

How to serve society through official statistics portals: the Spanish SDG indicators experience

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Abstract

Official statistical portals can serve society in several ways by providing access to high-quality data, supporting evidence-based decision making and promoting transparency and accountability. The implementation of a Sustainable Development Goal (SDG) indicators portal presents special challenges, given their complexity and difficulty. In the case of Spain, there is an added difficulty since it has a decentralized statistical system, both departmentally and territorially. The National Statistical Institute of Spain (INE) is committed to the production and dissemination of high-quality indicators that ensure an appropriate monitoring of the 2030 Agenda.

This paper shows INE experience in building and managing the National Reporting Platform (NRP) on SDG indicators, and the way in which it tries to follow the principles of the EU Code of Practice and the methods and tools of the EU Quality Assurance Framework. In particular, the paper addresses Coordination and cooperation (principle 1bis), Relevance (11), Accuracy and Reliability (12), Timeliness and Punctuality (13), Coherence and Comparability (14), and Accessibility and Clarity (15).

INE launched the NRP on SDG Indicators in December 2018, to disseminate the data corresponding to Spain and thus to facilitate the monitoring of progress towards the goals and targets of the 2030 Agenda. The INE's NRP is wider than just a dissemination database. It serves as a means of collecting SDGs data and metadata from data providers. It is used as a tool for the coordination of the national statistical system, by ensuring compliance with methodological standards and the quality of data and metadata. It can also help to improve access to national and subnational data, identify data gaps, and encourage collaboration. An additional objective of the Platform is the transmission of data and metadata to international bodies (e.g., custodian agencies) through SDMX files. According to the INE's experience, the NRP is proving to be an essential tool for meeting the challenge of monitoring the SDGs.

Keywords: Code of Practice, Quality Assurance Framework, NRP, SDGs, 2030 Agenda

1. Introduction

Official statistical portals can serve society in several ways by providing access to high-quality data, supporting evidence-based decision making and promoting transparency and accountability. Given the volume of data involved, measuring and monitoring the Sustainable Development Goals (SDGs) requires modern and efficient dissemination and communication approaches. One of the main approaches is reporting platforms (or portals). SDG data platforms are integrated systems for disseminating SDG data comprising a website, one or more databases for organizing and storing data, and associated IT infrastructure to collect, host, secure and disseminate statistics. The implementation of SDG Indicator platforms presents special challenges, given their complexity and difficulty. A discussion of the challenges of SDG indicators can be seen in MacFeely, 2020. In the case of Spain, there is an

added difficulty since it has a decentralized statistical system, both departmentally and territorially.

Like in many other countries, the National Statistical Institute of Spain (INE) has developed a National Reporting Platform (NRP) for SDG Indicators with the aim of collecting and disseminating data on the SDGs in Spain. The Platform can be considered a fundamental element in the INE's strategy for the SDGs.

The outline of this paper is as follows. In Section 2 SDG Indicators data platforms are presented. Section 3 describes the INE SDG Platform. Section 4 discusses quality aspects of SDG NRPs. The paper ends with some final remarks.

2 SDG Indicators data platforms

From the beginning of the implementation of the 2030 Agenda indicators, the key role of data platforms was recognized as an effective tool for communicating SDG indicators with stakeholders in a transparent and open manner. In January 2018, the Statistics Division of the UN (UNSD) organized a conference to discuss the establishment of data platforms for the reporting of the SDG Indicators. Based on the principles and guidelines agreed at the conference, UNSD developed a strategy for the implementation of national platforms, which was shared with countries. These principles and guidelines support an informed decision by countries looking to design national reporting and dissemination platforms for the SDGs.

In this context, a National Reporting Platform (NRP) is a means to report and disseminate national statistics including SDG indicators, and refers to a web site, database, and associated IT infrastructure used to collect, store, secure, and ultimately disseminate data and related metadata and documentation in an easily accessible way to reach all users. NRPs are useful for communication and dissemination, but also to compile data and organize the process of producing data and indicators.

For its part, the UNECE Conference of European Statisticians established in October 2016 a Task Force on reporting SDG indicators. The Task Force produced two key outputs for use by countries when implementing NRPs: a practical guide on NRPs (December 2017), and a document on national mechanisms for providing data on the global SDG Indicators (January 2018). Moreover, the first edition of the UNECE Road Map on statistics for SDGs (June 2017) points out the importance of NRPs among the national mechanisms for providing data on SDGs. In this document, within the case studies annex, several countries present their experience building NRPs. The UNECE Road Map proposes that NRPs follow a set of specifications aligned with the Fundamental Principles of Official Statistics, such as comparability, transparency, timeliness, and public accessibility. The second edition of the

UNECE Road Map (UNECE, 2022) also devotes preferential attention to NRPs, incorporating new developments on the topic. It describes the benefits of NRPs as well as more technical aspects of data transmission such as Application Programming Interfaces (APIs), Statistical Data and Metadata eXchange (SDMX) and the development of tools such as the UN DataLab.

The general recognition of the usefulness of data platforms for SDG indicators has led to their implementation at various levels. At global level, the UN Global SDG Indicators Data Platform contains information from different countries, as well as regional and global aggregates. The platform is maintained by the UNSD and contains data and metadata provided by international agencies in accordance with their mandates (i.e. custodian agencies).

At regional level, UNECE has developed a platform that contains data on global SDG indicators for UNECE countries and comprises three elements: a knowledge hub on statistics for SDGs, a dashboard of SDG indicators for the region, and a database of SDG indicators. For its part, the Eurostat SDG Indicators Platform provides information related to the SDGs within the EU, both at the aggregate and member state level. It contains data related to the EU SDG indicators (102 European indicators, of which 68 are aligned with the UN global indicators). Many countries have developed NRPs to facilitate and enhance the usefulness of SDG statistics. Within the countries, platforms have also been developed at the subnational level (for example in Spain, the Autonomous Communities). The coexistence of platforms at different levels gives rise to overlapping indicators, which makes coordination necessary.

The situation of the statistical systems in each country determines the way the platforms are approached. The next section focuses on the Spanish NRP developed by INE.

3 INE SDG Platform

INE is committed to the production and dissemination of high-quality indicators that ensure an appropriate monitoring and reporting of the goals and targets of the 2030 Agenda. The full development of the global indicator framework, complemented by regional, national, sub-national and thematic indicators, presents an unprecedented challenge for statistical systems. In the case of Spain, there is an added difficulty since the production of indicators is carried out by several institutions.

INE launched in December 2018 the NRP on SDGs indicators to disseminate the corresponding data for Spain and thus facilitating the monitoring of progress towards the goals and targets of the 2030 Agenda. It is a Platform specifically developed for SDG reporting, although it is integrated in the general IT architecture of INE (it can be consulted at: <https://www.ine.es/dynqs/ODS/es/index.htm>).

The Platform is wider than just a dissemination database. It has several objectives: the collection of available data on the SDGs for Spain; the production of a database of global, regional, national and subnational SDG indicators; the dissemination and visualization of data through a single-entry point; and the inclusion of SDMX files for transmission to custodian agencies. From a dissemination point of view, it is also intended to promote the use of SDG statistics by presenting them in a user-friendly manner.

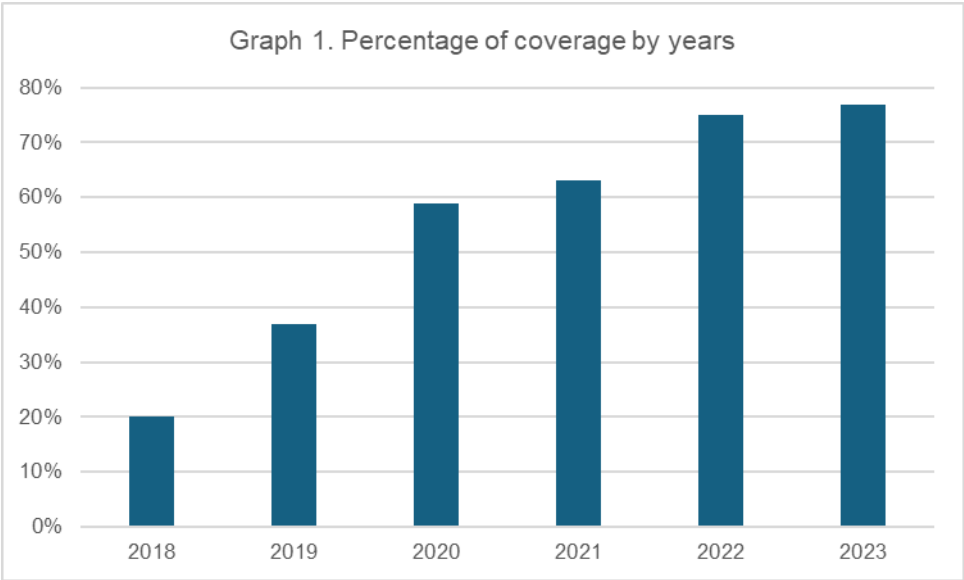
The Platform follows the same structure as the 2030 Agenda: goals, targets, and indicators. The category “sub-indicators” has been added to name the data that are offered. For each indicator, it is specified if it is available, if data sources are being explored, or if it is not applicable or nor relevant to Spain. Likewise, for each sub-indicator, the source from which the data is obtained and its methodology are provided. Tables with detailed results, time evolution graphs, maps with geographical breakdown and bar graphs are also offered. Currently, 175 indicators and 501 sub-indicators can be consulted on the Platform. Table 1 shows the NRP availability of indicators by objective.

Table 1. INE NRP AVAILABILITY OF INDICATORS BY OBJECTIVE

SDGs	Available	Not relevant	Not applicable	Global Indicators	Coverage Percentage
1	9	0	0	13	69%
2	9	2	0	14	79%
3	23	2	0	28	89%
4	11	0	0	12	92%
5	11	0	0	14	79%
6	7	0	0	11	50%
7	3	2	0	6	83%
8	12	2	0	16	88%
9	9	0	0	12	75%
10	7	0	1	14	57%
11	11	0	0	15	73%
12	8	0	1	13	69%
13	7	0	1	8	100%
14	3	0	0	10	30%
15	14	0	0	14	100%
16	16	1	1	24	75%
17	15	0	2	24	71%
Total	175	9	6	248	77%

The development of the Platform is not considered a one-off project, but rather an ongoing activity that must be maintained and improved over time. Starting in 2020, indicators are

introduced from administrative data that do not correspond to any statistics in the National Statistical Plan, if they respond to the metadata established by the UN. The Platform was renewed in February 2021, offering new visualization tools, including maps and graphs; and in 2022 new metadata sheets were included. The evolution of the number of indicators included in the Platform, as tracked in December of each year, can be seen in Graph 1.



Some of the works currently being undertaken to improve the Platform include promoting the use of administrative records and new data sources (e.g. Earth observations), continuing with the existing collaboration with the central statistical bodies of the Autonomous Communities and Local Entities to improve the coverage and disaggregation of the indicators, and generating files in SDMX format to send to custodian agencies.

4. Quality aspects of SDG Platforms

Quality has always been a constant concern at INE. A systematic approach has been implemented since the Leadership Expert Group (LEG) on Quality recommendations, and the adoption of the Code of Practice (CoP) and the Quality Assurance Framework (Revilla and Piñán, 2012). This section discusses some aspects of the quality of the SDG platforms, according to the CoP, emphasizing the INE SDG Platform.

4.1 Coordination and cooperation

The complex system of production of SDG indicators in Spain presents many coordination and cooperation challenges (Revilla et al.). The set of indicators of best practices and standards of the principle 1bis of the CoP provides a solid framework of reference. The UN

also provides guidelines highlighting the coordination role of the National Statistical Institutes (NSIs) within the SDGs. Thus, the UN General Assembly Resolution A/RES/71/313, stands out the role of NSIs as coordinators of the national statistical system. For its part, the second edition of the UNECE Road Map also recommends that NSIs serve as focal points in the measurement of the SDGs.

To coordinate the statistical services of the organizations responsible for producing the SDG Indicators (15 ministries and the Bank of Spain), INE uses the legal and organizational tools existing in Spain (e.g., the National Statistical Plan, the collegiate bodies of coordination). INE uses the NRP as an additional coordination tool. Before deciding on the inclusion of data and metadata, methodological discussions are carried out between the parties involved, ensuring their quality.

4.2 Relevance

Few statistics have greater relevance than SDG indicators in the international context, to the point of being endorsed by a resolution of the UN General Assembly. The 2030 Agenda establishes that the Goals and targets will be followed up using a set of global indicators. It also establishes that the indicator framework must be developed by the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs), composed of member states and international agencies. This framework was agreed by UN Statistical Commission in March 2017 and adopted by the General Assembly on 6 July 2017 (A/RES/71/313). The 2030 Agenda indicators do not constitute a fixed framework, but rather follow a process of continuous improvement, with annual improvements and extensive reviews in 2020 and 2025. Through open consultations, detailed inputs from civil society, academia, and private sector have been considered.

In the Spanish context, the 2030 Agenda indicators operation was presented for an opinion before the Higher Statistics Council, an advisory body where trade union, business organizations and other academic and social institutions are represented. The Council agreed to issue a favourable opinion unanimously. At the same time, many meetings have been held with ministries and other institutions, including civil society, before introducing the indicators into the Platform.

Another example of the relevance is that the Statistical Annex for the 2024 Voluntary National Review of Spain is based on the INE SDG Data Platform.

4.3 Accuracy and Reliability

The NRPs are means to maintain and improve the accuracy of the SDG indicators. For data external to the statistical system, official quality assurance mechanisms are usually not applied. In these cases, it is essential that NSIs ask the data provider to document the quality of the data and the methods used to produce it, in order to ensure that it follows UN metadata. NRPs can also help identify data gaps and propose measures to address those gaps. Before deciding their inclusion in the INE SDG Platform, methodological discussions take place between the parties involved, ensuring compliance with methodological standards, and the quality of data and metadata.

4.4 Timeliness and Punctuality

Improving timeliness and punctuality on SDG information is essential for making informed and accurate decisions towards sustainable development. NRPs are tools that allow reporting of statistics on a continuous basis as they become available in the country. INE SDG Platform incorporates the data as soon as the source is available. When the data is produced by INE, the Platform incorporates this data automatically.

4.5 Coherence and Comparability

SDG Platforms can help make indicators internally coherent and consistent by organizing data from different sources into a single mechanism.

Statistical Data and Metadata eXchange (SDMX) can improve cross-domain coherence between platforms, by using standard concepts, shared code lists, and guidelines that are reused across domains and statistical agencies. The IAEG-SDGs has established a working group on SDMX for developing a data and metadata structure definition for each indicator, to report and disseminate the SDG indicators at national and international levels. The working group continues to resolve complex data modelling issues.

UNSD has implemented the SDG Data Lab, a platform to carry out data and metadata exchange between NRPs, custodian agencies and UNSD, to gradually replace all other forms of data submission. Data exchange is beginning to be carried out with countries, which submit their relevant data sets to the Data Lab. INE is also working on SDMX transmission. Currently there are around 120 global series in SDMX format. The intended objective is to move towards automated transmission of data to custodian agencies. This way data disseminated on international organization databases and national Portals would be more coherent.

4.6 Accessibility and Clarity

INE SDG Platform centralizes all SDG indicators into a single-entry point and functions as a visualization tool for the SDGs. It serves various user groups by presenting data in different formats such as tables, graphs, and maps. The Platform provides time series data to analyse the progress of indicators towards the SDGs. While the baseline varies depending on the indicator, the time series is generally presented from 2015 onwards. Additionally, the Platform allows users to download data in various formats, including the xlsx format.

Platforms can enhance transparency by providing relevant metadata and other background documentation. On the INE Platform, for each indicator, there is a link to its metadata, which includes metadata for the current indicator available from Spanish statistics closest to the corresponding global SDG indicator. Similarly, a link to the UN metadata is provided. In addition, for all statistics produced by the INE and for several of the ministries, a standardized methodological report is provided, according to the ESS Handbook for Quality and Metadata Reports standards.

5 Final remarks

The indicators of the 2030 Agenda represent an "unprecedented statistical challenge", as already described by the president of the 70th session of the UN General Assembly, Mogens Lykketoft. According to the INE's experience, the NRP is proving to be a fundamental tool for the monitoring of SDG. In fact, the report of the UN Secretary-General on progress towards the SDGs is based on data from the UN Global SDG Indicators Data Platform. Similarly, the Statistical Annex for the Voluntary National Review of Spain in 2024 is based on the data available on the INE SDG Data Platform. Besides, data platforms can serve as a starting point for other SDG-related actions.

References

- MacFeely, S. (2020). Measuring the Sustainable Development Goal Indicators: An Unprecedented Statistical Challenge. *Journal of Official Statistics*, Vol. 36, No. 2, 2020, pp. 361–378.
- Revilla, P., & Piñán, A. (2012). Implementing a Quality Assurance Framework based on the Code of Practice at the National Statistical Institute of Spain. *Estadística Española*. Vol. 54, No 178, pp. 211-220.
- Revilla, P., Salcedo, A., & Saura, A. (2022). Challenges of coordination and cooperation in the production of SDG indicators in Spain. *European Conference on Quality in Official Statistics*.
- UNECE (2022). Road Map on Statistics for Sustainable Development Goals - Second Edition. *United Nations publication issued by the United Nations Economic Commission for Europe*. Available at: <https://unece.org/statistics/publications/CES-roadmap-sdg-2>