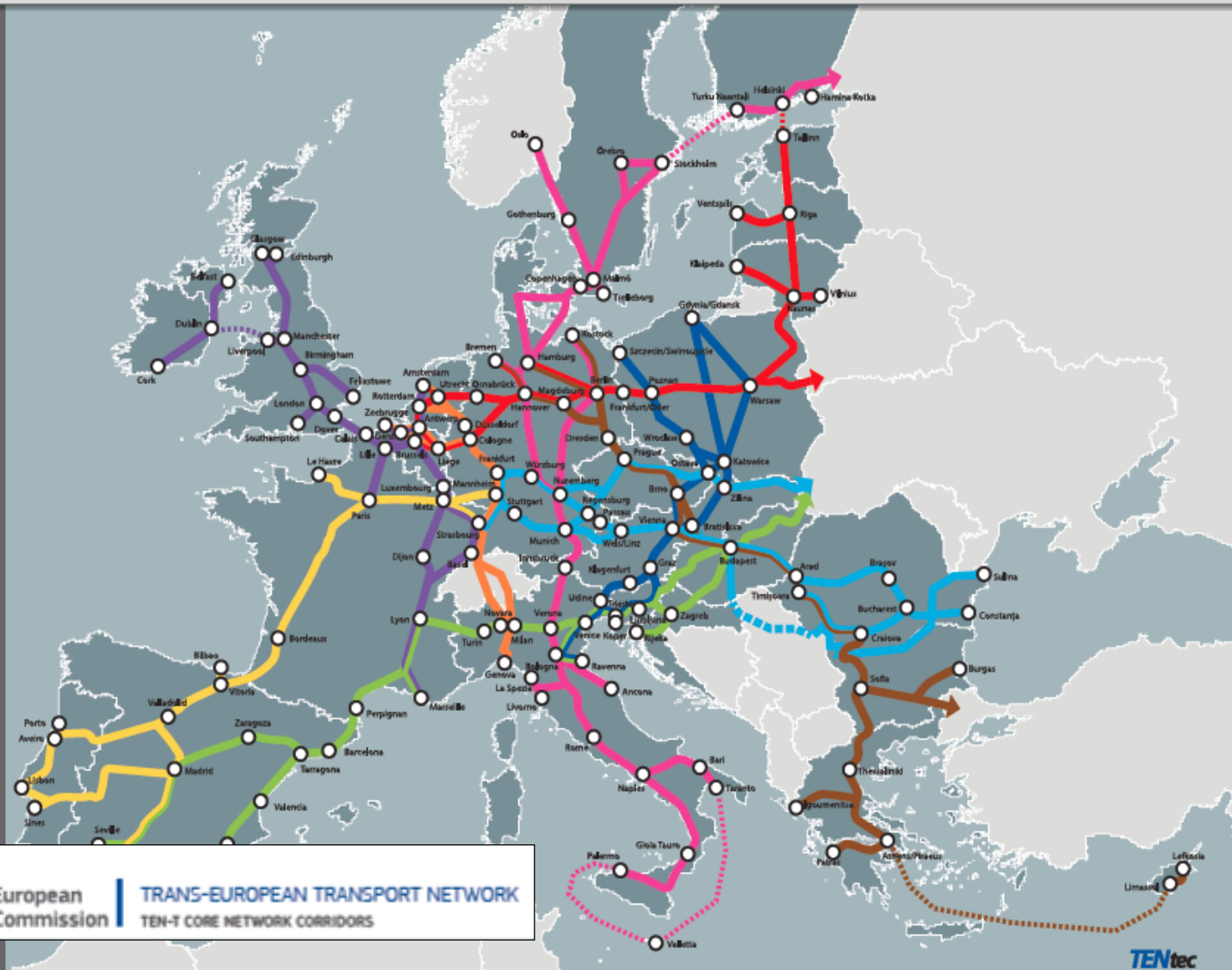


THE IMPLEMENTATION OF WASTE MANAGEMENT SYSTEM IN EGNATIA MOTORWAY

Thalia Valkouma
Head of Environment Department
Operation Maintenance & Exploitation
Egnatia Odos S.A.

EGNATIA ODOS S.A. – THE COMPANY

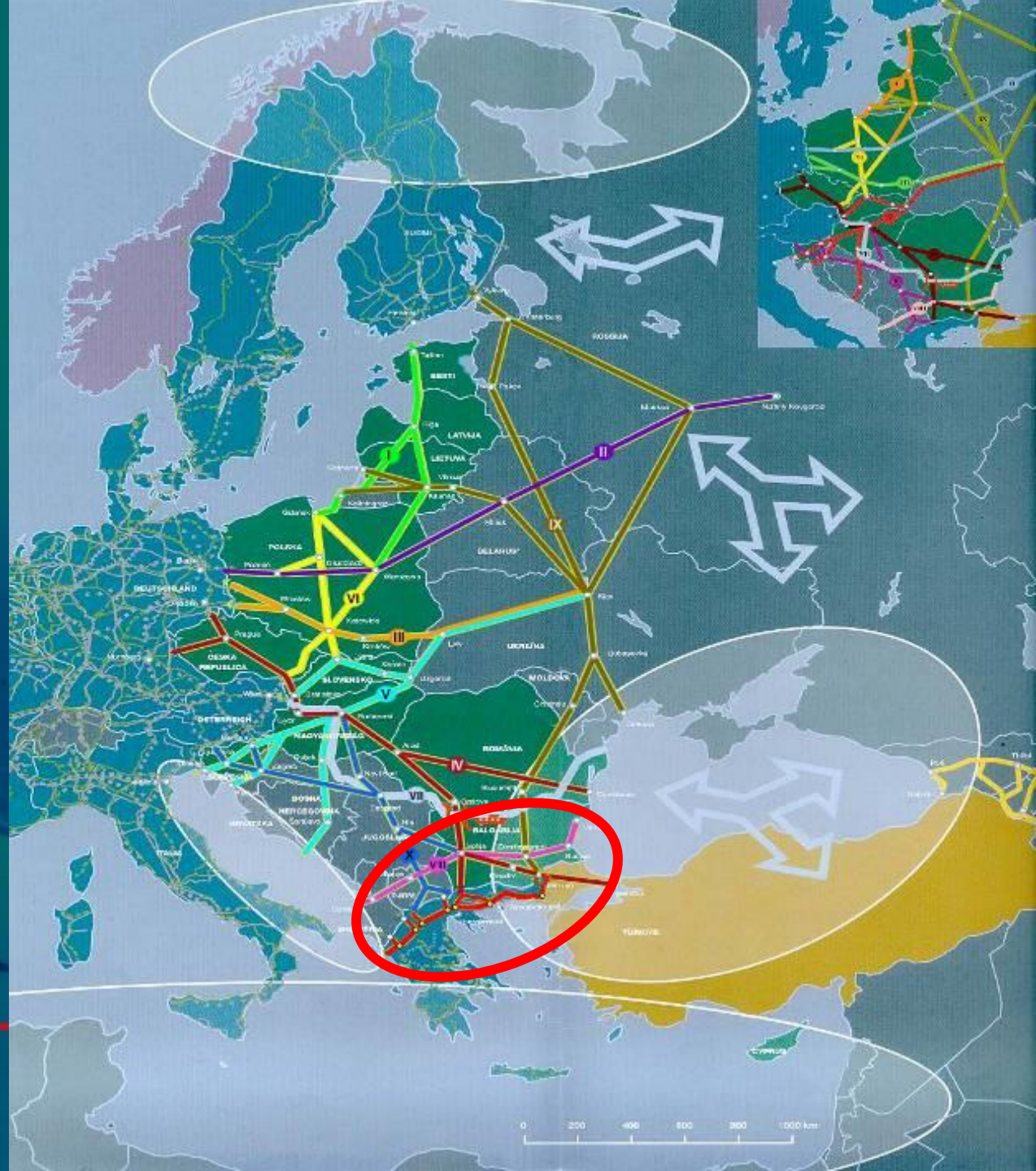
- **EGNATIA ODOS S.A was established in 1994**
- **Responsible for the design, construction, maintenance, exploitation and management of one of the most complex and ambitious infrastructure projects**
- **Highly qualified professional staff**
- **Innovations in the management and administration of public works projects**
- **Complete and efficient environmental strategy with respect to national resources and the implementation of advanced technologies**



EGNATIA MOTORWAY

&

THE TRANS EUROPEAN TRANSPORT NETWORK

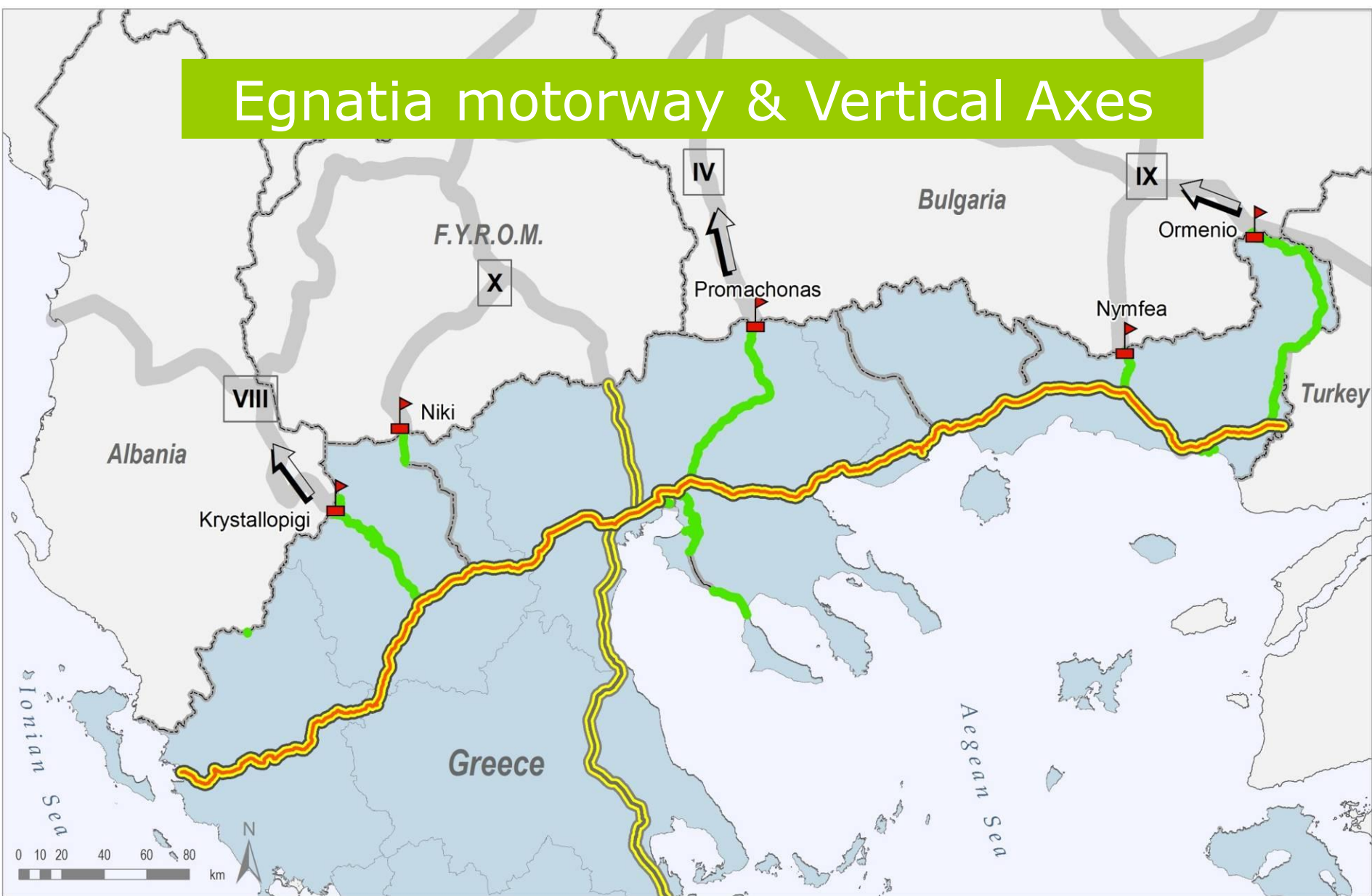


ΕΓΝΑΤΙΑ ΟΔΟΣ Α.Ε.

1000 km of motorway



Egnatia motorway & Vertical Axes



ΕΓΝΑΤΙΑ ΟΔΟΣ Α.Ε.

THE IDENTITY OF EGNATIA MOTORWAY

- **AXIS LENGTH:** 670 km
(From Igoumenitsa to Kipi)
- **TECHNICAL FEATURES:** Dual carriageway of international standards with two traffic lanes per direction, a central reserve and an emergency lane
- **INTERCHANGES:** 63
- **ENTRANCE/EXIT OVERBRIDGES & UNDERPASSES:** 350
- **MAGOR BRIDGES:** 177 with a total length of 40 km and many smaller ones
- **TUNNELS:** 73 twin-bore up to 4,8 km long, with a total length of 50 km
- **RIVER CROSSINGS:** 43
- **PROPOSING AND FINANCING:** Archaeological excavations, protection of monuments, environmental protection works





177 major bridges, approximately 40 km long





**73 twin-bore tunnels of 50km length
(100km measured as single-carriageway ones)**





63 ROAD INTERCHANGES



IGOUMENITSA



THESSALONIKI



ACCESS TO PORTS

KAVALA



ALEXANDROUPOLI



EGNATIA MOTORWAY



EGNATIA MOTORWAY



EGNATIA MOTORWAY



EGNATIA MOTORWAY



EGNATIA MOTORWAY



EGNATIA MOTORWAY



The environment surrounding Egnatia Odos motorway

Along the route of the motorway one can find:

- **17 Natural Habitat Areas protected under the European "Natura 2000" Network**
- **4 Wetlands protected under the Ramsar Convention**
- **70 wildlife conservation areas (formerly wildlife reserves)**
- **270 sites and monuments of historical interest**
- **Most of the longest rivers in Greece (Evros, Nestos, Strymonas, Gallikos, Axios, Aliakmonas, Venetikos, Metsovitikos, Arachthos, etc).**

**PREVENTING
WATER POLLUTION**



**PROTECTING
ECOSYSTEMS**

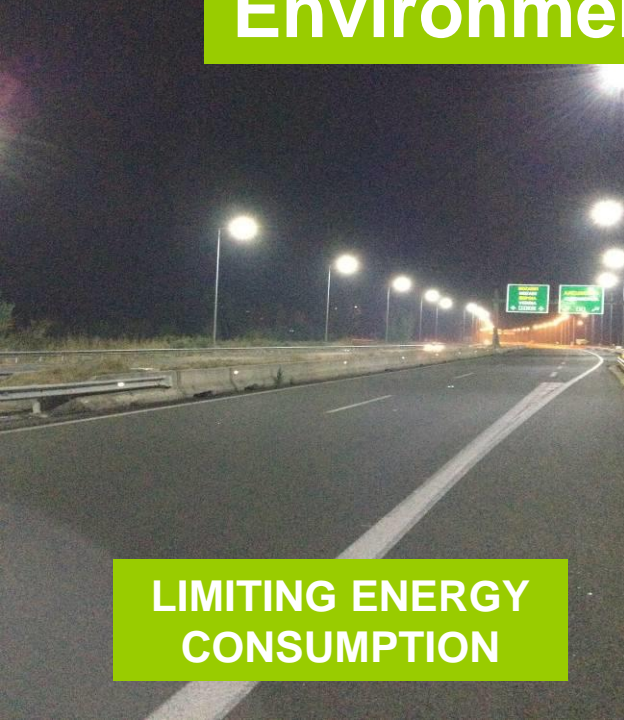


**MONITORING
WATER POLLUTION**



Environmental Protection / Sustainability

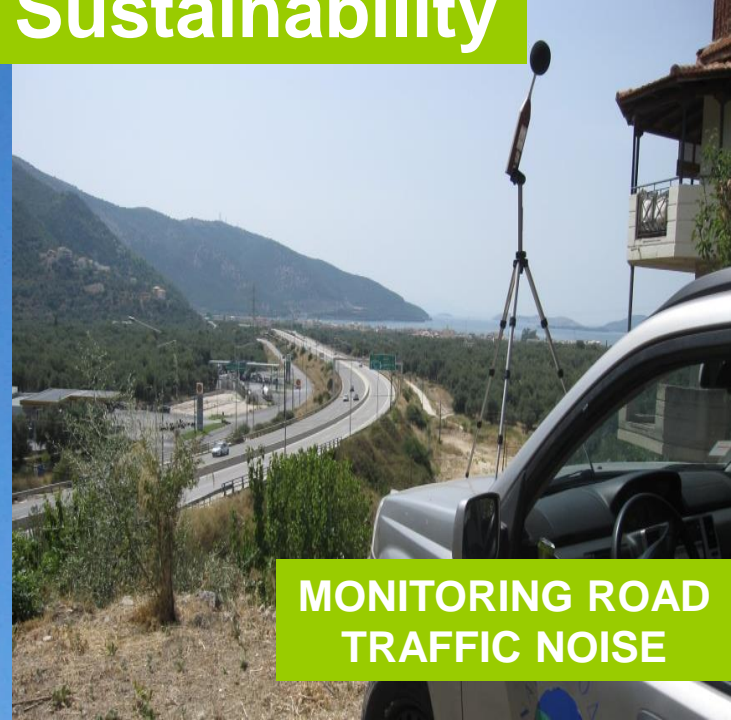
**LIMITING ENERGY
CONSUMPTION**



**MONITORING AIR
POLLUTION**



**MONITORING ROAD
TRAFFIC NOISE**



WASTE MANAGEMENT SYSTEM

Along the Egnatia Motorway, the collection of waste found on the pavement, the central reserves, the slopes and the roadside facilities is performed on an every-day basis. Most of this waste consists of: packaging waste – plastic waste – dead animals – organic waste – electrical waste – mineral oils. Due to its size, the company considered it necessary to implement an integrated program for the management of the produced waste pursuant to the standing legislation and with the aim to reduce the motorway pollution.

WASTE MANAGEMENT SYSTEM

Types of waste collected / produced from Egnatia Motorway

Non Hazardous Waste

- Plastic
- Glass
- Wood
- Elastic/Tyres
- Paper
- Aggregates
- Metal/Aluminum/Scrap
- Organic waste
- Dead animals

Hazardous Waste

- Oil Waste/Heavy Metals, etc.
- Electrical & Electronic Equipment
- Batteries & Accumulators



WASTE MANAGEMENT SYSTEM

The total motorway is divided into four areas in order to achieve the most efficient way of management in all of the above mileage. Four district offices are responsible for the maintenance and operation of the road, situated in those areas : the Regional Office of Ioannina, the Regional Office of Grevena, the Regional Office of Thessaloniki and the Regional Office of Komotini.

WASTE MANAGEMENT SYSTEM

Egnatia Odos S.A. runs contracts for the Operation & Maintenance of the motorway.



Among other tasks the contractors are responsible for surveying the motorway and collecting the waste found in it.

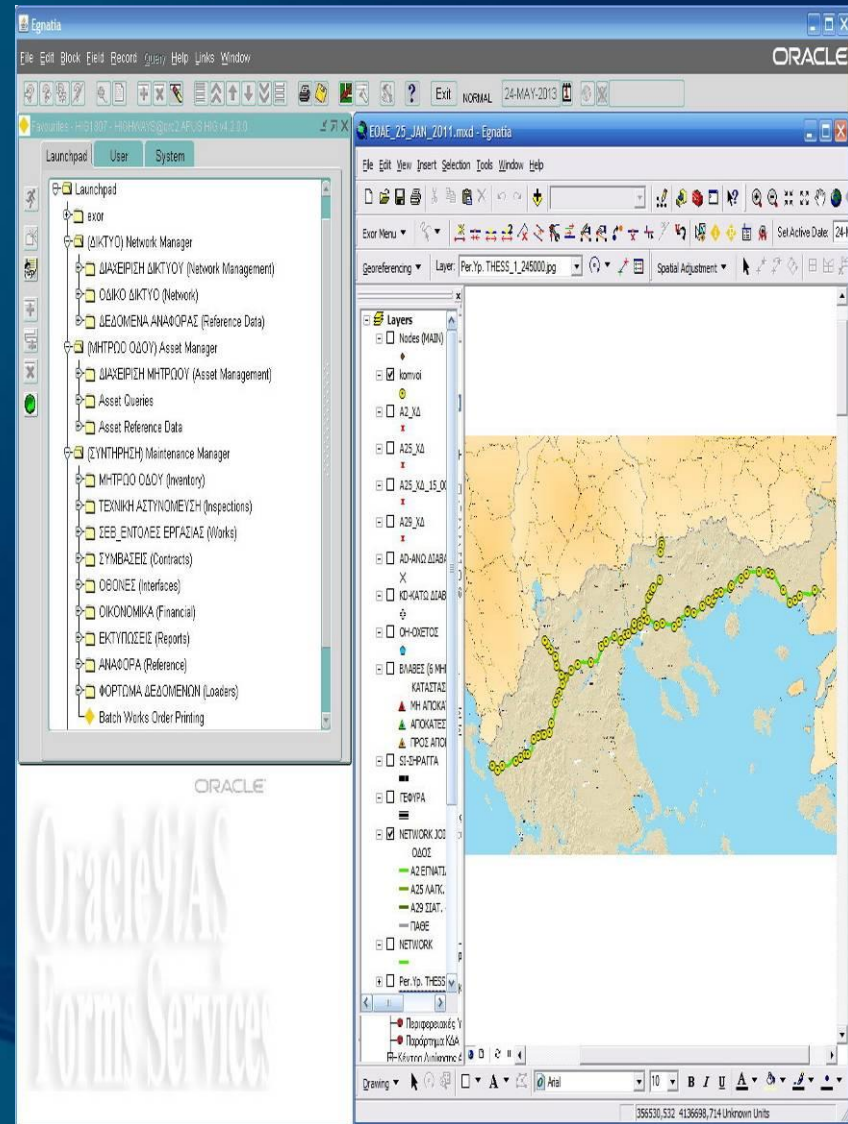
WASTE MANAGEMENT SYSTEM

Egnatia Odos SA cooperates with licensed Waste Management Companies & Systems responsible for the management of different kinds of waste. The waste are delivered to waste recycling centres or to authorised treatment facilities where they are weighed and categorized in accordance with the relevant european directives and national laws.



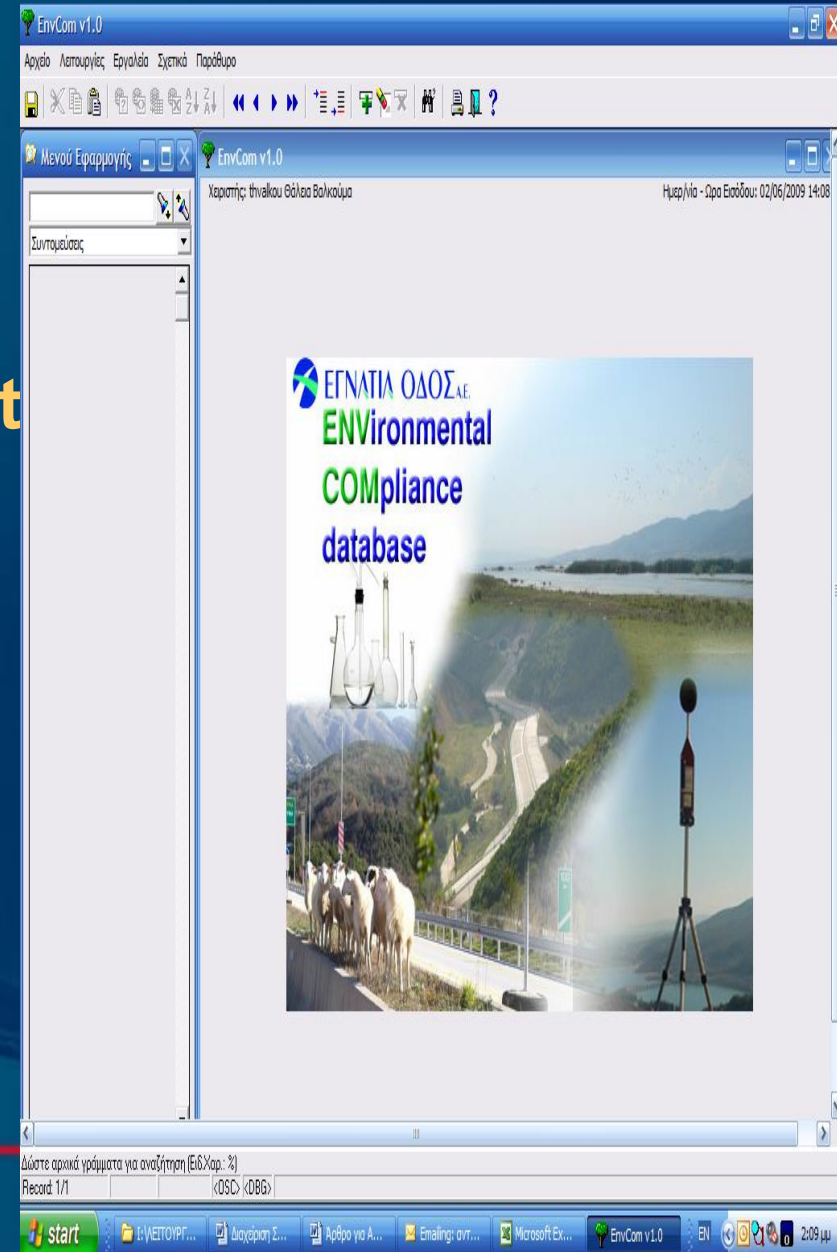
WASTE MANAGEMENT SYSTEM

The company uses an information system (Routine Maintenance Management System - RMMS) for the effective management of the routine maintenance of the motorway, including the collection of waste. By this information system the control of works is achieved as well as the quality and effectiveness of the maintenance services.




WASTE MANAGEMENT SYSTEM

The Environment Department of the Operation, Exploitation and Maintenance Division of the “EGNATIA ODOS SA” gathers and enters all relevant data into a specially designed database: ENVironmental COMpliance (ENV.COM) Database, and then dispatches the resulting summary reports to the Ministry for the Environment, Energy and Climatic Change.



WASTE MANAGEMENT SYSTEM

 Αντικείμενα

Συμβάν Αντικειμένου

Εναρξη

Λήξη

Ημερομηνίες

03/10/2007

Κατασκευή

Τμήμα

Χ.Θ.

Αρχή

0600

Τέλος

Λειτουργία

Τμήμα

Χ.Θ.

Αρχή

2322-01

6+300

Τέλος

Θέση Επί της οδού

Τύπος GPS δεδομένων

Gps (x/E)

Gps (y/N)

Υψόμετρο (m)

Αντικείμενα

Σχόλια / Παρατηρήσεις

Αρχεία / Φωτογραφίες

Σχετικές Κ.Υ.Α

Κατηγορία

Πλαστικά

Περιγραφή

Φελιζόλ

Ενέργεια

Περισυλλογή

Καιρικές Συνθήκες

Αίθριος



WASTE MANAGEMENT SYSTEM

RESULTS



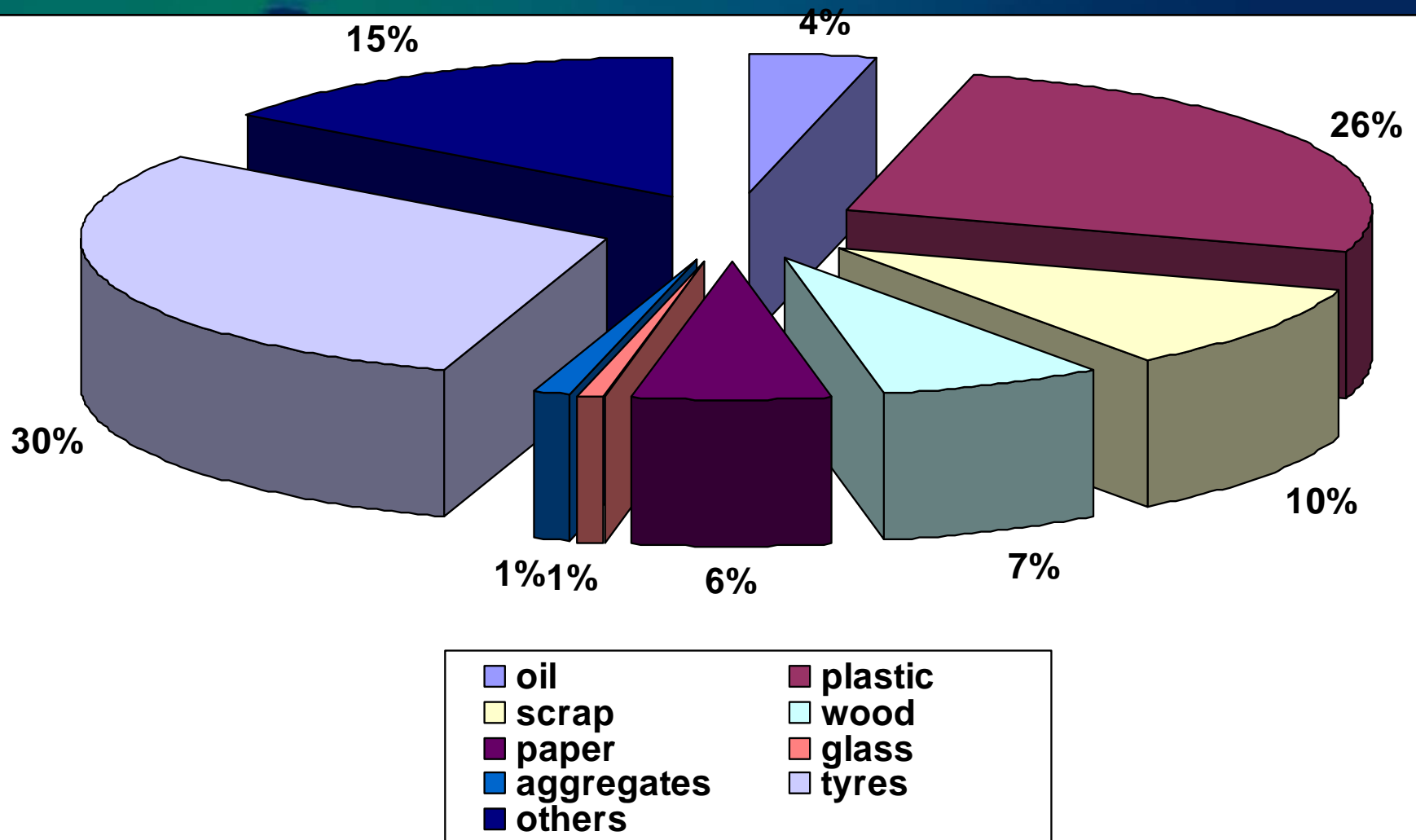
ΕΓΝΑΤΙΑ ΟΔΟΣ Α.Ε.

DABSEA
connexions

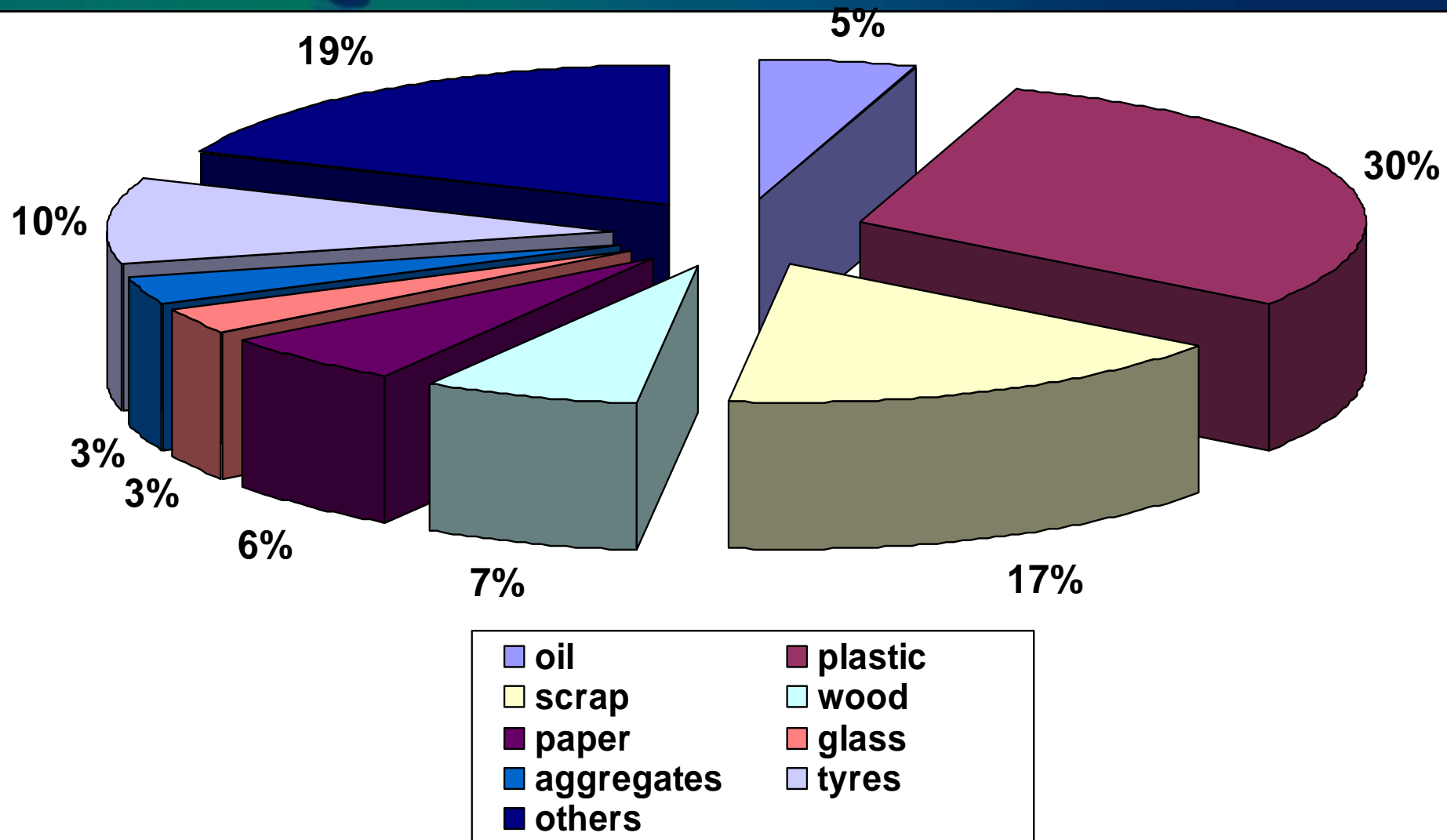
DABS Project
THEMATIC WOKSHOP AGENDA



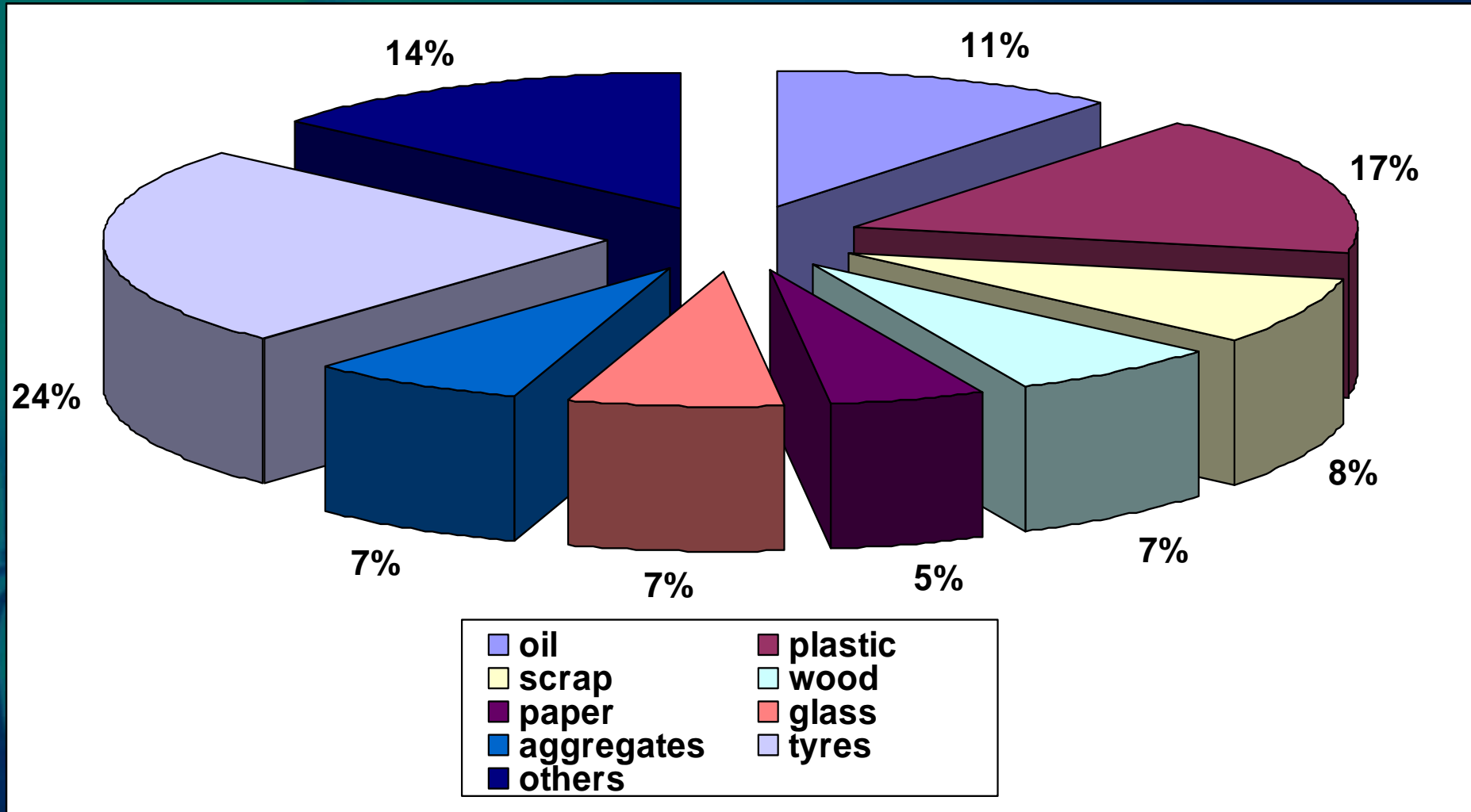
Regional office of Thessaloniki



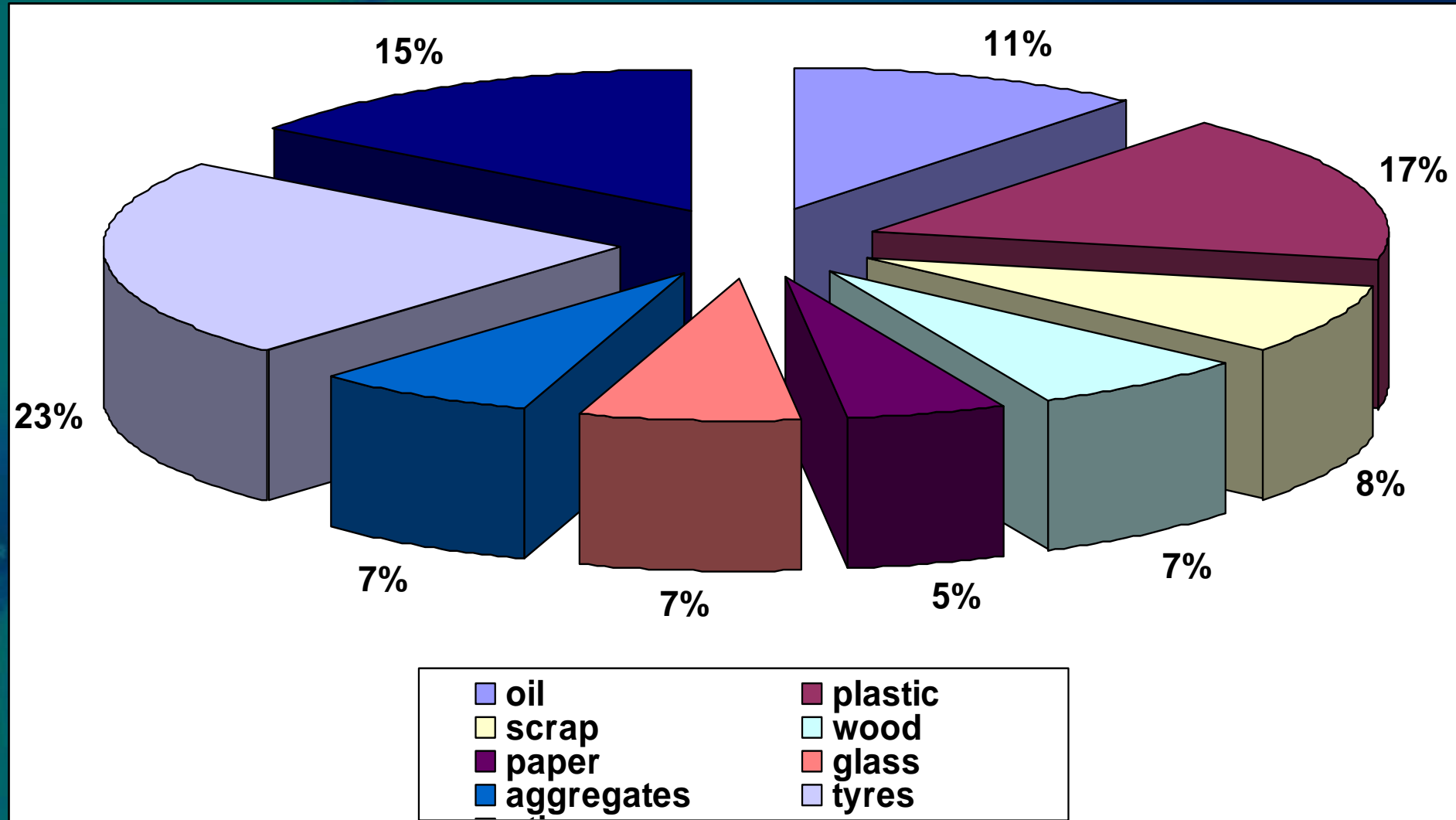
Regional office of Ioannina



Regional office of Grevena



Regional office of Komotini - Alexandroupoli



Hazardous Waste – Oil & Sludge

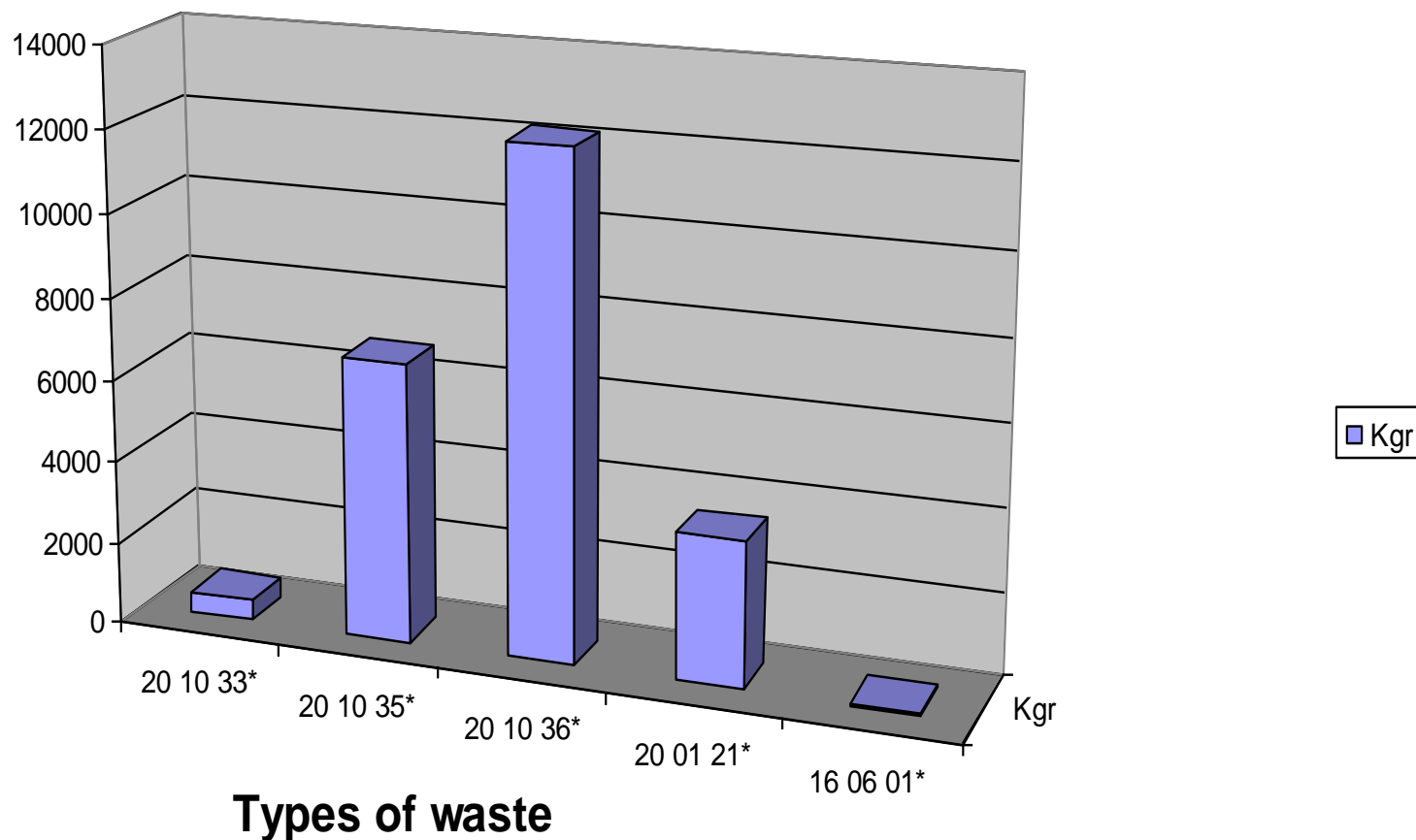


500 tonnes of liquid waste :
130 508* (mixtures of wastes from wards residues and oil/water separators) & code **160 708*** (waste containing oil)

3 tonnes of sludge :
130502* (separator sludges from oil/water)

Hazardous Waste – Electric & Electronic waste

AMOUNTS OF ELECTRIC & ELECTRONIC WASTE 2012-2013



Metal – Aluminium (Scrap)

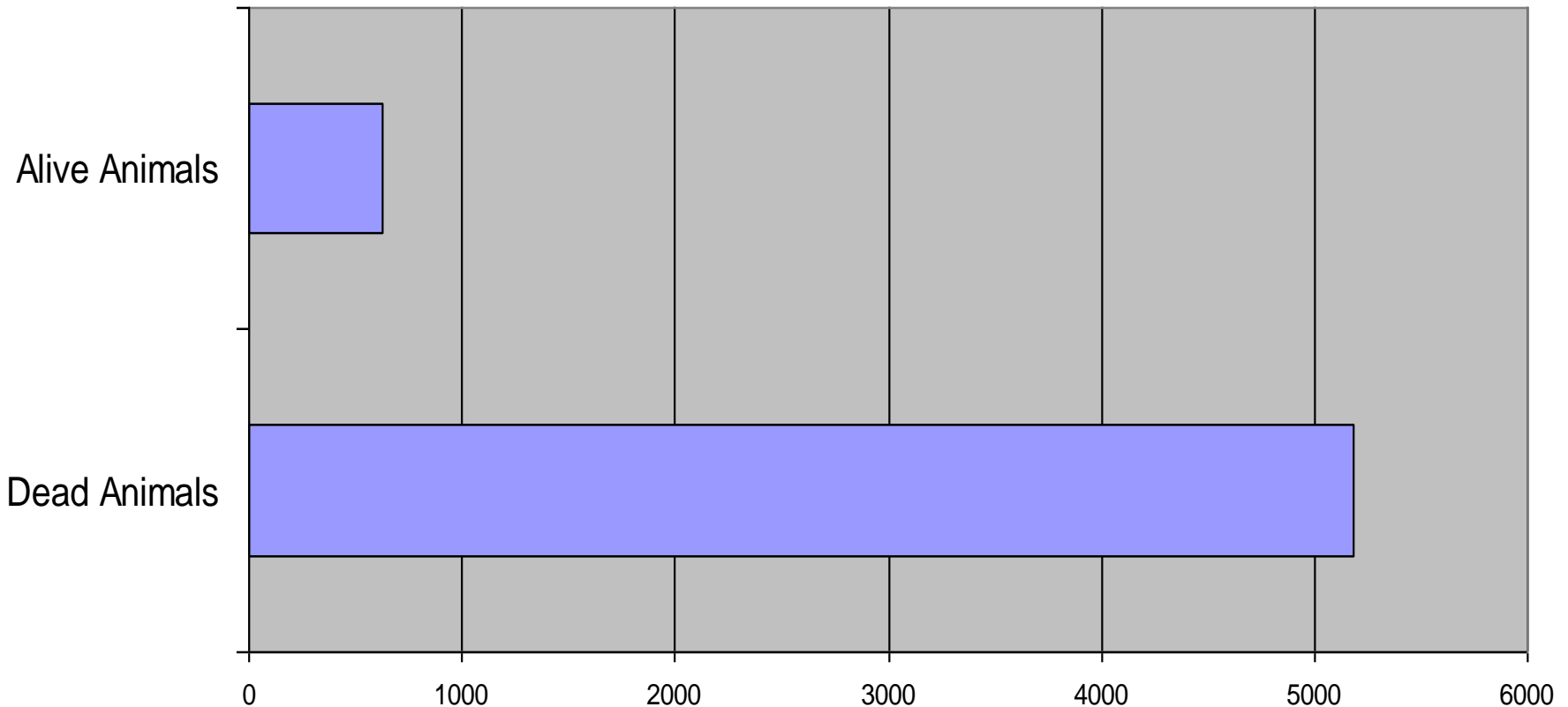


**970.000 kgr of
metal and
aluminum scrap
were recycled the
last six (6) years**



Animals

***Dead and alive animals collected from Egnatia motorway
(2004 - 2013)***



CONCLUSION

Egnatia Odos S.A. adopts the national and european policy regarding waste management and takes measures to prevent the generation of waste and to promote reuse, recycling and other forms of recovery in order to reduce the quantity of such waste, whilst also improving its environmental performance.

THE IMPLEMENTATION OF WASTE MANAGEMENT SYSTEM IN EGNATIA MOTORWAY

THANK YOU FOR YOUR ATTENTION !

Thalia Valkouma
Head of Environment Department
Operation Maintenance &
Exploitation
Egnatia Odos S.A.