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**PATO BRANCO TECHNOLOGY PARK AND THE
TRANSFORMATION OF PATO BRANCO REGION, PARANÁ,
BRAZIL, IN A TECHNOLIS**

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ABSTRACT

The paper presents an overview of the technopolitan transformation that is being experienced by Pato Branco, a 60,000 inhabitants town in the hinterland of Brazil.

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I. INTRODUCTION

The *Pato Branco Technology Park* is one of the *Structuring Initiatives* aiming at to transform Pato Branco city - and the region where it is inserted - in a *technopolis*.

Pato Branco Technology Park



Photo: Pato Branco Tecnópole Organização

Social

According to the *Innovative Regional Development Theory – IRDT* ^(1 to 4), a *technopolis* is a region which economy depends significantly on its scientific and technological capacity and that develops, in special through innovation, the conditions to become and remain competitive in the global economy of the *Knowledge-based Society*.

Other *Structuring Initiatives* of Pato Branco technopolitan transformation are:

- A knowledge-based company incubator, focusing on software development and other information and communication technology sectors.
- The adoption, during the 1997 – 2000 Municipal Administration, of full time (8 am to 5 pm) in all public first grade schools, with the introduction of innovative programs and disciplines in the curriculum, as the use of computers and Internet to solve day life problems, English language, Creativity and Entrepreneurship. The Entrepreneurship Program for Children is called “Patinho Empreendedor” - literally “Little Duck Entrepreneur Program”, since “Pato Branco” in Portuguese means white duck.

- The set up of “Pato Branco Organização Social”, a Non Governmental Organization that articulates innovation players around the technopolitan transformation.

According to the *Innovative Regional Development Theory* - IRDT ^(1 to 4), the transformation of Pato Branco in a technopolis is, in itself, a *Structuring Initiative* of a higher hierarchic concept, the *Pato Branco Project for the Future*, which ultimate goal is to promote the leap of the region toward a new level of development, entitled *Harmonic Development*.

Harmonic Development, as defined by IRDT, is the regional development process characterized by the following attributes:

1. Democratic
2. Socially fair
3. Ethic
4. Ecologically sustained
5. Demographically sustained
6. Generator of high quality of life
7. Culturally sustained (promoter of the regional and national identity and culture)
8. Economic sustained (competitive in the global economy of Knowledge-based Society)
9. Integrated to the collective imaginary.

Pato Branco Technology Park has four hectares (nearly ten acres), with 10.000 square meters of built area. It is adjacent to *Pato Branco Federal Faculty for Education in Technology* (CEFET – Pato Branco) and to a private university. Located less than two kilometers away from Pato Branco downtown, the park is already home to ten high technology companies - five of which are local start-ups - and a public research and development center in electronics. More than 400 jobs, most of them for researchers and skilled technicians, were already created within the park.

The size of the park became insufficient to answer the present and foreseen demand. Studies are being undertaken to expand its area in order to encompass nearly 400 hectares, surrounding the present location. Such an expansion will congregate, within the park ambience, several innovative institutions and innovation that are operating or are planned to be in the site.

Moreover, one may note that according to *Human Development Indicators*, published in 2002 by United Nations, Pato Branco's rank in the Brazilian scenario, in the period 1991- 2001, leaped from 291st to 40th position.

Now, in an international conference of science and technology parks, it seems that the essential questions surrounding the Pato Branco case are:

1. How Pato Branco, a 60.000 people town in the hinterland of Brazil, with an economy that was – and still is – heavily associated to agribusiness, could start a technopolitan transformation?

2. What are the main difficulties to keep running the experience?
3. What are the main conclusions one may extract from the Pato Branco case?

II. AN ATTEMPT TO ANSWER THE QUESTIONS

1. **How Pato Branco, a 60.000 people town in the hinterland of Brazil, with an economy that was – and still is – heavily associated to agribusiness, could start a technopolitan transformation?**

Nearly sixty years ago, the Southwest of the Paraná State, in the South of Brazil, was almost inhabited, as many regions in the hinterland of the nation. The fertile lands, pleasant climate and abundant water resources soon attracted peasants – most of them related to the Italian immigration to Brazil in the XIX Century - from Rio Grande do Sul, Southern Brazilian State, where land for agriculture was becoming scarce.

Pato Branco counts nowadays nearly 60,000 persons in the urban area and less than 10,000 in countryside. The size of Pato Branco County is around 580 km². Located at the 26° South and at 760 m of altitude, its weather is pleasant. Its *Gross Internal Product* is US\$ 150 million, providing US\$ 2,700.00 as the average income per person per year. Virtually all households in the urban area have water supply, electricity, telephone and other facilities. All children are at school and illiteracy is practically none.

The main steps paving the technopolitan transformation of Pato Branco were:

- i. The Pato Branco background, built up by families with a long tradition in agriculture, working on their own relatively small farms, paying attention to children education at school and characterized as an open-minded society, democratic and entrepreneur. Such a background is seen as a most precious heritage, made possible by the cultural melting pot process initiated five hundred years ago with the arrival of the Portuguese to the Brazilian shore.
- ii. The set up, in 1987, of Pato Branco Federal Faculty for Education in Technology (CEFET), which became fully operational in 1993. Other towns were candidates to receive that faculty. Pato Branco won the contest thanks to the perseverant action of some champions, mainly among elected representatives from Paraná State to the Brazilian Congress.
- iii. The set up in Pato Branco, in 1997, of a branch of the *Brazilian Federal Program for Software Development* (SOFTEX), that motivated the set up of a company incubator and the enhancement of information technology and electronics courses at the Federal Faculty.
- iv. The innovative program regarding regional development, adopted by the Pato Branco Mayor elected for the period 1997 – 2000, Dr. Alceni Guerra⁽⁵⁾.

- v. The conjugation of that innovative program and the conceptual framework of the *Innovative Regional Development Theory*, creating a favorable ambience for the formulation and launching of a technopolitan transformation program ⁽⁶⁾.
- vi. The proactive participation of relevant players to support Pato Branco Technopolis Program, as Pato Branco Municipality, Pato Branco Federal Faculty for Education in Technology (CEFET), Paraná State Secretary for Science, Technology and Higher Education, Pato Branco Commerce and Industry Association, Paraná Industrial Association, Brazilian Industry Association, Brazilian Small Business Service (SEBRAE), Paraná Electricity Power Company (COPEL), Brazilian Ministry of Science and Technology, enterprises and several persons acting as citizens engaged in a crusade.
- vii. The set up and the significant results of several *Structuring Initiatives*, as those mentioned at the beginning of this paper.

2. What are the main difficulties to keep running the Pato Branco technopolitan experience?

The main difficulties are:

- To communicate to all Pato Branco population the concept, strategies, actions and the meaning of the technopolitan transformation, and its insertion in the Pato Branco Project for the Future. It is well known that it is not easy to promote a leap in the collective imaginary toward a new paradigm.
- To create conditions for the population and all possible players to participate in the continuous formulation of the Pato Branco Project for the Future, including the technopolitan transformation, assisted by a kind of *Regional School of Thinking*.
- To get resources to keep running the light structure of the Non Governmental Organization – Pato Branco Organização Social – that articulates the technopolitan transformation and provides conditions for the operation of the *Regional School of Thinking*.
- To make the population and all social forces understand that the Pato Branco Project for the Future belongs to the community, and not to the government or to any other entity.
- To keep the Pato Branco Project for the Future running in spite of changes in decision making teams within public and private sectors.

3. What is the main conclusion one may infer from the Pato Branco case?

In a few words, the main conclusion is:

A region may leap toward a *harmonic development process* if it has a group of champions with innovative development ideas and programs, supported by an adequate conceptual framework, decided to promote and fight in a crusade aiming at to make their dreams become a reality.

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