Integrated Management System for Official Controls IMSOC

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Health and Food Safety

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Outline:

I. What is IMSOC?
  - ➤ Concept of IMSOC
  - ➤ IMSOC and its system components

II. Electronic Certification
  - ➤ E-certification: what it means
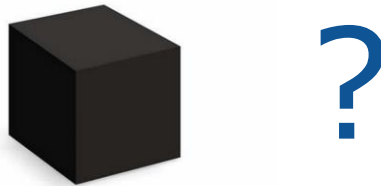 - ➤ E-certification: how it works

III. Business Intelligence
  - ➤ Data visualization
  - ➤ Predictive Analytics

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What is IMSOC?

Keywords	CONSOLIDATION-EFFICIENCY-EVOLUTION

Name:	Information Management System for Official Controls

Is it a new IT application?	NO!	It's a concept to allow our EU systems to exchange information and share features (and with MS systems)

Will it add further burden to our activities?	NO!	It will be designed to make your life easier

Will it replace the current systems? (traces/bovex/adns/europhyt/irasff/aac)	NO/YES	It will connect them and extend functionalities (some systems will be absorbed as functionalities overlap)

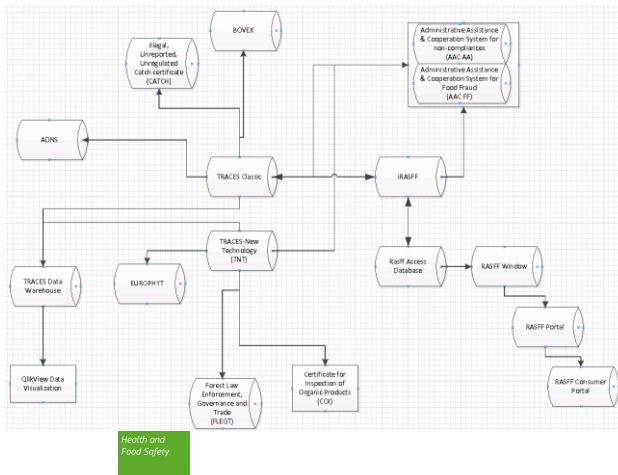| What is its purpose?	Toward a better collective controls efficiency

IMSOC and its system components
(overview)

1. Administrative Assistance and Cooperation (AAC): Public health, Non compliances and Fraud suspicion
2. Certification (Animal, Animal products, Organic, Plants, Timber, Fish Catches …)
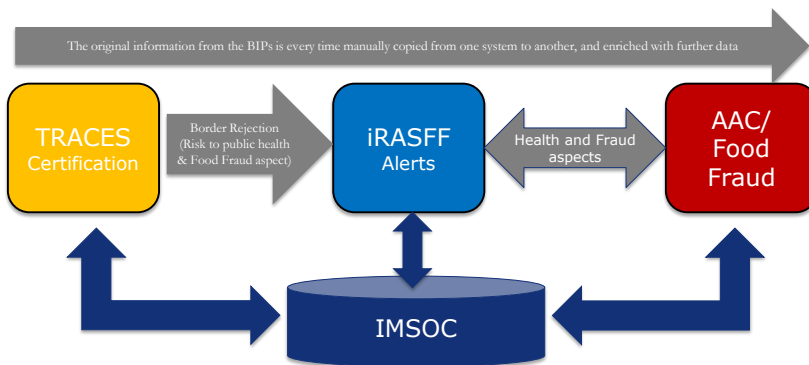3. Alerts (Humans, Plants, Animals)
4. Identification (e.g. bovine)

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IMSOC TODAY – an example

The original information from the BIPs is every time manually copied from one system to another, and enriched with further data

| TRACES Certification | Border Rejection (Risk to public health & Food Fraud aspect) | iRASFF Alerts | Health and Fraud aspects | AAC/ Food Fraud |

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IMSOC will be able to aggregate data on official controls from every system, and display it according to the "need to know" principle
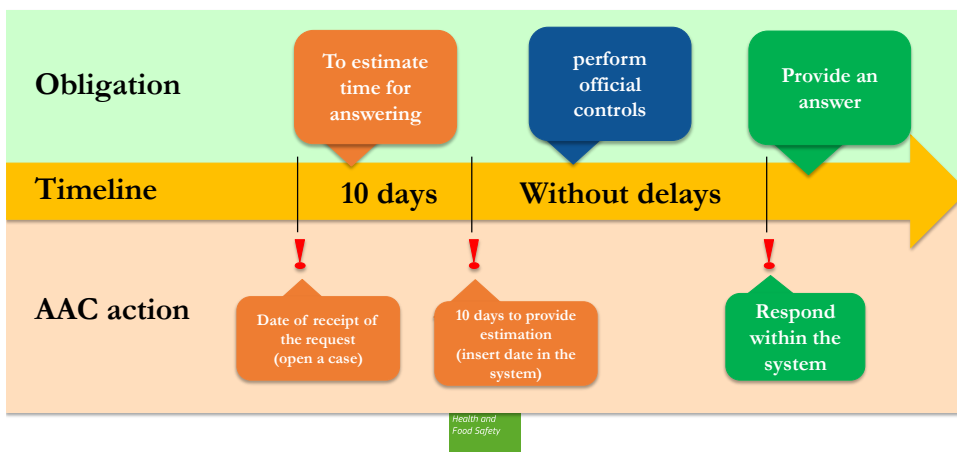
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IMSOC:
Exchanges in relation to risks

Rapid Alert System for Food and Feed (RASFF)
&
Administrative Assistance & Cooperation System (AAC)

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New procedure for Administrative Assistance

Obligation	To estimate time for answering	perform official controls	Provide an answer
Timeline	10 days	Without delays	
AAC action	Date of receipt of the request (open a case)	10 days to provide estimation (insert date in the system)	Respond within the system

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Communication with third countries art. 107(2)

Results of Official Controls can be communicated to Third Countries

RULES

Previous agreement of the authorities providing the information

Only if Third Country has committed to cooperate

Only if Third Country is complying with Data Protection rules (adequacy decision)
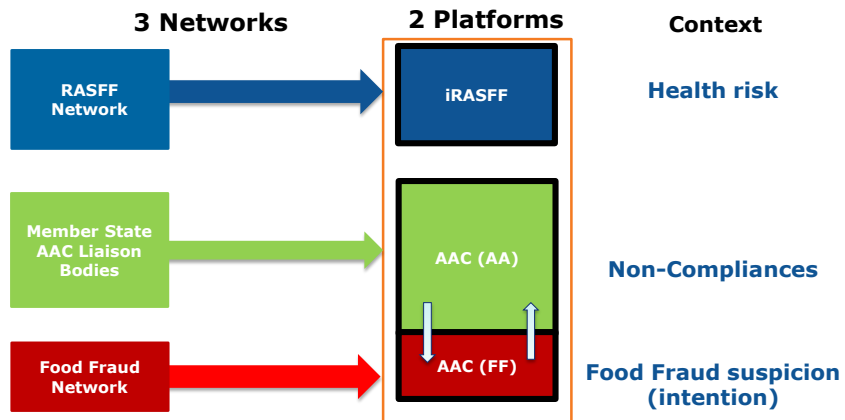
HOW?

Severely limited access to the systems
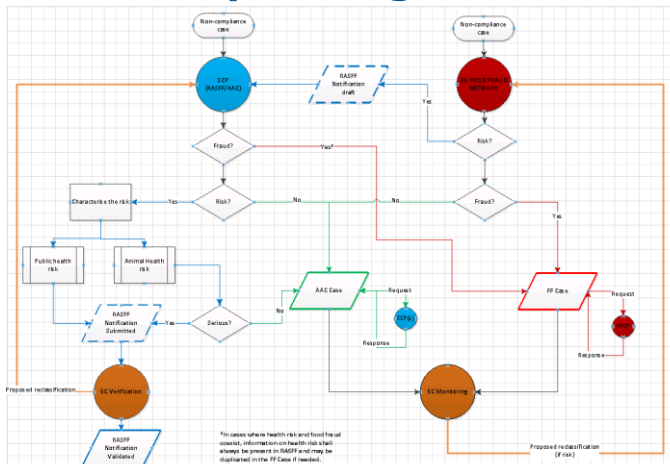
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RASFF/AAC CURRENT FLOW

3 Networks	2 Platforms	Context
RASFF Network	iRASFF	Health risk
Member State AAC Liaison Bodies	AAC (AA)	Non-Compliances
Food Fraud Network	AAC (FF)	Food Fraud suspicion (intention)

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Standard Operating Procedures*

Submitted to Member States last January

RASFF/AAC FUTURE FLOW

2 Networks   **1 Platform (2 modules)**   **Context**

Common case description:
**Direct or indirect Health risk (compulsory)
+
Non-Compliances
+
Food Fraud**

**Food Fraud specific aspects ONLY
(Restricted access)**
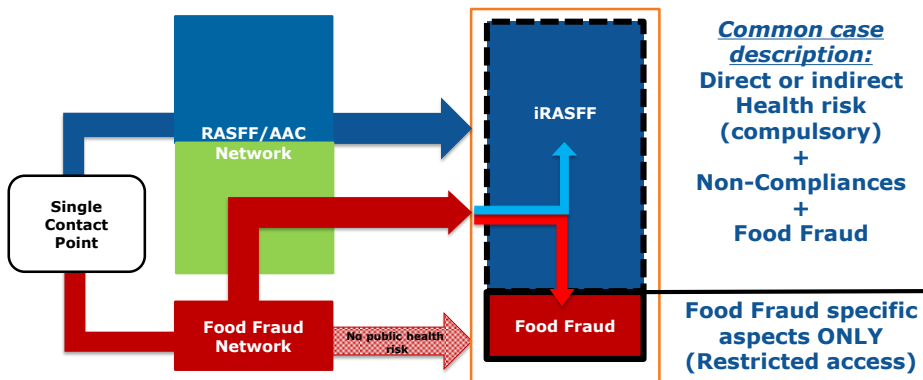
Users see cases **according to the context**

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Certification and integration

CERTIFICATES IN TRACES:
current situation

TRACES Classic

TRACES New Technology (TNT)

- INTRA
- CVED-A
- CVED-P
- Veterinary Certificate to EU
- Export Health Certificate
- Common Entry Document (CED)
- ~~CHED-PP (migrated to TNT)~~
- Commercial Document
- Declaration Document

- PHYTO
- CHED-PP
- COI – (organic)
- FLEGT (Forest Law Enforcement Governance and Trade)

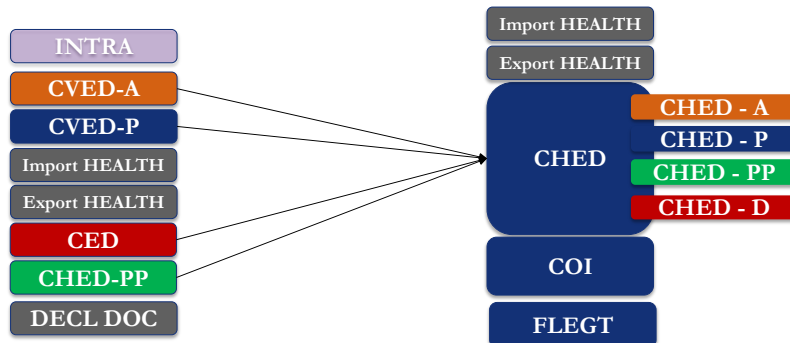# Common Health Entry Document (CHED)

List of goods is defined in Art. 47(1):

- Animals (CVED A);
- Products of animal origin, germinal product and ABPs (CVEDP);
- Plants, PPP and others (art. 72(1) and 74(1) of Reg. 2016/2031) (CHED PP);
- Goods under temporary increase of controls (CED);
- Goods under emergency measures (CED);
- Animals and goods under additional conditions (art. 126 and 128);

*Health and
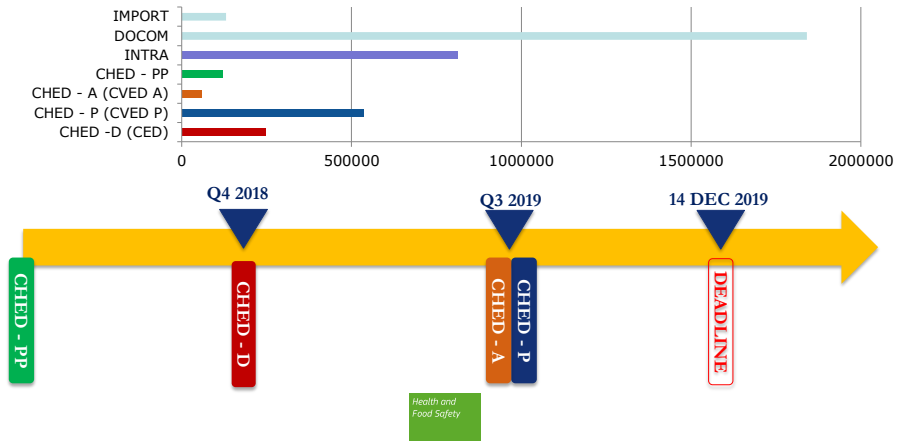Food Safety*

CHED
from TRACES   to   TRACES-NT

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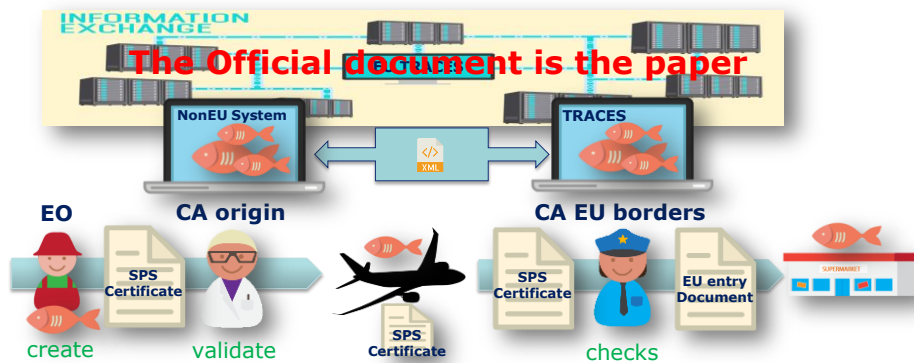
PROPOSED MIGRATION STRATEGY

Nr. Of certificates in 2017

Category	
IMPORT	
DOCOM	
INTRA	
CHED - PP	
CHED - A (CVED A)	
CHED - P (CVED P)	
CHED -D (CED)	

0   500000   1000000   1500000   2000000

Q4 2018   Q3 2019   14 DEC 2019

CHED - PP   CHED - D   CHED - A   CHED - P   DEADLINE

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EU
Paperless eCertification

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SPS certification flow today

INFORMATION EXCHANGE

The Official document is the paper

NonEU System | TRACES

EO | **CA origin** | **CA EU borders**

SPS Certificate | SPS Certificate | EU entry Document

SPS Certificate

create | validate | checks

The official control's digital strategy : a new vision of exchanges

- Full paperless flow for documents:
  - veterinary and phytosanitary certificates for imports, exports and for intra EU trade,
  - EU entry documents (CVED, CED, CHEDPP -> CHED),
  - organics certificates (COI),
  - timber licences (FLEGT)
  - fish catch certificates

- Dematerialisation of the border clearance process: Data exchange with EU Customs Single Window

- **Objective: Digital becomes the Original Document**, Paper is then only a working copy

eIDAS Regulation (2014/910)

*Provides rules to have an "**original digital version**" of any document
(digital document cannot be refused)*

| Paper Certificate	Electronic Certificate
Text	(electronic data)
Format	(electronic data)
Layout	(electronic data)
Date	Qualified Timestamp
Signature of Authorising Officer	Advanced to Qualified Electronic Signature
Stamp of the Organisation	Qualified Electronic Seal

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CERTIFICATION
📝 Paper   VS   Electronic 🖥️

- ☹ Signature can be falsified
- ☹ Stamp can be falsified
- ☹ Problem of "original certificate" and copies
- ☹ Deterioration
- ☹ Storage
- ☹ Difficult to read
- 😄 You can make paper planes
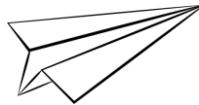
- 😄 Very, very difficult to falsify signature, stamp or dates (requires hacking the whole EC infrastructure)
- 😄 Bring with you as many as you want
- 😄 Accessible everywhere
- 😄 No problem of obtaining "officially certified copies"
- 😄 No Deterioration
- 😄 Unlimited storage
- ☹ You cannot make paper planes

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How could it work in practice?

SCENARIO **1** Third Country as interactive user in TRACES or MS National System

- TC's inspectors are enrolled with a very good level of ID;
- TC's administration is provided with a qualified electronic seal;
- The certificate is secured with:
  - **+ TC inspector advanced or qualified e-signature;**
  - **+ TC qualified electronic seal;**
  - **+ EC qualified electronic seal;**
  - **+ Qualified electronic Timestamp.**

Operational in:
< 1 month in TRACES

How could it work in practice?

SCENARIO **2** System to System

Third Country has its own IT system capable of sharing data with EU MS National Systems and/or TRACES:
1) Data is shared using the **United Nations CEFACT standard**;
2) Data is shared in **XML format;**
3) Data sharing is **certified** with the TC's Organisation qualified electronic seal;
4) Electronic certificate is signed by the authorised officer (**advanced/qualified signature**);
5) Electronic certificate is integrated with a **qualified electronic time stamp.**

Operational in:
4 to 5 months in TRACES

BUSINESS INTELLIGENCE

BigData, Data Visualization & Predictive Analysis

The seven *V* of BigData

- **V**olume -> how much data?
- **V**elocity-> how much, how quick?
- **V**ariety-> how many kinds?
- **V**ariability-> how different is it?
- **V**eracity-> how accurate is it?
- **V**isualization-> how easy is it to show it?
- **V**alue

Data Visualization in TRACES
(Qlikview)

Data Visualization in RASFF
(Rasff Window/Portal/Consumer Portal)

- **RASFF Window:** Limited access (95% info present)

- **RASFF Portal:** Public (50% info present)

- **RASFF Consumer Portal:** 50% info present + National Press

Other examples of data visualization:

Non real-time:
❑TRACES Annual Report
❑RASFF Annual Report
❑AAC & Food Fraud Annual Report

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Business Intelligence

Predictive Analysis

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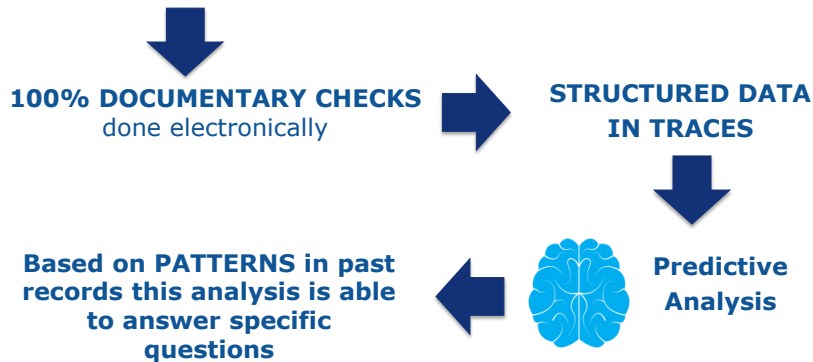
Predictive Analysis: the basics

Guiding principle: automate as much as possible to allow more Inspectors on the field

100% DOCUMENTARY CHECKS done electronically

STRUCTURED DATA IN TRACES

Predictive Analysis

Based on PATTERNS in past records this analysis is able to answer specific questions

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PREDICTION MODULE PERFORMANCE
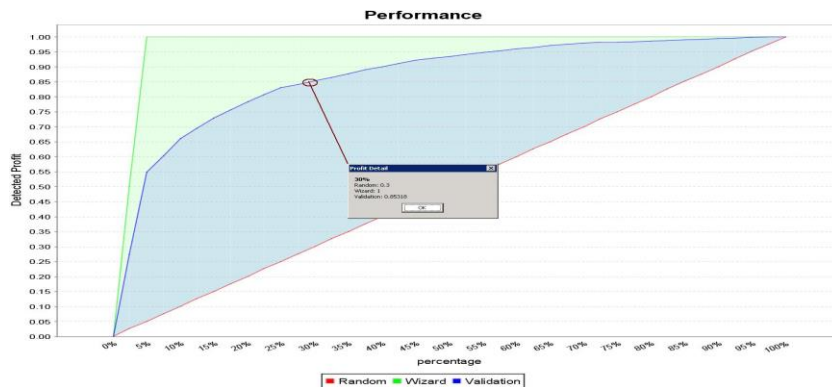
Predictive model on all EU CVEDP consignments, 30% consignments checked => 85% of problematic consignments detected!

Example of possible predictions in OCR
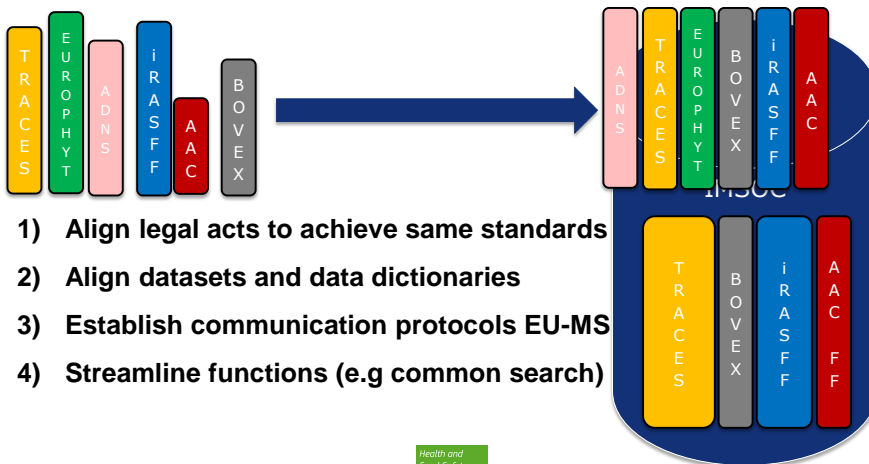
Article 54(3)(a)

The Commission shall establish the criteria and the procedures for determining and modifying the frequency rates of identity checks and physical according to the risk and having regards to:

i) Information on TC control systems;

ii) Operators' past records;

iii) Data in IMSOC (certificates in TRACES, notifications in RASFF, cases in AAC etc..);

iv) Available scientific assessment;

v) Any other info;

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How to IMSOC: Step by Step

1) **Align legal acts to achieve same standards**

2) **Align datasets and data dictionaries**

3) **Establish communication protocols EU-MS**

4) **Streamline functions (e.g common search)**

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THANKS FOR YOUR ATTENTION

IMSOC will power up our control systems, and help us make our food even safer!

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