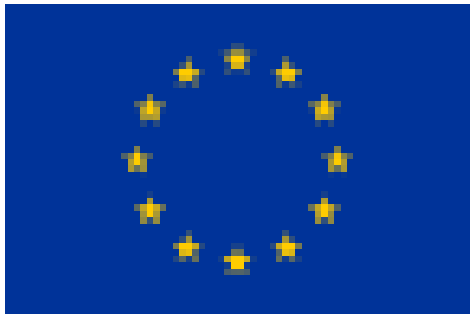
Advanced analytics IT tool fighting against VAT fraud: Eurofisc TNA

Sara Cattarin – Italian Revenue Agency - Antifraud analysis and strategies section- OT TNA member

TNA – a European challenge

Which is the European motto since 2000?

United in diversity



Eurofisc's diversity means…

- ❑ MS data bases and digital maturity
- ❑ Administrative structures
- ❑ VAT Return Filing Frequency
- ❑ VAT registration frameworks
- ❑ Cessation timing for traders
- ❑ Differing VAT rates across Member States
- ❑ VAT payment obligations
- ❑ Auditing strategies
- ❑ …..

United against VAT fraud

through a multilateral mechanism of quick detection

TNA – a data driven common language

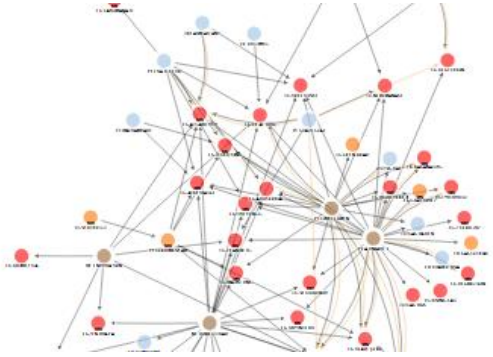
FROM diversity

- MS data bases and digital maturity
- Administrative structures and procedures
- VAT Return Filing Frequency
- VAT registration frameworks
- Cessation timing for traders
- Differing VAT rates across Member States
- VAT payment obligations
- Auditing strategies
- …..



TO a common language

- Working Fields
- Qualifications
- Indicators
- Scoring
- Graph and network analysis
- Reports
- Widgets



Why an advanced analytics IT tool needed?

Support operations of Eurofisc, which aims to:

- **automate** the collection of targeted information
- create and visualize suspicious **networks** without manual intervention
- improve MS ability to send early warnings and provide feedback through Wfs specific **qualifications** and **requests**
- strengthens early-warning capabilities and improves the quality, reliability and security of shared information in a **timely manner**

TNA – Qualifications

Typologies of qualifications:

- **Fraudsters**

(i.e. Missing Trader, Remote Trader, Margin Scheme, Defaulter, Domestic Fraud)

- **Brokers and Conduit Companies**
- **Dubious and Checking**
- **Not a dubious trader**
- Others*

Different trader qualifications trigger specific Automated Data Collections, reflecting each trader's position and role within cross-border trading chains and the broader fraudulent network.

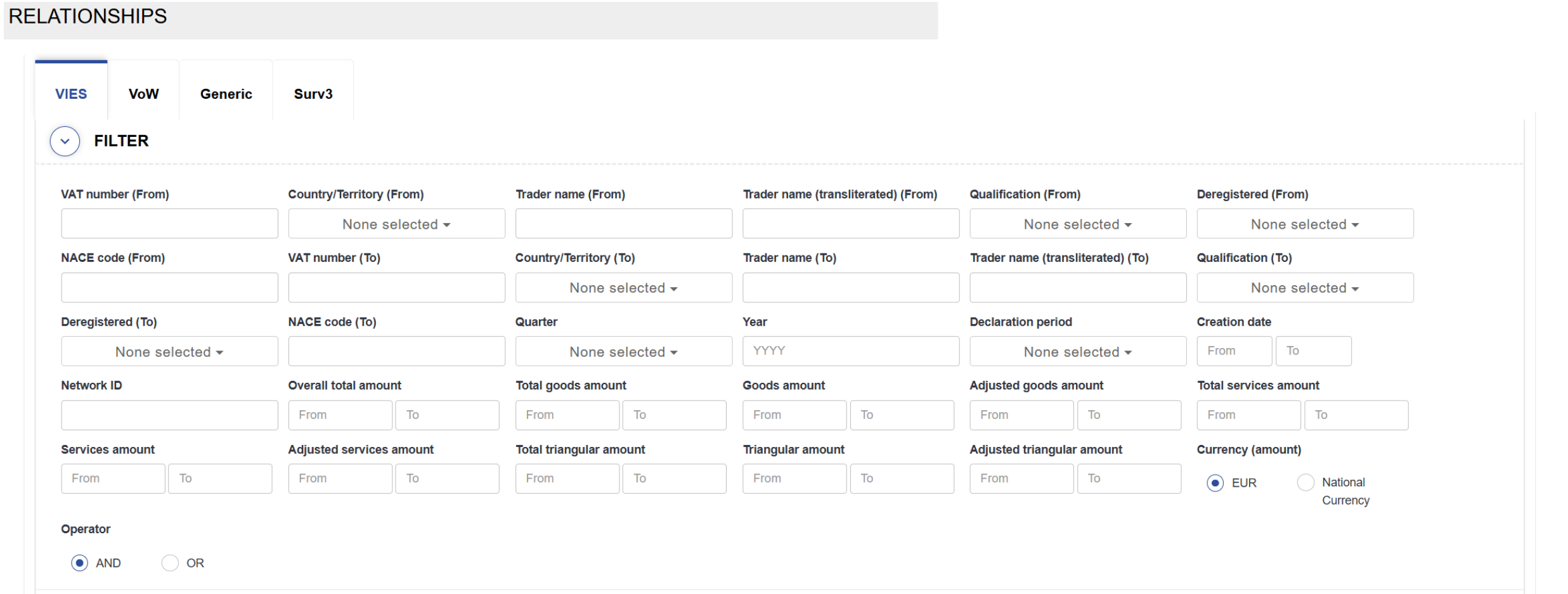
Relationships in TNA

TNA is a relationships based IT tool.

Relationships are injected through:

- - **Fully Automatised** Data Collection (VIES, VOW)
- **Semi automatised** when the data analysis is done on a different platform and only a selected share of data is injected into TNA (i.e. Surv3 data)
- - **Manual upload** when MS directly inject information of their traders selected via their National Risk Analysis and connected to other traders in the EU (i.e. invoices, bank transactions, transaction with a third state, personal links)

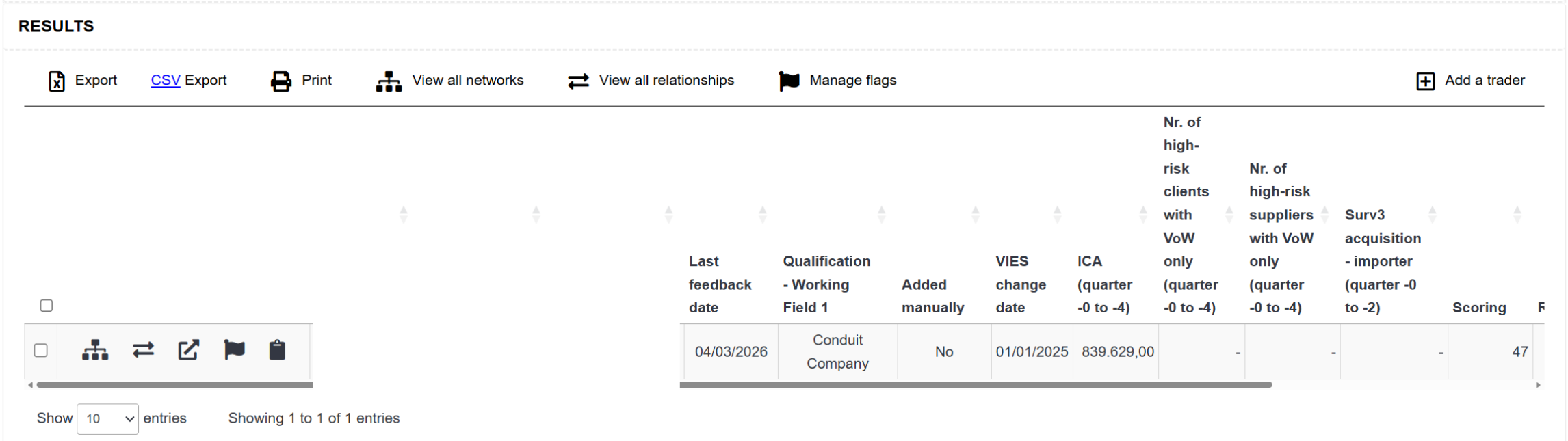
Relationships in TNA



TNA – Indicators

Traders are filtered and analysed through different types of indicators:

- Characteristics of the traders (registration data such as issue/cessation date, address, country, creation date…)
- Indicators applying for a range (dates, amounts)
- Boolean indicators (values “Yes” or/and “No”)



TNA –Scoring

Traders are assigned a score based on the role they play within the network.

Different scores provide different perspectives on a trader's role:

- **PMT** (Potential Missing Trader) score if the trader is a risky client
- **PCC** (Potential Conduit Company) score if the trader is a risky supplier

The highest ranked traders are expected to be high-risk traders.

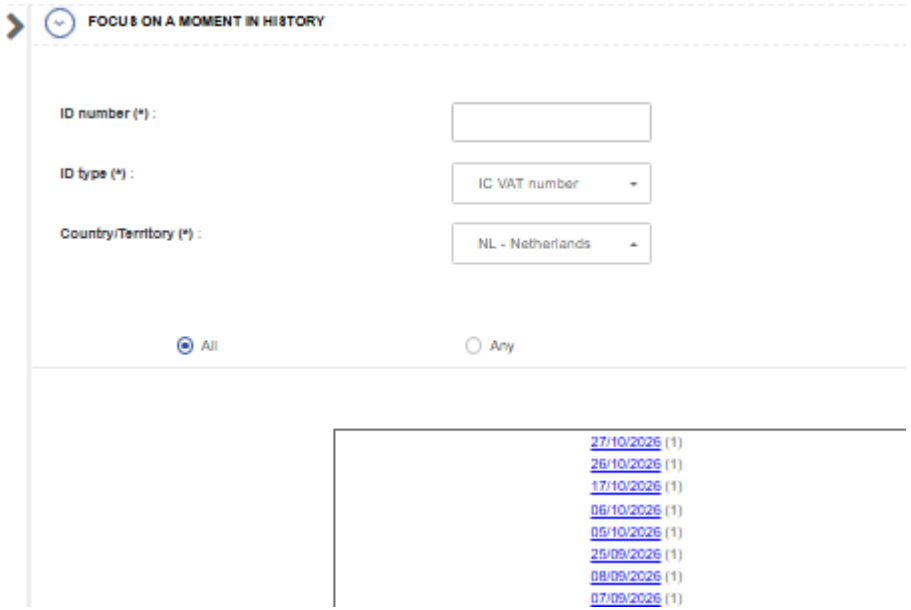
Score is based on:

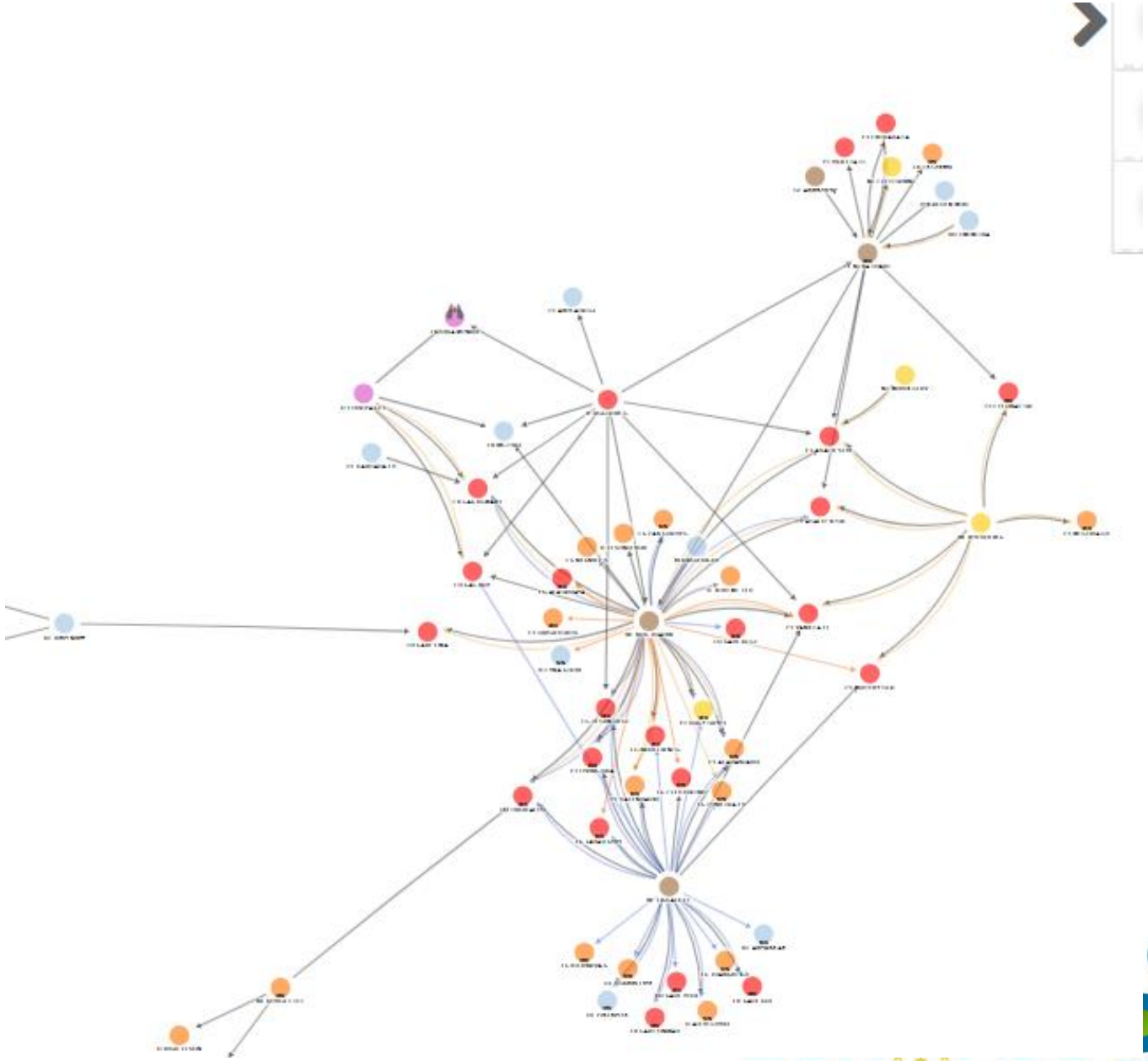
- Qualification date
- Behaviour of neighbour traders in the network

TNA – Networks

Different colours to detect:

- Qualifications of traders
- Relationship type





TNA – Reports and Widgets

DASHBOARD

Add new widget

RESET

Top 25 risky suppliers

ID	Name	Creation date	Qualification	Feedback start date	ICA from high-risk suppliers	ICD to high-risk clients	Number of high-risk clients	Co fla
[redacted]		06/12/2019	Conduit Company 2 Directions	02/10/2026	46448720	117094759	276	
[redacted]		13/01/2023	Conduit Company 2	10/02/2026	50206875	64415889	106	

Top 25 risky buyers with qualification

ID	Name	Creation date	Qualification	Feedback start date	ICA (quarter -0 to -1)	ICA from high-risk suppliers	Number of high-risk suppliers
[redacted]	GIA	27/02/2024	Dubious	19/01/2026	189155625	60382	1
[redacted]		28/04/2026	Dubious	04/09/2026	209072160	162264482	1
[redacted]		13/01/2023	Conduit Company 2	10/02/2026	117759936	50206875	30

REPORTS

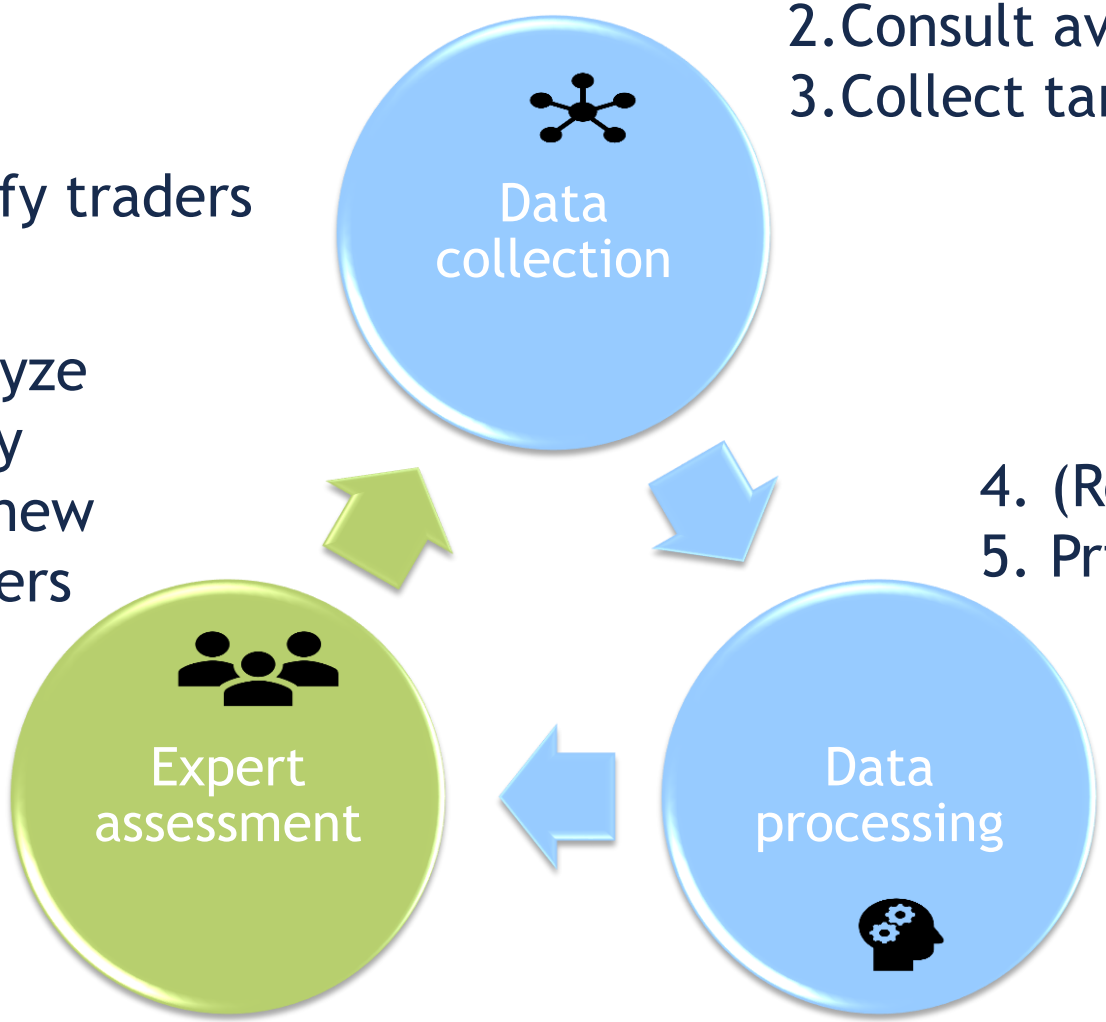
GENERATE REPORT

Name	
[widget to report] Bottom risky suppliers	GENERATE
[widget to report] Dubious/Checking for more than 6 months	GENERATE
[widget to report] New traders	GENERATE
[widget to report] Qualifications WF1 and WF2	GENERATE

Working method with TNA

1. Qualify traders

2. Consult available qualifications and data profile
3. Collect targeted data



4. (Re)-assess level of risk through Indicators
5. Prioritize through Reports

0. 6. Analyze and qualify potential new Risky Traders

EUROFISC TNA

Tna in daily Practice

- NATIONAL SIGNAL

Officers identifies a suspicious company, transaction or network using the TNA tool.

- TARGETED SHARING

The Eurofisc Liaison Official (ELO) shares the key information with the relevant counterparts through the secure communication channel.

- ENRICHMENT

Other Member States verify their data, add any relevant information available at national level and provide feedback.

4. ANALYSIS AND RISK ASSESSMENT

Experts compare the information received, assess the level of risk and classify the operators involved.

5. NATIONAL FOLLOW-UP

Each Member State decides on the most appropriate action, such as an audit, investigation, request for information or VAT deregistration.

Tools to support comunication among ELOs

Info on each trader can be enriched with:

- Comments
- Annotations
- Flags (common and national)

ID number	ID type	Country/Territory	Creation date	Last feedback date	Qualification - Working Field 1	Data collection profile	Scoring	Comment	Annotations	Common flags	National flags
IT	IC VAT number	IT - Italy	06/12/2022	30/11/2023	Missing Trader	0	-	-	Deregistration process ongoing		LISTE DP/GdF ; INCONGRUENZA CESSAZIONE
IT	IC VAT number	IT - Italy	28/03/2023	14/02/2023	Not to be included in this feedback	0	-	-			
IT	IC VAT number	IT - Italy	28/08/2023	22/07/2026	Missing Trader	0	-	-			INCONGRUENZA CESSAZIONE
IT	IC VAT number	IT - Italy	28/08/2023	30/11/2023	Missing Trader	0	-	-	Deregistration process ongoing		LISTE DP/GdF ; INCONGRUENZA CESSAZIONE
IT	IC VAT number	IT - Italy	28/08/2023	16/01/2024	Missing Trader	0	-	Suspicious strawman manager. Basically dormant tra			INCONGRUENZA CESSAZIONE
IT	IC VAT number	IT - Italy	26/01/2024	26/01/2024	[No qualification]	0	-	-			
IT	IC VAT number	IT - Italy	06/02/2024	10/07/2024	Domestic Fraud	0	-	It has not fulfilled its VAT declaration and payme			
IT	IC VAT	IT - Italy	26/03/2024	26/03/2024	[No qualification]	0	0	-			

Elos can also send each other requests inside TNA

TNA 2025 outcomes

6.197

Detected fraudsters

15,1 Bilions €

Suspicious transactions

4.063

Missing Traders

4.563

Deregistered Traders

Eurofisc New Data Bases – the best has yet to come

CESOP

CP42

IOSS

E-invoicing

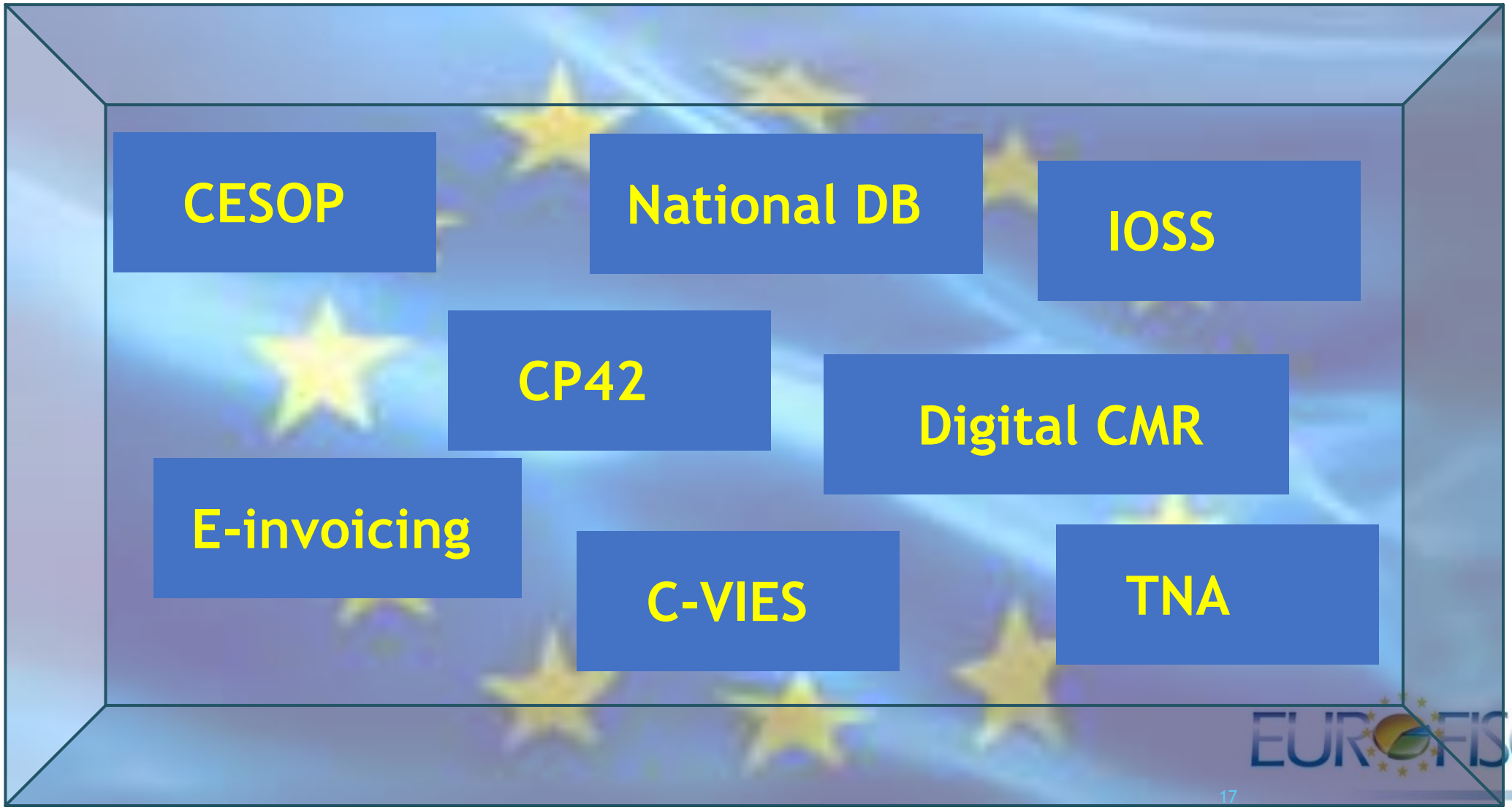
Digital CMR

TNA

C-VIES

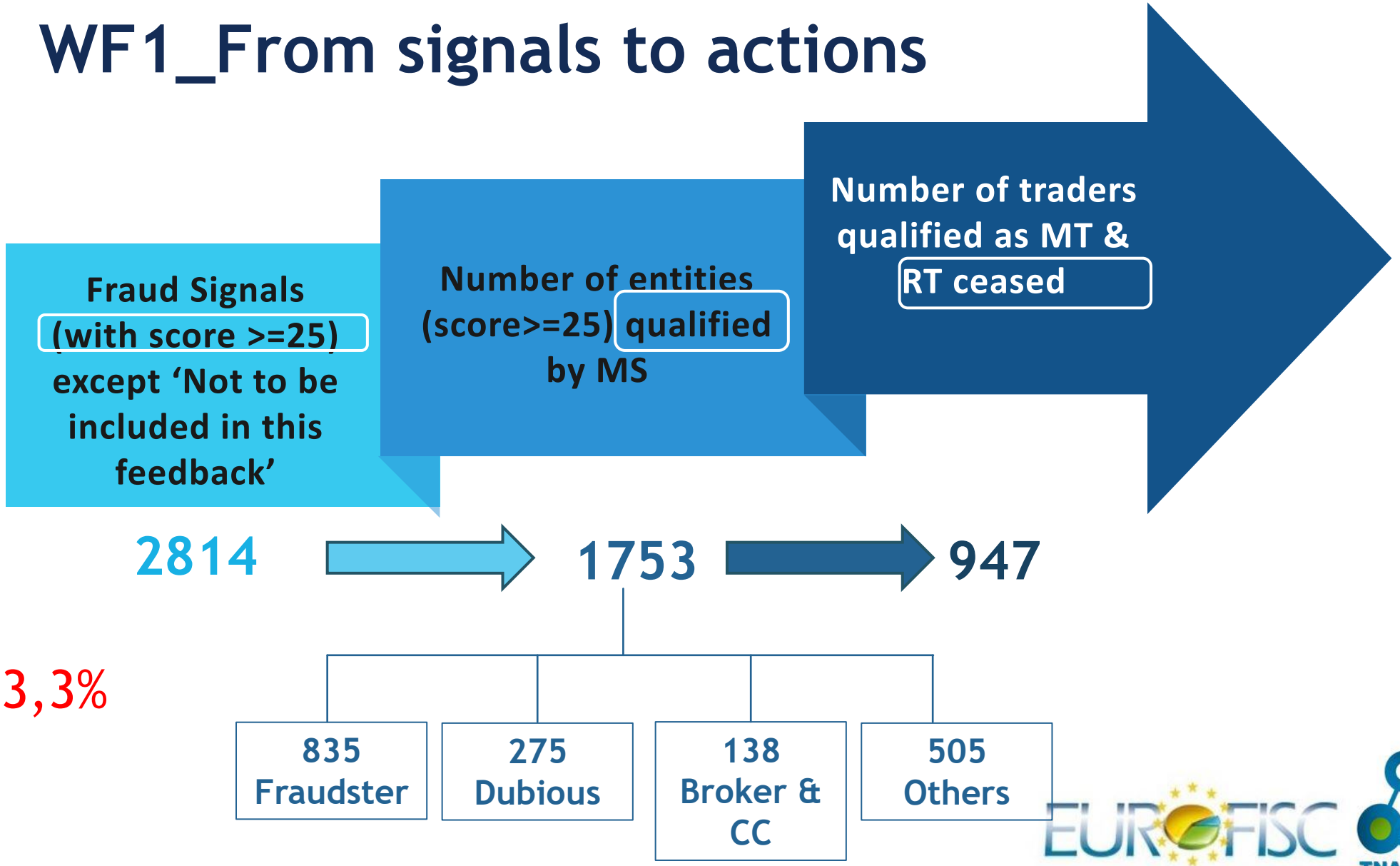
National DB

Eurofisc DAST EU



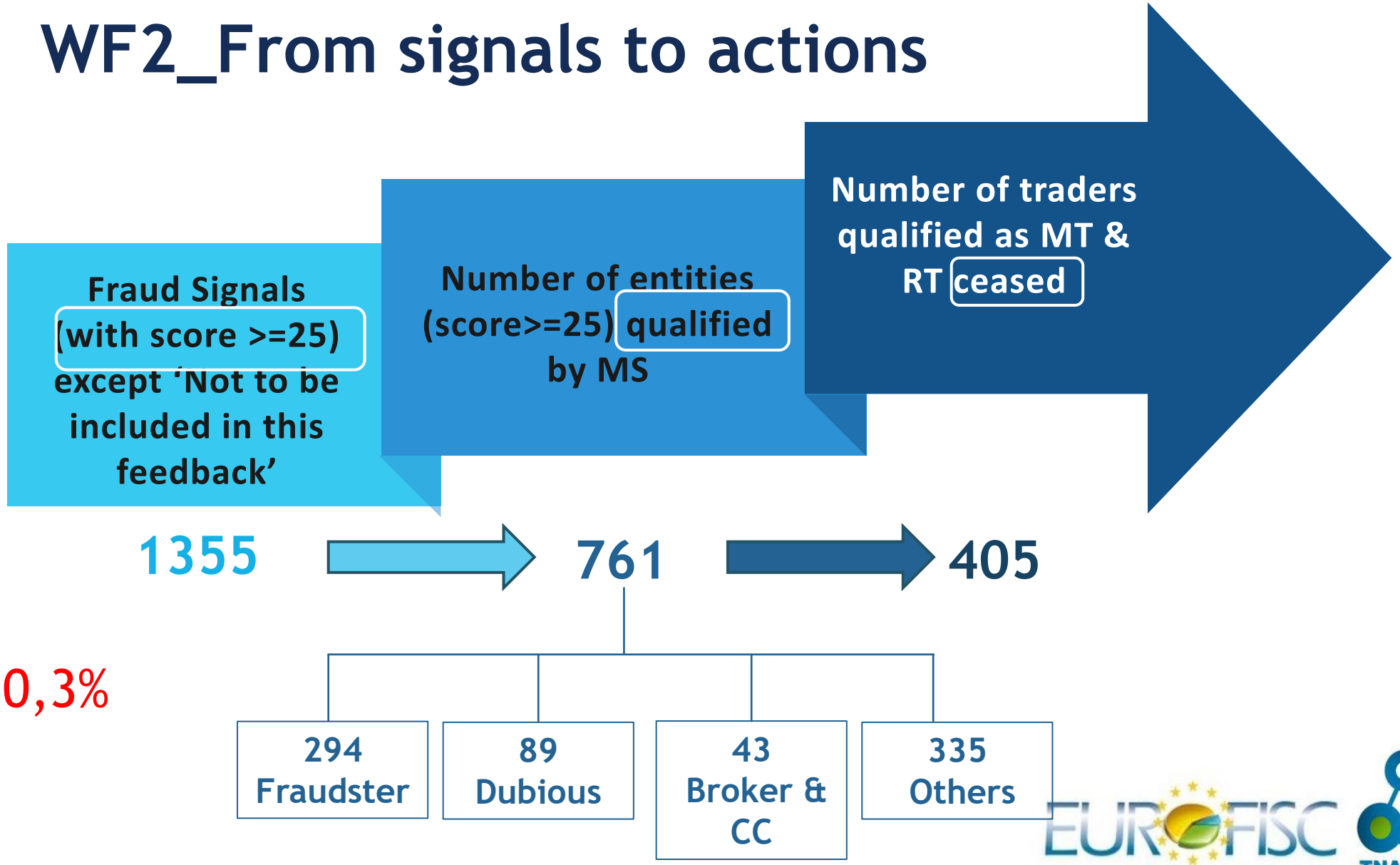
THANK YOU

WF1_From signals to actions



HIT RATE: 63,3%

WF2_From signals to actions



HIT RATE: 50,3%