Detection, investigation and monitoring of organised crime groups using forensic intelligence: 

A promising path forward

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Objectives

• To introduce an innovative crime monitoring method based on forensic intelligence

• To illustrate its contribution to the proactive detection and investigation of organised crime and terrorist groups that produce, disseminate and/or use forged and counterfeit identity documents ➔ case study

• To highlight this approach as a promising source of crime intelligence, in the process of being implemented by Swiss police departments
A fundamental syllogism

- E. Locard principle (1920): «Every crime activity leaves a trace»
- Organised crime groups (OCG) activities generate data of forensic interest: *weak signals, faint traces*
- Thus, forensic data can contribute to the detection and follow-up of OCG through a systematic approach
Forensic intelligence method: principle

Inference

S. Baechler, ICIAC 2016, Manchester (UK), 25.02.2016
Forensic intelligence: An objective source of information

3i Model – Forensic intelligence contribution

Criminal environment

Crime intelligence analysis

Decision-maker

Interpret

Impact

Influence
Case study: initial situation and starting point

At first sight, separate investigations on isolated illegal aliens holding counterfeit Portuguese passports did not raise much attention.
Case study: initial situation and starting point

• However, suspecting the potential involvement of an OCG, a systematic forensic intelligence monitoring was triggered

• Collaboration Police/University (PhD thesis) to test and implement a new method

• That brought investigators, crime analysts and forensic scientists to collaborate actively

➡ Key success factors
Forensic intelligence method: real-time follow-up

Observation
Codification

ProfID database

Follow-up in real time

Analysis/Investigation

S. Baechler, ICIAC 2016, Manchester (UK), 25.02.2016
Forensic intelligence contribution: links and groups

Detect and map links between cases

Quickly build groups

Cross-jurisdictions

Demonstrate the existence of a crime problem (series) and its prevalence

Inform on its organised nature
Forensic intelligence contribution

Temporal analysis of forensic links and groups

From August 2008 to... ... June 2013

Determine the outset of the crime problem: mid-2008

Unveil the underlying organisation: simultaneous groups over time, not successive → 3 manufacturing methods in parallel
Forensic intelligence contribution: structure and integration

Links and groups based on forensic data processing are highlighted in red

S. Baechler, ICIAC 2016, Manchester (UK), 25.02.2016
Final overview of the Asian criminal network

Links and groups based on forensic data processing are highlighted in red

S. Baechler, ICIAC 2016, Manchester (UK), 25.02.2016
Modus operandi analysis/comparison with the market

Manufactured by a same source/network

ALPHA  BETA  GAMMA  Rest of the market

S. Baechler, ICIAC 2016, Manchester (UK), 25.02.2016
**Modus operandi** analysis/comparison with the market

High quality

Lowest quality

A* series  Market

Indice qualité [%]
Forensic intelligence alert issued

Supports proaction and prevention; Intelligence-led policing

Public version edit
Examination and comparison of counterfeit border stamps

Public version edit
Examination and comparison of counterfeit border stamps

Counterfeit British passports

Extends the series to...

Public version edit
An Asian criminal network using counterfeit Portuguese passports

High quality false documents

Public version edit

Not only Portuguese passports

Investigation started with a forensic intelligence follow-up engaged from the very beginning

Sum up...
3i Model – Forensic intelligence contribution

Forensic intelligence: An objective source of information
Crime market analysis: initial perception...

S. Baechler, ICIAC 2016, Manchester (UK), 25.02.2016
... and perception with forensic linkages

1/3 of the market ➡ Priorities!
Model: Implementation in daily practice

Supports:
• Crime analysis
• Investigations
• Operations
• Resource allocation
• Coordination efforts

Public version edit
Generalisation: Forensic data of other types

Such as drug seizures, DNA, shoemarks, counterfeit drugs or watches, etc.
Conclusion

The forensic intelligence method:

- **Enables** to point to potential crime groups, prolific offenders and prominent modus operandi
- **Supports** the detection and monitoring of crime patterns, trends and links between cases

**Integration and fusion** of intelligence derived from various sources and formats is a pivotal issue and a key success factor

⇒ *Investigators, crime analysts and forensic scientists need to collaborate actively to make the best of forensic intelligence*

**Bridging university with police** fosters innovative research for policing
References


Questions?

• Thank you for your attention and interest!

• Questions or comments?

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