



SMART Waste

LIFE13 ENV-UK-000549

Layman's report

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Cyfoeth Naturiol Cymru
Natural Resources Wales



LIFE agreement

Title: Smarter regulation of waste in Europe

Agreement number: LIFE13 ENV /UK/000549)

Coordinating beneficiary: Scottish Environment Protection Agency

Associated beneficiaries: Association of Cities & Regions for sustainable Resource Management (ACR+);
Brussels Environment;
Natural Resources Wales.

Project duration: 01/06/2014 – 31/05/2020

Project budget: € 4,325,101

Project location: Scotland (United Kingdom)



Waste crime – a global issue

It is widely recognised that the illegal management and illegal trade of waste cause significant damage to the environment, undermine public health and distort fair competition. The potential for illegal activity exists at all stages of the waste management chain, from production to final disposal. This enables criminals to profit at the expense of legitimate operators in the waste management industry.

'Waste crime' endures as a significant issue for regulators, enforcement agencies and legislators in Europe and beyond. The issue is widely acknowledged as a factor that adversely affects waste policy implementation and constrains the move towards a circular economy in the European Union.

Waste crime is attractive to organised crime groups and is not constrained by national borders. This makes it a significant threat that requires innovative, partnership work between nations to identify and prevent it.

Smarter regulation of waste

From 2014-2020, the LIFE SMART Waste project beneficiaries collaborated with environmental regulators, law enforcement, industry representatives and technology experts to develop and demonstrate innovative ways of understanding, tackling and reducing the issue of waste crime.

Project beneficiaries recognised that there are significant gaps in our collective understanding of the causes, dynamics and triggers for waste-related crime. This led to the project's underlying premise that by identifying and developing practical indicators, deterrents and remedies for such criminal behaviour, we can help close these gaps.



Over six years, LIFE SMART Waste developed and piloted a range of innovative tools, techniques and approaches offering capacity-building potential for agencies seeking to address the issue of waste crime. The project also made recommendations intended to inform and influence European policy and legislative changes. In doing so, the project aimed to help achieve *smarter regulation of waste in Europe*.

Project objectives

1

To develop and demonstrate innovative intelligence gathering and analytical approaches to identify and understand waste crime issues.



2

To design innovative intelligence-led interventions, and demonstrate how these can be used to tackle waste crime issues and reduce their impacts in targeted areas.



3

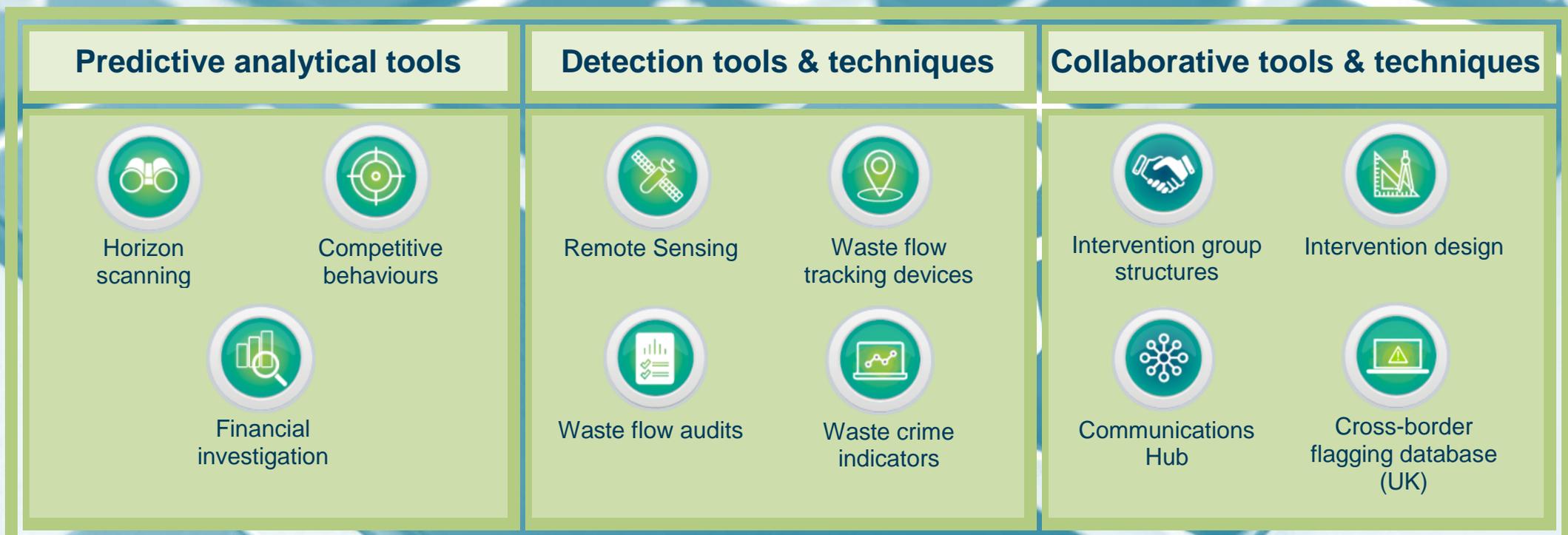
To communicate the project results and learning to others seeking to tackle waste crime, and to influence European policy and legislative changes.



Innovative tools, approaches and techniques

LIFE SMART Waste developed and piloted a range of analytical tools, approaches and techniques designed to enable environment protection agencies to:

- i. **PREDICT** emerging criminality in the waste management sector;
- ii. **DETECT** potentially problematic waste operators;
- iii. **COLLABORATE** effectively to address waste crime.



Predictive analytical tools

| Name | Description | Outputs |
|---|---|--|
| Horizon scanning toolkit  | <p>A toolkit to help build an early warning system for emerging waste sector developments and their potential for criminal enterprise. This includes a practical guide that regulatory bodies and their partners can use to:</p> <ul style="list-style-type: none"> • build intelligence about waste crime by gathering, organising and sharing weak signals of change; • create insight into changing criminal behaviours and patterns of crime through assessing, ranking and deepening their understanding of the implications of those weak signals; • work together to research, plan and deliver action to protect consumers and the industry now and in the future. | <p>Research report Toolkit Evaluation report</p> |
| Competitive behaviours toolkit  | <p>A collection of core tools for analysing information from diverse sources to achieve a better understanding of market and/or industry behaviours. Such insights can potentially provide an early indication of threats, challenges, opportunities and changes within waste and recycling markets, highlighting critical vulnerabilities. In addition to improving decision-making processes, this could enhance the ability of regulators to design and implement effective interventions.</p> | <p>Research report Toolkit Evaluation report</p> |
| Financial investigation tool  | <p>A two-part screening tool to help identify those operators and activities that need to be subject to a more detailed appraisal as part of the permitting process. The aim of this tool is to help regulators to assess risk by providing additional insights to identify potential or likely future offending by regulated waste operators.</p> | <p>Research report Tool Evaluation report</p> |



Detection tools and techniques

| Name | Description | Outputs |
|---|--|--|
| <p>Remote Sensing techniques</p>  | <p>An investigation of the potential of using Remote Sensing techniques and data for gaining intelligence on illegal waste disposal, such as illegal stockpiling, land application and land-fill. This work provided the results and recommendations from three pilot projects, with accompanying tools, workflows and guidance for technical users:</p> <ol style="list-style-type: none"> i. Detection of unknown (illegal) waste sites ii. Detection of waste materials iii. Supporting a 'live' operational case | <p>Research report Pilots Techniques Evaluation report</p> |
| <p>Waste flow tracking devices</p>  | <p>An assessment of the potential for using electronic tracking devices in innovative ways to follow the movements of different types of waste within Scotland and Wales, considering both practical and legal challenges.</p> | <p>Report</p> |
| <p>Waste flow audit approach</p>  | <p>An assessment of current barriers to developing a practical 'waste flow audit' approach that would help environmental authorities to locate illegal disposal activity by tracking waste movements, and more specifically leakages, from the point of production to the final destination. Includes recommendations for a digital solution and policy change.</p> | <p>Report</p> |
| <p>Waste crime indicators toolkit</p>  | <p>A toolkit providing practical indicators of waste crime using simple analysis of waste operator data. The toolkit provides four easy-to-use indicator methods for analysing core information typically collected by environment agencies from waste management operators. The indicators are transferable to environment agency data across Europe and can be adapted to a wide range of potential waste crime enquiries.</p> | <p>Toolkit</p> |



Collaborative tools and techniques

| Name | Description | Outputs |
|---|--|-------------|
| Intervention group structures  | An overview of common barriers to joint working between agencies – including people, structures and processes – with recommendations for designing effective intervention group partnerships. | Reports |
| Intervention design manual  | A manual designed to provide environmental authorities in Europe (and beyond) with a framework for choosing and designing interventions, and making intervention agreements with partners. | User manual |
| Online communications 'Hub'  | An online platform, or 'Hub', for agencies and expert groups to collaborate and share non-sensitive information in secure virtual communities in real-time. Participants in the extended pilot included representatives from: UK environmental regulators (Scottish Environment Protection Agency, Natural Resources Wales, Environment Agency and Northern Ireland Environment Agency); INTERPOL's Pollution Crime Working Group; project beneficiaries; the project's External Steering Group; DEFRA's multi-agency Waste Tracking Service project (UK); and other industry experts. | Pilot |
| Cross-border flagging database (UK)  | Preliminary work to set up a secure database that facilitates the sharing of Official (Sensitive) intelligence between national agencies, initially within the UK. The pilot database would flag if other environmental regulators held intelligence on entities of mutual interest, related to cross-border movement of waste (for example, suspected cross border criminals or those suspected of enabling such activity). | Pre-pilot |



Intelligence gathering

As part of the process of designing innovative intelligence-led interventions, LIFE SMART Waste undertook a range of investigations to fill gaps in current understanding, generating waste crime intelligence reports:

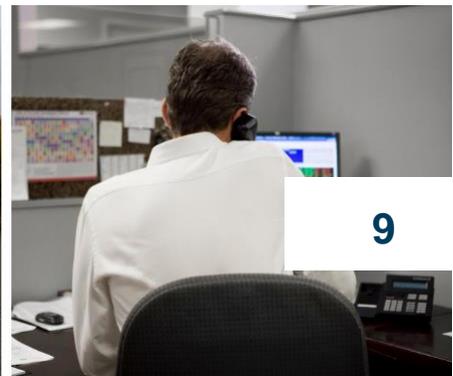
- **Waste industry perceptions of waste crime (Scotland)** - A survey of Waste Management industry perceptions of waste crime in Scotland undertaken in 2016 to understand the nature of the problem and to assess its scale.
- **Evaluation of regulatory intelligence (Scotland & Wales)** - A review of Scottish Environment Protection Agency and Natural Resources Wales waste intelligence for 2015-2016 to identify top priority issues for further investigation and intervention.
- **Waste tyre sector vulnerabilities (Scotland)** - A study of the Waste Tyres sector in Scotland undertaken in 2017 to identify areas in which the sector is vulnerable to criminal activity. The study is supported with recommendations for measures to mitigate the vulnerabilities identified.
- **Illegal cross-border waste haulage (UK)** - An assessment of the involvement of waste hauliers in the transportation and depositing of waste at illegal sites (within the UK). The assessment was undertaken in 2018 and is supported by recommendations for further investigations and possible interventions
- **Illegal waste brokerage vulnerabilities** - An assessment of the Waste Management industry's vulnerability to illegal activity by unscrupulous waste brokers. The assessment was undertaken in 2019 and is supported by recommendations for changes to legislation, regulatory processes and enforcement practices.
- **Emerging criminal trends within Europe following China's plastic waste import restrictions** – A strategic assessment of the threat of waste crime arising as a result of China's foreign waste import restrictions commencing in 2018. The assessment was undertaken in 2020 in collaboration with INTERPOL.



Designing intelligence-led interventions

Using insights from the intelligence gathered, and piloting the project's Intervention Design Manual, LIFE SMART designed cross-agency interventions to target high priority areas of vulnerability identified within the waste management supply chain. The interventions focused on three areas of vulnerability and featured industry engagement, multi-agency days of action and awareness-raising campaigns.

- 1 illegal warehousing of waste
- 2 illegal haulage of waste
- 3 illegal waste brokerage



Communicating project results

Project partners used a range of communication methods to reach and engage with enforcement agencies, industry representatives, policy makers and other stakeholders, including:

- Professional networking events;
- lifsmartwaste.com website;
- E-newsletters;
- Social media networks;
- Webinars;
- Report publications;
- E-newsletters;
- Brochures
- Information leaflets;
- Videos;
- Press releases;
- Notice boards.



Final conference, Brussels

The highlight of LIFE SMART Waste's communication activity was a successful final conference at the *BEL Convention Centre* in Brussels, Belgium from 12-14 November 2019.

The conference, entitled '**Smarter waste regulation and pollution crime enforcement**', was hosted jointly with INTERPOL's Pollution Crime Working Group and created opportunities for knowledge exchange, networking and collaboration on a truly global basis.

Delegates from six continents, representing 42 countries and 100 agencies, attended the conference. The majority of delegates represented agencies with responsibility for environmental regulation, law enforcement, waste policy, legislation and waste management at regional, national and international levels. EU bodies and global organisations were also represented.

Delegates heard from a range of prominent keynote speakers, considered the results and recommendations of the LIFE SMART Waste project and participated in discussions and workshops.



Recommendations – Policy and legislation

The project's findings led to a number of recommendations that could assist EU Member States and UK administrations with efforts to address and reduce waste crime. Key themes for the project's recommendations were:

Mandatory electronic waste tracking

One of the project's first policy recommendations was the development of a mandatory electronic waste tracking system capable of sharing data between EU Member States and the UK (applied by the four UK administrations).

The project announced these and other tactical recommendations at the project's final conference in Brussels and provided summaries in three policy recommendation reports. The reports provide context and justifications for the project's recommendations at EU, national (UK) and local (Scotland) levels and are available to policy makers, legislators and other interested parties.

Consistent waste carrier registration requirements

The project makes a range of practical legislation and policy proposals to establish consistent registration requirements for waste carriers across the EU and UK.

Consolidation of enforcement best practice

The project also recommended legislative change to consolidate enforcement best practice across the EU, including civil powers, criminal prosecutions, and disruptive action (such as seizing vehicles and asset recovery).



Long-term environmental benefits

The LIFE SMART Waste project's collaborative work has delivered practical insights, resources and recommendations with the potential to make a significant impact on the issue of waste crime. By reducing waste crime we can achieve lasting benefits for our environment, economies and communities.

The environmental impact of waste crime is most obvious through pollution incidents affecting our water, soil and the air we breath. In addition to directly harming human (and animal) health through pollution, our communities can experience inconvenience and distress at home, work or places of leisure. There are also clean up costs, loss of tax revenues and other hidden costs that have a direct impact on our economies, often diverting precious resources away from other essential services. By reducing, and where possible eliminating, waste crime we can significantly reduce these adverse impacts.

Reducing waste crime also creates a more level playing field for legitimate operators in the waste management industry. This enables legitimate businesses to invest in the infrastructure and

processes needed to comply with, and exceed, environmental regulations without fear of being undermined or disadvantaged by rogue operators. Ongoing improvements in waste management practices will help the UK and EU Member States to achieve waste reduction targets and move towards a more circular economy.

The hidden and rapidly-evolving nature of waste crime continues to create major challenges for agencies responsible for protecting and improving our environment.

Environment protection agencies now have an opportunity to adopt, improve and further develop the LIFE SMART Waste project's tools, techniques and approaches. By doing so, agencies can increase their capacity for detecting, disrupting, diverting and deterring illegal waste management practices. Equally, policymakers and legislators have an opportunity to use and build upon the project's recommendations to implement lasting changes that will improve environmental compliance in the waste management industry.

Find out more

For further information, or to access the project's reports, tools and training materials, visit the LIFE SMART Waste web site or e-mail us.

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