OTE Group

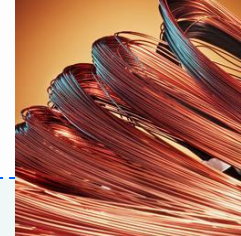# Copper Cables & Metal Theft

Current Situation in OTE Group

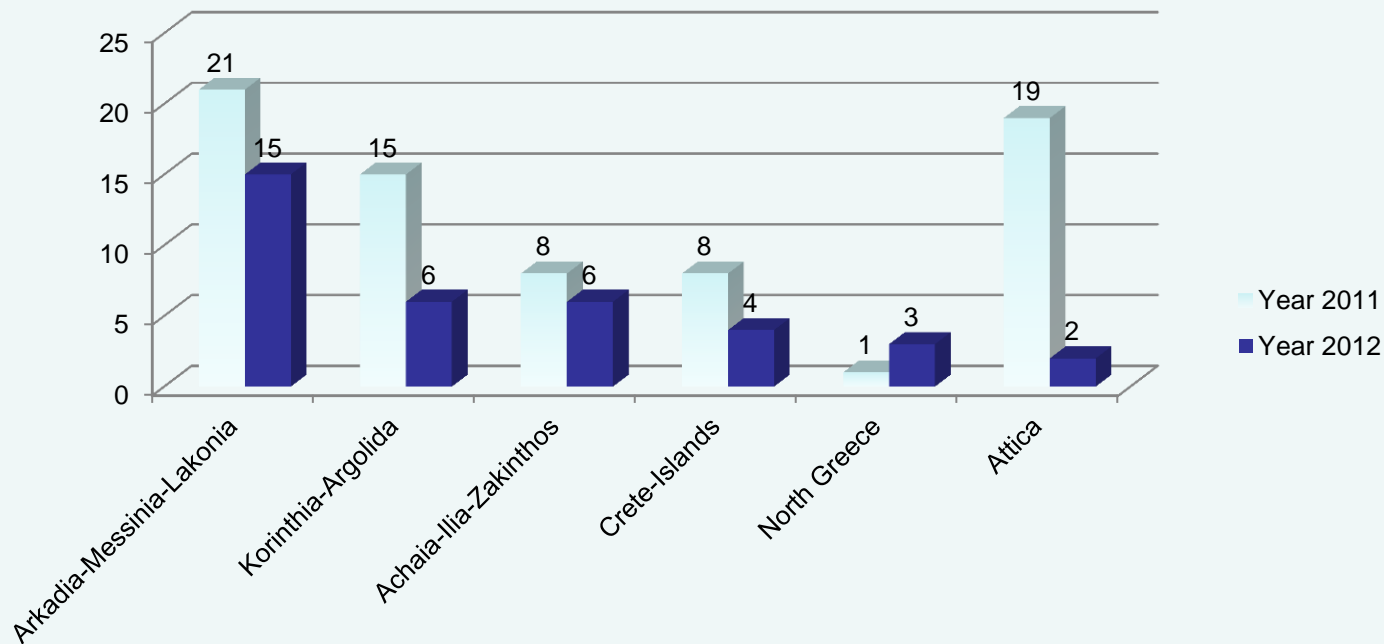> **OTE Group Current Cabling Infrastructure:**

- Underground cabling infrastructure under asphalt or pavements usually found in rural areas

- Aerial cabling infrastructure usually found in non-rural areas

- Underground cabling infrastructure under dirt or cement usually found in non-rural areas

- Inventory in warehouses to be installed.

- End of life Cables to be replaced

Current Situation in OTE Group

> **Metal / Copper Cable Incidents Statistics:**

Incidents Reports	
2011	**72 cases**
2012 (up to date)	**36 cases**
Total Damage in Euros	**700.000**

Current Situation in OTE Group

> **Types of Metal Theft Incidents we face:**

- Copper Cable Theft from Network Infrastructure
- Theft of OSMI cables
- Attempts for theft of "non-installed" cables from Premises
- Other metal Thefts or Attempts:
  - Manhole Covers,
  - Premises Metal Gates,
  - Generic Metallic Doors,
  - Metallic Enclosures (e.g. Cabins)

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Current Situation in OTE Group

A Few Pointers:

- Analysts expect a 62% rise in copper prices over the next few years which, together with expected cuts in law enforcement funding, could see a further rise in thefts.

- Our experience shows that Culprits range from opportunists to international organized crime teams

- One interesting obstacle we face is that upon re-installing stolen cables from our network infrastructure Culprits are trying to steal again the same cables!

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Current Security Measures we take

➢ **Cooperation and info exchange with the Authorities**
- Relevant Ministries
- Relevant Police Divisions

➢ **Legal actions against Culprits**
- Full legal actions against arrested culprits
- Lawsuits "against unknown" in all other cases.

➢ **OTE Group Infrastructure is mainly protected by a range of the following physical security hardening measures:**
- Network Operations Center Alarming
- CCTV
- Access Control Systems.
- Perimeter electronic fencing
- Guarding Posts & Patrolling
- Discrete exterior lighting.

Best Practices - Suggestions

- ➤ Closer cooperation between Police, Authorities, Telecom, Industries, ETNO, Pol-Primet
  - Incident Alerts – Reports
  - Exchange of Technical Expertise and potential Counter-Measures
- ➤ Analysis and Mapping of high Crime Locations for Hardening and enhancing security
- ➤ Creation of a metal theft taskforce (Police?)
- ➤ Installment of Alarm systems across entire copper network to constantly monitor signals across the network, which when disrupted indicate foul play, and an alert is sent out to NW Security Control Centre and/or the Police response teams in real time (e.g. RABIT).
- ➤ *GroundSmart Copper Clad Steel Cable:* consists of a steel core around which is bonded a copper outer casing, forming an equally effective but far less valuable cable.
- ➤ *Smartwater*: a sophisticated forensic marking liquid that is unique to a particular location

- ➤ Need a tougher Legal Framework with severe punishments for culprits = discouragement
- ➤ Monitoring of the illegal supply chain, generate disruptive actions in the points of sales.
- ➤ Need for a new crime recording code for police to identify this as a specific crime issue, the importance of a central repository for metal theft intelligence, and the introduction of an effective licensing regime for the metal recycling industry – with effective sanctions for non compliance, including closure orders.

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Support Slides