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ABSTRACT

Project management in public administration faces major challenges. This article deals with the general bases of its operation, specifically in the Government of the State of Santa Catarina. It then elucidates how the Project Management Office of the State Public Administration of the Executive Branch of Santa Catarina (EPROJ) and the Project Nuclei took place, especially the State Secretariat for Infrastructure and Mobility, in the figure of PMO. It subsequently analyzes the general methodological basis of project management used by EPROJ and how it was applied in the training of specialists hired for project management of the nuclei in the multiplication of this methodology in relation to SIE servers. Finally, it illustrates the challenges and successes experienced throughout this process and brings suggestions for its improvement.

Keywords: Public Administration, Public Management, Project Management, PMO.

1 INTRODUCTION

Project Management is in itself a great challenge, as it involves different technical and relational skills. It becomes an even greater challenge when applied to Public Management, for various reasons: surplus demands; static staff and changed mainly by public tenders; criteria for prioritizing projects constantly affected by political, social and media influences; hiring companies through long bidding processes; difficulty in selecting companies according to the object of bidding; transparency in the application of public resources, among many others.

The *Project Management Institute* (PMI) is the world's leading non-profit association in project management, founded in 1969 in the United States. It currently has several members who work or study project management in more than 180 countries in various areas, such as aerospace, automotive, administration, construction, engineering, financial services, pharmaceuticals, telecommunications, among others (THE INSTITUTE, 2022).

The term project management, therefore, is quite recent and was based on the need to plan the scope, duration and resources within the scope of the organizations' projects, seeking to optimize the time and efficiency of the allocation of available resources.

In the sphere of public administration, the main beneficiary is the citizen and the challenge becomes even greater given the complexity of the State's actions and its legal obligations.

The search for the optimization of time management, financial and human resources that the State has, finds support in Project Management, because through the use of appropriate tools, through specialized professionals and the dissemination of good practices among themselves, it becomes possible for managers, managers, servers and other agents involved, a greater efficiency in decision making and in the conduct of public administration projects. According to PMBOK (PMI, 2013) the organizational structure that has these attributions is called EGP - Project Management Office also recognized by its acronym in English PMO - Project Management Office.

The public budget is a planning instrument, where the resources to be used by the government, from taxes and fees, are contemplated. These taxes are converted into works and services that benefit society (ENAP, 2017, p. 11).

The main instruments that make up the public budget are: the Multiannual Plan (PPA) defines strategies, guidelines and goals of the public administration for the period of 4 years. PPA programs have quantitative targets and indicators; The Budget Guidelines Law (LDO) spells out goals and priorities for each year; The Annual Budget Law (LOA) provides resources for its execution (ENAP, 2017, p. 18). Such laws make an estimate of budget planning to meet the goals and priorities listed in the aforementioned instruments.

The Public Administration has planning instruments for the allocation of public resources. According to Article 167, first item of the Federal Constitution of 1988, "the initiation of programs or projects not included in the annual budget law, one of the mechanisms of a planning instrument, is prohibited" (BRASIL, 1988).

In 2012, the financing for the State of Santa Catarina was signed due to changes in the scenario of tax collection of the State, as explained by De Mattia *et al.* (2020, p.5):

... Faced with the scenario of possible drop in revenue, due to the unification of the ICMS proposed by the Union, the lack of public investments and the need to expand services to the citizen, the Government of the State of Santa Catarina raised financing resources in order to leverage the economy and ensure rapid progress in infrastructure and development of the State. The funds raised totaled 10 billion reais, this amount generated the need for its management. Thus, the Pact for Santa Catarina Program (hereinafter referred to as PACTO) was created by Decree No. 1,064, of July 17, 2012, in order to cover the ongoing projects in a single management program. In order to organize and regulate the work system of the PACTO, Decree No. 1,537, of May 2013, the government of SC officially constituted its Pact Project Office - EPPACTO.

Thus, still according to De Mattia *et al.* (2020), the creation of EPPACTO was not directly a result of a realization of the importance of managing projects, but was linked to fundraising and the immediate need to manage them.

The Project Management Office of the State Public Administration of the Executive Branch of Santa Catarina - EPROJ was established through Decree No. 1289, of September 5, 2017 (SANTA CATARINA, 2017) and subsequently regulated by Decree No. 632, of June 2, 2020, which defines as the main objectives of project management of the State Public Administration:

Achieve the targets set for the performance and results indicators applicable specifically to projects and programmes; ensure and optimize transparency, administrative control, integrity, governance and innovation; and reduce costing and capital expenses, optimizing the available resources and their allocation, to ensure quality public service delivery to society (SANTA CATARINA, 2020).

From this Decree, the EPROJ began to have the task of instituting the Sectorial Nuclei of Project Management (NUPROJs) - which have the attribution of PMO - and to foster the culture of project management in the organs of the state public administration. The NUPROJs currently make up the Project Network of the State of Santa Catarina (articulation network that integrates the various agents involved in public management), act in the management of projects in charge of their agency or entity and have the support of EPROJ.

The EPROJ realizing the need to strengthen the knowledge of project management carried out in the following year the formalization of NUPROJ, a partnership with PMI-SC through a Term of Support,¹ in order to carry out joint actions to disseminate the culture of project management in the public sector in the State of Santa Catarina.

The *Guide to the Project Management Body of Knowledge* (PMBOK) is the main knowledge guide in project management of PMI, and was one of the instruments used in the methodological construction of EPROJ.

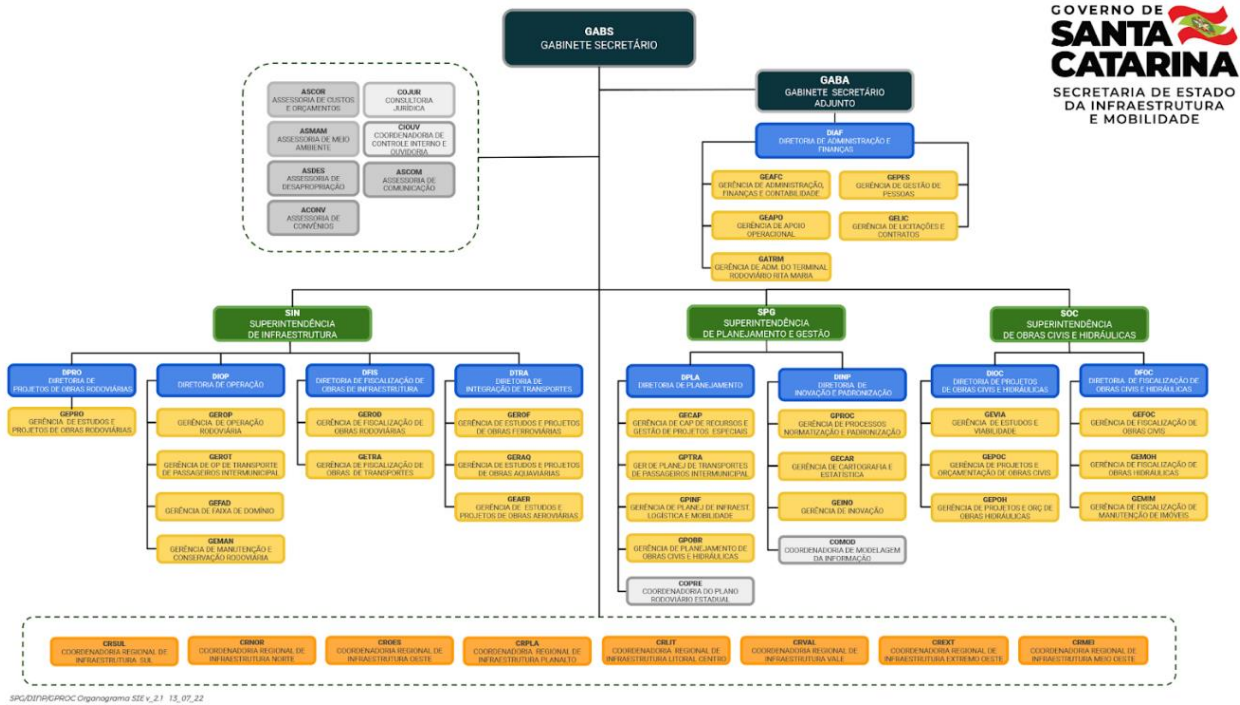
The EPROJ allows a greater capillarity of project management with the State Secretariats. Recently linked to the Secretary of State for Administration (SEA), by Complementary Law No. 789 of December 29, 2021, which amends Complementary Law No. 741, of June 12, 2019, which provides for the basic organizational structure and management model of the State Public Administration, within the scope of the Executive Branch (SANTA CATARINA, 2021).

The Secretary of State for Infrastructure and Mobility of Santa Catarina (SIE) has a very complex organizational structure (**Figure 1**) that contemplates its various attributions, described in

¹Document attached to the Electronic Protocol Management System (SGP-e) of the State of Santa Catarina: GCE 00000474/2021 and published in the Official State Gazette No. 21,580 on 08/09/2021. Available at <<https://sgpe.sea.sc.gov.br/sgpe/#/container>> Accessed on 08/12/2022.

Section VIII of Complementary Law No. 741, of June 12, 2019 among them is, "plan, formulate and standardize policies, programs, projects and actions related to port and road mobility systems, rail, waterway, airway, cycling and pedestrian" (SANTA CATARINA, 2019).

Figure 1. SIE Organizational Structure.



Source. SIE website. Available at <<https://www.sie.sc.gov.br/estruturaorganizacional>> Accessed on 10/08/2022

The Office of the Secretary (GABS) has several attributions, but with regard to technical performance, the technical staff is responsible for monitoring the meetings on issues related to works contracts and supervision; monitor and coordinate the activities requested by the office in matters of works contracts and supervision, performing the dialogue with the others involved; subsidize the cabinet in technical issues among others.

Some of the main attributions of the Superintendence of Infrastructure (SIN) are: to coordinate and supervise the technical and administrative activities of the units subordinated to it and to ensure their collaboration, as well as of the public or private entities that maintain related activities; coordinate the preparation of action plans, perform the management of actions, information and opinions in the internal processing processes of their respective boards, among other attributions.

The Superintendence of Planning and Management (SPG) is responsible for: Supervising, organizing, guiding, directing, coordinating and monitoring the elaboration of the Strategic Plan (SP) of the Secretariat, in line with the State PE, in articulation with the internal units; articulate the implementation of procedures for monitoring and evaluating the goals of the SIE NP, among others.

The Superintendence of Civil and Hydraulic Works (SOC) has among its competences: to liaise between the Directorates of Civil and Hydraulic Works Projects and Supervision of Civil and Hydraulic Works with the Secretary of State for Infrastructure and Mobility and other Sectoral State Secretariats or public entities, among others.

The implementation of NUPROJ/SIE was born, therefore, from the idea of disseminating the culture of project management that would encompass all state public management and generate changes in its organizational culture.

The allocation of specialists within the nuclei occurred strategically, and in the case of the SIE, the professionals were allocated according to the needs of demands identified as priorities, both of the GABS and of its three superintendencies (SIN, SPG and SOC), according to the expertise of each of them.

From the experiences with the implementation of the project management initiative in the Government of the State of Santa Catarina, specifically in the SIE, we infer that the efficient management of projects instituted from the EPROJ / NUPROJ allows not only to disseminate the culture of project management in the SIE, but also a broad vision, for all involved, of the efforts required to achieve the objectives of the projects.

In order to validate or not the postulated problem, the general objective of this article is to describe the methodologies used by the EPROJ and analyze the obstacles as well as the successes of its implementation through the NUPROJ/SIE.

2 THEORETICAL BASIS

2.1 PROJECT MANAGEMENT AND THE PROJECT MANAGEMENT OFFICE (PMO).

The PMBOK guide elucidates the concept of design as follows:

A temporary effort undertaken to create a unique product, service, or result. The temporary nature of projects indicates a beginning and an end to project work or a phase of project work. Projects can be standalone or be part of a program or portfolio. (PMI, 2021, p.4).

In the aspect related to the knowledge and techniques in project management, it is important to consider the deepening of the following elements that form the triangle of constraints: scope, time, cost and quality (**Figure 2**). Such elements are directly interdependent, which contribute to the execution of the project, since when there is any change in any of them, the others are impacted.

Figure 2. Triangle of Constraints



Source: NETO and VACOVSKI 2017

As for project management, PMI (2021, p.4) states that it is the "application of knowledge, skills, tools and techniques to project activities to meet the defined requirements (...) Project management refers to guiding project work to deliver the intended results." This specification demonstrates how the project can respond punctually to the specific demands of the various areas of human knowledge.

Thus, according to the PMBOK, project management can involve several processes according to the needs of each project. These processes are divided into five phases. The phase of initiation, planning, execution, monitoring and closure (PMI, 2008). Other ways of characterizing the life cycle of project management (**Table 1**) can also be used.

Vargas indicates that "each phase of the project is characterized by the delivery, or completion, of a certain work. All delivery must be tangible and easy to identify" (VARGAS, 2009, p. 11). In this way, the monitoring of the project becomes punctual and systemic by allowing the visualization of all the parts that compose it.

Table 1. Project Management (PM) Life Cycle Phases

Embrionária	Aceitação Diretoria	Aceitação Gerência	Crescimento	Maturidade
Reconhecer a necessidade	Obter o apoio visível da diretoria	Obter o apoio de gerentes de área	Valorizar as fases do ciclo de vida dos projetos	Desenvolver sistema de controle gerencial de custo
Reconhecer os benefícios	Fazer com que os executivos entendam a GP	Conseguir o comprometimento dos gerentes de área	Desenvolver metodologia de GP	Desenvolver sistema de controle gerencial de programação
Reconhecer a aplicabilidade	Estabelecer promotores no nível executivo	Proporcionar conhecimento aos gerentes de área	Obter o comprometimento com o que foi planejado	Integrar o controle de custos e da programação
Reconhecer o que precisa ser feito	Estar disposto a mudar o modo de conduzir o empreendimento	Estar disposto a liberar os funcionários para treinamentos em GP	Minimizar oscilações de escopo e definir sistemas de rastreamento	Desenvolver programa de ensino para melhorar as competências em GP

Source. Adapted from Kerzner (2006)

From this premise, to optimize the management of a project it is important that the public administration has a professional capable of articulating all these variables, the project manager.

It should also be noted that to manage various groups of projects, the PMBOK brings the concept of program that is "a related group of projects, subprograms and program activities managed in a coordinated way to obtain benefits that would not be available if they were managed individually" and also the definition of portfolios that are "projects, programs, sub-portfolios and operations managed in groups to achieve strategic objectives" (PMI, p.4, 2021).

The project manager is therefore the person designated by the executing organization to achieve the objectives of the projects. Some characteristics are necessary for this professional, the main ones are: "knowledge, performance and personal effectiveness (...) attitude, leadership, and personality characteristics, such as skills to guide the team while achieving goals and balancing project constraints" (PMI, 2012, p. 13).

In addition, Kerzner (2006) highlights the importance of creating a department that centralizes learning in projects, as well as drives and leads the organization to mastery in this type of management.

According to Soares and Junior (2011), the Project Management Office (PMO) or the Project Management Office (PMO), is a physical location within an organization that houses people with project management knowledge, able to advise and discuss the relevant issues of the project, for decision making of the project manager, focusing on planning, in the prioritization and coordinated execution of projects.

The PMI defines three types or functions of PMOs, which vary according to their degree of control and influence on project management, they are: Support; Control; and Directive.

Support PMOs provide an advisory role in projects, providing models, best practices, training, access to information, and lessons learned in other projects. This type of PMO acts as a project repository and its level of control is low.

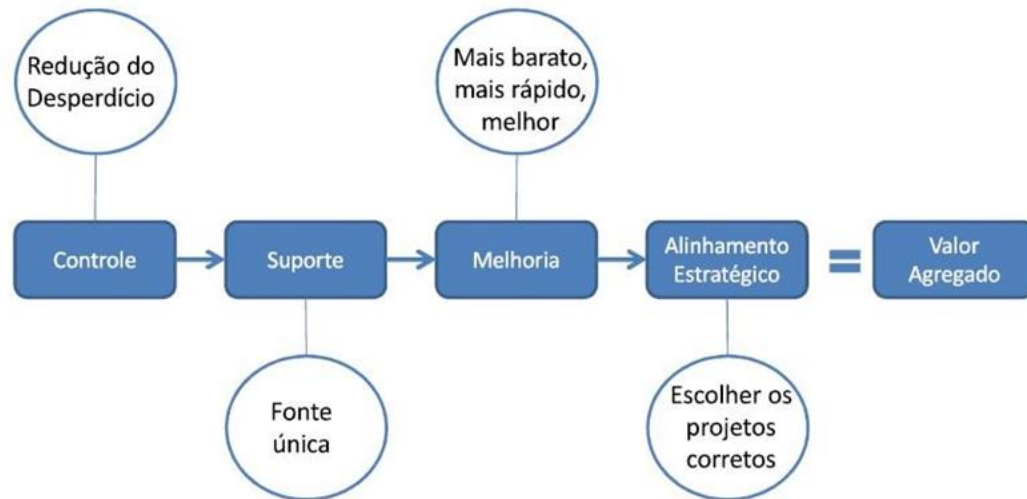
In turn, control PMOs provide support and require compliance by various means. The level of control exercised by this PMO is average. Compliance may involve: adoption of project management frameworks or methodologies, use of specific tools, forms, and templates, and compliance with governance structures.

Finally, the managing PMOs take control of the projects by their direct management, the project managers are assigned by the PMO, and are subordinate to it. The level of control exercised by this type of office is high (PMI, 2017).

Sotille (2012) demonstrates the value generated to organizations progressively by PMO (**Figure 3**), through the reduction of waste (by implementing forms of control in the stages of the processes), the advice/support in the management processes, the search and development of agility,

the reduction of costs through improvement actions and, finally, the targeting of priorities, according to the strategies defined by the institution.

Figure 3. value chain of a PMO



Source: Sotille, 2012

Finally, Kerzner (2006) points out that the project office maintains the intellectual property related to project management and supports the strategic planning of the organization, highlighting its performance through the implementation of project management software, the supervisory figure in management and the standardization and generalization of solutions in all areas and levels of public administration, in favor of the progress of the projects.

2.2 PROJECT MANAGEMENT IN PUBLIC ADMINISTRATION AND INNOVATION

The implementation of project management methodology in the execution of public policies is necessary and its practices and its improvement should be fostered, adapting them to each public institution, to seek results that meet the needs of society. That is, to ensure quality in the delivery of public policies.

Paumgarten (2010) states that the organization that opts for the use of project management tools will be susceptible to a higher probability of success and achievement of results in their projects, as it will increase their chances of maximizing the use of resources, collaboratively connecting the dispersed teams, through the management tools, in order to control and measure the performance of the project.

In addition, indirectly, the organization will improve the degree of predictability and consistency of projects (PAUMGARTTEN, 2010 apud JOSLIN & MÜLLER, 2015), *simplify project change management* (GONÇALVES 2009) and *foster integration between secretariats, agencies and*

sectors of an organization, in order to standardize processes (PRADO, 2004 apud OKANO, M. T., 2018).

Therefore, within the scope of a managerial culture of action, it is important that public servants understand the degree of relevance of these new governance methodologies, in order to generate credibility and recognition for their consolidation in public management.

Regarding the diagnosis on the degree of knowledge in project management, it is relevant to consider the existing specificities in public management, for the purpose of applying the methodology of management and execution of projects and programs. Pinheiro and Rocha (2012) highlight the main specificities identified and taken into account both in the idealization stage as well as in the implementation of project management, among them they cite the rigidity of the bidding law, compliance with the Annual Budget Law (LOA), administrative discontinuity.

From the perspective of innovation in project management in the public sector, it can be understood as the creation and implementation of new processes, products, services, methods and techniques of public service delivery, which imply in the improvement of results for society (MULGAN and ALBURY, 2003; Albury, 2005).

According to Andrade G. *et al* (2018), innovation involves the introduction of new practices or changes in previous practices, through the incorporation of new elements, or the simplification of their processes, or a new combination of existing mechanisms of public management, producing positive results for the public service, such as: innovative initiatives aimed at increasing transparency, government accountability, new public policy arrangements that foster the active participation of society, and the use of increasingly advanced technologies to expand access to public services.

For this process to be implementable, it is necessary to constitute a favorable environment for the emergence of new ideas. Therefore, combining the search for innovation with organizational strategy is fundamental for the creation of an organizational culture focused on creativity, providing the emergence of innovative ideas, according to Andrade G. *et al* (2018).

In summary, it is perceived that the innovation process is directly connected with the knowledge and tools of project management and teamwork. It stands out in this list of knowledge that, the promotion of organizational culture change, when it comes to innovation and project management in the public sector work environment, it is essential to make the correlation to the three "Ps": Processes, People and Projects that represent some of the factors of change in the evolutionary process of execution of tasks of an organization.

3 METHODOLOGY

The EPROJ identified the opportunity to implement a new model of public management based on the logic of projects that would make it possible to improve the results of the actions of the Government agencies and consequently value and more efficient results for society.

The function of EPROJ was initially to plan and monitor the Project Centers - NUPROJs in the government secretariats. The implementation took place through several stages.

The first stage was the sensitization and adhesion of the state secretariats for the implementation of the Nuclei. Then, the nuclei were then instituted in fact in each secretariat, through Ordinance 371 of 07/01/2020 and then modified by Ordinance 818 of 10/23/2020, which also defined those responsible for the nuclei and their respective portfolio managers (the set of managed projects).

To hire specialists in project management to develop the activities, a Technical Cooperation Agreement was signed² between the State Secretariats, EPROJ and the Foundation for Research and Innovation Support of the State of Santa Catarina (FAPESC/SC) in order to determine the responsibilities of each agency in this hiring process. The agreement entrusted the Secretariats with the transfer of financial resources, FAPESC with the hiring and EPROJ with the training and monitoring of specialists in project management.

The selection of specialists took place through a public call notice from FAPESC, which evaluated criteria of academic training and professional experience. After being selected, the specialists went through a process of setting up and training to align expectations, improve knowledge of the public sector and its projects, as well as the particularities of the management tools adopted.

As previously mentioned, the PMBOK guide is one of the guidelines of the main methodologies applied by both EPROJ and NUPROJs.

Then, there was the insertion of project management specialists in the State Government, which began with a setting/training in July 2020. The first stage was the realization of the Course of Development of Public Managers, of the School of Government Foundation - ENA,³ which provided basic guidelines to specialists in the principles of public administration and its administrative systems.

Subsequently, the EPROJ promoted several meetings with experts to present the PMBOK management methodology adapted to the public sector, and promoted lectures with public management *stakeholders* on the organization of the State; ethics in the public sector; bids and contracts; public planning and budgeting; government indicators; electronic protocols, among others.

² Document attached to the Electronic Protocol Management System (SGP-e) of the State of Santa Catarina: GCE 00000206/2020 available in < <https://sgpe.sea.sc.gov.br/sgpe/#/container> > accessed on 08/12/2022.

³ Course of Development of Public Managers School of Government / SC - ENA Virtual. Available at <<http://enavirtual.sc.gov.br/user/view.php?id=129667&course=1712>> Accessed 08/06/2022.

In the next stage, workshops were applied to use the SICOP platform of the State Government, Project Management module (GPP) - which we will deal with better later - and also the workshop of application of the Project *Model Canvas* (PM Canvas) which is an innovative methodology of project management created by the consultant and professor José Finocchio Júnior and which is the planning of the project in a visual tool.

The PM Canvas allows the visual understanding of the concepts of the project, the engagement of the team and the rapid decision-making (JÚNIOR F., 2013), thus, at this stage allowed the complete elaboration of a project from its genesis to its insertion in the system, and the understanding of the mechanisms for its monitoring.

Finally, an analysis of the profile of the specialists was carried out by a psychologist from the State Secretariat of Administration to support the decision of the EPROJ and then the specialists were allocated to the secretariats according to the demands raised to perform the activities, counting together with the support of the other members of the project nuclei and the EPROJ manager responsible for that body.

The NUPROJ/SIE realized strategically that it would be productive to allocate its specialists distributed in the three superintendencies (Superintendence of Infrastructure - SIN; Superintendence of Planning and Management - SPG; and Superintendence of Civil and Hydraulic Works - SOC), and also in the Office of the Secretary - GABS.

The tools adopted in the SIE for the management of the projects are internal to the government of Santa Catarina, and the main ones used for this purpose: the Integrated System of Control of Public Works (SICOP); the Project Management and Planning System (GPP); the Electronic Protocol Management System (SGP-e); the Integrated System of Fiscal Planning and Management (SIGEF), and Projeta SC.

SICOP was established in the Public Administration through Decree No. 308, of August 17, 2015, as an official system of planning, bidding, registration, management, monitoring and control of works (SANTA CATARINA, 2013).

Within SICOP was developed the Project Management and Planning System (GPP), which is the project management tool of the State Public Administration, whose function is to plan, prioritize and monitor the initiatives of the State, through registration. It is the system of data entry and registration of the Projects. SICOP/GPP only allows access to the servers registered in the projects.

The Integrated System of Planning and Fiscal Management (SIGEF) is the official system of planning, budget, finance and accounting of the State of Santa Catarina, used to integrate contracts to registered projects, facilitating the updating of project stages.

Projeta-SC is a portal for monitoring and monitoring the projects and actions of the State Government, online and in real time, prepared by EPROJ and was launched in July 2021. It is a panel that enables managers and citizens to carry out public consultation of the project initiatives that are being executed by the State Administration (E-BOOK, 2021). This platform is an evolution of the GPP, and allows the monitoring of project information by citizens, increasing transparency. It is a system that seeks to work intuitively.

The SGP-e was created to optimize the management of documents and administrative processes of the State Government, making the assessment and processing more efficient, fast and safe.

The SIGEF, SICOP/GPP and SGP-e systems are integrated for easy management. In the registration and monitoring of projects it is possible to integrate the SGP-e number to follow the digital processes related to the project, facilitating access to information pertaining to the projects. The contracts registered in SIGEF are integrated with the registered projects to monitor the percentage of financial execution.

4 RESULTS

4.1 CHALLENGES AND SUCCESSES IN NUPROJ/SIE

Initially, the NUPROJ/SIE received the guidance to elaborate a general diagnosis of the SIE to identify the current scenario of project management of the agency and identify the mapped projects of the State to later carry out the registration of the same. For this, the mapped projects were registered in the Platform, qualified with schedules, deadlines, costs and responsible managers, thus allowing the monitoring and follow-up of the projects as a whole, fostering the implementation of the project management culture in the SIE.

One of the points of attention perceived was that the management in the secretariat was based on contracts and when talking about projects, it was confused with the nomenclature specific engineering project (construction project), and for project management the term project is considered, from its initiation (birth of the project, structuring of the idea to be executed) until the closure, with the delivery of the latest documentation and with nothing else to perform.

Several situations in the daily life of the SIE, such as the existence of bottlenecks in internal and external communication, its sectorization, among others, generate risks to the projects, since the same project is processed by more than one Superintendence and by several managements until its complete conclusion, and may often lose valuable information in this path.

The implementation of NUPROJ/SIE occurred during the period of the COVID-19 Pandemic, in 2020, making it difficult to insert this new culture. In addition, concomitantly there were political

transitions in the scenario of its internal management, with change of managers and departure of servers.

In its first phase of implementation, which took place during the second half of 2020, the elaboration of the diagnosis of the current situation, analysis of consistency of demands, qualification and structuring of projects through the management tools was developed. In the second phase of implementation, during the first half of 2021, the dissemination and improvement of planning processes was carried out, engaging the technical staff and sector managers, and the execution and monitoring of projects.

From the second half of 2021, there was the insertion of new specialists to support the volume of Project demands in the SIE and NUPROJ SIE was consolidated within the agency, expanding the scope of action in the management of existing projects.

The department's core projects evolved from 63 projects monitored by the Projeta SC system in 2020 to 214 projects in 2021. In 2020 it had 56 projects in progress with a total planned value of R\$ 1,417,029,562.43,

In 2021, it started to have 6 professionals certified as instructors, through the project management course, basic modules of EPROJ, who have already conducted training for other employees of the secretariat.

In the year 2023 the staff of specialists in project management NUPROJ / SIE was increased, currently counting on 8 professionals, and has more 468 projects in progress with the total planned value of R \$ 13,789,601,665.72, and of this amount have already been executed / paid R \$ 2,659,063,287.51.⁴ Each of the 8 specialists were allocated in different departments within SIE, as each reality faces its own challenges, and although NUPROJ works in a unified way, it is necessary to develop strategic solutions for each particular scenario.

4.1.1 Office of the Secretary (GABS)

Because the portfolio manager is allocated in the cabinet, it facilitates decision making with the support of the main sponsor, which is the Secretary. The projects when elaborated are approved by the secretary in order to have knowledge of the initiatives that are being carried out by the secretariat in its different areas of activity. To carry out the monitoring and accountability to the State Government uses indicators that are established, monitored and controlled in order to achieve the proposed objective. The main challenge is the change of culture from contract management to project management so that all areas and servers absorb this new vision in search of generating better results.

⁴ Values available on the Projeta-SC platform (Dashboard.Financeiro.Controle de Fontes de Fundos) available in < https://www.projeta.sc.gov.br/tela_dashboards.html > Accessed on 05/26/2023.

4.1.2 Superintendence of Planning and Management (SPG)

Within the scope of the SPG of SIE, the adherence of the EPROJ methodology by the PROJETA-SC platform has happened very gradually. With eight structured managements covering responsibilities of logistics and mobility infrastructure planning, fundraising and special projects, intermunicipal passenger transport planning, cartography and statistics, innovation, processes, standardization and standardization and the planning of civil and hydraulic works. The Management that has been adopting the tool the most is the Fundraising and Special Projects, where the road works projects of the financing programs are monitored.

Recently, the monitoring by the PROJETA SC platform has become a mandatory requirement in the bidding notice, for the hiring of the financing program manager.

In relation to the other Managers, the process is very consultative and requires a role of convincing and charging through NUPROJ to the other servers to use the PROJETA SC portal, because in the view of some, the tool is not yet attractive on a daily basis and other priority activities are done to the detriment of the need to monitor and monitor the platform.

In general, the PMO is accepted, they see the necessary importance, but in practice it has not yet generated the value. It is worth mentioning that we continue working to understand the main pains of users, the needs that meet in a systemic way to all organs in order to map and customize what they really need. Linked to this, there are other factors that prevent success: resistance to change, lack of systemic vision, lack of communication and integration between areas and lack of a culture focused on innovation and project management.

4.1.3 Superintendence of Infrastructure (SIN)

The control of SIN's paving and maintenance projects were divided into portfolios in order to facilitate the control and evolution of the projects, whose main ones are: Highway Interventions, Routine Maintenance and Discontinued Maintenance.

Monthly reports are collected from all SIN projects to feed government indicators. As of August 2022, the system had 108 ongoing projects in the New Directions Portfolio and 49 projects in the Discontinued Maintenance Portfolio.

In SIN the dissemination of the use of the tools Projeta SC and SICOP/GPP faced difficulties and had to be adapted and improved to promote its usability to the servers. In addition to the improvements in the systems, management reports were developed as a way to automate reports that the teams prepared by excel. Standards were also developed to facilitate the management and measurement of results, the schedules of the projects have a standard with minimum information that should be included as a way to enable the measurement of the evolution of the same.

Among the proposals for advancement is the future integration of Projeta SC with the Purchasing Portal⁵, which enables the automation of important standard activities that are included in the project schedules, reducing the operational work currently performed by the team.

The need to become the most intuitive platform and able to concentrate the information present today on different platforms in one place, would help to speed up some steps. For example, inspectors could update the measurements of each work more efficiently, not needing to access several platforms to do so. Gradually the added value and benefits have been recognized by the secretariat, as well as facilitating daily activities.

It is understood that the continuous improvement of the Projeta SC Platform would result in better engagement of the servers, and more speed to the process as a whole by providing the analysis of alternative spreadsheets, created through different filters for different levels of control, monitoring, and feeding of projects. What is not yet possible, because the tool currently delivers reports only in the managerial view and not departmental / sectoral.

4.1.4 Superintendence of Civil and Hydraulic Works (SOC)

With the implementation of the Administrative Reform in the state of Santa Catarina and approval of Complementary Law No. 741 of June 12, 2019, the Secretariat of Infrastructure absorbed the civil works of the various government agencies, assisting the SOC with the technical expertise regarding: meet requests for architectural and engineering projects, Meet requests for execution of works, meet requests for inspections and / or technical reports, meet requests for technical analysis, meet maintenance requests and meet requests for inspection of civil and hydraulic works.

The Administrative Reform of 2019 resulted in the extinction of twenty Regional Development Agencies (ADRs), two state secretariats, six executive secretariats, two autarchies, a mixed economy society and five councils. Therefore, the civil works that were once served by the regional (ADRs) were centralized in the SIE/SOC.

It becomes a challenge for the SOC to guide the other government agencies so that the Principle of Legality of Complementary Law 741/2019 is respected and the established guidelines and prerogatives are respected.

It can be mentioned that the centralization of civil works brought new challenges to the newly structured body, among them: agencies do not understand and/or do not meet the Complementary Law; manage the eight regional offices distributed by the State; the Superintendence works for projects of other organs (communication with the managers of each corresponding Secretariat); difficulty in

⁵ Platform of the Purchasing Portal of the State of Santa Catarina. Available at <<http://www.portaldecompras.sc.gov.br/>> Accessed on 10/08/2022.

compiling results because the contracts are registered by each contracting body; projects initiated in the requesting agency with a request for technical support sent to SOC in a late manner; incorrect routing flow of technical support requests; incorrect procedures regarding the flow of inspection; complexity of the projects differs by agency (renovations of schools, construction of hospitals, maintenance of dams, restoration of museums and listed buildings, public archive, etc.); the need to standardize and guide the other organs; high demand for technical support and reduced technical staff (lack of human resources); among others.

The civil works were organized in a joint monitoring program, in partnership between SIE and other government Secretariats. Follow-up meetings are held by the managers of the folders and specialists NUPROJs, in which the deliveries of the projects are monitored through occurrences registered via *Dashboard*⁶ in Projeta-SC.

By mid-August 2022, 640 projects had been registered, 153 of them with funding from the Pact program and about 365 sectoral projects in partnership with other secretariats.

The performance of the SOC is based on the scope of its technical competence, enabling the agency to act in an orientative manner before the other government secretariats through the transfer of good management practices and technical guidance. Consequently, the specialists of NUPROJ/SIE act in a similar way to the agency, adapting to this work shared with the other Secretariats of State and respective specialists, members of the NUPROJs of each partner secretariat.

To this end, it was identified, together with the Special Advisory of the SOC, proposals for improvements in the development of the work, such as: the definition of process flowchart, the standardization of technical documents, the standardization of technical guidelines, the check-list of general items, among others.

In this way, these mechanisms will allow the assertive direction of the technical demands of the sectoral bodies, positively impacting on the agility of the analysis and technical solutions, on the fluidity of the communication of the stakeholders with the project team, on the alignment of delivery deadlines and finally on the maturation of the management of civil and hydraulic works projects.

In addition, indirectly, another result that should be recorded is the transfer of technical knowledge and *know-how* of the SOC with the sectoral bodies, representing the multiplication of technical knowledge.

Finally, SOC intends to continue in this line of work of project management shared with other sectoral bodies, gradually inserting itself in the government secretariats, in compliance with Complementary Law 741/2019 in the Administrative Reform, through the implementation of

⁶ Data extracted from *the Dashboard* of the Projeta-SC platform. Available at https://www.projeta.sc.gov.br/tela_dashboards.html 15/08/22> Accessed on 08/15/2022.

engineering and project management tools and good practices, fostered by the agency's experience in conducting the public civil works projects monitored so far.

The established management flow is effective since the main value that the SOC delivers to the population is the management of civil and hydraulic works of the state.

5 FINAL CONSIDERATIONS

Even with its short time of existence and the different challenges faced, NUPROJ / SIE constantly seeks to improve not only its own, but also the engagement of servers in addition to being a facilitator in the search for solutions to increase project management in SIE.

NUPROJ/SIE was the winner of the award for best Project Center of the State of Santa Catarina promoted by EPROJ and was the 2nd place in the PMI/SC Award, PMO category in 2021.

The team also participated in the 5th Santa Catarina Congress of Project Management and Leadership of 2021 promoted by PMI / SC, reinforcing its commitment to its constant training. Also in 2021, the *e-book* entitled PROJETA -SC: Guia de boas práticas do Portal de Gestão de Projetos do Governo do Estado de Santa Catarina was published, prepared by the NUPROJ SIE team in partnership with other state institutions.

In April 2022, the 1st GOV SEMINAR - Government Project Management Seminar promoted by PMI-SC was held, which was attended by 36 SIE servers, strengthening the involvement of these servers with the theme of project management.

In June 2022 NUPROJ/SIE won the 2nd place of the Santa Catarina Innovation Award - Professor Caspar Erich Stemmer 2021, in the Innovative Government Category, organized by FAPESC.

NUPROJ/SIE organized the 1st SIE Project Management Meeting scheduled to take place in November 2022, which aims to promote the dissemination of the project management culture and the tools used by NUPROJ in all SIE departments.

The aforementioned events and awards are not only important for the recognition and dissemination of the work developed by the team, but are also

motivators for overcoming future challenges in the development of tools, ways and means to promote and transform the culture of project management not only in SIE, but in the Government of the State of Santa Catarina.

REFERENCES

Andrade, g.h *et al.* Coletânea de inovação e modernização na gestão pública volume 1 - guia para inovação na gestão pública (superintendência central de inovação e modernização institucional – governo do estado de minas gerais – secretaria de estado de planejamento e gestão – subsecretaria de gestão e apoio a políticas estratégicas) – fundação João Pinheiro, 2018.

Albury, d. *Fostering innovation in public services. Public money & management*, v. 25, n. 1, p. 51-56, 2005.

Brasil. Constituição (1988). Constituição da república federativa do Brasil. Brasília, DF: Senado Federal: Centro Gráfico, 1988.

Calheiros, m. C. H. Identificação da estrutura de escritório de gerenciamento de projetos adequada a partir da avaliação do nível de maturidade em gerenciamento de projetos: um estudo sobre a área de tecnologia da informação da Petrobras. Dissertação de mestrado apresentada à escola brasileira de administração pública e de empresas – EBAPE/FGV. Orientador: Irigaray, h. A. R. Rio de Janeiro, 2005.

De Mattia, c.; Corrêa, f. E. L.; Corrêa, v. S.. A eficiência de um escritório de projetos: análise das melhores práticas. 2020.

E-book. Projeta -sc: guia de boas práticas do portal de gestão de projetos do governo do estado de Santa Catarina - projeta sc. 2021 disponível em <<https://www.eproj.sc.gov.br/wp-content/uploads/2022/01/ebook-projeta-sc.pdf>> acesso em 05/08/2022

Enap. Introdução ao orçamento público: módulo 1 entendendo o orçamento público. Brasília, 2017. disponível em <<https://repositorio.enap.gov.br/bitstream/1/3167/1/modulo%201%20-%20entendendo%20o%20orcamento%20publico.pdf>>. Acesso em: 22 de abril de 2022.

Finocchio Júnior, f.. *Project model canvas: gerenciamento de projetos sem burocracia*. Rio de Janeiro: Elsevier, 2013.

Gonçalves, j. R.: a importância do bom gerenciamento do escopo para o sucesso de um projeto. Techoje, 2009. Disponível em: http://www.techoje.com.br/site/techoje/categoria/detalhe_artigo/692>. Acesso em 22/10/2015.

Joslin, r. & Müller, r. *Relationships between a project management methodology and project success in different project governance contexts. International journal of project management*, 33(6), 1377-1392, 2015.

Kerzner, h. *Gestão de projetos: as melhores práticas*. 2.ed. Porto Alegre: Bookman, 2006.

Mulgan, g. E Albury, d. *Innovation in the public sector*. 2003. Disponível em: <file:///c:/users/talithabonfatti/downloads/innovation_in_the_public_sector.pdf> colocar o site > acesso em: 9 out. 2017.

Neto, a. N. De a.; Vencovsky, e. O gerenciamento de projetos e sua importância para a qualidade e a efetividade no setor público. 2017. Disponível em <https://core.ac.uk/display/268170107?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1> acesso em 10/08/2022.

o instituto. *Project management institute* santa catarina, brazil. Disponível em: <<https://pmisc.org.br/sobre/o-que-e-pmi/o-instituto/>>. Acesso em: 28/07/2022.

Okano, m. T. Mestre em administração e doutor em engenharia de produção. Professor do mestrado profissional gestão e tecnologia em sistemas produtivos. Ceeteps. Marcelo.okano@fatec.sp.gov.br. Revista espacios. Issn 0798 1015 vol. 39 (n° 47) ano 2018.

Paumgartten, b. Ferramentas para gestão de projetos. Revista engenharia de software magazine, volume 45, 2010.

Pinheiro, m. T.; rocha, m. A. Da s. Contribuições do escritório de gerenciamento de projetos públicos na gestão para resultados. Revista do serviço público Brasília 63 (2): 199-215 abr/junho 2012.

Pmi. Um guia do conhecimento em gerenciamento de projetos. Guia pmbok®. Quarta edição – eua: project management institute, 2008.

Pmi. Um guia do conhecimento em gerenciamento de projetos. Guia pmbok®. Quinta edição – eua: project management institute, 2012

Pmi. Um guia do conhecimento em gerenciamento de projetos. Guia pmbok®. Sexta edição – eua: project management institute, 2017

Pmi. Um guia do conhecimento em gerenciamento de projetos. Guia pmbok®. Sétima edição – eua: project management institute, 2021.

Prado, d. S. Gerenciamento de programas e projetos nas organizações. 3. Ed. Nova lima: indg-tecs, 2004.

Santa catarina. Decreto nº 308 de 17 de agosto de 2015. Dispõe sobre a utilização do sistema integrado de controle de obras públicas (sicop) pelos órgãos e pelas entidades da administração pública estadual e estabelece outras providências. Lex: coletânea de legislação e jurisprudência, santa catarina, 2013.

Santa catarina. Decreto nº 1537, de 10 de maio de 2013. Dispõe sobre o programa pacto por santa catarina (pacto) e estabelece outras providências. Lex: coletânea de legislação e jurisprudência, santa catarina, 2013.

Santa catarina. Decreto nº 1289, de 5 de setembro de 2017. Institui o escritório de gestão de projetos do poder executivo estadual e estabelece outras providências. Lex: coletânea de legislação e jurisprudência, santa catarina, 2017.

Santa catarina. Decreto nº 632, de 2 de junho de 2020. Regulamenta o escritório de gestão de projetos (epro) da administração pública estadual do poder executivo e estabelece outras providências. Lex: coletânea de legislação e jurisprudência, santa catarina, 2020.

Santa catarina. Lei complementar nº 789, de 29 de dezembro de 2021. Altera a lei complementar nº 741, de 2019, que dispõe sobre a estrutura organizacional básica e o modelo de gestão da administração pública estadual, no âmbito do poder executivo, e estabelece outras providências. Santa catarina, 2021.

Santa catarina. Lei complementar nº 741, de 12 de junho de 2019. Dispõe sobre a estrutura organizacional básica e o modelo de gestão da administração pública estadual, no âmbito do poder executivo, e estabelece outras providências, santa catarina, 2019.

Soares, f. C. E junior, h.f.b. concepção e gestão de projetos públicos - ifsc, florianópolis 2011 (material produzido com recursos do programa universidade aberta do brasil (uab)).

Sotille, m. Justificando pmo nas organizações. In barcaui, andré (org). Pmo: escritório de projetos, programas e portfólio na prática. Rio de janeiro: brasport, 2012.

Vargas, r. V. Manual prático do plano de projeto: utilizando o pmbok guide. 4. Ed. Rio de janeiro, rj: brasport, 2009. 226 p.