

Ministry of Public Order & Citizen Protection
Hellenic Police Headquarters
Forensic Sciences Division - FSD



**Mission – Organization – Responsibilities
and Future Visions of FSD in the Fight Against Crime**

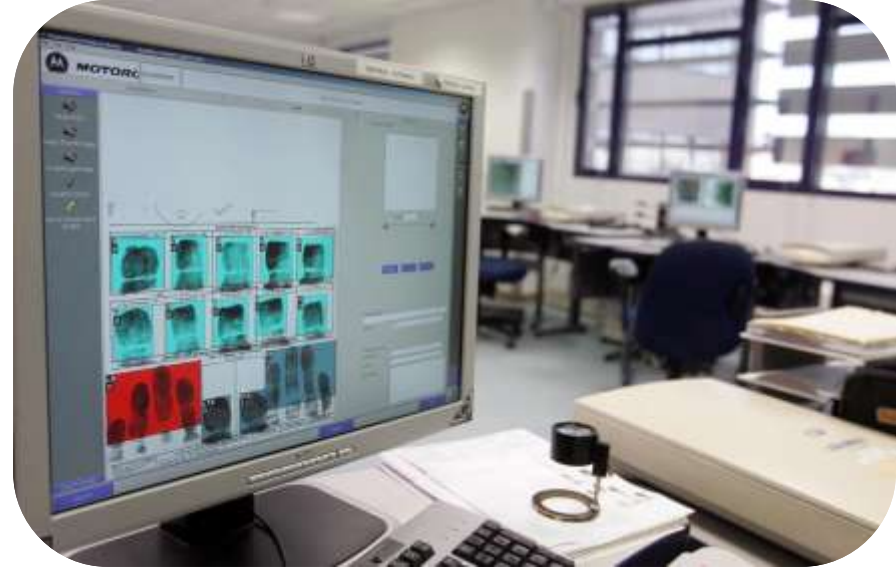
ΑΘΗΝΑ, 2013



FORENSIC SCIENCES DIVISION (FSD)

is

✓ **an independent Central Unit of Hellenic Police**



FORENSIC SCIENCES DIVISION (FSD)
is the main provider
of Forensic Science Examinations within Greece

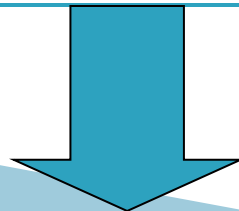


It provides
significant scientific support
to the work of **Police**
as well as other
Prosecuting and Legal Authorities
in order to help them deliver justice.



Tasks of FSD:

- ✓ To perform crime scene investigations
- ✓ To **collect** and **analyze** evidence and traces from a crime scene using state of the art equipment
- ✓ To perform **investigations** using **the latest scientific** and **technical** methods





Tasks of FSD:

- ✓ **To organize searches** that help to reveal crime perpetrators (deliver justice) as well as identify missing persons
- ✓ **To train** and **update** police personnel in current, internationally used forensic methodologies



FSD:

- ▶ Is certified with ISO 9001 and accredited with ISO 17020 and ISO 17025.
- ▶ Participates in the exchange of data and information among European Union Member States and other countries through organizations such as **INTERPOL, EUROPOL, EURODAC and members that have signed the SCHENGEN Agreement**
- ▶ Has representation in **European Forensic Networks and Scientific Working Groups**



FSD Applies Methods and Techniques:

- ▶ **Scientifically and Technically validated**
- ▶ **Internationally recognized**
- ▶ **Legally accepted**



Equipment Used at FSD:

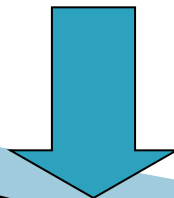
- ✓ Automated Fingerprint and Palm Print Examination System
- ✓ A System for Monitoring Forged Documents on line with the Central European Bank (**C.M.S.**)
- ✓ A **Photophone** System for transmission of pictures to passport control agencies
- ✓ **DNA** Genetic Analyzers





Equipment Used at FSD:

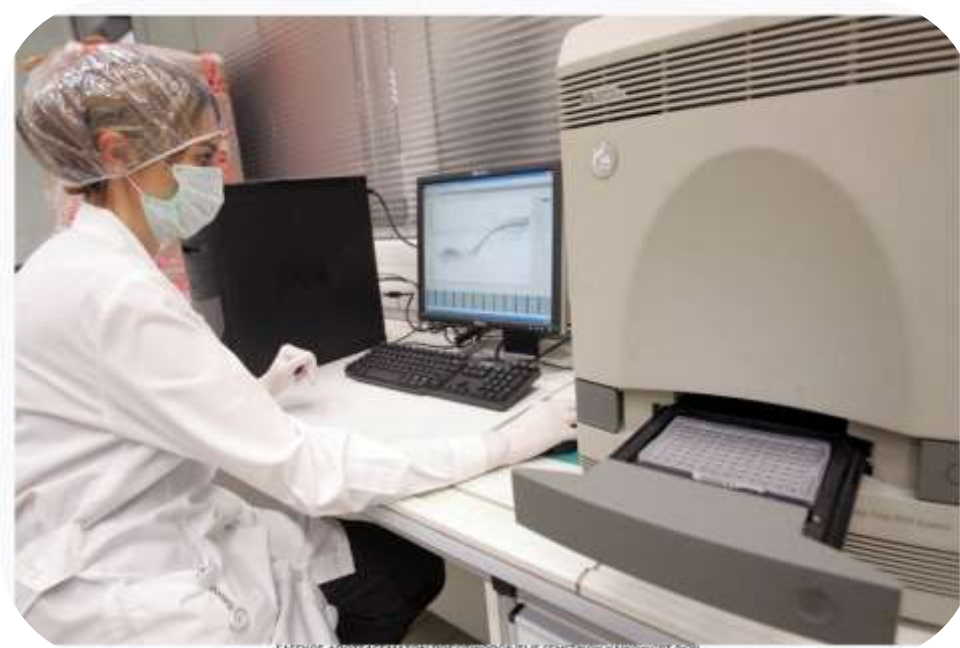
- ✓ Cartridge and bullet trace comparative examination automatic system (**EVOFINDER**)
- ✓ Multi-purpose, ultra-modern electron microscope, equipped with X-rays microanalysis system (**SEM/EDS**)
- ✓ Gas chromatographs, mass spectrometers and flame ionization detectors (**GC/MS, GC/FID**)





Equipment Used at FSD:

- ✓ Immuno-enzymatic automated analyzer (**EMIT**)
- ✓ Automated False and Authentic Documents Information System (**F.A.D.O.**)
- ✓ Electronic System for the Decoding of Keys (**DECODING MACHINE**)
- ✓ Automatic photograph filing and display system (**I.S.I.S.**)



ΕΛΕΓΧΟΣ ΑΥΤΟΤΕΛΕΣΜΑΤΩΝ ΤΙΣΣΕΤΗΡΟΔΟΧΗΤΗ ΓΕΝΕΤΙΚΟΥ ΥΛΙΚΟΥ (KIT-PCR)



FSD Personnel



ΑΥΤΟΜΑΤΟ ΣΥΣΤΗΜΑ ΑΝΑΓΝΩΡΙΣΗΣ ΣΑΚΤΥΛΩΚΩΝ ΚΑΙ ΠΑΡΑΜΟΝΩΝ ΑΥΤΟΤΕΛΕΣΜΑΤΩΝ



ΕΙΣΑΓΟΓΗ ΔΕΔΟΜΕΝΩΝ ΠΡΕΙΣΤΗΡΟΥ ΚΑΛΥΚΑ ΣΤΟ ΣΥΣΤΗΜΑ ΕΒΙΣ



FSD employs a wide range of scientists:

Chemists, Toxicologists, Physicists

Biologists, Biochemists, Computer Scientists,

Chemical Engineers, Electronic Engineers, Mechanical Engineers

Technicians trained in many specialties

FSD also employs experts and graduates in the fields of:

Graphic Arts and Digital Systems, Sociology, Philosophy,

Geology, Political Sciences, Accounting,

Psychology, Lawyers, Economics, Photography, etc.

Forensic Sciences Division

Internal Organization

DIRECTOR

DNA SUBDIVISION

DEPUTY DIRECTORS

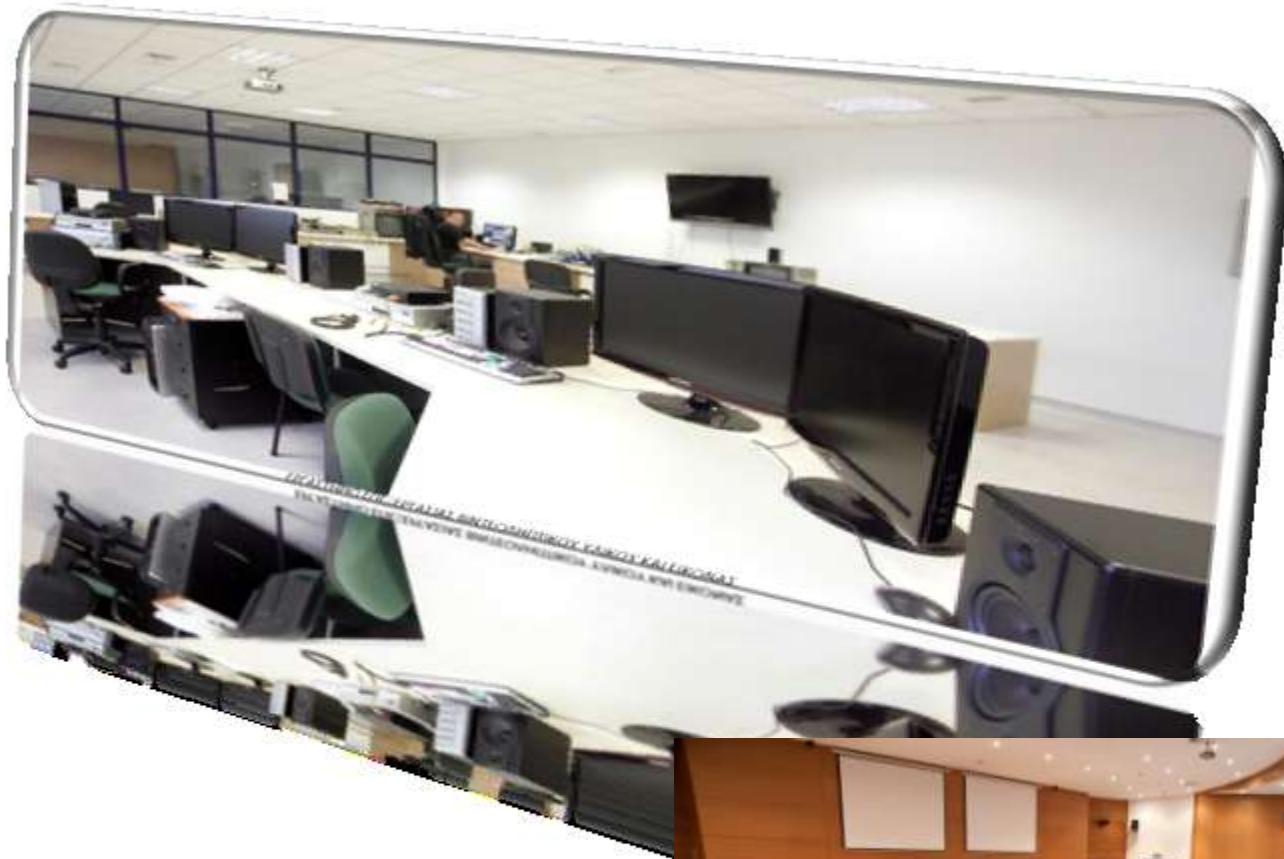
DEPARTMENTS

1. Administration
2. Fingerprints
3. Crime Scene Investigations
4. Ballistics and Tool Mark Examinations
5. Document Examination & Forgery
6. Chemical and Physical Examinations
7. Digital Examinations
8. Photography
9. Statistical Data
10. Archives



Since September 2010 FSD was transferred to a new building of 32000m² in Athens.







Prisoners' Waiting Room



Archival Material



Future Visions of FSD in Relation to European Projects: DNA

- ✓ Development and free distribution of a software **(freeware)** which will perform familial searches for the identification of non-documented migrants as well as victims of large disasters (DVI).
- ✓ Development of **portable automated systems** for the **detection and type determination of biological materials** in order to better evaluate evidence collection at a crime scene.



Future Visions of FSD in Relation to European Projects: DNA

- ✓ Remote control **sampling of biological material** in terrorist cases, hostage holding etc
- ✓ Development of **biosafety cabinet for the treatment and preparation of bones for DNA extraction**, for the identification of non-documented migrants as well as victims of major disasters (DVI)



Future Visions of FSD in Relation to European Projects: Chemical & Physical Examinations

- ✓ Determination of **blood-alcohol content with chromatographic and immuno-enzymatic methods** (REA). Ethanol's metabolism in human body
- ✓ Determination of **volatile poisons** (alcohols, aliphatic and aromatic hydrocarbons) that threaten public safety



Future Visions of FSD in Relation to European Projects: Chemical & Physical Examinations

- ✓ Development of new methods for the **detection of various organic poisons (ie pesticides, carbon monoxide) in biological samples**
- ✓ Development of new methods for the **analysis and detection of novel drugs of abuse**
- ✓ Research on a method of **analyzing very light hydrocarbons** in ATM gaseous explosion cases



Future Visions of FSD in Relation to European Projects: Chemical & Physical Examinations

- ✓ Development of **Data Bases** that will include data from **Home Made Explosives** prepared from freely available chemical precursors (i.e. acetone)
- ✓ Development of new methods for the **analysis of domestic security inks**



Future Visions of FSD in Relation to European Projects: Ballistics

- ✓ **Determination of bullets' effectiveness** in wound ballistics through **experimental shootings** in materials that simulate the human body
- ✓ Research on the **distinction of various models of carbines (shotguns)** according to the marks that are impressed on the shot shell cases after their shootings



Future Visions of FSD in Relation to European Projects: Document Examination & Forgery

- ✓ Research and development of a new and robust system for the **examination of electronical travel and security documents** in connection to **ABC-Automatic Borders Controls**
- ✓ Research and development of new methods for the **distinction among various types** of inks, pens, digital and analogical prints as well as ink dating
- ✓ Research and development of methods for **automatic authorship attribution** based on stylistic characteristics of an author through an electronic corpus of texts



Future Visions of FSD in Relation to European Projects: Crime Scene Investigations

- ✓ Research on new methods for the **development of latent prints on metallic surfaces** and especially on guns and bullet casings
- ✓ Research on new methods for the development of **latent prints on fabrics and wet surfaces**



THANK YOU!
Brigadier General
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