# Why going to QA ?



- Forensic institutes are essential to the judicial chain
- An open world with space to discussion
- Need to demonstrate :
  - good practice,
  - competent personnel,
  - rigorous organisation.

Quality Management System and Fire Investigations: Can these worlds collide?



I.N.P.S.

- What is a QMS
- Standards and guidelines
- Examination Strategy
- Scene examination
- Interpretation of crime scene
- Conclusion

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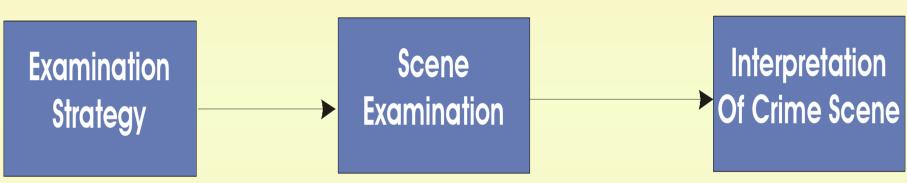
# What is a QMS ?



- A set of policies, processes and procedures for planning and execution,
- Integration of processes to provide an approach for project execution,
- Identification, measure and improvement of the processes to lead to improved performance







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### Why using standards ?



- It is easier to write procedures according to standards and guidelines : they propose a canvas to follow
- Accreditation would be easier when following an existing and recognised standard by pairs
- It demonstrates that you are using the good method
- It gives confidence to your partners as you work on standards

### Standards and guidelines



- I.N.P.S.
- At the laboratory : ISO 17025 : 2005
  General requirements for the competence of testing and calibrating laboratories
- ILAC G 19 : 2002 Guidelines for forensic science laboratories

## standards and guidelines



- ASTM E 1386 Solvent extraction
- ASTM E 1412 Passive headspace adsorption separation and concentration
- ASTM E 1387 Analysis of accelerant by gas chromatography
- ASTM E 1618 Analysis of accelerant by gas chromatography and mass spectrometry

# Standards and guidelines



I.N.P.S.

- On the fields : ISO/IEC 17020 : 1998 General criteria for the operation of various types of bodies performing inspection
- IAF/ILAC A4 guide

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## standards and guidelines



- I.N.P.S.
- ASTM E 2292 (USA) : Investigating carbon monoxyde poisoning incidents
- ASTM E 2345 (USA) : investigating electrical incidents

# Standards and guidelines



I.N.P.S.

Guidelines are more specific to a topic :

- NFPA 921 Guide for fire and explosion investigations (US)
- Guide for first responders to fire scene written by fire and explosion working group ENFSI available on www.enfsi.org

### standards and guidelines



- Standards of performance for crime scene management OISIN
- European crime scene management good practice manual OISIN
- Checklist for assessing evidence recovery procedures conducted by a forensic service (Switzerland)
- Field manual of crime scene investigation (Sweden)

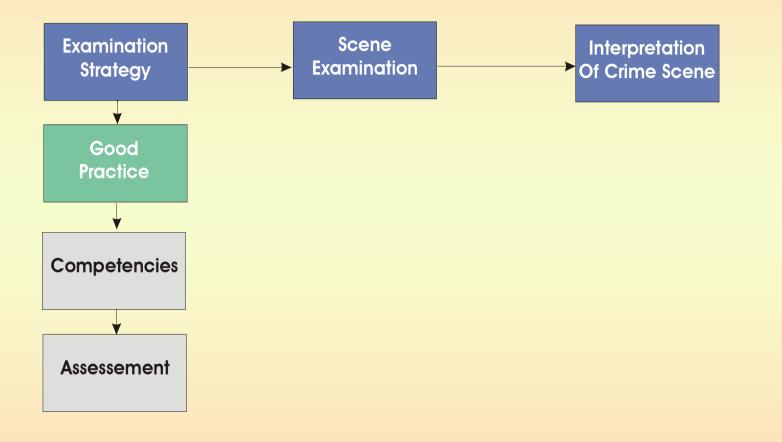
### **Toulouse Strategy**



- At the Toulouse forensic Police laboratory we are heading to an accreditation according to ASTM E 1386, E 1412, E 1387 and E 1618 for lab work
- And NFPA 921 for field investigation in the future



I.N.P.S.

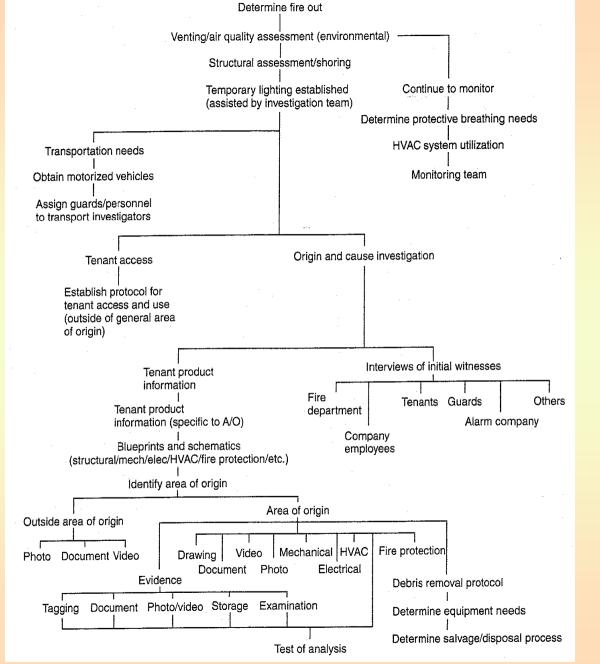


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#### **Examination Strategy**



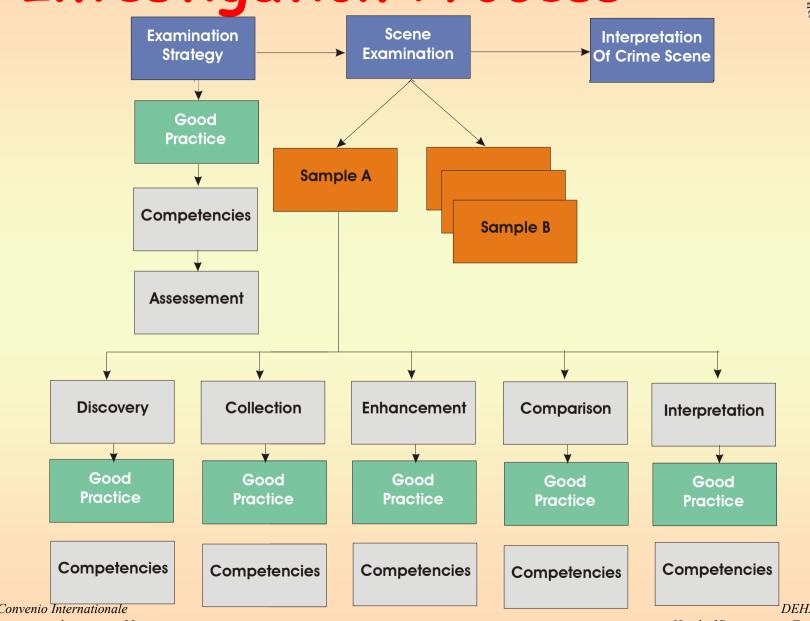
- Based on standards or guidelines
- Give a structure to the overall approach of the scene examination
- Set an exhaustive list of the different points to be assessed by the investigator
- Set an exhaustive list of the different points to be collected from the different protagonists



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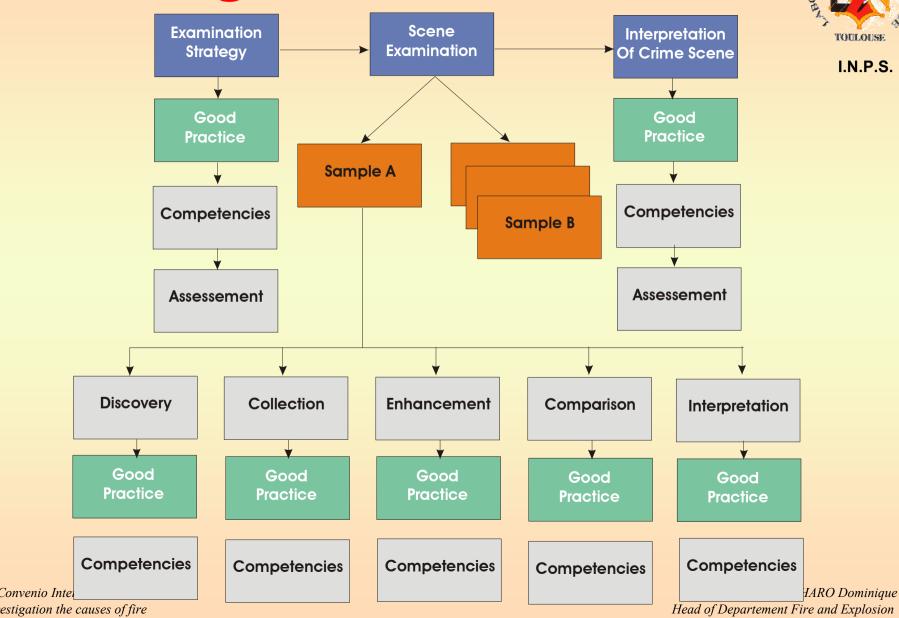
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#### Scene examination

- Implementation of your procedures
- Doesn't collide but gives supports to your investigation process
- It documents every steps of the process
- It gives a good standardised evaluation of the scene
- It gives a set of references marks for the investigation
- It gives good controls as well as internal and external

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# Interpretation of Crime scene

- Integration of the different data acquired during step 2 following the strategy defined on step 1 allows an exhaustive analysis of the crime scene, leading to the determination of the origin and the cause of the fire.
- It is the usual process but every point has been examined according to a known procedure. Because it is well documented, it is back up, controlled and secured.

#### Conclusion



I.N.P.S.

At the question does the QMS collide with field investigation the answer is NO!

It is the architecture and the structure to support your overall approach to fire scene investigations