



BRICS: BEST PRACTICE CASE STUDY

Taxpayer Compliance Evaluation and Monitoring

Compliance Programme Unit
South African Revenue Service

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Contents

1. The Compliance Evaluation and Monitoring Information System	2
2. The Voluntary Compliance Index	4
ADDENDUM 1: Process Development of CEMIS	6
ADDENDUM 2: Summary of the Main Compliance Indicators and Formulae	7
ADDENDUM 3: Industry Heat Map	9
ADDENDUM 4: Industry Quadrant	10

1. The Compliance Evaluation and Monitoring Information System

Back in 2006, the South African Revenue Service (SARS) identified the need to measure, monitor and report on taxpayer compliance in a uniformed, standardised, and scientific manner. The idea conceptualised at the time was to identify areas of significant non-tax compliance across all tax types so that focused interventions could be developed and implemented accordingly. To achieve this, the respective business areas needed to have easy access to the data from various systems across SARS for it to be analysed for trends, behaviours, and anomalies. It was envisioned that it must eventually provide the basis for compliance strategy.

A project team was established to develop and provide a robust solution/capability that would package together technology, data and business rules into a single, flexible analysis tool that would evolve into the tool of choice for compliance strategy and monitoring. A benchmark study visit to the Canadian Revenue Authority (CRA) provided the team with guidance on international best practice on such a solution. The project proved to be a colossal task involving the co-ordination of business specialists, IT, system owners and analysts.

The project resulted in the phased development of the Compliance Evaluation and Monitoring Information System (CEMIS) over a period of 4 years¹. The power behind CEMIS can be attributed to the *compliance indicators* which underpin its design. The development of the indicators required specialist skills in tax legislation and compliance measurement methodologies. The system design took careful consideration of compliance standards, tax legislation, policies and procedures when developing the indicators. However, for the indicators to be considered accurate, they must be supported by complete and accurate data. In addition, the measurement of the compliance indicators needed to be accurate, fair, and transparent. Approximately 175 compliance indicators were developed over the years for the four main tax products (i.e., Personal Income Tax, Corporate Income Tax, VAT and PAYE), which enables SARS to closely measure and monitor compliance levels and trends².

In technology circles this was a rare feat. Business users were enabled to go beyond simple reporting to being able to compare and analyse disparate data sets and provide statistical significance to tax compliance. Business owners became empowered with timely and accurate compliance information for decision making. In addition to this, CEMIS provides seamless monthly updates and is also being continuously upgraded to ensure the provision of timely and accurate data. CEMIS was successfully deployed in 2011 and currently houses over 10-years of compliance data.

The implementation of CEMIS in SARS chartered a compliance journey that would take both CEMIS and compliance to new heights in the administration. The lesson learned in the development and implementation of CEMIS served and assisted other African countries with establishing their own compliance initiatives; these include amongst others; Uganda, Kenya, Lesotho, Zambia, and Mauritius.

¹ Refer to Addendum 1 for the Development Process of CEMIS

² Refer to Addendum 2 for a summary of the main Compliance Indicators

Some of the significant achievements include the:

- Development of the SARS Compliance Programme to create a focused compliance treatment strategy.
- Becoming the “go-to” centre for compliance reporting to National Treasury, Ministry of Finance, Parliament, external bodies, and media queries.
- Initiating an on-going Public Opinion survey to gauge the public opinion on tax administration and its effect on compliance.
- Implementing advanced compliance monitoring via modern Geographical Information Systems (GIS)

CEMIS plays a fundamental role in taxpayer compliance risk management. The Organisation for Economic Co-operation and Development (OECD) recommends, in line with international best practice, the implementation of a “compliance risk management process” to improve taxpayer compliance (refer to **Figure 1**). Compliance risk management is defined as a “structured process for the systematic identification, assessment, ranking, and treatment of tax compliance risks (e.g., failure to register, failure to properly report tax liabilities etc.)”. The approach takes a holistic viewpoint and includes data analysis, strategy development, implementation, and monitoring.

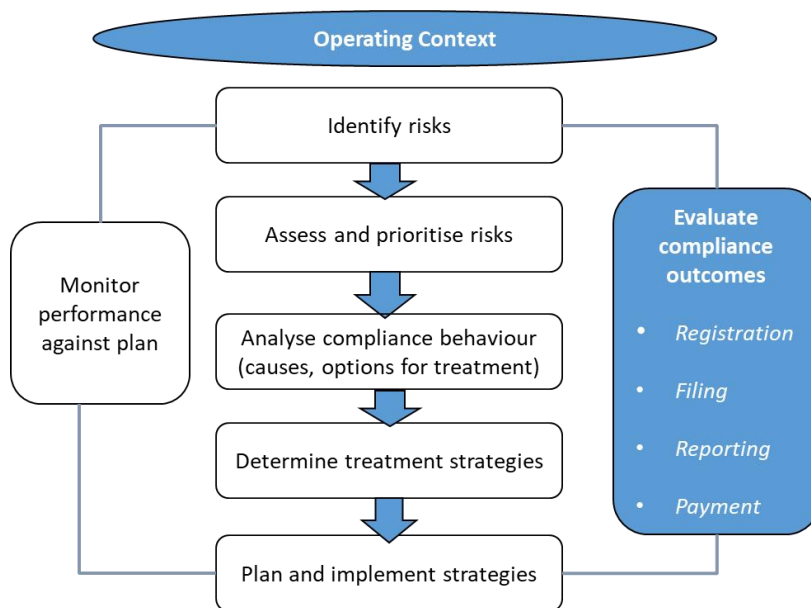


Figure 1: OECD Compliance Risk Management Process

SARS has, over time, enabled the process of analysing, prioritising, implementing, evaluating, and providing valuable feedback on compliance initiatives. This process is congruent to that which is prescribed by the OECD and, in so doing, offers a sustainable solution to tax compliance improvement and revenue generation.

The compliance evaluation and monitoring function within SARS; therefore, has a solid foundation together with building an adept set of resources to create a steeper growth trajectory for

compliance strategy and monitoring. This function can move to the next level of data analysis i.e., Extended GIS, Big Data, and advanced metrics.

CEMIS has been able to provide capabilities in the following areas:

	CEMIS Capability
Risk Identification	<ul style="list-style-type: none"> ○ Identify end-to-end strategic risks in the value chain per tax product ○ Identify high risk industries and further segment risk by geography (using GIS), size of business, nature of person/company type and demographics ○ Provide SARS with a holistic view of compliance across tax products through the Voluntary Compliance Index (refer to Section 2)
Assessing and Prioritising Risk	<ul style="list-style-type: none"> ○ Ranks industries using a Heat Map based on industry compliance behaviour across the value chain per tax product and across tax products³ ○ Heat map can further be prioritised according to GDP contribution, revenue contribution and size of industry⁴ ○ Basis for compliance risk ranking model
Evaluating Compliance Outcomes	<ul style="list-style-type: none"> ○ CEMIS can independently be used to evaluate if the organisation is achieving better outcomes in terms of programme efficiency and effectiveness (e.g., improved compliance with tax laws leading to increased tax collections and improved taxpayer service).
Provide uniformity of compliance analysis	<ul style="list-style-type: none"> ○ CEMIS creates a strong foundation for evidence-based evaluation which will be further enhanced by specialised knowledge in the Segments of the taxpayer base.
Create a critical link between Compliance to Revenue	<ul style="list-style-type: none"> ○ CEMIS has been enhanced to show the revenue generated from returns filed on time and late and estimates the Rand value of outstanding returns (which forms part of the tax gap).
Projecting future compliance trends	<ul style="list-style-type: none"> ○ CEMIS can be used to project compliance trends for each tax product. ○ Compliance projections can be combined with revenue and economic projections, to give a more complete and realistic view for compliance strategy development
Setting realistic organisational performance targets	<ul style="list-style-type: none"> ○ Performance targets can be determined based on historic trends provided by CEMIS, making it more realistic and relevant. This helps to create more synergy and alignment within the administration to achieve common goals/targets.
Defensible approach	<ul style="list-style-type: none"> ○ The compliance evaluation and risk management approaches, which are scientific and data-driven, enables the organisation to withstand external scrutiny (e.g., by external audit officials, industry associations, the public and international peers)

2. The Voluntary Compliance Index

In addition to the vast number of compliance indicators which are tracked, SARS further measures voluntary compliance through a Voluntary Compliance Index (VCI). The VCI is a composite, quantifiable measure of the level of tax compliance across the value chain for the four main tax

³ Refer to Addendum 3 for the Heat Map

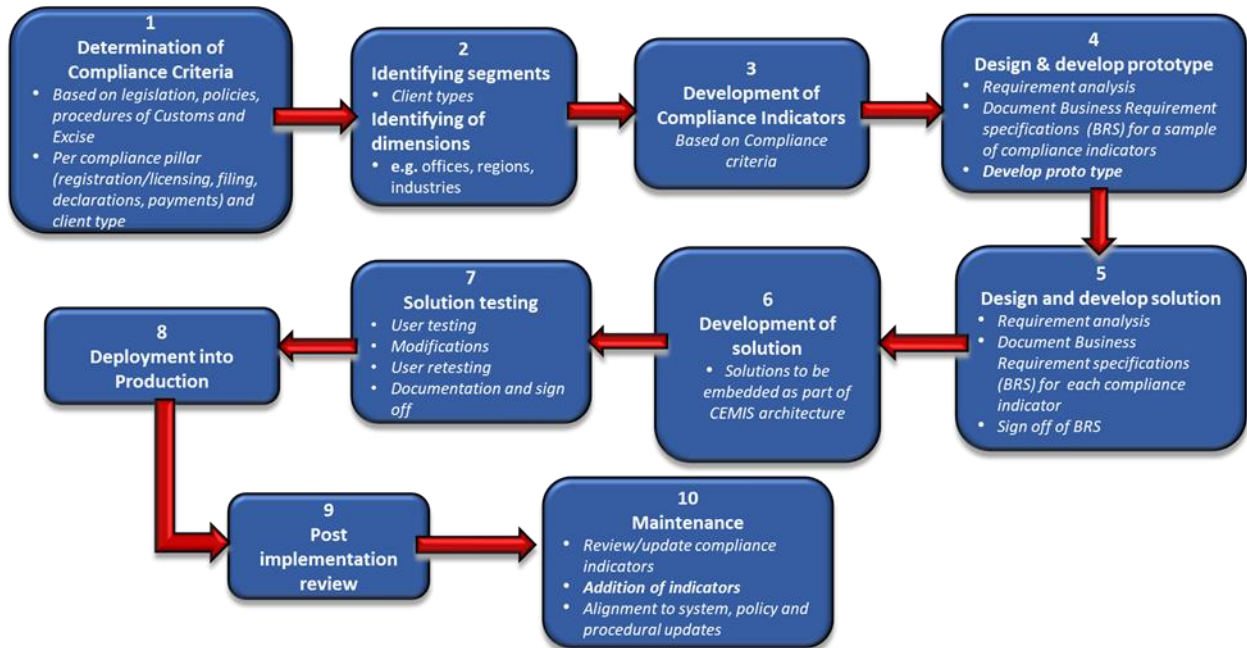
⁴ Refer to Addendum 4 for the Industry Quadrant

products (Personal Income Tax, Corporate Income Tax, VAT and PAYE). The index is derived from selected compliance indicators produced by CEMIS, that is:

- Registration on time
- Filing on time
- Accurate Declarations
- Payments on time

The methodology of the index is based on a hybrid model of statistical modelling and professional judgement. Weightings are assigned to compliance indicators in the computation of the index. Deriving the weightings further required the application of professional judgement to ensure it would make business sense and this was done through consultations with various experts across the organisation. The baseline measure was established in 2021/22 and the VCI will be tracked and reported on in its Annual Performance Plan and Annual Report.

ADDENDUM 1: Process Development of CEMIS



ADDENDUM 2: Summary of the Main Compliance Indicators and Formulae

REGISTRATION	
Growth in register	$\text{Growth in register (\%)} = \frac{[\text{Register as at specific date} - \text{Register as at previous period (month,/quarter/ year)}]}{\text{Register as at previous period (month, quarter, year)}} \times 100\%$
Registration on time	$\text{Registration on time (\%)} = \frac{\text{Registration on time (Nr)}}{\text{New Registrations (Nr)}} \times 100\%$
FILING	
Filing on time (Periods)	$\text{Filing on Time (\%)} = \frac{\text{Returns on Time (Nr)}}{\text{Returns Required (Nr)}} \times 100\%$
Late Filing (Periods)	$\text{Late Filing (\%)} = \frac{\text{Late Returns (Nr)}}{\text{Returns Required (Nr)}} \times 100\%$
Non-Filing (Periods)	$\text{Non Filing (\%)} = \frac{\text{Outstanding Returns (Nr)}}{\text{Returns Required (Nr)}} \times 100\%$
Filing on time (Clients)	$\text{Filing on Time (\%)} = \frac{\text{Returns on Time (Client Nr)}}{\text{Returns Required (Client Nr)}} \times 100\%$
Late Filing (Clients)	$\text{Late Filing (\%)} = \frac{\text{Late Returns (Client Nr)}}{\text{Returns Required (Client Nr)}} \times 100\%$
Non-Filing (Clients)	$\text{Non Filing (\%)} = \frac{\text{Outstanding Returns (Client Nr)}}{\text{Returns Required (Client Nr)}} \times 100\%$
Outstanding returns (as at)	<ul style="list-style-type: none"> • Number of outstanding returns determines the number of returns outstanding at any given date irrespective when the return was originally required to be filed. (Age analysis) • Number of taxpayers is the total number of taxpayers with at least one outstanding return at the reporting (as @) date • Estimated monetary value is the estimated value of the outstanding returns
REPORTING (DECLARATION)	
Accurate Declarations	$\text{Accurate Declarations (\%)} = \frac{\text{Accurate Declarations (Nr)}}{\text{Audits completed (Nr)}} \times 100\%$
Inaccurate Declarations	$\text{Inaccurate Declarations (\%)} = \frac{\text{Inaccurate Declarations (Nr)}}{\text{Audits completed (Nr)}} \times 100\%$
Monetary yield	$\text{Average yield value (\%)} = \frac{\text{Yield Value (R)}}{\text{Audits completed (Nr)}} \times 100\%$
Inaccurate Taxpayers	$\text{Inaccurate Taxpayer (\%)} = \frac{\text{Nr of non – compliant taxpayers}}{\text{Taxpayers Audited (Nr)}} \times 100\%$
Audit Coverage	$\text{Audit Coverage (\%)} = \frac{\text{Taxpayers audited (Nr)}}{\text{Active Register (Nr)}} \times 100\%$
PAYMENT	
Payment on time (Periods)	$\text{Payment on Time (\%)} = \frac{\text{Payments on Time (Nr)}}{\text{Payments due (Nr)}} \times 100\%$
Late Payment (Periods)	$\text{Late Payment (\%)} = \frac{\text{Late Payments (Nr)}}{\text{Payments due (Nr)}} \times 100\%$
Non-Payment (Periods)	$\text{Non Payment (\%)} = \frac{\text{No payments (Nr)}}{\text{Payments due (Nr)}} \times 100\%$
Payment on time (Clients)	$\text{Payment on Time (\%)} = \frac{\text{Payments on Time (Nr)}}{\text{Payments due (Nr)}} \times 100\%$
Late Payment (Periods)	$\text{Late Payment (\%)} = \frac{\text{Late payments (Client Nr)}}{\text{Payments Due (Client Nr)}} \times 100\%$
Non-Payments (Clients)	$\text{Non Payments (\%)} = \frac{\text{No Payments (Client Nr)}}{\text{Payments Due (Client Nr)}} \times 100\%$
Outstanding debt as at	Outstanding debt (As @)
Deferred Arrangements adhered to	$\text{Adherence (\%)} = \frac{\text{Arrangements adhered to (Nr)}}{\text{Deferred Arrangements (Nr)}} \times 100\%$

Deferred Arrangements adhered to – On time	Adherence (%) = $\frac{\text{Arrangements adhered to On time (Nr)}}{\text{Deferred Arrangements (Nr)}} \times 100\%$
Deferred Arrangements adhered to - Late	Adherence (%) = $\frac{\text{Arrangements adhered to late (Nr)}}{\text{Deferred Arrangements (Nr)}} \times 100\%$
Deferred Arrangements not adhered to	Non Adherence (%) = $\frac{\text{Arrangements not adhered to (Nr)}}{\text{Deferred Arrangements (Nr)}} \times 100\%$
Number of Debts Written off	Debt written off (No) – Total number of taxpayers whose debt was partially or fully written off during the SARS financial year.
Value of Debt Written off	Value of debt written off (Amount) is the monetary value of the debt written off during the SARS financial year.

ADDENDUM 3: Industry Heat Map

	VAT	PAYE	CIT	PIT Self-Employed
1	Construction	Mining and Quarrying	Construction	Transport, Storage and Communication
2	Transport Equipment	Construction	Personal and household services	Construction
3	Mining and Quarrying	Textiles	Mining and Quarrying	Vehicles, parts and accessories
4	Clothing and Footwear	Wood, wood products and furniture	Transport Equipment	Agencies and other services
5	Transport, Storage and Communication	Transport Equipment	Agencies and other services	Wholesale Trade
6	Personal and household services	Clothing and Footwear	Clothing and Footwear	Retail Trade
7	Wood, wood products and furniture	Transport, Storage and Communication	Catering and Accommodation	Food Drink and Tobacco
8	Agencies and other services	Bricks, Ceramics, Glass, Cement, and similar	Recreational and Cultural Services	Catering and Accommodation
9	Bricks, Ceramics, Glass, Cement, and similar	Personal and household services	Specialised Repair Services	Specialised Repair Services
10	Specialised Repair Services	Metal	Transport, Storage and Communication	Finance, Insurance, Real Estate, Business Services

ADDENDUM 4: Industry Quadrant

<p>HIGH VOLUME/HIGH REVENUE</p> <p>(1) Construction (11.1%; 2.8%)</p> <p>(5) Transport, Storage and Communication (3.7%; 4.2%)</p> <p>(9) Agencies and other services (11.6%; 9.8%)</p>	<p>HIGH VOLUME/LOW REVENUE</p> <p>(10) Specialised Repair services (1.3%; 0.4%)</p>
<p>LOW VOLUME/HIGH REVENUE</p> <p>(2) Mining and Quarrying (1.1%; 11.1%)</p>	<p>LOW VOLUME/LOW REVENUE</p> <p>(3) Transport Equipment (0.5%; 0.6%)</p> <p>(4) Clothing and Footwear (0.7%; 0.4%)</p> <p>(6) Bricks, Ceramics, Glass, Cement (0.5%; 0.3%)</p> <p>(7) Wood, wood products and furniture (0.6%; 0.2%)</p> <p>(8) Textiles (0.4%; 0.2%)</p>