Indonesian National Police Headquarters
Criminal Investigation Board
Forensic Laboratory Centre

CYBER CRIME and DIGITAL FORENSIC INVESTIGATION

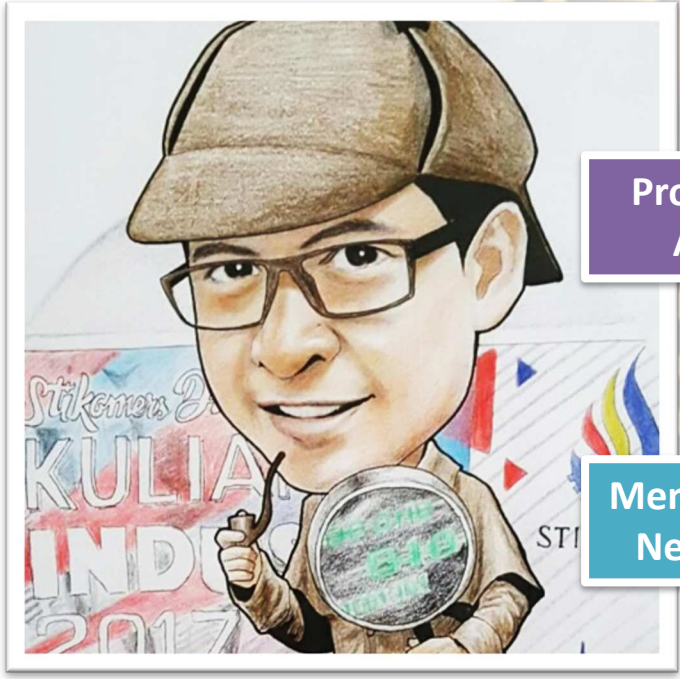
Kombes Pol. Muhammad Nuh Al-Azhar, MSc., CHFI., CEI., ECIH.

Police Grand Commissioner – Principal Digital Forensic Examiner

dedicated for digital forensic development in Indonesia, Sept. 2020

Jokes in Forensic World

Short CV



Formal Education

2006: 35th Indonesian Advanced Police College
Award: *The Best Graduate in Academic*
2009: MSc in Forensic Informatics, University of Strathclyde, UK
Distinction for Dissertation on Steganography Forensic
2017: 57th Indonesian Police Middle Chief & Staff School
2020: National Leadership Training (PKN) Level 1 Batch 45: *The Best Graduate #1*

Professional Qualifications

2004: Professional Commendation on Crime Scene Management from Senior Investigator (Retired) of New York Police, US
2007: Computer Hacking Forensic Investigator (CHFI) from EC-Council
2008: Certified EC-Council Instructor (CEI) from EC-Council, US
2009: Professional Member (MBCS) from British Computer Society, UK
2014: EC-Council Certified Incident Handler (ECIH) from EC-Council
2017: Certified Assessor for Forensic Laboratory Examiners

Professional Awards

2008: British Chevening Scholarships Award from UK FCO
2010: Indonesian Super Six UK Alumni from British Council
2013: 16 year Dedication Medal from President of the Republic of Indonesia
2014: ISO 17025 Accreditation for Digital Forensic Lab.
2018: Individual Category of BSSN Award in National Internet Security Day

Memberships/ Networking

2007: EC-Council
2009: British Computer Society
2013: Association of Certified Fraud Examiners (ACFE)
2015: Indonesian Digital Forensic Association, as *Chairman for 2015-2019*
2016: INTERPOL Digital Forensic Experts Group

Experience as Instructor/Speaker

INDONESIAN NATIONAL POLICE *(POLRI)*

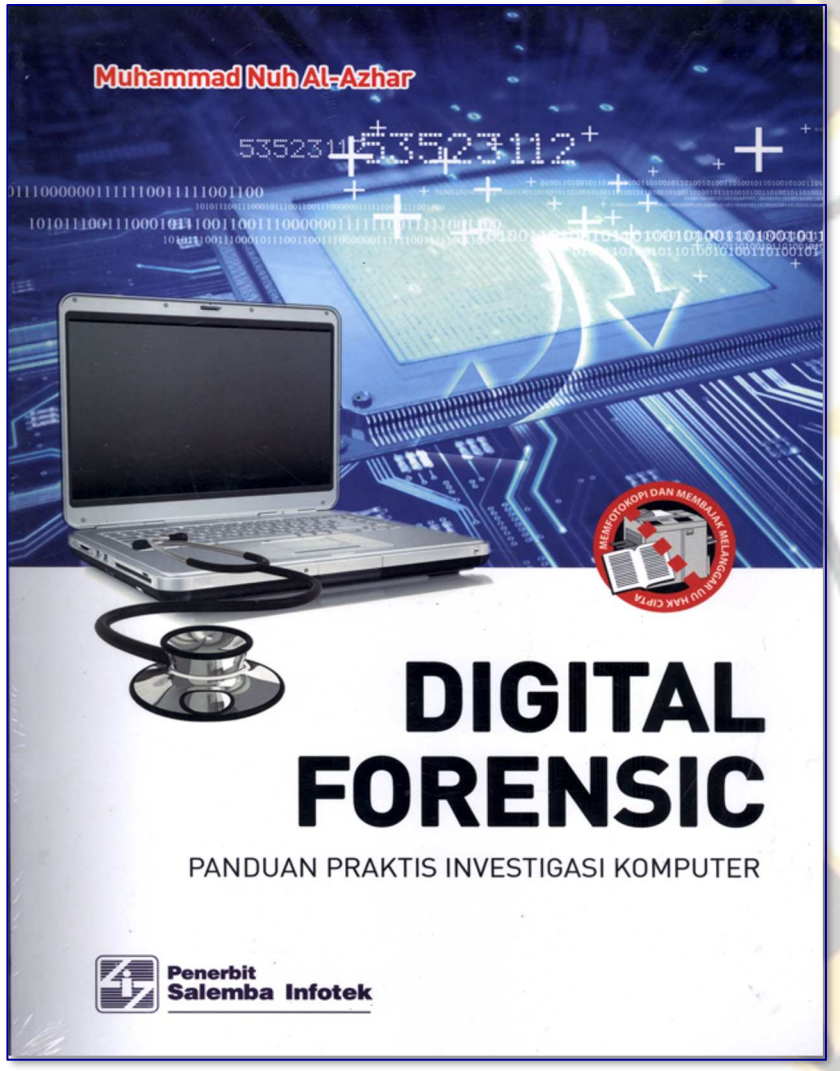
General Attorney *(Kejagung RI)*
Supreme Court *(Mahkamah Agung RI)*
Ministry of Communication and Information *(Kemenkominfo RI)*
Ministry of Finance *(Kemenkeu RI)*
Corruption Eradication Commission *(KPK RI)*
Finance Auditors Board *(BPK RI)*
Financial Service Authority *(OJK RI)*
National Resilience Institute *(Lemhannas RI)*
State Cryptography and Cyber Agency *(BSSN RI)*

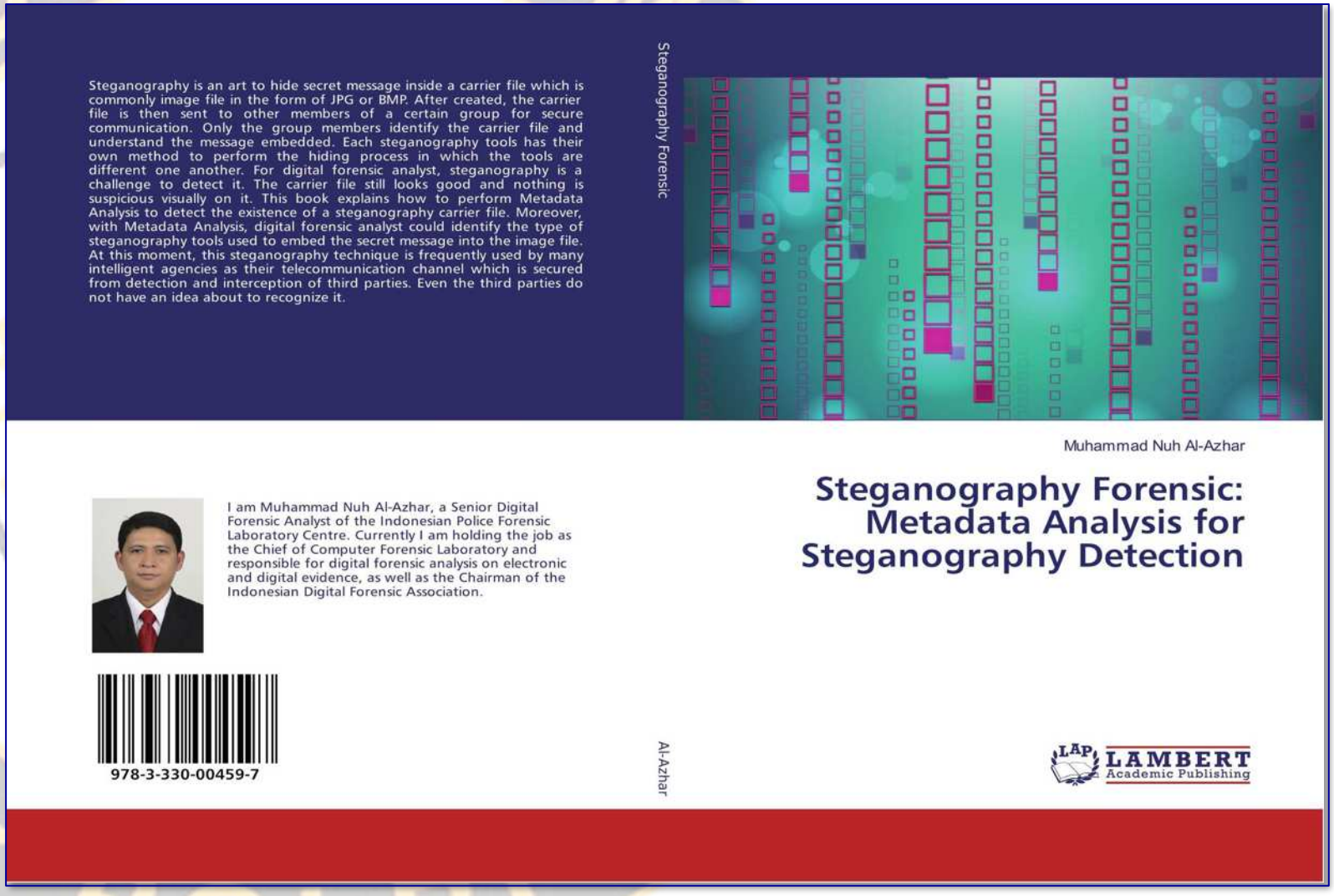
Short CV

University of Strathclyde, Glasgow, UK
University of Indonesia, Depok
University of Islamic Indonesia, Yogyakarta
Paramadina University, Jakarta
Krida Wacana University, Jakarta
Airlangga University, Surabaya
State Islamic University, Tangerang
Muhammadiyah University, Jember
State Crytptography Institute, Tangerang
State Polytechnic, Batam
Islamic University of Riau
Swiss Germany University, Serpong
Indonesian Al-Azhar University, Jakarta
Telkom University, Bandung
Bina Sarana Informatika Academy, Jakarta
Bandung Institute of Technology
Mercu Buana University, Jakarta
Gunadharma University, Depok
Bina Nusantara University, Jakarta
Langlangbuana University, Bandung
STIKOM Bali, Denpasar
Siliwangi University, Tasikmalaya
State Islamic University of North Sumatera
STMIK Bani Saleh, Bekasi
Sriwijaya University, Palembang
PLN Engineering College, Tangerang
Trunojoyo University, Madura
STIESIA, Surabaya
STIKOM Cirebon, etc.

Bank of Indonesia, Mandiri Bank, BRI, BNI, BCA, CIMB Niaga, OCBC NISP, etc.
UNODC, INTERPOL, ACFE, EC-Coucil, TELKOMSEL, ASTRA, tec.

Author of Books

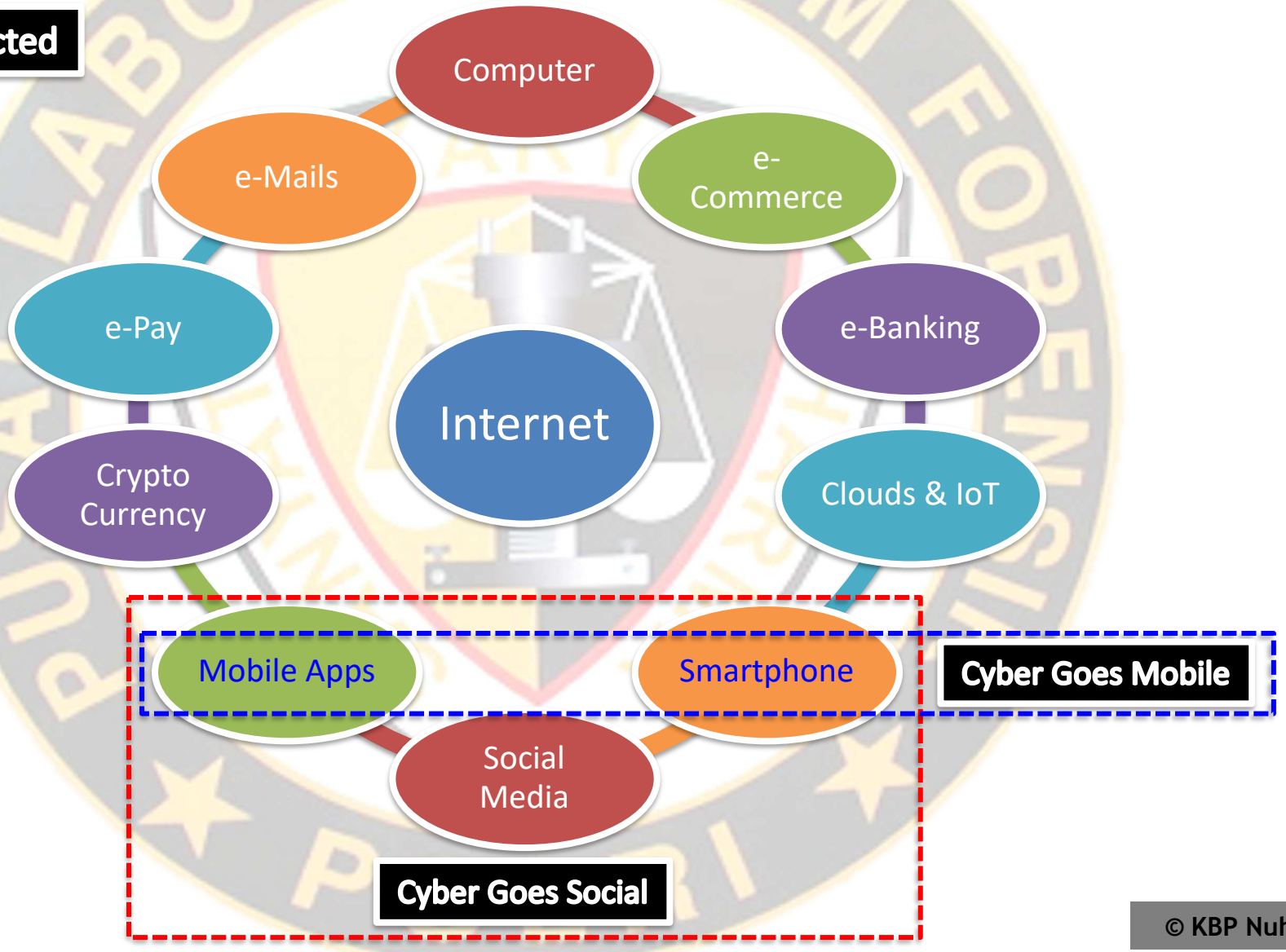




Sharing & Expertise

Cyber Goes Mobile & Sosial

Everything is Connected



Crime as Side Effects

CYBER CRIME (INCIDENTS)
Computer/Smartphone
as Tools and Targets

COMPUTER-RELATED CRIME
Any Type of Crime with
Computer/Smartphone as Evidence

The Question

How to Respond it porperly…?

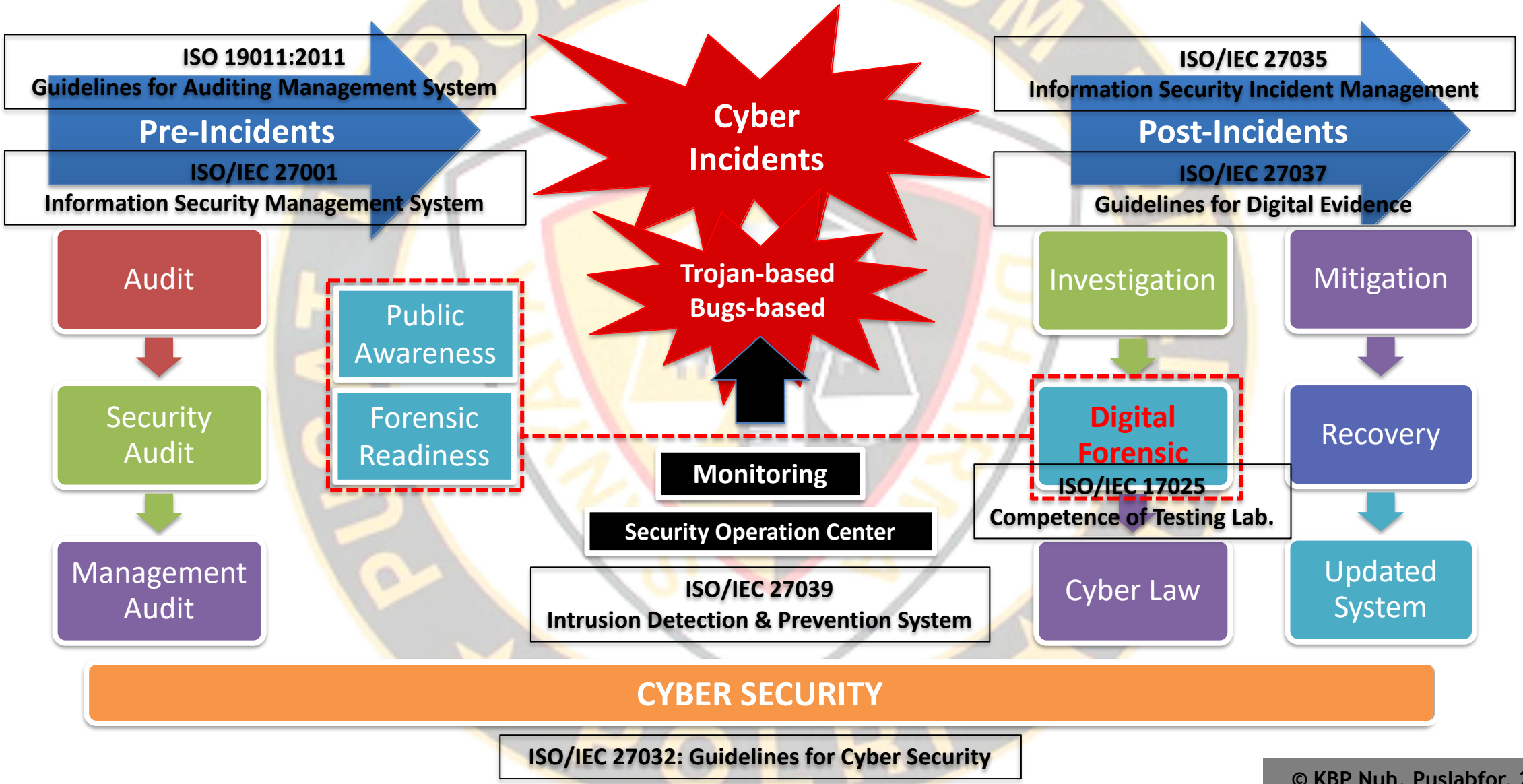
Cyber Crime/Incidents

Computer-related Crime

Scientific Investigation

DIGITAL FORENSIC

Management on Cyber Incidents Handling

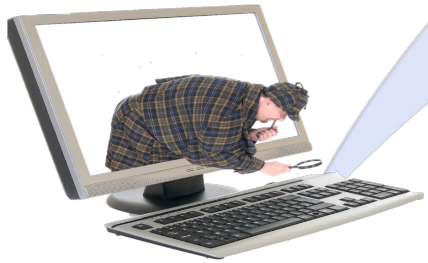


Steps of Digital Forensic

ISO 27037: Guidelines for Identification, Collection, Acqusition & Preservation of Digital Evidence

HANDLING PROCESS:
- **Identification** → Types of Evidence
- **Collection** → Evidence Bag & Documenting
- **Acquisition** → Triage & Forensic Imaging
- **Preservation** → Write Protect & Hash

PRINCIPLES → KEY ASPECTS:
- **Relevance** → Justifiability
- **Reliable** → Auditability & Repeatability
- **Sufficiency** → Reproduceability



Crime Scene:
Identification, Collection & Acquisition

Electronic Evidence:
Acquisition & Preservation

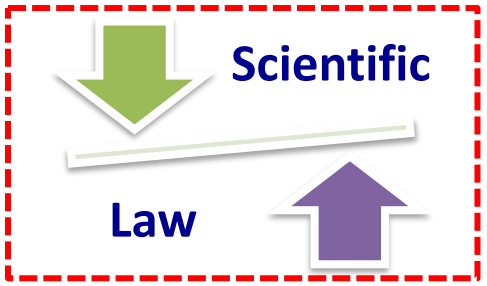
Examination:
Investigative Data

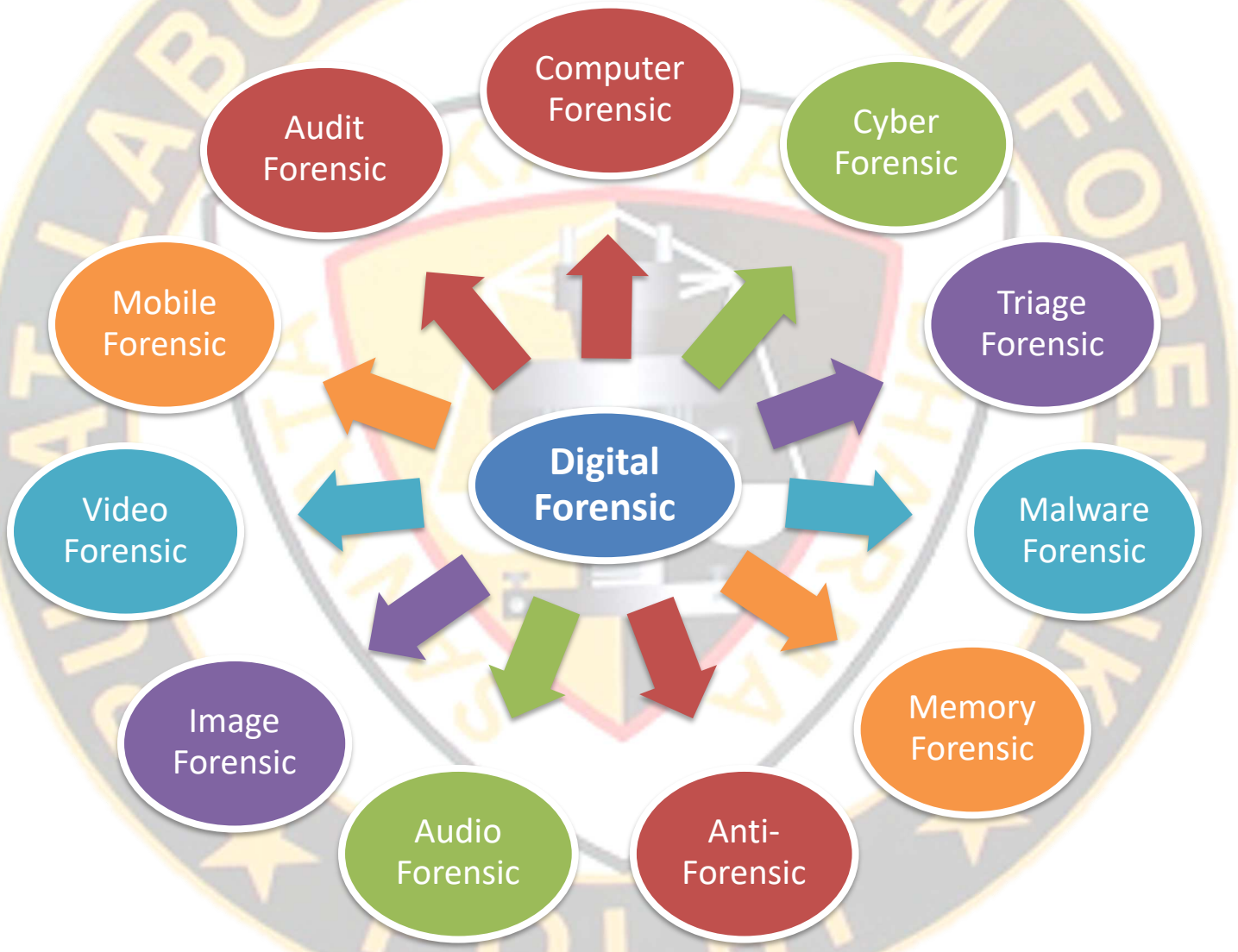
Analysis:
Digital Evidence

Expert Testimony
at Court

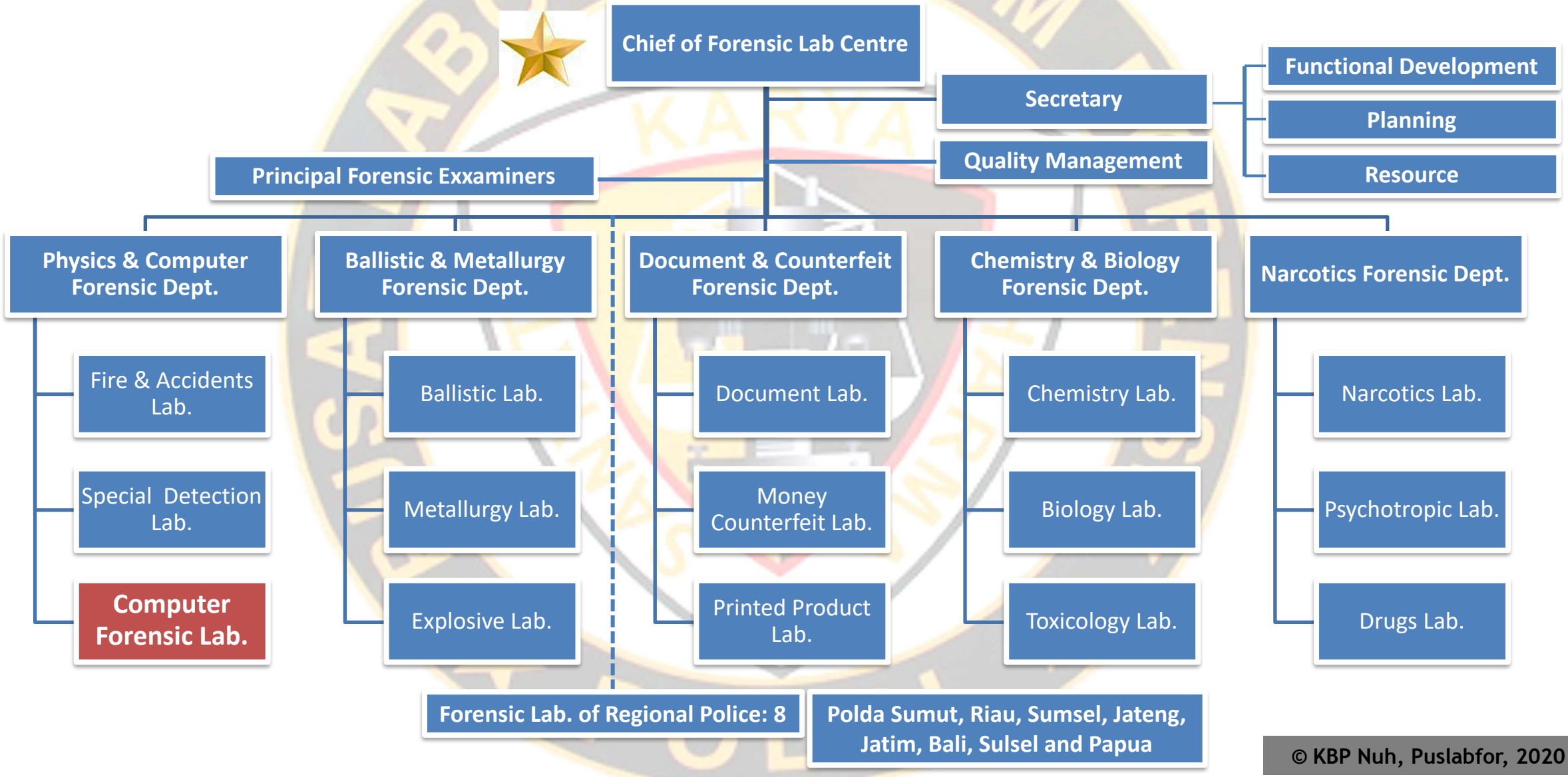
Key Component → CHAIN OF CUSTODY

Digital Forensic is Developing





Structure of INP Forensic Lab. Center



Milestone of Digital Forensic Development

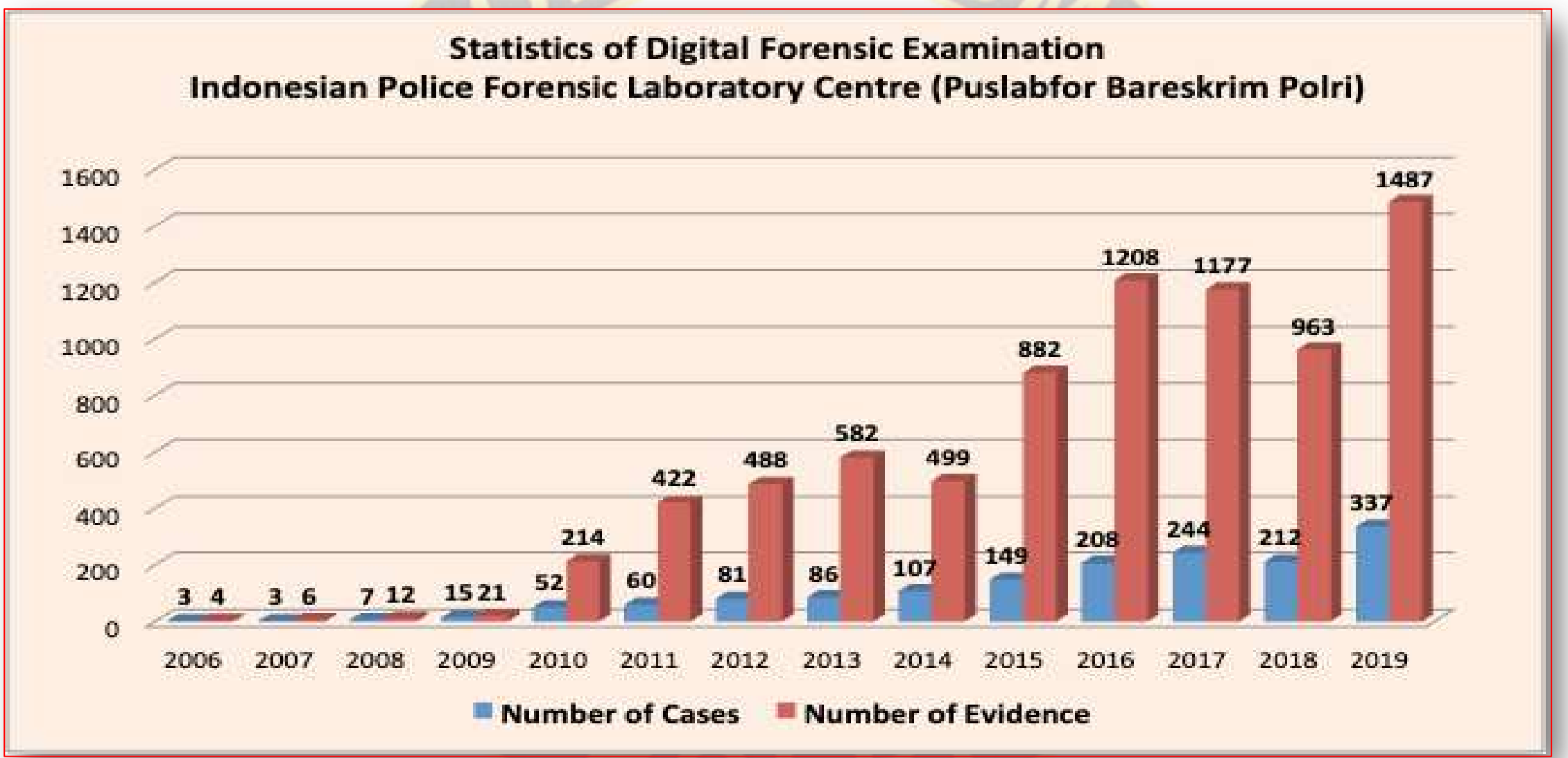
DFAT
Digital Forensic Analyst Team

ACCREDITED ISO/IEC 17025 LABORATORY

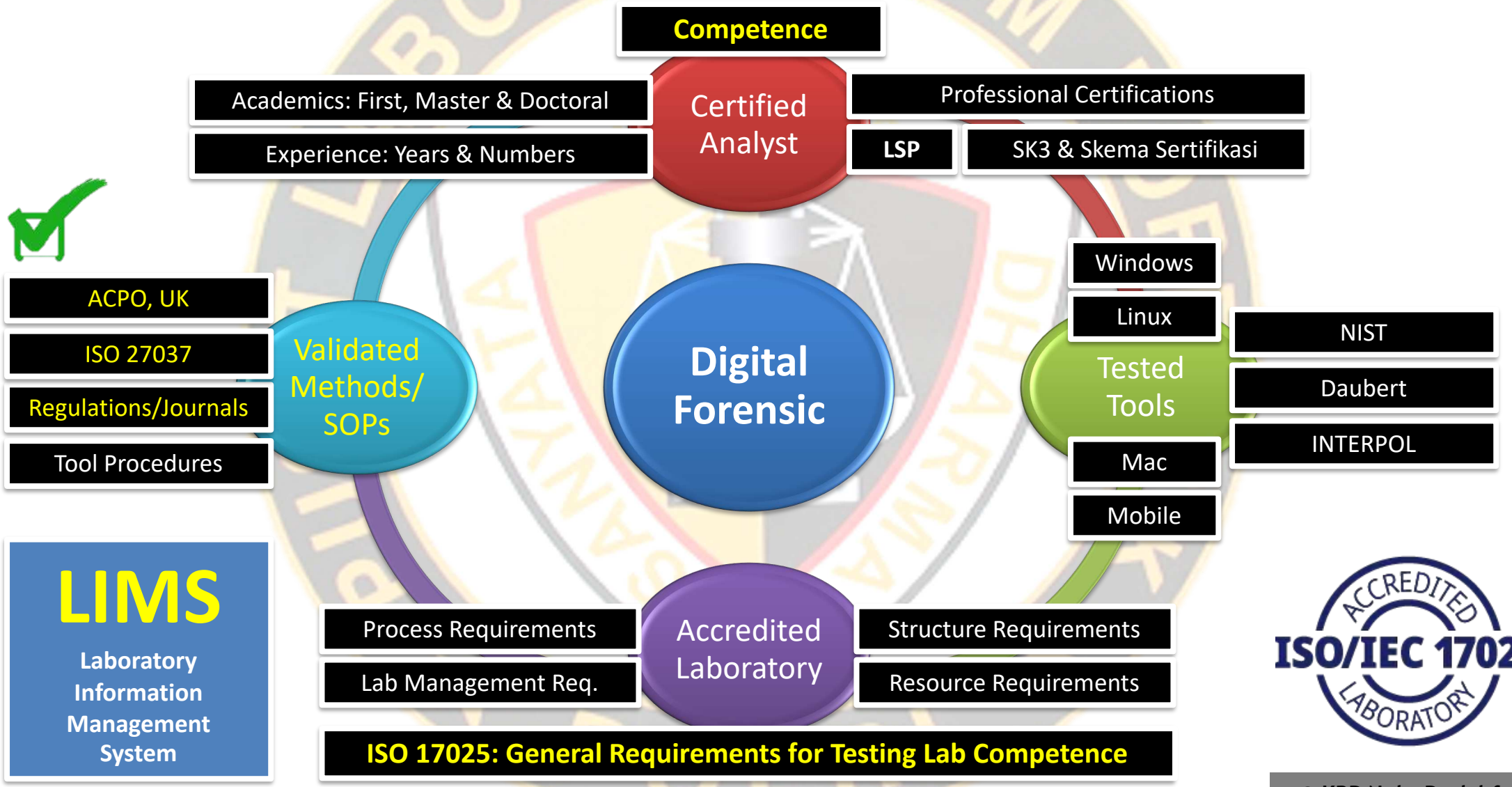
AFDI
ASOSIASI FORENSIK DIGITAL INDONESIA

- ***2000***: Started to learn about the significance of digital forensic to support examination on electronic/digital evidence
- ***2007, 2008, 2012, 2014, 2019***: Awards of EC-Council's Certificates of Computer Hacking Forensic Investigator (CHFI) and EC-Council Certified Incident Handler (ECIH) and so on for the Analysts of Centre and Regional
- ***2009***: Award of MSc in Forensic Informatics from the University of Strathclyde, UK with distinction mark for dessertation
- ***2010***: DFAT (Digital Forensic Analyst Team) was founded
- ***2011***: Computer Forensic Sub-Department was founded
- ***2014***: Computer Forensic Lab. accredited for the ISO 17025
- ***2015***: To support establishing the Indonesian Digital Forensic Association

Digital Forensic Statistics



Protocol of Digital Forensic

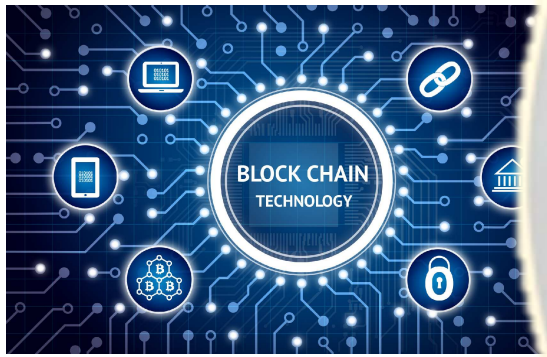


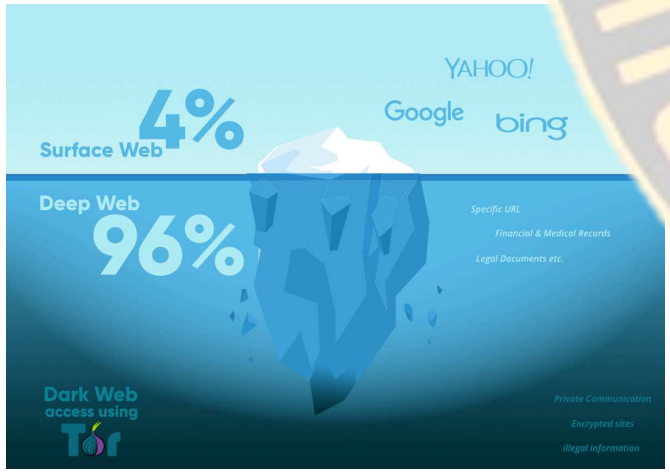
LIMS

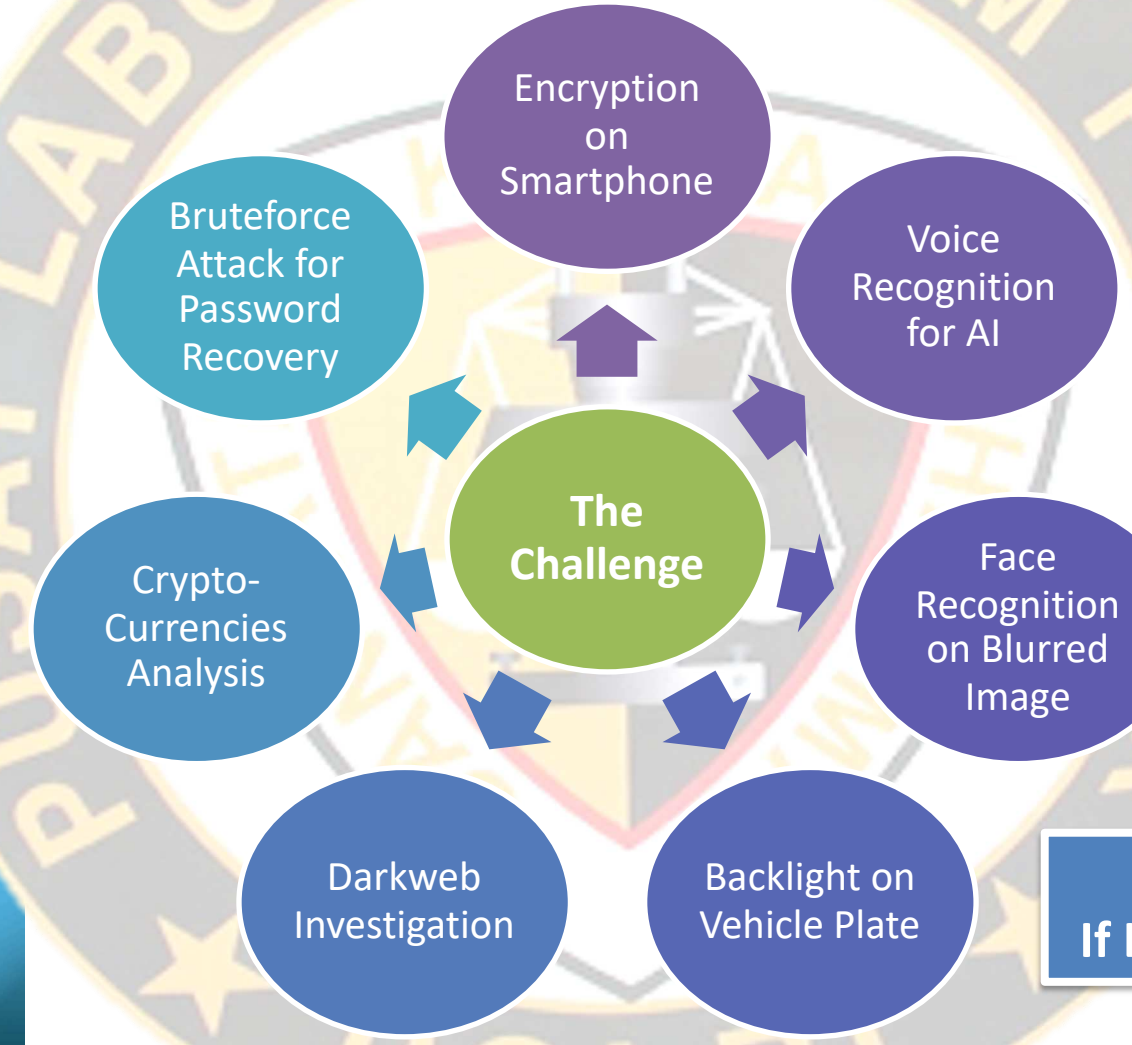
Laboratory Information Management System

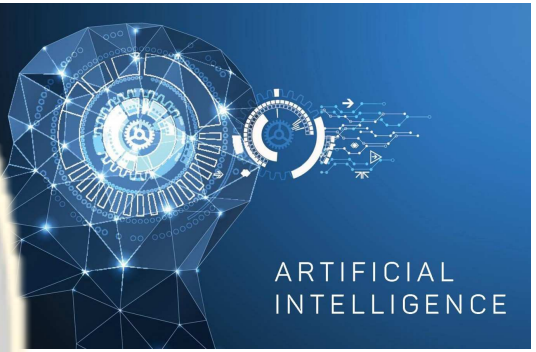
ACCREDITED ISO/IEC 17025 LABORATORY

Challenge of Digital Forensic









What next to do..?
If LEA does not have Lab.

DIGITAL FORENSIC WITH JOY

BE SOMEONE WHO BENEFITS OTHERS

THANKS FOR YOUR ATTENTION