

# *Landfill Project*

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European Union Network for  
the Implementation and Enforcement  
of Environmental Law

## *Reinforcement Programme on inspection skills according to Landfill sites in IMPEL Member countries*

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**2ª Conferência da Rede Nacional IMPEL, 13 de outubro de 2017, Amadora**

# Enquadramento



European Union Network for  
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- Melhorar a aplicação da legislação da UE é um objetivo prioritário tanto da Comissão Europeia como da IMPEL.
- A implementação e a aplicação da legislação em matéria de resíduos da EU é deficiente
- A eliminação de resíduos, nomeadamente a sua deposição em aterro, constitui a última opção de gestão, justificando-se apenas quando seja técnica ou financeiramente inviável a prevenção, a reutilização, a reciclagem ou outras formas de valorização.
- Os aterros de resíduos devem cumprir os requisitos da Diretiva 1999/31/CE

# Enquadramento (UE)



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- [Diretiva Aterros](#) (1999/31/CE do Conselho de 26 de abril de 1999) relativa à deposição de resíduos em aterros

Estabelece requisitos operacionais e técnicos a observar na conceção, construção, exploração, encerramento e pós-encerramento de aterros.

Prevê medidas, processos e orientações que evitem ou reduzam tanto quanto possível os efeitos negativos sobre o ambiente, em especial a poluição das águas de superfície, das águas subterrâneas, do solo e da atmosfera, sobre o ambiente global, incluindo o efeito de estufa, bem como quaisquer riscos para a saúde humana resultantes da deposição de resíduos em aterros.

# Enquadramento (UE)



European Union Network for  
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- [Decisão do Conselho n.º 2003/33/CE](#), de 19 de dezembro de 2002, que estabelece os critérios e processos de admissão de resíduos em aterros

# Enquadramento (PT)



European Union Network for  
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- Transposição da Diretiva Aterros e aplicação da Decisão n.º 2003/33/CE, do Conselho, de 19 de dezembro de 2002
  - [Decreto-Lei n.º 183/2009](#), de 10/08 (alterações: [DL 84/2011](#), de 20/06 e [DL 88/2013](#), de 09/07)
  - [Decreto Legislativo Regional n.º 29/2011/A](#), de 16/11 (Açores)

# *“Aterro – instalação de eliminação de resíduos através da sua deposição acima ou abaixo da superfície natural”*



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IRA - Açores

# Objetivos do projeto

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- Identificação de boas práticas de inspeção
- Cooperação (e entreajuda) entre os países membros da IMPEL para trabalhar em prol de uma regulamentação e de um regime de implementação/execução da legislação coerentes
- Feedback aos decisores políticos sobre a eficácia das várias abordagens e práticas relativas ao licenciamento e inspeção de aterros nos países membros da IMPEL
- Melhoria da cooperação entre as autoridades envolvidas na aplicação da legislação



# Como?



- Utilização da Basecamp da IMPEL como plataforma de intercâmbio de informação, discussões, etc... (fórum)
- Realização de inspeções conjuntas para troca de informação e experiências e identificar necessidades de formação dos inspetores
- Elaboração de um documento orientativo (guia) e de *checklist* para inspeção a aterros e disponibilização (no site da IMPEL) a todos os inspetores que realizem inspeções a aterros
- Preenchimento de inquérito para identificação de procedimentos e lacunas na aplicação da legislação nos países membros da IMPEL
- Elaboração de relatórios relativos ao desenvolvimento do projeto, conclusões (incluindo lacunas na aplicação da legislação) e recomendações



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# Inspeções conjuntas e formação



# Guia e Checklist



European Union Network for  
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## IMPEL LANDFILL PROJECT Inspection guidance book for Landfill inspection

*A practical book with guidance on activities on landfills  
(2016)*



European Union Network for  
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November 2016

## Annex 2: Checklist ON SITE inspection

### Landfill permitting and inspection

### Reinforcement program in inspection skills according to landfill directive in IMPEL member countries

#### NON HAZARDOUS WASTE LANDFILL ENVIRONMENTAL INSPECTIONS: CHECKLIST

1. WASTE ACCEPTANCE CRITERIA FOR LANDFILLS
2. GAS CONTROL
3. PROTECTION OF SOIL AND GROUNDWATER
4. SURFACE WATER CONTROL AND LEACHATE MANAGEMENT
5. BUILDING AND CLOSING LANDFILL

# Relatórios



European Union Network for  
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## IMPEL LANDFILL PROJECT Landfill Directive Implementation

*Analysis of the gaps found during the running of the Landfill Project*  
(DECEMBER 2016)



European Union Network for  
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of Environmental Law




Reinforcement Programme on inspection  
skills according to Landfill sites in IMPEL  
Member Countries

European Union Network for  
the Implementation and Enforcement  
of Environmental Law

(HOLLAND) Zaandam 16-18 November 2016

Omgevingsdienst Noordzeekanaalgebied, Zaandam



Headquarter building Afvalzorg on landfill

# Questionário



European Union Network for the Implementation and Enforcement of Environmental Law

## Reinforcement program on inspection skills according to the landfill directive in IMPEL member countries

### INVENTORY



MEMBER STATE	England	Italy	Austria	Sweden	Netherlands	Czech Republic	Croatia	Malta	Poland	Portugal (Azores)	Portugal	Spain
INSTITUTION	ENVIRONMENT AGENCY	SARDINIAN ENVIRONMENTAL PROTECTION AGENCY	FEDERAL MINISTRY of AGRICULTURE, FORESTRY, ENVIRONMENT & WATER MANAGEMENT	The Administrative board of Kalmar County	ENVIRONMENTAL SERVICE NORTH SEA CANAL AREA	Czech Environmental Inspectorate	Ministry of Environmental and Nature Protection	MALTA ENVIRONMENT AND PLANNING AUTHORITY	Chief Inspectorate for Environmental Protection	INSPERÇÃO REGIONAL DO AMBIENTE	APA (Portuguese Environmental Agency) and IGAMAOT (General Inspection for Agriculture, Sea, Environment and Spatial Planning, Portugal).	Xefe de Servicio de Protección e Control Integrador da Contaminación - Secretaría Xeral de Calidade e Avaliación Ambiental
DRAFTERS	Mr Max Folkett/ Mr Peter Elliott	Mr Romano Puggeri	MR Franz Waldner (& MS M. Danzer, MS M. Kisser, MS. R. Krasznai)	MISS Nina Hansson	STUART GUNPUT / ARJEN SNUJDER	Mr Vojtěch Hameráček (& Mr Martin Zemek)	Mr Ivan Pušić	ALVIN SPITERI DE BONO	Miss Anna Poprowska	Elizabete Vieira		Maria Diéguez Gómez
ROLE OF THE DRAFTERS	Landfill Sector Leads	INSPECTOR	MANAGER / EXPERT	INSPECTOR	INSPECTOR / LICENSE PROVIDER	INSPECTOR	INSPECTOR	ENVIRONMENT PROTECTION OFFICER	Head of Waste Management Division	Chefe da Divisão de Inspeção e Apoio		Head of the Department
EMAIL	<a href="mailto:peter.elliott@environment-agency.gov.uk">peter.elliott@environment-agency.gov.uk</a>	<a href="mailto:rreggieri@orpa.sardegna.it">rreggieri@orpa.sardegna.it</a>	<a href="mailto:franz.waldner@bmlfw.gv.at">franz.waldner@bmlfw.gv.at</a>	<a href="mailto:nghansson@gmail.com">nghansson@gmail.com</a>	<a href="mailto:S.Gunput@odnkg.nl">S.Gunput@odnkg.nl</a> / <a href="mailto:stijn.snujder@odnkg.nl">stijn.snujder@odnkg.nl</a>	<a href="mailto:hamerik.vojtech@ul.cz">hamerik.vojtech@ul.cz</a>	<a href="mailto:ivan.pusic@moip.hr">ivan.pusic@moip.hr</a>	<a href="mailto:CONTACT.WASTE@MEPA.ORG.MT">CONTACT.WASTE@MEPA.ORG.MT</a>	<a href="mailto:a.poprowska@gios.gov.pl">a.poprowska@gios.gov.pl</a>	<a href="mailto:info.ira@azores.gov.pt">info.ira@azores.gov.pt</a>		<a href="mailto:maria.dieguez.gomez@xunta.gal">maria.dieguez.gomez@xunta.gal</a>

- LIST OF TOPICS**
1. WASTE ACCEPTANCE
  2. SAMPLING PLAN
  3. GROUNDWATER TRIGGER LEVELS
  4. TREATMENT OF WASTE
  5. STABLE NON REACTIVE WASTE
  6. LEACHATE MANAGEMENT
  7. REQUIREMENTS ON TOP AND BOTTOM LAYERS
  8. METEORIC AND SURFACE WATER
  9. MONITORING REPORT

**Disclaimer:**

This survey is the result of a project within the IMPEL network. The views expressed in this document are solely of the individual participating within the project at the time and it does not in any way maybe applied, used or assumed, as the views and situation of the whole Country being represented within the project. The content does not necessarily represent the view of national administrations or the European Commission.

# Participação IRA-Açores



European Union Network for  
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- Zaandam (NL) – 16-18 novembro 2016
  - Workshop/reunião final do projeto 2016
  - Inspeção/visita a aterro (Nauerna)



**AFVALZORG**

# Nauerna landfill



European Union Network for  
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# Landfill Project 2017 - Enquadramento



European Union Network for  
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**Tema:** Pré-tratamento de resíduos antes da deposição em aterro

## Diretiva Aterros:

- Artigo 2.: h) Tratamento – os processos físicos, térmicos, químicos ou biológicos, incluindo a separação, que alteram as características dos resíduos de forma a reduzir o seu volume ou perigosidade, a facilitar a sua manipulação ou a melhorar a sua valorização
- Artigo 6. da Diretiva aterros: a) Os EM devem assegurar que só sejam depositados em aterro os resíduos que tenham sido tratados



# Landfill Project 2017 - Enquadramento



European Union Network for  
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## Acórdão do Tribunal de Justiça da UE, de 15 de outubro de 2014, no caso C323/13 (Decisão de Malagrotta)

1. Todos os resíduos que possam ser submetidos a um pré-tratamento, devem ser pré-tratados antes de serem depositados em aterro
2. Deve ser utilizado o pré-tratamento mais adequado
3. O pré-tratamento deve incluir, no mínimo, uma seleção adequada dos diferentes fluxos de resíduos
4. O pré-tratamento deve incluir, no mínimo, a estabilização da fração orgânica

# Landfill Project 2017 - Objetivos



European Union Network for  
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## Inspeção

- Usar o Guia
- Usar a *checklist*
- Atualização

## Pré- tratamento

- Situação dos EM
- Como inspecionar
- Critérios

# Arranque do projeto



European Union Network for the Implementation and Enforcement of Environmental Law

## Artigo de disseminação do projeto

### IMPEL LANDFILL PROJECT ABSTRACT



European Union Network for the Implementation and Enforcement of Environmental Law

#### Reinforcement programme on inspection skills for landfill sites and pre-treatment plants



According to the waste management hierarchy, landfilling is the least preferable option and should be limited to the necessary minimum. Where waste needs to be landfilled, it must be sent to landfills which comply with the requirements of Directive 1999/31/EC on the landfill of waste.

A standard procedure for the acceptance of waste in a landfill is laid down so as to avoid any risks, including that waste must be treated before being landfilled. Requirements to pre-treat waste before landfilling is sometimes disregarded; this IMPEL project facilitates the sharing of experience and knowledge in practical landfill joint inspections and has been positively greeted by Member States.

#### Background

The Council Directive 1999/31/EC on the landfill of waste set standards for the authorization, design, operation, closure and aftercare of landfills.

The acceptance criteria and the acceptance process are further specified in Council Decision 2003/33/EC. This includes a detailed description of waste characterisation procedures, limit values for waste composition and leaching behaviour as well as acceptance procedures to be executed at each landfill site.

Member States must ensure that existing landfill sites may not continue to operate unless they comply with the provisions of the Directive and Council Decision.

Within the last years, important efforts have been taken in order to meet the established legal requirements. However, infringement cases, complaints and petitions received by the European Commission show that there are deficits in implementation.

#### TARGET GROUP

- Inspection authorities
- Permitting authorities
- Operators
- Technical support organisations

#### EU LEGISLATION

- [Industrial Emissions Directive](#)
- [EMAS](#)
- [Landfill Directive](#)
- [Waste Framework Directive](#)

#### PUBLICATION DATE

March 2017

## Questionário de Diagnóstico



European Union Network for the Implementation and Enforcement of Environmental Law

Survey to assess the implementation by EU Member States of provisions of Article 2 of Directive 1999/31/EC on the landfill of waste

1. Welcome to this questionnaire!

This survey has been developed as part of the [IMPEL Landfill Project](#). Your input and feedback is highly appreciated.

In case of questions, please contact the project manager, Mr Romano Ruggeri.  
Email: [rruggeri@arpa.sardegna.it](mailto:rruggeri@arpa.sardegna.it)

Treatment of waste before landfilling: Legislation

**Council Directive 1999/31/EC - Article 2 Definitions**

(h) "treatment" means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery;

**Article 6: Waste to be accepted in the different classes of landfill**

(a) only waste that has been subject to treatment is landfilled. This provision may not apply to inert waste for which treatment is not technically feasible, nor to any other waste for which such treatment does not contribute to the objectives of this Directive, as set out in Article 1, by reducing the quantity of the waste or the hazards to human health or the environment.

**Malagrotta judgement (European Court of Justice of 15 October 2014 in case C-323/14)**

The European Court of Justice (ECJ) has recently ruled that the Malagrotta landfill (Rome – Italy) is in violation of EU landfill and waste management legislation. In the final judgement 4 principles about treatment of waste before landfilling, are confirmed and explicated:

1) All waste is pre-treated; pursuant to Article 6(a) of the Landfill Directive, all waste capable of undergoing pre-treatment must be pre-treated before it is placed in a landfill.

2) Most appropriate pre-treatment option is applied; Member States are not free to choose any pre-treatment whatsoever, but must search and implement the most appropriate pre-treatment option in order to reduce as far as possible negative impacts on the

# Relatórios



European Union Network for the Implementation and Enforcement of Environmental Law



European Union Network for the Implementation and Enforcement of Environmental Law

## Landfill Project 2017

*Report of the meeting in RIGA (Latvia) 11th and 12th of April 2017*

*State Environmental Service*

**Riga**



European Union Network for the Implementation and Enforcement of Environmental Law

## Landfill Project 2017

*Report of the meeting in BRATISLAVA (Slovak Republic) 27th and 28th of June 2017*

*Slovak Environmental Service*

**Bratislava**

*Date of report: 16/06/2017*

*Report number: 2017/2*



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## Landfill Project 2017

*Report of the JOINT INSPECTION in RIGA (Latvia) 11th - 12th of April 2017*

*Installation: DABE Landfill*



*Date of report: 09/04/2017*



European Union Network for the Implementation and Enforcement of Environmental Law

## Landfill Project 2017

*Report of the JOINT INSPECTION in Bratislava (Slovak Republic)*

*27th and 28th of June 2017*

*Installation: GGGG*

*Date of report:*

*Report number:*

**2ª Conferência da Rede Nacional IMPEL, 13 de outubro de 2017, Amadora**

# Relatórios



European Union Network for the Implementation  
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## Landfill Project 2017

*Treatment of waste before landfilling: first analysis*

*Date of report:*

*Report number:*

- Checklist para inspetores sobre pré-tratamento de resíduos urbanos, antes da deposição em aterro
- Checklist para inspetores sobre pré-tratamento de resíduos industriais, antes da deposição em aterro
- Melhores técnicas disponíveis e procedimentos para o pré-tratamento de resíduos antes da deposição em aterro

# Participação APA



European Union Network for  
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- Riga – Letónia (11 e 12 de abril):
  - Workshop
  - Inspeção/visita a aterro – *Landfill “Daibe”*



2ª Conferência da Rede Nacional IMPEL, 13 de outubro de 2017, Amadora

# Participação APA



European Union Network for  
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## *Landfill “Daibe”*



# Participação APA



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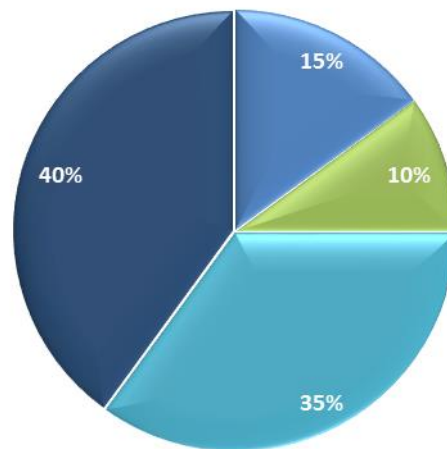




# Participação APA



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- Bio waste fraction
- Recycled raw materials (including metals)
- Useless fraction
- Material for RDF



# Landfill Project

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Obrigado pela vossa atenção!