



“STRATEGIC GOALS OF SECURE  
TRACK & TRACE TECHNOLOGY TO ASSIST  
GOVERNMENTS IN ENHANCING  
REVENUE COLLECTION”

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WORLD CUSTOMS  
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# “STRATEGIC GOALS OF SECURE TRACK & TRACE TECHNOLOGY TO ASSIST GOVERNMENTS IN ENHANCING REVENUE COLLECTION”

Mr. Secretary General,

Yang Berbahagia Dato' Seri Ahmad Husni Mohamad Hanadzlah,  
Minister of Finance II of Malaysia

Yang Berbahagia Dato' Sri Mohamed Khalid bin Haji Yusuf,  
Director General of the Royal Malaysian Customs

Ladies and Gentlemen,

Representatives of Member States of the World Customs Organization,

Distinguished Guests,

Governments need powerful tools to support their economic policy and not least to help with fiscal planning and forecasting. To optimize tax collection, governments need to be able to exercise effective control over the production and importation of products - especially over products which have high tax value such as excisable goods.

The strategic goals of secure Track and Trace technology to assist governments to enhance revenue collection are straightforward. They are all focussed on preventing tax fraud.

Each nation has its own social organization and tax system reflecting its historic development. But whatever the structure and form of the fiscal system, any government has to protect the integrity of the system, since it is crucial to the maintenance of public order and the existence of the State.

Preventing tax fraud is thus at the heart of any state's mission, especially in the current economic conditions. According to the International Monetary Fund "global recovery stalls" and "downside risks intensify".

Track and Trace technology can be used by industry and business, an honorable application, but also, and this concerns us here today, to support government in its mission to tackle tax fraud, be that in the customs arena or in excise.

The last ten years have seen a growth in the efficiency of Track and Trace technologies across the globe, and especially in the field of assisting governments to enhance their tax collection.

The impact of this technology is threefold. The first benefit is to capture the undeclared market, leading to an immediate proportional increase in tax collection. This is followed by on-going benefits to tax policy support and reduction of the incentives for under-declaration.

And thirdly I have to emphasize the non tax benefits associated with this technology. There are benefits in the area of public health policies. Reducing tax fraud levels the playing field for honest producers by reducing the flow of illegal untaxed products onto the market (which represents unfair competition for legitimate and legal producers) and also is a means to combat organized crime.

Governments are losing revenues from both non-declaration and mis-declaration. Based on our proven experience providing secure Track and Trace services to a number of WCO Member

States, we at SICPA have developed a tax remediation model. This model estimates the tax lost through non-declaration and mis-declaration. The accuracy of the model relies mainly on the quality of four key inputs: The market volume, the tax scheme, the estimate of the undeclared market estimate and the undeclared market recovery rate, which depends of course on the level and efficiency of enforcement.

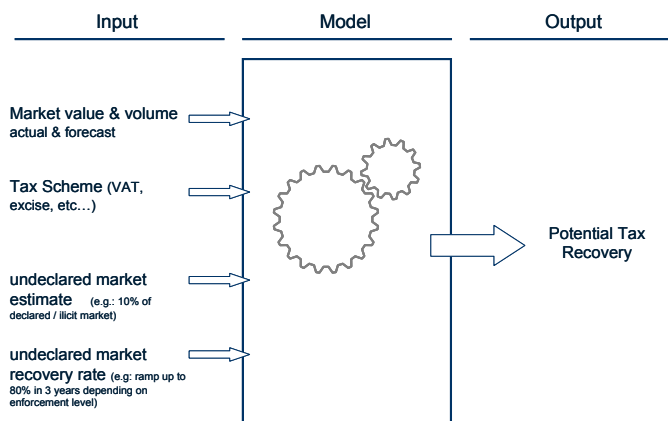
## GOVERNMENTS ARE LOSING TAXES FROM NON-DECLARATION & MIS-DECLARATION

Remediation model estimates the tax lost through *Non-Declaration & Mis-Declaration*



## TAX REMEDIATION MODEL – PRINCIPLE

The model accuracy relies mainly on the quality of 4 key inputs



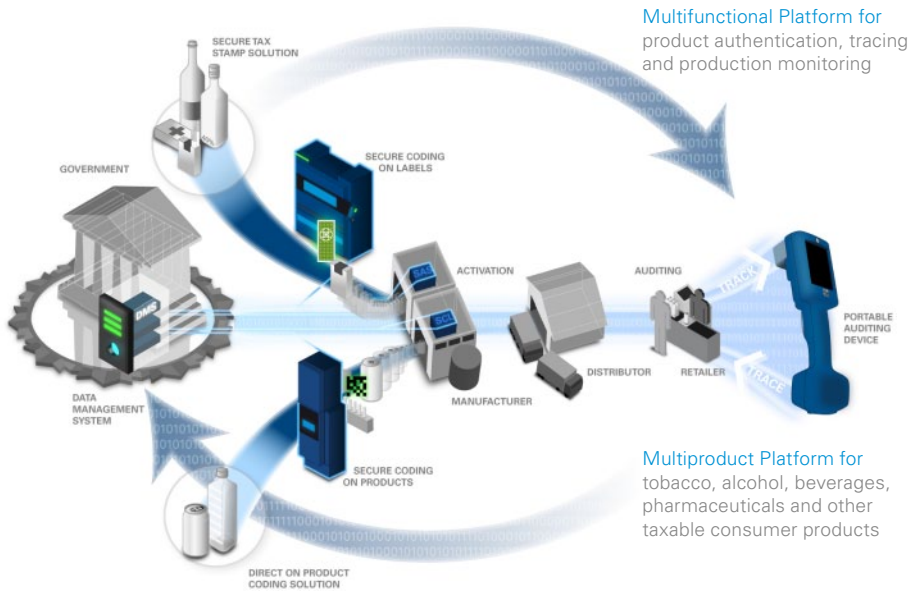
In practice governments implement Track and Trace technology at the same time as making changes (mostly increases) to their customs and excise duty rates. This builds on the fact that the technology is an additional tool to help manage government tax policy and tax planning. If increasing tax rates causes the price of taxed goods to rise, this impacts on consumption and therefore reduces the market volume. So the amount of tax collected is favorably impacted by the higher tax rate but negatively affected by expected market volume reduction. From a total tax collection standpoint, the model helps maximize receipts, calculating an optimum tax rate level which takes account of the expected volume reduction and ensures it does not offset the benefits from the higher rate of taxation.

A system based on advanced and secure Track and Trace technology assures the maximum benefit from a tax increase – it deals with the higher incentive for under-declaration which is often the result of a tax rate increase.

The advanced traceability features provided by a comprehensive system like our platform

significantly reduce the additional under-declaration, and consequent tax fraud which result from a tax increase. It serves as a tool to continuously capture and trace market size allowing volume reconciliation and enhancement of tax revenues.

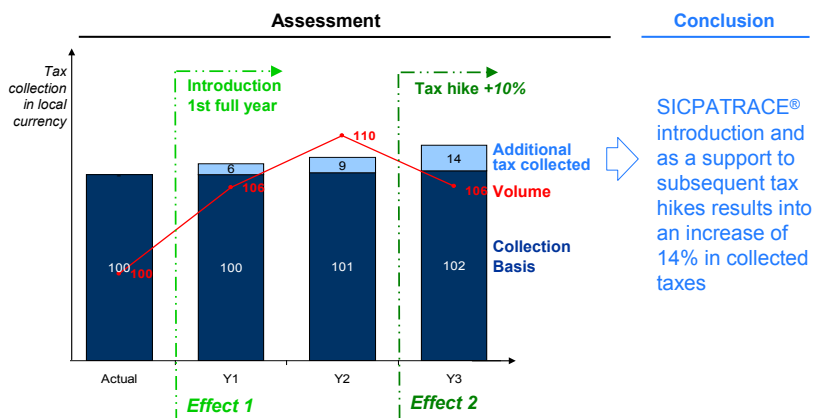
## SICPATRACE® – SECURE TRACK AND TRACE SOLUTION FOR EXCLUSIVE USE OF GOVERNMENTS



On the basis of figures published by governments in different regions of the world, I can tell you that introducing our traceability technology in conjunction with tax hikes has resulted in an average incremental increase of 14% in taxes collected.

## MODELIZATION: SICPATRACE® BENEFIT

Benefit of SICPATRACE® following introduction & subsequent tax hikes



But what are the technical aspects underlying achievement of these strategic goals?

Today centralizing and digitalizing documents is key to facilitating data exchange and trade procedures and the trend is to get as close as possible to real-time access to information.

In order to do this International Organisations and many of their Member States have undertaken initiatives to improve trade facilitation through standardized procedures, common data models and centralized systems.

However, the monitoring and control of the physical flow of goods and the related supply chain information is often a missing element from the system that regulates the digital flow of information between authorities of different countries. Empirical data shows that this is often the source of fraud. And it is not enough to get this right on a bilateral basis, it is important that we find a multilateral solution. It is essential that systems not only deliver appropriate secure capabilities to closely monitor and control the circulation of the goods, but also guarantee the integrity of the supply chain beyond borders by relying on a combination of advanced secure tracking and tracing regimes with powerful and effective enforcement programs. Secure Track and Trace technology is based on four essential pillars:

- 1) The first pillar is the [marking of legitimate production](#). By marking I mean the application of a means to authenticate that the product is genuine or show it is fake, and also to record production details. The two most widely used marking techniques are:
  - a. First, [secured tax stamps](#). To resist counterfeiting, tax stamps must have multiple levels of security features (visible, semi-covert, covert and forensic) and bear a unique code associated to metadata recorded in a database.
  - b. Second, [direct marking](#), which consists of printing a unique code on each product with visible and/or invisible inks.

To be robust, useful and efficient, both marking techniques have to combine material-based security and information-based security. They also have to be suitable for high-volume production lines, such as those used to manufacture cigarettes, beer or soft drinks, with no impact on production speed.

Widely deployed marking is essential to ensure reliable Tracking and Tracing of these products through transport and storage up until final purchase by consumers. Marking prevents under-declaration by manufacturers.

Effective marking systems eliminate the damaging *"garbage in, garbage out"* phenomenon well known to systems managers - marking and on-line activation ensure fully accurate measurement of production and the data is transmitted in real-time to the central database.

For full efficiency, both imported products and exported products should also be marked to fight against well-known frauds.

(To be complete I should also mention a third marking system using RFID technology. But because of its high cost and the high volumes it is not really suitable for unit marking. )

- 2) The second pillar relates to the [Track and Trace functionalities](#). As soon as excise products are uniquely marked at production or importation, their logistical and fiscal life can be reliably tracked and traced. To do this it is necessary to capture events along the distribution chain from the manufacturer or importer to the point-of-sale.

The most significant events are:

- a. The transfers of ownership of the excise products;
- b. The monitoring of excise stocks; and
- c. The aggregation of products from packs to cartons, pallets or containers.

The entirety of all data associated with the unique product marks is captured in a central database

where data are exclusively owned by the government. In addition, the system incorporates data relating to the authorised economic operators active in the excise supply chains.

- 3) The third pillar consists of [auditing and authentication tools](#) to detect if excise products have valid marks or stamps.

Such tools, operated by law enforcement agents, at border posts or in-land, detect covert security features immediately and connect in real-time to central databases to retrieve instantly product and production details. This immediate interaction with reliable data is essential to checking unique codes and identifying potential frauds. In addition, retailers may utilise simple authentication tools for quick “good *versus* fake” identification.

These auditing devices function today to aggregate a large amount of field evidence. This reinforces the visibility and credibility of the distribution chains. It provides assurance and immediate reaction capabilities to law enforcement agents and to retailers about excisable products offered on the market.

- 4) The fourth pillar is the [consolidation of excise trade data](#) to provide meaningful business intelligence, risk profiling and powerful reporting tools. Excise trade data is transferred seamlessly from the marking, tracking and tracing systems mentioned above. As long as all excise products produced in a country or imported are marked and as long as their distribution and authentication are controlled in a reliable way, the Government, the Ministry of Finance and the Customs services have the means to tackle excise fraud.

Thanks to the authentication tools and the central database and the data on each marked products, it is possible to calculate the probabilities of fraud at the points-of-sale or for the next consignments.

Thanks to an efficient risk management and profiling system that can make use of a massive volume of excise data, Customs, Tax and Revenue authorities can better direct their resources against excise frauds, and benefit from ad-hoc fraud pattern reports.

By applying the principles of these four pillars on all products produced or imported:

- a. Licit trade becomes visible all along the chain, from manufacturers to end consumers;
- b. Law enforcement administrations are equipped with reliable and consistent data and tools, to accomplish their mission and to immediately sanction fraudsters;
- c. Illicit trade is significantly impacted.

To conclude, I would like to mention a number of on-going strategic challenges which affect national and international frameworks:

First, the need to have an effective interface between national Track and Trace systems and excise monitoring systems including the European Union’s Excise and Monitoring Control System to provide and associate secured field data evidence to the electronic transactions, joining up physical and digital flows.

Second, the importance of using proven and independent Track and Trace systems to support the goals of the World Health Organization’s Framework Convention on Tobacco Control

Third, the interface of secure Track and Trace systems with Customs Management Systems and Electronic Single Windows to provide advance electronic information on excise consignments;

or with the WCO Interface Public Member (IPM) system on products' authenticity.

Finally, the interface of Track and Trace systems with excise, revenue and tax systems in order to compare, in real-time, physical data of excise products produced, traded and sold, with data on VAT, income tax, and Customs duties & taxes declared and paid.

Current market trends demonstrate that secure Track and Trace systems and models will play a significant role in tackling frauds, related to excise products as a first priority, but also concerning other consumer products too.

Marking, tracking, tracing adds proven value and undisputed evidence. Many experts believe that it will, over time, become standard practice worldwide in support of the WCO guidelines, the SAFE Framework, the Customs Management Systems, and all underlying legislations.

This technology has a crucial role to play in strengthening and unifying the international customs and excise systems.

## TECHNOLOGY PILLARS

