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PROCERGS Brazil: using knowledge and innovation to make government more efficient

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That’s the adopted mantra of PROCERGS’ Knowledge Management activities, which emphasises the importance placed on knowledge sharing. Luciana’s Knowledge Management unit is based adjacent to PROCERGS’ Innovation Lab and is part of KMI (Knowledge Management & Innovation). As witness to numerous collaboration and facilitation efforts they have pictures and artefacts from projects, workshops, events and from other practices.

There is also a collection of KM reference material: from books on organisational models to Knowledge Management textbooks available for study and consultation by the unit and staff; some examples of knowledge-sharing techniques (such as the fishbowl conversation technique), learning reference models adopted by the company (such as the cultural of innovation and knowledge sharing.

Create an environment that stimulates the culture of innovation and knowledge sharing.
as model 70:20:10), creation methodologies (such as Design Thinking), and other materials displayed on a mural, plus a bookshelf that shows awards won over the last 15 years. Figure 14.1 illustrates the examples mentioned.

![Figure 14.1 CIC Mural](image)

**The challenge**

Headquartered in Porto Alegre, with over 1,000 employees spread across the Brazilian state of Rio Grande do Sul, PROCERGS provides information, technology and communication (ICT) solutions and infrastructure for the state to keep it running.

Besides having more than 700 application systems supporting the current actions of the state government, PROCERGS also has an agenda that includes modernisation and rationalisation. It adopts an entrepreneurial approach to the development and production of its ICT solutions and services and recently generated over $300m in sales.

Since its establishment 45 years ago, PROCERGS has been facing the challenge of identifying and introducing new technology and processes that improve efficiency and service to the public (in a region with more than 11 million inhabitants in the south of Brazil that borders Argentina and Uruguay), whilst keeping government running effectively.

PROCERGS’ analysts and software developers are well versed in the needs – current and future – of their clients in government. KM plays a pivotal role creating an environment in which they can thrive and share and introduce new ideas.

Luciana traces the evolution of her unit:

Approximately 15 years ago, a study was started on the subject of Knowledge Management in a technical area, the DTI – Technology Division, through an employee who was then responsible for bringing
the subject and its practice into the company, introducing, as the first practice of more structured KM, the ‘Knowledge Wednesday’. Created initially as a technical event to bring employees together to exchange knowledge on technical matters, having improved over the years, incorporating new approaches (behavioural, innovation and others), it has become a well recognised practice internally and externally.

Recognising the importance of generating new solutions and introducing improved technology, in 2010 the Innovation and Knowledge Centre (CIC) was created in PROCERGS’ planning area. It acts in a systemic and integrated way with the other areas of the company and contributes to the creation of an environment conducive to innovation. CIC comprises two units: one focusing on KM, headed by a Knowledge Manager; the other on innovation headed by an Innovation Manager. Both work closely together.

Then in 2015, in order to give greater support to the company’s innovation actions, the Strategic Innovation Programme (PEI) was instituted. Its main objective is to ‘apply innovation to government processes using information and communication technologies to transform public service and citizen service’.

Today, PEI aims to complement the positive image of PROCERGS as an agent of innovation and reference in digital government. Knowledge Management is an essential part of this programme.

Building on the symbiotic relationship between innovation and KM

PROCERGS’ KM team has the responsibility to research, disseminate and encourage the use of techniques, tools and methodologies that support the creation, sharing, use, protection, identification, development and organisation of strategic knowledge. It also seeks to create an environment conducive to Knowledge Management and innovation. These directly link to guidelines contained in the strategic plan and with the Innovation Hub of CIC.

Company managers across the business take responsibility for managing knowledge and intangible assets in their area. CIC team members support those activities through a variety of KM and innovation practices, methodological approaches, tools and techniques.

A relationship delivering results

Innovation Management works with KM and the results are impressive. Many artefacts of knowledge and innovation were generated through practices, including tools for expanding creativity and exploring best practices. José Jaeger describes three of them:
• **Ideas Portal**: a social tool geared to the generation and sharing of ideas and demands across the company – see Figure 14.2.

• **Innovation Working Group**: concept of a multidisciplinary work group that develops activities focused on experiments and prototypes, acting as an Innovation Lab.

• **Challenge or Hackathon on Innovation**: a competition to promote ideas for technological solutions for the state government, of collaborative and participatory nature, linked to the strategic programme of innovation of PROCERGS. Having gained this experience, we also provide mentoring and support in the innovation challenges of other state public administration bodies.

**Leadership, culture, formalising the role and process**

From day one, PROCERGS’ management team supported CIC, even when state governments have changed and pressure has been applied to budgets. For their part CIC has maintained close dialogue with senior management. The capture and sharing of knowledge and innovation is a key component of the company’s cultural values and resulted in a number of national and international awards.

As one of the established business processes and part of the organisation’s strategic guidelines, KM has a formal document, the ‘normative documentation’, that sets out the objectives, roles, interactions with other business areas and fits with the organisation’s strategic innovation programme. It is regularly assessed, and staff...
members are asked as part of their regular evaluation what they have contributed to KM and innovation. KM sits in CIC, as seen in Figure 14.3. It works in close alignment with Innovation Management.

KM activities in PROCERGS

As part of their remit to investigate new technologies and trends, the four-person team in CIC participate in seminars and research with prominent ICT consulting groups.

Their internal activities focus on communication, collaboration and facilitation. Luciana details how these work:

- **Knowledge Wednesday**: a virtual and face-to-face event in the HQ auditorium each Wednesday for employees to know and share about what is happening in the company and the market, what projects are being or have already been done, what are the technologies and methodologies in research, development and use. This practice began with sharing among employees 15 years ago and has evolved to include external expertise by including guests and new themes and making it available virtually for all staff.

- **Corporate blogs**: repositories of information and knowledge, tool for the development of communities of practice and a discussion forum, among others.

- **KM tools and practices**: Practices 1.0, 2.0 and 3.0.
  - **Practices 1.0** are already fully internalised and happen throughout the company without the need for intervention by the KM team: intranet, institutional site, methodology, processes, information security, circulation of periodicals, document repository, normative documentation, training face-to-face or read, physical and virtual library.
  - **Practices 2.0** is the current focus of KM actions: Knowledge Wednesday, blogs, the Ideas Portal, corporate social networking, practice communities, discussion forums, agile methods, thinking design, storytelling coaching, fishbowl and animated videos.
  - In addition, there is a set of 3.0 practices under way, characterised by the generation of knowledge artefacts and lessons learned in
discussion groups and work groups that work on new approaches, methods and tools of innovation: the creation of toolboxes, the instrumentalisation and multiplication of knowledge to the employees, to apply these approaches, methods and tools and to reconfigure their stocks of skills, demonstrates the new context present in the KM area.

Increasingly, KM and innovation look outwards, beyond the boundary of the organisation. Luciana illustrates how:

- **PROCERGS Users Group**: a network of collaboration with ICT coordinators and managers of the end areas of state agencies, with open participation for any public servant of the State of Rio Grande do Sul.
- **Seminars on innovation in digital government**: sharing of innovative cases in digital government.
- **Innovation workshops**: support in the dissemination and application of innovative approaches, tools and methods to governmental bodies in a network of ICT managers.
- **Support to innovation challenges of governmental body or entity**: mentoring and support in the achievement of innovation challenges of state public administration bodies.

**Using storytelling to communicate public policy**

One of the most innovative initiatives PROCERGS has participated in recently is the ‘Intelligence Network to Citizen’ which, through the use of big data and data science projects, aims to connect data, people and objectives to support decision making by the public administration and the citizen.

The purpose of the work is to ‘connect people, objectives and data of public organisations, partnerships and the regional society (more than 11.4 million inhabitants) to help everyone to make better decisions, to learn and to innovate, through the use of the new and disruptive technologies, act preventatively and proactively in the guarantee of rights, in the delivery of goods and services and to generate enhanced public value to citizens’. Among actions and reflections made or in progress, the network seeks to understand how government services and products are used during the whole life of the citizen.

Storytelling was one of the KM techniques used and supported by PROCERGS and the State Secretariat of Planning, Governance and Management. The first project was looking for an understanding of problems (such as school dropouts) and the generation of hypotheses, as inputs to be used on data analytics tools, by the data science’s team.
Luciana explains further:

We brought experts from various sectors to discuss the problem of dropout among students in the state education network, the focus of the pilot project.

Using a brainstorming technique called Carousell, we analysed possible events in the student’s lifecycle. Carousel brainstorming is a cooperative learning activity focused around movement, conversation and reflection that can be used both to discover and discuss background knowledge prior to studying a new topic, as well as for review of content already learned.

Each expert put up one Post-it note with a factor or event during these stages (prenatal, childhood, adolescence, adulthood, late adulthood and post-life). Included were: chronic absence; dropping out of school; illness; loss of parents; sexual abuse; drugs; and many things they thought might, or used to happen, in real life. Later, the set of events or factors were read and stories told around them.

Common themes were grouped to create a set of hypotheses: parents in prison; living in a dangerous neighbourhood; and poor school transportation.

Data analysis tools were then used to investigate the hypotheses raised against data produced by the Secretariats of Education, Health and Security. These results were shared with sectoral experts, for validation.

Finally, a set of statistical models were created to help predict the probability of the student dropping out during the year.

In the next stage of the project, with new inputs of data and connections, the storytelling was applied again in the construction of a persona, based on a real-life case. The aim was to find results that could bring new possible responses and solutions for actions and public policies.

Reflections

On overcoming barriers

Luciana reflects on the progress that’s been made and new barriers that emerge:

Initially, the main barrier was the internalisation by the employees of the importance of explicit and shared knowledge. Today, due to the evolution of KM indicators and continuous process improvement, these barriers have been overcome.

Emphasis on the importance of innovation, especially the digital transformation process, has caused concern about the current work model and knowledge and skills of the people and areas involved. This is a moment of great importance for Knowledge Management, where new practices and ways of working need to be chosen, experienced and learned. This leads to new barriers to the process of evolution as old mental models slowly change.
On surviving a change of government and sponsorship
PROCERGS has to cope with leadership change (state elections) every four years. There is an organisational transition plan in place, for example, to deal with the handover in 2019. KM and innovation are important components of the process of change and see it as an opportunity not a threat since they are called on to generate new ideas and are open to new ideas themselves from the incoming administration.

On the importance of building networks across the organisation
Luciana describes her journey:

When I began to play the role of Knowledge Manager, Knowledge Management and Innovation (KMI) was already in place with a number of established practices. I also had the challenge of continuing work already started and recognised in the company by the previous Knowledge Manager. This challenged me: as well as maintaining and evolving current practices, searching for new fronts, exploring new practices, I had to find ways to take KM in PROCERGS, using 3.0 practices that had recently emerged.

In addition to the essential sponsorship of the executive level, building a network of partnerships and collaborating across the business and with people was fundamental for the implementation and consolidation of KMI practices. After all, it’s the people who make Knowledge Management happen. And practice is the best way to bring it to life.

The organisational environment is conducive as is the support that is permanently obtained from the managerial levels. Moreover, the characteristic of our business, technology, which changes very rapidly, means that we are constantly updating ourselves, our products, methodologies, processes, tools and new ways of thinking and managing.

Above all, Luciana suggests a knowledge manager looking to formalise KM in their organisation should:

Start small, think big and develop in a planned and persistent way.

On measurement
Because we are a company that seeks to learn, we adopt indicators that measure and signal the results of KMI practices and their effects and how much lessons learned are being identified and worked on in the company.

Every area completes a monthly evaluation report and the performance of Knowledge Management and Innovation is one of the questions to be addressed.

Another measurement is the market recognition of the work we do,
since the company is often invited to share its KMI case with various public or private entities and universities.

On the skills needed for the role

Luciana has a comprehensive list that many in the KM arena will find valuable:

Systemic vision, multidisciplinary approach, openness to the new, obtaining learning, establishing empathy and relationships with people and possessing knowledge about the company, its business, people, main processes and organisational culture.

On the future

Lessons learned have been increasingly incorporated into the company culture. The improvement of the Knowledge and Innovation Management process takes place through learning practices, through evaluations and reflections on lessons learned and outcome indicators from the practical perspectives applied by both KMI staff and the executive level of the company. We need to build on this. The greatest risk is that the KMI loses its strategic position, and gets its resources reallocated through government change, which occurs every four years; previously a major risk factor, although as time passes and KMI’s process consolidates and improves, this risk is diminished.

Mapping the story to the ‘KM Chef’s Canvas’

PROCERGS, alone among the global organisations we spent time with, is focused on providing more efficient government and services for the citizen. The housing of KM and Innovation together illustrates the drive to develop new ideas and solutions. KM provides the facilitation and collaboration tools and techniques to surface innovative solutions and products.

Strategic context

The Knowledge Management and Innovation team’s goals are totally aligned with those of the organisation. The output of their work informs policy and is mapped to strategic guidelines.

Improvement

PROCERGS CIC division (which includes KMI) provides an environment that stimulates the development of new ideas which improve or replace existing processes and services. KM has a formal document...
setting out objectives, roles and interactions with other business areas. KM reviews its toolkit and processes on a regular basis and staff are required each month to assess the performance of other divisions, including CIC.

Interaction and internalisation

There are many examples of the KM team engaging with its stakeholders: Fourth of Knowledge; Knowledge Wednesdays; Innovation Hackathons; and seminars. We were impressed by their approach to a major project (big data and data science) which seeks to understand how government services and products are used during the life of the citizen. The use in expert group sessions of storytelling and personae to map the lifecycle of a student surfaced issues that might otherwise have remained hidden.