

# WG2 and WG3 Workshop Reports

Nicosia, Cyprus  
28–29 March

2019



## LIFE-ENPE Project LIFE14 GIE/UK/000043

Action B2: Working groups to improve  
consistency and capacity

March 2019

Reports of the LIFE-ENPE Working Group 2  
(Waste Crime) and Working Group 3  
(Air Pollution) workshops, Republic of Cyprus  
Ministry of Finance, Nicosia,  
28–29 March 2019



EU FORUM OF JUDGES FOR THE ENVIRONMENT  
UE FORUM DES JUGES POUR L'ENVIRONNEMENT



With the contribution of the LIFE financial instrument of the European Community



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# Introduction

## **LIFE-ENPE Working Group 2 (Waste Crime) and Working Group 3 (Air Pollution) workshops, Republic of Cyprus Ministry of Finance, Nicosia, 28–29 March 2019**

The LIFE-ENPE project has formed four Working Groups (WGs) to build capacity and consistency in implementing EU environmental law. The working groups are facilitating meeting the LIFE-ENPE project aim: *“To improve compliance with EU environmental law by addressing uneven and incomplete implementation across Member States through improvements to the efficiency and effectiveness of prosecutors and judges in combating environmental crime”*.

The groups were established in December 2017, comprise specialist prosecutors and judges from different European countries, and are necessary to complete Action B2 of the LIFE-ENPE project.

**WG2** focuses on **waste crime** and **WG3** on **air pollution**. Together these groups organised and hosted two consecutive days of workshops to raise awareness and share best practices in the prosecution of these types of environmental crimes. The workshops were held on 28–29 March at the Ministry of Finance, Nicosia, Cyprus.



Both days were well attended with 34 attendees registered, including both delegates and speakers from 13 different European countries. The combination of WGs was very beneficial for attendance and quality, due to the audience being

broadly based and consisting of prosecutors and inspectors both from EU and European non-EU countries.

The first day of this combination of workshops was dedicated to waste, in particular to the illegal disposal, storage and treatment of wastes. The second day focused on air pollution, particularly events where air pollution is reported. They included group activities involving case studies and discussions around the correct steps to take if and when a prosecution is appropriate.

# Day 1 (WG2)

The workshop opened with an overview of the WG2 activities, outputs and plans, including the animated training video on the Waste Shipment Regulation, which was officially presented and well received. After that, the workshop saw four presentations. Two of these were by prosecutors and two by judges. The prosecutors were Mr Martijn Zwiers (Netherlands) and Ms Maria Johansson and Ms Kristina Persson (Sweden). The judges were Mr Jan Van den Berghe (Belgium) and Mr Loucas Paschalides (Cyprus).

In all four presentations, very lively descriptions were given of actual cases, while the presentation by Mr Paschalides also gave an overview of questions concerning the quality of the relevant legislation. All presentations led to animated discussions.

What the WG members and the other participants learned from this was the following:



1. The fact that these presentations from four different EU countries about illegal treatment of waste had so many similarities in their case descriptions once more confirms that the problem is by no means limited to a national scale.

2. The average criminal *modus operandi* appears to be that you accept waste, receive money to do so from the party that wants to get rid of the waste and perhaps also from government subsidies for recycling, and that in doing so, you neither bother about

permits nor about adopting a responsible method of treating the waste. You just store it, dump it or abandon it.

3. What prosecutors need to fulfil their responsibilities in this field are:

- Good quality legislation.
- Sufficient resources and quality of investigation, prosecution and adjudication.
- Active enforcement on the part of the administrative authorities.
- Coordination between authorities.

- Covert investigative methods.
- Financial investigations and asset confiscation since the *modus operandi* shows that this illegal system implies money streams.
- Training of the whole enforcement chain, a point particularly stressed by both judges.

The meeting inspired the WG to continue its activities. One of these will be to add a new, separate field in the case law database so that these types of cases can be included in it.

## Day 2 (WG3)



The second workshop on 29 March 2019 commenced with a thorough and comprehensive presentation of the relevant EU directives that address the control of emissions to air. In particular, the Industrial Emissions Directive (IED) was the focus of the presentation since it covers many of the potentially harmful activities that can lead to the pollution of air.

The second presentation was provided by Dr Jorgos Sbokos, a barrister and lecturer from Crete who discussed an interesting case study involving the reporting of industrial emissions from a plant in Heraklion, Crete, and how the Greek government has been conducting monitoring based on their interpretation of EU directives. This fascinating presentation highlighted the difficulties experienced by governments in the interpretation of directives, particularly in the demonstration of Best Available Technology. Dr Sbokos continued to describe how the effects of air pollutants on archaeological sites were being monitored and tackled by the LIFE-NATURA THEMIS project.

We were very grateful also for a presentation provided separately by Mrs Aisling Kelly, a barrister and senior prosecutor from Ireland who works for the Irish Office for the Director of Public Prosecutions and who was unable to make it in person. Aisling's presentation focused on what a "regular" criminal prosecutor needs to know about the IED before contemplating a prosecution, including some of the key scientific terms arising that would be good to know and concluding with examples of scientific evidence that is used in air pollution prosecutions. The presentation is included in the appendices to this report.

Dr Horst Büther from IMPEL continued with a presentation that detailed the impact of breaches of the IED on air quality with some very good examples, including emissions from an incident at a waste incinerator and underground leakage at an oil refinery.

We were then treated to another case study from one of the WG3 members, Mr Teodor Nita, a specialist environmental prosecutor from Constantza in Romania, who presented a case study where air pollution had resulted from an explosion at an oil refinery in Romania.

There then followed a useful group exercise whereby the delegates were split into three groups, and each given a case study to consider using a set of familiar questions to be used in the prosecution.



The delegates, speakers and the WGs themselves considered the workshops a genuine success.

We are indebted to the Ministry of Finance for allowing us the use of their splendid conference facilities, and to the Attorney General of Cyprus for his opening of the events, and to his staff for their organisation of the practicalities and operations. We

are also grateful to the EU LIFE Programme for financial assistance to the organisation and hosting of the workshops, via the LIFE-ENPE project.

All presentations that are available for sharing can be found on the ENPE website:

<https://environmentalprosecutors.eu/node/297>

These presentations are also available in the annexes to this report.

# Programme

## Day 1 agenda

|                              |                                                                                                                                      |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 09.15 hrs – 09.20 hrs        | Welcome and opening of the Workshops – Attorney General of Cyprus (Mr Costas G Clerides)                                             |
| 09.20 hrs – 09.45 hrs        | Introduction including LIFE-ENPE WG2 and outputs (Mr Rob de Rijck)                                                                   |
| 09.45 hrs – 10.45 hrs        | A criminal case from the Netherlands (Mr Martijn Zwiers)                                                                             |
| <b>10.45 hrs – 11.15 hrs</b> | <b>Tea and coffee break/networking</b>                                                                                               |
| 11.15 hrs – 12.15 hrs        | A criminal case from Sweden (Mrs Maria Johansson)                                                                                    |
| 12.15 hrs – 13.15 hrs        | A criminal case from Belgium (Judge Mr Jan Van den Berghe)                                                                           |
| <b>13.15 hrs – 14.00 hrs</b> | <b>Light lunch and networking</b>                                                                                                    |
| 14.00 hrs – 15.15 hrs        | What are the relevant factors to assess a criminal penalty in the context of Environmental Crimes? – a judge's view (Mr Paschalides) |
| <b>15.15 hrs – 15.45 hrs</b> | <b>Tea and coffee break/networking</b>                                                                                               |
| 15.45 hrs – 16.15 hrs        | Opportunity for questions/discussion (all delegates)                                                                                 |
| 16.15 hrs – 16.30 hrs        | Concluding remarks and summary (Mr Rob de Rijck)                                                                                     |
| 16.30 hrs                    | Delegates disperse                                                                                                                   |
| <b>19.30 hrs (approx.)</b>   | <b>Dinner Restaurant: “Polychoros 77”</b>                                                                                            |

## Day 2 agenda

|                              |                                                                                                                                                                                                                                               |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09.00 hrs – 09.15 hrs        | Introduction including LIFE-ENPE WG3, brief overview of the day (Mrs Lina Chatziathanasiou)                                                                                                                                                   |
| 09.15 hrs – 10.00 hrs        | Relevant EU directives (Dr Horst Büther) <ul style="list-style-type: none"> <li>• Air Quality Directive (10 minutes)</li> <li>• Eco Crime Directive (10 minutes)</li> <li>• Industrial Emissions Directive (25 Minutes)</li> </ul>            |
| 10.00 hrs – 10.30 hrs        | Example case study from Crete – Dr Jorgos Sbokos<br><br>[Scientific evidence used in prosecutions under legislation transposing the IED (Aisling Kelly /recorded) was not presented but is included in the appendices to this summary report] |
| <b>10.30 hrs – 11.00 hrs</b> | <b>Tea and coffee break/networking</b>                                                                                                                                                                                                        |
| 11.00 hrs – 11.30 hrs        | Impact of breaches of the IED on air quality (Dr Horst Büther)                                                                                                                                                                                |
| 11.30hrs – 12.30 hrs         | Example case study from WG3 Members:<br>– <i>Romanian case study (Mr Teodor Nita)</i>                                                                                                                                                         |
| <b>12.30 hrs – 13.30 hrs</b> | <b>Light lunch and networking (finger buffet)</b>                                                                                                                                                                                             |
| 13.30 hrs – 14.00 hrs        | Prosecution cases – group work (1)                                                                                                                                                                                                            |
| 14.00 hrs – 14.30 hrs        | Group feedback                                                                                                                                                                                                                                |
| 14.30 hrs – 15.15 hrs        | Prosecution cases – group work (2)                                                                                                                                                                                                            |
| 15.15 hrs – 15.45 hrs        | <b>Tea and coffee/networking</b>                                                                                                                                                                                                              |
| 15.45 hrs – 16.15 hrs        | Group feedback followed by closure of workshop (Dr Horst Büther/Mr Christos Naintos)                                                                                                                                                          |
| 16.15 hrs                    | Delegates disperse                                                                                                                                                                                                                            |

# Speaker biographies



**Rob de Rijck**, born 1958, has been a public prosecutor since 1992. He has specialised in environmental criminal law since 2002. In this field, his special interests are in two subject areas: international waste transport and the role of criminal law in the field of the environment.

Presently, he is the national coordinating prosecutor in the Netherlands for environmental criminal law enforcement. He is one of the Vice-Presidents of the European Network of Prosecutors for the Environment (ENPE) and chairs the ENPE Working Group on Waste.

He has published a number of articles, and, although only occasionally, still appears in court.

**Martijn Zwiers** is a prosecutor at the National Office for Serious Fraud, Environmental Crime and Asset Confiscation, and handles fraud and environmental crime cases and related confiscation procedures. He currently focuses primarily on cases involving animal manure and cases that necessitate cooperation with administrative authorities. Before becoming a prosecutor, he wrote a thesis on the European Public Prosecutor's Office at Maastricht University.

**Maria Johansson** has been working as prosecutor at the Swedish Prosecution Authority since 1993. In 2008 Maria started working on environment cases and is one of 22 Senior Prosecutors at the National Unit for Environmental and Working Environmental Cases. She serves their unit in Gothenburg. Maria Johansson is, together with her colleague Kristina Persson, also a part of the Swedish Central National Cooperation Group for cross-border waste crime and a part of their regional cooperation group for cross-border waste crime.

**Mr Jan Van den Berghe** was a lawyer from 1985 to 1991 and specialised in environmental cases. In 1991 he was nominated as a judge in the Court of First Instance in Ghent. He deals

mainly with criminal environmental cases and since 2002 he has been vice president of what is now the Court of First Instance East Flanders. From 2008 to 2016 he was a member of the Belgian High Council of Justice. He is a founding member of TMR, the Flemish Environmental Law Review, and has published on environmental law. He is also a member of the European Forum of Judges for the Environment (EUFJE) and since 1995, has organised environmental law training for the Belgian Judicial Training Institute (open to judges, prosecutors, inspectors and police).

**Mr Loucas Paschalides** was born in Nicosia, Cyprus. After graduating from lyceum in 2001, and having completed the two-year mandatory military service in the National Guard, he studied law at the University of Bristol in the UK where he graduated in 2006. He then enrolled on the Bar Professional Training Course (BPTC) of England and Wales where he studied at BPP College in London and was called to the Bar of England Wales (Middle Temple Inn) in 2007. Following that, he undertook vocational training in Cyprus at the office of the Attorney General of the Republic where he was actively involved in a variety of domestic and international criminal and human rights law cases. In 2008 he was admitted to the Cyprus Bar.

During his vocational training he was an elected member of the Executive Committee of the Young Lawyers and Trainees' Association of Cyprus. Shortly after admission to the Cyprus Bar in August 2008, he joined the litigation department of Antis Triantafyllides & Sons LLC law firm where he was an active litigation lawyer until September 2015. During his practice as a lawyer, Loucas handled several cases before the District and Supreme Court of Cyprus as well as before the Court of the European Union. In September 2015 he was appointed as a District Court Judge at the District Court of Limassol where he has been presiding over criminal and civil law cases ever since. He has been an elected member of the Executive Committee of the Cyprus Association of Judges Union since 2016 and represents the Cyprus Judiciary at International and European Conferences.

**Dr Horst Büther** is a chemist. Since 1989 he has worked in the environmental administration of North-Rhine Westphalia (NRW), Germany. After different tasks in the areas of environmental analysis, water and waste management, and pollution control, since 2007 he has been head of the unit for permitting and inspection of industrial installations, air quality planning, and inspection of genetic engineering facilities at the NRW Regional Government Cologne. For the last few years he has been manager of international projects dealing with European environmental inspection duties under the umbrella of the IMPEL network. In the 'easyTools' project an integrated risk assessment method (IRAM) for inspection planning was developed, including an internet application. Within IMPEL Horst is a Board member and was head of the Cluster "Improving Implementation of European Environmental Law" from 2010 until 2014. Now he is head of the IMPEL Expert Team "Industry and Air" and within this team he is managing the Project "IED Implementation".

**Teodor Nita** was born in Romania, Constantza county. After graduating from Military High School and the Technical Radiolocation Military Faculty he studied law at the University of Bucharest in Romania where he graduated in 1991. Between 1991 and 1997 he was a judge

at the First Instance Court in Constantza and also he graduated from the National Magistrate's Institute, and at the same time he became Master of criminal law. From 1995 to 2006 he practised at Constantza's Bar as a law attorney, specialising in criminal law. From 2006 to the present he has been a prosecutor in the General Prosecutor's Office attached to the Court of Appeal Constantza. At the same time, he is a designated expert for the European Council regarding environmental matters, has participated in the 8 Mutual Evaluation Rounds regarding several European countries, and is a supporting member of ENPE. In the last ten years he has been involved in investigations of environmental crimes all around Romania's territory and has experience in the field of combating economic crimes.

**Aisling Kelly** is a barrister. She is currently a Senior Prosecutor in the Office of the Director of Public Prosecution (DPP), Dublin, Ireland. She has an LLB and MA from Trinity College Dublin and qualified as a solicitor in the Law Society of Ireland in 2002. She went on to prosecute in the UN International Criminal Tribunal for Rwanda from 2003 to 2005 in Arusha, Tanzania. She returned to Ireland to take up a role as a Prosecutor in the DPP in Dublin from 2005 to 2015. She qualified as a Barrister-at-Law from the Honourable Society of Kings Inns in 2015 and practised at the Bar of Ireland from 2015 to 2019. She was appointed as the Environmental Protection Agency/Bar of Ireland Fellow in Environmental Criminal Law in 2017, where she was involved in ENPE and the Working Group on Air Pollution prosecutions. She recently rejoined the DPP in Dublin and currently specialises in prosecuting serious financial crime. She has two young children and likes penguins.

# Speakers and delegates

| Position, organisation and country                                                                                                                | Name                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Public prosecutor, Function Parkeet, Netherlands                                                                                                  | Rob de Rijck (Chair)    |
| Attorney General Law Office of the Republic of Cyprus                                                                                             | Mr Costas G Clerides    |
| Scottish Environmental Protection Agency, Scotland (UK)                                                                                           | Iain Brockie            |
| Deputy Prosecutor, Ministry of Justice, Greece                                                                                                    | Christos D. Naintos     |
| Chair, IMPEL, Greece                                                                                                                              | Prof Dimitris Dematras  |
| Attorney at Law and Lecturer, Crete, Greece                                                                                                       | Dr Georgios Smpokos     |
| Prosecutor, Romania                                                                                                                               | Teodor Nita             |
| Prosecutor, Romania                                                                                                                               | Jurj Remus              |
| Barrister, Ireland                                                                                                                                | Aisling Kelly           |
| Prosecutor, Belgium                                                                                                                               | Marc Van Cauteren       |
| Judge, Court of First Instance, East Flanders, Belgium                                                                                            | Jan Van den Berghe      |
| Senior Inspector, Croatia                                                                                                                         | Nina Jandric            |
| Senior Inspector, Croatia                                                                                                                         | Robert Rocek            |
| Prosecutor, Bosnia Herzegovina                                                                                                                    | Dalibor Vreco           |
| Prosecutor, Bosnia Herzegovina                                                                                                                    | Dragana Lipovic         |
| Specialist, IMPEL, Germany                                                                                                                        | Horst Büther            |
| Prosecutor, Albania                                                                                                                               | Anila Leka              |
| Prosecutor, Albania                                                                                                                               | Fatjona Memcaj          |
| Camerman, Netherlands                                                                                                                             | Jan Stap                |
| District Court Judge                                                                                                                              | Mr Loucas Paschalides   |
| Counsel of the Republic/ prosecutor – European Law Section at Attorney General's Office                                                           | Lina Chatziathanasiou   |
| Public Prosecutor                                                                                                                                 | Dafni Napoleontos       |
| Public Prosecutor                                                                                                                                 | Yiannos Argyrou         |
| Public Prosecutor                                                                                                                                 | Veni Daniilidou         |
| Police                                                                                                                                            | Charalampos Aristodimou |
| Police                                                                                                                                            | Argyris Petrakos        |
| Police                                                                                                                                            | Andreas Andreou         |
| Senior Environment Officer – Head of The Pollution Control and Waste Management Sector (Cyprus)                                                   | Dr Chrystalla Stylianou |
| Environment Officer – Limassol District Inspections Coordinator, Cyprus Focal Point for Basel Convention and Waste Shipments Regulations (Cyprus) | Demetris Demetriou      |
| Environment Officer – Nicosia District Inspections Coordinator (Cyprus)                                                                           | Andreas Athanasiades    |
| Prosecutor, REMA, Sweden                                                                                                                          | Maria Johanssen         |
| Prosecutor, REMA, Sweden                                                                                                                          | Kristina Persson        |
| Project Manager, Environment Agency, England (UK)                                                                                                 | Shaun Robinson          |
| Environment Officer, Cyprus                                                                                                                       | Antonia Achilleos       |
| Inspector, Department of Labour Inspection, Cyprus                                                                                                | Michalis Hadjipetrou    |

# Annex 1.0: Day 1 presentations (WG2)

# LIFE-ENPE workshops

## 28-29 March 2019

### Nicosia, Cyprus



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# ENPE and the LIFE-ENPE Project welcomes you to the waste crimes and air pollution Working Group workshops at the Cyprus Ministry of Finance, Nicosia



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# ENPE & the LIFE-ENPE project

MR Rob de Rijck

ENPE Vice President

LIFE-ENPE Waste crimes Working Group Chair



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# ENPE - The European Network of Prosecutors for the Environment



***“Promote the enforcement of environmental criminal law by supporting the operational work of environmental prosecutors.”***

## Board:

- President: Anne Brosnan (England, UK);
- Jean-Philippe Rivaud (France), Vice President;
- Rob de Rijck (Netherlands), Vice President
- Lars Magnusson (Sweden), Director
- David Smith (Ireland), Director
- Antonio Vercher Noguera (Spain), Director

# ENPE - The European Network of Prosecutors for the Environment



Formal association in Brussels by Belgian Royal Decree



Open to organisations involved in the prosecution of environmental crime as Full Members, Observers & Supporting Members

29 Members, 18 EU Member States represented

# Support to realise our Mission: the LIFE-ENPE project



Funding has been provided through the European Union LIFE programme LIFE14 GIE/UK/000043

€1,072,400 provided through the European Union LIFE programme LIFE14 GIE/UK/000043 from 2015-20

A partnership between the Environment Agency (England, UK) Environmental Protection Agency (Ireland), Åklagarmyndigheten (Sweden), Openbaar Ministerie (Netherlands) and the European Union Forum of Judges for the Environment (EUFJE)



# LIFE-ENPE project outputs general, 1

Baseline Capitalisation & Gap-filling Report  
published and shared with 39 countries

4 Working Groups convened:

- Wildlife
- Waste
- Air pollution
- Judicial process and sanctioning

# LIFE-ENPE project outputs general, 2

Crimes Database activated, used and updated

The screenshot shows a web browser window with the URL [www.environmentalprosecutors.eu/crimes](http://www.environmentalprosecutors.eu/crimes). The page is titled "Search Crimes" and features a navigation bar with "Home", "Current Activities", "Crimes", and "Useful Tools". A search bar and links for "My account" and "Log out" are also present.

The main content area includes a "New Cases" button and several filter sections:

- Status:** A dropdown menu currently set to "Any".
- Domestic Reference Number:** A text input field with a "Is equal to:" label.
- Type of Crime:** A dropdown menu with options: "Waste Crime", "Wildlife Crime", and "Chemical Pollution".
- Title:** A text input field with a "Is equal to:" label.
- Judgement:** A dropdown menu currently set to "Confirms".
- Type of Waste:** A list of checkboxes including: "Waste", "Hazardous waste", "Household waste", "Nuclear", "Plastic/paper/glass/metal waste", "Poison", "Radioactive", "Toxic", and "Other".
- Way of Transport:** A list of checkboxes including: "Air", "Container", "Inland shipping", "Road", "Sea vessel", and "Train".
- Verdict:** A list of checkboxes including: "Fine", "Imprisonment", "Working penalty", "Acquittal", and "Other verdict".
- Direction of Transportation:** A list of checkboxes including: "Into EU", "From EU", "Within EU", "Transit through EU", "Out of EU to non OECD country", and "Out of EU to OECD country".
- Legal Entity:** A list of checkboxes including: "Legal Person", "Natural person", and "First offender".

Below the filters is a table with the following columns: Title, Attachments, Author, Judgement, Direction of Transportation, Domestic Reference Number, Legal Regime, and Status. The table contains one row of data:

| Title                                                    | Attachments                                                                                                                              | Author | Judgement | Direction of Transportation                                                                                                                                                            | Domestic Reference Number | Legal Regime | Status      |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------|-------------|
| Used goods in dangerous waste? Prosecution for recovery? | <a href="#">Attachment</a><br><a href="#">Decision of the Appellate Court of Southern Sweden appealed to the Supreme Court of Sweden</a> | Sten   | 19        | What is waste, and what is, used goods? Compensation Guidelines for it can be a tool for the court to its decision, whether the item can be defined as waste or used goods. In this... | From EU                   | B 1954:12    | In Progress |

# ENPE annual conference: Heraklion, Crete 2018



: <http://environmentalprosecutors.eu/conference2018>



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# Working Group 1      Wildlife



Working Group 1 – Wildlife Crimes Segovia workshop  
Illegal taking and killing of migratory birds



37 Delegates from 15 countries including Algeria, Tunisia, Egypt, Israel and Cyprus



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# Working Group 2      Waste



Under construction : Collection of classical training materials

Under construction : webinar

EC Waste Shipment Regulations consultation



Animated introduction :

<https://design102.wistia.com/medias/d0c35f0kq3>



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# Working Group 2      Waste



Originally focussed on Transnational Waste Movement

Now to be expanded to include illegal waste storage,  
treatment and disposal : today's workshop

Please join us and invite others !



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# Working Group 3 – Air pollution



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# Working Group 4

## Sanctioning, Prosecution & Judicial Practices

Interim report 'Gravity Factors' 2018



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# The near future



## EC Environmental Compliance Assurance (ECA) program

Collaborative working on other LIFE and non-LIFE projects e.g.  
Reason for Hope II, UN WASTEforce project

Europol Operational Action Plans (OAPs) 2019 – 2020 e.g. pesticides

Is Brexit really happening today ?



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# Thank you.



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# Cashing & Stashing

Free riding through “recycling” facilities

Martijn Zwiers

Netherlands



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# Introduction; several cases

- ARCHIMEDES
- KWARTS
- STEKELHAANTJE
- John Peeters
- GANDALF

# ARCHIMEDES - Edelchemie



- Non-licensed chemical waste stockpiling

# KWARTS - Milieuservice Zuid

## Tien miljoen kilo afval weg bij MSZ



Het terrein van Milieu Service Zuid begin augustus, voorafgaand aan de opruimactie. foto Gemeente Maasgouw

- 10.000 tons of household waste, plastics, residual/contaminated sand



Het terrein na het weghalen van bijna tien miljoen kilo afval. foto Gemeente Maasgouw

# KWARTS – Some comments

- Coordinated criminal and administrative enforcement
- Attempt to involve the bank
- Financial investigation
- Complications due to use of different legal persons and related legal issues in asset confiscation laws

# Jansen Recycling BV - Stekelhaantje

- 600.000 tons of asphalt granulate
- Negative value: 12 million euros



# John Peeters Recycling

- Demolition waste, scrap metals, wood waste



# Bruekers Recycling - Gandalf



- Dangerous chemical waste i.a. from photography stores



# Gandalf

## Complications:

- Several locations
- Empty bank accounts
- MLA required:

## Chances:

- cooperation
- Indictment straightforward
- Processing of excess waste yields its own proof

# Topics these cases raise

- Cashing & stashing as a business model
- Complicated legal structures
- Weak administrative enforcement
- Negative spiral: too expensive to fail
- How we investigate these cases / strategy

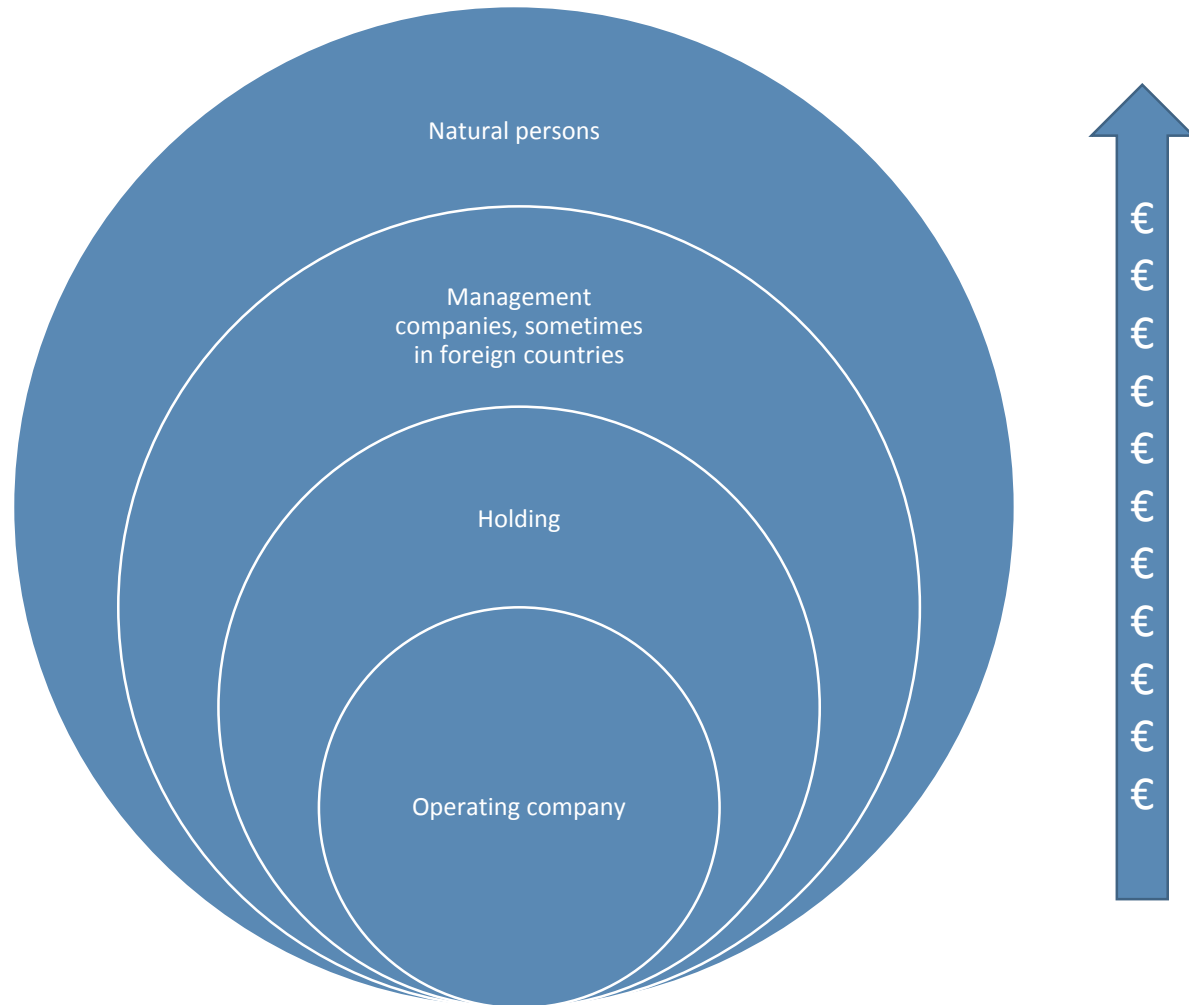
# Cashing & stashing as a business model

- Low starting costs
- Subsidies
- Negative value
- No financial deterrents

# Complicated legal structures

- Holding structures
- Funneling money away from operating company
- Inter-company leasing
- Securities
- International structures

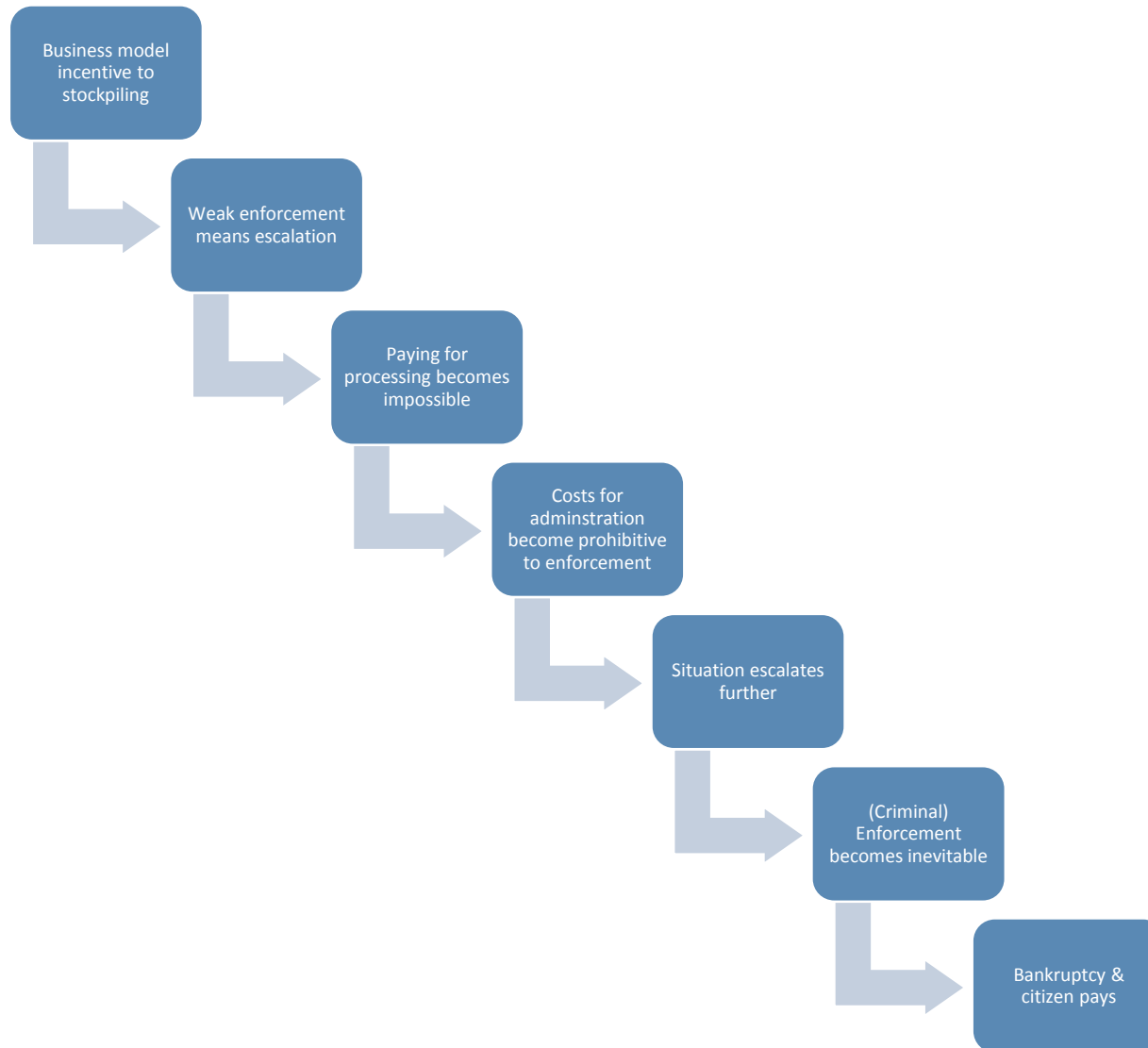
# Corporate veils



# Weak administrative enforcement

- Weak licensing
- Half-hearted administrative enforcement
- Fragmented administrative enforcement

# Negative spiral: too expensive to fail



# Investigating these cases

- My goals:
  - Finding what money there is left
  - Ending the negative spiral
  - Holding management to account

# Financial investigation

- Goal: finding what money there is left
- Method: *Strafrechtelijk financieel onderzoek*

# Ending negative spiral

- Search & seizure
- Sometimes: *voorlopige maatregel*
- cooperation with administration

# Holding management to account

- Aim: making sure the natural persons are held to account
- Method: proving at least “passive” involvement
- Requires:
  - Piercing the corporate veil (holding structures)
  - Financial view (who profits)
  - Proving the management was or should be aware of the offences
  - Effective & dissuasive penalties

# Prevention

- Reintroduction of the Regulation on providing financial security

# LIFE-ENPE waste & air pollution Working Group workshops

## A swedish case

Senior prosecutor Maria Johansson  
Senior prosecutor Kristina Persson



ÅKLAGARMYNDIGHETEN

# ENVIRONMENTAL ENFORCEMENT

Environmental Law  
**Supervisory Enforcement**

The Administrative  
Authorities

- Local
- Regional
- Central

The Court - Special Courts

- Land and Environmental Courts

- Land and Environment Court of Appeal

Environmental **Crimes** Law –  
**Criminal Enforcement**

The Police  
Conducting the  
Criminal Investigation  
(under supervision of  
a prosecutor)



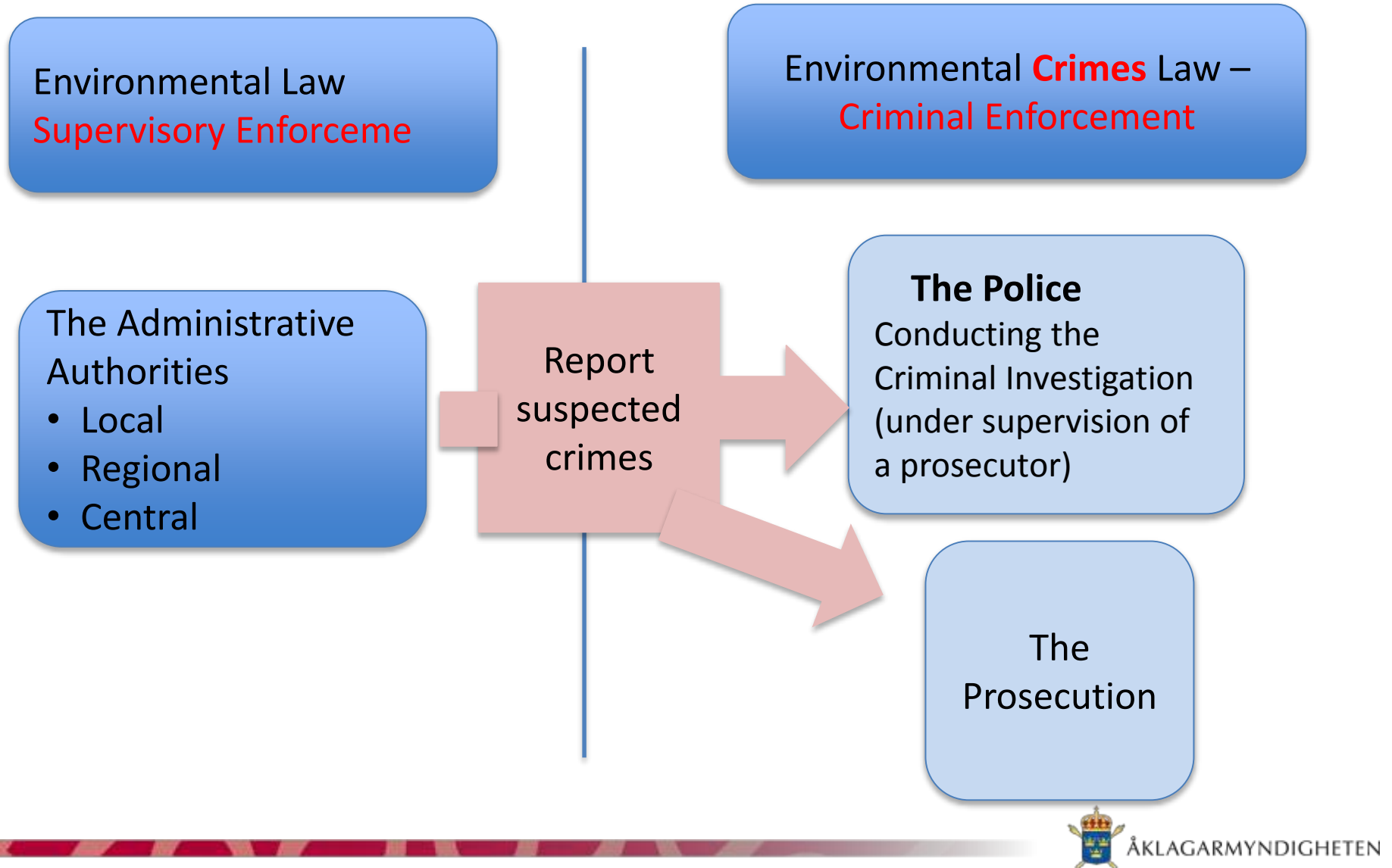
The  
Prosecution



The Court - General Courts

- District Courts
- Courts of Appeal
- Suprem Court

# How crimes are detected



# How crimes could be detected

## Police intelligence and surveillance work



# Environmental Crimes

## The environmental offence p. 1

Any person who **emit** to land, water or air a **substance** that causes or may cause a pollution that is considerable harmful to human health, animals or plants or other significant detriment to the environmental shall be liable to a fine or a term of imprisonment not exceeding two years.



# Environmental crimes

## The Environmental Offence p. 2

Any person who **stores a subject or handle waste** in a way that may cause a pollution that is considerable harmful to human health, animals or plants or other significant detriment to the environmental shall be liable for a fine or a term of imprisonment not exceeding two years.



# Environmental crimes

## **Serious environmental offence**

Particular consideration must be given to

- whether it has caused or has been able to cause lasting damage of a large scale,
- if the act has otherwise been of a particularly dangerous nature or
- has included a conscious risk-taking of a serious nature or
- if the offender, when special attention or skill was required , has been guilty of a serious blow.

The penalty shall be a term of imprisonment of not less than six months no more than six years.



# Environmental crimes

## **Unauthorized environmental activities**

Any person who starts or pursues an activity or takes some other measure without obtaining a decision concerning permissibility or a permit, approval or consent or without submitting a notification required by this Code or by rules issued in pursuance thereof shall be liable to a fine or a term of imprisonment not exceeding two years.



# Penalties

Low penalty value for environmental crimes

Serious environmental crimes – verdicts with only 6 months imprisonment

Even if the act is considered to be of particularly dangerous nature



# GENVAL EVALUTATION - *Obstacles in the preliminary investigation*

- Secret investigation technics
- The use of all expert units in the police
  - Intelligence unit
  - Surveillance unit
  - Cyber unit
  - Forensic unit
  - Financial unit
  - Investigations

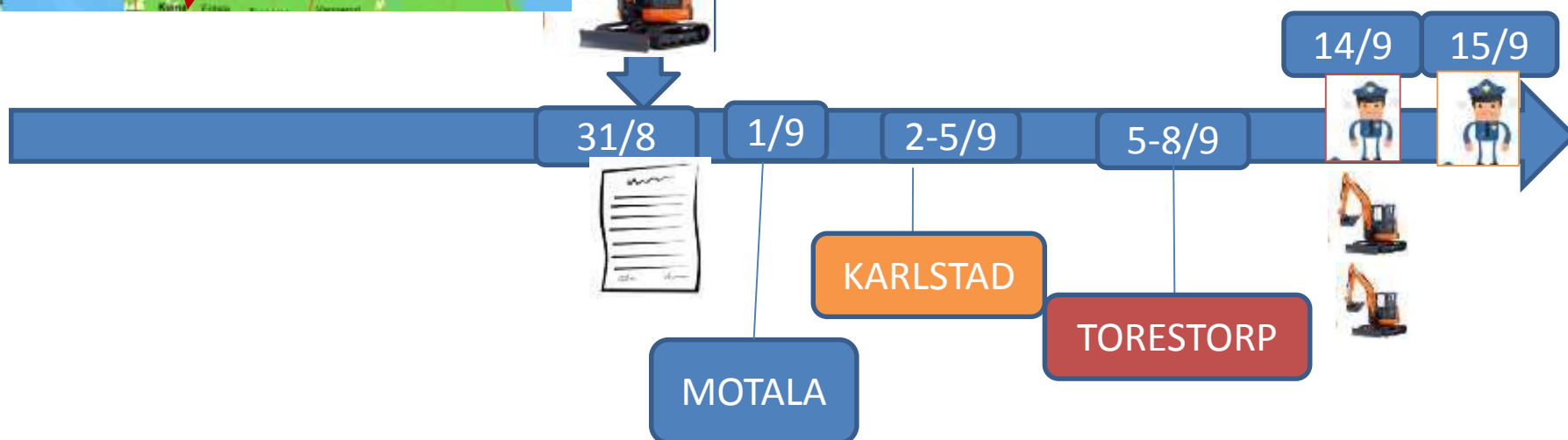
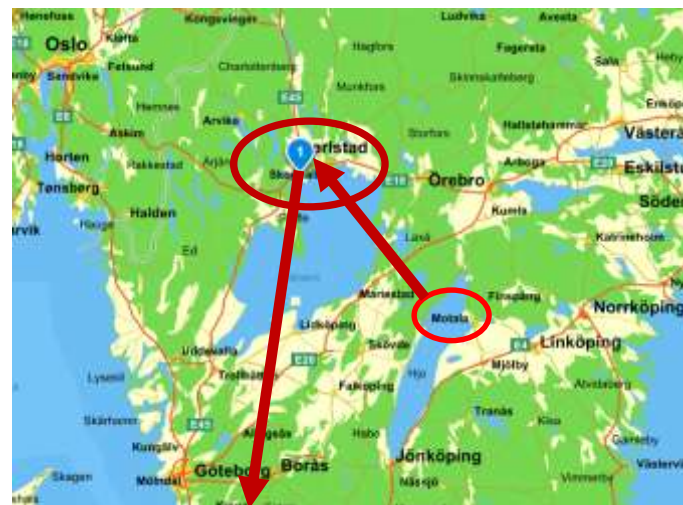


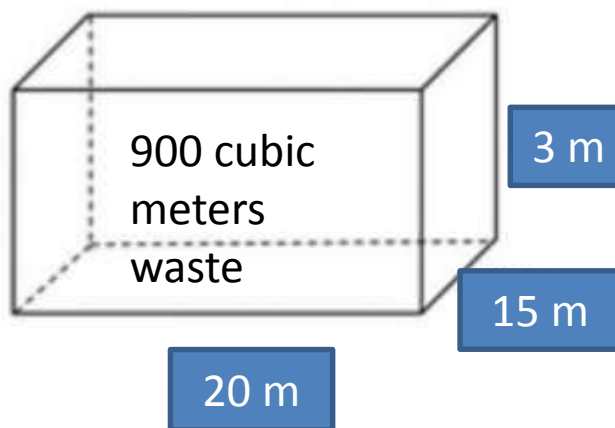
# Secret investigations technics

- Secret wiretapping and camera surveillance
  - Minimum 2 years imprisonment
  - If the penal value for the crime exceeds imprisonment for two years
- Secret room interception
  - Minimum 4 years imprisonment
- Secret tele-surveillance
  - Minimum 6 month imprisonment









Fotografi(er) Polispatrullens bilder, 2016-09-20 10:59 diariennr: 5000-K1145242-16

Polispatrullens bilder 2016-09-16, Stora Abborrtan 104, Segerstad, Karlstad, K 1145242-16

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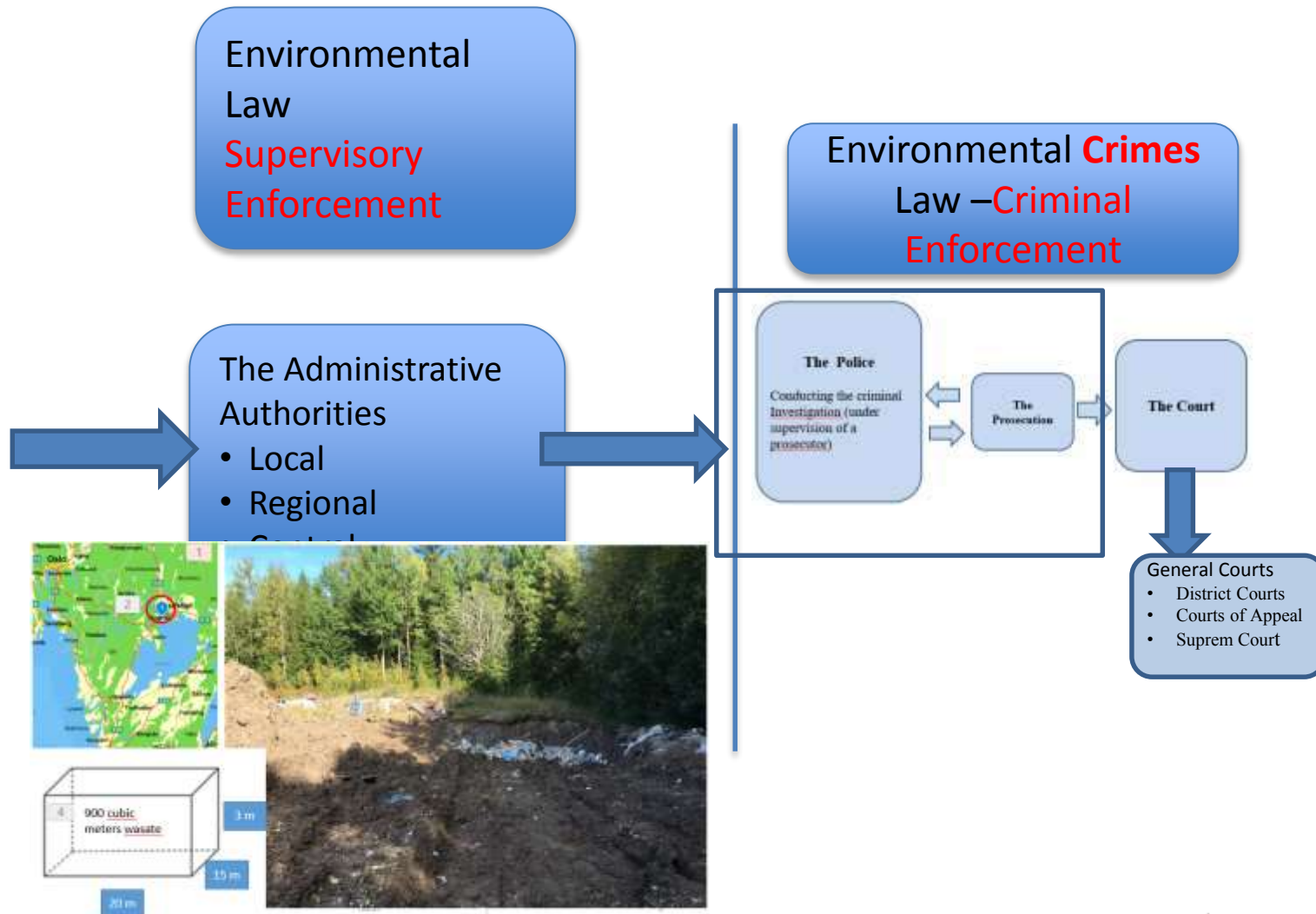
ÅKLAGARMYNDIGHETEN







# ENVIRONMENTAL ENFORCEMENT







Avfall som transporterats i container från Stora Abbortan 401 till Stena Recycling.











*Figur 1. Översigtsbild över Stora Abbortan 401, Segerstad. På figuren markeras de platser där respektive spår säkrats. Foto: Polisens helikopterflyg, 2017-02-07.*



*Figur 7. Södra högen märkt 11. Plats för säkrade spår S013-S021.*

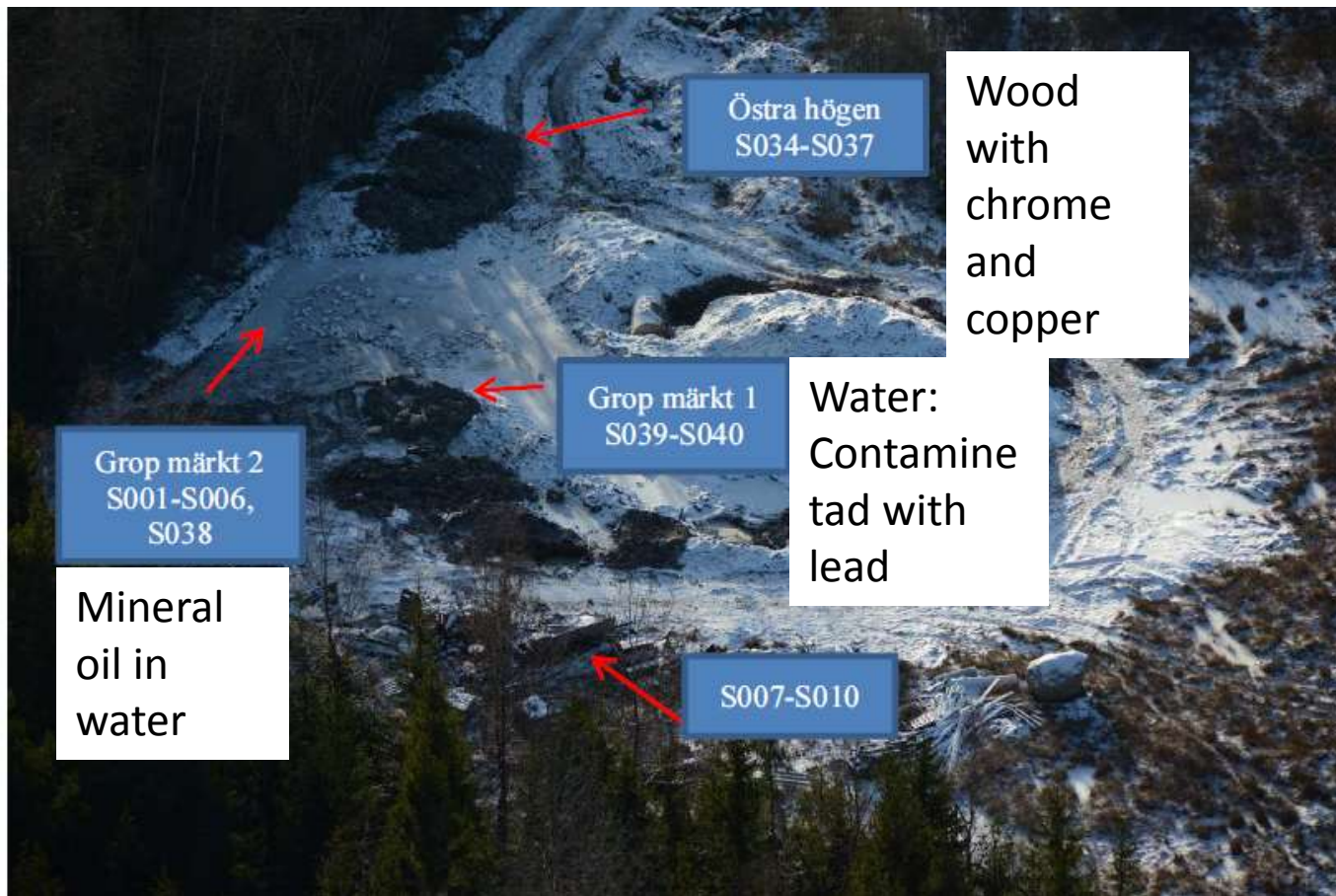


- Asbesto
- Part of a drain pip 1,52 kg lead
- Water contaminated with lead and dioxins.





*Figur 1. Översiktsbild över Stora Abbortan 401, Segerstad. På figuren markeras de platser där respektive spår säkrats. Foto: Polisens helikopterflyg, 2017-02-07.*



## Environmental crimes

### Serious environmental offence

Particular consideration must be given to

- whether it has caused or has been able to cause lasting damage of a large scale,
- if the act has otherwise been of a particularly dangerous nature or
- has included a conscious risk-taking of a serious nature or
- if the offender, when special attention or skill was required , has been guilty of a serious blow.

The penalty shall be a term of imprisonment of not less than six months no more than six years.

Foto nr 20. I innerävt i östra högen



# Problems

- The first illegal waste disposal with connections to organised crimes and we were not prepared to handle it
- The need of intelligence and surveillance (secret investigation tools/penal value)
- The need of cooperation with special units such as the cyper units for analyses of mobile phones/computers and finance investigators to follow the money in timely matter
- Penal law – is it a serious crime?
- Cooperation with the supervisory authority - a big problem



*Thank you for your  
attention*

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Senior Prosecutor Kristina Persson ([kristina.persson@aklagare.se](mailto:kristina.persson@aklagare.se))



# Issues to discuss

- What is the sanction value for waste dumping in other member states? (for the organisers, the receivers)
- Can secrete investigation tools be used?
- Are cyber- financial units used?
- Other important units and expertise?
- Tools to se burried waste?
- How do we cooperate with the supervisory authority to prevent that they go and talk to the criminals and distroy the investigation.



## **What are the relevant factors to assess a criminal penalty in the context of Environmental Crimes? – a Judge's view**

This presentation aims to provide a brief outline of how judges in Cyprus approach the delicate matter of sentencing offenders for environmental crimes and in particular crimes relating to waste management. I do state from the outset that as the difficult task of sentencing an offender is a matter of discretion for each judge, judicial approach may and most probably does differ from case to case. There are however some generally accepted and recognised guidelines in regards to sentencing offenders which are also followed in respect of environmental crimes and which I shall proceed to explain.

The first point for consideration is the legal framework within which waste management offenders are prosecuted in Cyprus.

### **LEGAL FRAMEWORK**

As stated in the official webpage of the Department of Environment:

*“The Cypriot policy on waste management is based mainly on waste hierarchy (prevention, reuse, recycling, recovery, disposal) and the correct environmental handling. The ultimate aim is to protect the environment and human health. This is achieved through the reduction/elimination of the negative effects of the generation and management of waste, the promotion of reuse, recycling and recovery and generally the environmentally sound management in order to reduce the disposal in landfills and to reduce the overall impact of the use of resources by improving the efficiency and effectiveness of their use.*

*The application of environmentally rational management of waste generated in Cyprus is achieved through the implementation of the Waste Law of 2011 (L.185(I)/2011) and the Packaging and Packaging Waste Law of 2002 (L.32(I)/2002) and their amendments, as well as the Regulations and Decrees issued in accordance thereof. The above legislation is the result of European policy and legislation harmonized and adapted to national law.”*

## **Waste Law of 2011 (L.185(I)/2011)**

Indeed, L.185(I)/2011 as amended in 2011 and updated until 2016, clearly states in its opening articles that its purpose is to implement EU Directives 2008/98, 96/59, 99/31, 2012/19, 2002/96, 2006/66, 2011/65, 2012/19, 2015/1127 and Regs. 1013/2006 and 1357/2014 and that it aims to enact measures to protect the environment and human health by reducing or eliminating the negative effects of the generation and management of waste, and reducing the overall impact of the use of resources by improving the efficiency and effectiveness of their use.

Although “Waste”, is given a wide definition in the Law, the particular statute is specifically stated not to apply to gaseous emissions emitted into the atmosphere, soil that is actually or potentially polluted, radioactive waste, declassified explosives, excreta, incineration of human bodies, some forms of liquid waste, animal by-products, animal corpses and mining waste. The statute however does apply to a long list of “waste” and waste management activities, said list being updated and published from time to time by The Ministry of Agriculture, Natural Resources and Environment.

Waste management is described in the Law to mean: “... *the collection, transport, recovery and disposal of waste, including the oversight of such works, and the oversight of disposal sites and operations carried out by traders or brokers...*”

### **Offences under the Law**

The Law creates two basic categories of offences:

#### **Category 1 – Offences that arise from the manner in which waste is managed**

Offences under this category relate to acts or omissions in the course of waste management activities, whether such acts and omissions derive from carrying out the management without the required license to do so or in a manner which doesn't comply with the terms of the said license. Breaches of environmental protection obligations imposed directly by the Law are also classified as **Category 1** offences. **All the offences in this category are treated equally serious under the Law and are punishable by imprisonment not exceeding three years or a fine not exceeding EUR 500,000 or both penalties.**

## **Category 2 – Offences that arise in the course of the investigation into how waste is managed**

Offences under this category arise from the refusal or failure to comply with the notices and orders issued by inspectors who are empowered to investigate persons or facilities who manage waste as well from acts or omissions that aim to prevent or obstruct inspectors during their investigation.

**The more serious offences of this category, i.e. refusal and/or failure to comply with the inspector's warnings and orders are considered as serious as Category 1 offences and are therefore punished in the same way - imprisonment not exceeding three years or a fine not exceeding EUR 500,000 or both penalties. The lesser offences of the category carry a lesser punishment, i.e. imprisonment not exceeding 6 months or a fine not exceeding EUR 10,000 or both penalties.**

In order to decide what the appropriate sentence is for each case, one must first look into the rationale behind the two categories of offences, i.e. what is the Law trying to achieve.

### **Application of the Law**

From a general point of view it can be said that the Law relates to **the manner** in which waste management is carried out rather than the actual waste itself. This is why the Law imposes from the outset a **general statutory obligation** to all sorts of waste management activities:

#### **General Obligation (Ar.10)**

*“Waste management must be carried out without endangering human health and without harming the environment, and in particular -*

*(a) without creating a risk of pollution to water, air, soil, flora and fauna,*

*(b) without causing a nuisance from noise or odors,*

*(c) without adversely affecting protected species and natural habitats; and*

*(d) without adversely affecting the landscape or sites of particular interest.”*

Unfortunately the Law **DOES NOT** create a separate offence for breach of the general obligation of Ar.10. Despite this however, the Law stipulates that the obligation of Ar.10 is imposed as a term on each waste management licence granted and reference to the general obligation is made in a number of other offences in the Law including offences relating to breach of the license terms.

As the Law focuses on how waste is managed rather than on the actual type of waste managed, the offences created therein relate to the acts and omissions of the persons managing the waste. A further general obligation is thus imposed:

*“15. - (1) Every waste holder and any original waste producer is obliged -*

*(a) carry out the recovery and disposal of the waste himself; or*

*(b) entrust the recovery and disposal of such waste to a trader or person carrying out waste treatment operations; or*

*(c) ensure, by means of an arrangement with a public body or a waste collector, the recovery and disposal of such waste in accordance with Articles 9 and 10.”*

The above obligation, breach of which does constitute a criminal offence under the Law, is intertwined with a statutory prohibition of carrying out waste management activities without a proper licence from the Ministry or in breach of the terms of said license. Breach of said prohibition is also a criminal offence.

### **Strict Liability Offences – No need for mens rea**

The statutory obligation to obtain a waste management license and to comply with its terms is what makes most of the offences in the Law strict-liability offences, in the sense that no “mens rea” is required to be proved in order to establish guilt. The state of mind of the accused however is not to be ignored, as even though it may not be so relevant when culpability is examined, it is an important factor for purposes of sentencing. I shall deal with this matter later on although I will say at this point that as a general rule of law and practice, deliberate offenders are to be dealt with more severely than those who acted unintentionally.

The strict liability element is a clear indication of the strict approach taken by the legislator to ensure the absence of legal “loopholes” and that prosecution of

offenders is not hindered or delayed by the need to collect and present evidence regarding the state of mind of the accused. Such evidence after all is, in most cases, exclusively in the control and knowledge of the defendant and the prosecution has no means of obtaining them. The culpability questions are therefore whether one has a valid license for carrying out waste management activities and whether he/she complies with the terms of said licence. Why a license wasn't obtained or why its terms were not complied with, is irrelevant for purposes of culpability.

The Law however is not confined to cases where a license should have been obtained or where the terms of the license have been breached. Foreseeing that there may be cases where a particular waste management activity is not yet included in the "license required" list of the Ministry or where a particular waste management activity is specifically exempted from the licensing requirement, the Law states that:

*"Ar.15(6) ... any waste holder and any original waste producer who does not hold a Waste Management License in accordance with the provisions of Article 24 shall be obliged, as long as he holds waste, to ensure that this does not cause any risk to public health and / or the environment and that it does not cause any nuisance to any person."*

Breach of the above obligation is a separate criminal offence under the Law and as it can be clearly seen, the strict liability element is present once again.

One important point however needs to be made here

### **Actual Harm – Risk of Harm**

When comparing the general obligation of Ar.10 and the obligation of Ar.15(6), one can notice that whereas Art.15(6) requires only **a risk of causing harm** to be proved (*"does not cause any risk"*), the obligations of Ar. 10 are not so clear.

Ar.10(a) is satisfied by a similar "risk of harm" element (*"creating a risk of pollution"*) but the other three sub-paragraphs of Ar.10 ((b) – (d)), require proof of **actual harm** being caused ("causing" and "adversely affecting").

The difference between proving risk of harm which is "easier" and actual harm which is much more "demanding" may appear problematic especially when prosecuting

licenced offenders. Indeed one could argue that due to the particular drafting of the Law, only a risk of harm needs to be proved in respect of non-licenced offenders whereas for licensed offenders, the prosecuting officers must wait for actual harm to be caused before being able to prosecute. I do not believe that this was the intention of the Legislator as this would clearly defeat the whole purpose of the Law. I would instead attribute the whole matter to an unfortunate choice of words on the part of the legislator whose intention was clearly to cover all possible scenarios and act both proactively and reactively i.e. before and after harm is caused for all offenders.

As I explain below, when one reads the Law carefully, it is understood that in reality the distinction between actual harm and risk of harm is somewhat irrelevant for purposes of enforcing the Law via prosecution.

Firstly, as the obligations of Ar.10(a) and Ar.15 apply the same for licenced and unlicensed offenders, almost cases can fall under the “risk of causing harm” category which is wider and easier to establish since only a strong possibility of harm will be sufficient. If actual harm is caused and it can be proven then no difficulty should arise in establishing Ar.10(b) – (d) as well.

The problem may arise in cases where actual harm has to be proved in respect of licenced offenders and the evidence is not strong enough to pass the “beyond reasonable doubt” criminal standard. This however can be easily dealt with on an administrative level if the administrative powers conferred by the Law to the licensing authority, i.e. the Ministry, are exercised properly.

According to Ar. 25 and 31, the licensing authority may, with specific reference to the general obligations of Article 10, refuse, recall or amend a waste management licence when the proposed or actual method of collection, transport or processing the waste is considered to be **inadequate** in regards to environmental protection.

Assuming therefore that before and/or after granting a waste management license, the licensing authority exercises its powers properly and as prescribed by the Law, cases can either be prevented from ever reaching the “actual harm caused” stage, as is of course the ultimate purpose of the Law or even if they do reach the stage of actual harm and for some reason the harm cannot be proven, the waste

management license can be administratively recalled or amended on the grounds of inadequacy of the waste management method and an administrative cease and desist order can be issued. Accordingly, without a valid license the case falls into the “risk of harm” category whereas breach of the order will constitute a separate serious criminal offence under the Law thus enabling once again full and complete enforcement.

Secondly, Ar.10(a)’s wide reference to “...*water, air, soil, flora and fauna*...”, for which only a risk of harm needs to be proved, covers all matters and even those specifically mentioned in sub-paragraphs (b) - (d) for which actual harm needs to be proved. If a risk of harm can therefore be proven in respect of air, water, flora and fauna, then Ar.10(a) is satisfied and there is no need to try and prove Ar. 10 (b)-(d). The liability is the same. Prosecutors however must be very careful when drafting an indictment as nothing short of proving actual harm will suffice for sub-paragraphs (b) – (d).

It is therefore evident I believe, that the Law is somewhat “divided” into two parts, both of which need to be applied properly so as to ensure the Law’s full and proper enforcement and this is the reason why it was deemed necessary to create the two separate categories of offences.

### **“Two Part” Law**

The first part relates to the actual activity of waste management and the second to the investigation into how the said activity it is carried out, regardless of whether it is a licenced or unlicensed activity.

#### **1<sup>st</sup> Part - Actual Waste Management Activity**

This is the part which is concerned with all the licensing requirements and environmental protection obligations mentioned above and for which **Category 1** offences are created.

From a judicial point view, this is the part that deals with illegal waste management activities, whether the illegality derives from failing to obtaining the required licence or from breaching its terms. Moreover, this is the part where the elements of actual

harm and risk of causing harm are examined as well as the state of mind of the accused, especially for purposes of sentencing.

Deliberate breaches of the Law that actually cause harm will be given a greater sentence than unintentional minor breaches that only create a risk of harm.

## **2<sup>nd</sup> Part - Investigation into Waste Management Activities**

From both a statutory and a judicial point of view, this part of the Law is considered to have an important role in the application and enforcement of the Law as this is the part which deals with the important investigation work that needs to be carried out in order to assess whether the obligations and requirements of the Law are complied with, i.e. everything that falls under the first part. The Law gives wide powers to government inspectors to enter and search premises or facilities when they have reasonable ground to suspect that waste management is taking place, to issue warnings and notices as well as cease and desist orders, breach of which constitutes a serious criminal offence.

The full application of this part is enforced via the offences of **Category 2**.

Moving on to the sentencing part I note the following:

### **SENTENCE**

Being a common law country, Cyprus derives its judicial practises from English Law and Practice and although we do not have set guidelines like the England & Wales Sentencing Guideline, we do follow a similar approach for purposes of sentencing and the EW Sentencing Guideline is a useful point of reference. The sentencing approach followed for environmental offences is the same used for all criminal offences. The following factors are thus considered:

- A. Seriousness of the offence itself**
- B. Case Law guidelines as to whether the particular offence requires retributive, deterrent or rehabilitative punishment**
- C. Aggravating or mitigating Factors**

**D. Case Law guidelines as to whether the particular circumstances of the case require retributive, deterrent or rehabilitative punishment**

**E. Type of Sentence Imprisonment and/or fine**

**F. Adjustment of sentence to reflect particular offence and offender**

**G. If imprisonment is imposed possible suspension**

A few points on the above factors

**A. Seriousness of the offence itself**

The most definite starting point to establish the seriousness of the offence is the Law itself with particular emphasis on the objective of the law and the maximum penalty.

For waste management offences, as I mentioned above, the more serious offences of the Law are punished by imprisonment not exceeding three years or a fine not exceeding EUR 500,000 or both penalties. The lesser offences carry a lesser punishment, i.e. imprisonment not exceeding 6 months or a fine not exceeding EUR 10,000 or both penalties.

One point to be made here is that according to Cyprus Law, the criminal jurisdiction of a District Court Judge when trying a case summarily is confined to offences carrying a maximum punishment of 5 years and/or 80.000 EUR fine. Offences which carry out a greater sentence can only be tried by the Assize Court (three judges), unless the Attorney General specifically consents for the case to be tried summarily, i.e. by a single District Court Judge.

As all the serious offences created by the Law carry a monetary sentence which exceeds the criminal jurisdiction of a single judge and as almost all the cases brought before the Courts are cases which are intended to be tried summarily, issues may arise when a case is filed before a single judge without the consent of the AG. There are of course two schools of thought regarding this matter, one being that there is no jurisdiction at all to try the case and the other that there is jurisdiction due to the length of the maximum prison sentence, although limited in regards to the fine. The jurisdictional issue is of course a matter for each judge to decide and for obvious reasons I do not intend to express my personal views on the matter. I will however

say that the jurisdictional issue may have slipped the legislator's mind when deciding what punishment environmental offences should carry and until the Law changes, either in respect of the maximum punishment of the offences or in respect of the judicial jurisdiction regarding these offences, issues may arise when a case is filed without the AG's consent. Of course if the AG's consent is obtained before filing the case, there is no jurisdictional issue involved although in this case, the maximum fine that may be imposed by a Judge will be that of 80.000 EUR which is much less than the €500.000 stated in the Law.

## **B. Case Law guidelines as to whether the particular offence requires retributive, deterrent or rehabilitative punishment**

The following quotes from relevant case law accurately reflect the current position of case law

*"The need to protect the natural environment against any potential risk of destruction is declared unceasingly. The flora and fauna of our place, which is part of the wider natural environment, are elements of life. **Protecting and preserving our natural wealth is a necessity demanded by the public interest. Even the most distant threat of destruction must be neutralized. Prevention is the most appropriate and effective means of protecting the environment**" - Παντελής Κυνηγού κ.ά. v. Δημοκρατίας (1998) 3 A.A.Δ. 472*

*"... the natural environment is inextricably linked to the right to life, ... One could note here more broadly that the environment is now considered and treated as a global social good requiring legal protection. At international level, the bilateral agreements that regulate environmental problems especially between neighbouring countries are not few. The European Union is one of the cornerstones of environmental law. With many directives, it has introduced not only economic but also environmental criteria in various areas of development." - Δημοκρατία v. Κοινότητας Πυργών (1996) 3 A.A.Δ. 503*

*"The seriousness of the offences in question is obvious. And even though ..."there is no uprising or even a particularly frequent occurrence ..." this does not diminish their gravity or justify a relaxation in their treatment."... In such cases however, imposing*

*immediate imprisonment from the first time the matter is brought before the criminal justice system is a sudden and particularly tough measure. The penalty could have been deterrent ... without being restrictive of freedom. The need for close monitoring and speed in prosecuting and handling such cases in the Court of Justice is vital.” -*

**Παπαευσταθίου Σάββας v. Αστυνομίας, (2004) 2 Α.Α.Δ. 39**

### **C. Aggravating or mitigating Factors**

I list below some of the recognised aggravating and mitigating factors that are taken into consideration. These are taken from the EW Sentencing Guidelines and applied the same in Cyprus

#### **Aggravating**

Location of the offence, for example, near housing, schools, livestock or environmentally sensitive sites

Established evidence of wider/community impact

Repeated incidents of offending or offending over an extended period of time, where not charged separately

Deliberate concealment of illegal nature of activity

Ignoring risks identified by employees or others

Breach of any order

Previous convictions, having regard to a) the nature of the offence to which the conviction relates and its relevance to the current offence; and b) the time that has elapsed since the conviction

Offence committed when on bail

History of non-compliance with warnings by regulator

Offence committed for financial gain

Obstruction of justice

Offence committed whilst on licence

## **Mitigating**

Compensation paid voluntarily to remedy harm caused

Evidence of steps taken to remedy problem

One-off event not commercially motivated

Effective compliance and ethics programme

Self-reporting, co-operation and acceptance of responsibility

No previous convictions or no relevant/recent convictions

Remorse

Little or no financial gain

Good character and/or exemplary conduct

Mental disorder or learning disability, where linked to the commission of the offence

Serious medical conditions requiring urgent, intensive or long-term treatment

Age and/or lack of maturity where it affects the responsibility of the offender

Sole or primary carer for dependent relatives

## **D. Type of Sentence Imprisonment and/or fine**

Companies and Organisations are always subject to a fine but the individuals who manage the company can also be prosecuted if the crime resulted from their contribution, collaboration or tolerance.

Individuals may face a term of imprisonment and/or fine – Case law suggests that imprisonment, as a sanction in a system of social defence, should only be resorted to when no other sentence can fit the circumstances of the particular case. It should be avoided whenever such a course is possible; and if it cannot be avoided, it must be made to serve one of the objects which such a sentence is intended to serve. Serious environmental offences may require sentences of short term imprisonment or

a combination of both types of punishment i.e. imprisonment and/or fine, even though first time offenders should be treated with more leniency.

### **Adjustment of sentence to reflect particular offence and offender**

It is a long standing legal principle that a criminal sentence must be adjusted to the particular offender's circumstances since the aim of the court is to impose a just penalty that is appropriate both to the crime and to the perpetrator. It should however not be overlooked that the need to adjust the sentence does not neutralize the gravity of the offense or the effectiveness of the law and where the public interest imposes the need for a rigorous and deterrent treatment, the offender's personal circumstances are put aside.

As far as adjusting the fine is concerned, the principle is that whilst the fine must reflect the seriousness of the offence, the court must take into account the financial circumstances of the offender. Unfortunately however, unlike the UK, the Law in Cyprus does not allow for the creation of a range of fines based on the offender's annual turnover nor is it permissible to explicitly use such turnover so as to increase or decrease the starting point of the fine. Offenders must be treated the same regardless of their financial status. This often proves to feel unjust due to the fact that while obliged to treat everyone the same, not all offenders are in the same financial position. Hence, even though the Court will not ignore the particular financial capabilities of an offender, the obligation to impose similar fines in respect of similar offences may lead to one offender being punished more severely than the other simply because his financial abilities are worse. Again though, this is matter for the legislature to regulate.

### **E. If imprisonment is imposed possible suspension**

Suspending a prison sentence is governed by separate legislation and for purposes of this presentation I do not intend to go into it. I will however say that when examining the possibility of suspending a prison sentence, the Courts would be willing to consider whether the offender has expressed a genuine intention to rectify the problem caused, rectification which obviously cannot take place if the offender is in custody.

## **Court Orders**

The Law empowers the Courts to issue interim cease and desist or rectification orders against persons who are prosecuted for environmental offences, such orders however being valid only for the duration of the case. This procedure is rarely used by prosecutors especially because the procedure to obtain such orders is complex and requires a lot of time and resources on the part of the prosecution. In addition to this, the legislator did not seem to take into account how the criminal judicial system actually works. This is because summary criminal offences are being tried for over 40 years now by lower ranking District Court Judges and the power to issue interim orders for environmental offences has been given only to the highest ranking District Court Judges i.e. the Presidents of the District Courts who do not sit in summary criminal trials. Therefore, in order to obtain an interim order under the procedure prescribed by the Law, an indictment has to be filed first and brought before a lower District Court Judge for approval. Once the indictment is approved, the case has to be taken from the judge who approved the indictment and brought before a President of the District Court to decide whether to grant the interim order. After that the case is taken from the President and brought back to the lower District Court Judge to try the merits. One can appreciate that this is not only a very impractical procedure but also a very dangerous one as it essentially requires one judge to step on the toes of another in the same case. This is because the judge that decides to approve the indictment must be satisfied that a criminal offence is sufficiently apparent from the indictment and at the same time the judge who will decide whether to grant the interim order and who will not be the same as the judge who approved the indictment, must also be satisfied of the same thing. Following this, if the interim order is granted, this means that the judge who examined the application was satisfied *prima facie* that there is sufficient evidence to lead to a successful conviction but at the same time, this is the question to be decided by the judge who will try the case on the merits and he will not be the judge who granted the interim order.

Despite the above procedural “flaw” of the Law, there seems to be a greater problem with the powers given to a Court of Law in regards to sentencing offenders.

Strangely enough, even if an interim order is granted, the Law **DOES NOT** empower the Courts to finalise these orders after conviction nor does it give them the power to issue them as part of the sentence imposed. This in effect means that there is no power to enforce compliance with the Law, only to punish offenders.

I do not know nor can I explain why the legislator has decided not to give this important power to the Courts especially when considering all the time, money and effort that it's required to successfully prosecute a case before the Court and the fact that the whole object of the Law is to actually reduce and prevent future environmental harm. The absence of power to order rectification of the situation as part of the sentence means that the only way there can be any form of rectification or minimisation of the risk is if the offender himself/herself chooses to rectify the situation in order to receive a lighter sentence. Should however, the offender be unable to rectify the harm for whatever reason, financial problems being the most common reason, then even though sentence will be passed the damage will remain and further costs will have to be incurred by the state to proceed to rectify the harm using public resources. In this sense, any sentence imposed by the Courts is actually insufficient for the purpose of achieving the objective of the Law

Courts have often urged the legislator to proceed with amending the Law but so far no such amendment has been made.

## **CONCLUSION**

Courts are very sensitive when it comes to environmental crimes. However, fortunately or unfortunately, depending on the reasons, there have not been many prosecutions over the last years in respect of such crimes. The Law definitely needs some changes but where offenders were successfully prosecuted, the Courts have shown that they will not hesitate to impose just but at the same time deterrent sentences even if such sentences may seem harsh. It is in the public interest to do so and where the public interest imposes the need for a rigorous and deterrent treatment, the public interest must prevail over all other considerations.

Thank you for your time.

Nicosia – Cyprus, March 2019

## **SOURCES**

### **1. DEPARTMENT OF ENVIRONMENT**

[http://www.moa.gov.cy/moa/environment/environmentnew.nsf/page20\\_en/page20\\_en?OpenDocument](http://www.moa.gov.cy/moa/environment/environmentnew.nsf/page20_en/page20_en?OpenDocument)

### **2. THE ENGLAND & WALES SENTENCING GUIDELINE FOR ENVIRONMENTAL OFFENCES OF 2014**

<https://www.sentencingcouncil.org.uk/wp-content/uploads/Environmental-offences-definitive-guideline-Web.pdf>

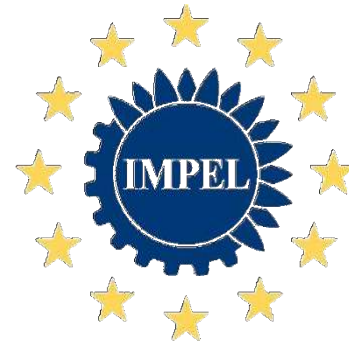
### **3. CYPRUS LAW REPORTS**

# Annex 2.0: Day 2 presentations (WG3)

# Relevant EU Directives

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*Horst Buether*  
*Industry and Air*  
*Head of Expert Team*

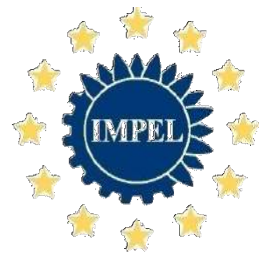


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# Content of this presentation

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- Air Quality Directive (2008/50/EC)
- Environmental Crime Directive (2008/99/EC)
- Industrial Emissions Directive (2010/75/EU)



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# Air Quality Directive

DIRECTIVE 2008/50/EC OF THE  
EUROPEAN PARLIAMENT AND OF THE  
COUNCIL of 21 May 2008 on ambient air  
quality and cleaner air for Europe

*Transposed into German law by establishing the  
39<sup>th</sup> regulation to the law on pollution control*

This Directive lays down measures aimed at the  
following:

1. defining and establishing objectives for  
ambient air quality designed to avoid, prevent or  
reduce harmful effects on human health and the  
environment as a whole; ...



# Assessment of Ambient Air Quality

## SECTION 1

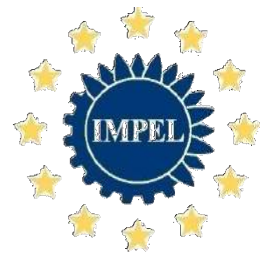
Assessment of ambient air quality in relation to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), lead, benzene and carbon monoxide

## SECTION 2

Assessment of ambient air quality in relation to ozone

## Other Pollutants

DIRECTIVE 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

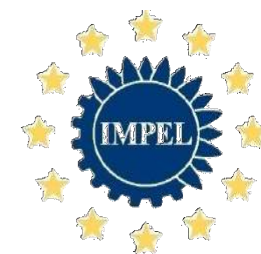


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# Definitions 1

**Limit Value** shall mean a level fixed on the basis of scientific knowledge, with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained within a given period and not to be exceeded once attained

Example: **40  $\mu\text{g}/\text{m}^3$   $\text{NO}_2$**  (year);  
**200  $\mu\text{g}/\text{m}^3$   $\text{NO}_2$**  (hour; can be exceeded 18 times per year)



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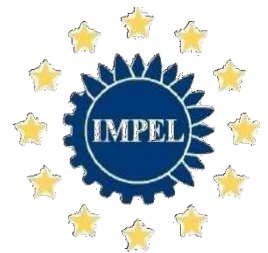
# Definitions 2

**Critical Level** shall mean a level fixed on the basis of scientific knowledge, above which direct adverse effects may occur on some receptors, such as trees, other plants or natural ecosystems but not on humans

Valid for:

30  $\mu\text{g}/\text{m}^3$   $\text{NO}_x$  (year)

20  $\mu\text{g}/\text{m}^3$   $\text{SO}_2$  (year)



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# Definitions 3

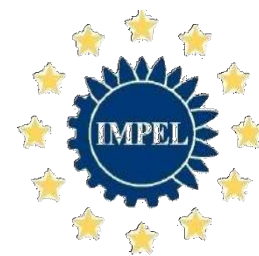
**Alert Threshold** shall mean a level beyond which there is a risk to human health from brief exposure for the population as a whole and at which immediate steps are to be taken by the Member States

Valid for:

400  $\mu\text{g}/\text{m}^3$   $\text{NO}_2$  (3 hours)

500  $\mu\text{g}/\text{m}^3$   $\text{SO}_2$  (3 hours)

240  $\mu\text{g}/\text{m}^3$  Ozone (1 hour)

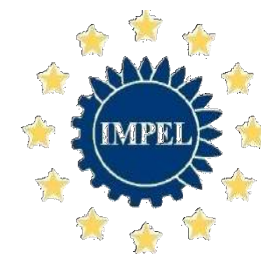


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# Article 14: Critical Levels

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Member States shall ensure compliance with the critical levels specified in Annex XIII



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# Article 23: Air Quality Plans

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- Where the levels of pollutants in ambient air exceed any **limit value** or target value Member States shall ensure that air quality plans are established
- The air quality plans shall set out appropriate measures, so that the exceedance period can be kept as short as possible.



# Article 24:

## Short Term Action Plans 1

---

- Where there is a risk that the levels of pollutants will exceed alert threshold Member States shall draw up action plans indicating the measures to be taken in the short term in order to reduce the risk or duration of such an exceedance.
- Where this risk applies to one or more limit values or target values, Member States may, where appropriate, draw up such short-term action plans.



# Article 24:

## Short Term Action Plans 2

---

- The short-term action plans provide for effective measures to control and, where necessary, suspend activities which contribute to the risk of the respective limit values or target values or alert threshold being exceeded.
- Those action plans may include measures in relation to motor-vehicle traffic, construction works, ships at berth, and the use of industrial plants or products and domestic heating.



# Article 30: Penalties

---

Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive.



# Environmental Crime Directive

DIRECTIVE 2008/99/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on the protection of the environment through criminal law

*Transposed into German law by the 45<sup>th</sup> amendment of the Penal Code in 2011*

This Directive obliges Member States to provide for criminal penalties in their national legislation in respect of serious infringements of provisions of Community law on the protection of the environment. This Directive creates no obligations regarding the application of such penalties, or any other available system of law enforcement, in individual cases.



# Offences

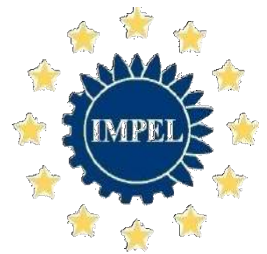
Member States shall ensure that the following conduct constitutes a criminal offence, when unlawful and committed intentionally or with at least serious negligence: ... which causes or is likely to cause death or serious injury to any person or substantial damage to the quality of air, the quality of soil or the quality of water, or to animals or plants

*... see next slide*



# Offences 1

- the discharge, emission or introduction of a quantity of materials or ionising radiation into air, soil or water,
- the collection, transport, recovery or disposal of waste,
- the operation of a plant in which a dangerous activity is carried out or in which dangerous substances or preparations are stored or used,
- the production, processing, handling, use, holding, storage, transport, import, export or disposal of nuclear materials or other hazardous radioactive substances



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# Offences 2

In addition

- the illegal shipment of waste,
- the production, importation, exportation, placing on the market or use of ozone-depleting substances,
- the killing, destruction, possession or taking of specimens of protected wild fauna or flora species,
- trading in specimens of protected wild fauna or flora species or parts or derivatives thereof,
- any conduct which causes the significant deterioration of a habitat within a protected site

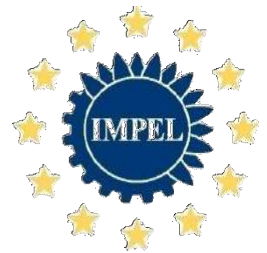


# Application to EU Law

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List of Community legislation adopted pursuant to the EC Treaty, the infringement of which constitutes unlawful conduct pursuant to Article 2(a) of this Directive:

- 58 Directives and 3 Regulations  
*(meanwhile a little bit outdated)*



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# Industrial Emissions Directive

DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast)

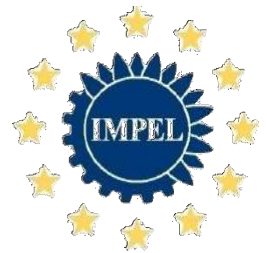
*Transposed into German law by amendment of the 4<sup>th</sup>, 9<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup>, and 31<sup>st</sup> regulation of/and the law on pollution control (and others)*

This Directive lays down rules designed to prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole.



# What's new?

- Replaces 7 former directives
- Industrial waste water included
- Obligatory use of BAT Conclusions
- Derogation from BAT
- Going beyond BAT
- Baseline report
- Monitoring of soil and ground water
- Risk based inspections
- Operator reporting
  - Incidents and accidents
  - Non-compliance
  - Results of emission monitoring



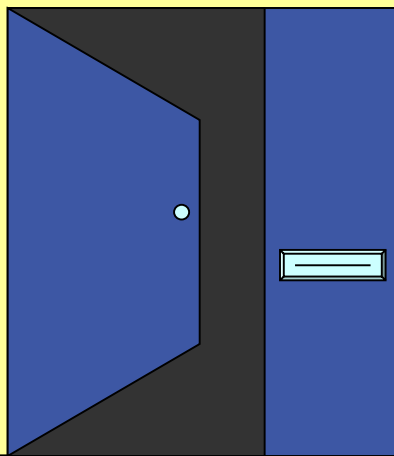
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# BAT Conclusions

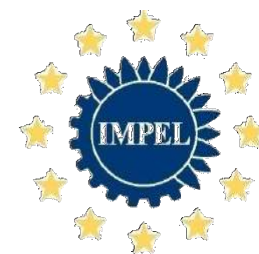
- Decisions on the BAT conclusions shall be adopted in accordance with the regulatory procedure referred to in Article 75(2).
- BAT conclusions shall be the reference for setting the permit conditions
- Within 4 years of publication of decisions on BAT conclusions the competent authority shall ensure that:
  - (a) all the permit conditions for the installation concerned are reconsidered and updated;
  - (b) the installation complies with those permit conditions.
- Update of BAT reference documents every 8 years



# Article 13 Forum



We are against it!



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# Emission Limit Values

● Article 15 (3) a   ● Article 15 (3) b   ● Article 15 (4)   ● higher values

permitted limit values

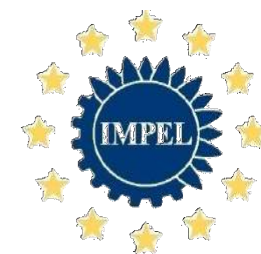


IED - Annexes

BAT- AEL Range

## Article 18:

Where an environmental quality standard requires stricter conditions than those achievable by the use of the best available techniques, additional measures shall be included in the permit ...



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# Baseline Report

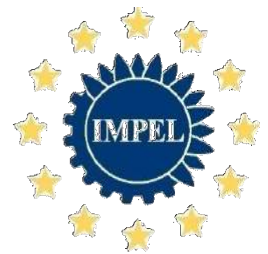
## **Article 22 (2):**

Where the activity involves the use, production or release of relevant hazardous substances and having regard to the possibility of soil and groundwater contamination at the site of the installation, the operator shall prepare and submit to the competent authority a baseline report before starting operation of an installation or before a permit for an installation is updated for the first time



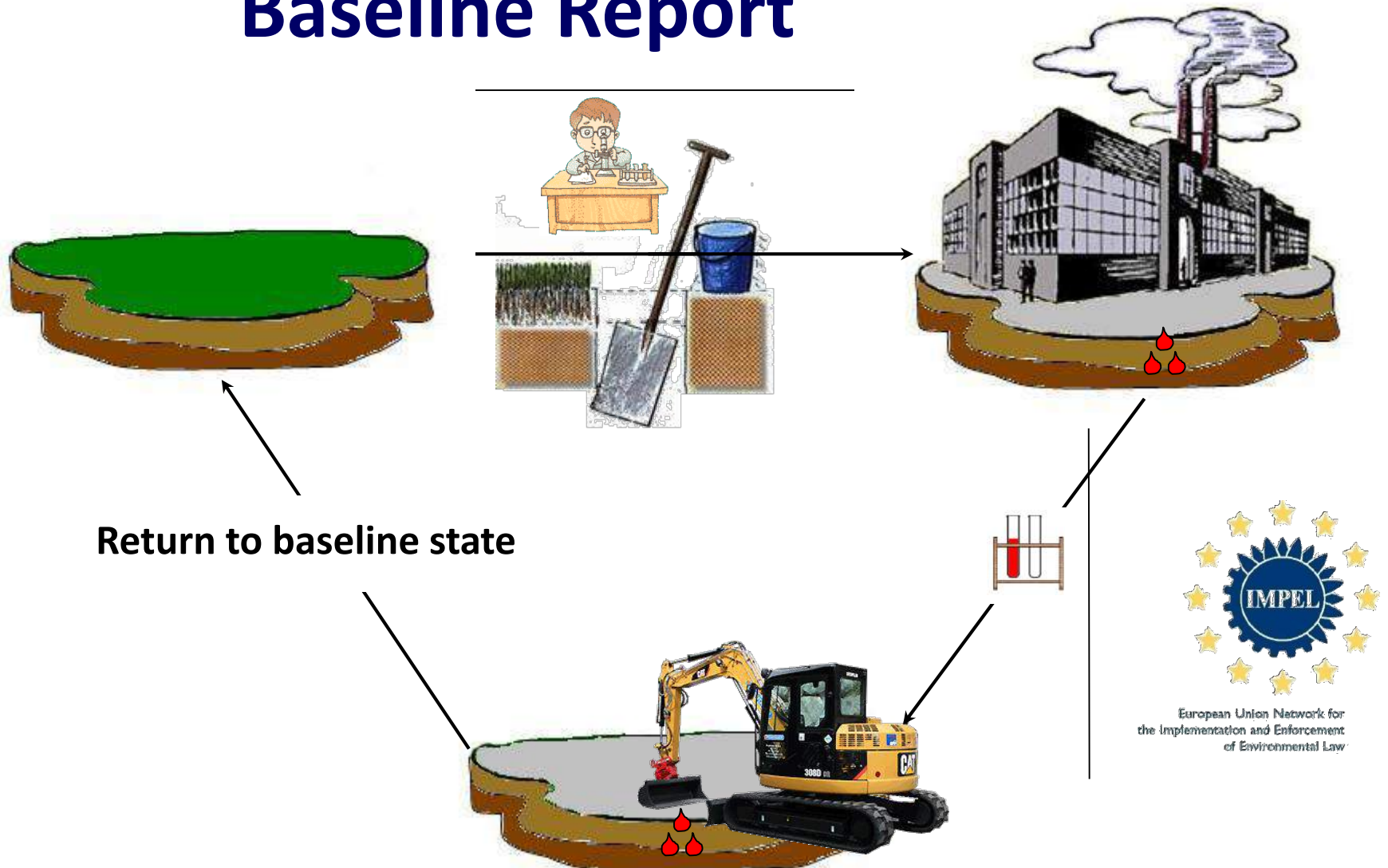
# Cessation of Activities

Where the installation has caused significant pollution of soil or groundwater by relevant hazardous substances compared to the state established in the baseline report referred to in paragraph 2, the operator shall take the necessary measures to address that pollution so as to return the site to that state.

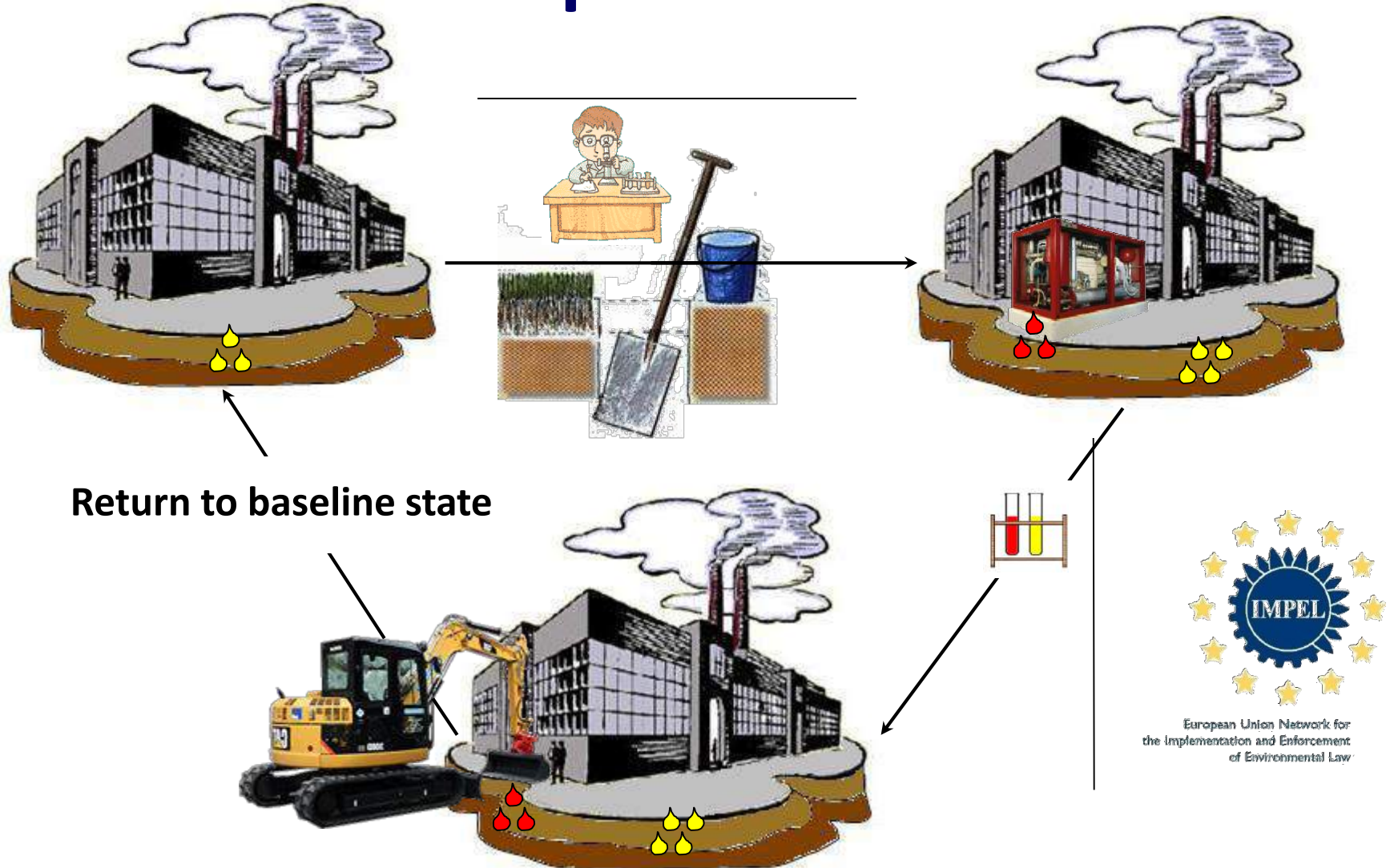


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# Baseline Report



# Baseline Report

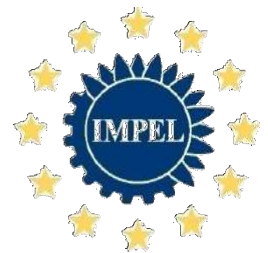


# Monitoring of Soil and Groundwater

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## **Article 16:**

Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination



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# Article 23

## Environmental inspections

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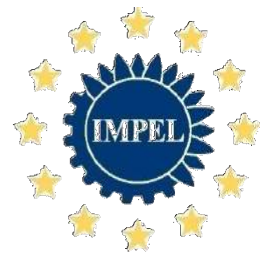
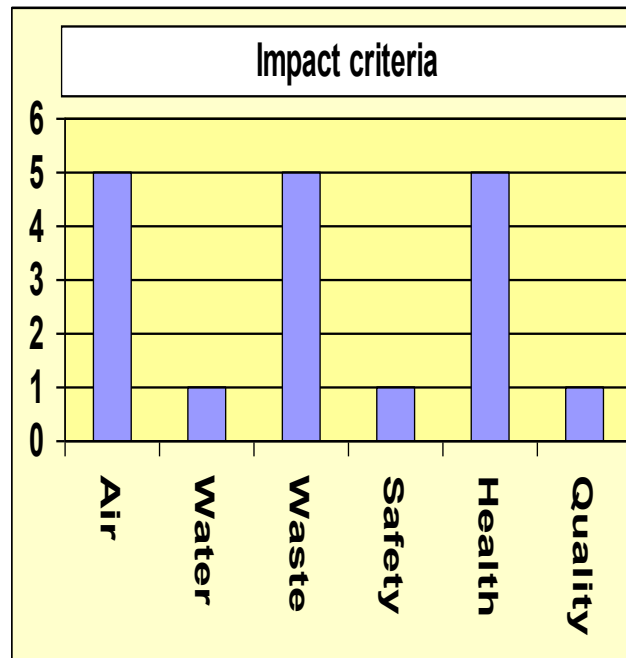
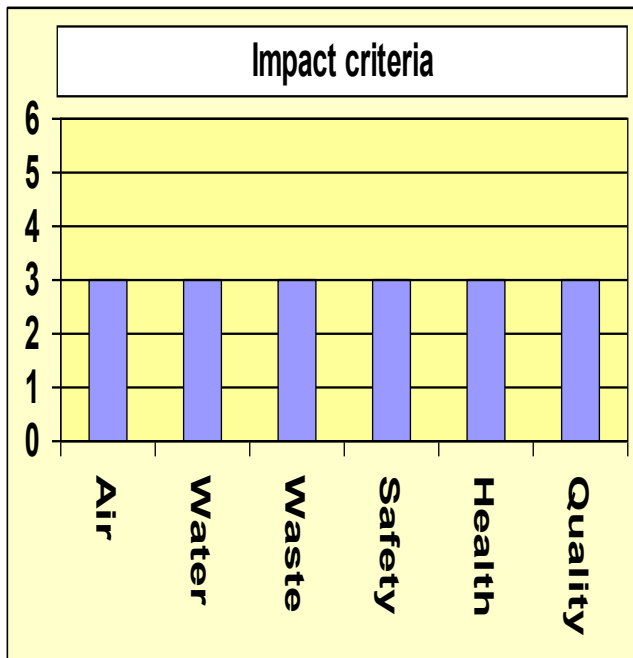
Member States shall set up a system of environmental inspections of installations addressing the examination of the full range of relevant environmental effects from the installations concerned.

The period between two site visits shall be based on a systematic appraisal of the environmental risks of the installations concerned and shall not exceed 1 year for installations posing the highest risks and 3 years for installations posing the lowest risks.



# Principle : Highest Score

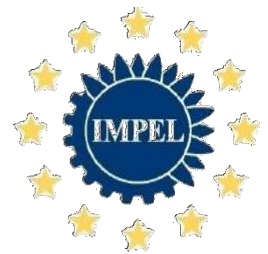
easyTools



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## IRAM principles

- I. The inspection frequency is determined by the value of the highest impact scores
- II. The inspection frequency is reduced by one step, if the set number of highest scores is not met (the Rule)
- III. The inspection frequency can be changed by one step up or down based on operator performance
- IV. The higher the sum of impact scores, the more inspection effort is needed



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# Operator Reporting

## **Article 7:**

In the event of any incident or accident significantly affecting the environment, Member States shall take the necessary measures to ensure that the operator informs the competent authority immediately

## **Article 8:**

In the event of a breach of the permit conditions, Member States shall ensure that the operator immediately informs the competent authority



# Operator Reporting 2

## **Article 14:**

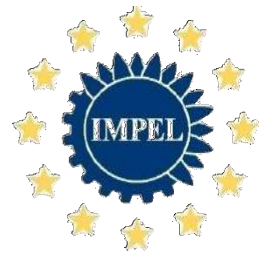
Obligation of the operator to supply the competent authority regularly, and at least annually, with information on the basis of results of emission monitoring and other required data that enables the competent authority to verify compliance with the permit conditions



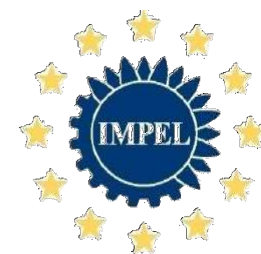
# Article 79: Penalties

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Member States shall determine penalties applicable to infringements of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive.



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# Air pollution data. Case EU CJ C-364/03

Dr iur. Georgios Smpokos, Private Lecturer of Environmental Law at the UoC  
Coordinator of EU co-funded project "Life Natura Themis" (GR/14/GIE/000026)

22.03.2019 12:30  
Crete, Heraklion



No pollution measuring points





12 diesel generators  
Max capacity 192,87 MW







Less than 50 m

On a riverbank

Zero altitude



diesel

kerozene ΕΚΟ

diesel

Δ.Ε.Η.

cement

HELLENIC FUELS

ΑΓΕΤ ΗΡΑΚΛΗΣ

heavy metals, nickel  
and vanadium, sulfur  
dioxide and oxides of  
nitrogen

gas

ΚΟΣΜΟΓΚΑΖ

07.07.2005 12:30

Luxemburg, Court of Justice



COUR DE JUSTICE  
DE L'UNION  
EUROPÉENNE

- The Hellenic Republic has failed to fulfil its obligations under Article 13 of Council Directive 84/360/EEC of 28 June 1984 on the combating of air pollution from industrial plants.
- The station operated on the basis of obsolete and polluting technology, which could not be classified as 'the best available technology' within the meaning of Directive 84/360.
- The Greek authorities had not set emission limit values for sulfur dioxide and oxides of nitrogen.

# Threat for public health

- **Air quality plans** must be implemented according to Directive 2008/50 / EC when, in specific zones, the levels of pollutants in the ambient air exceed the limit values set.
- **The definition of air pollution** is provided in Article 1 (a) of the Geneva Convention on transfrontier pollution (Decision 81/462 / EEC of the European Council).

Breach of Directive 84/360/EK for air pollution caused by industrial emissions.

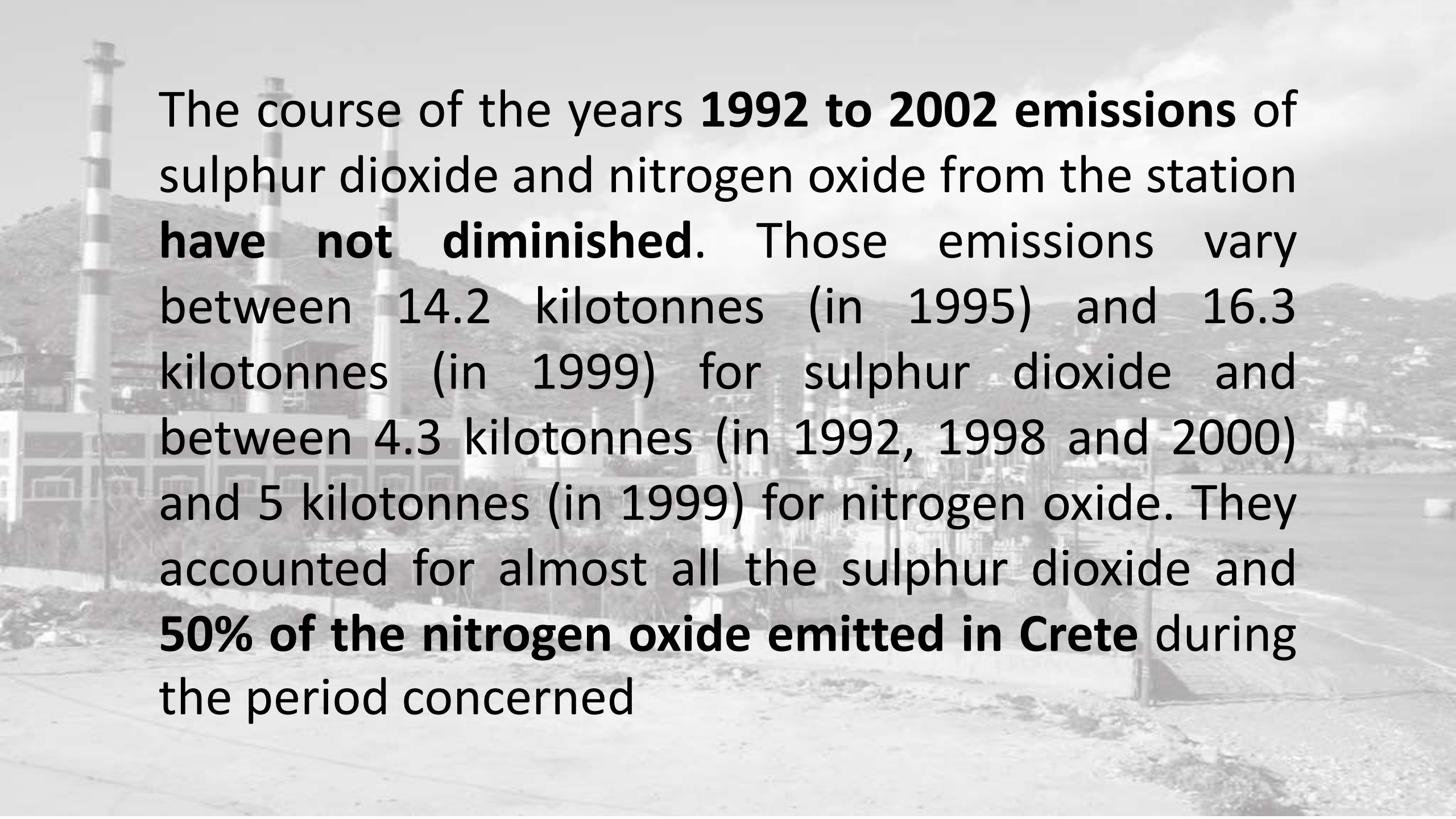
- **The measures relied on by the Hellenic Government do not constitute the implementation of a policy or strategy for the adaptation of the power station to the best available technology for the purposes of Article 13 of Directive 84/360 and especially,**
- **... has not defined policies and strategies .... it did not take action ... caused environmental pollution from station operation and emissions to sulfur dioxide and nitrogen oxides.**

# Facts



The first units were installed over 30 years ago.

Installation of the four last units was authorised in 1986.

A background image of an industrial facility, likely a power plant or refinery, featuring several tall, striped smokestacks and various industrial buildings. The scene is set against a backdrop of hills and a cloudy sky. The foreground shows a paved area and some vegetation.

The course of the years **1992 to 2002 emissions** of sulphur dioxide and nitrogen oxide from the station **have not diminished**. Those emissions vary between 14.2 kilotonnes (in 1995) and 16.3 kilotonnes (in 1999) for sulphur dioxide and between 4.3 kilotonnes (in 1992, 1998 and 2000) and 5 kilotonnes (in 1999) for nitrogen oxide. They accounted for almost all the sulphur dioxide and **50% of the nitrogen oxide emitted in Crete** during the period concerned

Licensing status



# Licensing status

- According to Directive 2003/87 / EC “any establishment operating in the energy, iron and steel and processing industries, the mineral industry and the pulp, paper and board industry, air operations and any industrial plant that emits greenhouse gas **must be appropriately licensed to operate**”.

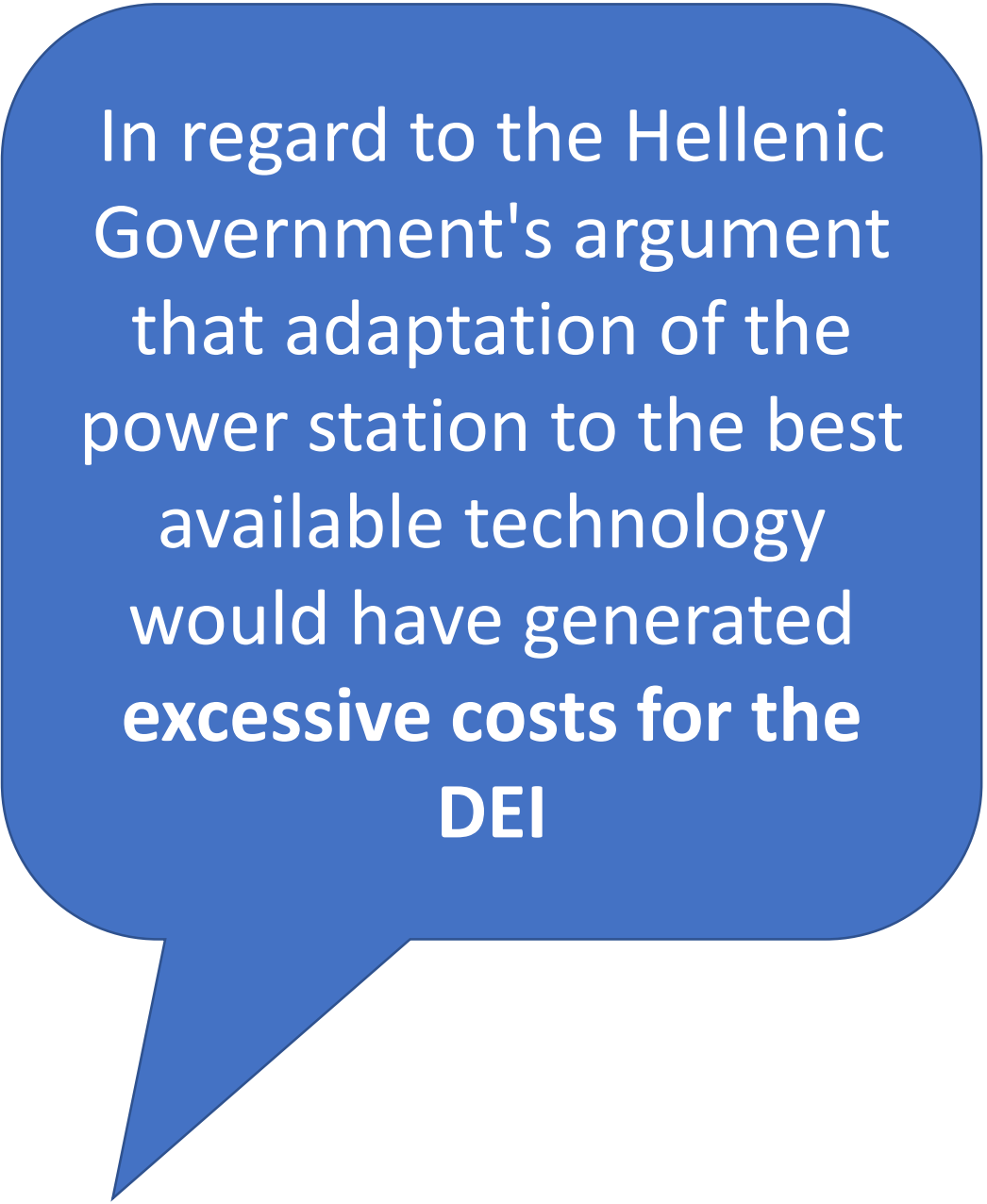
# Directive 2008/50/EC

- ... air quality plans are implemented when, in specific zones or agglomerations, pollutant levels in the ambient air exceed any limit value ...

# Exemption status

- According to an exemption of Art. 34 of Directive 2010/75/EU relevant for small isolated systems “**Until 31 December 2019, combustion plants being, on 6 January 2011, part of a small isolated system may be exempted from compliance with the emission limit values....**”

# Argumentation



In regard to the Hellenic  
Government's argument  
that adaptation of the  
power station to the best  
available technology  
would have generated  
**excessive costs for the  
DEI**



## INFRASTRUCTURE

### Hellenic Motorways

### “Egnatia Odos” Motorway

### Thessaloniki Water Supply and Sewerage Company

### Athens Water Supply and Sewerage Company

### • Public Power Corporation

### Small Ports and Marinas

### Regional Airports

### South Kavala Natural Gas Storage

### OLP, OLTH, 10 Regional

## Public Power Corporation

Public Power Corporation (PPC) is the largest electricity producer and supplier in Greece with more than 7.5 million customers and an installed capacity which, at 12,826 MW, amounts to 99% of the country's total.

Its power generation mix includes lignite-fired plants, gas and oil plants as well as hydro and renewable energy. PPC also owns and operates the national electricity transmission system and the distribution networks.

The HR holds 51% of PPC which is listed on the Athens Stock Exchange and has appointed CS, BofA ML, NBG and Alpha Bank as financial advisors, Kyriakidis Law firm and Shearman Sterling as legal advisors to assist with the privatisation

For more information you can visit PPC website at <http://www.dei.gr>

## News

11/06/2013

Press release: HRADF on the last-minute decision of Gazprom not to submit a binding offer for Hellenic Public Gas Corporation (DEPA)

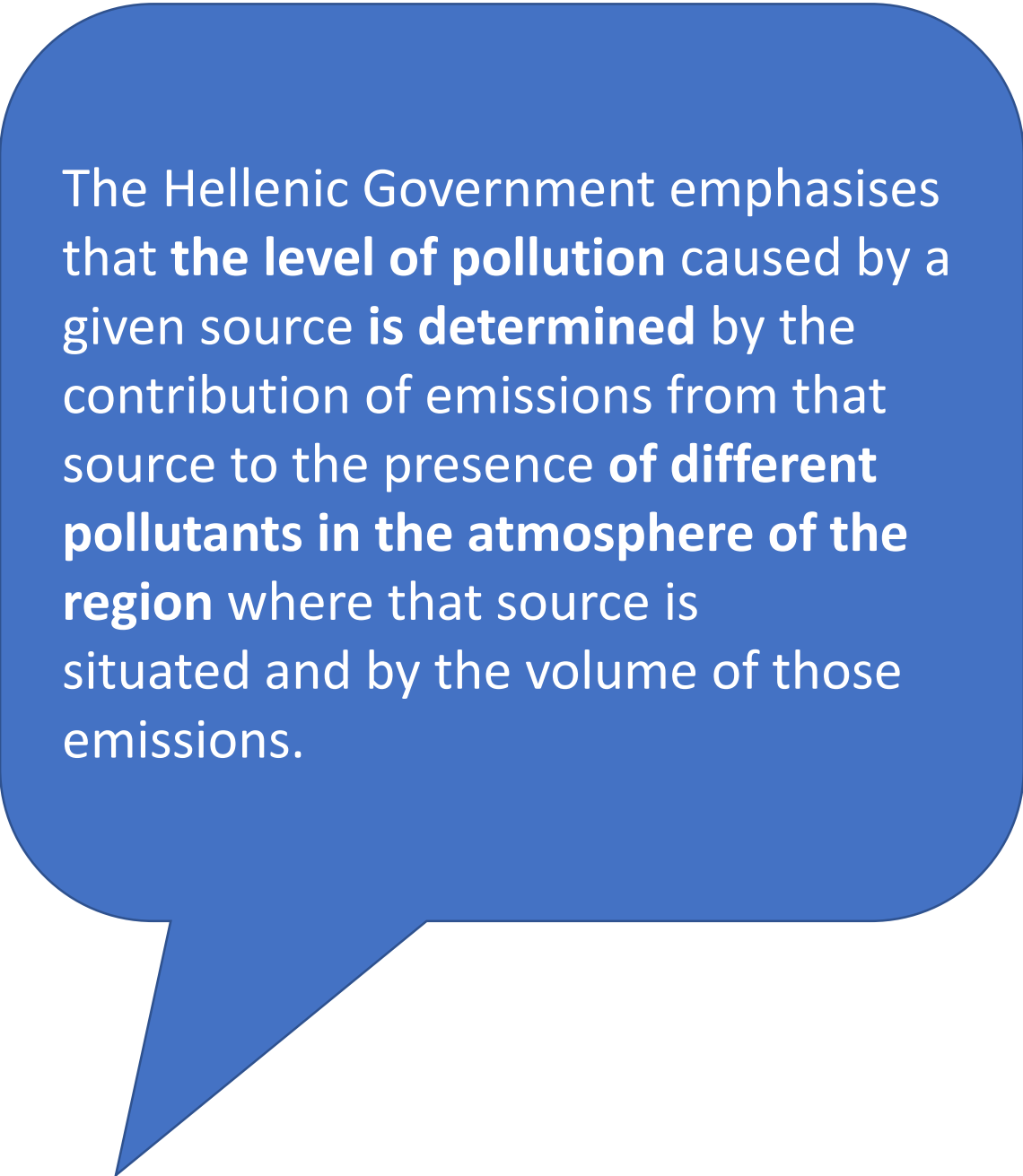
10/06/2013

Press release: HRADF receives final bids for the privatization of DEPA Group

30/05/2013

The tender processes for EYATH and St. Ioannis Sithonia move to phase B- Strong investors' interest for the first cluster of tourist ports

The Commission maintains, on the one hand, that **those costs are not the only criterion in regard to adaptation laid down in Article 13 of Directive 84/360** and, secondly, that such costs must be relativised regard being had to the years which have elapsed since entry into force of the directive. **Nor, moreover, was DEI's financial situation, as reflected in the balance sheet and accounts for 2002, such as to render excessive the costs** engendered by the requisite improvements to the power station.



The Hellenic Government emphasises that **the level of pollution** caused by a given source **is determined** by the contribution of emissions from that source to the presence **of different pollutants in the atmosphere of the region** where that source is situated and by the volume of those emissions.



Thermoelectric power plant



International Airport

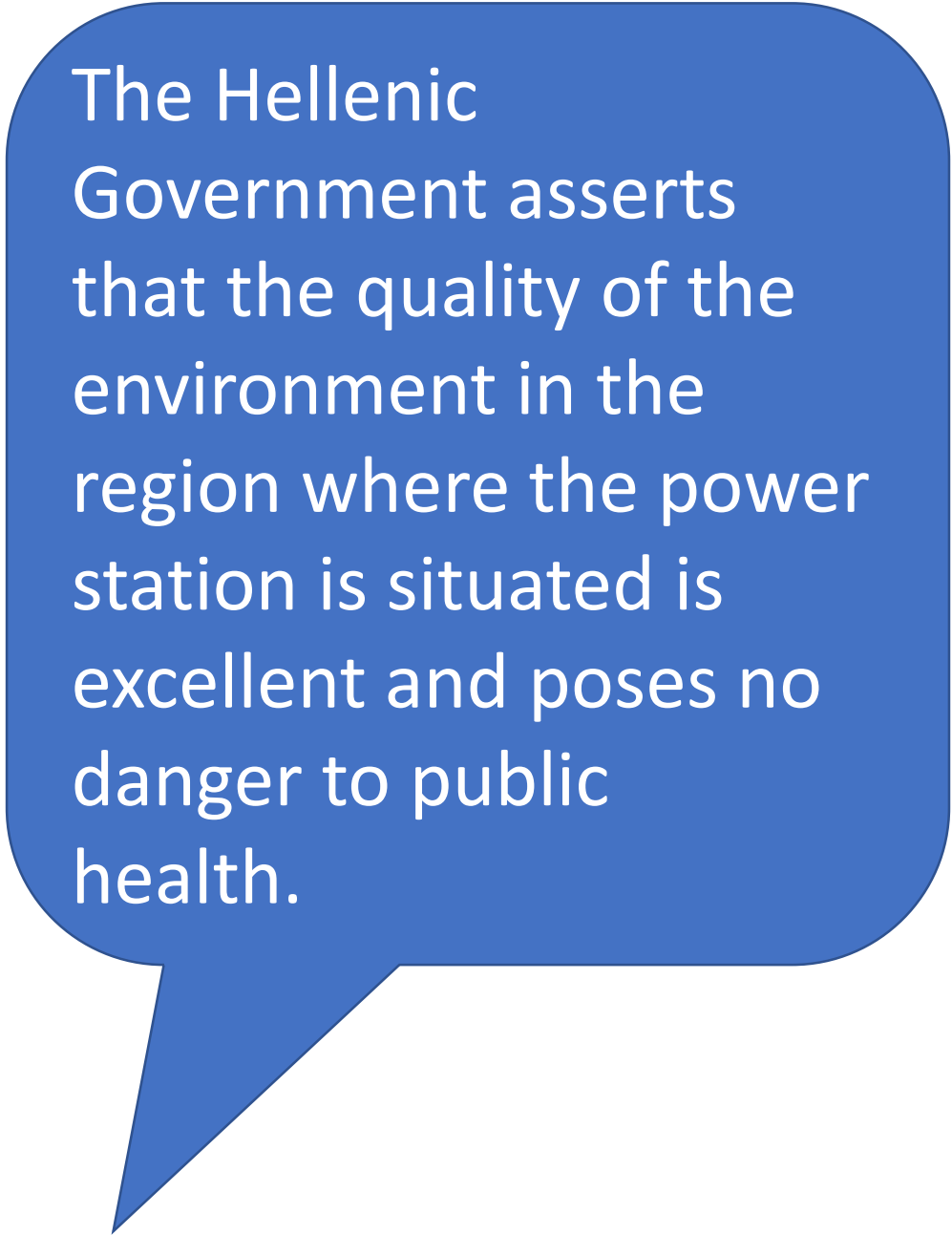


Industrial zone

The Commission says that the average pollution is irrelevant to the adjustment obligation of the unit.

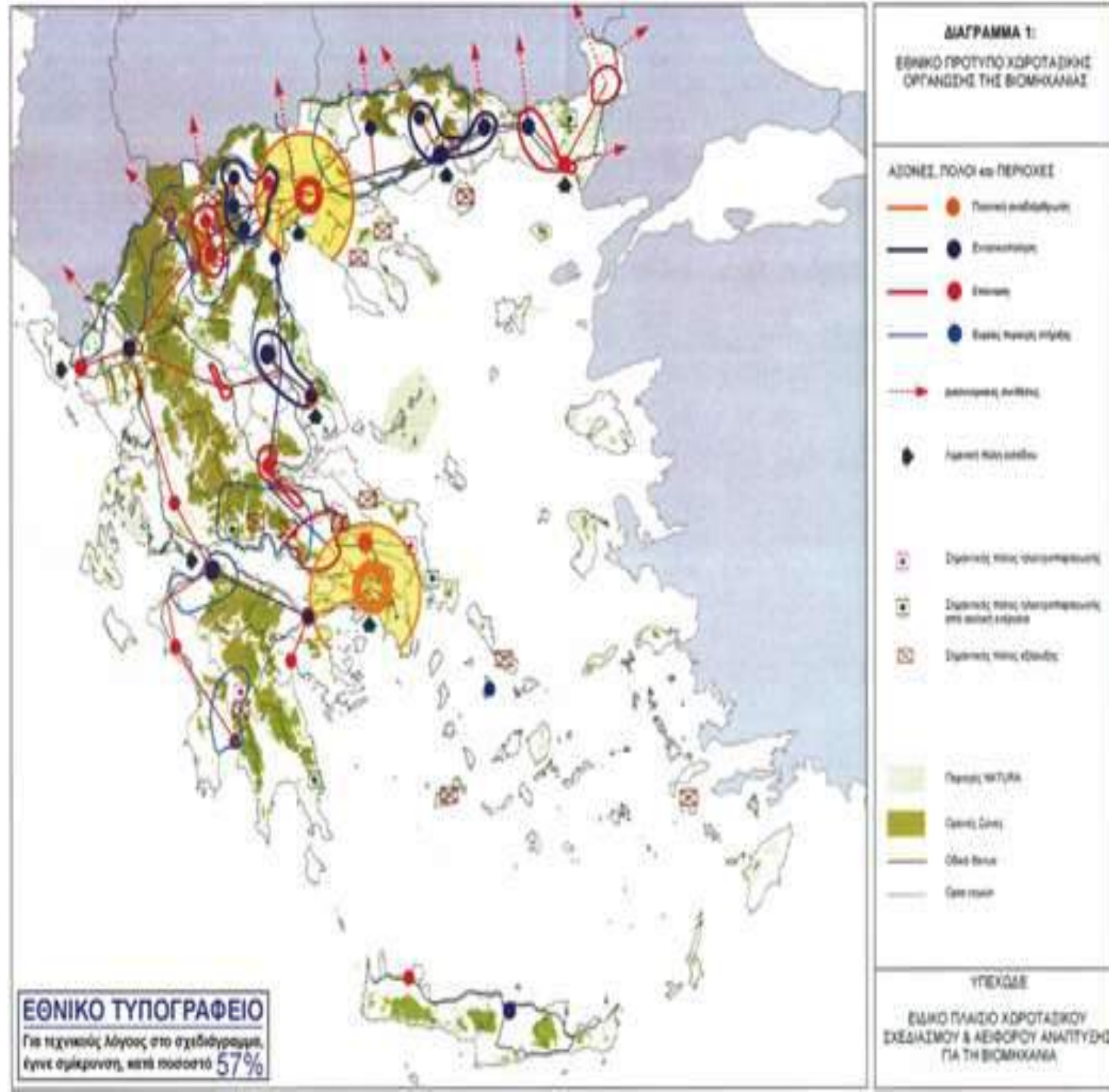
The Hellenic Government used fuel oil with a sulphur content of nearly 13% less than the limits laid down at national level, **which brought about a diminution in specific emissions of sulphur dioxide of more than 5 kg/MWh;**

The Commission argues that the statement **is too general in nature and does not enable it to be determined whether a reduction of pollution is recorded in that regard.**



The Hellenic Government asserts that the quality of the environment in the region where the power station is situated is excellent and poses no danger to public health.

*The national Spatial Plan for Industry provides that “...in the critical zone of the seacoast, industrial development should be discouraged...” and “...disturbing activities should be relocated from metropolitan areas” (Special Spatial Plan for Industry, Article 4, par. A2, Governmental Gazette ΑΑΠ’ 151/13.04.2009).*



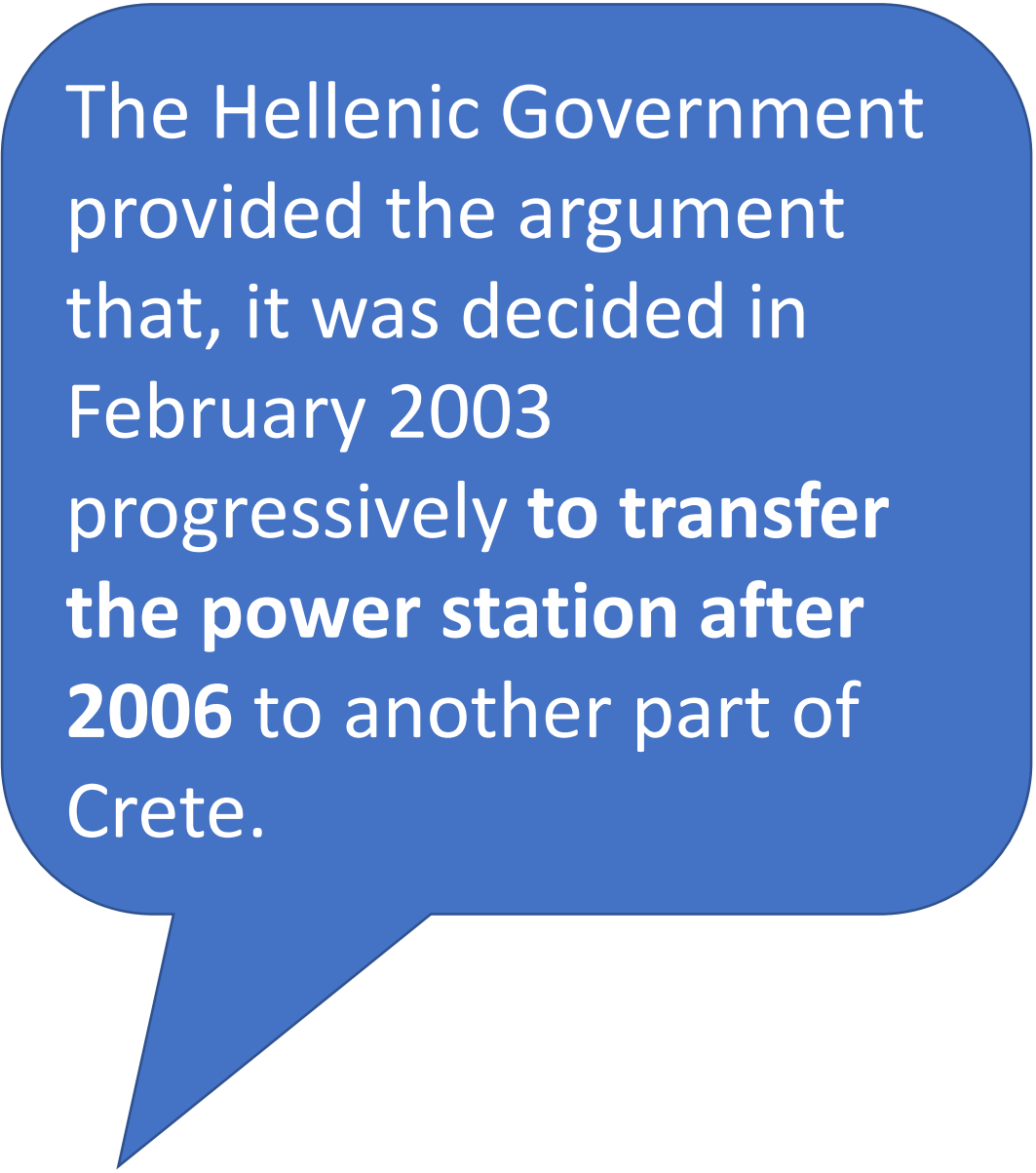
However, that assertion contradicts the letter of 10 July 2002 sent in response to the Commission's reasoned opinion, in which **the government acknowledged that there is a problem of environmental deterioration** owing to the operation of that power station.

# University of Crete



# Study of the UoC

The study states that: "... **disclosure of data is causing the local community's deep concern** about the dramatic environmental burden of this particular developed tourist and residential area, which today is still trapped between several polluting activities ..."



The Hellenic Government provided the argument that, it was decided in February 2003 progressively **to transfer the power station after 2006** to another part of Crete.



**Διεύθυνση Στρατηγικής**

Ημερ. : 31 Ιανουαρίου 2013

Προς : ΑΔΜΗΕ  
Δυρραχίου 89 & Κηφισού  
10443 ΑΘΗΝΑ

**Θέμα:** Διαβούλευση για την υποβολή παρατηρήσεων επί του Προκαταρκτικού Σχεδίου Δεκαετούς Προγράμματος Ανάπτυξης του ΕΣΜΗΕ της περιόδου 2014-2023.

Με το παρόν υποβάλλονται οι **απόψεις** μας, για την από 28-12-2012 Διαβούλευση αναφορικά με το προκαταρκτικό σχέδιο του δεκαετούς προγράμματος ανάπτυξης του ΕΣΜΗΕ της περιόδου 2014-2023. Σε σχέση με τα διαλαμβανόμενα στο ανωτέρω Σχέδιο σας παραθέτουμε τα ακόλουθα σχόλια:

Σύμφωνα με την προγραμματική Συμφωνία Γαζίου που έχει προσυπογραφεί μεταξύ της ΔΕΗ ΑΕ και των ΥΠΕΧΩΔΕ, ΥΠΑΝ, ΔΕΗ, ΡΑΕ, ΔΕΠΑ, Περιφέρειας Κρήτης, Νομαρχιακής Αυτοδιοίκησης Ηρακλείου και Δήμου Γαζίου (νυν Δ. Μαλεβιζίου) προβλέπεται

α) η κατασκευή του Νέου ΑΗΣ Κρήτης στην περιοχή Κορακιάς και η σταδιακή μετεγκατάσταση του ΑΗΣ Λινοπεραμάτων (η ΔΕΗ το 2011 προχώρησε στην Ανακοίνωση Αναγκαστικής Απαλλοτρίωσης έκτασης περίπου 2700 στρ. στην θέση Κορακιά για την κατασκευή του Σταθμού) και

That still did not reason the failure to adopt limit values for emissions from plant such as the power station, Article 13 of Directive 84/360,



## INFRASTRUCTURE

### Hellenic Motorways

### “Egnatia Odos” Motorway

### Thessaloniki Water Supply and Sewerage Company

### Athens Water Supply and Sewerage Company

### • Public Power Corporation

### Small Ports and Marinas

### Regional Airports

### South Kavala Natural Gas Storage

### OLP, OLTH, 10 Regional

## Public Power Corporation

Public Power Corporation S.A. is the incumbent power producer and supplier in Greece with more than 7.5 million customers and an installed capacity which, at 12,800 MW, exceeds 80% of the country's total.

Its power generation mix includes lignite-fired plants, gas and oil plants as well as hydro and renewable energy. PPC also owns and operates the national electricity transmission system and the distribution networks.

The HR holds 51% of PPC which is listed on the Athens Stock Exchange and has appointed CS, BofA ML, NBG and Alpha Bank as financial advisors, Kyriakidis Law firm and Shearman Sterling as legal advisors to assist with the privatisation

For more information you can visit PPC website at <http://www.dei.gr>

## News

11/06/2013

Press release: HRADF on the last-minute decision of Gazprom not to submit a binding offer for Hellenic Public Gas Corporation (DEPA)

10/06/2013

Press release: HRADF receives final bids for the privatization of DEPA Group

30/05/2013

The tender processes for EYATH and St. Ioannis Sithonia move to phase B- Strong investors' interest for the first cluster of tourist ports

# Μετοχική Σύνθεση

## Μετοχική Σύνθεση ΔΕΗ

Το μετοχικό κεφάλαιο της ΔΕΗ (1.067.200.000 Ευρώ) διαιρείται σε 232.000.000 κοινές μετοχές ονομαστικής αξίας € 4,60 η κάθε μία.

Η μετοχική σύνθεση της ΔΕΗ Α.Ε. κατά την 31.12.2012 είχε ως ακολούθως:

|                                                           |        |
|-----------------------------------------------------------|--------|
| Ελληνικό Δημόσιο <sup>(1)</sup>                           | 51,12% |
| ΙΚΑ-ΕΤΑΜ/ΤΑΠ-ΔΕΗ και ΤΑΥΤΕΚΩ/ΤΕΑΠΑΠ-ΔΕΗ (πρώην ΟΑΠ)       | 3,81%  |
| Ευρύ επενδυτικό κοινό & θεσμικοί επενδυτές <sup>(2)</sup> | 45,07% |
| Σύνολο                                                    | 100%   |

### Σημείωση (1)

Στις 11 Σεπτεμβρίου 2012, το Ταμείο Αξιοποίησης Ιδιωτικής Περιουσίας του Δημοσίου (ΤΑΙΠΕΔ) Α.Ε. κατέστη πληρεξούσιος του Ελληνικού Δημοσίου με δικαίωμα να ασκεί κατά την απόλυτη κρίση του με τον προσφορότερο τρόπο και χωρίς να λαμβάνει οδηγίες από τα μέτοχα Ελληνικά Δημόσια, τα δικαιώματα ψήφου 39.440.000 κοινών με δικαίωμα ψήφου μετοχών (ήτοι ποσοστό 17% του υφιστάμενου μετοχικού κεφαλαίου της Εταιρείας). Σημειώνεται ότι το Ελληνικό Δημόσιο είναι κύριος και ελέγχει το 100% των μετοχών του ΤΑΙΠΕΔ.

Η εν λόγω πληρεξουσιότητα έχει διάρκεια τριάντα έξι (36) μηνών από την ημερομηνία υπογραφής της σχετικής σύμβασης εκτός αν η αξιοποίηση της Εταιρείας και άρα ο στόχος της πληρεξουσιότητας ολοκληρωθεί νωρίτερα.



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
**ΑΠΟΚΕΝΤΡΩΜΕΝΗ ΔΙΟΙΚΗΣΗ ΚΡΗΤΗΣ**  
**ΓΕΝΙΚΗ Δ/ΝΣΗ ΧΩΡ/ΚΗΣ &**  
**ΠΕΡΙΒΑΛΛΟΝΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ**  
**Δ/ΝΣΗ ΠΕΡ. & ΧΩΡΙΚΟΥ ΣΧΕΔΙΑΣΜΟΥ**  
**Τμήμα Περ/κού & Χωρικού Σχεδιασμού**  
Μ. Παρλαμά 2 & Λ.62 Μαρτύρων 417  
Τ.Θ.:2051  
Τ.Κ.: 71304 Ηράκλειο  
Πληρ.: Μακρυγιάννης Χαρίτος  
Τηλ.: 2810 529268  
Fax: 2810 529256

**ΗΡΑΚΛΕΙΟ: 21/05/2012**

Αρ.πρωτ:764

Σχετ.:2066,2648,2649,3540,3832,4160,4314,4579,  
4765,5087,6614,7528,7858 /2010 ,  
οικ.178,323,546,996,1184,4416 /2011 ,  
οικ.606,764,896 /2012

**ΠΡΟΣ: ΠΙΝΑΚΑ ΑΠΟΔΕΚΤΩΝ**

**ΑΠΟΦΑΣΗ**

**ΘΕΜΑ: Έγκριση Περιβαλλοντικών Όρων για την υφιστάμενη εγκατάσταση Ι παραλαβής ,αποθήκευσης & διακίνησης υγρών καυσίμων της εταιρείας ΕΚΟ Α.Β.Ε.Ε στην περιοχή Λινοπεραμάτων Π.Ε Ηρακλείου Κρήτης .**

**Ο Γενικός Γραμματέας Αποκεντρωμένης Διοίκησης Κρήτης**

*Έχοντας υπόψη:*

- 1) Το Ν. 1650/86 (ΦΕΚ 160/Α/86) «για την προστασία του περιβάλλοντος», όπως τροποποιήθηκε με τον Ν.3010/2002 (ΦΕΚ 91/Α/2002) «Εναρμόνιση του Ν.1650/1986 με τις Οδηγίες 97/11/ΕΕ και 96/61/ΕΕ κ.ά.» και ισχύει με τον Ν.4014/2011(ΦΕΚ209/Α/2011) που αφορά την «Περιβαλλοντική αδειοδότηση έργων & δραστηριοτήτων κλπ»



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
**ΑΠΟΚΕΝΤΡΩΜΕΝΗ ΔΙΟΙΚΗΣΗ ΚΡΗΤΗΣ**  
**ΓΕΝΙΚΗ Δ/ΝΣΗ ΧΩΡ/ΚΗΣ &**  
**ΠΕΡΙΒΑΛΛΟΝΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ**  
**Δ/ΝΣΗ ΠΕΡ. & ΧΩΡΙΚΟΥ ΣΧΕΔΙΑΣΜΟΥ**  
**Τμήμα Περ/κού & Χωρικού Σχεδιασμού**  
**Μ. Παρλαμά 2 & Λ.62 Μαρτύρων 417**  
**Τ.Θ.:2051**  
**Τ.Κ.: 71304 Ηράκλειο**  
**Πληρ.: Μακρυγιάννης Χαρίτος**  
**Τηλ.: 2810 529268**  
**Fax: 2810 529256**

**ΗΡΑΚΛΕΙΟ: 28/06/2012**

Αρ.πρωτ:1333

Σχετ.3724/2011, 1816/2012

**ΠΡΟΣ: ΠΙΝΑΚΑ ΑΠΟΔΕΚΤΩΝ**

**ΑΠΟΦΑΣΗ**

**ΘΕΜΑ: Τροποποίηση- επικαιροποίηση & παράταση ισχύος της αρ. πρωτ. 3046/2.8.11**  
**Απόφασης Έγκρισης Περιβαλλοντικών Όρων για την υφιστάμενη εγκατάσταση**  
**παραλαβής ,αποθήκευσης & διακίνησης υγρών καυσίμων της εταιρείας HELLENIC**  
**FUELS S.A στην περιοχή Λινοπεραμάτων Π.Ε Ηρακλείου Κρήτης .**

**Η Γενική Δ/ντρια Χωρ/κής & Περιβαλλοντικής Πολιτικής**  
**Αποκεντρωμένης Διοίκησης Κρήτης**

*Έχοντας υπόψη:*

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**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ  
ΑΠΟΚΕΝΤΡΩΜΕΝΗ ΔΙΟΙΚΗΣΗ ΚΡΗΤΗΣ  
ΓΕΝΙΚΗ Δ/ΝΣΗ ΧΩΡΟΤΑΞΙΚΗΣ & ΠΕΡΙΒΑΛΛΟΝΤΙΚΗΣ  
ΠΟΛΙΤΙΚΗΣ**

**Δ/ΝΣΗ ΠΕΡΙΒΑΛΛΟΝΤΟΣ & ΧΩΡΙΚΟΥ ΣΧΕΔΙΑΣΜΟΥ**

**Τμήμα Περιβαλλοντικού & Χωρικού Σχεδιασμού**

Μ. Παρλαμά 2 & Λεωφ. 62 Μαρτύρων 417

Τ.Θ.: 2051

713 04 ΗΡΑΚΛΕΙΟ

Πληρ.: Δασενάκης Δημ.

Τηλ.: 2810 529251 / Fax: 2810 529256

**ΗΡΑΚΛΕΙΟ: 25-5-2012**

**Αριθ. Πρωτ.: 1300**

**ΣΧΕΤ.: 1037, 503/2012 &  
3701/2011 & 5281/2007**

**ΘΕΜΑ:** Ανανέωση – Επικαιροποίηση της με αρ.πρωτ. 5281/4-1-2007 Απόφασης του Γενικού Γραμματέα Περιφέρειας Κρήτης για την Έγκριση Περιβαλλοντικών Όρων υφιστάμενων εγκαταστάσεων αποθήκευσης και κέντρου διανομής τσιμέντου, ιδιοκτησίας «ΑΓΕΤ ΗΡΑΚΛΗΣ», στα Λινοπεράματα, Δ.Ε. Γαζίου Δήμου Μαλεβιζίου, Π.Ε. Ηρακλείου

## **Α Π Ο Φ Α Σ Η**

**Η ΓΕΝΙΚΗ ΔΙΕΥΘΥΝΤΡΙΑ ΧΩΡΟΤΑΞΙΚΗΣ & ΠΕΡΙΒΑΛΛΟΝΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ  
ΑΠΟΚΕΝΤΡΩΜΕΝΗΣ ΔΙΟΙΚΗΣΗΣ ΚΡΗΤΗΣ**

Έχοντας υπόψη:

# Greek measures according to judgment:

- are of a general nature and thus do not specifically relate to the power station,
- Or have brought about no improvement as the emissions recorded,
- or are not mandatory,
- or do not constitute measures providing for adaptation to the best available technology for the purposes of the directive,
- the Hellenic authorities laid down no limit values for emissions of sulphur dioxide and nitrogen oxide.

# Conclusion

- In light of all the foregoing considerations, it must be concluded that **the measures relied on by the Hellenic Government do not constitute the implementation of a policy or strategy for the adaptation** of the power station to the best available technology for the purposes of Article 13 of Directive 84/360.



**Current situation**



03.11.2016  
Guardian

<https://www.theguardian.com/environment/2016/nov/03/greece-set-to-win-175m-from-eu-climate-scheme-to-build-two-coal-plants>

Greece set to win €1.75bn from EU climate scheme to build two coal plants

**Public funds from Europe's carbon trading programme – set up to help poorer countries reduce emissions – will help build two coal plants that will emit about 7m tonnes of CO<sub>2</sub> a year**

- The 1100MW coal stations will cost an estimated €2.4bn, and emit around 7m tonnes of CO<sub>2</sub> a year, casting doubt on their viability without a cash injection from an exemption under Europe's carbon trading market.

- **The European parliament's industry committee last approved a rule change allowing Greece to join the scheme, the '10c derogation' of the emissions trading system (ETS).**
- The plan was cancelled after the issue came up in the media. Greece did not join the scheme.

# First Economic Adjustment Program for Greece, May 26. 2010

Elected 2009 – 2011  
(forced to resignation before referendum)

George Papandreou



# First Economic Adjustment Program for Greece, May 26. 2010

- **Page 22:** Provided: Simplification of Environmental Licensing. Led to: Law 3982/2011 fast track construction and operation of 894 manufacturing activities (need no more EIA's, licensed after filling "quality standards").
- **Page 61:** Provided: Simplification of Environmental Licensing. Led to: Law 3894/2010 (so called "Fast Track Law") for the implementation of strategic investments (Environmental Impact Assessment can be replaced by a Joint Ministerial Decision), Law 4014/2011 (Simplification of Environmental Licensing).

# Second Economic Adjustment Program for Greece, March 1. 2012

Appointed/ not elected 2011-2012  
(liquidated state funds)

Loukas Papadimos



# Second Economic Adjustment Program for Greece, March 1. 2012

- **Page 4:** Provided: Discharge of public property, reallocation of land use. Led to: A private entity TAIPEP selling assets, <https://www.hradf.com/en/>).
- **Page 32:** Provided: Review and Codification of Forestry and Forestry Legislation. Led to: Law 4467/2017.
- **Page 32:** Provided: Revision of all the 12 spatial plans (Government Gazette 260 / SAR / 9.11.2017).
- **Page 33:** Abolition of legislation that unnecessarily restrict permits, tourist activity. Led to: Law 4512/2018 (articles 127 forth) New environmental control legislation which restrict time of controls, foresee the ministerial planning of the controls and provide personal liability of the auditors.

# Third Economic Adjustment Program for Greece, June 1. 2015

Elected 2015  
(ignored referendum 61,3%)

Alexis Tsipras



# Third Economic Adjustment Program for Greece, June 1. 2015

- **Page 19:** Provided: Simplification of legislation on fuel traders.
- **Page 20:** Provided: The Government secures third party access to lignite power generation and bring around 40% of PPC's lignite-fired generation capacity under the control of other market participants (lignite is brown coal- Greece is the 3rd producer worldwide).
- **Page 20:** Provided: Water privatization (Athens and Thessaloniki water companies have launched a process of preparing business plans).
- **Page 62:** Provided: liberalization of regulated professions (auditors, lawyers, pharmacists, engineers, architects).
- **Page 22:** Provided: Development of alternative dispute resolution.

President of the court of Appeal  
Nikos Sakellariou resigned from Areopag on the 16.05.2018



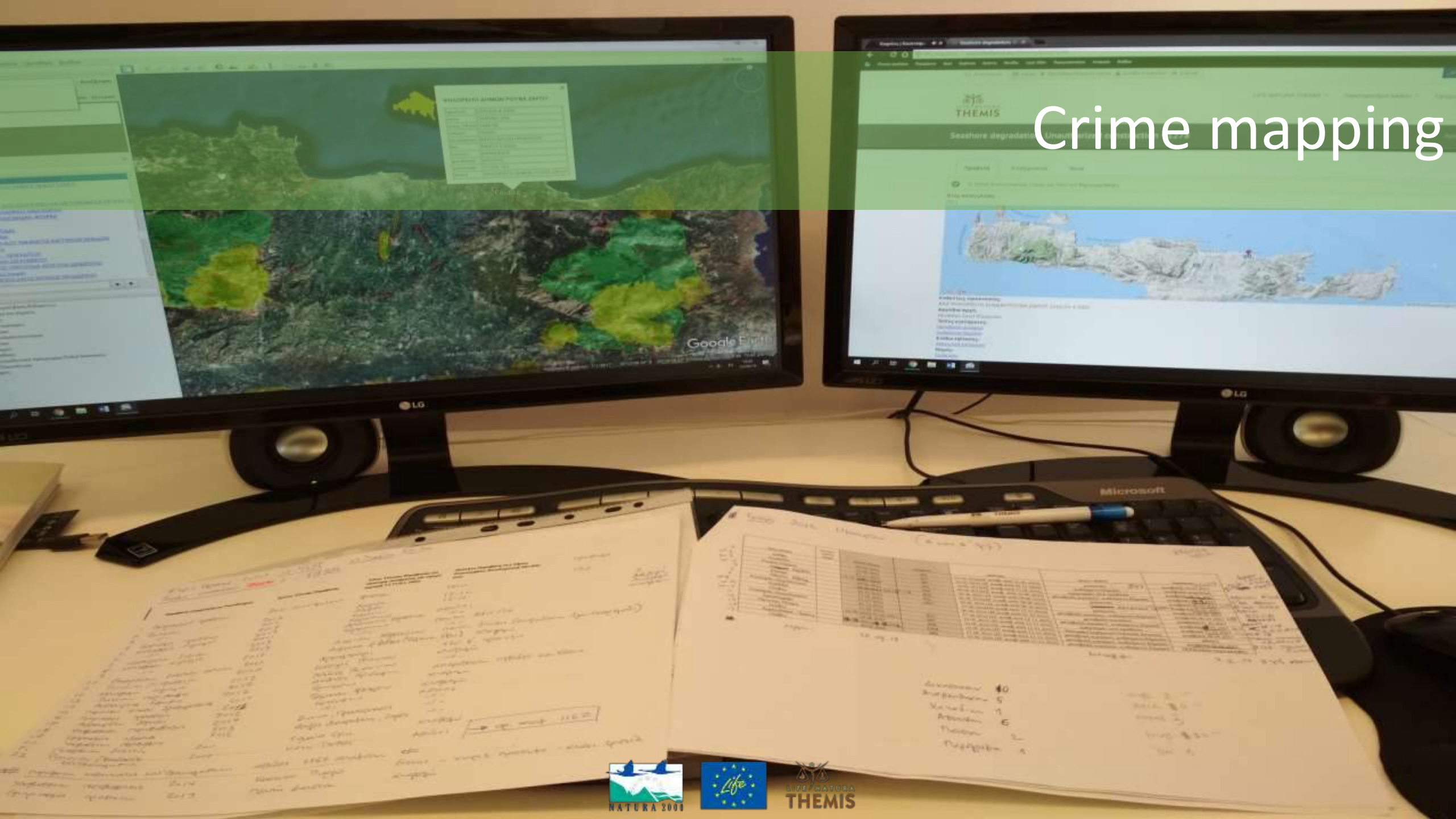
The citizens are the victims of the memorandums and the escalating dominance of the economic principles over institutional principals, whose strengths are constantly tested by the successive financial measures taken by invoking the so-called fiscal interest and which entail excessive burdens on account of cumulative character.

Already, since the first memorandum, some of my colleagues, including myself, have, with our minorities, pointed out the incompatibility of the arrangements of the memorandum with the Constitution and we had, in time, warned, unfortunately, not been listened to, the forthcoming full dominance of economy over law, which had a crucial influence on almost all state action and signaled the subsequent retreat of the rule of law and the welfare state.

# Environmental Observatory of the Heraklion Bar



# Crime mapping



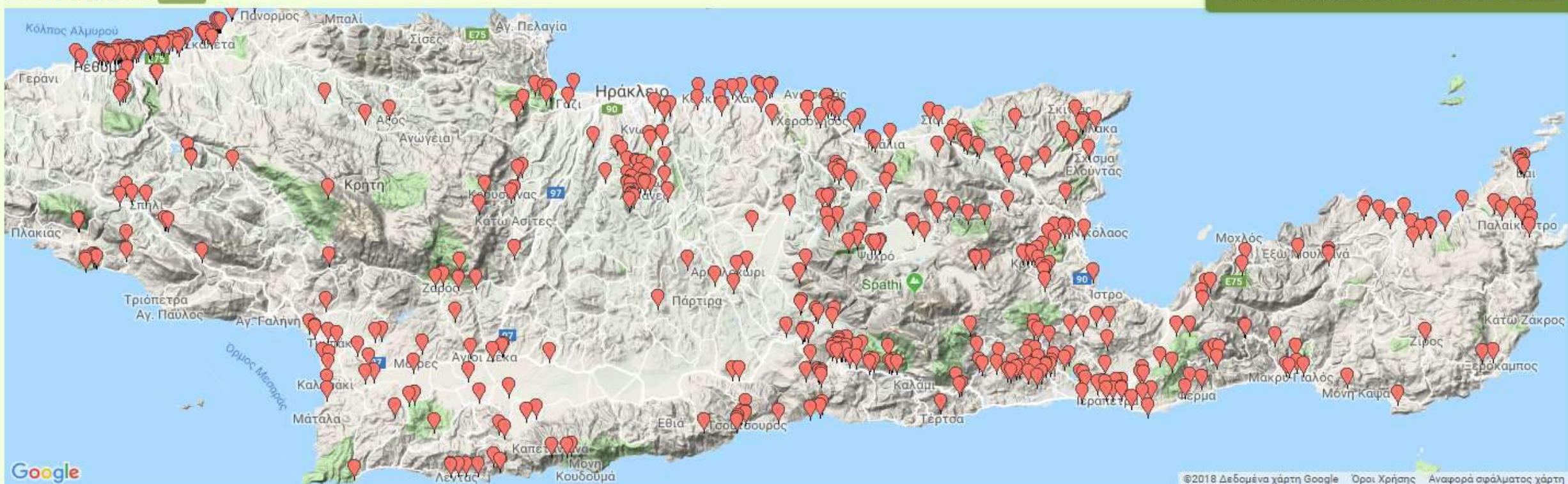
# Γεωπληροφορικός χάρτης παρακολούθησης περιβαλλοντικής παραβατικότητας

Αρχική | Γεωπληροφορικός χάρτης παρακολούθησης περιβαλλοντικής παραβατικότητας

Κατέβασμα ως:



Ποσοστό καταγεγραμμένων περιστατικών 33 %



©2018 Δεδομένα χάρτη Google Όροι Χρήσης Αναφορά σφάλματος χάρτη



Φιλτράρετε τα δεδομένα

Διαλέξτε ένα συνδυασμό κριτηρίων και πατήστε το κουμπί 'Εφαρμογή' για να φιλτράρετε τα δεδομένα.

▸ **Νομός** ▸ **Τύπος** ▸ **Στάδιο** ▸ **Έτος**

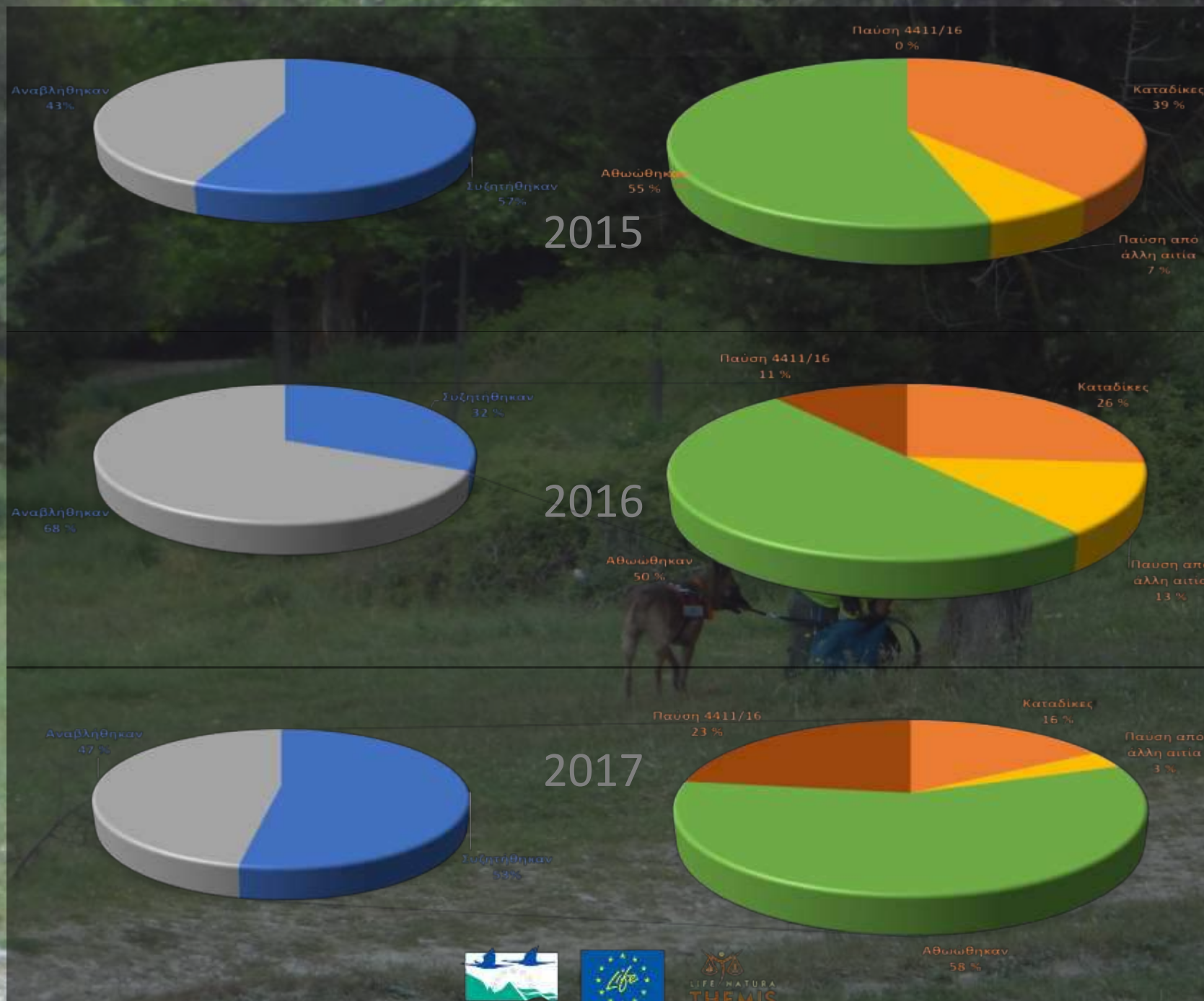


# National conferences



## Frequently prosecuted crimes (Three year comparative data)





## Prosecution termination in environmental crimes (Eastern Crete – Three year comparative data)



## Environmental convictions (Eastern Crete – Three year comparative data)



## Environmental crime acquittals (Eastern Crete – Three year comparative data)



- No data related to air pollution for the years 2010- 2017

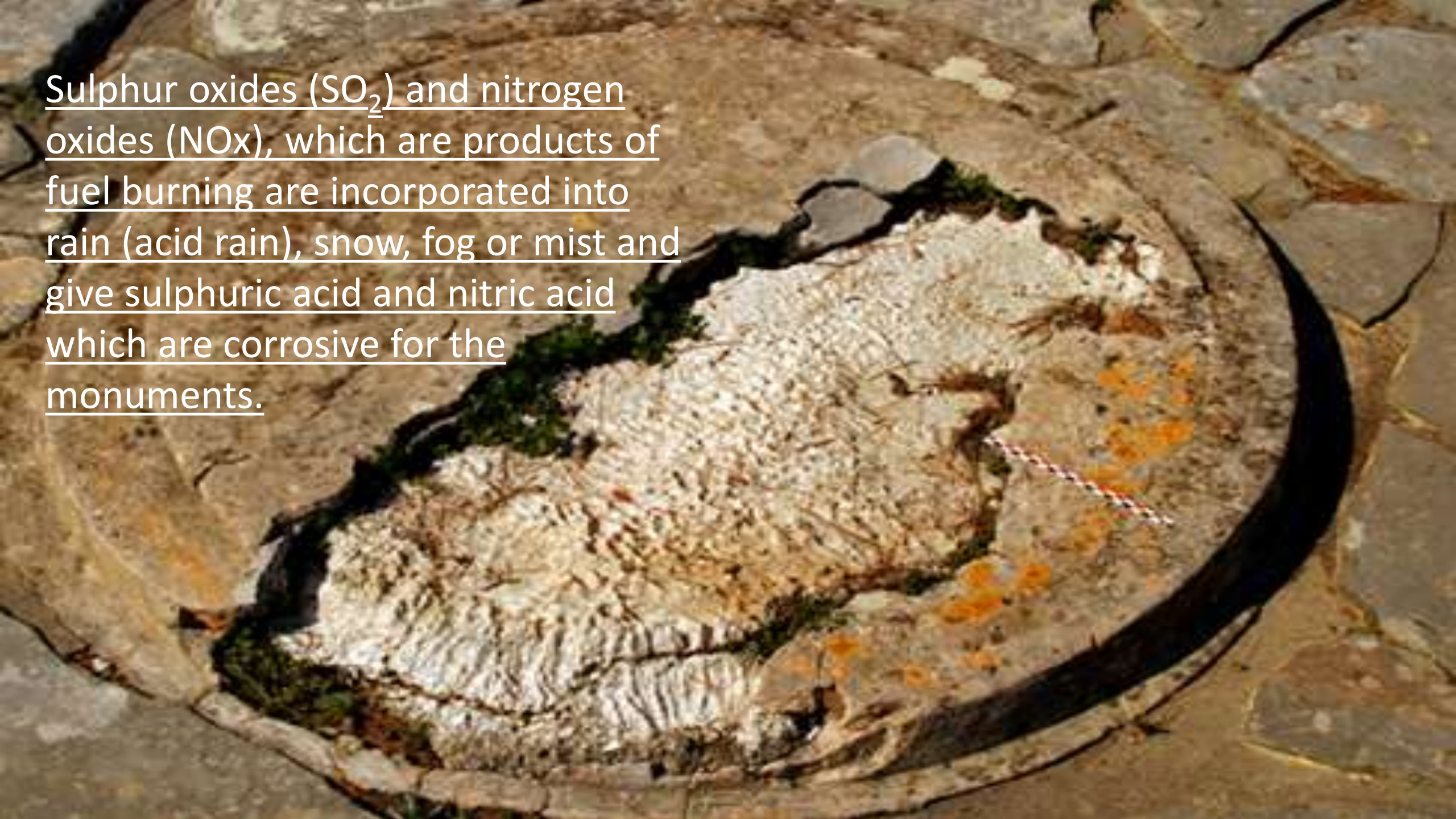
Submit after-LIFE proposals



Pollutants react to  
archaeological sites  
(building surfaces)



Sulphur oxides ( $\text{SO}_2$ ) and nitrogen oxides ( $\text{NO}_x$ ), which are products of fuel burning are incorporated into rain (acid rain), snow, fog or mist and give sulphuric acid and nitric acid which are corrosive for the monuments.





The dissolved gypsum  
elements are preserved in a  
lower level comparing to the  
cement mortar that was  
initially used for the fixation

# Objectives

- **Link legislation, environmental protection and preservation of material cultural heritage under spatial planning.**
- Characterize the multiple atmospheric pollutant sources.
- Estimate their local contribution.
- Couple scientific results and administrative regulations.
- Prepare a realistic spatial plan.

# Tasks regarding legislation:

- **Provide interdisciplinary lawmaking**
- Constitutionality and IPPC proof check of past/ current/ and future urban installations licensing.
- Couple licensing procedure to IPPC and constitutional goals.
- Facilitate administration in performance of environmental inspections.
- Provide monitoring and scientific data for preserving natural and cultural environment
- Define obligations on installations – discharge requirements for permits and regulation of multiple polluting activities.
- Assist local authorities to overcome scientific, managerial or technical disadvantages.
- Explain the challenges arising from the new Industrial Emissions Directive (IED) obligations.
- Interpret legal uncertainties, spatial planning discontinuity, inconsistencies between EU Directives and national regulations.
- Replicate study for cities with similar urban DELTAs where planning was set before 2008.

# Tasks regarding chemistry:

- Measure atmospheric pollution for one year
- Characterize chemical atmospheric sampling in the area of Knossos.
- Clarify the composition and behavior of the chemical species in the atmosphere
- Predict patterns with the use of computer simulations (modeling).
- Subscribe a pollution assessment report from DELTA polluters after data evaluation.
- Replicate the Knossos atmospheric conditions the laboratory.
- Perform accelerated ageing tests in an environmental chamber.
- Study the behavior of mineral gypsum varieties found on site.

# Outcome: Air quality plan for each delta across EU

- 1) compliance with safety distances,
- 2) obligation to apply antipolluting technology,
- 3) use of specific raw materials for fuels,
- 4) limit values for gaseous wastes from atmospheric emissions,
- 5) specific working hours,
- 6) monitoring quality and the amount of gaseous emissions,
- 7) the installation of technical means for monitoring combustion (fuel burning),
- 8) the definition of methods and frequency of sampling and analysis of raw material fuels,
- 9) technologies for limiting odour,
- 10) place a chimney at a certain height and
- 11) application of quality standards.

Thank you!

# ROMANIA

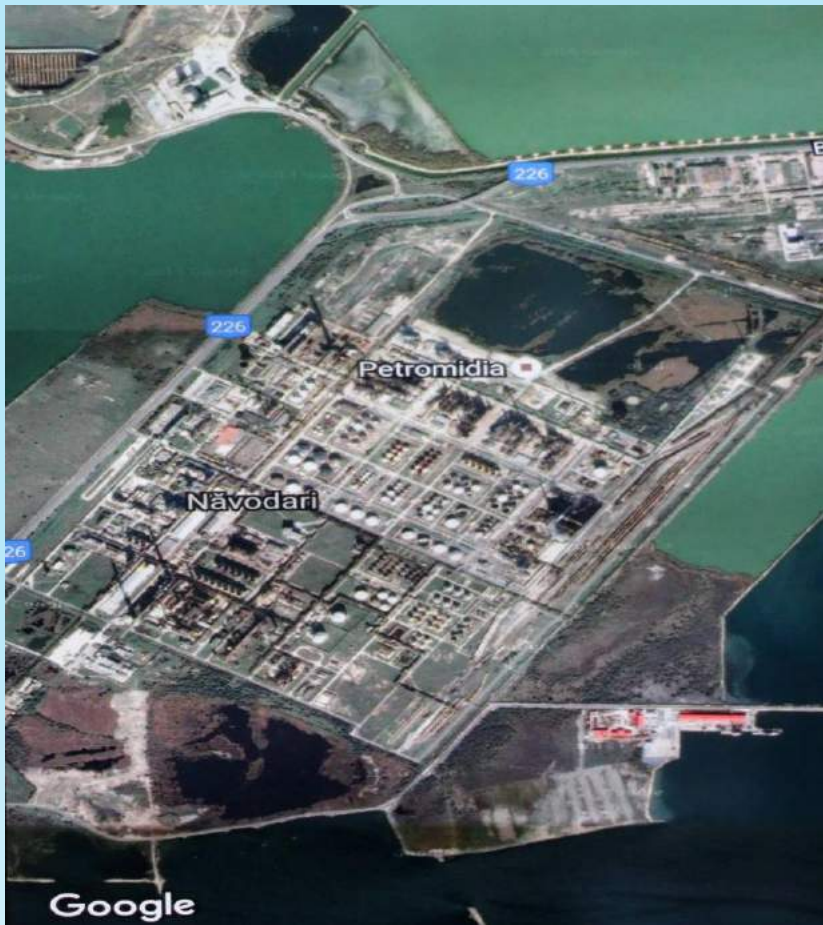
## The Prosecutor's Office Attached to the Constanța Court



***THEME: “ATMOSPHERIC POLLUTION ON THE BLACK SEA SHORE”***

The Petromidia refinery is an industrial complex in the city of Năvodari, consisting mainly of a refinery and a petrochemical plant owned by SC ROMPETROL RAFINARE SA, one of the most modern ones in the south-east of Europe

The Petromidia refinery is an industrial complex in the city of Năvodari, consisting mainly of a refinery and a petrochemical plant owned by SC ROMPETROL RAFINARE SA, one of the most modern ones in the south-east of Europe.



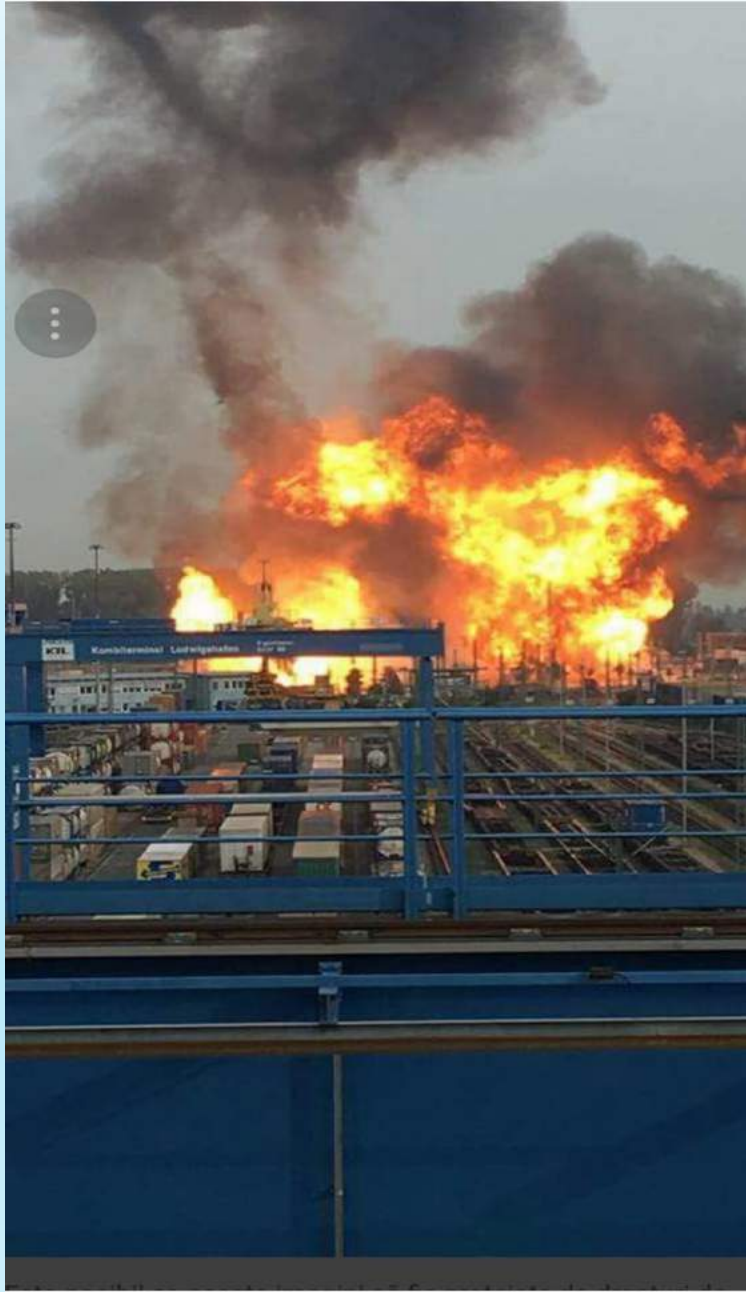
SC ROMPETROL RAFINARE SA - Petromidia Refinery is the first Romanian profile unit to successfully complete the transition period for the alignment of production facilities with European environmental requirements.



In 2013, the refinery received an Environmental Permit (A I M) for 10 years from the Environmental Protection Agency Constanta.

For the transport of petroleum products from one production sub-unit to another, bundles of pipelines are used in which the product is pumped under pressure, the transport activity being stopped when defects or different manufacturing incidents occur.





On August 22, 2016, around 17:00, there was an explosion at the refinery's facility which resulted in the emission of atmospheric emissions of considerable amounts of smoke and volatile waste oil, pollution which spread across the city of Năvodari and in following the explosion two people died and two suffered severely.



## What happened ?

At one of the pipelines through which a vacuum distillery was conveyed a crack appeared, which generated continuous emissions into the atmosphere of pollutants.

However, the refinery representatives decided not to stop the production process by installing perforated water hoses in the pipeline so as the water leaking into the perforated pipe area would neutralize the emissions.





In the period elapsed between the malfunction notification and the explosion, the control and monitoring sensors signaled over 1,200,000 alarms in the refinery's control room, and in the last 30 minutes they turned into imminent explosion warnings, but all were ignored by the refinery operators under its leadership who decided to continue the production process.

The refinery contacted its own maintenance firm and it was decided, despite the fact that the danger of explosion was amplified, to mount a hand-made sleeve with empirically established technical specifications, over the perforated area through which vacuum distilled under pressure was transported.



During the operation, the tools used by the workers' teams produced a set of sparks that triggered the ignition of the oil which was released during the last three days into the atmosphere.



The blast of the explosion and the flame produced killed two of the workers and two others were injured by burning.



At the same time, a nearby 200-liter fire extinguisher was designed as a torpedo in a kerosene-loaded tank located 50 m from the explosion site and positioned under a bundle of pipes to pump petroleum product under pressure.



Luck was given by the fact that the tank was full one hundred percent, so that its wall was not destroyed by impact with the projectile, but only deformed its walls. Experts have determined that if the tanker had not been full, it would have been perforated, the kerosene would have exploded, which would have driven a domino-style regime, with the consequence of destroying the Năvodari and Corbu localities, where some 20,000 people live .



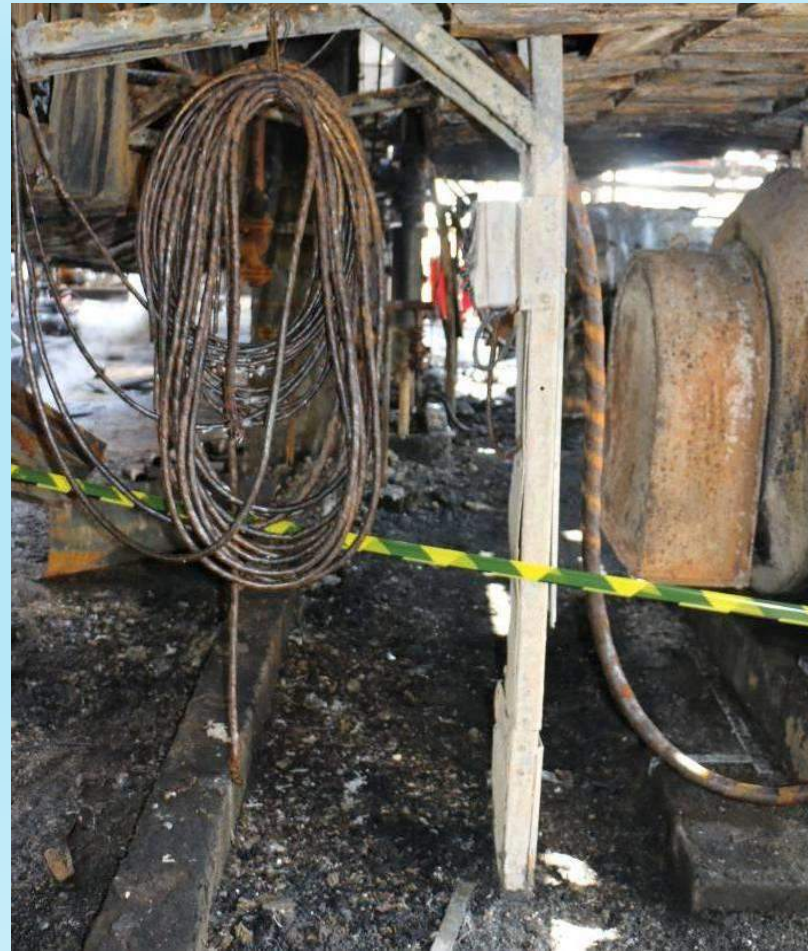


The cloud of toxic products released into the atmosphere contained, according to the measurements made, appreciable amounts of hydrocarbons which once ingested by humans, animals or birds could cause death.

The sea currents and the wind in the area made the cloud dissipate quickly, so that injuries to human health and the ecosystem have been greatly diminished in the inhabited areas.



Experts who collaborated with the prosecutor concerned have determined that the accident and the pollution produced were caused by the non-observance of the technical and labor protection norms, among which the repair activity with empirical installations and the use of insufficiently qualified personnel.



At present, the case is before the judge, in which case the indictment by which two legal persons and four natural persons have been sued for the offenses of:

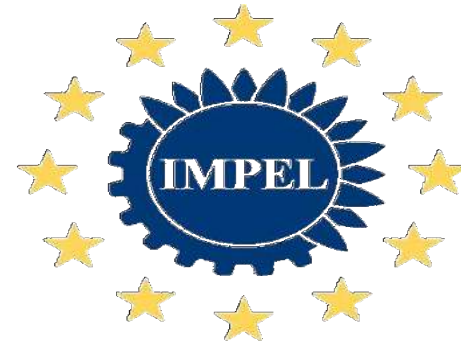
- killing from guilt, prev. by art.192 para. 1-3 Criminal Code;
- bodily injury, prev. of art. 1 - 4 Criminal Code;
- failure to take safety and health measures at work prev. of Article 349 of the Criminal Code;
- non-observance of the legal measures of safety and health at work, prev. by art. 350 Criminal Code;
- accidental pollution, prev. by art. 98 paragraph 1, lit. b of O.UG no.195 / 2005.



# Impact of breaches of the IED on air quality

---

*Horst Buether  
Industry and Air  
Head of Expert Team*



European Union Network for  
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of Environmental Law

# Duties of the Operator

## Article 11:

Member States shall take the necessary measures to provide that installations are operated in accordance with the following principles:

- (a) all the appropriate preventive measures are taken against pollution;
- (b) the best available techniques are applied;
- (c) no significant pollution is caused;
- (g) the necessary measures are taken to prevent accidents and limit their consequences



# Duties of the Competent Authority

## Article 8:

Where the breach of the permit conditions poses an immediate danger to human health or threatens to cause an immediate significant adverse effect upon the environment, and until compliance is restored, the operation of the installation, combustion plant, waste incineration plant, waste co-incineration plant or relevant part thereof shall be suspended



# Updating of Permit Conditions

## Article 21:

3 Within 4 years of publication of decisions on BAT conclusions relating to the main activity of an installation, the competent authority shall ensure that:

- (a) all the permit conditions for the installation concerned are reconsidered and, if necessary, updated to ensure compliance with this Directive;
- (b) the installation complies with those permit conditions.



# Chapter IV: Waste Incineration

## **Article 47:**

The waste incineration plant or waste co-incineration plant or individual furnaces being part of a waste incineration plant or waste co-incineration plant shall under no circumstances continue to incinerate waste for a period of more than 4 hours uninterrupted where emission limit values are exceeded.



# Mercury Limit Values

## Emission limit values

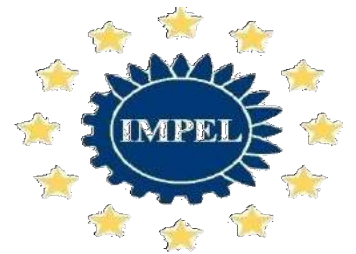
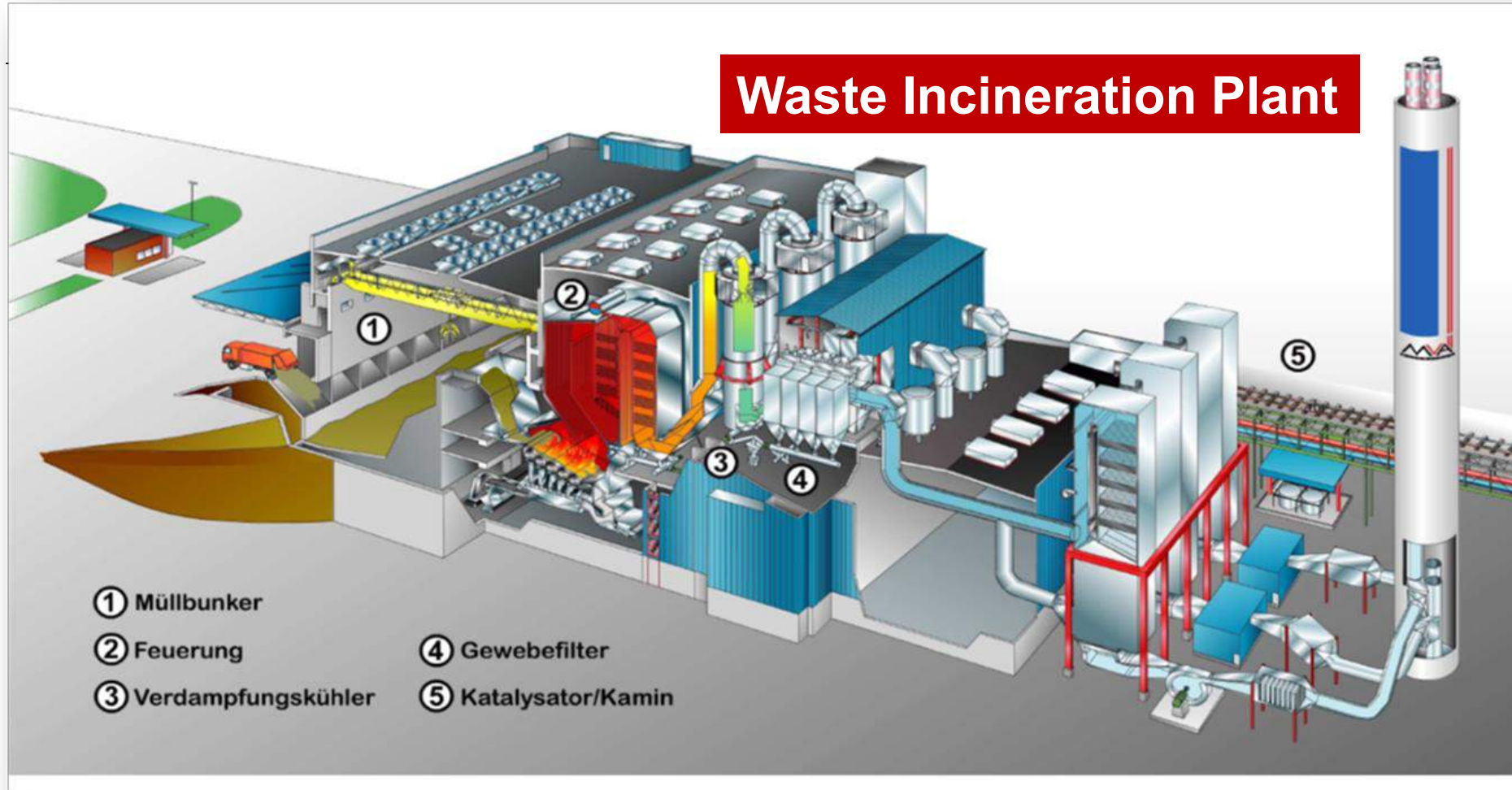
- Half-hour mean:  $50 \mu\text{g}/\text{m}^3$
- Daily mean:  $30 \mu\text{g}/\text{m}^3$

## Deposition

- Yearly mean:  $1 \mu\text{g}/\text{m}^2 \text{ d}$



# Process of Waste Incineration



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# What happened?

- Mercury illegally dumped into waste
- Operator stopped after fast increase of mercury exhaust concentrations
- After clean-up still concentrations up to  $350 \mu\text{g}/\text{m}^3$
- Starting only one line after the other until each below  $50 \mu\text{g}/\text{m}^3$
- In total 20 hours above emission limit value (burning the incinerator mercury free)



# Thread to human health or environment?

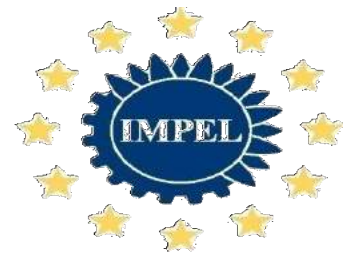
## Emissions

- Normal operation conditions: 250 g/month
- Month of the incident: 2500 g
- What is allowed (maximum): 5500 g/month

## Deposition

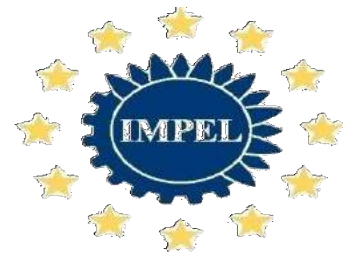
- During clean-up phase only 20% of limit value

How big was the thread? (See next slide)



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# Waste Incinerator (left)

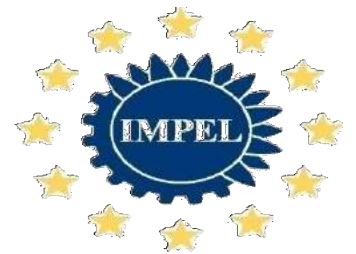


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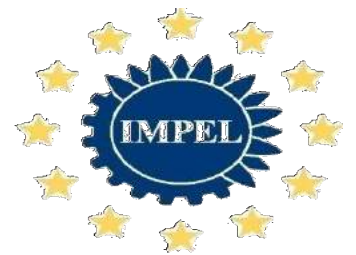
# Chlorine Iron Blaze

- Chemical installation for the production of alkoxides falling under the IED
- Chlorine accrues as by-product
- The chlorine is transported via pipeline to other production units
- The pipeline is heated to avoid condensation
- After repair of the insulation an accident happened

# How did it start?

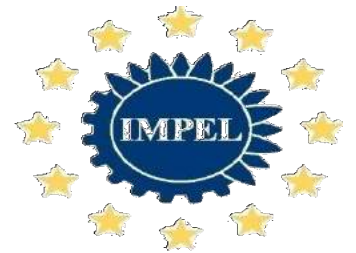


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# What a hole!

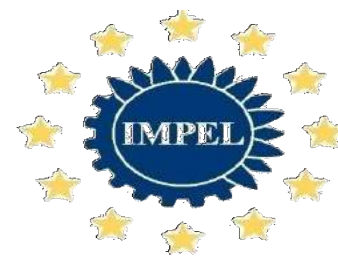


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# Reaction of iron with chlorine



Formation of iron(III)chloride which is harmful to health but not poisonous



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# Oil spill from a sub-surface connection pipeline

2 et 3 juin 2015 / 2 and 3 June 2015 / Lille

**Dr. Horst Büther**  
**Cologne, Germany**

**RETOUR D'EXPÉRIENCE**  
**sur ACCIDENTS INDUSTRIELS**

**LESSONS LEARNT from**  
**INDUSTRIAL ACCIDENTS**



Ministère de l'Écologie, du Développement durable et de l'Énergie

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2 et 3 juin 2015 / 2 and 3 June 2015 / Lille

Refinery  
with  
tank field  
(down left)





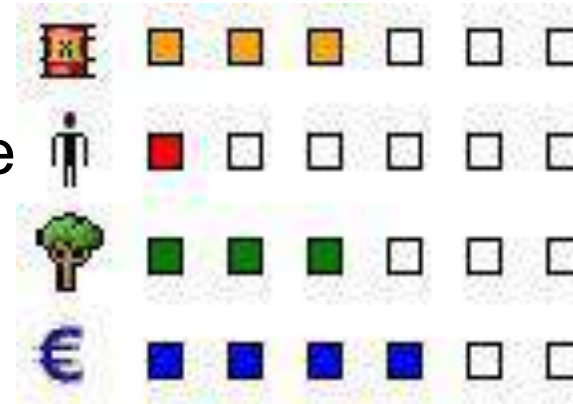
Leakage  
location  
in the  
ground





## The European scale of industrial accidents

Dangerous materials released  
Human and social consequence  
Environmental consequences  
Economic consequences



1,057,000 litres of spilled kerosene  
50,000 m<sup>2</sup> of contaminated ground water  
6,000,000 € for remedial actions

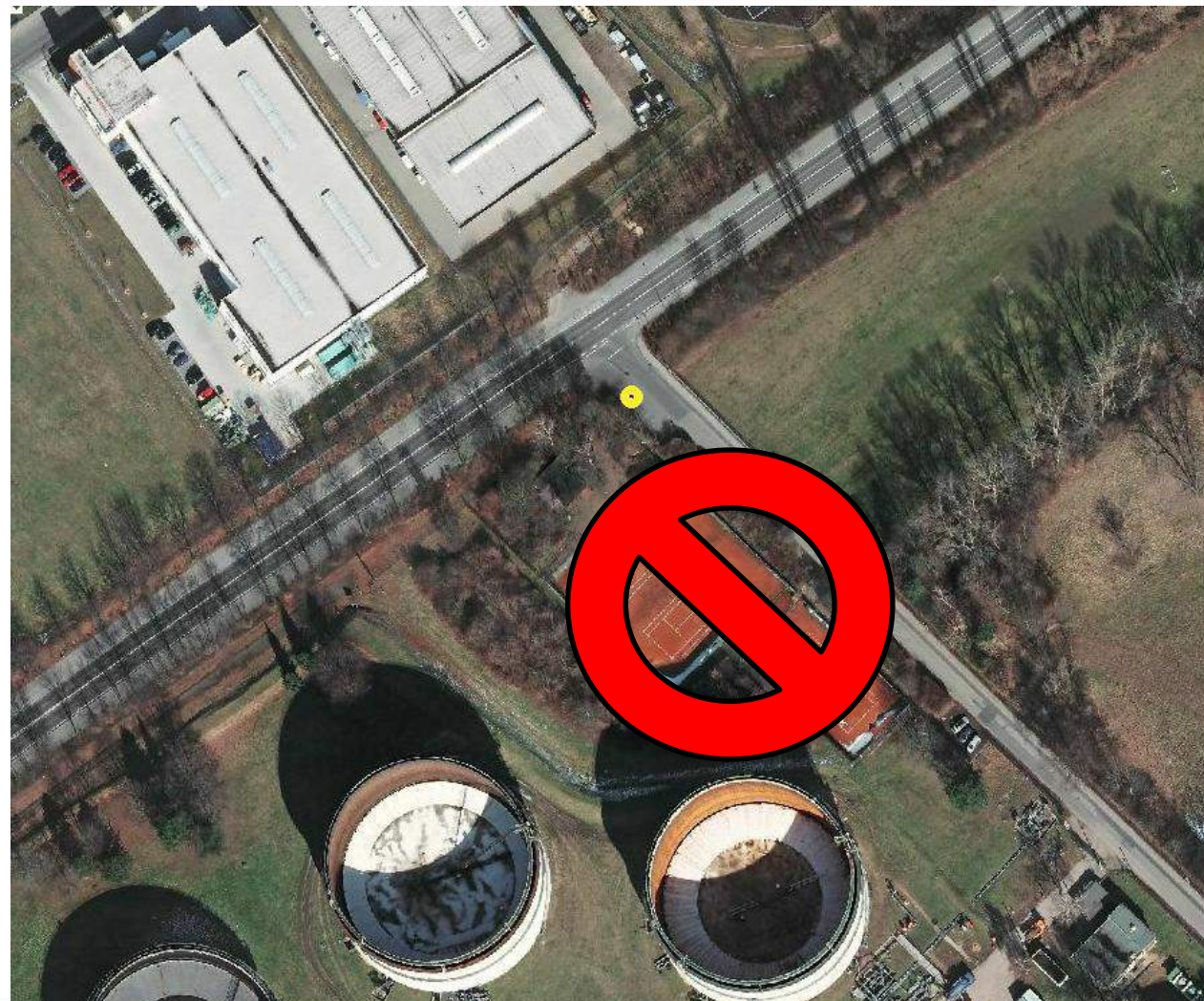


Excavation  
pit:  
Kerosene  
pipeline  
with  
crossing  
water pipe





Water pipe  
connection  
to the  
tennis court





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October  
2012





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January  
2014





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2 et 3 juin 2015 / 2 and 3 June 2015 / Lille



May  
2015



Ministère de l'Écologie, du Développement durable et de l'Énergie

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# Breaches of the IED

- No IED permit
- Substantial change without informing authority
- Not complying to IED regulations (operator duties)
- Not complying to emission limit values
- Not complying to BAT
- Not complying to Article 18
- Accidents and incidents
- Flaring in case of incidents



# Impact of breaches of the IED

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Better examples?



# European Network of Prosecutors for the Environment



## Scientific Evidence in Air Pollution Prosecutions

Aisling Kelly, Barrister-at-Law

Office of the Director of Public Prosecutions, Ireland



With the contribution of the LIFE financial instrument of the European Community

# Three things we will talk about in this session

- What does a 'regular' criminal prosecutor need to know about the Industrial Emissions Directive before contemplating a prosecution?
- What are some of the key scientific terms arising out the Industrial Emissions Directive that would be good to know?
- What are some of the examples of scientific evidence which is led at an air pollution prosecution?

**What do you need to know about the Industrial Emissions Directive if you are a regular criminal prosecutor?**

- The Industrial Emissions Directive aims to ensure a reduction in harmful industrial emissions across Europe thereby resulting in significant benefits to both the environment and human health.
- Ireland has approximately 1,000 air pollution authorisations; i.e. work places which require a licence to operate. There are about 125 industrial and waste sites with significant air emissions. The national body in Ireland which deals with air pollution and licencing for the purposes of the IED is the Environmental Protection Agency. Local municipal authorities also have a role in inspections.
- Most of the air pollution prosecutions in Ireland arise out of industrial factories which fail to adequately deal with their emissions.

# What type of pollutants does the Industrial Emissions Directive deal with?

- Sulphur dioxide –  $\text{SO}_2$  - Nasty sharp bitter smell, burned match smell, preservative for foods, wine, it is a solvent and a refrigerant – respiratory diseases.
- Nitrogen oxide -  $\text{NO}_x$  - exhaust fumes, burning of fossil fuels, primarily power plants – contributes to 'acid rain', hazy air.
- Carbon monoxide – odourless colourless gas, results from incomplete/faulty burning of fossil fuels, exhaust fumes.
- Dust including (Particulate matter)
- VOCs – volatile organic compounds
- Metals
- Chlorine
- Arsenic
- Cyanides and others.

# What type of cases are we talking about?

- Air pollution prosecutions can be technical breaches of the IED legislation; i.e. that the factory is emitting an excessive amount of a certain chemical which does not have a significant harmful effect to the environment on its own.
- Alternatively, air pollution prosecutions can relate to odour complaints; where citizens working or living near a factory have encountered negative effects with an odour coming from the factory. The odour itself may not be environmentally dangerous, but it may stop the people from being able to live or work comfortably in the vicinity of the factory.
- There may be instances where these two types of prosecution overlap.

# **What type of air pollution cases have been prosecuted in Ireland recently?**

**Arrow Group – Food preparation factories in a residential town – preparing soups, pasta sauces, ready made food – all from animal products**

**Local authority landfills – large waste management facilities – dealing with hazardous waste or putrescible waste – how is landfill capped?**

**Cement factories – dust / air particulate matter – how do you prove the chemical composition of the particulate matter is the same as that emanating from the company?**

**Pharmaceutical companies – infant milk formula factories, the dust coming from the production of the milk.**

**What are the key scientific terms  
from the Industrial Emissions  
Directive for a lawyer to know?**

# Emissions and Emission Limit Values

- **Emissions** definition:
  - Emission means the direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources in the installation into air, water or land.
- **Emission Limit Value (ELV)**
  - Emission Limit Value means the mass, expressed in terms of certain specific parameters, concentration and/ or level of an emission, which may not be exceeded during one or more periods of time.
- **Best Available Techniques**
  - The permit conditions including emission limit values must be based on the **Best Available Techniques (BAT)**.
  - BATs are the most effective techniques for preventing or reducing emissions that are technically feasible and economically viable within the sector. EU experts decide on these.
  - BAT conclusions are the reference for setting individual Licence conditions.

# Volatile Organic Compounds

- A Volatile Organic Compound is an organic substance which can be vaporised by small changes in temperature or pressure.
  - A good example is that they are found in paints and solvents.
- They evaporate at individual boiling points and result mainly from industrial processes and automobiles.
  - They impact on indoor and outdoor air pollution – always keep a window open!
- They are found in all sorts of man made and natural materials such as paints, CFCs, fossil fuels, formaldehyde, benzene etc
- TVOC – total organic compounds
- VVOC – very volatile organic compounds

**IED definition: “Volatile organic compound means any organic compound as well as the fraction of creosote, having at 293,15K a vapour pressure of 0.01kPa or more, or having a corresponding volatility under the particular conditions of use.**

# Volatile Organic Compounds

- **How are they measured?**
- Indoor emission chambers or sorption tubes (where the VOCs are absorbed and then measured off the tubes later through water or burning).
- Pumped absorption tubes – a measured volume of air is drawn through a sorbent tube containing appropriate sorbent, specifically selected for the compound or mixture to be sampled. The collected vapour is then thermally desorbed in an inert carrier gas chromatograph fitted with a suitable capillary column and detector.
- The desorbed quantities of air are then measured off by gas chromatography (burning).
- Serious adverse health effects.

# Odour prosecutions

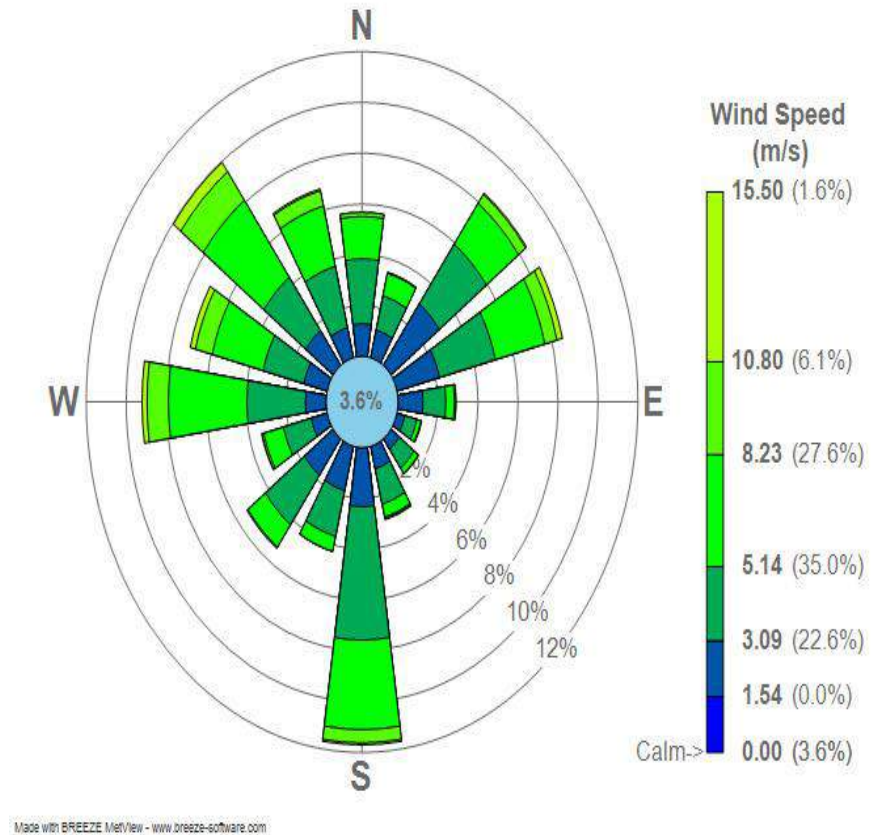
- A common condition of any Industrial Emissions Directive Licence in Ireland is:
  - *“No emissions, including odours, from the activities carried on at the site shall result in an impairment to the environment beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary.”*
- This means that once neighbours of any factory or business which is subject to an IED licence regards their use of the environment to be impaired, they can then complain to the EPA who in turn can investigate and decide if the issue is sufficiently serious to prosecute in a court of first instance.

**What type of scientific evidence is led in air pollution trials?**

**The scientific evidence is given by way of oral evidence from expert witnesses and documentary evidence compiled by experts.**

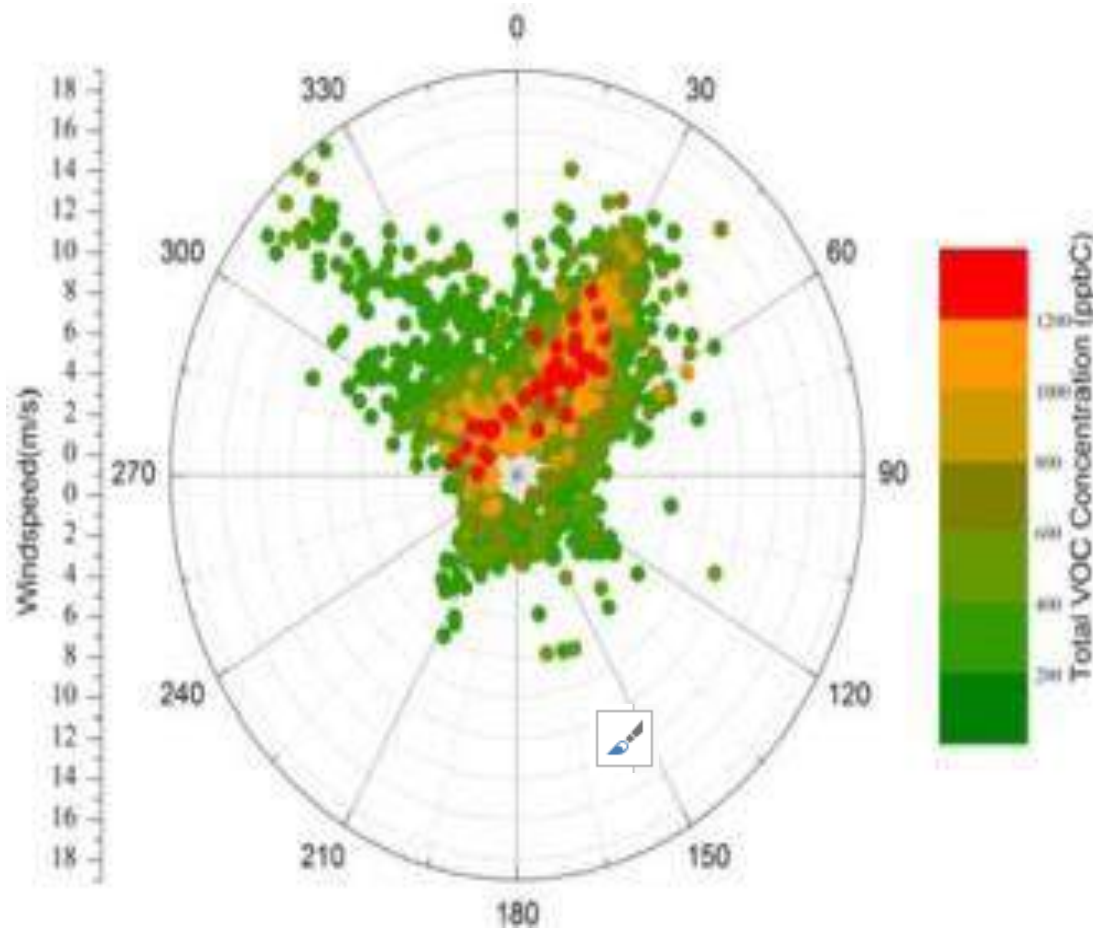
# Odour assessments and Wind roses

- Odour assessments can be carried out by EPA inspectors
- By citizens in the neighbourhood
- By employees of the factory
- By expert sub contractors.
- FIDOL;
  - Frequency
  - Intensity
  - Duration
  - Observation
  - Length



# Showing the Total VOC concentration in picture format

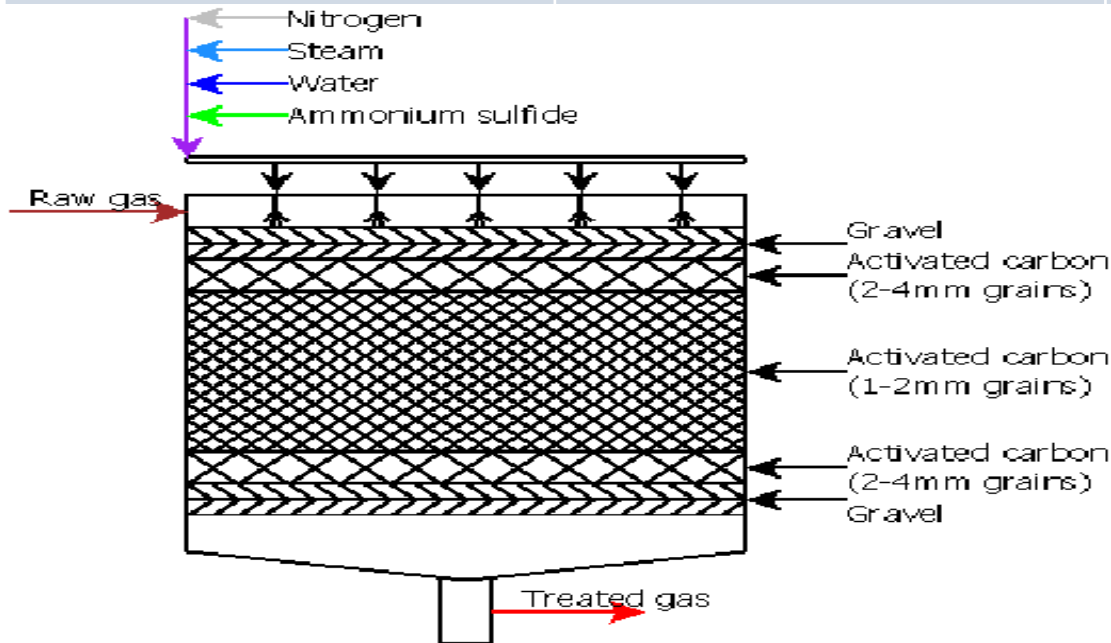
- Data analytic tools can be used



# Odour Abatement Systems

Carbon beds

How are they maintained?



Are they fit for purpose?

Plasma units

Chimney stacks

Complaint management system?

# Thank you for listening!

Wish I was there with you all!

Aisling Kelly, Barrister-at-Law



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