



# DATA STEWARDSHIP AND THE CITY DATA AGENDA: A CASE STUDY OF LEÓN, GUANAJUATO, MEXICO

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*The sub-group on Data Stewardship and Governance at SDSN TReNDS is advancing efforts to advise national statistical offices (NSO) and chief data officers (CDOs) on how to broaden their mandate as 'data stewards.' This entails new functions that they are expected to take on and how they can best balance the challenge of ensuring efficient use of new data sources, while safeguarding data quality, confidentiality, and privacy. As part of this workstream, the sub-group is also working to foster cross-sector knowledge exchange, identify blind spots, and suggest remedies in specific areas to elevate the CDO position at different geographical levels and to improve and connect data stewardship between national, state, and municipal governments.*

## BACKGROUND

This case study suggests that even in a very robust National Statistical System, such as in Mexico, there are many opportunities to reinforce support and capacity building to local governments, as there is almost no reference in the law that regulates the National System of Statistical and Geographical Information (SNIEG) regarding how to interact with local statistical systems or the relationship between the Mexican National Statistical Office (INEGI) and CDOs at state or municipal levels.

In fact, the role of CDO at the city-level is very different from similar roles at higher levels of government (state or national), as they work with more grounded data systems. Therefore, job descriptions, skills, and capabilities are also a bit different.

The case study was written after conducting meetings with members of the regional north-center team of INEGI, members of the state of Guanajuato planning agency (IPLANEG) responsible for integrating the State Statistical and Geographical System of Information (SEIEG), and members of the Municipal Planning Institute of León, Guanajuato (IMPLAN) responsible for providing data and information to local authorities and decision-makers. The ‘City Manager’ of León was also present during the meetings. It is also worth noting that the selection of the state of Guanajuato and the City of León for this case study was based on the fact that both have a very robust planning system with a strong tradition of citizen participation.

The following paragraphs briefly review how the SNIEG is integrated within the national government; describe the efforts at the state-level to build a similar system in the State of Guanajuato and how it relates to municipalities; and, presents the case of the city of León in Guanajuato.

### SNIEG AND THE LOCAL GOVERNMENT

SNIEG is mandated by the Mexican Constitution and regulated by the Law of the National System of Statistical and Geographical Information (LSNIEG). INEGI, which is responsible for regulating and coordinating the SNIEG, is granted technical and managerial autonomy, legal personality, and its own assets. INEGI’s constitutional autonomy is very unique for a National Statistical Office (NSO), and it remains an exception worldwide.

The System is divided into four national information subsystems: demographic and social; economic; geographic and environmental; and government, public security, and justice administration.

As mentioned by Mario Palma in his recent book “*Why INEGI? The Saga of a Mexican Institution in Search of the Truth*<sup>1</sup>,” the SNIEG consists of several boards. The operational rules of these committees are approved by INEGI’s Governing Board. The boards include: a National Advisory Council that gives its opinion on INEGI’s programs

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<sup>1</sup> Mario Palma, *Why INEGI? The Saga of a Mexican Institution in Search of the Truth*. INEGI, 2021

and proposes topics of national interest; the executive committees of the subsystems that incorporate government units that produce and/or use the information related to their respective topics; and the specialized technical committees, which are collegial bodies where specific issues and programs are discussed. The specialized technical committees are designated as thematic, regional, or issue-focused. The regional specialized technical committees are formed by two or more states. The issue-focused committees are according to the national law and related to natural disasters, international treaties, and the like. Nevertheless, there is no mention in the national law on how statistical systems at the state-level should be organized or INEGI's role in promoting them.

To rectify the missing part of the law regarding state governments, INEGI's Governing Board created specialized technical committees within the states. These committees include representatives of different state government entities, municipalities, and INEGI. While it is specified in the regulation that these committees should coordinate with thematic technical committees for data of common interest, this is not happening.

Bearing in mind the above, how do local governments function within the System? First, as users of information, since the information produced by the SNIEG has official status and it is the mandatory source of information for the Mexican Federation, states, and municipalities. Second, as members of the National Advisory Council, where state government representatives have four seats according to the regions established in the law. And third, as members of regional and state specialized technical committees. States and municipalities also contribute to national statistical efforts, such as the population and housing census, and they participate as providers of information for the government census and other administrative records for statistical projects.

Indeed, although the relationship between INEGI and the state governments is poorly specified in the law, the Government Board created state committees for statistical and geographical information; however, municipalities are weakly represented in SNIEG even though they heavily use this information at micro-level for decision making. Moreover, there is no mention in the LSNIEG about how to organize systems at the

state-level, the minimum requirements they should have, or how states can contribute to the National System; the only aspect that is mentioned in the law is their participation in the National Advisory Council. Additionally, according to some state government representatives, there is no relationship between the state specialized technical committees and the thematic technical committees. This would have been especially helpful during the current COVID-19 pandemic, where standardized production of statistics would have greatly benefitted decision-making among states.

### GUANAJUATO STATISTICAL AND GEOGRAPHICAL SYSTEM OF INFORMATION (SEIEG)

In the state of Guanajuato, IPLANEG, the organization responsible for planning within the government, is also the agency that leads the statistical and geographical system of information. IPLANEG is a rather unique institution in Mexico, since the majority of its Board is composed of citizens rather than public officials, including the head of the board. For more than 15 years, the institution has generated different planning instruments, such as the State Development Plan, a long-term plan aimed at promoting the development of the state; the State Government Program for each six-year period administration; and the State Urban Development and Land Planning Program.

The Organization for Economic Co-operation and Development (OECD) has praised IPLANEG's governance structure and work: "In Guanajuato, for example, strategic planning involves both horizontal and vertical coordination mechanisms to align the timelines and objectives of all planning instruments, from the national level (with the National Development Plan and the Sustainable Development Goals (SDGs)), to the state level (with the State Development Plan and the State Government Program<sup>2</sup>).

IPLANEG is the leader in Guanajuato of the state technical committee for statistical and geographical information. State committees are consultive collegiate bodies for INEGI where representatives of each state government agency with statistical and geographical responsibility, representatives of municipalities, and INEGI's regional team participate. For the government of Guanajuato, the committee is also used as a

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<sup>2</sup> OECD Public Governance Reviews, Monitoring and Evaluating the Strategic Plan of Nuevo León 2015-2030.

mechanism to create the state system, to support the development of the planning instruments, and assess progress.

IPLANEG is not only looking to apply the norms and standards defined by the board of INEGI, but it is also trying to replicate many of the instruments created within SNIEG at the state-level. This includes: the methodology for defining information of State Interest, the State Advisory Council, the executive committees of the subsystems, the rules for the generation and registry of information, the municipality specialized technical committees, and the State Program for Statistical and Geographical Information, among others.

IPLANEG's experience demonstrates that for local governments, there is an advantage to having all the responsibilities of producing information and conducting planning activities housed in the same institution. By doing so, IPLANEG is able to coordinate more seamlessly with the different agencies and define mechanisms to align indicators and objectives of the different planning instruments. The state planning agency is also able to promote similar mechanisms at the municipal level.

Although IPLANEG is the right institution to promote the state committee of the statistical and geographical information system in the state of Guanajuato, it lacks the knowledge and experience to apply the instruments created at the national level to coordinate the SNIEG. However, IPLANEG has the opportunity to advance its role as a 'data steward,' but it needs institutional and executive-level support from both the governor and INEGI, to develop the institutional capacity to expand its mandate.

During the meetings, it also became evident that the SNIEG will not be complete unless national specialized technical committees develop rules to compare thematic data among states. The COVID-19 pandemic highlighted this acute need, and it has become an opportunity within the specialized technical committee of the SDGs.

## THE CITY OF LEÓN, THE MUNICIPAL PLANNING INSTITUTE (IMPLAN), AND THE CENTER FOR URBAN INTELLIGENCE (CIU)

As discussed, data needs at city levels are often very different from those at the national or state levels. In the case of León, Guanajuato, two institutions have been created to respond to increasing data needs and to the data revolution that the world is experiencing. One was created within the Municipal Planning Institute (IMPLAN) and the other within the Service Administration Agency. The combination of these institutions' roles is similar to that of a City Data Officer.

IMPLAN was created in 1994 to establish the basis of urban planning in the municipality of León and to advise the local government in its short, medium, and long-term development plans. One of its goals is to develop a more professional urban planning staff, as well as a more stable framework for decision-making that is insulated from politics, since its board is composed of citizens. Among its responsibilities, IMPLAN has the mandate of developing information systems and strengthening the methodology for the integration of plans, programs, and other instruments of the municipality planning system. It has become a valuable partner institution for IPLANEG, not only in terms of planning, but also in terms of developing data systems to inform society and decision-makers.

In recent years, given the rapid growth of information and emerging data needs within the local government, IMPLAN created an area called: 'Núcleo de Información Municipal' Municipal Intelligence Center (NIM). They use the term 'nucleus' instead of 'center' to underscore the fact that its responsibility is to provide information to decision-makers, and not to make decisions. NIM works to identify and transform internal and external data into strategic information that can be used by decision-makers within the municipal public administration. To perform this task, NIM works closely with other institutions in the local government and information providers.

Within the municipality, León has also created the Urban Intelligence Center (CIU) that captures, curates, and integrates data provided by online data sensors, as well as traditional data, such as surveys, and other data collected from citizens related to

mobility, sewage, trash pick-up, water, and public lighting services. CIU is monitoring data in real-time to respond efficiently to problems in the city, but also integrates data to make strategic decisions in the different areas of the local government. CIU uses the Luciad geospatial software platform, and it aims to ultimately help make the city of León a smart city.

During the meetings, it was clear that INEGI is already working closely with IMPLAN and it intends to do the same with CIU. The potential of doing projects together is crucial to take advantage of the information produced by the Institute. The same is true regarding the relationship between IPLANEG and IMPLAN. IPLANEG could be an invaluable partner to provide data from the state to the municipality in projects being implemented in León and other socio-economic data at municipal levels. In sum, a closer look at the data needs of municipalities is required for both INEGI and IPLANEG.

## CONCLUSION

For local governments, at least in the Mexican case, it makes sense to have the same institution taking on the planning and the information provider responsibilities. Furthermore, as is the case in the state of Guanajuato and the city of León, the CDO should be situated within the planning institution. Additionally, when the leadership of these institutions are citizens --not public officials-- it allows for long-term planning and can enhance data stewardship.

In Mexico, INEGI's role is critical for advice and building capacity within states and local municipalities. Establishing a process of sustained knowledge sharing between Chief Data Officers in states and municipalities and the NSO could help to foster a greater understanding of the use of data to inform better decision-making at the local-level and improve the production and data dissemination processes so that it is 'fit for use.' INEGI should also work towards establishing parameters around what the minimum requirements that a state and municipality information systems should look like and coordinate communities of practice within the states and especially within the cities.