PRESENTATION

N°	Rubrique	Intitulé
1	**Event**	SDMX 2025 Conference
2	**Key Theme**	Implementation
3	**Theme**	SDMX in action - practical use cases and success stories
4	**Author**	Dr. Evariste Constant Serebou Contact: +225 07 07 48 31 72 / +225 01 01 06 80 54 Email: serebou@hotmail.com / ec.serebou@plan.gouv.ci
5	**Author's Position**	Open Data Portal (ODP) Coordinator
6	**Affiliation**	National Statistics Agency – Côte d'Ivoire Website: https://www.anstat.ci/ Phone: +225 27 22 59 96 10 Email: statistiques@stat.plan.gouv.ci
7	**Abstract Title**	A feat achieved through the use of SDMX

CONTENTS

Summary

Côte d'Ivoire, like 196 other countries around the world, participates annually in the Open Data Inventory (ODIN) competition organized by the institution Open Data Watch (ODW). This competition assesses the coverage and openness of these countries' official statistics based on 22 categories of indicators known as ODIN indicators. In the 2024/2025 edition, our country moved from a score of 20 out of 100 in the 2022/2023 edition to a score of 62 out of 100. This achievement owes its achievement to the centralization of ODIN indicators on Côte d'Ivoire's Open Data Portal (ODP) platform. Thanks to the SDMX language incorporated into this platform, the grouping of ODIN indicators was done easily, by exchanging data with other ODP platforms containing data from our country, but also by publishing metadata files already put online on other ODP sites, and finally by directly creating data sets.

In addition, the open SDMX language incorporated into ODP made it easier for ODW to search for indicators to publish from its ODP platform, unlike in the previous edition, where Côte d'Ivoire's ODIN indicators were scattered across heterogeneous platforms that did not support the SDMX standard. Using the ODP platform has therefore enabled our country to move from 188th to 73rd place in the world. In this article, we conduct a comparative study of the SDMX approach used during the 2024/2025 edition compared to the heterogeneous approach used during the previous edition, highlighting the advantages and added value obtained, as well as the disadvantages of each working method.

Keywords: Open Data – SDMX – ODP – Indicators – ODIN – Official Statistics – ODW

Introduction

The advent of the SDMX standard in the world of statistical data dissemination has greatly improved the dissemination and sharing of said data on web indicator visualization platforms.

This is evidenced by the spectacular rise observed in Côte d'Ivoire's ranking and score in the latest ODIN (Open Data Inventory) assessment conducted by the international non-governmental organization Open Data Watch.

In this article, we present a comparative study of the data dissemination method used in the previous and current editions and present the results obtained for each of the working methods for the ODIN competition assessment sessions.

This publication is structured around four key points:

• A brief presentation of the ODIN competition,

• Presentation of the results obtained by Côte d'Ivoire from 2015 to 2024,

• Description of the data dissemination methodology used in the latest ODIN assessment session,

• Comparison of the two (2) data dissemination methods and the results obtained for each method.

I – Presentation of the ODIN Competition

The Open Data Inventory (ODIN) assesses the coverage and openness of official statistics to identify gaps, promote open data policies, improve access, and encourage dialogue between national statistical offices (NSOs) and data users. The data to be published by individual countries covers twenty-two (22) data groups, comprising a total of sixty-five (65) data categories.

The 2024/25 ODIN competition saw participation from one hundred and ninety-seven (197) countries from different continents. The Open Data Inventory (ODIN) assesses the comprehensiveness of a country's statistical offerings and the compliance of its data with international openness standards.

The score obtained by a country is the combination of two (2) scores:

• Data openness,

• Data coverage. Coverage scores are based on the availability of key indicators and their appropriate disaggregations over time and space, taking into account the country's official geographical subdivisions.

Openness scores are based on the ability to download data in machine-readable, non-proprietary formats, whether it is accompanied by metadata, whether download options exist, such as bulk downloads, user selection, or APIs, and whether it has terms of use or an open data license.

The scoring and ranking of competing countries are done on a scale ranging from zero (0) to one hundred (100) for both data coverage and openness. The final score is the average of the two scores obtained. The diagram below shows the final scoring scale:
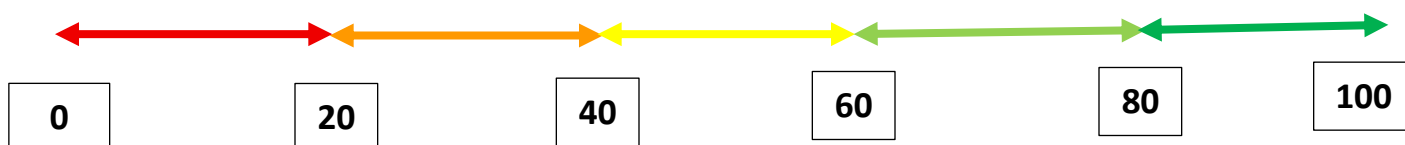

II – Presentation of the results obtained from 2015 to 2024

From 2015 to 2024, there was a significant improvement in Côte d'Ivoire's scores between 2022 and 2024. The final score improved by 210% and the opening score by 229.1% and 168.75% respectively.

Table 1: Changes in Côte d'Ivoire's scores and rankings from 2015 to 2024

	2015	2016	2017	2018	2020	2022	2024	Var %
CIV Final Score (note final CIV)	36	25	23	26	40	20	62	210%
CIV Opening Score (note overture CIV)	33	25	27	30	43	24	79	229,1%
CIV Coverage Score (note couverture CIV)	39	25	19	21	36	16	43	168,75%
World Rank (rang mondial)	42	148	155	135	135	188	72	

Figure 1: Evolution of the scores obtained by Côte d'Ivoire from 2025 to 2024
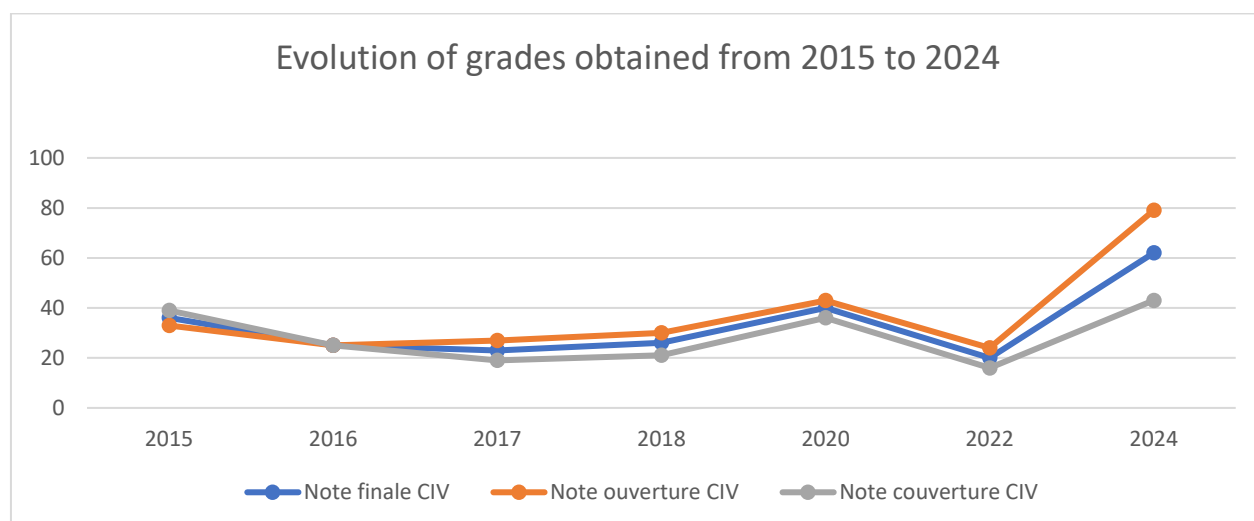
The graph above shows a significant increase in Ivory Coast's scores in 2024 compared to other years. For each of the three (3) data series represented on the graph, the peaks are reached in 2024 while the minimum values are observed in 2022.

III – Preparation Methodology for the 2024/2025 Competition

To prepare for the 2024/2025 ODIN competition, unlike previous editions, we carried out the following operations:

Step 1: Centralization of the sixty-five data categories required by ODIN on the Open Data Portal (ODP),

Step 2: Development of a single presentation page for all data categories involved in scoring for the ODIN competition,

Step 3: For each of the data categories appearing on the presentation page, we created three (3) web links:

• A link to display the data series,

• A link to display the metadata,

• A link to display the SDMX codes presenting the data series.

Step 4: We conducted a physical and online search for the data, through the websites of the various structures and ministries that make up the National Statistical System (NSS).

Step 5: We created the various datasets on the Open Data Portal (ODP). We then generated the SDMX codes for the various datasets. Finally, we either created pages for describing the metadata or linked metadata description files to the metadata access links.

Step 6: For the datasets that were to appear on the ODIN indicator presentation page and were hosted on ODP sites other than that of the National Statistics Agency (ANStat), we published them on the Agency's ODP site, thanks to the interoperability of ODP platforms guaranteed by the SDMX standard.

Step 7: We attached the datasets, SDMX codes, and metadata description pages or files created or generated to the various links created in Step 1.

Step 8: We tested the functionality of the ODIN indicator presentation page, then shared the links to the ODIN indicator presentation page with the Open Data Watch (ODW) organization.

IV – Benefits of this Working Method

To more tangibly measure the benefits of the new working method, we used eight (8) comparison criteria:

• **Data accessibility:** Data accessibility refers to the ease and convenience with which ODIN indicators are accessible. For the 2024 edition, ODIN indicators are grouped together on a single web page of the ODP data portal and are therefore easy to access.

• **Metadata accessibility:** Metadata accessibility refers to the fact that all links to the ODIN indicator metadata are grouped together on a single web page. For the 2024 edition, all links to the metadata are grouped together on a single page of the ODP data portal.

•**Data interoperability:** Data interoperability refers to the fact that the SDMX data format used for the dissemination of all online indicators allows the publication of data series already published on other ODP sites, on the ODP site for publishing ODIN indicators, i.e. the ODP site of the National Statistics Agency (ANStat) of Côte d'Ivoire.

• **Diversity of data download formats:** The diversity of data download formats refers to the fact that data published on the ODP site for publishing ODIN indicators can be downloaded in several file formats (Excel, PDF, PPT, PNG, etc.),

•**Data presentation diversity:** Data presentation diversity refers to the ability to present data using tables and multiple chart types.

• **Data format uniformity:** Data format uniformity refers to the SDMX format used to disseminate all ODIN indicators.

• **Data publishing capability on other platforms:** Data publishing capability on other platforms refers to the interoperability of SDMX data dissemination platforms. Data on one platform can be published on other platforms using the SDMX standard.

• **Data format audience:** The audience of the data publication format refers to the popularity of the data dissemination format.

The table below presents the strengths and weaknesses of the two (2) working methods used during the 2024-2025 edition and previous editions using an evaluation scale composed of the following six (6) values:

• Very Good (VG): value: 5

• Good (G): value: 4

• Acceptable (A): value: 3

• Poor (PM): value: 2

• Bad (B): value: 1

• Very Poor (TP): 0

Table 2: Comparative table of working methods for the 2024 evaluation and previous evaluations

Critères de comparaison des méthodes de travail	Méthode de travail du concours 2024	Score 2024	Méthode de travail des concours précédents	Score 2022
Data Accessibility	VG	5/5	A	2,5/5
Metadata Accessibility	VG	5/5	A	2,5/5
Data Interoperability	VG	5/5	P	2/5
Diversity of Data Download Formats	G	4/5	P	2/5
Diversity of Data Presentation	G	4/5	A	3/5
Uniformity of Data Format	VG	5/5	P	2/5
Possibility of Publishing Data on Other Platforms	VG	4/5	A	2,5/5
Audience of Data Format	VG	5/5	A	3/5
Total		37/40		19,5/40

Based on the analysis of the previous table, the working method applied in 2024 was significantly more effective than that used in previous years. We estimate the level of effectiveness of the working method used in 2024 at 37 out of 40 compared to 19.5 out of 40 for the working method applied in previous years. The results recorded in the table presented above are the results of an evaluation (collegial rating of the members of the management in charge of Diffusion) of the working methodologies used in 2024 and previous years.

Conclusion

The change in data dissemination methodology has been beneficial for our country. The indicators that existed, however, were disseminated across multiple platforms and websites, and were difficult for ODW evaluators to find. This placed Côte d'Ivoire at a disadvantage during previous evaluations.

By using the ODP platform and the SDMX standard integrated into it, we were able to centralize the indicators required by the ODIN competition on a single web page and in record time. This allowed the evaluators to more easily search for the indicators required for the competition, thus allowing Côte d'Ivoire to triple its score and significantly move up the ranking scale.

Appendix

Author's Biography:

Marital Status

Last Name: SEREBOU

First Name: EVARISTE CONSTANT

Date of Birth: July – December – 1974

Place of Birth: Abidjan, Ivory Coast

Education

Qualifications:

• Single PhD in Remote Sensing and Geographic Information Systems, with a specialization in Computer Science and Geomatics, obtained from the Félix Houphouët Boigny University in Abidjan, Ivory Coast,

• Engineering degree in Systems, Networks, and Telecommunications obtained from the Félix Houphouët Boigny National Polytechnic Institute in Yamoussoukro, Ivory Coast.

Professional Activity

Current Position: Open Data Portals Coordinator

Structure: National Statistics Agency of Côte d'Ivoire.