



#### How to measure enforcement results: Experience drawn from Shipments of Waste Enforcement Actions Project Katie Olley Project Leader



The IMPEL LIFE SWEAP project (LIFE17 GIE/BE/000480) has received funding from the LIFE Programme of the European Union



- Shipments of Waste Enforcement Actions Project
- A brief history of waste shipment data collection
- Measuring the impact of enforcement
- Digital solution
- Issues with the digital aspects
- Recent results
- Where are we now?



**Contents** 



EU Life-funded project 2018 to 2024	Follows on from projects 2003 to 2018	IMPEL is the Co- ordinating Beneficiary
Associated Beneficiaries: •Scotland (SEPA), England (EA), Ireland (NTFSO), Northern Ireland (NIEA), Slovenia (IRSOP) and Malta (ERA)	34 participating countries (IMPEL members)	Project Executive: DCC (Ireland)
	H-LAB: Europol, Basel Convention Secretariat, ILT, WCO, OLAF	





#### Before we get into results.....





#### Customs training: 159 officers from

Albania, Austria, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Turkey, UK

Also training input to Prosecutors and Judges through European Law Academy





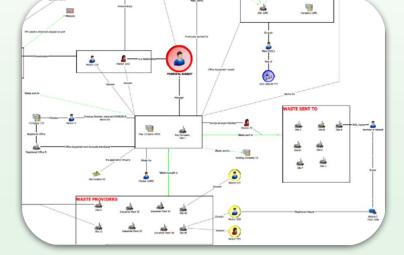
## Other aspects of the project



Officer exchanges



Industry liaison



Intelligence dissemination



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#### Portal for Environmental Enforcers

The online toolkits are free to members of relevant Competent Authorities. Please log in or register and once we verify your information, we will forward you a password to access the content.



The PREVENT portal provides an online depository of training and capacity building materials. This portal is a collaborative work by projects coordinated by IMPEL and executed with various consortium partners.



The PREVENT portal is a joint activity by the WasteForce project (funded by the European Union's Internal Security Fund – Police (ISFP/2017/AG/ENV/821345), the LIFE SWEAP project (funded by the LIFE Programme of the European Union) and the SPIDERWEB Project (jointly financed by the European Union and the Federal Republic of Germany). ABOUT

DISCLAIMER

PRIVACY POLICY

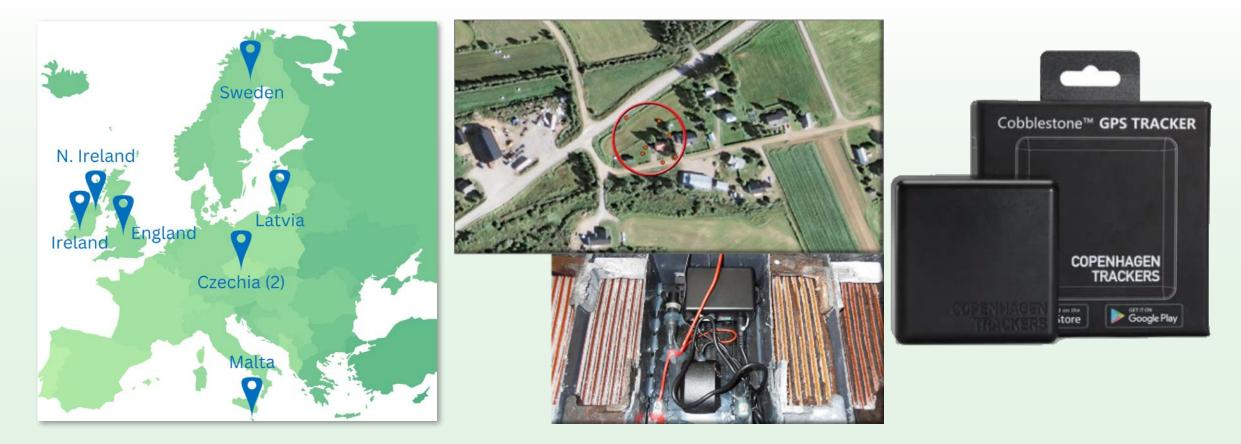
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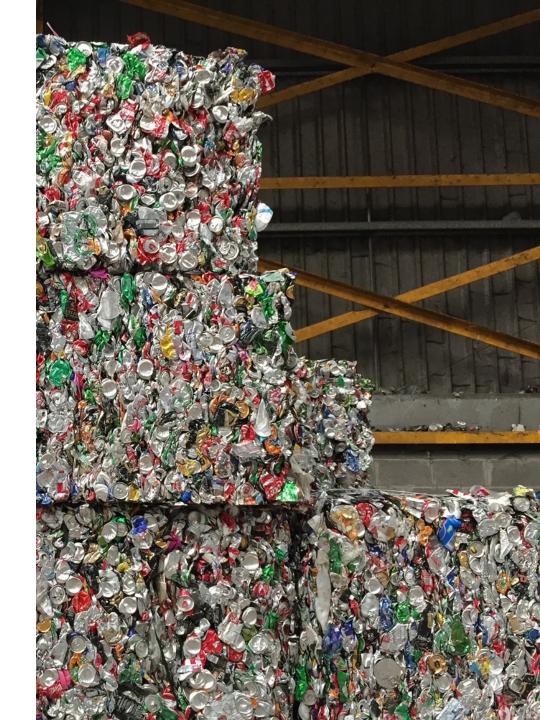






Inspections and enforcement of waste shipments – the "frontline"

- Enforcement not only repatriations/ takeback
- Compliance monitoring and enforcement: Includes all activities undertake to secure compliance with regulations – awareness raising, inspections, warnings, fines, closure etc.
- How do we measure this?
- What happens to waste v enforcement outcome
- Who has access?







#### Impacts and indicators (socio-economic)

- Underlying principles to minimise negative impacts on the health and well-being on the environment and human health caused by waste shipments
- Repatriations, stopped loads
- Shipping line proxy "green fees"
- Legitimate trade (gate fees, haulage, etc.) and landfill tax income for Member States
- Rare earth metals, e.g., small mixed waste electronic items, their value may also be estimated







## Waste Shipment Regulation: Article 50

- Enforcement provisions requirements for inspections, parties to be inspected, cooperation aspects covered
- Waste Shipment Inspection Plans
- Revised Waste Shipment Regulation

Article 50

#### **Enforcement in Member States**

1. Member States shall lay down the rules on penalties applicable for infringement of the provisions of this Regulation and shall take all measures necessary to ensure that they are implemented. The penalties

Article 51

**Reports by Member States** 

1. Before the end of each calendar year, each Member State shall send the Commission a copy of the report for the previous calendar year which, in accordance with Article 13(3) of the Basel Convention, it has



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## Spreadsheets!

- Manual (double/ triple handling)
- Open to interpretation
- Different languages
- Mixed reporting
- Outcome of cases determined by subsequent surveys





#### "Live"

- Live inspection data is reported
- No double recording
- Digital system
- Easily determine common routes modus operandi, high risk. players?
- Record all inspections (not only where violation found)
- Complete record

#### Informative

- Cross-referenced with multiple data sources e.g., customs data, shipping destinations, commodity prices, permit records
- Provides intelligence
- Use of AI?

#### Iterative

- Adapt mandatory Waste Shipment Inspection Plans accordingly (frequency and depth of inspections proportional to risk)
- Deals with planned and reactive work
- Helps provides informed expectations about the volume of illegal shipments overall







## The reality

National context is everything • Multiple enforcement bodies with different responsibilities	Organisational structures	Different reporting rules and conventions	
Data vocabulary	Different stages of enforcement outcomes	Different systems (including paper- based recording)	





## **Transforming practices**

- App for 'on-the-road' for inspectors, regulators and law enforcement officers
- Standardised data recording at shipment level
- Multi-lingual
- References to legislation, problematic waste streams, waste codes
- Available in the Android and Apple app stores and as web-version for desktop use
- Easy to use backend system
- Reporting
- Allows comparisons and intelligence gathering

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		References	Waste from Electrical and Electronic Equipment (part I: GC 010 non-hazardous)	
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	Inspection	About	Cartridges: Waste Electrical and Electronic Equipment (part II)	English: Asbestos (dusts and fibres) Dutch: Afgedankte asbest (stof en vezels) German: Asbest (Staub und Fasern)
	Reference App	About	Waste from Electrical and Electronic Equipment (part III: A1180 hazardous)	French: Amiante (poussières et fibres) Spanish: Amianto (polvo y fibras)
		SWEAP Inspection App	Slags, ashes and residues of metal refinery (non-hazardous/hazardous)	Polski: Azbest (pyl i wlókna)
		Open Inspection App	Coal-fired power plants fly ash (non- hazardous/hazardous)	Classification Basel code: A2050
		About WasteForce	End-of-life vehicles or parts thereof (non- hazardous/ hazardous)	EWC codes: 06 13 04*; 10 13 09*; 17 06 01*; 17 06 05*
		About SWEAP	Vessels and other floating structures for breaking up (non-hazardous/ hazardous)	View PDF
			Waste metal cables (non- hazardous/ hazardous)	





Collect, report and store inspection data online either in field or office



Take photos and add them to inspection form



Can also bulk upload inspections and download structured reports

Monitor against inspection plan



Flagging system to other authorities

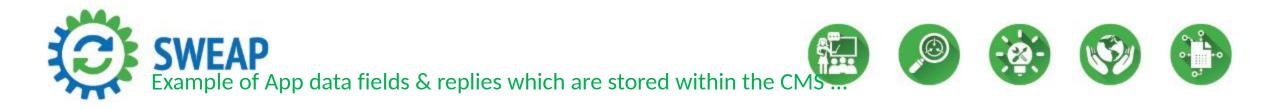


Directly feeding certain data into other systems via API-file (e.g. Spotfire)

Provides annual reports for submission to EU



Available for intelligence analysis if authority agrees and provision to Europol



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- 59 fields (6 pre-set) •
- Authorities can add fields & • choose which non-nominal fields to share (visualisation)



- APIs for transfer of data
- Further integration into Electronic Data Interchange (EDI) possible to check against planned routes
- Accords with recommendations: <u>OPFA-Waste Report (Operational</u> Facility for Fighting Illicit Waste Trafficking)





**Real Time Data** 

**Data Visualisation** 



**Reports** 



**Data Security** 







The Inspection App has been extensively tested and is currently in use throughout Europe:







53 Participating authorities





**Paperless** 



# What the App does not do

- Solve data sharing but facilitates it by flagging system
- Case management (but does allow officer to estimate level of severity of offence and likely outcome) and allow data to be updated
- Confirm repatriation of waste (but this could be added)





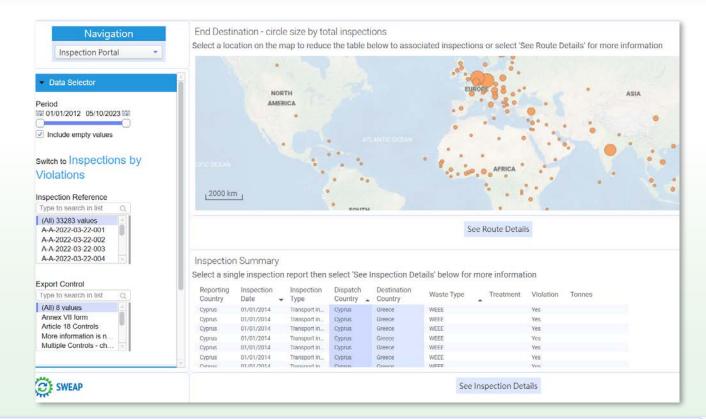
#### Hosting and data exchange

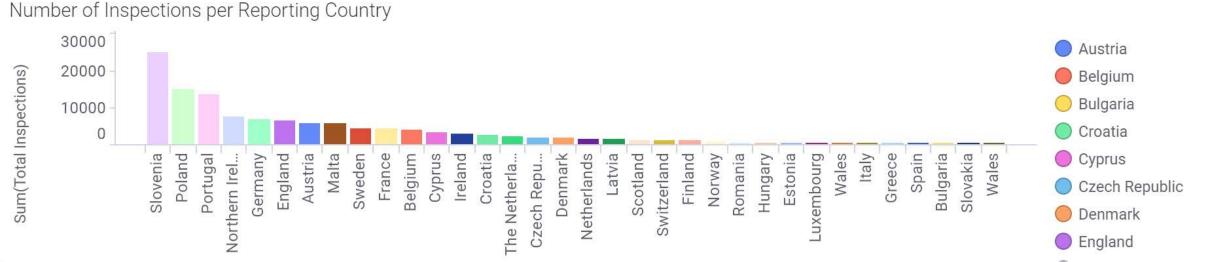
- Data Security and Protection/ ISO 27001:2013: risk assessment based on type of data
- No storage using Microsoft Azure
- GDPR- considerations: Data Controllers and Data Processors
- Access requirements
- High level commitment and confidence needed in the system
- How to deal with nominal data who can access this, for what purpose and how can it be exchanged? (e.g., only via secured servers outside system). Europol involvement





#### Visualisation of inspection data



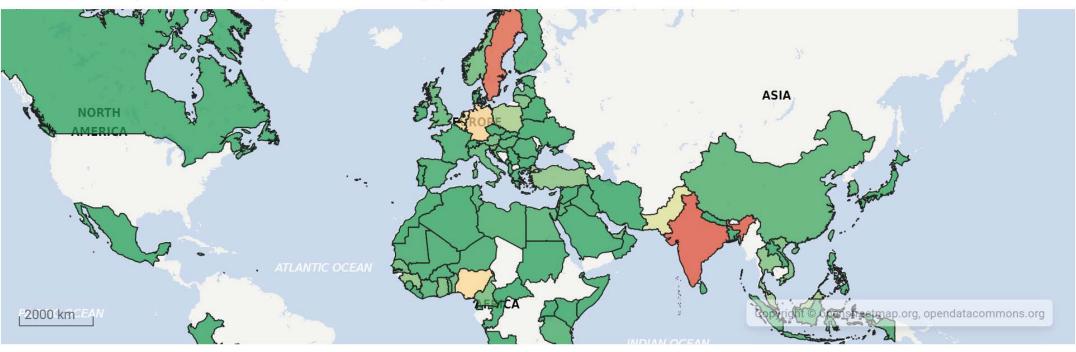






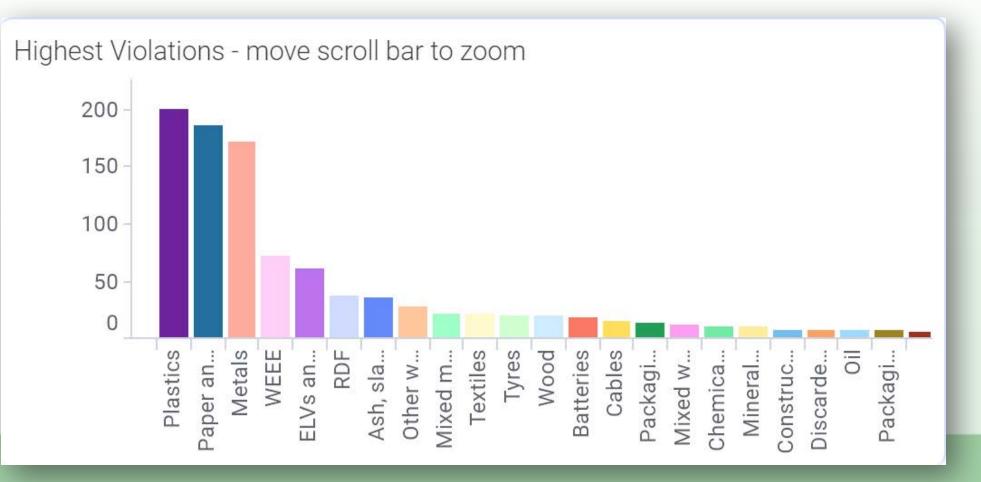
## Destinations of illegal shipments (2022-23)

Destination Country - violations as a proportion of the total (%)







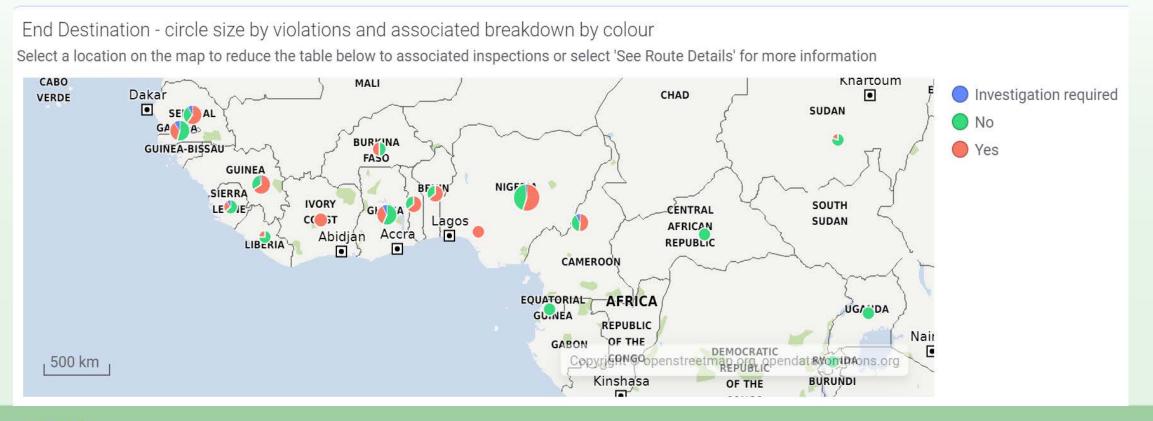








## Detection rates for shipments to western and central Africa

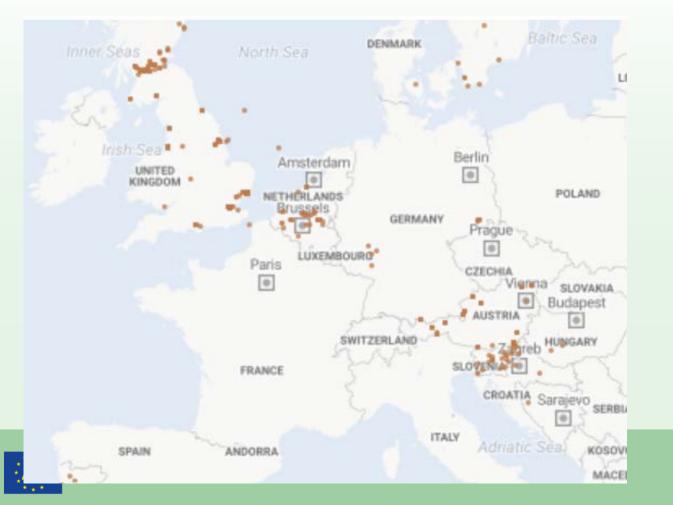






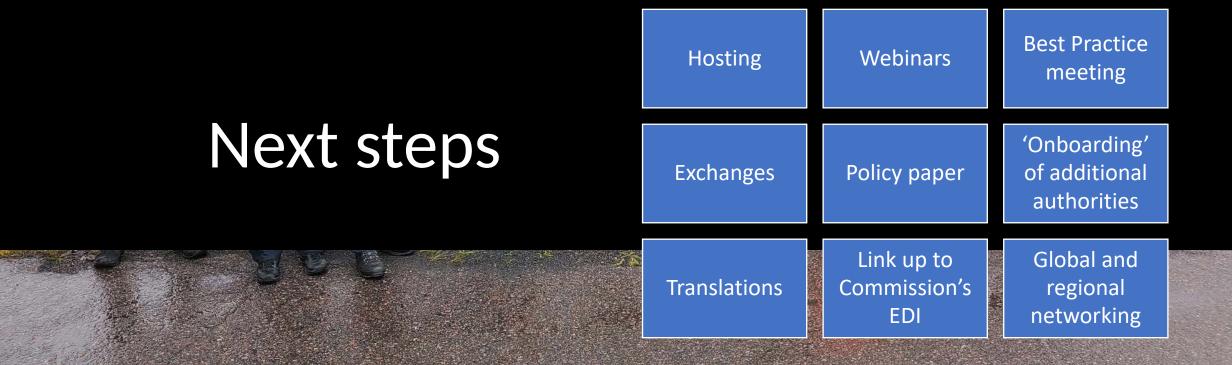


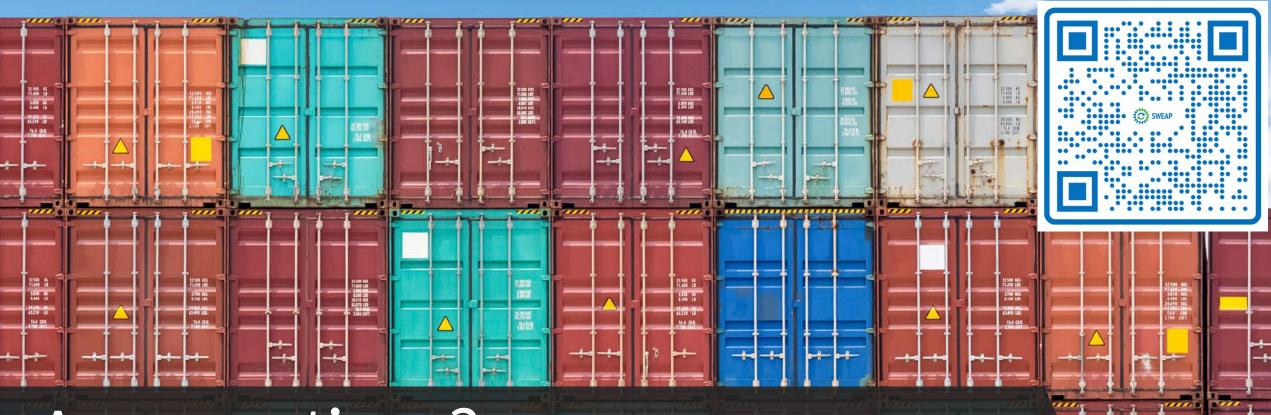
#### **GPS** locations of inspections



- Where organisation permits, officers can turn on their GPS location
- Starting to develop
- Combine with route data







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# Any questions?

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https://www.sweap.eu/

@LIFESWEAP

