conventional school hours, to discuss and accompany their master's latest creations, in their own "studios", discussing trends, assisting in the development of projects, interacting informally between theory and practice.

More recently, but inspired by that same Renaissance period, the Italian sociologist Domenico De Masi,[1] while seeking answers about the fascinating process of creativity, concluded that the soul of creative organization is fantasy and concreteness, enthusiasm and vision, identity and universality, idle reflection and fruitful vitality, also imagination, tension in the direction of the future, respect for roots and responsibility with nature. Twelve years ago, Domenico de Masi, together with the French sociologist Alain Touraine and the American sociologists Daniel Bell and Alvin Toffler (author of the bestseller "The Third Wave") founded the *S3 Studium* in Rome, for the purpose of discussing, among other matters, the future of work and human creativity.

The first lesson one learns on entering the S3 is that the environment is fundamental to creativity: *"Only the superficial do not believe in appearance."* De Masi quips ironically, quoting Oscar Wilde. "*Everyone is creative at least in some field. The important thing is to receive psychological and aesthetic stimuli from the environment"* says the teacher. Indeed, the climate in the S3 School is cheerful, varied and almost festive contrasting with the workday reality of the companies where some of the thirty S3 students work while attending the three series of the S3 courses – many are executives in private industry or the public administration, or recent college graduates in Economics, Sociology, Physics and Engineering. The School facilities are small but enticing. This facilitates organization of the students into small groups, which increases individual participation and therefore improves performance of the group as a whole. As further clarification, De Masi presents some aspects that distinguish the new post-industrial era:

> (i) Globalization, which simultaneously creates homogeneous and heterogeneous communities on a worldwide scale, so that everyone knows everything that happens in any part of the world;
> (ii) Free time - the more time we spend with the family, the more motivated and creative we become. The more free time we need, our time is worth more.
> (iii) Intellectuality and Creativity - the coin of the new age, the items bought and sold.
> (iv) Aesthetics - faced with several products that do the same thing,

[1] He is a professor of Labor Sociology at the University of La Sapienza, Rome in addition to being a director of S3 Studium. - a school specializing in organizational sciences.

we select only the most beautiful.
(v) Emotion and Femininity, goodbye to the male dominated era, welcome to that of the women.

In recent years there has been a concentration of business around the Silicon Valley in California, home to many innovative companies such as HP, Apple, Oracle, Google and Nike. More specifically, with regard to the latter company, Google is considered one of the most dynamic and prosperous of those in the market at present. The company is characterized by modern and unconventional spaces, in which the welfare of employees is decisive and co-responsible for the level of efficiency, assertiveness and commitment of all involved in the creation and development of solutions. There is a great diversity of employees from different places over the world. Google stimulates the formation of tribes and informality reigns throughout the work process. The hours are flexible, each one adapts his\her own workplace as they like and the work is controlled by pairs of those involved in each one of the company's projects. The employee profile is quite young, active and attentive to contemporary trends. In this company, environment and creation should not be considered as dissociated elements.

Therefore, a study was undertaken to determine which figure could best represent this movement of permanent interdisciplinary connections, where the image of each discipline could coexist with the others and add its own complementary concepts, without however, losing its specific identity. The Logotype for the CriaLab shown in Figure 1 below was selected from the study results.

Figure 1: CriaLab logotype

Elaborated by: The PUCRS planning assistance group.

4. Foundations

The theoretical assumptions that sustain the CriaLab are not limited to specific theories, but have a broader scope, including a set of principles that are fundamental for understanding the development of creativity, such as: i**nterdisciplinarity** (overview of reality through dialogue with other knowledge sources), **complex thinking** (indivisible thinking that seeks necessary and interdependent relationships of all aspects of human life), **open innovation** (development of innovative projects through collaboration) and **co-creativity** (in which the analysis of a relevant creative and productive complex object implies creative approaches jointly elaborated.)

In the laboratory in question, the accompanying dynamics and the object-theme proposed will involve interdisciplinarity among the participants in

order to propitiate connections and interrelationships between the parties, ensuring conditions for the creation of trans-disciplinary knowledge. It is believed, therefore, that the collective creativity and diversity of the participants could strengthen the preconditions for innovation and entrepreneurship.

Without certainties and scientific truths, Edgar Morin's theory considers the diversity of ideas, of beliefs and of perceptions. Its central axis springs from the Latin term *complexus* meaning *"what is woven together."* It is a manner of thinking that seeks necessary and interdependent relationships for all the aspects of human life in order to find a meaning in the whole. However, Morin himself admits that although the theory is complex and integralizing, it still "*involves the recognition of a principle of incompleteness and uncertainty."*

Complex thinking is guided by several principles called **complex cognitive operators.** In these are found the dialogical, the recursive, and the hologramatic principles in addition to that of self-eco-organization, all of which can contribute to a better understanding of the motivational process,

The dialogical principle basically seeks to perceive the unity in concepts apparently in opposition to each other, a condition that is established with the intention of improving our knowledge of the complexity of the organizational processes. One can establish the relationship between the notions of order-disorder, organization-disorganization, interiority-exteriority, from which the duality establishes the unitity.

About this principle, Morin emphasizes that *"it is this dialogue of order and disorder that produces all the organizations existing in the universe."* In this way, to understand as organization everything from a single human cell, to the individual as a whole or the society, the economy, the business, the school, the social whole, permits many ways of looking at, and interpreting, objects and things.

The recursive principle - or principle of organizational recursion – disagrees with the linear idea of cause-and-effect. It postulates the concept of processes in circuits in such a way that the effects retroact on the causes that caused them. A recursive process, according to Morin *"is a process in which the products and the effects are at the same time both causes and producers of that which produced them."* As an educational example one can postulate an individual who by producing knowledge becomes his own product, or yet, the idea that the individual produces the society which produces him\her.

Proceeding to consider **complex thought**, the hologramatic principle, - fundamental to an understanding of the entire motivational process – indicates a paradoxical vision of the systems, in which every part of each is in the whole, and in the same way, the whole is in the parts. From this relationship one can conceive of a physical image of the hologram in which the smallest point of the image contains almost all the information of the object represented. For the author, this principle supersedes both visions - **reductionism** that sees only the parts or **holism** that only sees the whole.

Another aspect of complexity theory to be addressed refers to the concept of self-organization. For the author, this is the ability to self-regulate internal processes, of being capable of transforming and reorganizing itself

continuously, thus showing the relationship between the two concepts: motivation and complexity.

In this organizational setting in which the principle of auto-eco-organization appears, - an expansion of the concept of self-organization - Morin postulates that the human being is inserted in an ecosystem and needs to be considered in his\her environment, recognizing that what surrounds us is also written within us. The author also points out that, at the same time that there is an autonomous relationship, dialectically, dependence is established, so that the Being and the Means become indissoluble. The person, able to auto-eco-organize himself/herself, establishes relationships with the other and transforms itself continuously, making choices and internalizing values and ideals.

Creativity is also an important theoretical assumption at the CriaLab. Some findings on creativity that support the way the laboratory operates:

- ✓ Creativity is a complex object, that is, it is a problem that can only be solved with creativity.
- ✓ Creativity is trans-disciplinary because as it is a process, it can express itself in several areas. It is not of the artistic area alone but also of other and tougher scientific areas.
- ✓ Creativity represent divergent thinking.

One of the most significant results expected from the implementation of the Laboratory of Creativity and Entrepreneurship is the promotion of actions to develop innovative collaborative projects, whose contribution does not necessarily require an effort that goes beyond the domain of the participants directly involved in the theme and control of the business. This concept is described by a professor of entrepreneurship at Harvard, Mr. Henry Chesbrough. As can be seen by the schematic that shows the border (cutting edge) of the innovation (described by the Group Sprie/Stanford University), the challenge is to integrate the knowledge in biotechnology, nanotechnology and info-technology. From the interaction of these areas, new sub-areas of disciplines are emerging, generating new knowledge, opening new research fields and new professions for study, as well as generating niches of exploration relevant to society.

As demonstrated by Chesbrough's analysis, large corporations are redesigning their creative processes to boost the innovative strength of their business. The model is currently in use by major Brazilian companies such as Xerox and the Braskem Group (models shown in the figures below), which can therefore be considered as world-class companies.

Assuming this new competitive paradigm, innovation organized in creative flows introduces a degree of complexity difficult for organizations to handle internally. Therefore, students and University as a whole should be preparing themselves to apply this new model in the factories and plants so that the beneficial results are made available to all. Failure to act now will deepen the gap between the theoretical world and what is already being practiced by the most competitive and dynamic entrepreneurs. The following

shows several models that illustrate the application of open innovation process portrayed by its author (Chesbrough).

More recently, *Open Innovation* models are being promoted by Brazilian entities that are spreading this culture via Internet portals. One of the most striking examples of this process is that being proposed by Terra Group Forum, called the Battle *of Concepts.*

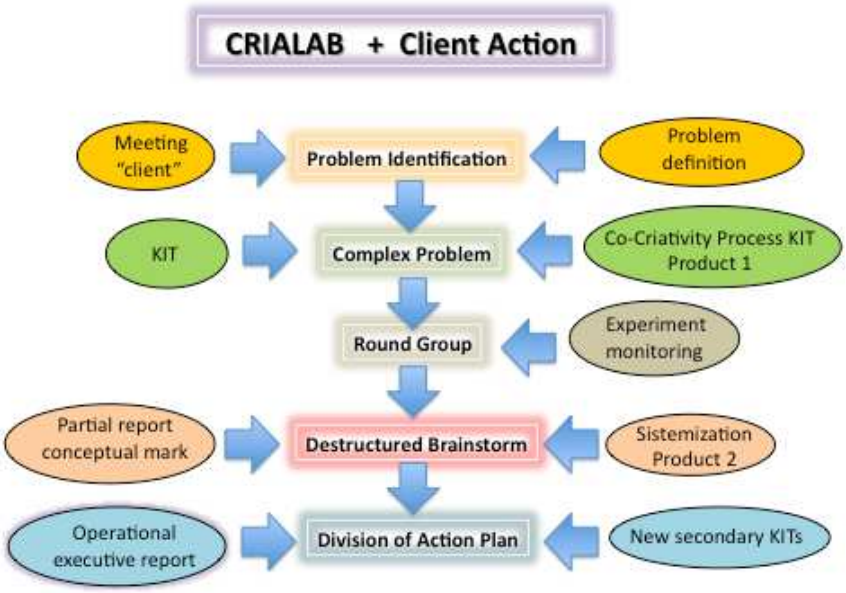
5. Methodology

The CriaLab bases its action on creative dialogues (CD) distributed in six fundamental activities: a) A meeting with the plaintiff\client to identify and define the theme\object to be investigated; b) Negotiation of the form of approach\action with the public selected to debate the identified theme; c) development and presentation of a "proposal" for the work, adequate for the perspective desired, consisting of a series of enabling resources, uniting methodologies, equipment and specialists that are configured as the laboratory triad; d) monitoring the progress of work, with the object of analyzing the level of interaction of the people and the capacity for expansion of co-creation, e) Development of progress reports, with constant feedback, generated in order to guide the trajectories appropriately for the expectations and objectives of the research; f) storing the results, which are then processed and recorded, in accordance with the previously defined protocol, and together with the other parties, composing a body of methods and cases ongoing and evolving, preserving the confidentiality agreements required where appropriate.

The process of monitoring the entire project, starting from the contract with the CriaLab, the use of the meetings environment, the assessment made by the working group and the members of the team at the end of each project or "case" treated, and subsequently the construction of knowledge kits, requires appropriate and interconnected records for later evaluation. The records of the meetings and ongoing projects, when they occur, are made individually by the participating members, but without obligation or to an established standard, nor as a guarantee of future use. An information system is the most feasible and appropriate alternative to assist in these matters.

The explanatory table below demonstrates the proposed working methodology of the CriaLab project creative team for each round that composes the asset. Interestingly, this chart displays exactly the whole process discussed so far, from the arrival of a problem to its contribution to the final kits of knowledge.

Figure 2: Methodology of the work



Elaboration: Levemfous, F., 2012.
Source: CRIALAB coordination.

6. Physical Infrastructure.

To initiate the CriaLab activities, many studies were performed to define the major aspects that promote the stimulation of collaborative creativity. One of the main attributes mentioned in the literature indicates that the environment

needs to be as flexible as possible, in order to sustain different spatial arrangements for the formation of working groups. Such flexibility is enhanced by installations for mobility and connectivity, allowing access to the Internet resources by wireless technologies, either via mobile computers, or by the use of tablets and smart-phones. Associated with this setup of communication and information technology equipments is an exhibition area for images, sounds and videos, equipped with data projectors, home theater and touch screens. With the latter equipments, one can consult specialist outsiders or obtain information via virtual audio-video meetings in real time, using software such as Skype or similar.

Another key element refers to ergonomics compatible with group activities, while allowing for moments of comfort and discomfort, as suggested by the workshops. In this sense, an ample area for physical\visual arrangements was provided, customized by movable panels to make model setups or to pinup post-its, drawings and posters. The furniture consists of benches and high chairs (for hand-work and quick decisions) as well as puffs and more comfortable armchairs for moments of thought and evaluation of the workshops. Finally, an area was provided for storing equipment, backpacks and prototyping materials (paper, pens, scissors, glue and DIY materials in general). At the present time, the CriaLab is located in the Microsoft Innovation Center, belonging to the Tecnopuc location. To gain access to this

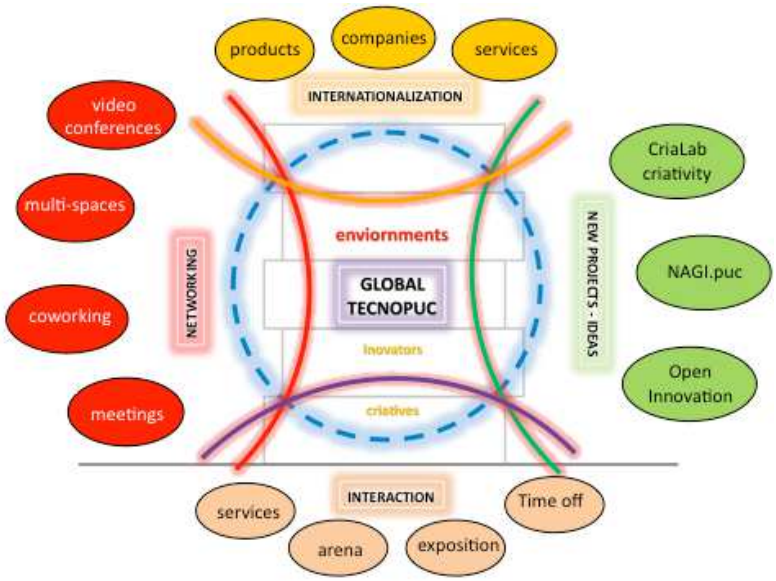
environment one should obtain the laboratory key from the secretariat of the Innovation Center, by prior appointment.

Figure 3. View of the CriaLab internal area.

Photograph by Gilson Oliveira

CriaLab will be operating in this dependency until the Global Tecnopuc buildings are completed – it will then become one of the action axes of this new undertaking.

Figure 4: Schematic drawing of the Global Tecnopuc.



Prepared by: Professor Giugliani - Tecnopuc

The Global Tecnopuc was the winning project in the FINEP tender for the infrastructure design and equipment of technological parks in Brazil. This project calls for the construction of an area of four thousand square meters (4000 M^2) dedicated to activities in support of internationalization, networking,

interaction and incubation of projects and ideas in accordance with the architectural computer graphic below.

Figure 5: Computer graphic of Global Tecnopuc building

Prepared by: PUCRS Works Division

7. Project and Partnerships

Almost a year after the inauguration of CriaLab, trials of various activities and projects have been made in the laboratory environment and its methodologies have been tested by the project administrators.

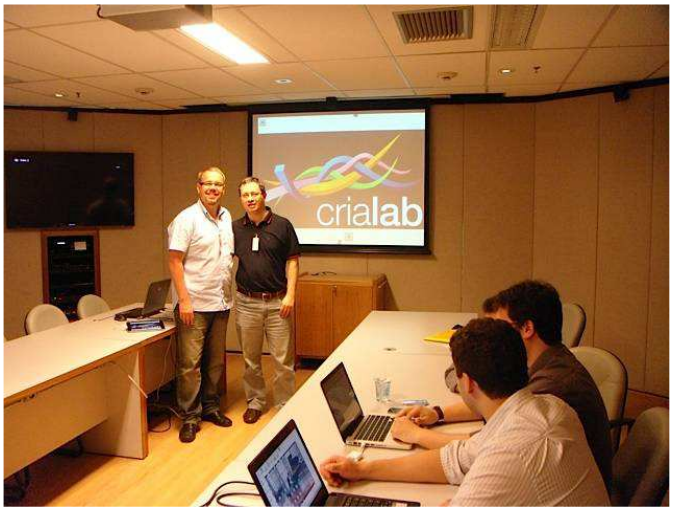
As the concept becomes wider known, several Tecnopuc companies, university departments and public and private institutional projects have accessed the CriaLab along the three axes of action defined above, i.e., the use of physical facilities, the development of complex projects or the evaluation of methodologies for co-creation.

Some projects and methodologies should be spotlighted so as to highlight the scope and capability of the services offered in innovation environments, especially in Scientific and Technological Parks (PCTs).

The first company that contacted the new facility was *FuturaNetwork* a Spanish company responsible for the organization of the Campus Party/Brazil, which united an Open Software community of 150.000 programmers and systems analysts from all over the world. Through this partnership, the CriaLab was invited to present its concept in the I9 (“eye novy”) program of the Rede Globo, at their PROJAC (*Scenographic Parque*) facilities in Jacarepaguá, Rio de Janeiro (see Figure 6 below). The reception was very positive and generated possibilities for collaborative works in the future. After this encounter, the FuturaNetwork invited the CriaLab to present its structure during the XIX ANPROTEC National Seminar held in Porto Alegre. Finally in January 2012, again with this same company, the CriaLab participated in the last Campus Party, at the *Parque Anhembi* – Sao Paulo, with an audience of more of than seven thousand young people from various

campuses.

Figure 6: View of the presentation to the Rede Globo at PROJAC photographed by Daniela Costa.



Photographed by: Daniela Costa – FuturaNetwork

In the year 2011 the CriaLab participated in another complex project - the recovery of the basin of the *Arroio Diluvio,* an important flood water outlet which impacts the lives of over 500,000 people in the metropolitan region of Porto Alegre.

Figure 7: Working meeting on the project for the Recuperation of the *Arroio Diluvio* river-bed

Photographed by Luis Villwock

This project was inspired by the restoration of Cheonggyecheon River, which irrigates the center of Seoul, South Korea - and which, like Porto Allegre's *Arroyo Diluvio* – was also a victim of uncontrolled urbanization and had a major environmental impact on the city.

Figure 8. The working group of the *Arroio Diluvio*

Photographed by Luis Villwock

Some of the meetings were held in the CriaLab where the multimedia equipment enabled the integration of various operational departments in the cities of Porto Alegre and Viamao, as well as the participation of researchers from the Federal University of Rio Grande do Sul and the Catholic University of Rio Grande do Sul. At present this work is on schedule and the basic design of the alteration work required is being detailed.

In methodological terms, the development of the practices of **Lean Startup** should be stressed. This method was conceived by Eric Ries and adapted to Alexander Osterwalder's (CANVAS) **Business Model Generation.** Some workshops have already taken place in CriaLab, spotlighting the creation of the first business accelerator in Porto Alegre (see photo below) and the training for the presentation of more than ten new companies (startups) during the first Seed Forum RS, coordinated by FINEP's seed capital team.

Figure 9: Practical **Lean Startup** of a Business Accelerator.

Photographed by Luis Villwock.

As one of the uses of the CriaLab area for presentations of innovative companies, one may emphasize the presentation of its innovation policy

made there by the firm **Natura** **-** one of the most innovative cosmetic companies in the country and the world (see photo below). Similarly, Microsoft introduced its new platform, through a training session of its strategic partners, taking advantage of the proximity and coordination of the Innovation Center, to which the CriaLab is at present associated.

Figure 10: Presentation of the Nature Companies innovation program

Photograph by Luis Villwock

Another outstanding design, concerns the discussion about the mega events that Brazil will host in the near future, especially those involving the World Cup in the year 2014 and the 2016 Olympic Games. PUCRS appointed a Special Commission (COËME) to work up this agenda and to prepare the Olympic Games Discussion Seminar which featured authorities from London (current location), Barcelona (Spain) and Athens (Greece).

Figure 11: Working group of the Special Commission of Mega Events.

Photographed by Luis Villwock

Figure 12: Presentation of ideas by the COEME groups.

Photographed by: Luis Villwock

Figure 13: Validation of the COEME strategies for action.

Photographed by: Luis Willwock

The most recent activity undertaken by the CriaLab group manager is to adapt the methodology of **Design Thinking,** developed by the team of **IDEO,** a design company located in Silicon Valley - California and which is emerging as one of most innovative companies working on co-creative processes, by use of Ideation, prototyping of products and services and validation with the users/customers. Founded by David Kelley and coordinated by Tim Brown, this company has recently established a partnership with the School of Engineering of Stanford University, founding the **d.school 2.0** (Doorley & Witthoft), in the Hasso Plattner Institute of Design, whose concept can be accessed on the http://www.stanfordalumni.org/news/magazine/2011/marapr/features/dschool.html website.

That methodology was utilized by students of the Methodology of Higher Education in the PUCRS post graduation *sensu stricto* courses and the results were very promising, both in motivation for the work of the assembled groups (see photos below), and in creative solutions obtained for execution in their classrooms in the future.

This workshop will be attended by teachers of the University - who

regularly face the dilemma of student assessment in the subjects they teach - as part of their own training and as is regularly suggested by the PUCRS pro-rectory of graduation.

Note that the data from these workshops, both in terms of technical scope (generating ideas and projects) and in observing behavior (attitude, participation, leadership, communication) are being analyzed by a Crialab research sub-group and a new report of the results will shortly be issued by the Laboratory.

Figure 14. Presentation of the *Design Thinking* Methodology by PUCRS post graduate students.

Photographed by: Luis Villwock

Figure 15: Prototype Construction – *Design Thinking*

Photographed by: Luis Villwock

Figure 16: Presentation of the prototypes – *Design Thinking*

Photographed by: Luis Villwock

8. **Final Comments**.

The CriaLab is a very ambitious project and with the characteristics pointed out above plans to enter the PUCRS "innovation pipeline". Starting from the principle that the creation of innovative companies, essential for the development of Brazil's sovereignty depends on the work of competent, collaborative and creative talents that the society offers to the country. Creative people, flexible environments, collaborative methodologies are key ingredients in this inexorable process of global competitiveness, in which people/consumers no longer distinguish boundaries, restrictive policies and xenophobic ideologies. Relevant creativity and innovation are the attributes essential for the resolution of complex problems and the search for a sustainable and inclusive world. From this come the grain that inspires challenges and rewards us.

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