



# DATA PROTECTION & PRIVACY

BIG DATA, MACHINE LEARNING, CONSUMER PROTECTION

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# CONSUMER PROTECTION



- The right to safety. ...
- The right to be informed. ...
- The right to choose. ...
- The right to be heard. ...
- The right to satisfaction of basic needs. ...
- The right to redress. ...
- The right to consumer education. ...
- The right to a healthy environment.

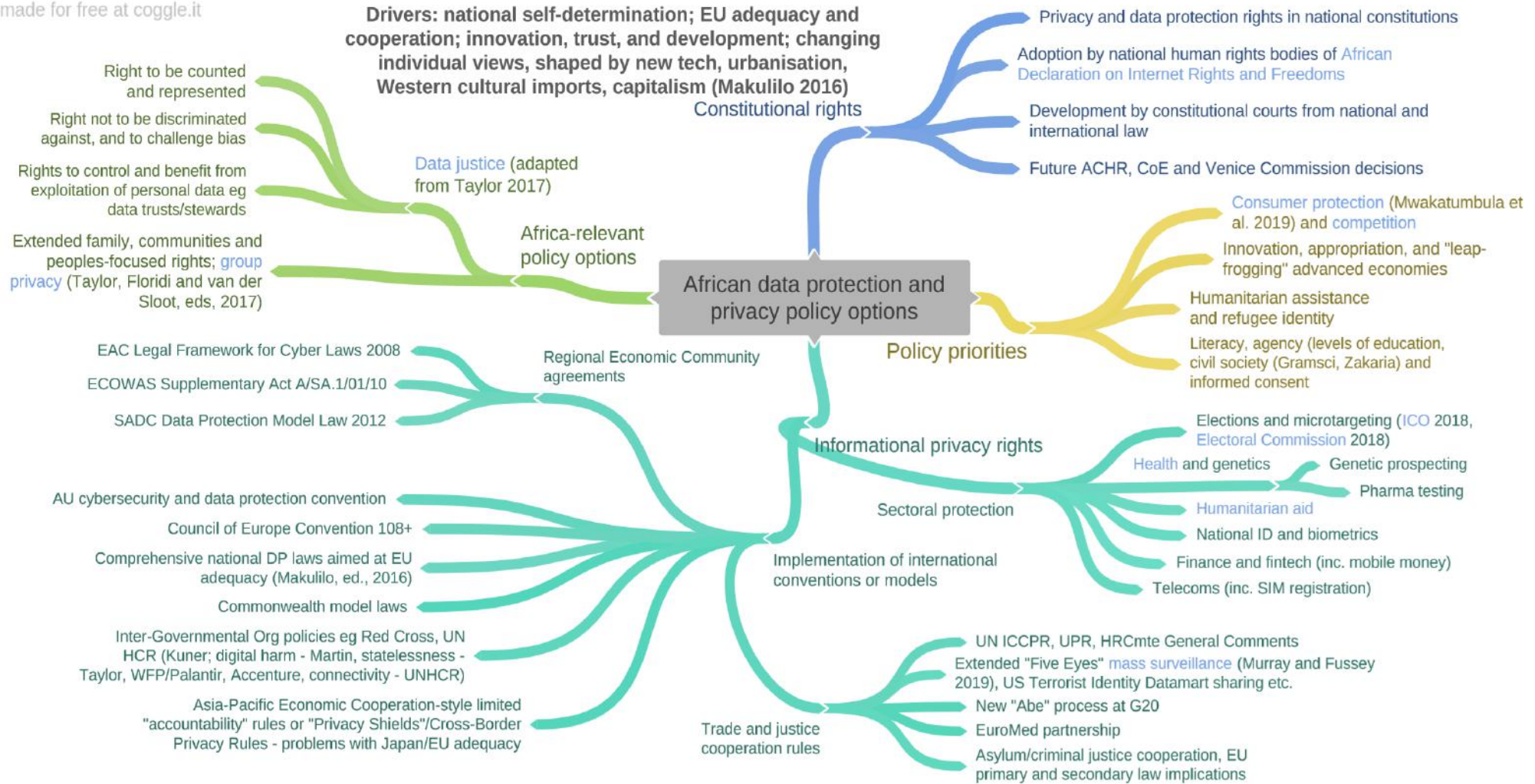
Preventing fraud and unfair practices in the marketplace

# DATA PROTECTION & PRIVACY



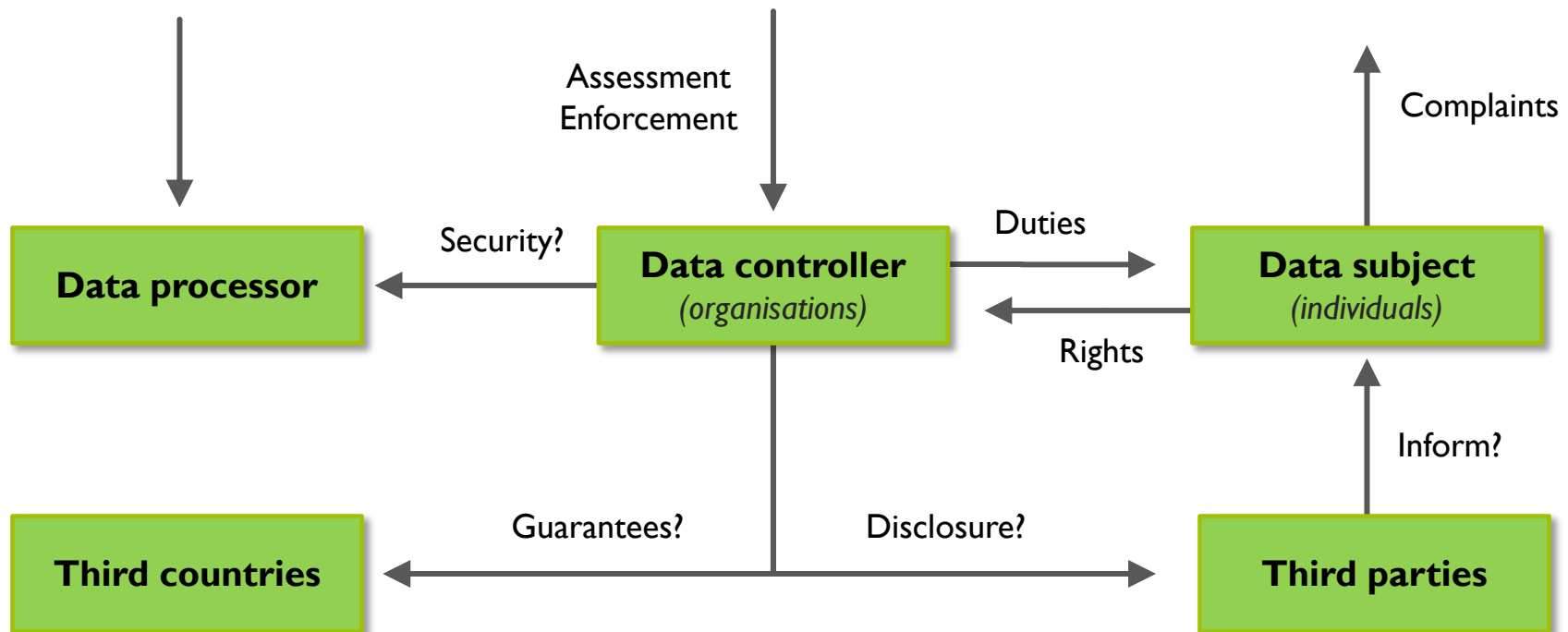
- Measures to safeguard the processing personal data
  - accidental loss
  - unauthorized disclosure
  - unlawful use
- Regulating the processing of personal data
  - Empowering individuals

PRIVACY – A fundamental Human Right



# THE IDEAL STRUCTURE/MODEL

## The Data Protection Commission



# DATA SUBJECTS RIGHTS



- **Right to be informed**
- **Right to access**
- **Right to rectification**
- **Right to restrict processing**
- **Right to object**
- **Right to erasure**
- **Right to portability**
- **Right to freedom from automated decision making**
- **Right to give and withdraw consent**
- **Right to compensation**

# DATA PROTECTION PRINCIPLES

## 1. Accountability

←→ **Demonstration of legal compliance with easily accessible documentary evidence**

## 2. Lawfulness of Processing and Specification of Purpose

←→ **Providing evidence of legitimate grounds, fairness and transparency**

## 3. Compatibility of Further Processing

←→ **Proactively obtaining customer consent for changed or new purposes**

## 4. Quality of Information

←→ **Ensuring that data held is continuously accurate, available and up-to-date**

# DATA PROTECTION PRINCIPLES

## 5. Openness

Keeping Data Subjects fully informed about their personal data via multiple channels

## 6. Data Security Safeguards

Use of appropriate of technology and organisational measures

## 7. Data Subject Participation

Empowering Data Subjects to exercise their legal Rights

## 8. Purpose of Collection

Processing personal data for clearly specified purposes only



# CONSENT



any **freely given, specific, informed** and **unambiguous** indication of the data subject's wishes by which he or she, by **a statement or by a clear affirmative action**, signifies agreement to the processing of personal data relating to him or her.

## APPROPRIATENESS OF TECHNOLOGY AND ORGANIZATIONAL MEASURES

- ‘Taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons, the controller and the processor shall implement appropriate technical and organisational measures to ensure a level of security appropriate to the risk.’

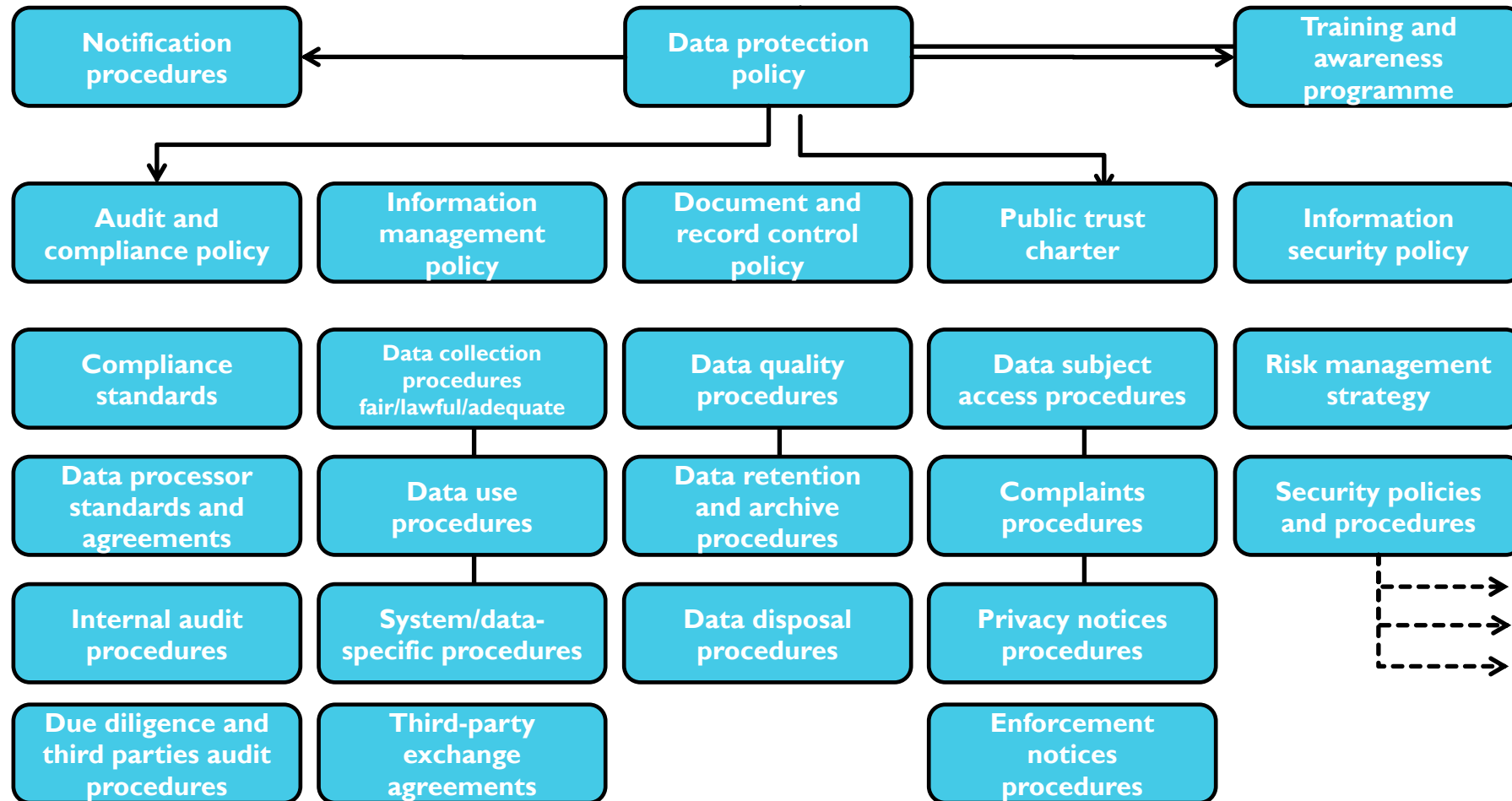
## Threat scenario

- **Digital transformation** (e.g. Smart offices, National ID, Payment Platforms)
- **Power and portable computing devices** increasingly facilitating information collection, aggregation, and dissemination (e.g. Tablets, IOT)
- Increasing number of **third-party relationships** (e.g., connection and application providers)
- **Other laws and regulations**
- **Professionalisation of attackers** (e.g individuals crackers and funded teams)
- **The Cloud** (e.g., data centers, communication backbones)

## Vulnerability

- More valuable data being electronically stored and processed on a massive and centralized scale (e.g., data warehouses)
- Increasing number of sources to collect data (e.g., IP cameras, biometric, GPS, RFID, etc.)
- Lack of privacy protection concerns in applications / systems development
- Information shared, combined, and linked together with greater frequency
- Use of common credentials to access multiple systems
- Increasing number of people performing activities in the cyberspace

# PERSONAL INFORMATION MANAGEMENT SYSTEM (PIMS)



# SECURITY CONTROLS

**114 CONTROLS**

**ISO 27001 Annex A:  
14 Control Categories**

5 Information security policies

6 Organisation of info. security

7 Human resources security

8 Asset Management

9 Access Control

10 Cryptography

11 Physical & environmental sec

12 Operations security

13 Comms security

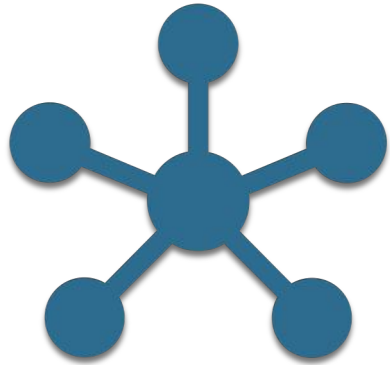
14 System acq, dev & mnt.

15 Supplier relationships

16 Info. security incident management

17 Info. sec aspects of BC Mngt

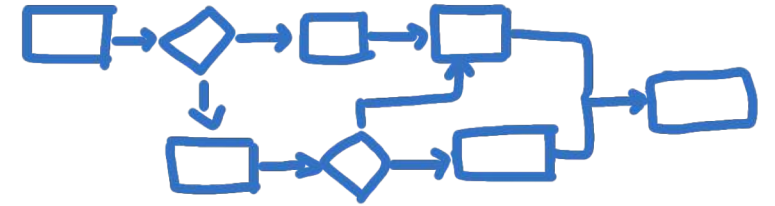
18 Compliance



Technology



People



Processes

# SCOPE OF ENFORCEMENT

# PLANNING FOR PRIVACY BY DESIGN

- High level policies
  - Incorporate privacy impact assessments (PIA) throughout the systems lifecycle.
  - Managing privacy related risks to predefined levels.
  - Consider submitting PIAs to ICO for verification.
  - Publishing PIAs to promote transparency.
  - Work towards automating Subject Access Requests (SARs).

# PROMOTING PRIVACY ENHANCING TECHNOLOGIES

- support existing and future PETs research into:
  - mechanisms to simplify consent, revocation and data minimisation;
  - ‘privacy-friendly’ identification and authentication systems
  - methodologies to test and prove the effectiveness of privacy controls



## WHAT IS PERSONAL DATA?

- Personal data is any information that **uniquely** identifies a **living** individual from information in the possession of, or likely to come into the possession of a Data Controller.

## WHO IS A DATA CONTROLLER?

- Any person who either alone, jointly with other persons or in common with other persons or as a statutory duty determines the purposes for and the manner in which personal data is processed or is to be processed
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# WHAT IS PROCESSING?

- Collecting
- Recording
- Organizing
- Structuring
- Adapting
- Retrieving
- Storing
- Erasing
- Disclosing

# DATA PROTECTION IMPACT ASSESSMENTS (DPIA)

## ■ Purpose

- Assess and identify potential DP risks and ensure they are minimised

## ■ When to conduct PIA

- New, change, review process , project or systems

## ■ Format

- List of question, screening vs full assessment

## ■ Outputs

- Report which highlights risks and remediation actions
- Action Plan

# THE WAY FORWARD - A CONVENTION OF EXPERTS



OUTSIDE

## KEY QUESTIONS

***‘How do we convince African Nations to pass the DP law and establish independent authorities?’***

***‘Considering the diverse cultures and specific challenges such as literacy levels and internet penetration levels, what best practice exist in Data Subject awareness in this region?’***

## KEY QUESTIONS

*‘how practical, realistic and applicable are the international conventions to the African Region?’*

*‘What is the regional status, the global impact and actions required to protect individuals privacy in the cyber space?’*

## KEY QUESTIONS

***‘How do we ensure the continuous protection of personal data and privacy with the increased use of inclusive and mobile Financial Technology in the region?’***

***‘Research, tools, frame works and other resources available’***



## KEY QUESTIONS

Ethical Approaches, Digital Economy and processing for the global good – *‘a focus on the African Region’*



**2016 Octopus Conference  
Workshop 5  
Legislation on Cybercrime and Electronic Evidence in Africa**

**Comparative analysis:  
Malabo Convention of African Union  
and  
Budapest Convention on Cybercrime**



THANK YOU

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