Plenary Session 4: E-invoicing and Electronic Receipts.

This session will focus on the comprehensive understanding of the benefits and practical application of electronic invoicing and receipts for tax compliance. The session will cover the latest developments in e-in voicing standards, technology, and best practices for implementing an e-invoicing system. It will discuss the advantages of electronic invoicing and receipts for tax purposes, including increased accuracy, improved efficiency, and reduced costs, as well as the legal and regulatory requirements for electronic invoicing and receipts.

Presentation

• Mr. Vinicius Pimentel de Freitas, Chief Technology Officer (CTO), CIAT

• Mr. Erick Marinkovic Febre, Deputy Commissioner – IT Division, SII

• Mr. Adan Ramirez Hernandez, Administrator of Management of Services and Procedures with Electronic Media, Mexican Tax Administration Service (SAT)

Panel discussion

• Mr. Fabrizio Santoro, Research Fellow, ICTD

• Mr. Osama Sameer, Deputy Director – Directorate General of Digital Initiatives, FBR, Pakistan

• Ms. Louise Kalisa Ingabire, Commissioner – Information Technology and Digital Transformation, Rwandan Revenue Authority (RRA)

Funded by german cooperation DEUTSCHE ZUSAMMENARBEIT Co-funded by the European Union Facilitated by itc Hosted by AFRICAN TAX ADMINISTRATION FORUM FORUM SUR L'ADMINISTRATION FISCALE AFRICAINE Partners

Open discussion and Q&A

Moderator

• Ms. Melinda Crane, Moderator, Deutsche Welle

Presentation

Febré, E. M. (2023). *Overview of the evolution and transition of the electronic invoice*. Servicio de Impuestos Internos.

Hernandez, A. R. (2023). *Electronic invoice backbone of an ecosystem*. Mexican Tax Administration Service.

Pimentel De Freitas, V. (2023*). Overview of the electronic invoice around the world*. Inter-American Centre of Tax Administrations.

Electronic Invoice backbone of an ecosystem

Objectives of the Electronic Invoice

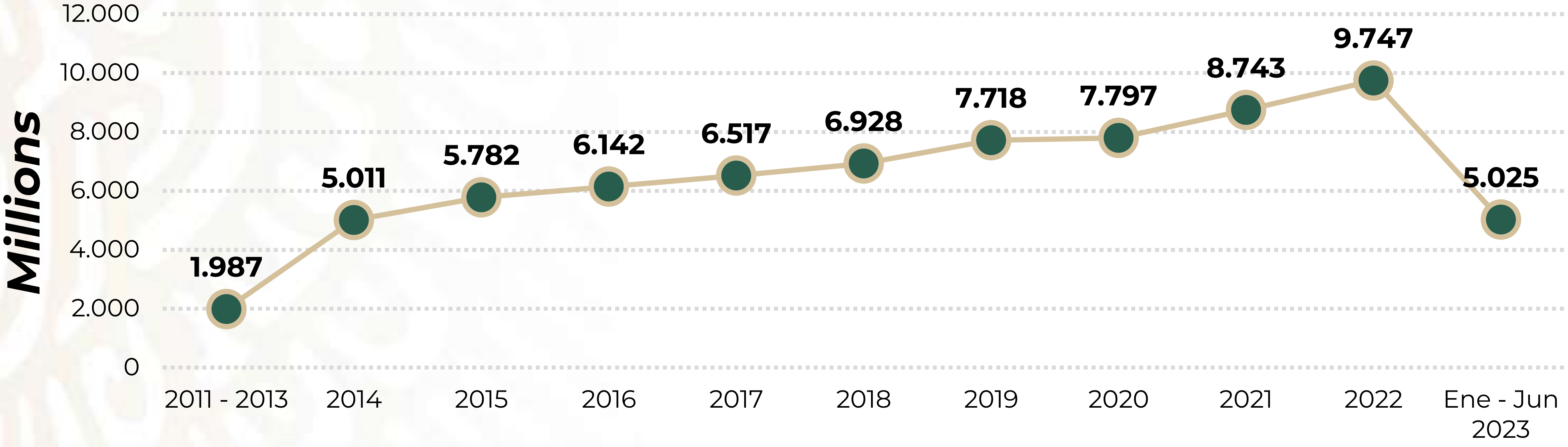
1. To contribute to the objectives of tax collection
2. To facilitate tax compliance
3. To analyze and deepen on the taxpayer behavior
4. To optimize the tax Audit processes

Growth of the Electronic Invoice

321 *each second*

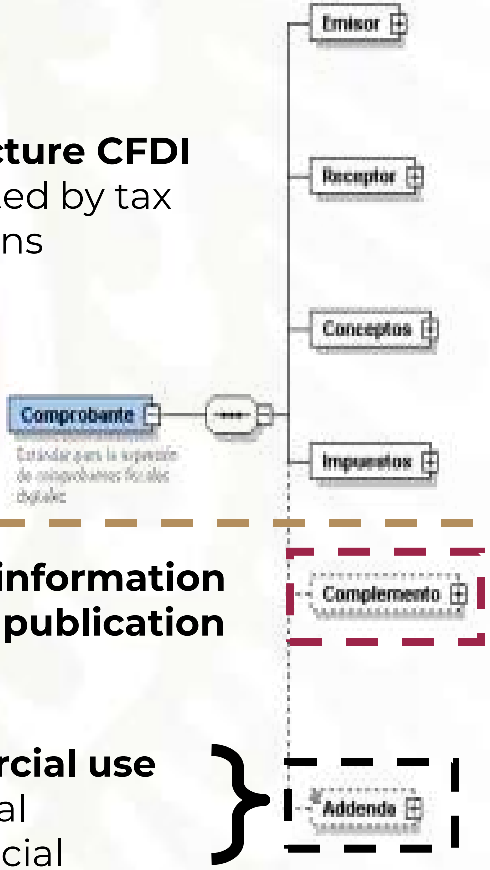
79,200,942,457

Invoices received (by June 2023)



Structure of CFDI and CFDI of withholdings and payments information

Base structure CFDI
Regulated by tax provisions



Tax information Internet publication

1. Digital tax stamp
2. Fuel statement for electronic wallets
3. Social welfare organizations
4. Purchase and sale of foreign currency
5. Other duties and taxes
6. Tax Legends
7. Natural person member of Coordinate
8. Tourist Foreign Passenger
9. Third party to third party SPEI
10. Retail Sector (Retailer)
11. Tax registration
12. Payroll payment receipt
13. Payment in kind
14. Food vouchers
15. Fuels
16. Airlines
17. Notary Publics
18. Used vehicles
19. Partial construction services
20. Vehicle renewal and replacement
21. Certificate of destruction
22. Works of art and antiques
23. INE
24. Foreign Trade
25. Receipt of payments
26. Hydrocarbons
27. Bill of lading (Carta Porte)

Commercial use
Non-fiscal commercial information

<Concept Complements >

1. Private Education Institutions
2. Sale of vehicles
3. Third parties
4. IEPS crediting

<Complements of the CFDI Withholdings>

1. Disposal of shares
2. Dividends
3. Interest
4. Lease in Trust
5. Payment to Foreigners
6. Awards
7. Non-business trust
8. Retirement Plans
9. Mortgage interest
10. Transactions in derivatives.
11. Financial Sector
12. Technological Platforms

For the Tax Administration, the electronic invoice is the backbone of a digital ecosystem

Determination of provisional payments Income tax - VAT
Behavioral analysis and studies

Pre-filled declaration form
Simplification

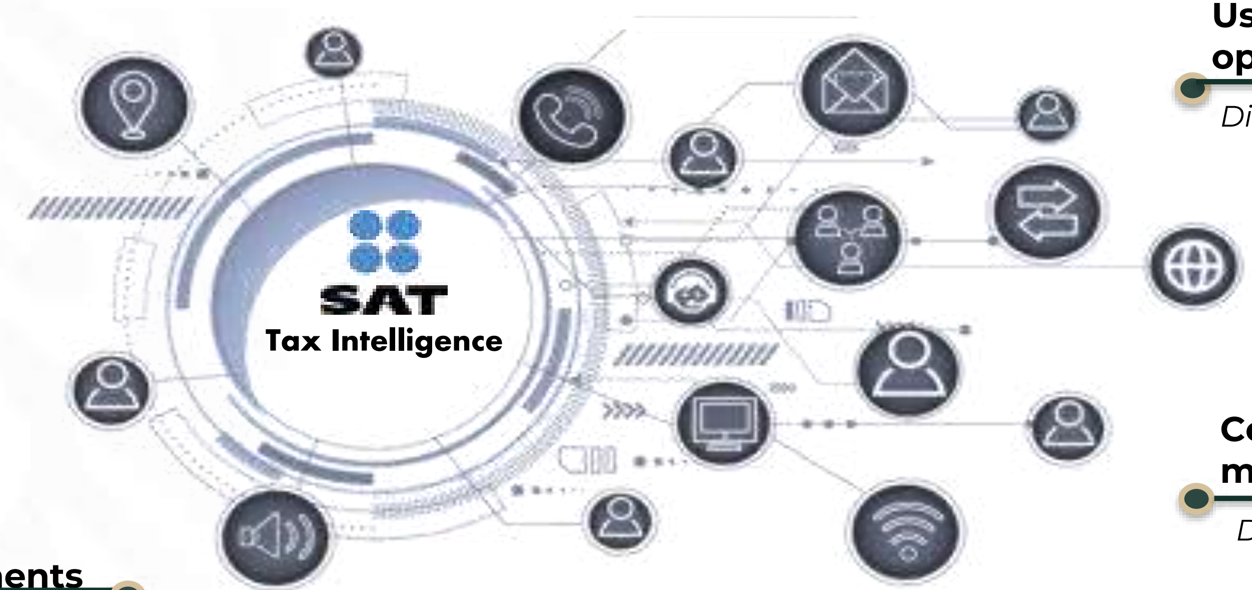
Taxpayer registry
Integration of information - economic sector

Control of obligations
Detection of non-compliance areas

Use in foreign trade operations
Direct dialogue

Electronic accounting
Systematic delivery of own and third party data

Electronic audits
Design of control instruments



Tax Mailbox
Planning Actions

Consistent risk models
Definition of profiles

Collections and payments
Transaction analysis

Goods Movement Control
Analysis and control

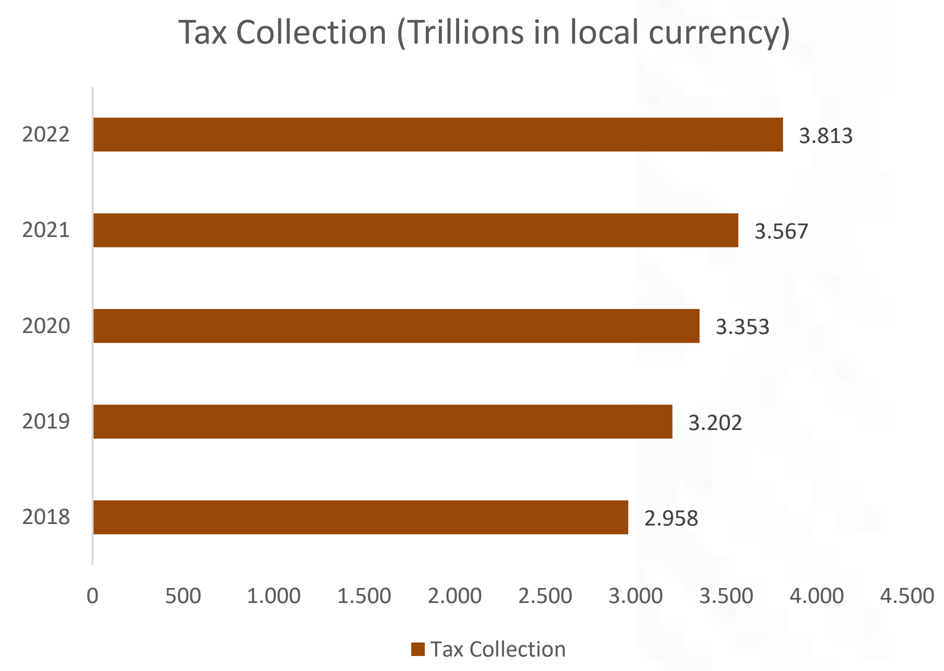
*Use of information to **offer better services, improve control and facilitate the development, automation and integration of processes in Mexican companies and the digital economy.***

It also allows to align processes and simplify procedures..

Tax collection impact

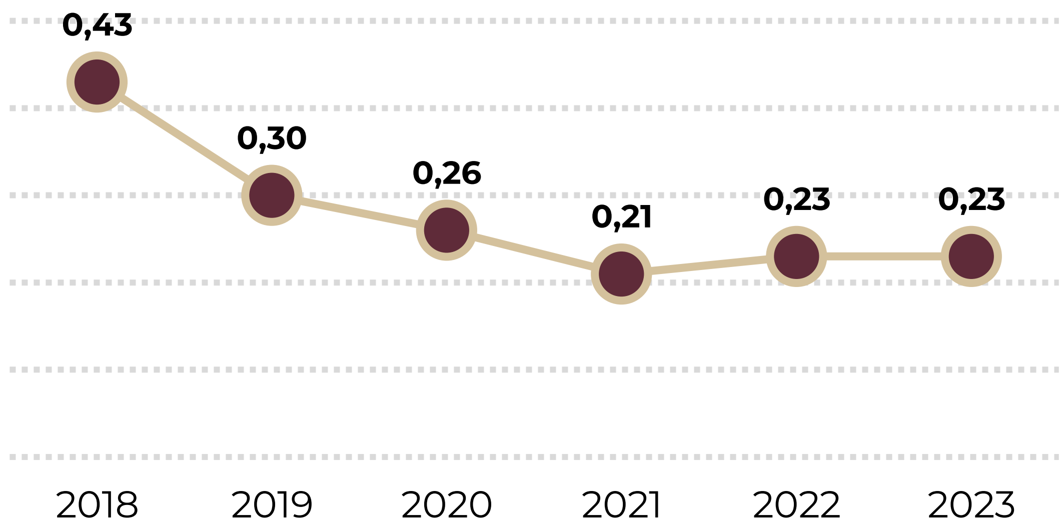
2018 – 2022

Growth in tax collection: **28.9**%



Decrease in the cost of tax collection: **46.5%**

Cost in local currency (pesos) each $100.00 collected



Pre-filled statement

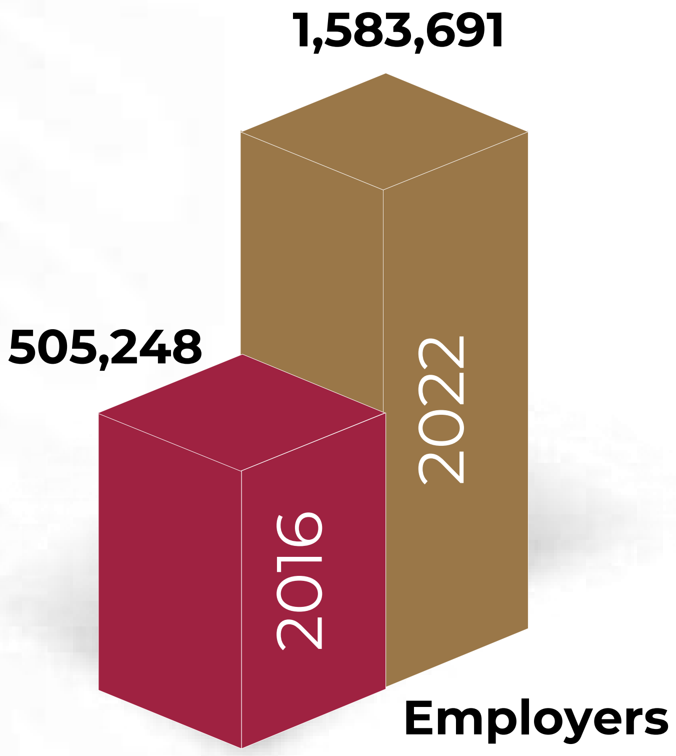
2022

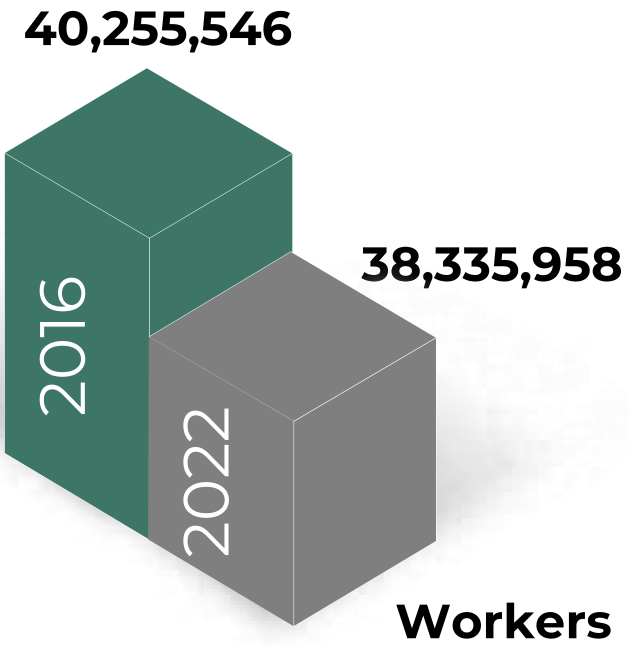
Vouchers

1.1 billions

Total employers

1,583,691

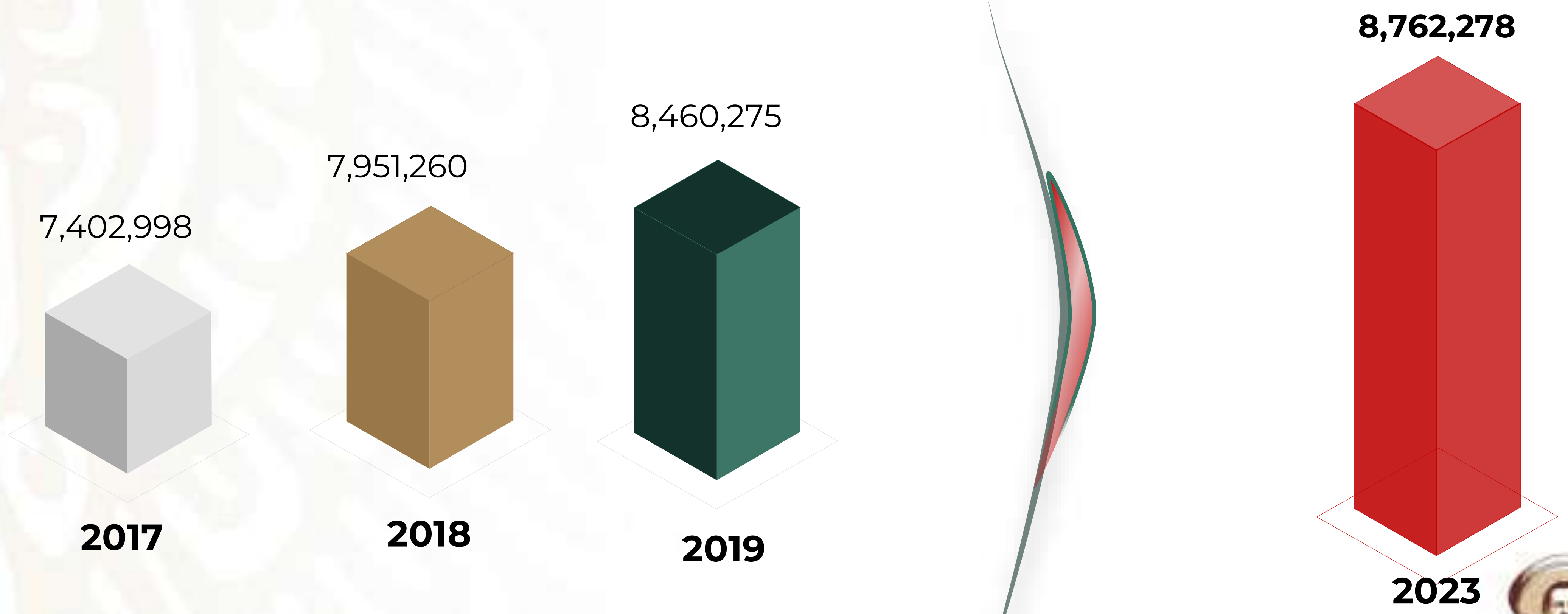




In 2017, **505,248 employers** submitted their Wages and Salaries for the 2016 fiscal year using Form 30, registering **40,255,546 workers** whose existence could not be verified.
By 2023, with the CFDI information, **1,583,691 employers** were identified, issuing payroll vouchers for **38,335,958 workers**.

Pre-filled statement

Declaration of Natural persons for the 2017 fiscal year, which is the last year where Annex 1 of the Format 30 is used and its evolution from the preload with information from the electronic invoice:



With this facility, more and more taxpayers are filing it. The electronic invoice is taken for the calculation of income and personal deductions.

Pre-filled statement – New Regime for small taxpayers

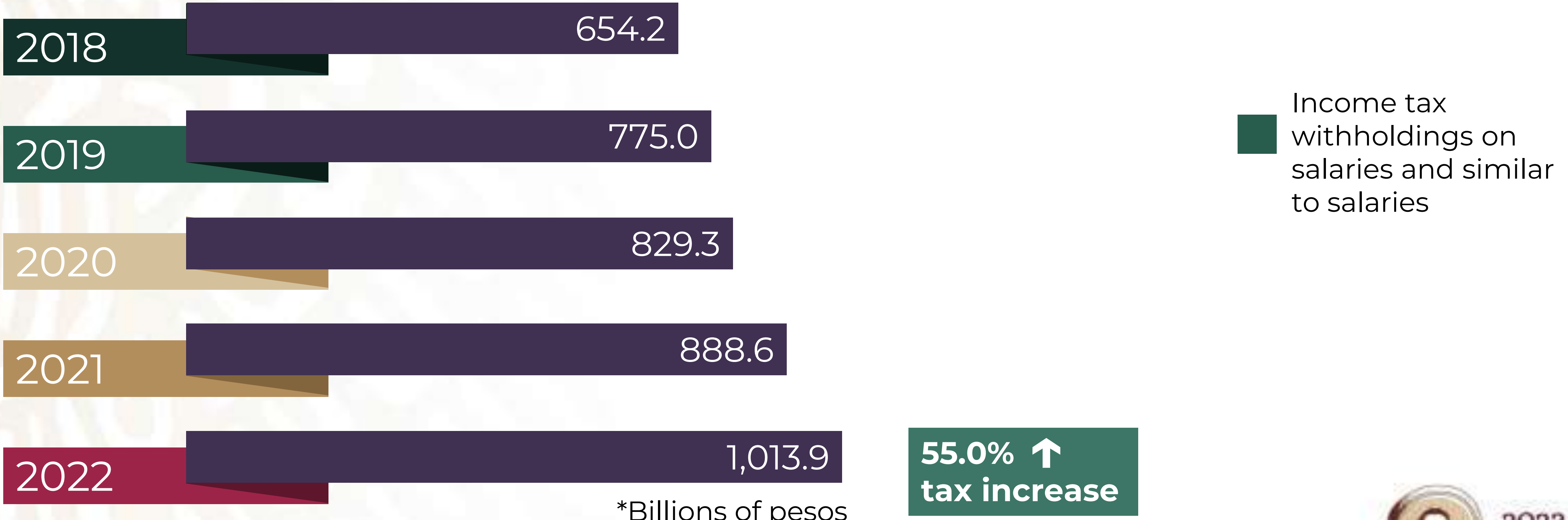
The new regime for small taxpayers, known as the "Régimen Simplificado de Confianza," was introduced in 2022. The prefilled tax return is based entirely on electronic invoices. The results for the first quarter of 2023 were:

Taxpayers doing tax filing

30.2% ↑ taxpayer increase

As a result of this facility, more and more taxpayers are filing their taxes. The electronic invoice is used to calculate income and personal deductions. Tax filing is optional for this period, but it will be mandatory in April 2023. Taxes have increased by 45.8% in that regime.

Tax collection impact of the withholding taxes on salaries and similar items.

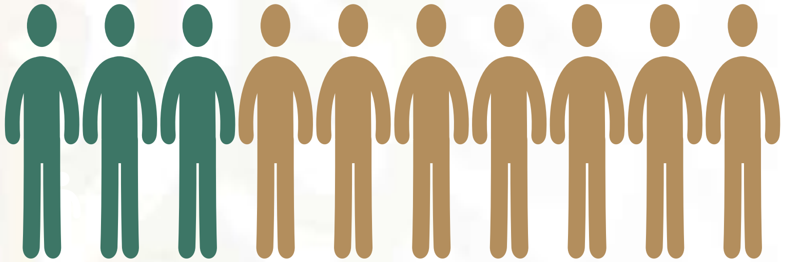


*Billions of pesos

Update to the Taxpayer Registry

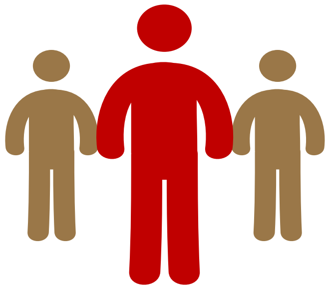
Based on the information obtained from the electronic invoices and the declaration forms, the tax situation of 1,846,090 RIF taxpayers was updated, of which it was identified that they do not carry out any economic activity related to this regime.

2021



Suspension of activities of **1,540,919** taxpayers

305,171 taxpayers were migrated to the salary regime



Tax mailbox and electronic accounting

The tax mailbox integrates differents procedures

The electronic review is a process of the Audit area that consists from the notification to its conclusion through electronic means where different concepts of information, such as accounting, are reviewed and analyzed.

Audit

Large taxpayers

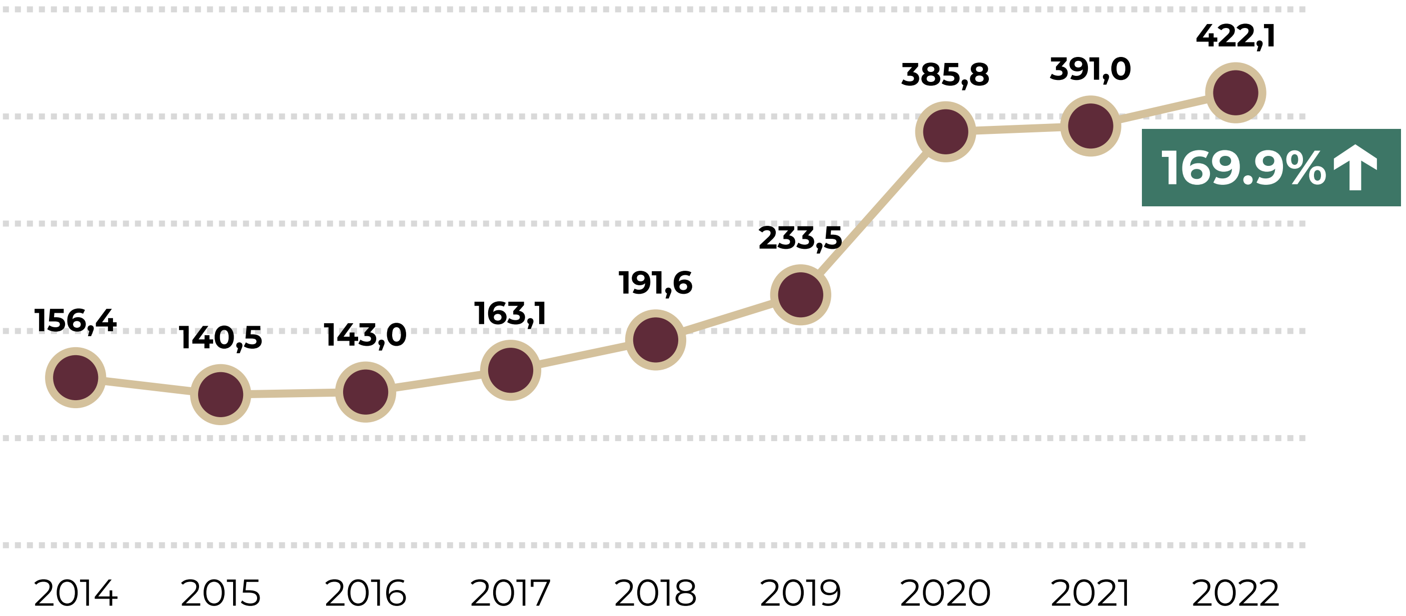
55%

Others taxpayers

45%

Amount collected 2022

422.1 billions pesos



In 2017, 163 billions pesos were collected through audit acts; in 2020, **385.8 billion pesos** were collected through audit acts.
On December 18, 2020, the Invoice Verification Service was updated, a tool that allows taxpayers to validate the registration of their invoices, their status and to know if their supplier is published in the definitive list of Companies that Invoice Simulated Operations (EFOS).

Foreign Trade Operations

The foreign trade invoice provides a detailed description of the goods for export and tax data of the seller and buyer of such goods; this allows to determine the foreign trade taxes.

2018

Tax collection from foreign trade operations at the end of 2018 reached **787.5 billions pesos.**

Increase of
37.1%

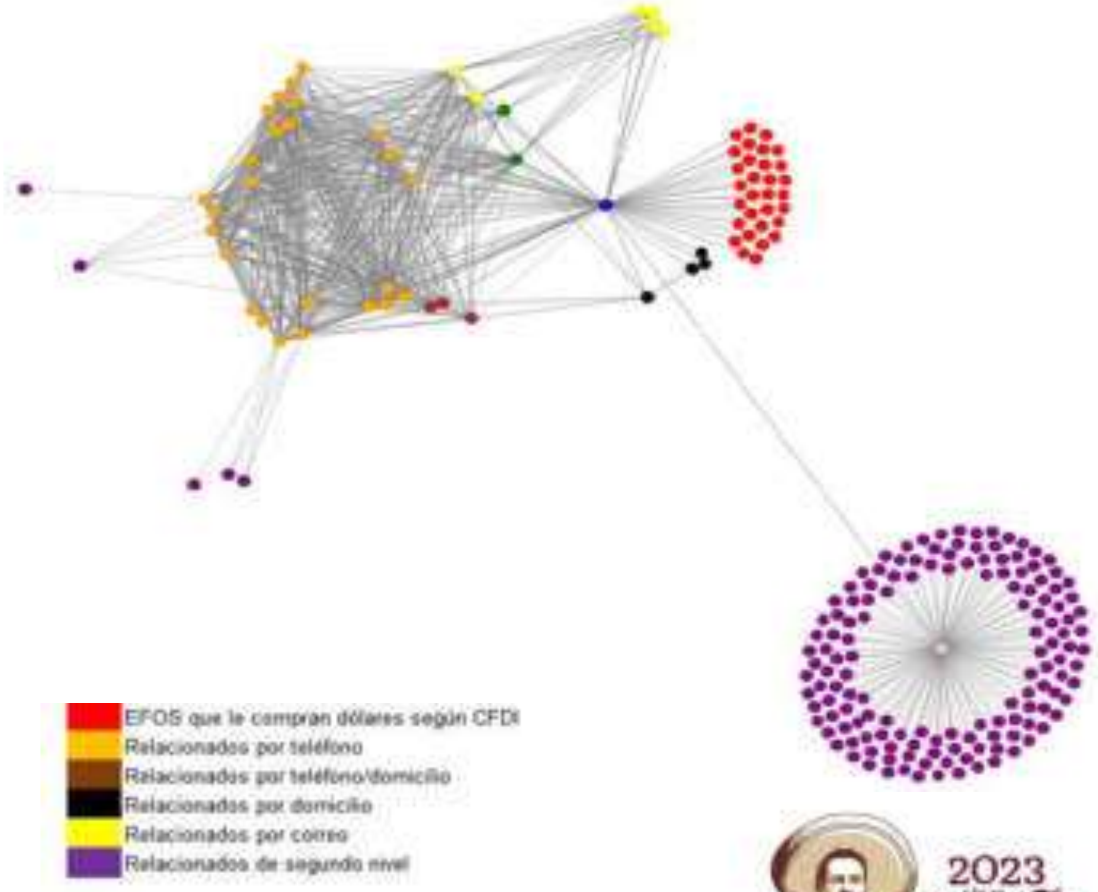
2022

A total of 2.9 millions export requests and 7.4 millions imports request were received, and cash flow collections from foreign trade operations reached **1,079.5 billions pesos**.

Consistent risk models

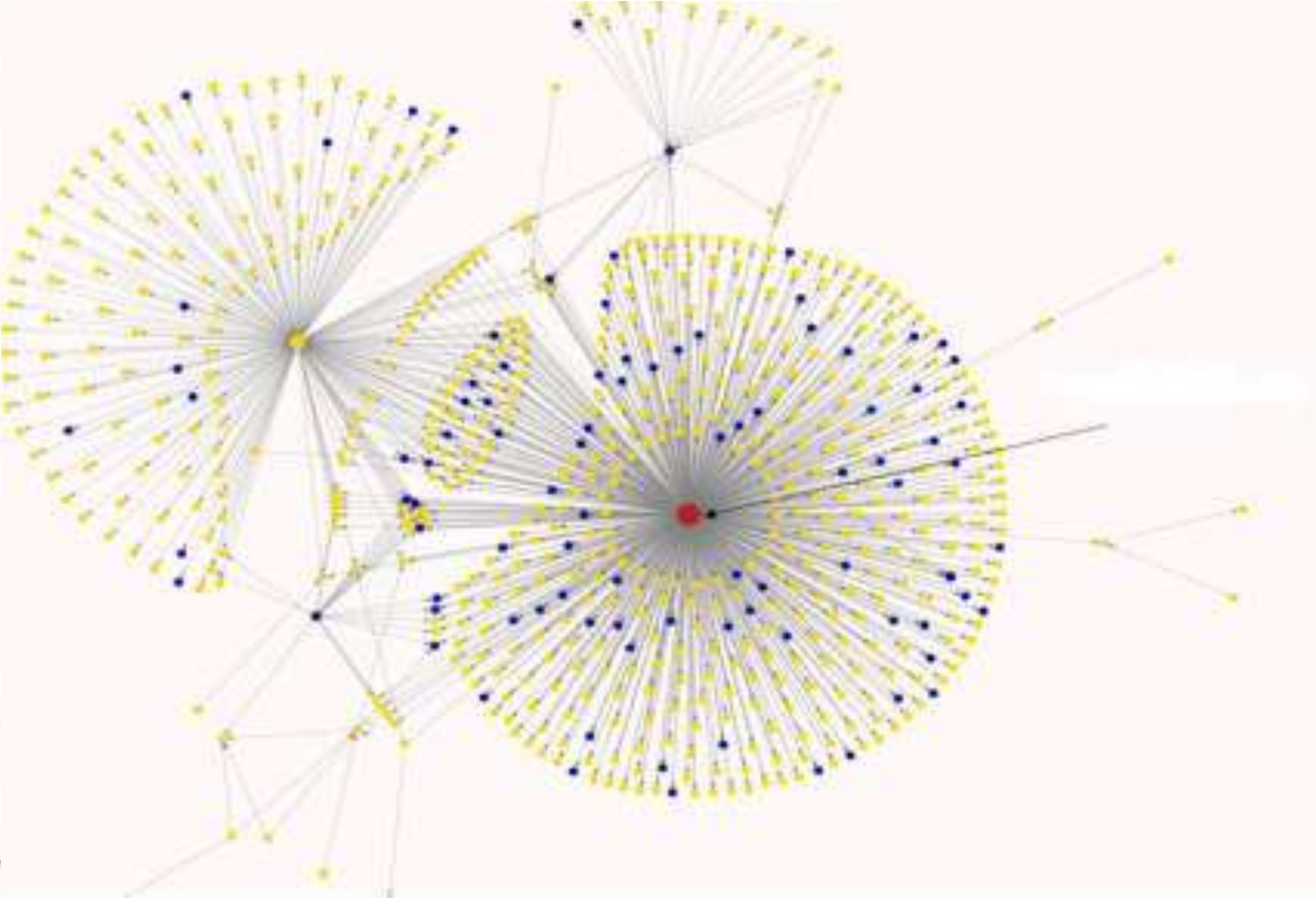
Networks, linkage with potential EFOS

Through electronic invoices and information from registries, it is possible to generate **commercial relations-links with risk taxpayers** in order to identify behavior with irregular patterns..



Consistent risk models
Networking, Business Relationships

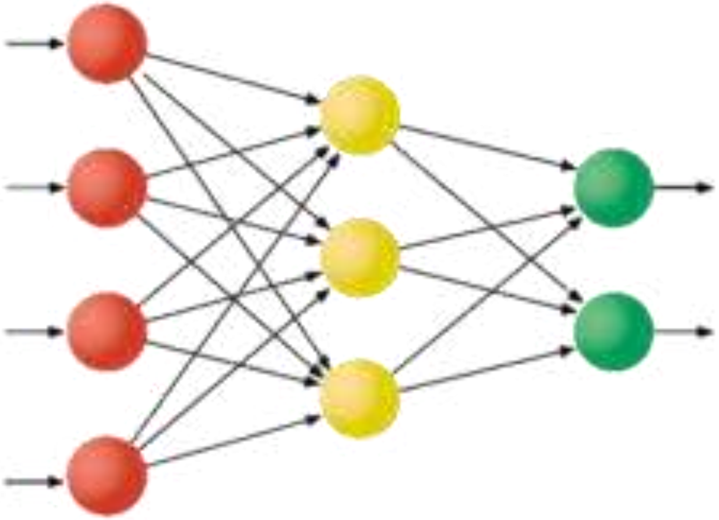
The electronic invoices allows **to identify commercial relationships** and the magnitude of these relationships between groups of taxpayers.



- Taxpayers X, where comercial relations converge
- Relationships with amounts greater than 666 million pesos
- Relationships with amounts less than 666 million pesos

Neural Network Models for EFOS Detection

Models are built to learn from known data and make statistically predictions on unknown data. In this case, the neural network was used, which allowed to identify 68.6% of the EFOS.



These models have predictive power because they can detect nonlinear patterns in the data.

Goods Movement Control

Complement "Carta Porte"

It is an interinstitutional effort that seeks to generate information that proves the legal possession of goods transported throughout the country, using electronic means such as invoices..

Its use will be optional until July 31, 2021; as of August 01, 2023 it will be mandatory.

1. **To Combat smuggling** of goods.
2. To Strengthen control activities **to increase tax revenue.**
3. To obtain **traceability** and provide to the authorities means of verification.
4. **To prevent** potential **extortion by any authority and facilitate verification procedures.**
5. In the PAE or PAMA, the transfer invoice is considered as **a contract or agreement.**

Because it is **digital,** it can be verified by **reading the QR of the invoice.**

Nearly 60% of commercial transactions done by cargo transportation (mainly by trucking) operate informally, which represents **an annual evasion from transportation services.**

Contact points

ACGSYTME@sat.gob.mx

sat.gob.mx

+ 52 55 5802 1279

SAT MX

References

http://omawww.sat.gob.mx/gobmxtransparencia/Paginas/itg.html

Electronic Invoice backbone of an ecosystem

HACIENDA
SECRETARÍA DE HACIENDA Y CRÉDITO PÚBLICO
SAT
SERVICIO DE ADMINISTRACIÓN TRIBUTARIA
2023 AÑO DE Francisco VILLA

OVERVIEW OF THE EVOLUTION AND TRANSITION OF ELECTRONIC INVOICE

OPTIMIZATION OF DIGITAL SERVICES TO FACILITATE CONTROL

ERICK MARINKOVIC FEBRÉ
Deputy Commissioner IT Division

September 6th, 2023

EVOLUTION OF THE ROLE OF THE SII IN CHILE

20 Years ago

Supervise tax compliance of internal taxes:

- Facilitate compliance.
- Control and reduce evasion and avoidance.

Today

Develop a fundamental role in the development of the country's economy through providing technological services for:

- Absorb tax compliance cost of taxpayers.
- Provide services and information to other organizations for their management and operation.
- Digitally sustain the functioning of the country's economic activity.
- Deliver social benefits.
- Lead the process of Digital Transformation of the State (imposes obligations).

OVERVIEW OF THE EVOLUTION AND TRANSITION OF ELECTRONIC INVOICE

FIRST STEPS OF ELECTRONIC INVOICING IN CHILE

Since 1990, different governments have been promoting the digitalization of the state.

The SII began too its digitalization process:

- In 1993, the Income Tax Declaration was digitalized.
- In 2001, the Proposal of Income Tax Return was made available to Individual Taxpayers.

The vision was that the next big challenge was to propose the VAT Return to taxpayers.

To this end, it was necessary to start with the electronic invoice.

Some expected benefits from implementing electronic invoice were.

For SII:

- Reducing the number of false paper invoices.
- Increasing control of electronic tax documents.
- Reducing VAT evasion.

For Taxpayers:

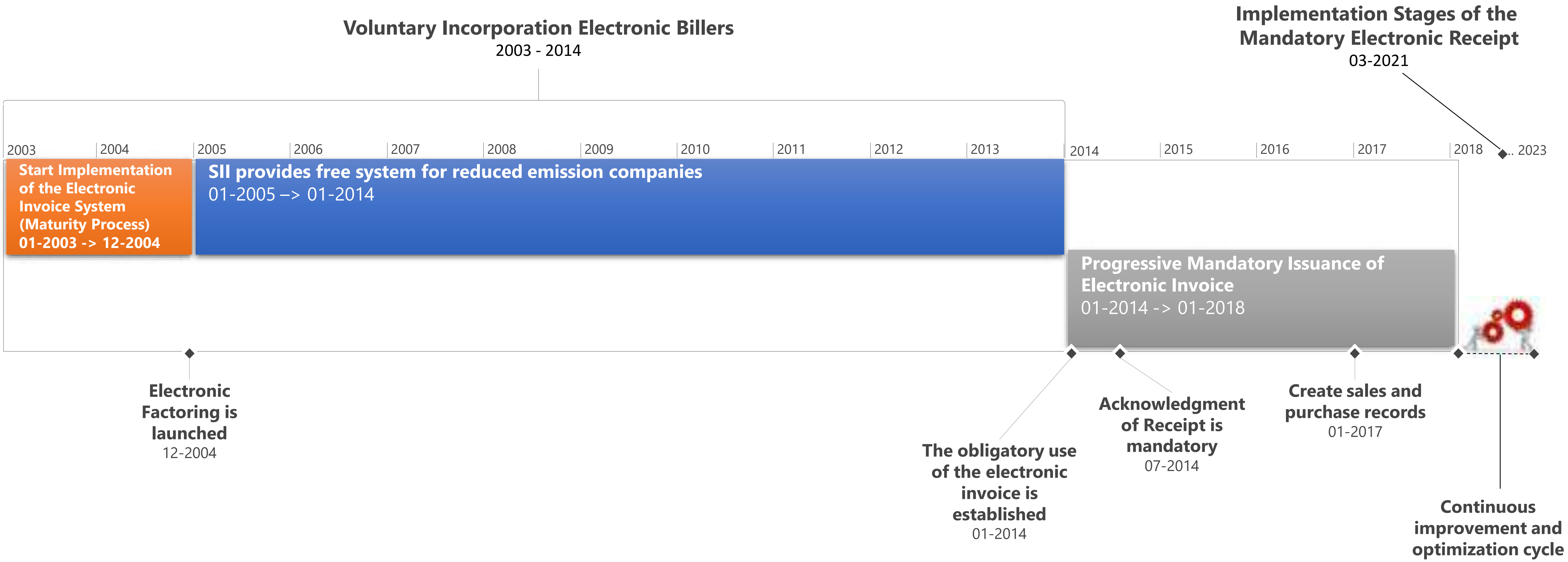
- Having online control of your tax documents.
- Reducing storage costs.
- Reducing the loss of VAT credit.
- Not having to stamp tax documents.
- Not having to take documents to the SII in the event of an audit or other control action.

FIRST STEPS OF ELECTRONIC INVOICING IN CHILE

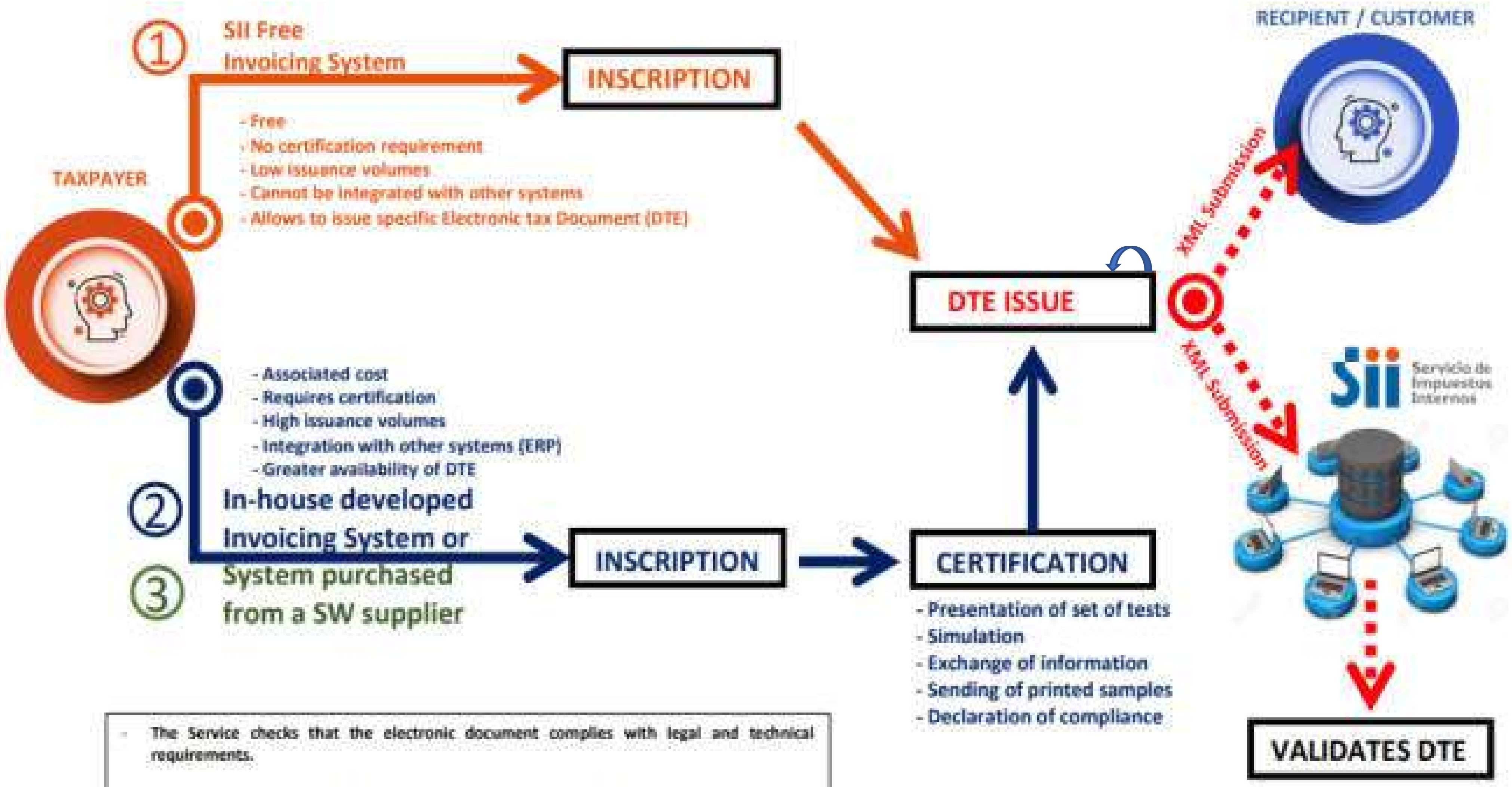
Some challenges we had to face to promote the use of electronic invoicing were:

- The SII decided to develop its own Electronic Invoice Model, which it succeeded in its designing in 2003.
- The implementation of the model was expensive.
- Lack of incentives for companies to implement it.
- How to encourage SMEs to implement electronic invoicing.
- At the end of 2005, the Electronic Invoice system for Micro, Small and Medium Taxpayers became available (Portal).
- Many complaints with the Chilean Comptroller's Office were filed by the software companies accusing the SII of interfering in the market.

ELECTRONIC INVOICE TIMELINE



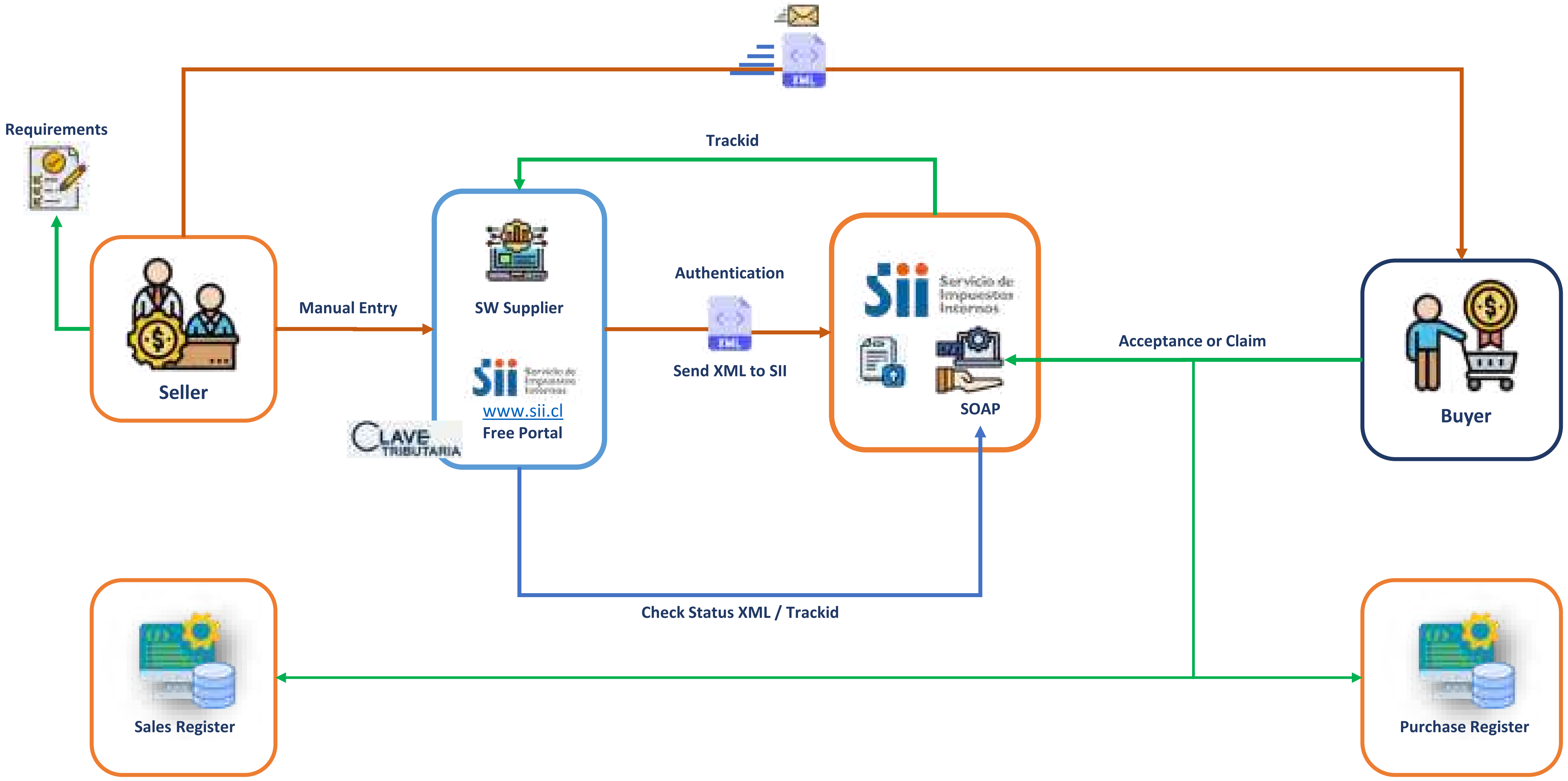
ELECTRONIC INVOICING MODEL IN CHILE



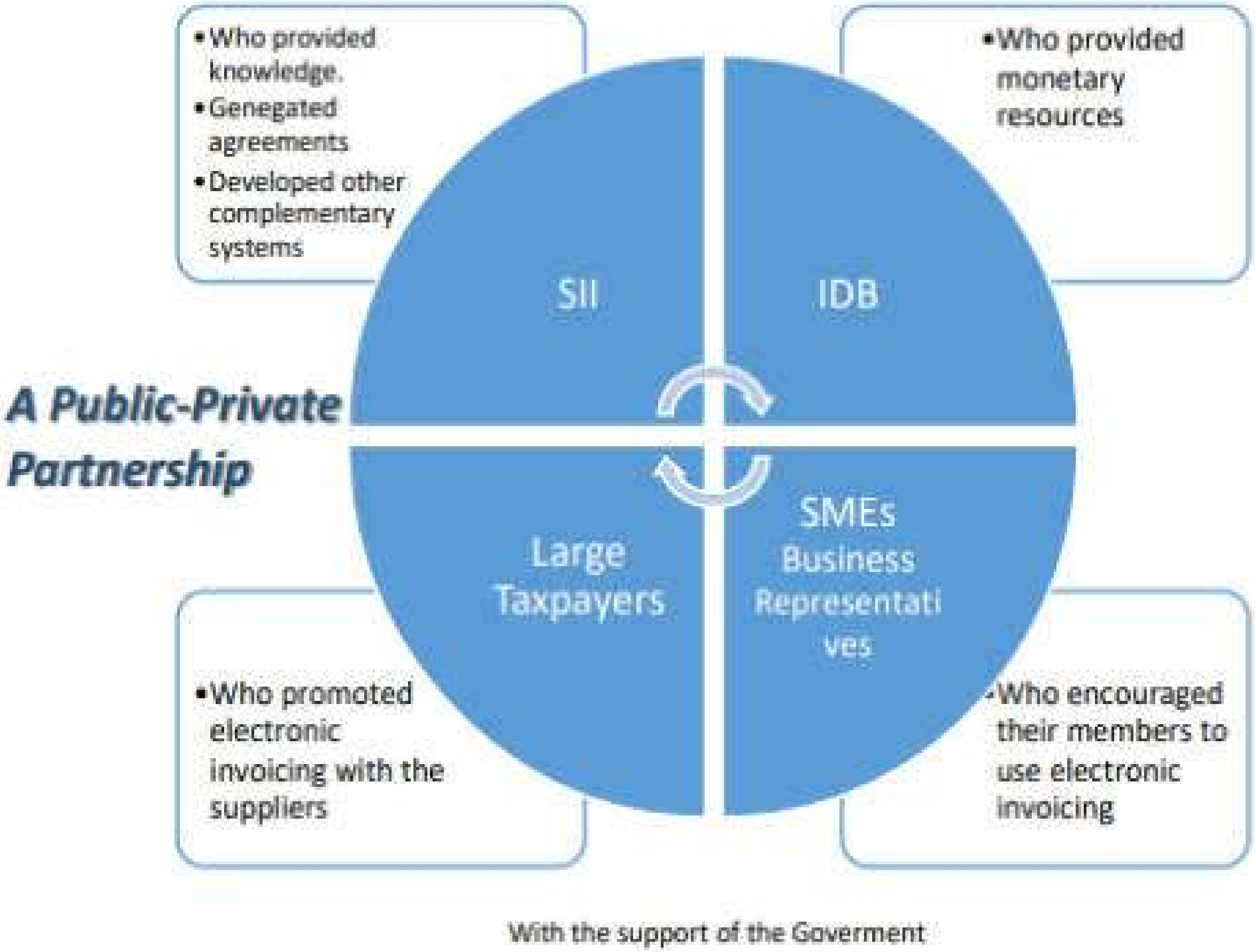
- The Service checks that the electronic document complies with legal and technical requirements.
- The issuer is notified if the document is accepted or rejected. In the latter case, the SII explains the problem for the taxpayer to solve it and send back the electronic document.

MODEL FOR RECEIPT AND PROCESSING OF ELECTRONIC INVOICING

GENERAL MODEL OF DTE EMISSION



HOW DID WE INCREASE THE USE OF ELECTRONIC INVOICING?



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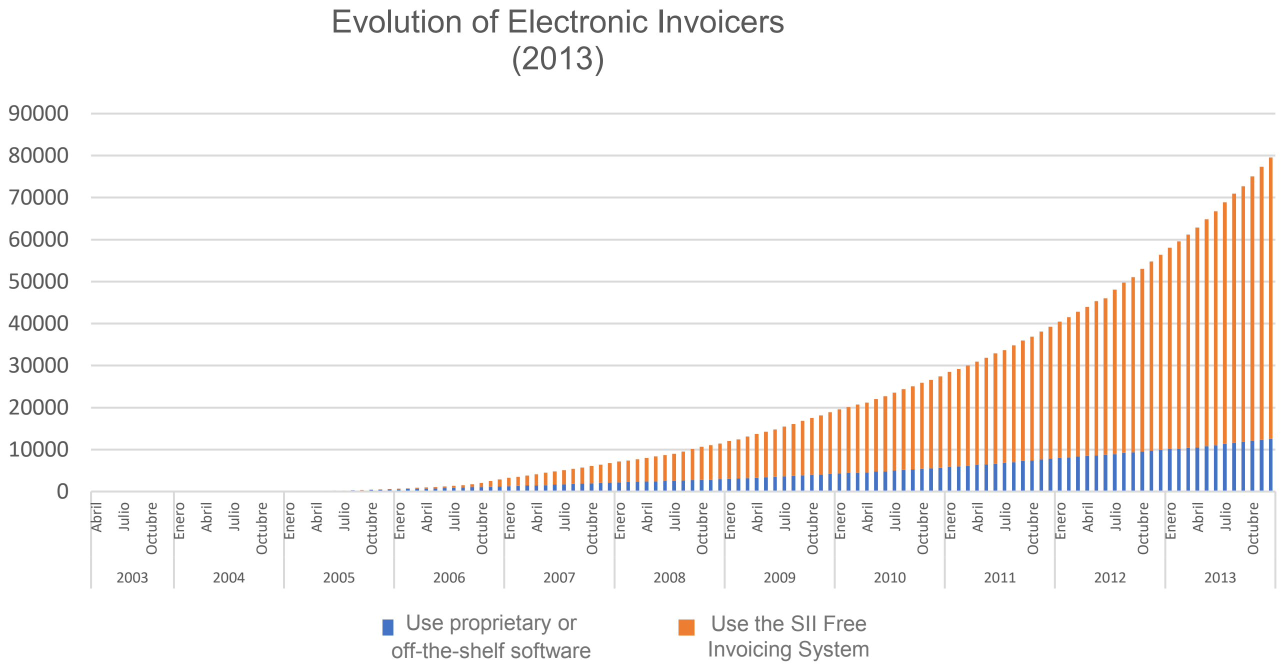
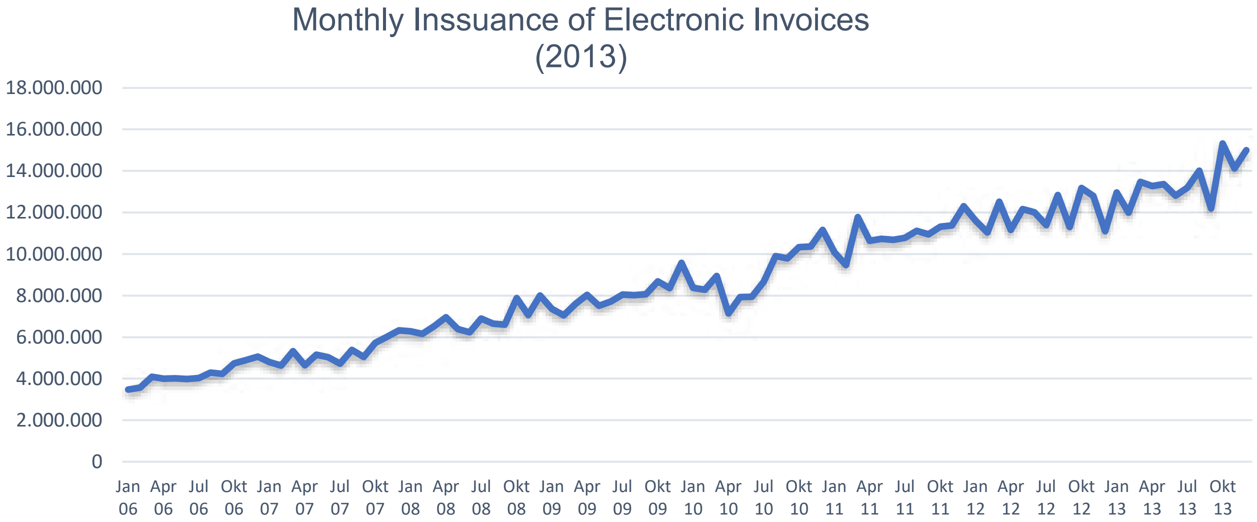
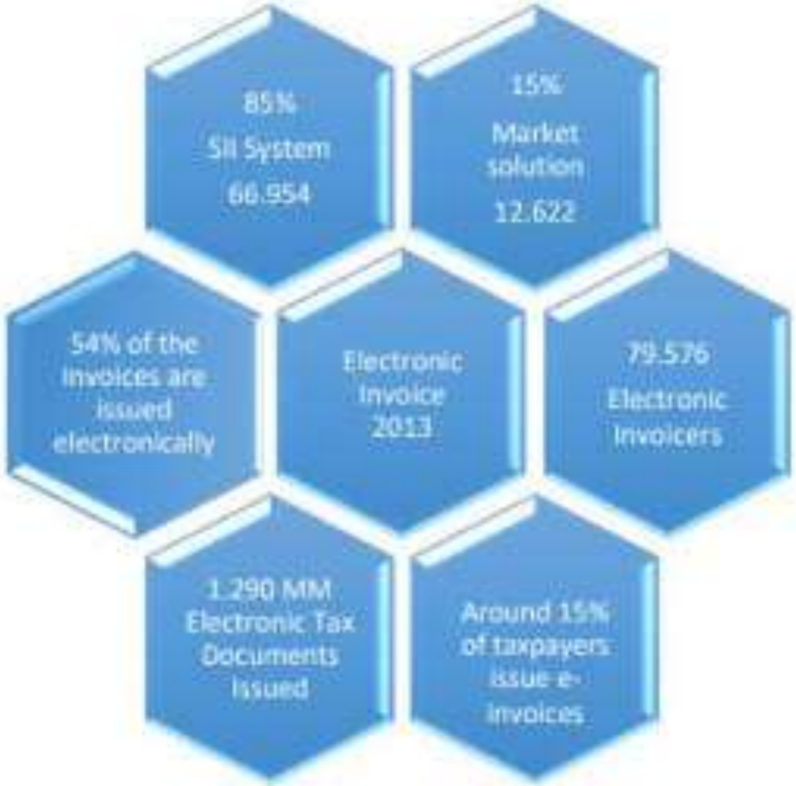
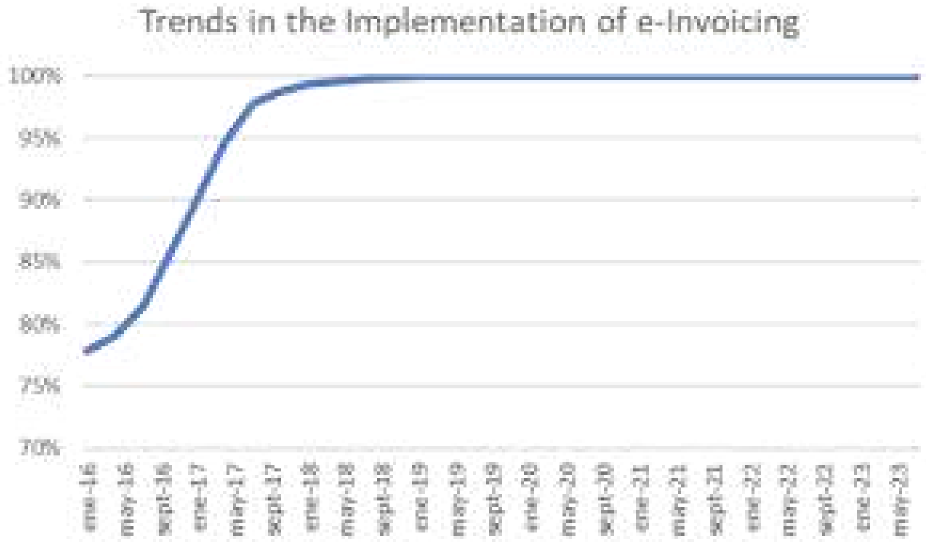






HOW DID WE INCREASE THE USE OF ELECTRONIC INVOICING?

- In 2014, the Law on the Mandatory Use of Electronic Invoices was published.
- The implementation of the Law was gradual, starting in 2014 and finalizing in 2018 with all taxpayers issuing Electronic Invoices.

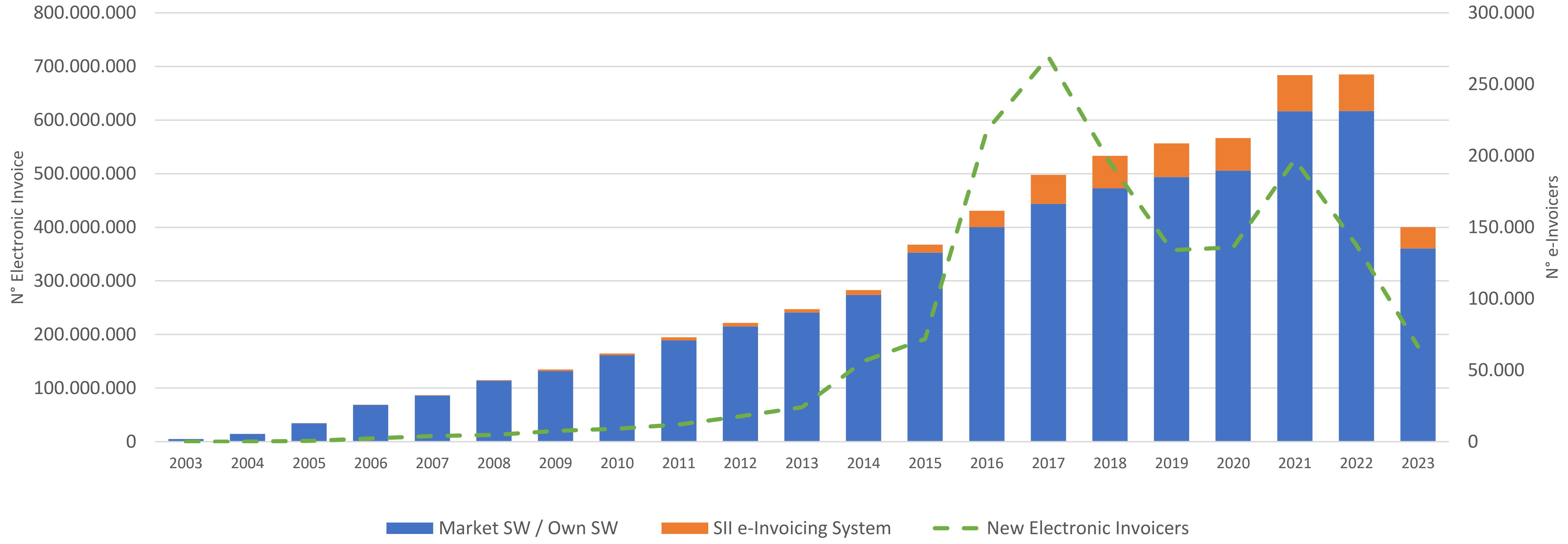


e-Invoice	
Business Size	**Date**
Large Business	November 2014
SMEs Urban Business	August 2016
Urban Micro-business, SMEs Rural Business	February 2017
Rural Micro-business	February 2018

SOME TECHNOLOGICAL SOLUTIONS

ELECTRONIC INVOICE

Reception of Electronic Invoice and Amount of Electronic Invoicers



E-invoicing System	Amount	%
Market System	133,059	8,90%
SII System	1,361,981	91,10%
	1,495,040	100%

Business Size	Amount	%
Micro business	1,182,577	79,10%
Small business	252,662	16,90%
Medium business	40,366	2,70%
Large taxpayers	19,436	1,30%
	1,495,040	100%

Taxpayers	Amount	%	Documents
Use proprietary or off-the-shelf software	134,554	9,00%	90,1% of the electronic tax documents are issued monthly using proprietary or off-the-shelf software
Use the SII Free Invoicing System	1,360,486	91,00%	9,9% of the electronic tax documents are issued monthly using the SII Free Invoicing System

ELECTRONIC INVOICE PROCESSING

- Electronic invoice has become one of the most used data in different business areas to perform analysis to Support collecting and auditing. Some Business areas that take advantage of this data are Audit and Compliance, Legal and Strategic, and Tax Studies.
- Business Analysts use available tools to cross-reference DTE with other sources like Taxpayer Records, Added Value Tax, and Income invoices and develop models to explain and anticipate taxpayer behavior.
- Electronic Invoice data is shared regularly, mainly with the Central Bank, which uses them for statistics and generating macroeconomic indicators.
- We are applying advanced analytics and machine learning to generate classification and predictive models, using electronic invoices as a primary data source.
- Besides those, processes using electronic invoices allow the generation of the Sell and Buy Register and proposed VAT or Income invoices.


The use of the Monthly
VAT Return
Proposal
has continued to growing
PRE-FILLED
VAT FORM

PRE-FILLED VAT RETURNS – IMPLEMENTATION STRATEGY

- Use data to **pre-calculate** intermediate results through arithmetic and logical operations, taking care of information (purchase and sale records).

- **Distribute** the processing between technological platforms, maximizing the combined potential:
  - Batch: Massive and periodic calculation of vectors on the Big Data platform.
  - Online: Processing of information supplemented and modified by the taxpayer at the time of filing.
  - Regular processing to synchronize modified information.

- **Construct** the pre-filled based on simple operations on pre-calculated data.

- Use a service model for a **defined universe** of taxpayers, scalable both logically and physically.

Reduction in Cost and Complexity

PRE-FILLED VAT FORM

BENEFITS FOR THE TAXPAYER:

- A simple and personalized process (the application can identify the categories of taxpayers, who are directed to their browsing stream).
- We make it easier for the taxpayer to comply.
- Accurate declaration (consistent with purchase and sale record).
- We reduce under-declaration and non-declaration gaps.
- Fewer fines due to error.
- Greater visibility of transactions, greater reliability of operations.

BENEFITS FOR THE SII:

- Fewer revisions due to errors by taxpayers in completing the F29 form.
- Fewer revisions due to discrepancies between the F29 form and Electronic Data on Purchases and Sales, which turned out to be attributable only to data error.
- More timely information for monitoring compliance: Before, we depended on receiving Purchases and Sales, while now this record is produced by the SII itself.

CHALLENGES FOR TODAY AND TOMORROW!!!

LOOKING AHEAD

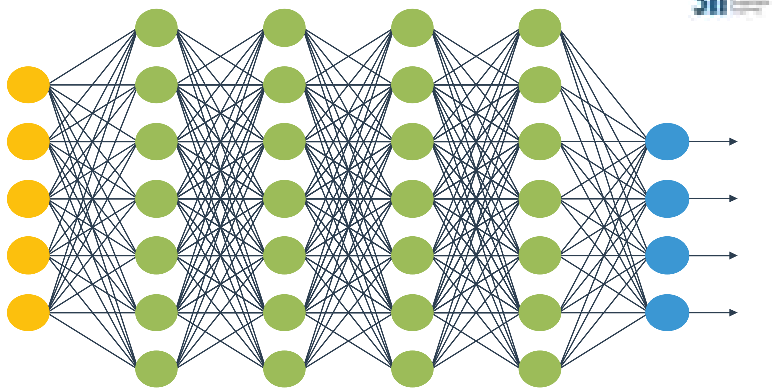
SEARCH SIMPLICITY

- ✓ Greater diversity of functionalities
- ✓ Greater demands in data opportunity
- ✓ Interface customization
- ✓ Greater volume and different data
- ✓ Seek technological solutions that allow us to maintain service and processing levels.

COEXISTENCE IN BIG DATA

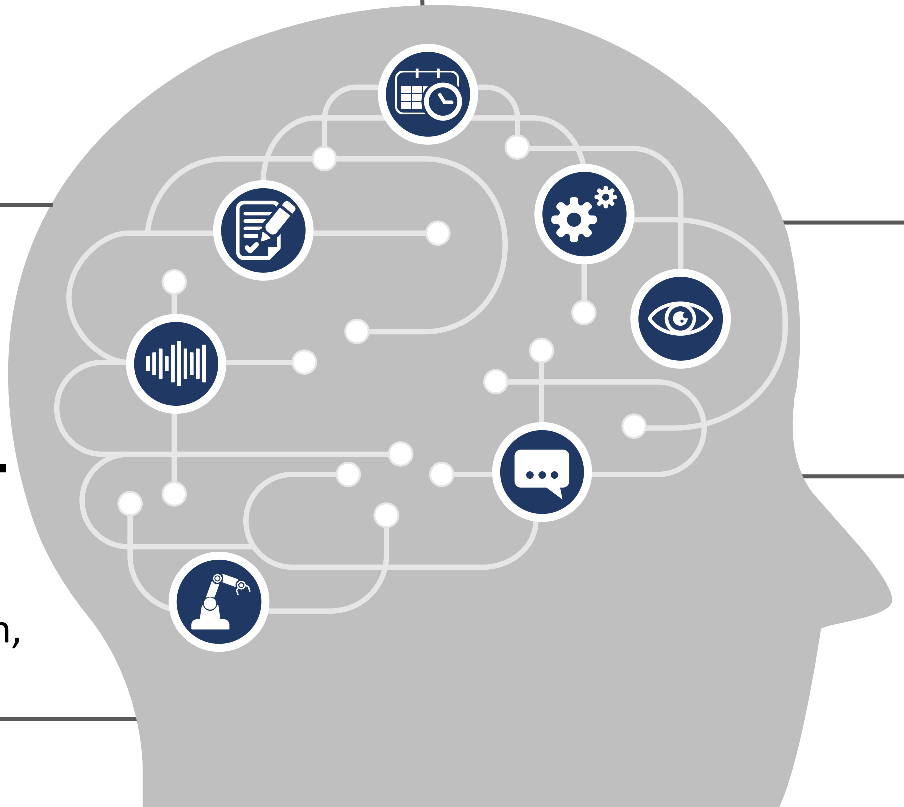
with various functionalities:

- ✓ Structured and unstructured queries
- ✓ Exploratory analysis
- ✓ Analytical and predictive models
- ✓ Mass data crossing processes
- ✓ Serve as support for the day-to-day operation
- ✓ Consolidate analytic referential architecture



DECREASE REQUEST OF INFORMATION

To taxpayers, provided that it can be obtained by other means



USE OF OTHER DATA SOURCES, MAINLY EXTERNAL TO THE SII

To strengthen assistance actions, attention, and control

IMPLEMENT SOLUTIONS WITH MACHINE LEARNING

Automatic discovery of patterns, trends, and relationships to better understand taxpayers


THANK YOU
OBRIGADO
MERCI
GRACIAS
TATIO GEYSERS

OVERVIEW OF THE EVOLUTION AND TRANSITION OF ELECTRONIC INVOICE

TECHNOLOGY AT THE SERVICE OF STRATEGIC OBJECTIVES

September 6th, 2023

ERICK MARINKOVIC FEBRÉ
Deputy Commissioner IT Division

Overview of the electronic invoice around the world

Vinicius Pimentel de Freitas, CTO

Inter-American Centre of Tax Administrations (CIAT)

Funded by

Co-funded by the European Union

Facilitated by

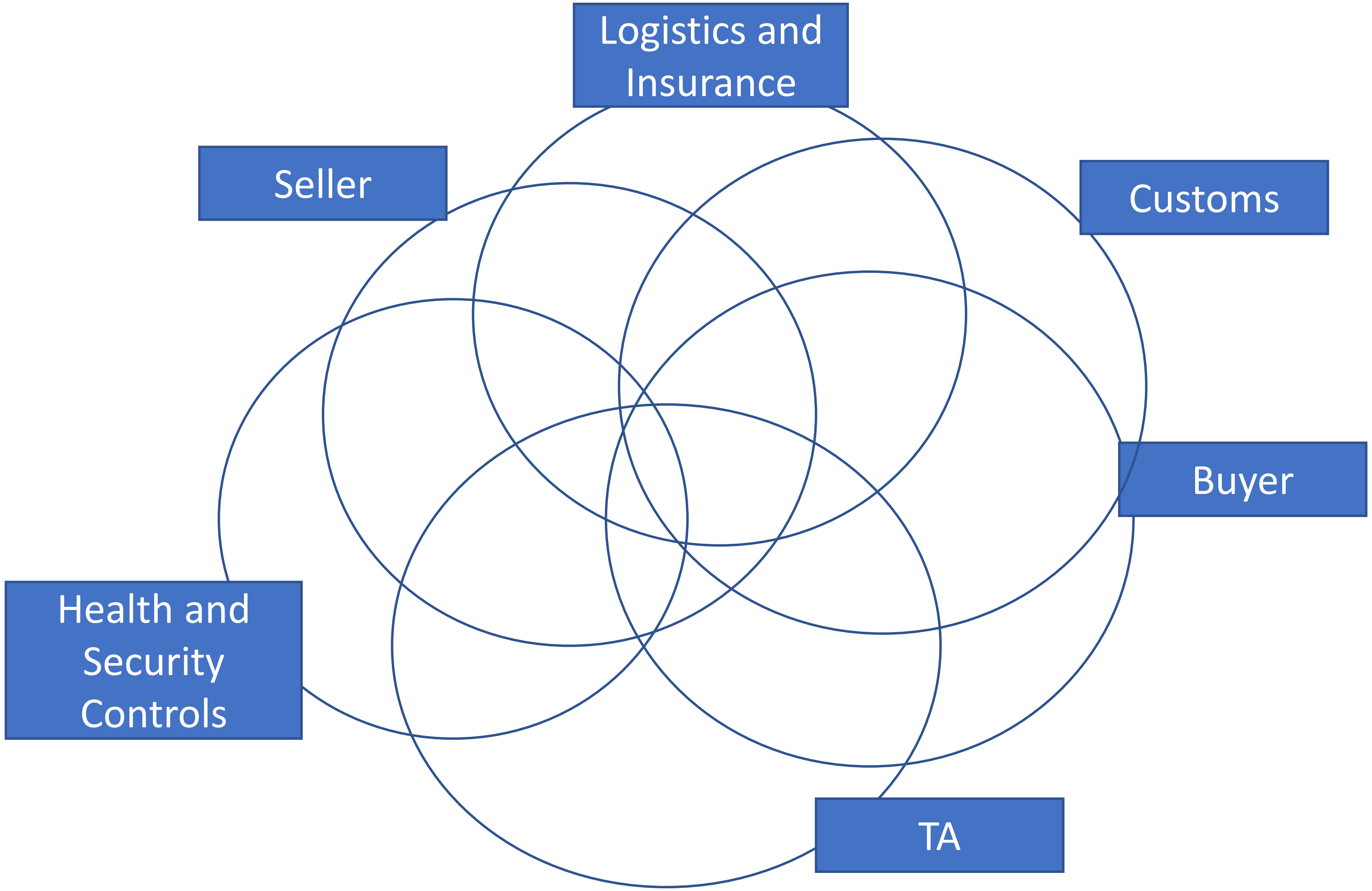
Hosted by

AFRICAN TAX ADMINISTRATION FORUM
FORUM SUR L'ADMINISTRATION FISCALE AFRICAINE

Partners

IOTA

Stakeholders (at least, some of them...)



Expectations of an e-Invoicing System (1)

Society

- Reduction of
  - paper consumption, with a positive impact on the environment
  - conformity costs, making tax compliance easier
- Impulse the formality over commercial operations
- Standardization of electronic relations between companies, promoting interoperability over the supply chain
- Birth of new business and employment opportunities for information technology solution providers

Tax Administration (and other public bodies)

- Decrease in [tax] evasion and increase in collection, via the formalization of the registration of the operations documented on invoices
- Improvements in
  - The [tax] control process
  - The timeliness and reliability of the information contained in the [standardized] invoices
- Availability of more extensive information, which allows more reliable economic-fiscal analysis and in less time
- Cost reduction in the control process of the circulation of goods

Expectations of an e-Invoicing System (2)

Seller

- Cost reduction (printing and paper acquisition)
- Facilitation of merchandise shipping processes
- Reengineering of sales processes, optimizing time and resources
- Enhancement of relationships with clients
  - Traceability of operations, allowing better planning of new sales
- Enhanced support for factoring operations

Client

- Availability of the data of the received invoices in a standard structured manner
  - Receiving logistics planning prior to reception of goods
  - Reduction of costs and elimination of errors inherent of typing
  - Acquisition accounting automation

Seller and buyer

- Simplification in the fulfillment of accessory obligations
  - Reduction, or elimination, of the costs of preparing and filing of periodic reports
- Reduction of the costs for the storage of documents as a fiscal obligation
- Reliable instrument for legal claims

TA and invoices: two cultural realities, two different approaches

Latin America, Italy, France, …

Invoices are tax documents, ruled by the TA, with commercial uses

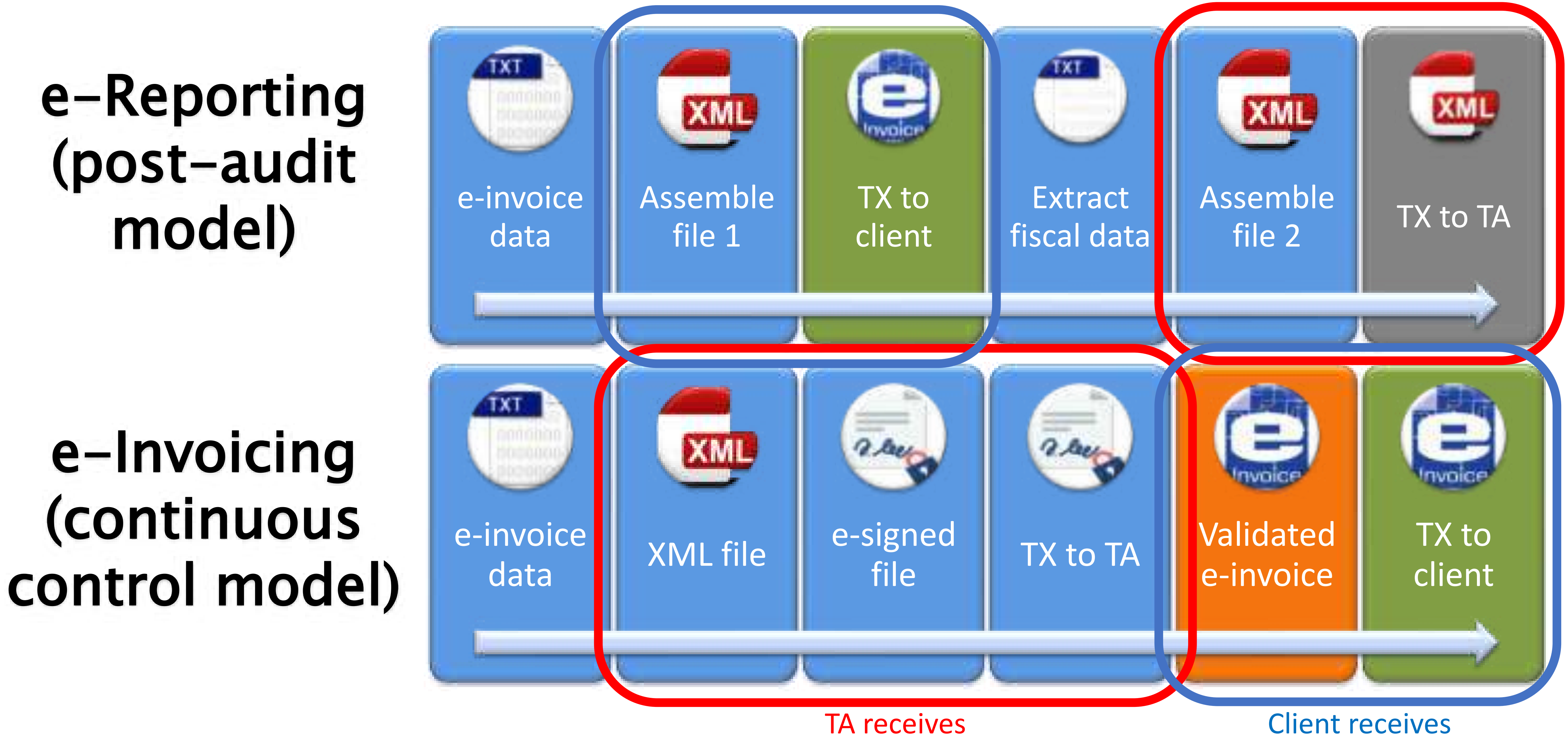
Image resource : freepik 45614-102

Other European countries, USA and Canada, some Asian and Pacific Countries

Invoices are commercial documents, not ruled by TA, with fiscal uses

Image resource : klipartz.com

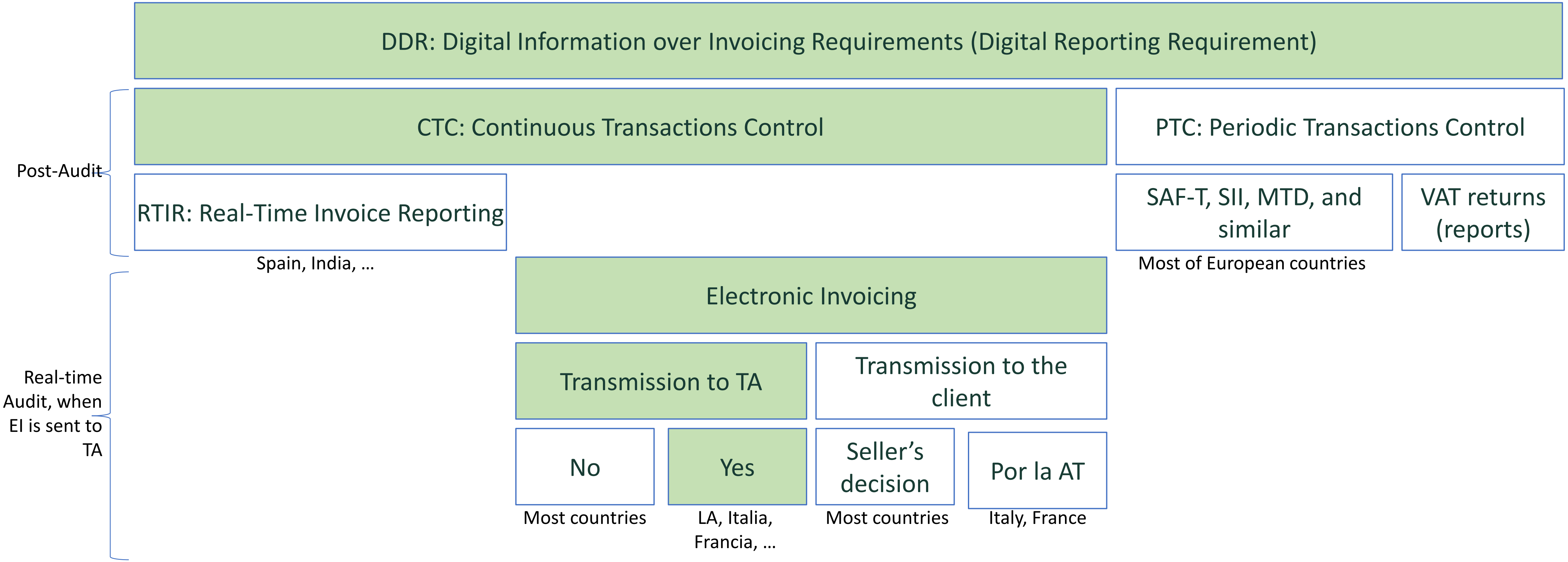
Comparison: e-Invoicing and e-Reporting



Source: Vinicius Pimentel de Freitas, *CIAT e-Invoice Course*, 2023 edition.

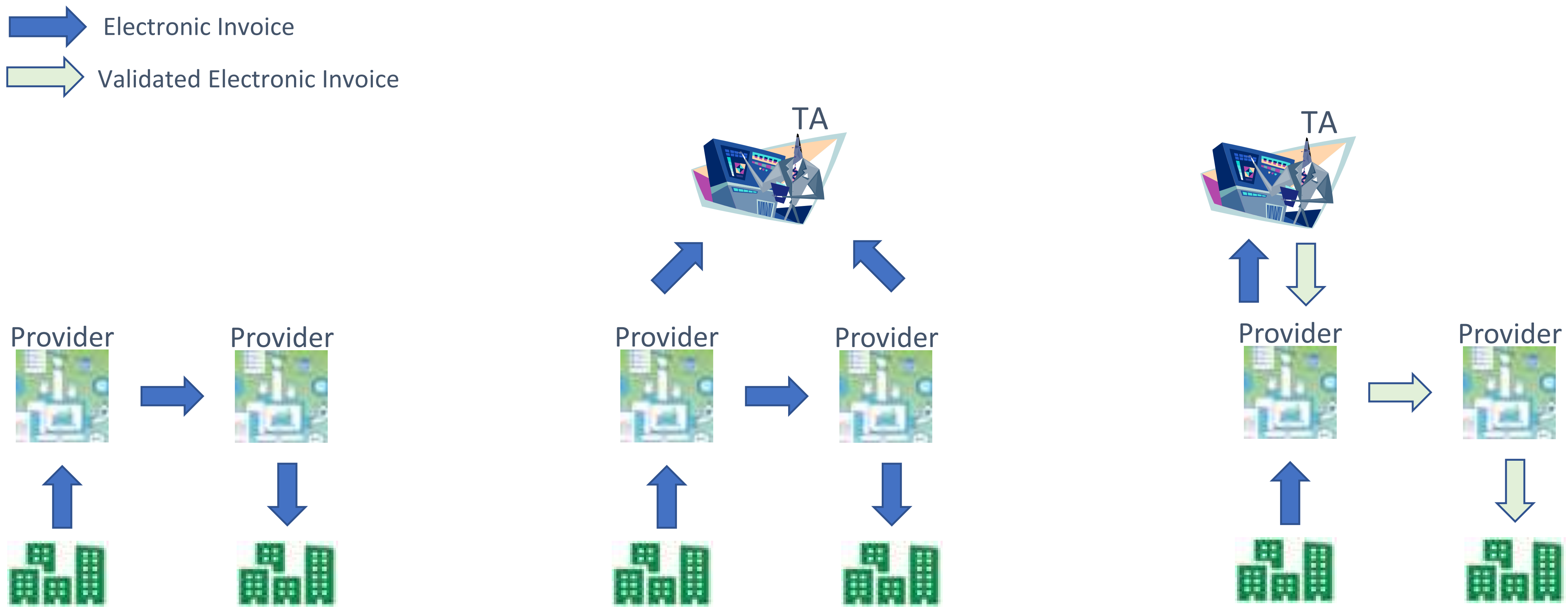
A possible summary…

…aka “what do all these acronyms mean”



Source: inspired by Pagero, EEU global webinar: DEVELOPMENTS, IMPACTS AND WHAT YOU NEED TO KNOW. May 11, 2023, by Abby Lee y Toni Pihamaa

Final comments on models



4-corners model:
Post-audit model with no participation of TA (no TA does not receive any information)

5-corners model:
Post-audit model where TA receives information about invoicing, extracted by the providers on behalf of taxpayers

4-corners full EI model:
Real-time audit model where TA receives the same information the buyer receives

Comparison of models for reporting B2C information on invoicing

			Fiscal Devices	e-Reporting	e-Invoicing
Effectiveness for tax control			1	3	5
Complexity of implementation	Taxpayer	Small	2	5	1
		Medium	4	4	3
		Large	4	3	4
	TA		1	5	5
Cost of implementation	Taxpayer	Small	5	4	1
		Medium	3	4	2
		Large	3	3	3
	TA		1	4	5

Rates: 1 = very low, 3 = medium 5 = very high

Vinicius Pimentel de Freitas, in UNED y Instituto de Estudios Fiscales, Master Universitario Oficial en Hacienda Pública y Administración Financiera y Tributaria : Especialidad Administración Tributaria; La Administración de los Sistemas Tributarios: Modelos Organizativos y las Relaciones Entre la Administración y los Administrados; Tema 4: Facturación Electrónica e Información Electrónica sobre la Facturación, Edición 2022-2023

Technical Conference
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Overview of the electronic invoice around the world

Vinicius Pimentel de Freitas, CTO

Inter-American Centre of Tax Administrations (CIAT)

vfreitas@ciat.org

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