FUNDAMENTAL RIGHT OF ACCESS TO INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) REGARDING CYBERSECURITY AND INFORMATION SECURITY: EVOLUTION IN THE NATIONAL PLANNING OF THE MEXICAN STATE (2007-2024)

DIREITO FUNDAMENTAL DE ACESSO ÀS TECNOLOGIAS DE INFORMAÇÃO E COMUNICAÇÃO (TIC) EM RELAÇÃO À CIBERSEGURANÇA E SEGURANÇA DA INFORMAÇÃO: EVOLUÇÃO NO PLANEJAMENTO NACIONAL DO ESTADO MEXICANO (2007-2024)

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Abstract

This evolutionary analysis is aimed at understanding the processes to comply with the institutionalization of fundamental rights, given which it is necessary to understand the digital conception that has been presented in the Mexican case from public institutions and to be able to recognize the areas of opportunity that can be generated with regarding Information and Communication Technologies (ICT) in general, and fundamentally in relation to cybersecurity and information security in particular, these as public policy from the approach of national planning applied to the recognition of the fundamental right of access to ICT. This entails the hypothesis of determining whether, in terms of national planning, the Mexican Federal Executive has contributed to establishing the conditions to ensure the right of access to ICTs for the Mexican population. The methodology used is evolutionary diachronic and institutional analysis from the perspective of performance evaluation. The results provide us with a general idea of how the evolution and current situation of the National Digital Strategy is situated to develop the potential of ICT in digital government, as well as in compliance with the fundamental right of access to information and communication technologies. (TIC) on behalf of the Mexican state. Although the determination is not very conclusive, what it does provide us with a panoramic vision of the evolution of the fundamental right established in relation to national planning and the results obtained. This confirms the need to recognize in the Rule of Law the institutional transit that becomes cybersecurity and information security, from the programmatic, budgetary and performance evaluation perspective, to base new comparative analyzes in the world and the Latin American region, in accordance with international commitments regarding sustainable development.

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Keywords: fundamental rights, right of access to information and communication technologies (ict), rule of law, cybersecurity, information security, national planning, digital government, national digital strategy, new public management, results-based budgeting, evaluation of the performance, sustainable development goals.

Resumo

Esta análise evolutiva é dirigida a entender os processos para cumprir com a institucionalização de direitos fundamentais, dado que é preciso compreender a concepção digital que se apresentou no caso mexicano desde as instituições públicas e poder reconhecer as áreas de oportunidade que se podem gerar com respeito às Tecnologias de Informação e Comunicação (TIC) no geral, e fundamentalmente no que diz respeito à cibersegurança e segurança da informação em particular, isso é como política pública desde o enfoque da planificação nacional aplicada ao reconhecimento do direito fundamental de acesso a las TIC. Isso conlleva la hipótesis de determinar se em cuanto a la planeación nacional, o Executivo Federal mexicano tem contribuído para estabelecer as condições para assegurar o direito de acesso a las TIC a la población mexicana. A metodologia utilizada é a diacrônica evolutiva e a análise institucional desde a ótica da avaliação do desempenho. Os resultados nos fornecem uma ideia geral de como se situa a evolução e atualização da Estratégia Digital Nacional para desenvolver o potencial das TIC no governo digital, bem como no cumprimento do direito fundamental de acesso às tecnologias de informação e comunicação (TIC) de parte do estado mexicano. Embora a determinação não seja totalmente conclusiva, o que sim é que nos brindam com uma visão panorâmica da evolução do direito fundamental estabelecido em relação ao planejamento nacional e aos resultados obtidos. Com isso se confirma a necessidade de reconhecer no Estado de Direito o trânsito institucional que se deve à cibersegurança e a segurança da informação, desde a ótica programática, pressuposta e de avaliação do design, para fundamentar novas análises comparativas no mundo e no región latinoamericana. conform a los compromisos internacionales acaecidos en cuanto a desarrollo sostenible.

Palavras-chave: direitos fundamentais, direito de acesso às tecnologias de informação e comunicação (tic), estado de direito, segurança cibernética, segurança da informação, planejamento nacional, governo digital, estratégia digital nacional, nova gestão pública, orçamento baseado em resultados, avaliação de desempenho, desenvolvimento sustentável metas.

Summary: 1. Introduction. 2. Article Development. 3. Final Considerations. 4. References.

1 INTRODUCTION

There are considerations around the evolution of fundamental rights, for which reason the main problematization and challenge in modernization processes through technology does not lie in the technology itself. Nevertheless in practical issues such as the need to establish agreements between institutions for the exchange of information and the difficulty of identifying physically absent citizens, this for compliance with the fundamental right of access to information and communication technologies (ICT).

This approximation has the objective of understanding the processes to comply with this right, given which it is necessary to understand the digital conception that has been presented in the Mexican case from public institutions and to be able to recognize the areas of opportunity that can be generated with respect to

Information and Communication Technologies (ICT) in general, and fundamentally in relation to cybersecurity and information security in particular, these as public policy from the approach of national planning applied to the recognition of this fundamental right.

The methodology used is based, on the one hand, on an evolutionary diachrony that allows us to know the background, evolution and status of the National Digital Strategy to develop the potential of ICT in digital government, as well as the results in the increase in digitization of the country. This entails the hypothesis of determining whether, in terms of national planning, the Mexican Federal Executive has contributed to establishing the conditions to ensure the right of access to ICTs for the Mexican population. This will configure the analysis in the institutional transit that becomes cybersecurity and information security, this from the perspective of performance evaluation regarding the fundamental right of access to information and communication technologies (ICT) from the perspective of the New Public Management.

The explicit methodological procedure required by the publication implies that the elements that define it will first be defined by applying the concepts to the planning model and the National Development Plan (PND), which is understood in terms of PPG as New Public Management, as MAN regarding Management by results and, as KG regarding the progress of indicators. All the previous, applied to the case of the Program for a Close and Modern Government (2012-2018), and the National Program to Combat Corruption and Impunity, and Improvement of Public Management (2019-2024). Subsequently, the planning models used in the specified time frames are reviewed and a diachronic evolution of the results obtained by the Coordinator of the National Digital Strategy CEDN. It is generated to know how the evolution and current situation of the National Digital Strategy is situated to develop the potential of ICT in digital government, as well as in compliance with the fundamental right of access to information and communication technologies.

The results obtained from the evolution analysis presented must be interpreted with caution because, despite the fact that an obvious connection can be identified, there is a risk of generating a cognitive discrepancy between correlation and causation. Therefore, the exploratory results provide us with a general idea of how the evolution and current situation of the National Digital Strategy is situated to develop the potential of ICT in digital government, as well as in compliance with the fundamental right of access to technologies of information and communication (ICT) by the Mexican state. Although the determination regarding whether the Federal Executive has contributed to establishing the conditions to ensure this right to the Mexican population is not totally conclusive, it does provide us with a panoramic view of the relationship that contributes to understanding the evolution of the right fundamental established in relation to national planning and the results obtained. This confirms the need to recognize in the Rule of Law the institutional transit that becomes cybersecurity and information security, from the programmatic, budgetary and performance evaluation perspective, to base new specific comparative analyzes from this perspective both at the international level, as well as at the regional level in Latin America, according to the clarifications addressed.

2 ARTICLE DEVELOPMENT

The main current demand on organizations in general is to work more effectively and efficiently with the available resources. The New Public Management recognizes that the State is an indispensable instrument for the economic, political and social development of any country, and that in the region it implies the recovery of the capacity of Ibero-American public administrations as useful and effective instruments at the service of the common good².

With these approaches, it is corroborated that the New Public Management bases its purpose to intervene biunivocally, at the economic-political threshold in its ontological dimension, synergistically in the scaffolding and institutional platform in its epistemological dimension, and multifunctionally (with techniques derived from parameterizing the economy, effectiveness, efficiency, quality, responsibility) in its methodological dimension in terms of the objectives, performance and results of the members of the multidimensional public sphere, with the inevitable passage through the institutional sieve in the consideration of the elements of the system in an integral way and not only subserviently. In this regard, it is taken with emphasis to consider the New Public Management as a philosophy and current of modernization of public administration that has been developed since the 80s, oriented towards administrative reforms in the search for results and efficiency, fundamentally based on principles such as clarity of objectives, freedom to manage, accountability, adequate information flows and effective performance evaluation (Richardson, 2001:6).

However, a next transition arises that comes from letting public managers manage by granting them greater flexibility and devolution of authority, by ensuring their accountability with administrative reforms (Barzelay, 2001:35). These elements can be further diversified to settle the problems that have been inherited from the bureaucratic administration (Pérez Parra, 2013:214). In this regard, Barzelay refers to the following for the proposed models:

The set of doctrinal proposals on organizational design problems.... It can be assumed as the theory of said entity, T, with respect to public management. A general model of the reasoning followed by the Treasury department at the doctrine level is, therefore, the following: T = A (NIE [Tpc, TCE, Tpa]) (Barzelay, 2001:35).

From the above we can define according to the proposal that the author implies, deriving the following elements:

T= *Theory of the entity regarding Public Management*

A = Argument

NIE= New Institutional Economics

Tpc = Public Choice Theory

TCE= Economic theory on transaction costs

² CANALES, José, Documentos básicos para la modernización y el fortalecimiento de las administraciones públicas en iberoamérica, Editorial Club Universitario, 2009, available at: https://n9.cl/u3wbc (Accessed: August 21, 2023).

Tpa = *Theory of the agent* – *principal* (BARZELAY, 2001, p. 7-8).

In accordance with the above, the initial considerations are reinterpreted to recognize the meaning of the proposed equation:

The interpretation that the New Institutional Economics constitutes the intellectual foundation of the New Public Management is due, as can be seen, to directing attention to the right side of a unit of argument within a larger and specifically situated discussion. (Barzelay, 2001, p. 8).

Given the initial approach, we can make considerations regarding the application of the model proposed for the Mexican case, given which it is important to define the theoretical elements that Barzelay mentions. Therefore, we will first understand the concepts of the New Institutional Economics driven by governmental change through instruments such as the main agent theory, quasi-market approaches, transaction costs, collective action dilemmas and the rational definition of property rights (Arellano & Lepore, 2006: p.2).

Therefore, it is integrated into the Public Election Theory regarding the government, conceiving it as an expensive (due to the cost of its financing and maintenance) but necessary to generate the common good (Ramírez & Ramírez, 2004:121). Corresponding to this, we find the Theory of Transaction Costs, which considers consensus as transaction costs (North, 1990a: 76), which derive from costs associated with information asymmetries and motivation costs arising from the coordination of two or more participants in a collective decision (North, 1990b:2). Finally, the element that we lack to integrate this proposal is found in the New Institutional Economics in the Agency Theory or Principal-agent Theory, where the vision of converting the public administration into a new institution that guarantees public services of high quality for citizens (Pérez, 2013:174), understanding this modeling as a set of contracts between an individual (principal) who hires another (agent) delegating to him the execution of a certain task, is defined by the difference between the utility relations of each one of the members of the contract (Gimeno, 1997:47). In accordance with this, we derive the application to the case of the National Development Plan based on what Barzelay (2001:21) mentions in the Mexican case, which implies that for governments to work they must be monitored with visible and specific managers. In this case condensed into:

d1 = A (PPG, MAN, KG),

where the terms inside A (.) refer to three great universes of discourse: public philosophies of government (PPG), management (MAN) and knowledge of the government process (KG) (BARZELAY, 2001, p. 21)

In this case, this modeling will be applied as a critical success factor to achieve the aspirations emanating from the budget reform at the time, applying the concepts to the planning model and the National Development Plan (PND), which is understood in terms of PPG as New Public Management, as MAN regarding Management by results and, as KG regarding the progress of indicators, applied to the case of the Program for a Close and Modern Government (2012-2018), and the National Program to Combat Corruption and Impunity, and Improvement of Public

Management (2019-2024), which have had an evolution that has allowed the establishment of National Planning in Mexico in terms of Information and Communication Technologies (ICT)³ in general and, cybersecurity⁴ and information security⁵ in particular.

In this context, the resources available in a nation are generally limited to cover all the needs, for which it is essential to establish priorities and determine the distribution of expenses and income and the specific decisions in this direction are reflected in the budget (Cabrera, Gutierrez & Miguel, 2005:37), therefore, the budgeting process is carried out through a diagnosis of the country's economic situation, the identification of challenges coupled with the formulation of income and spending strategies in accordance with the National Plan of Development⁶.

This undoubtedly contrasts with other conceptions of planning in the digital field, where the generation of a strategy that has been established first and later the generation of an agenda that derives in an action plan as we can see with the following scheme generated by Barros⁷ regarding the generation of digital policies:

Understood as "information media and communication channels integrated into the same technological tool that allow interactive communication, capable of generating information and sharing knowledge". For more detail check PRESIDENCIA DE LA REPÚBLICA, Estrategia Digital Nacional, México, 2013, p.41, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294161&fecha=02/04/2013 (Accessed: August 21, 2023).

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Sui generis element whose definition is taken in accordance with the following proposal: "Set of policies, controls, procedures, risk management methods, and standards associated with the protection of society, government, economy, and national security in cyberspace and public telecommunications networks". COORDINACIÓN DE ESTRATEGIA DIGITAL NACIONAL DE LA PRESIDENCIA DE LA REPÚBLICA Y LA UNIDAD DE GOBIERNO DIGITAL DE LA SECRETARÍA DE LA FUNCIÓN PÚBLICA, Estrategia Nacional de Ciberseguridad, 2017, p.27, available at: https://www.gob.mx/cms/uploads/atachment/file/271884/Estrategia_Nacional_Ciberseguridad.pdf (Accessed: August 21, 2023).

For this element, the following definition is attached: "the ability to preserve the confidentiality, integrity and availability of the information, as well as the authenticity, reliability, traceability and non-repudiation of the same". For more details visit: MEXICO, Acuerdo por el que se emiten las políticas y disposiciones para impulsar el uso y aprovechamiento de la informática, el gobierno digital, las tecnologías de la información y comunicación, y la seguridad de la información en la Administración Pública Federal, Diario Oficial de la Federación, 2021, available at: https://dof.gob.mx/nota_detalle.php?codigo=5628885&fecha=06/09/2021 (Accessed: August 21, 2023).

It is important to remember what is established in article 16 of the Federal Budget and Fiscal Responsibility Law: "The Income Law and the Expenditure Budget will be prepared based on objectives and quantifiable parameters of economic policy, accompanied by their corresponding performance indicators, the which, together with the general criteria of economic policy and the objectives, strategies and annual goals, in the case of the Federal Public Administration, must be consistent with the National Development Plan and the programs derived from it(...)". For more details visit: CAMARA DE DIPUTADOS, Ley Federal de Presupuesto y Responsabilidad Hacendaria, 2023, available at: <://www.diputados.gob.mx/LeyesBiblio/pdf/LFPRH.pdf> (Accessed: August 21, 2023).

Example made by Barros for the establishment of a digital policy. For further details see: BARROS, Alejandro, *PolisDigital. Algunas reflexiones en torno al Desarrollo Digital de los países*, Chile: Centro de Sistemas Públicos, 2012, p.56, available at: https://www.alejandrobarros.com/wp-content/uploads/old/00pD_polisDigital.pdf> (Accessed: August 21, 2023).

GRAPH 1. INITIAL PLANNING MODEL

TRATEGY

Country Vision
Development Strategy
10-20 years

It must establish a longterm view, linked to the development model that the nation has defined. Large themed areas
5-10 years

In the medium term, it is appropriate to build an agenda that covers the main areas:

Society and Culture, Modernization of the State, Health, Education, Connectivity and Infrastructure, Technological Industry, Participation and Inclusion, etc. Resources, Deadlines, Results 2-4 years

Specify an action plan, with activities, responsible parties, results, costs and a schedule of the process. The action plan must include the sensitivities and priorities of the government in power.

Note: Own elaboration based on the reviewed information.

In accordance with the proposal generated by Barros, it starts from the Strategy (a long-term vision that is in tune with the development model that the nation agreed upon to guarantee its stability beyond changes in government), then the potentialities are considered to generate an Agenda (medium-term element that requires establishing a comprehensive digital agenda that encompasses the most relevant areas) and finally specifying the Action Plan (crucial short-term element related to specific activities, assignment of responsibilities, expected results, estimates of costs and a precise calendar for the process of the current priorities of the government in office). These elements serve as a reference to continue establishing the future of National Planning in Mexico first and, of Information and Communication Technologies (ICT) later.

According to the historical records in Mexico, in the National Development Plan (PND) 2007-2012, the Special Management Improvement Program in the Federal Public Administration 2008-2012 (PMG) is established, whose objective 1 was oriented to the "Strategy 1.2 improve the delivery of public services through the use and exploitation of information and communication technologies", all this in the context of the establishment of the Digital Government Agenda⁹ presented by the Intersecretarial Commission for the Development of Electronic Government (CIDGE)¹⁰ through the Adequate coordination of actions proposed by the Ministry of Public Function, with the dependencies of the Federal Public Administration and, through these, with parastatal entities.

[&]quot;Line of action 1.2.2 Promote the development of digital government with state and municipal governments, industry, academia and society in general to optimize the delivery of public services". MEXICO, Decreto por el que se aprueba el Programa Especial de Mejora de la Gestión en la Administración Pública Federal 2008-2012, Diario Oficial de la Federación, 2008, available at: https://dof.gob.mx/nota_detalle.php?codig o=5059571&fecha=10/09/2008> (Accessed: August 21, 2023).

MEXICO, Acuerdo por el que se da a conocer la Agenda de Gobierno Digital, Diario Oficial de la Federación, 2008, available at: https://www.dof.gob.mx/nota_detalle_popup.php?codigo=5077667 (Accessed: August 21, 2023).

MEXICO, Acuerdo que tiene por objeto crear en forma permanente la Comisión Intersecretarial para el Desarrollo del Gobierno Electrónico, Diario Oficial de la Federación, 2005, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=2101617&fecha=09/12/2005 (Accessed: August 21, 2023).

According to the above, this was the mechanism that was held to establish the purposes and define the fundamental principles to modernize the government through the effective use of Information and Communication Technologies (ICT) through the Federal Digital Government strategy for dependencies and entities of the Federal Public Administration (APF), industry, academia, the powers of the union and society as a whole.

In this context, regarding the management of public resources in 2008, a relevant reform to article 134 of the Political Constitution of the United Mexican States was also carried out to significantly improve government management and the use thereof, seeking achieve a more transparent, responsible and efficient administration, which was accompanied by the New Public Management approach based on Public Administration, and in turn, as mentioned by the Inter-American Development Bank, Public Administration is the foundation of Public Management and is basis for Managing for Results¹¹. This is relevant since, from that moment on, the National Development Plan (PND) is institutionally condensed in terms of PPG as New Public Management, accompanied by MAN regarding Management by Results and KG regarding the progress of indicators, in accordance with the Results-Based Budget methodology, which is based both on the New Public Management, as well as on Management by results and the generation of progress by results in order to achieve its mission after the reform of article 134 of the Mexican constitution.

Subsequently, from the National Development Plan (PND) of 2013-2018, substantial changes are generated in terms of public policy in relation to ICT, on the one hand, it is established as a specific objective within the Plan to "Establish a Strategy Digital Nacional to promote the adoption and development of information and communication technologies, and promote an effective government that inserts Mexico into the Knowledge Society", on the other hand, the Program for a Close and Modern Government (PGCM)¹² is generated based on one of its objectives to "Establish a National Digital Strategy that accelerates the insertion of Mexico in the Information and Knowledge Society" which led to strategy 5.6 regarding the establishment of ICT enablers for connectivity and affordability, digital inclusion and interoperability, all coordinated by the Office of the Presidency of the Republic (OPR), given the reform of the Organic Law¹⁴ of the Federal Public Administration

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GARCÍA, Roberto, y GARCÍA, Mauricio, La gestión para resultados en el desarrollo. Avances y desafíos en América Latina y el Caribe. Washington, D.C., BID, 2010, pp.14-15, available at: https://www.gob.mx/cms/uploads/attachment/file/271884/Estrategia_Nacional_Ciberseguridad.pdf > (Accessed: August 21, 2023).

MEXICO, Plan Nacional de Desarrollo 2013-2018, Diario Oficial de la Federación, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5299465&fecha=20/05/2013 (Accessed: August 21, 2023).

MEXICO, Programa para un Gobierno Cercano y Moderno 2013-2018, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5312420&fecha=30/08/2013 (Accessed: August 21, 2023).

It is important to mention that its legal nature as a support body of the Federal Executive and as part of the APF, is neither a dependency nor an entity, for which reason it can be considered in terms of article 111, second paragraph, of the Federal Law on Budget and Fiscal Responsibility, which states: "The performance evaluation system referred to in the previous paragraph will be mandatory for the executors of spending. Said system will incorporate indicators to evaluate the results presented in the quarterly reports, emphasizing the quality of public goods and services, citizen satisfaction and compliance with the criteria established in the second paragraph of article 1 of this Law. The Secretariat will issue the provisions for the application and

(LOAPF)¹⁵, through its technical support unit, the Coordination of the National Digital Strategy (CEDN), which establishes its mission related to the National Digital Strategy (EDN)¹⁶.

All of this is important because in parallel, in 2013, a far-reaching constitutional reform was carried out in the field of telecommunications, embodied in article 6, third paragraph, which recognized the fundamental right of access to Information and Communication Technologies (ICT), as well as radio broadcasting and telecommunications services, including access to broadband and internet¹⁷. In summary, the objective was to guarantee equity and digital inclusion in the country, allowing a greater number of people to take advantage of opportunities offered by Information and Communication Technologies (ICT) in line with what is established in the Plan National Development Program (PND) 2013-2018 and the creation of the National Digital Strategy (EDN).

In turn, in terms of cybersecurity and information security, numeral 1.2.3 was established within the 2013-2018 National Development Plan (PND) in the "Close and Modern Government" section to "Strengthen the intelligence of the Mexican State to identify, prevent and counter risks and threats to National Security", together with the line of action of "Design and promote an information security strategy, in order to guarantee the integrity, confidentiality and availability of information from people and public and private institutions in Mexico" 18. This is when, at the national strategic planning level, information security is already being taken into consideration as a state policy. In turn, from a programmatic position in

evaluation of the strategic indicators in the dependencies and entities. The Legislative and Judicial Branches and the autonomous entities will issue their respective provisions through their administration units." For more details visit: CAMARA DE DIPUTADOS, Ley Federal de Presupuesto y Responsabilidad Hacendaria, 2022, available at: https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPRH.pdf (Accessed: August 21, 2023).

- Article 10 in its section I establishes that the CEDN "In coordination with the competent agencies and entities, prepare, monitor and periodically evaluate the National Digital Strategy; promote the adoption and development of information and communication technologies; promote digital government; promote innovation, openness, transparency, collaboration and citizen participation to insert Mexico into the knowledge society". For more details visit: MEXICO, Reglamento de la Oficina de la Presidencia de la República, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294 161&fecha=02/04/2013 (Accessed: August 21, 2023).
- Facilitate access and promote the use of ICT in the daily life of society and the government so that they contribute to the economic and social development of the country, and improve people's quality of life. For more details: PRESIDENCIA DE LA REPÚBLICA, Estrategia Digital Nacional, México, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294161&fecha=02/04/2013 (Accessed: August 21, 2023).
- In accordance with the provisions of Article 6, third paragraph of the Political Constitution of the United Mexican States (CPEUM): "The State will guarantee the right of access to information and communication technologies, as well as to broadcasting and telecommunications services, including broadband and internet. For such purposes, the State will establish conditions of effective competition in the provision of said services". For further details see: CAMARA DE DIPUTADOS, Constitución Política de los Estados Unidos Mexicanos (CPEUM), 2023, available at: https://www.diputados.gob.mx/LeyesBiblio/pdf/CPEUM.pdf (Accessed: August 21, 2023).
- The Strategy 1.2.3. and their respective line of action can be verified in: MEXICO, *Plan Nacional de Desar- rollo 2013-2018*, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_deta lle.php?codigo=5299465&fecha=20/05/2013 (Accessed: August 21, 2023).

accordance with the above, the Program for a Close and Modern Government (PGCM) refers in its strategy 5.6 to "Establish and operate ICT enablers for connectivity and affordability, digital inclusion and interoperability" and in its numeral 5.6.8. "Promote Information Security within the Systems and Applications of dependencies and entities" ¹⁹.

In parallel, the National Digital Strategy (EDN) refers to Enabler 4. Legal Framework for Information Security and Computer Crime, subsequent to its numeral 6 "Promote the incorporation into the regulatory framework of best practices in terms of prevention and citizen security" by the National Digital Strategy Coordination (CEDN). However, later the intention to generate a specific strategy in terms of cybersecurity and information security is manifested when the National Cybersecurity Strategy is created²¹, which would be coordinated (in an initial stage) by the Intersecretarial Commission for the Development of Electronic Government. (CIDGE) and the Digital Government Unit (UGD), which served as the Executive Secretary in the CIDGE, since 2005 and which was dependent on the Ministry of Public Administration with the obligation to implement the coordination mechanisms that would allow it to comply with digital government policy²². As indicated, the following scheme can be identified regarding the national planning addressed:

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In this case, who coordinates this strategy is the Office of the Presidency in accordance with the provisions of: MEXICO, *Programa para un Gobierno Cercano y Moderno 2013-2018*, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5312420&fecha=30/08/2013 (Accessed: August 21, 2023).

Similarly, the coordination of the strategy is in charge of the National Digital Strategy Coordination of the Office of the Presidency of the Republic according to: PRESIDENCIA DE LA REPÚBLICA, Estrategia Digital Nacional, México, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294161&fecha=02/04/2013 (Accessed: August 21, 2023).

It establishes as an objective "to identify and establish actions in the field of cybersecurity applicable to the social, economic and political spheres that allow the population and public and private organizations, the use and exploitation of ICTs in a responsible manner for development sustainability of the Mexican State". This can be verified at: COORDINACIÓN DE ESTRATEGIA DIGITAL NACIONAL DE LA PRESIDENCIA DE LA REPÚBLICA Y LA UNIDAD DE GOBIERNO DIGITAL DE LA SECRETARÍA DE LA FUNCIÓN PÚBLICA, Estrategia Nacional de Ciberseguridad, 2017, p.4, available at: https://www.gob.mx/cms/uploads/attachment/file/271884/Estrategia_Nacional_Ciberseguridad.pdf (Accessed: August 21, 2023).

It is specified to be in charge of "Implementing the coordination mechanisms with the Dependencies, the Entities and the Attorney General's Office so that they contribute to the fulfillment of the strategy regarding digital government and open data, as well as the coordination or concertation of actions with the state governments and municipal governments, public and private, national and international institutions and society in general in order to promote the use and exploitation of Information and Communication Technologies", in accordance with Article 34. f. VI. MEXICO, Reglamento Interior de la Secretaría de la Función Pública, Diario Oficial de la Federación, 2017, available at: https://www.dof.gob.mx/nota_detalle.php?codi go=5490821&fecha=19/07/2017 (Accessed: August 21, 2023).

GRAPH 2. NATIONAL PLANNING 2013-2018



Note: Own elaboration based on the reviewed information.

The foregoing is relevant from the considering point of view, since as can be seen, for the first time both a national digital strategy and a digital strategy in cybersecurity are established. However, there is a paradox, since while the EDN was in force from its creation in 2013 until the generation of the Agreement that issues the National Digital Strategy 2021-2024, the National Cybersecurity Strategy (ENCS) did not have a fully defined institutional character, since despite the fact that the CIDGE Cybersecurity Subcommittee was created for coordination purposes for an initial stage, a specific period of time was not established for this threshold, and despite its alignment with the PND 2013-2018, it is not specified valid for its operation.

Finally, in the National Development Plan (PND) 2019-2024, ICTs are considered from Transversal Axis 2 "Fighting corruption and improving public management" established in Criterion 2 where "The use of information technologies will be promoted information and communication to promote transparency and democratic accountability to be simple, efficient and expeditious"²³, this in accordance with the National Program to Combat Corruption and Impunity, and to Improve Public Management 2019-2024 (PNCCIMGP) that establishes the "Priority Strategy 3.6.- Promote the transformation of the Federal Public Administration through the use and exploitation of ICT, for the direct benefit of the population"²⁴, all of which is in charge of the National Digital Strategy Coordination of the Presidency of the Republic (CEDN).

As previously mentioned, in the management of the national public administration of the Executive Power, continuity was given to the EDN of the previous period until the Agreement that issues the National Digital Strategy 2021-2024 was published, which establishes the relationship of ICTs as regards a digital

MEXICO, Plan Nacional de Desarrollo 2019-2024, Diario Oficial de la Federación, 2019, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5565599&fecha=12/07/2019 (Accessed: August 21, 2023).

MEXICO, Decreto por el que se aprueba el Programa Nacional de Combate a la Corrupción y a la Impunidad, y de Mejora de la Gestión Pública 2019-2024, Diario Oficial de la Federación, 2019, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5570983&fecha=30/08/2019 (Accessed: August 21, 2023).

policy to "...Transform the Federal Public Administration through the use and exploitation of ICTs to improve and make government services provided to citizens more transparent"²⁵, and recognizes in terms of information security Specific Objective 5 to "Promote a culture of information security that generates certainty and trust for the users of institutional and governmental technological services"²⁶.

Regarding the internal operation, as of 2019, the Regulations of the Office of the Presidency of the Republic, published on April 2, 2013 in the Official Gazette of the Federation (Diario Oficial de la Federacion), are repealed, and the new regulations are published to establish in the CEDN²⁷ the attribution of "Preparing and coordinating the National Digital Strategy, as well as developing information and communication technologies for use by the Federal Public Administration". This would seem like a normal change given the change in the Public Administration of the Federal Executive, however, a transition occurs that brings together the CEDN (created in the 2013-2018 period) with the CIDGE (intersecretariat coordinator created since 2005), thus creating the Intersecretarial Commission for Information and Communication Technologies, and Information Security (CITICSI)²⁹ which is defined in its purpose to "establish a mechanism for

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ICT Policy Management Tools managed on the web platform generated by the CEDN, which is available for the control and management of the activities carried out by the Institutions established in the Agreement by which the policies and provisions are issued to promote the use and use of information technology, digital government, information and communication technologies, and information security in the Federal Public Administration. For more details visit: MEXICO, Acuerdo por el que se emiten las políticas y disposiciones para impulsar el uso y aprovechamiento de la informática, el gobierno digital, las tecnologías de la información y comunicación, y la seguridad de la información en la Administración Pública Federal, Diario Oficial de la Federación, 2021, available at: https://dof.gob.mx/nota_detalle.php?codigo=5628885&fecha=06/09/2021 (Accessed: August 21, 2023).

In addition, it is established that the person in charge of the EDN is the Coordination of the National Digital Strategy of the Presidency of the Republic, of which it refers that "It has been entrusted, among others, with the attributions related to preparing, coordinating, and following up on the National Digital Strategy, as established in the Regulations of the Office of the Presidency of the Republic article 8, second and third paragraphs, section I of the Organic Law of the Federal Public Administration, grants the Federal Executive the power to define the policies of the Federal Government in the areas of computing, information technology, communication and digital government". MEXICO, Acuerdo por el que se expide la Estrategia Digital Nacional 2021-2024, Diario Oficial de la Federación, 2021, available at: https://dof.gob.mx/nota_detalle.php?codigo=5628886&fecha=06/09/2021 (Accessed: August 21, 2023).

MEXICO, Reglamento de la Oficina de la Presidencia de la República, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294161&fecha=02/04/2013 (Accessed: August 21, 2023).

In the same sense, among other functions, it is attributed according to article 35 in its section IV "Guide the issuance and execution of public policies and guidelines, as well as the implementation mechanisms, that derive from the National Digital Strategy in the field of information technologies and communication, in coordination with the competent agencies and entities of the Federal Public Administration". For more details visit: MEXICO, Reglamento de la Oficina de la Presidencia de la República, Diario Oficial de la Federación, 2019, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5581283&fecha=09/12/2019 (Accessed: August 21, 2023).

The foregoing in accordance with the Minutes of the First Ordinary Session, approved by the Commission, where it is established that "various provisions of the Organic Law of the Federal Public Administration, published in the Official Gazette of the Federation on November 30, are amended, added, and repealed. As of 2018, the powers regarding information technology, communication and digital government were transferred to the Office of the Presidency of the Republic through the National Digital Strategy Coordination; therefore,

coordination and collegiate conduct of actions for the implementation of federal policies on information and communication technologies, and information security³⁰. With this, it can be said that it is institutionally condensed in terms of PPG as New Public Management, applying MAN regarding Management by results in the unification of two institutions (CEDN and CIDGE), to generate advances in terms of KG in terms of institutional results given that it is expected to be able to comply with the PND guidelines. With this, our framework in terms of national planning could be focused as follows:

GRAPH 3. NATIONAL PLANNING 2019-2024 NATIONAL PROGRAM TO COMBAT CORRUPTION AND IMPUNITY, AND TO IMPROVE PUBLIC MANAGEMENT **Country Vision** Resources, Deadlines, Large themed areas NATIONAL DEVELOPMENT PLAN Results **Development Strategy** <= 3 años 5 vears Mission: Promote and encourage 2019-2024 Mexicans to enjoy and benefit from access to information and communication technologies; as Through the fight against Vision of 2024 well as broadband and Internet corruption and impunity, and services and their transformative the improvement of public the country will have carried potential for social, cultural and management, to fulfill the most out the substantial part of its economic development. important objective of the government of the Fourth fourth historical transformation, both in the Transformation: that in 2024 In charge economic, social and the population of Mexico is political sphere, as well as in living in an environment of CITICSI= CEDN+CIDGE that of ethics for coexistence well-being.

Note: Own elaboration based on the reviewed information.

Once the proposed evolution has been addressed, it is worth resolving the following consideration by questioning ourselves whether the Federal Executive has contributed, given all these institutional changes, to establishing the conditions to ensure the right of access to ICTs for the population in the institutional transition that will become to cybersecurity and information security, and in turn, to recognize if an emergency is arising, increase cybersecurity, protection of personal data, and respect for human rights from a performance evaluation perspective. This is not only important internally, since the international perspective also helps to demonstrate progress from an external perspective in terms of meeting international objectives. Added to this, it is important to know if proposals for institutional change (such as a specific legal framework in terms of cybersecurity and information security) could support the task.

it was pertinent to update the inter-institutional coordination mechanism, so that its operation is more effective, its nature is more transversal, as well as its broader integration and directed to the areas that carry out the federal technological operation". For more details visit: https://www.gob.mx/citicsi/archivo/documento s?idiom=es&filter_origin=archive (Accessed: August 21, 2023).

MEXICO, Decreto por el que se crea la Comisión Intersecretarial de Tecnologías de la Información y Comunicación, y de la Seguridad de la Información, Diario Oficial de la Federación, 2023, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5676645&fecha=10/01/2023#gsc.tab=0 (Accessed: August 21, 2023).

We start with performance development. In the 2013-2018 PND, the indicator called the Electronic Government Development Index was established³¹ and, in the 2013-2018 PGCM, two indicators were defined: the OECD Index of Citizens interacting with their government via internet³², and the Digitalization Index ID³³. Of the 3 indicators, only 2 measured the end of the strategy corresponding to the "development and improvement of public policies and the conditions for the enjoyment of the right of access to ICTs of the population", which are related in turn to the EDN and the objective 5 "Establish a National Digital Strategy that accelerates the insertion of Mexico in the Information and Knowledge Society". Given this, the first reached an "advanced" performance category by confirming an advance of 109.93%, while the second was classified as "insufficient", by only reaching 24.74% of the expected advance percentage.

Regarding information regarding the PND 2019-2024, there is still no data available on the CONEVAL website that can help us to elucidate compliance with what has programmatically implicated the National Program to Combat Corruption and Impunity, and to Improve Public Management 2019-2024 (PNCCIMGP), however, there are reports that can give us an incipient response in this regard. The CEDN maintains on its website³⁴, full reference to the budget program "Internet for All". This is partially consistent with what is established in the PNCCIMGP, which maintains the priority strategy "Priority Strategy 3.6.- Promote the transformation of the Federal Public Administration through the use and exploitation of ICTs, for the direct benefit of the population." This is relevant, since the CEDN has maintained a growing role in the conduction of this strategy since 2019, 2020, 2021 and 2022³⁵,

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Indicator VII.A.3. Development of Electronic Government. Indicator: Electronic Government Development Index (EGDI). Overview: The Index evaluates official government websites, focusing on the availability of electronic information and the provision of electronic services they provide. It takes values between "0" and "1", with "1" being the best possible result. Available at: MEXICO, Plan Nacional de Desarrollo 2013-2018, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=52 99465&fecha=20/05/2013 (Accessed: August 21, 2023).

Measures the objective of the EDN related to the development and improvement of public policies. Transversal objective: 5. Establish a National Digital Strategy that accelerates the insertion of Mexico in the Information and Knowledge Society. General description: Measures the percentage of individuals (16-74 years) who have used the Internet to interact with public authorities in the three months prior to the survey. Data is collected through the annual Eurostat Community survey on ICT use in households and by individuals. For more details visit: MEXICO, Programa para un Gobierno Cercano y Moderno 2013-2018, Diario Oficial de la Federación, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5312420&fecha=30 /08/2013 (Accessed: August 21, 2023).

Aimed at measuring the accessibility of the population to Information and Communication Technologies. Transversal objective: 5. Establish a National Digital Strategy that accelerates the insertion of Mexico in the Information and Knowledge Society General description: Measures the cumulative effect of the adoption and use of ICTs in the economic and social fabric of a given country, through its integration at three levels: individual, economic companies and companies. The index identifies four phases of development in digitization: 1) Advanced (ID > 50); 2) transitional (35 < ID < 50); 3) Emerging (20 < ID < 35); 4) Limited (ID < 20). For more details visit MEXICO, *Programa para un Gobierno Cercano y Moderno 2013-2018*, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5312420&fecha=30/08/2013 (Accessed: August 21, 2023).

Available at: https://www.gob.mx/cedn (Accessed: August 21, 2023).

This information is available in Progress Reports and Results of the National Program to Combat Corruption and Impunity, and to Improve Public Management (PNCCIMGP) 2019-2024. Available: https://www.gob.mx/cms/uploads/attachment/file/828702/Informe_avance_y_resultados_2022_PNCCIMGP.pdf (Accessed: August 21, 2023).

however, who is responsible for carrying out said strategy and its respective results, is the Coordination of the Information and Knowledge Society (CSIC), which depends on the "Branch 9 Communications and Transport (2019-2023)" as well as the 32 different SCT Centers (2019-2021) of each of the entities of the Mexican Republic³⁶.

Furthermore, the CEDN responds to the Axis of the PND for Politics and Government, while the CSIC responds to the AXIS of the PND for the Economy. Therefore, despite the fact that the CEDN contributes to the generation of this strategy, the results of the "E009 Internet for All" Program, which is linked to priority objective 3.6 of the PNCCIMGP, for programmatic and budgetary purposes of collecting information of the achievement of the objectives established in the Matrix of Indicators for Results (MIR) and of the Performance Indicator Sheets (FID) in the reports that are associated with a Responsible Unit, it is the CSIS that registers the indicator or indicators by strategic objective³⁷, to objectively measure progress regarding the level of compliance with its institutional objective and is reflected in the Federal Public Treasury Account³⁸.

Therefore, regarding the results obtained by the CEDN, it is attached to the Office of the Presidency of the Republic in Branch 02, which has budgetary programs that can be executed jointly by various Responsible Units for the fulfillment of its consultation objectives and goals regarding its performance information, belonging to the budget key P002 "Advice, coordination, dissemination and technical support of the activities of the President of the Republic", and whose Responsible Unit is the CEDN, among others. From the reviewed data, from 2013 and 2014 there were no indicators to show, and from 2015 to 2022, the same indicator is maintained in order to know the results of the Office of the Presidency and the Responsible Units as a whole, but not in terms of the individual³⁹.

Despite this, it is possible to know the operation of the CEDN based on the information available that is shown in the Public Account by referring to the Budgetary Information in the Analytical State of the Expenditure Budget Exercise of the corresponding fiscal year. This is very important, since it allows us to follow the same logic of the indicator proposed according to the budget key P002 for the Office of the Presidency of the Republic. From this we can observe the following results:

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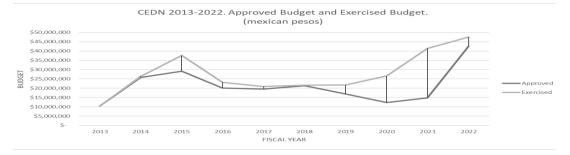
For more information visit: MEXICO, Alineación de los programas presupuestarios al Plan Nacional de Desarrollo, Vinculación al PND, 2023, available at: https://www.transparenciapresupuestaria.gob.mx/Programas (Accessed: August 21, 2023).

MEXICO, Lineamientos generales para la evaluación de los Programas Federales de la Administración Pública Federal, Diario Oficial de la Federación, 2007, available at: https://dof.gob.mx/nota_detalle. php?codigo=4967003&fecha=30/03/2007 (Accessed: August 21, 2023).

The Public Account is the report that integrates the Ministry of Finance and Public Credit and presents to the Chamber of Deputies for its review and inspection, it contains the accounting, budgetary, programmatic and complementary information of the Executive, Legislative and Judicial Branches, of the Organs Autonomous and of each public entity of the Parastatal Sector, in compliance with the provisions of article 74, section VI of the Political Constitution of the United Mexican States and articles 46 and 53 of the General Government Accounting Law. For more details: https://www.cuentapublica.hacienda.gob.mx/ (Accessed: August 21, 2023).

The registered indicator is called "Percentage of the expense exercised with respect to the programmable expense" and measures the Expense Exerted between Programmable Expense times 100, the unit of measurement being the percentage. Regarding Type-Dimension-Frequency it is Management-Economy-Annual. For more details, visit for each year of the Public Account regarding the Programmatic Information of results indicators for each fiscal year at: https://www.cuentapublica.hacienda.gob.mx/ (Accessed: August 21, 2023).

GRAPH 4. EVOLUTION OF CEDN RESULTS INDICATOR 2013-2022



Note: Own elaboration with information from www.cuentapublica.hacienda.gob.mx

The graph shows us that the CEDN has maintained a tendency to plan and budget above what it has finally exercised in terms of budget. This trend is not so pronounced for the 2014-2018 period, while between 2019 and 2022 the highest percentages of expenditure exercised with respect to programmable expenditure have been generated according to the records of the Public Account. This element, given the congruence with the indicator that the Office of the Presidency proposes, is insufficient to be able to detail the results obtained by the CEDN since its institutionalization, however, the important issue will be to be able to observe if from 2023 its new attribution when forming the CITICSI and integrated by the CIDGE within the same structure, to observe other measurable results in terms of the exercise of resources and measurable impact regarding the progress in the Indicators of the budgetary programs of the Federal Public Administration.

Continuing now with the international perspective, the generation of the indicators gives us an incipient response⁴⁰ since the Millennium Development Goals (MDG) demonstrated significant progress towards 2015, since the world had achieved the first objective, which consisted of reducing to halving the rates of extreme poverty and hunger worldwide. However, the results obtained were not uniform in all regions⁴¹. For example, in 2015 Mexico reached the corresponding goals in 37 of 51 MDG indicators. Subsequently, the Sustainable Development

Information in this regard: "The MDGs were adopted in 2000 with the aim of eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and the empowement of women, reducing infant and maternal mortality, improving the reproductive health, intensify the fight against HIV/AIDS, malaria and other diseases, ensure environmental sustainability and create a global partnership for development". For more details: https://embamex.sre.gob.mx/colombia/index.php/comunicados-deprensa-blog/27-sre/433-mexico-presenta-informe-de-avances-2015-de-cumplimiento-de-los-objetivos-dedesarrollo-del-mileno (Accessed: August 21, 2023).

In January 2016, the MDGs were replaced by the new 2030 Agenda for Sustainable Development. This new agenda was approved in September 2015 by 193 United Nations Member States, after an unprecedented global consultative process that spanned more than three years. The 2030 Agenda focuses on creating a sustainable world in which equitable value is placed on environmental sustainability, social inclusion and economic development. For more details: SUSTAINABLE DEVELOPMENT GOALS FUND, *De los ODM a los ODS*, 2021, available at: https://www.sdgfund.org/es/de-los-odm-los-ods (Accessed: August 21, 2023).

Goals (SDG) and the 2030 Agenda are agreed, given which a new facet is implemented to incorporate the knowledge acquired in the previous process and reach children who, due to various circumstances, have experienced a delay in their progress and development. In this sense, changes were generated to achieve development for all people and to do so in a sustainable way⁴².

Following up on the above, the two most recent national planning periods are taken into consideration, since they are the ones in which the most important changes are taking place in terms of ICT, cybersecurity and information security. For example, in the PND 2019-2024, in what refers to making ICT affordable, it establishes in Axis 3 of Economic Development in point 3.7: "Facilitate the population, access and transparent and sustainable development to broadcasting networks and telecommunications, with an emphasis on internet and broadband, and promote the integral development of the digital economy". Element undoubtedly relevant for this document, since of the points established in the PND 2019-2024, it is the one that is related to 7 SDG objectives⁴³.

The foregoing is relevant since, despite the fact that there is a coincidence between the PND and the SDGs, in the SDG Indicator Consultation System it is observed that Mexico lacks indicators to measure the progress of Sustainable Development Goal 9 "Industry, Innovation and Infrastructures" for this period in accordance with the provisions of the 2030 Agenda, and goal 9.c regarding "Significantly increase access to information and communication technology and strive to provide universal and affordable access to the Internet in the least developed countries by 2020" This is important since this goal is linked to the commitment to guarantee access to the Internet, contravening, at least in terms of compliance through indicators in the international arena, the fundamental right of access to Information and Communication Technologies (ICT) established in article 6, third paragraph of the Mexican Constitution.

Finally, particularly in terms of cybersecurity and information security, many legislative proposals have been generated to address the situation, the most recent on April 25, 2023, the latest initiative is presented as a draft decree issuing the "Federal Cybersecurity Law" and that reforms, adds and repeals various articles of the Organic Laws of the Federal Public Administration; Organic of the Mexican Army and Air Force; of Airports, and of Civil Aviation, in matters of protection of the

Changes were generated since of the 8 MDGs, we now have 17 SDGs with 169 goals to be achieved encompassed in a new Agenda that considers decent employment or climate change fundamental, with similarities such as objectives from 1 to 6 of the MDGs and Goals 1 to 5 of the SDGs, and differences such as generic proposals for technology transfer, strengthening of national capacities, promotion of associations with diverse participants, on a global and local scale, among others. For more details visit: ROTUNDO, Marygianna, Salud y Bienestar, Semejanzas y diferencias entre los ODM y los ODS Blogspot.com, 2017, available at: http://objetivosaludybienestar.blogspot.com/2017/05/semejanzas-y-diferencias-entre-los_6.html (Accessed: August 21, 2023).

⁴³ CAMARA DE DIPUTADOS, Gaceta Parlamentaria, núm. 5266-XVIII, LXIV Legislatura, Segundo Periodo Ordinario, 30 de abril, 2019, available at: http://gaceta.diputados.gob.mx/PDF/64/2019/abr/20190 430-XVIII-1.pdf (Accessed: August 21, 2023).

⁴⁴ AGENDA 2030, Indicadores por objetivo y meta, Objetivos de Desarrollo Sostenible, ONU, 2023, available at: https://agenda2030.mx/ODSopc.html?ti=T&goal=0&lang=es#/ind (Accessed: August 21, 2023).

Mexican airspace, among others⁴⁵. This law, despite the fact that it brings the institutional structure immersed from the time the CITICSI was created, does not present further specification in terms of the budget. What does appear is the adequacy of the proposal in accordance with the National Planning System, briefly considering the mention of strategic indicators for the achievement of objectives, however, the adaptations in terms of programming, budgeting, and evaluation are alluded to without specifying as to this mention. Therefore, in reference to the EDN and the CEDN, the regulations in relation to cybersecurity must be harmonized, and the regulatory framework adapted, involving PPG as New Public Management, MAN as Results-based Management and KG as advancement of performance indicators, the public administration, to be conclusive as to the auspiciousness of the conditions generated by the Federal Executive in terms of ensuring the right to ICT and the institutional transit of cybersecurity and information security from the programmatic, budgetary and evaluation aspects of the performance.

3 FINAL CONSIDERATIONS

In accordance with the above, some possibilities for improvement that can be recognized derived from this document are presented. Above all, being able to go through and have a sample regarding the National Planning model, which does not start from a strategy to later be linked to an agenda for the generation of an action plan, both for general and particular effects in the field of ICT, cybersecurity and information security. In fact, in the different periods observed regarding the planning of the Federal Executive, the order starts from the National Development Plan, oriented towards national agendas (2007-2012) or national digital strategies (2013-2024).

This tour allowed us to observe the differences and similarities, which were later specified for the orientation of national planning in terms of Information and Communication Technologies (ICT) in general, and fundamentally in relation to cybersecurity and information security in particular, these as public policy from the New Public Management approach from the programmatic, budgetary and performance evaluation of compliance with the fundamental right of access to information and communication technologies (ICT) perspective.

According to this precision, there is potential in terms of being able to accurately delineate the resources destined to the concretion of the cross-cutting strategy derived from the National Development Plan (PND) and established in the National Digital Strategy (EDN), above all because there is a lack of precise quantification both for the operation of the Coordination of the National Digital Strategy (CEDN), as well as for the EDN, as well as for those who contribute to this strategy at the governmental level in the sense of knowing the application of the budget disbursement of the Federal Government and the effective achievement of the objectives set for the adoption and use of Information and Communication Technologies (ICT), and cybersecurity coupled with information security.

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⁴⁵ CAMARA DE DIPUTADOS, Gaceta Parlamentaria, núm. 6262-II-2, LXV Legislatura, Segundo Periodo Ordinario, 25 de abril, 2023, available at: http://gaceta.diputados.gob.mx/PDF/64/2019/abr/20190430-XVIII-1.pdf>. Accessed: August 21, 2023.

Derived from the lack of a comprehensive programmatic structure in the context of the National Digital Strategy (EDN), the existing disconnection with the objectives of national, transversal and priority scope is manifested, as well as the resources available for the achievement of said purposes and goals. In this sense, even when some resources can be identified to support the governing execution of the policy in terms of the collaborative and executing actors in the programmatic structures that allocate funds for the development of their adjacent functions in relation to EDN (for example, the In the case of the priority program "Internet for all"), these assignments lack a coherent alignment with the national objectives related to the implementation of a National Digital Strategy, even with respect to the main Axis, since currently Axis 1 of Politics and Government where The Coordination of the National Digital Strategy (CEDN) is located, far from Axis 3 Economy where the Coordination of the Information and Knowledge Society (CSIC) is located.

In reference to the Program for a Close and Modern Government 2013-2018 (PGCM), and the National Program to Combat Corruption and Impunity, and to Improve Public Management 2019-2024 (PNCCIMGP), guiding programs from which it emanates EDN, very dissimilar results were obtained. The first had contrasts since, in terms of performance, it generated results that were sufficient and deficient for the expected progress according to CONEVAL. On the other hand, the second does not establish specific indicators related to the EDN, it does not follow up on the indicators of the previous program, which it would be desirable if CONEVAL could be generated for the PNCCIMPG.

Despite the aforementioned, the results were recognized according to the Public Account, making it possible to exemplify the evolution of the CEDN despite the fact that there is no specific indicator for it in the MIR of the Office of the Presidency of the Republic (OPR), given which could be observed its planning in terms of the indicator that measures the percentage and the difference between the approved and exercised budget, which has had a greater dissonance in the 2019-2022 period than in the 2014-2018 period. Despite the foregoing, the indicator is insufficient to assess compliance with the conduction, coordination, and monitoring of the CEDN in relation to the EDN, as well as the efficiency of its components.

Conducively, at the international level, for the Consultation System of Indicators of the Sustainable Development Goals (SDG) it is observed that Mexico lacks indicators to measure the progress of Sustainable Development Goal 9 "Industry, Innovation and Infrastructure" and its indicator 9.c, a goal linked to the commitment to guarantee internet access, contravening, at least in terms of compliance through indicators in the international arena, despite the fact that the link between the National Development Plan and the Development Goals has been ratified sustainable development.

In accordance with the approaches to generate a specific regulatory framework for cybersecurity and information security, it is essential to define and identify precisely the resources allocated to the development of this transversal strategy, where the resources assigned to the CEDN are quantified as the driver and coordinator of the National Digital Strategy (EDN), which has now assumed the functions of the Inter-ministerial Commission for the Development of Electronic Government (CIDGE) and which forms the Inter-ministerial Commission for

Information and Communication Technologies, and Security of Information (CITICSI), thus generating areas of opportunity from the PPG as New Public Management, MAN as Management by results and KG as progress of indicators accompanied by the public administration, regarding its institutional function with collaborators and operators involved in this initiative to understand the relationship between Federal Government spending and the achievement of objectives related to the use and adoption of Information and Communication Technologies (ICT) in general, and cybersecurity and information security in particular.

Therefore, it is considered pertinent that the CEDN include indicators to measure the effectiveness of each of the components of the policy, in order to have elements to know the progress in the use of the potential of ICT, both in the governmental sphere as in the daily life of the population. In terms of planning, both the ENCS and the EDN would have to be generated from the beginning of the generation of the PND and the beginning of the period of functions of the Federal Executive, since it is not enough to create a public entity that brings together both, but to establish an entity that can respond to the needs of the population, as well as the program and budget with the results obtained.

4 REFERENCES

AGENDA 2030, *Indicadores por objetivo y meta, Objetivos de Desarrollo Sostenible*, ONU, 2023, available at: https://agenda2030.mx/ODSopc.html?ti=T&goal=0&lang=es#/ind (Accessed: August 21, 2023).

ARELLANO, David y LEPORE, Walter, *Publicness y nueva gestión pública: hacia una recuperación de los valores de lo público*, CIDE, Documento de Trabajo Núm. 178, 2006.

BARROS, Alejandro, *PolisDigital. Algunas reflexiones en torno al Desarrollo Digital de los países*, Chile: Centro de Sistemas Públicos, 2012, available at: https://www.alejandrobarros.com/wp-content/uploads/old/00pD_polisDigital.pdf> (Accessed: August 21, 2023).

BARZELAY, Michael, La nueva gerencia pública. Un ensayo bibliográfico para estudiosos latinoamericanos (y otros). En la Revista del CLAD Reforma y Democracia. No. 19, Caracas, 2001.

CABRERA, Carlos; GUTIÉRREZ, Abelardo; y MIGUEL, Rubén, *Principales indicadores financieros y del sector externo de la economía mexicana*, México: Universidad Nacional Autónoma de México, Facultad de Economía, 2005.

CAMARA DE DIPUTADOS, *Gaceta Parlamentaria*, núm. 5266-XVIII, LXIV Legislatura, Segundo Periodo Ordinario, 30 de abril, 2019, available at: http://gaceta.diputados.gob.mx/PDF/64/2019/abr/20190430-XVIII-1.pdf (Accessed: August 21, 2023).

CAMARA DE DIPUTADOS, *Gaceta Parlamentaria*, núm. 6262-II-2, LXV Legislatura, Segundo Periodo Ordinario, 25 de abril, 2023, available at: http://gaceta.diputados.gob.mx/PDF/64/2019/abr/20190430-XVIII-1.pdf (Accessed: August 21, 2023).

CAMARA DE DIPUTADOS, *Ley Federal de Presupuesto y Responsabilidad Hacendaria*, 2022, available at: https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPRH.pdf (Accessed: August 21, 2023).

CAMARA DE DIPUTADOS, Constitución Política de los Estados Unidos Mexicanos (CPEUM), 2023, available at: https://www.diputados.gob.mx/LeyesBiblio/pdf/CPEUM.pdf (Accessed: August 21, 2023).

CANALES, José, Documentos básicos para la modernización y el fortalecimiento de las administraciones públicas en iberoamérica, Editorial Club Universitario, 2009, available at: https://n9.cl/u3wbc (Accessed: August 21, 2023).

CONSEJO NACIONAL DE EVALUACIÓN DE LA POLÍTICA DE DESARROLLO SOCIAL, *Fichas Monitoreo Políticas Sociales 2017*, CONEVAL, México, 2017, available at: https://www.coneval.org.mx/coordinacion/Paginas/Fichas-Monitoreo-Políticas-Sociales-2017.aspx (Accessed: August 21, 2023).

COORDINACIÓN DE ESTRATEGIA DIGITAL NACIONAL DE LA PRESIDENCIA DE LA REPÚBLICA Y LA UNIDAD DE GOBIERNO DIGITAL DE LA SECRETARÍA DE LA FUNCIÓN PÚBLICA, *Estrategia Nacional de Ciberseguridad*, 2017, available at: https://www.gob.mx/cms/uploads/attachment/file/271884/Estrategia_Nacional_Ciberseguridad.pdf (Accessed: August 21, 2023).

GARCÍA, Roberto, y GARCÍA, Mauricio, *La gestión para resultados en el desarrollo. Avances y desa- fíos en América Latina y el Caribe*. Washington, D.C., BID, 2010, available at: https://www.gob.mx/cms/uploads/attachment/file/271884/Estrategia_Nacional_Ciberseguridad.pdf (Accessed: August 21, 2023).

GIMENO, Amparo, "La descentralización de la gestión pública. Implicaciones contables", *Actualidad Financiera*, Número monográfico, 2º trimestre, 1997.

MEXICO, Acuerdo que tiene por objeto crear en forma permanente la Comisión Intersecretarial para el Desarrollo del Gobierno Electrónico, Diario Oficial de la Federación, 2005, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=2101617&fecha=09/12/2005 (Accessed: August 21, 2023).

MEXICO, Lineamientos generales para la evaluación de los Programas Federales de la Administración Pública Federal, Diario Oficial de la Federación, 2007, available at: https://dof.gob.mx/nota_detalle.php?codigo=4967003&fecha=30/03/2007 (Accessed: August 21, 2023).

MEXICO, Manual de Presupuesto de Egresos de la Federación, Centro de Estudios de la Finanzas Públicas. Serie de Cuadernos de Finanzas Públicas 2007, available at: http://www.cefp.gob.mx/intr/edo cumentos/pdf/cefp/cefp0582007.pdf (Accessed: August 21, 2023).

MEXICO, Decreto por el que se aprueba el Programa Especial de Mejora de la Gestión en la Administración Pública Federal 2008-2012, Diario Oficial de la Federación, 2008, available at: https://dof.gob.mx/nota_detalle.php?codigo=5059571&fecha=10/09/2008 (Accessed: August 21, 2023).

MEXICO, Acuerdo por el que se da a conocer la Agenda de Gobierno Digital, Diario Oficial de la Federación, 2008, available at https://www.dof.gob.mx/nota_detalle_popup.php?codigo=5077667 (Accessed: August 21, 2023).

MEXICO, *Plan Nacional de Desarrollo 2013-2018*, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5299465&fecha=20/05/2013 (Accessed: August 21, 2023).

MEXICO, *Programa para un Gobierno Cercano y Moderno 2013-2018*, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5312420&fecha=30/08/2013 (Accessed: August 21, 2023).

MEXICO, Reglamento de la Oficina de la Presidencia de la República, Diario Oficial de la Federación, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294161&fecha=02/04/2013 (Accessed: August 21, 2023).

MEXICO, Reglamento Interior de la Secretaría de la Función Pública, Diario Oficial de la Federación, 2017, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5490821&fecha=19/07/2017 (Accessed: August 21, 2023).

MEXICO, *Plan Nacional de Desarrollo 2019-2024*, Diario Oficial de la Federación, 2019, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5565599&fecha=12/07/2019 (Accessed: August 21, 2023).

MEXICO, Decreto por el que se aprueba el Programa Nacional de Combate a la Corrupción y a la Impunidad, y de Mejora de la Gestión Pública 2019-2024, Diario Oficial de la Federación, 2019, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5570983&fecha=30/08/2019 (Accessed: August 21, 2023).

MEXICO, Reglamento de la Oficina de la Presidencia de la República, Diario Oficial de la Federación, 2019, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5581283&fecha=09/12/2019 (Accessed: August 21, 2023).

MEXICO, Acuerdo por el que se emiten las políticas y disposiciones para impulsar el uso y aprovechamiento de la informática, el gobierno digital, las tecnologías de la información y comunicación, y la seguridad de la información en la Administración Pública Federal, Diario Oficial de la Federación, 2021, available at: https://dof.gob.mx/nota_detalle.php?codigo=5628885&fecha=06/09/2021 (Accessed: August 21, 2023).

MEXICO, Acuerdo por el que se expide la Estrategia Digital Nacional 2021-2024, Diario Oficial de la Federación, 2021, available at: https://dof.gob.mx/nota_detalle.php?codigo=5628886&fecha=06/09/2021 (Accessed: August 21, 2023).

MEXICO, Decreto por el que se crea la Comisión Intersecretarial de Tecnologías de la Información y Comunicación, y de la Seguridad de la Información, Diario Oficial de la Federación, 2023, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5676645&fecha=10/01/2023#gsc.tab=0 (Accessed: August 21, 2023).

MEXICO, Alineación de los programas presupuestarios al Plan Nacional de Desarrollo, Vinculación al PND, 2023, available at: https://www.transparenciapresupuestaria.gob.mx/Programas (Accessed: August 21, 2023).

NORTH, Douglass, *Instituciones, Cambio Institucional y Desempeño Económico*, Cambridge: Cambridge University Press, 1990a, available at: https://elibro.net/es/ereader/universidadcomplutense/110541?ticket=k192Me5Asr4efMddBe83zws9 (Accessed: August 21, 2023).

NORTH, Douglass, "La Nueva Economía Institucional". *Journal of Institutional and Theoretical Economics*, vol. 142 (1986), traducción, 1990b, available at: https://studylib.es/doc/2735071/la-nueva-econom%C3%ADa-institucional (Accessed: August 21, 2023).

PÉREZ, Wladimir, *La Nueva Concepción de la Administración Pública*, GIGAPP, 2013, available at: http://www.gigapp.org/index.php/publicaciones/destacadas/245-la-nueva-concepcion-de-la-administracion-publica (Accessed: August 31, 2023).

PRESIDENCIA DE LA REPÚBLICA, *Estrategia Digital Nacional*, México, 2013, available at: https://www.dof.gob.mx/nota_detalle.php?codigo=5294161&fecha=02/04/2013(Accessed: August 21, 2023).

RAMÍREZ, Jesús y RAMÍREZ, Edgar, "Génesis y desarrollo del concepto de Nueva Gestión Pública. Bases organizacionales para el replanteamiento de la acción administrativa y su impacto en la reforma del gobierno". En Arellano David (2004) Más allá de la reinvención del gobierno: fundamentos de la nueva gestión pública y presupuestos por resultados en América Latina. México. Miguel Ángel Porrúa, 2004, available at: https://n9.cl/sazt6 (Accessed: August 31, 2023).

ROTUNDO, Marygianna, *Salud y Bienestar*, *Semejanzas y diferencias entre los ODM y los ODS* Blogspot.com, 2017, available at: http://objetivosaludybienestar.blogspot.com/2017/05/semejanzas-y-diferencias-entre-los_6.html (Accessed: August 21, 2023).

SUSTAINABLE DEVELOPMENT GOALS FUND, *De los ODM a los ODS*, 2021, available at: https://www.sdgfund.org/es/de-los-odm-los-ods (Accessed: August 21, 2023).

VILLALOBOS, Alberto (2010), El Sistema de Evaluación del Desempeño (SED) en México: Una propuesta para los Gobiernos Locales, Instituto Nacional de Administración Pública, México, Distrito Federal, 2010, available at: http://www.inap.mx/portal/images/pdf/book/16087.pdf (Accessed: August 21, 2023).