

A solution  
to human factor  
related issues in  
cyber security



Human factor related issues in cyber security

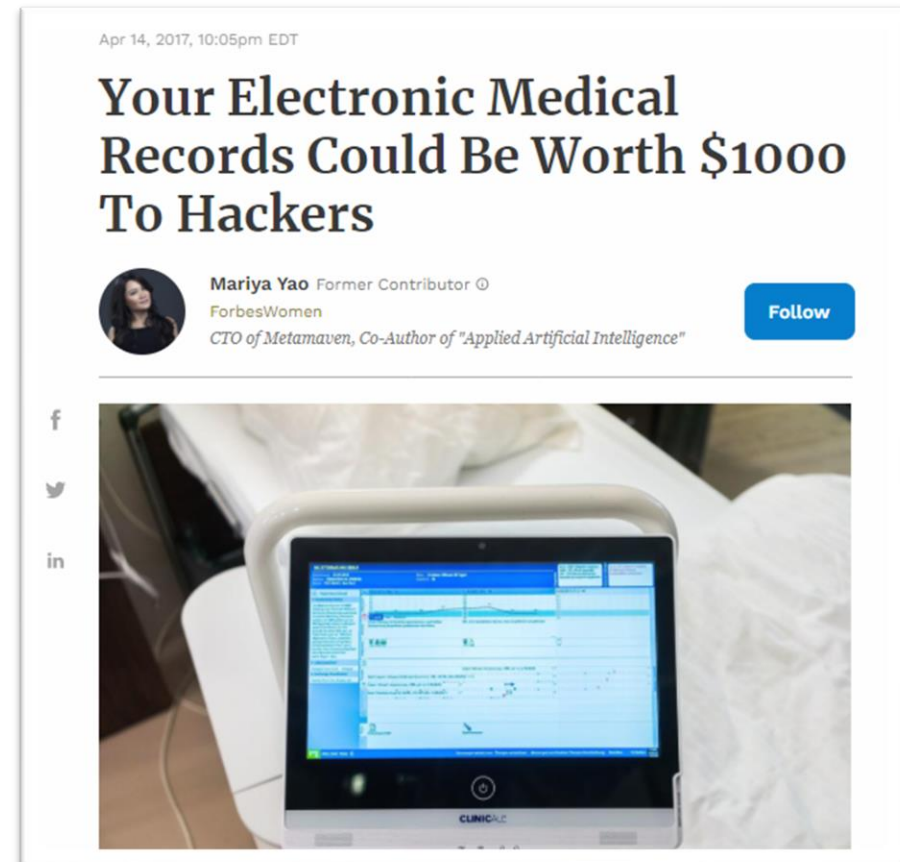
# Human factor related issues in cyber security

- lack of understanding



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- lack of understanding
- ignorance about the risk



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- lack of understanding
- ignorance about the risk
- privacy paradox (Kokolakis, 2015)
- knowing-doing gap (Cox, 2012)
- (accidental) insider threat

Solution





# Social constraints

- Computer Accessibility law
- GDPR
  - consent
  - Data minimisation
  - ...
- ...

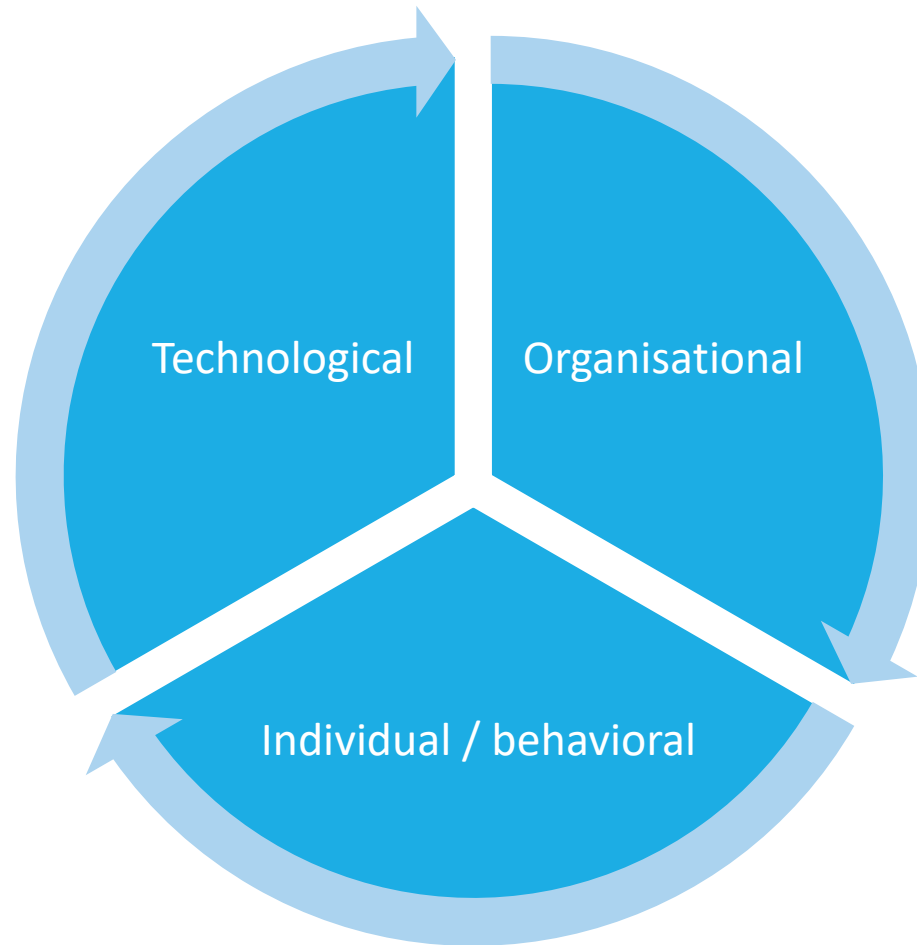
# Ethical constraints

- Respect for Persons
- Beneficence
- Justice
- Respect for Law and Public Interest

Solution

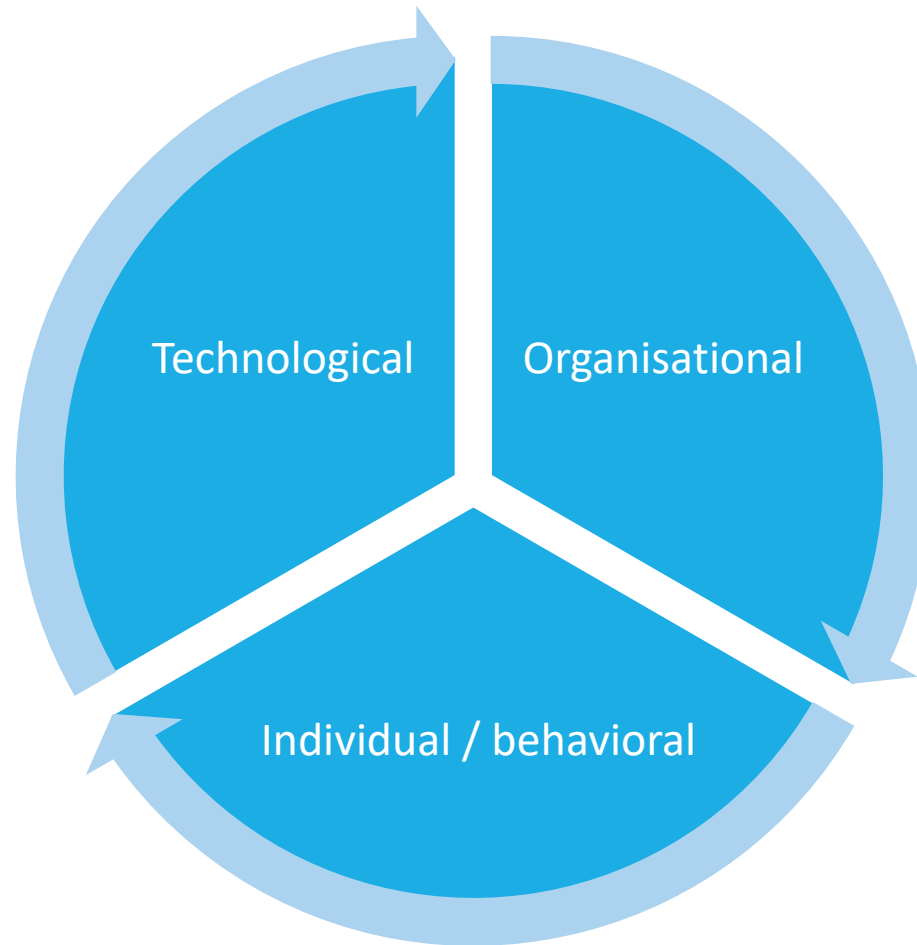


# Effective security culture

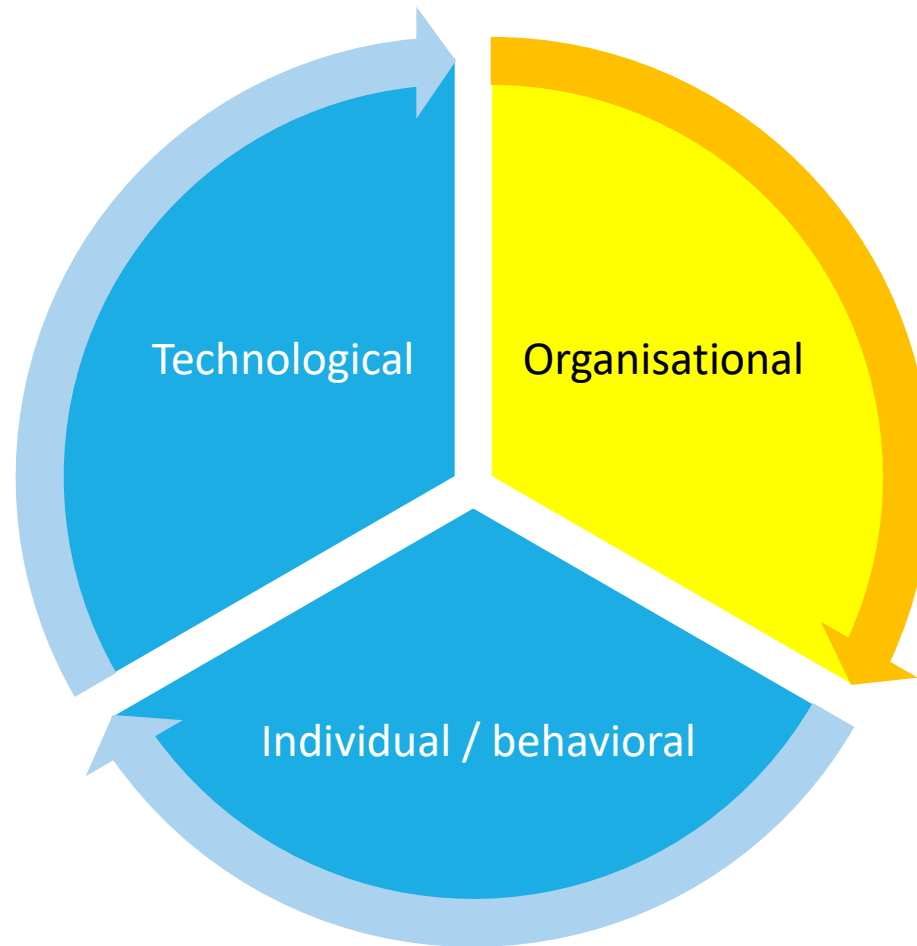


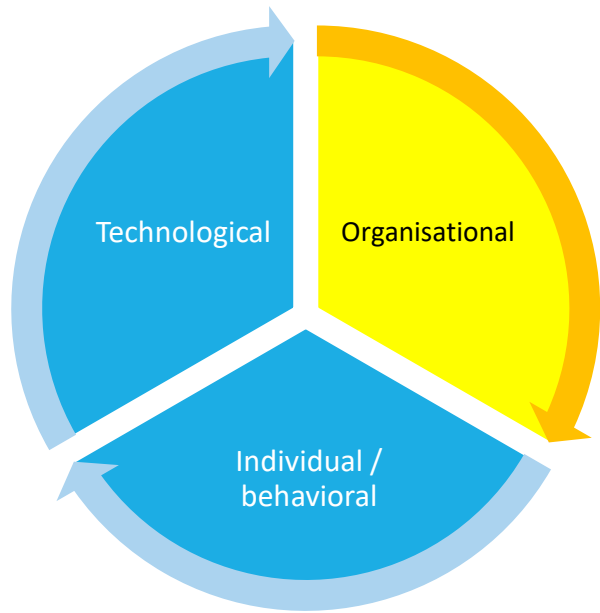


# Effective security culture



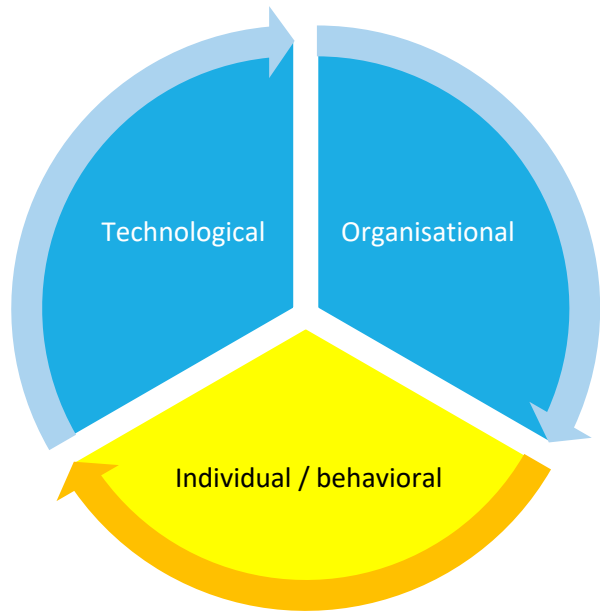
# Effective security culture



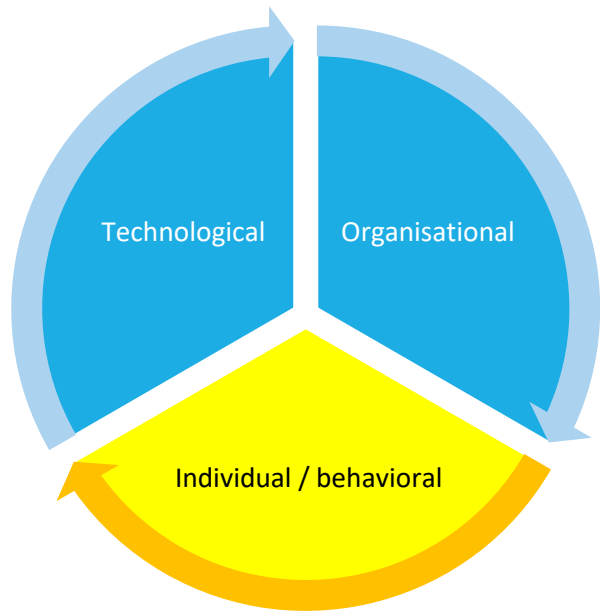


- Security policies & procedures
- Self-reported survey, Focus Group
- Monitoring of security behavior





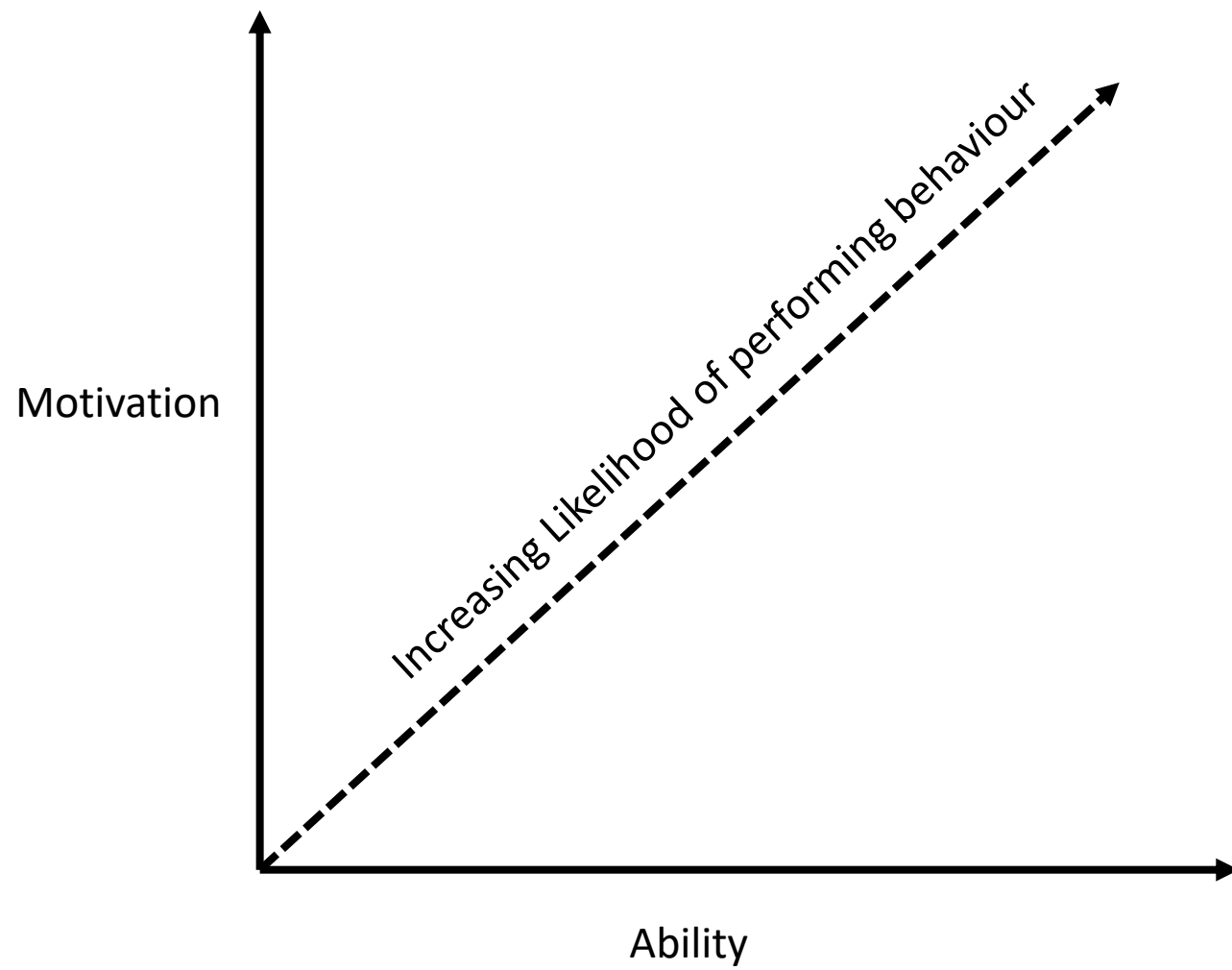
- Awareness
- Education
  - Value of company assets
  - current threats for the organisation
  - Typical attack methods & vectors

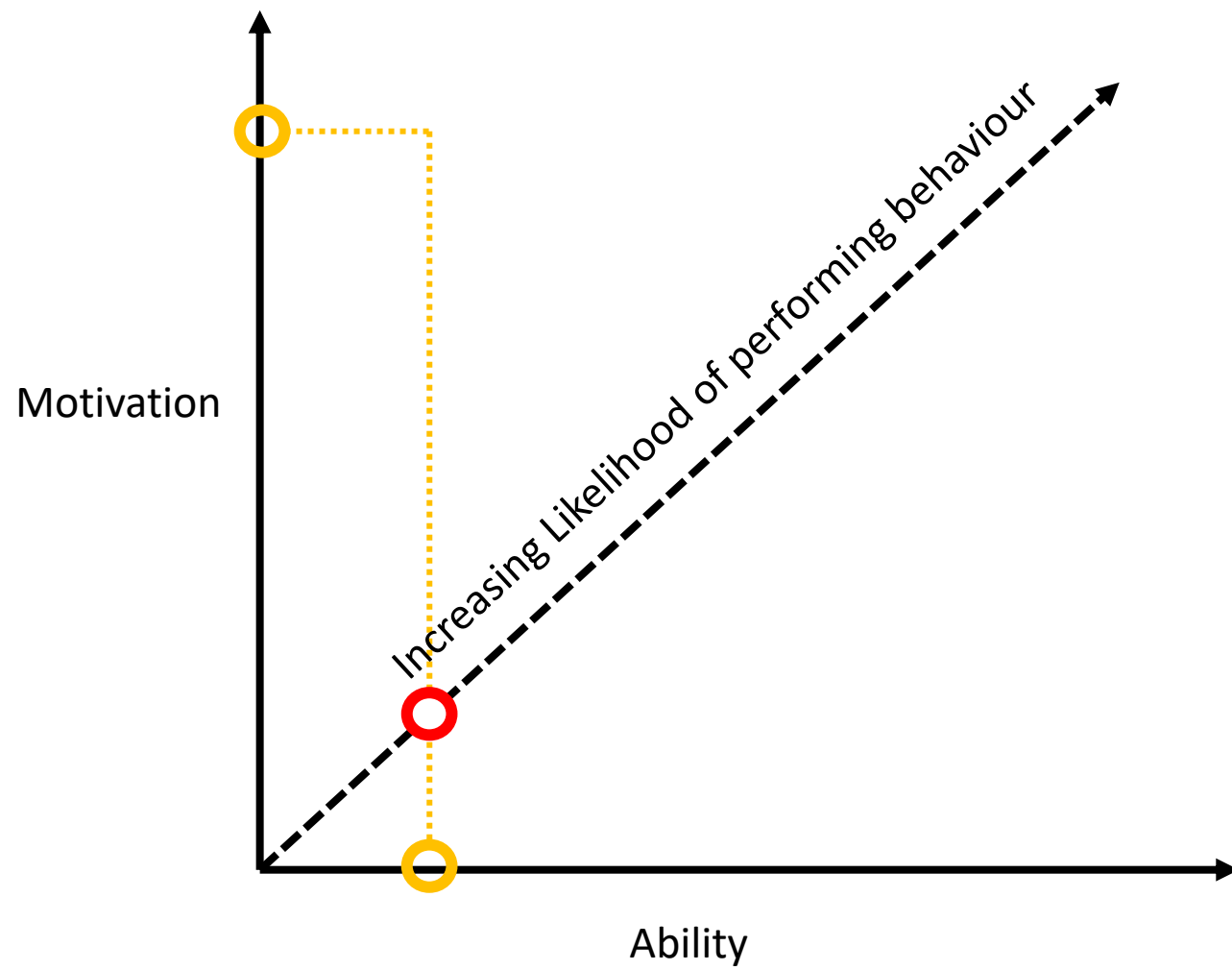


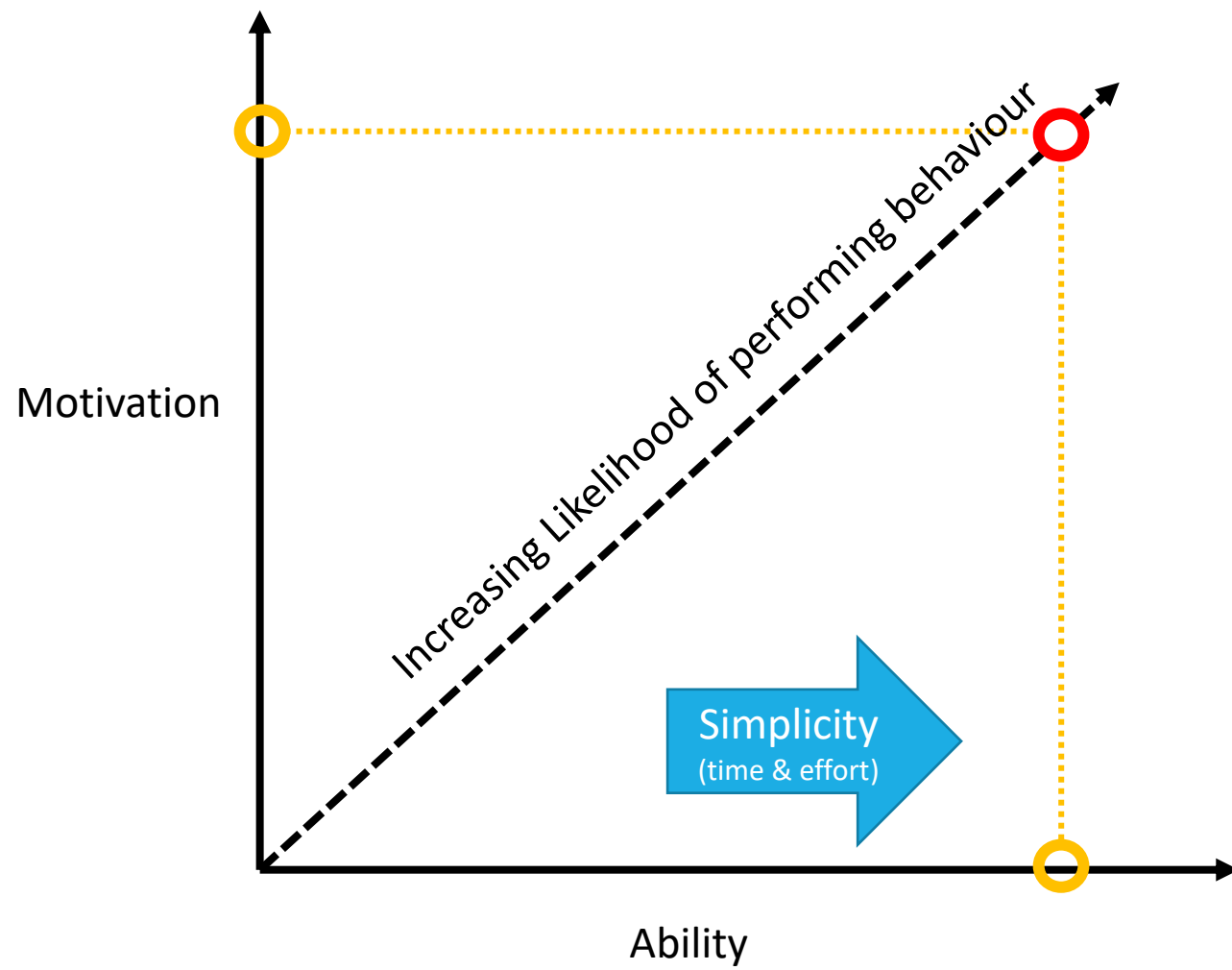
- Training / Simulation
  - (Phishing) simulation
  - Security games
  - Physical access entry simulations



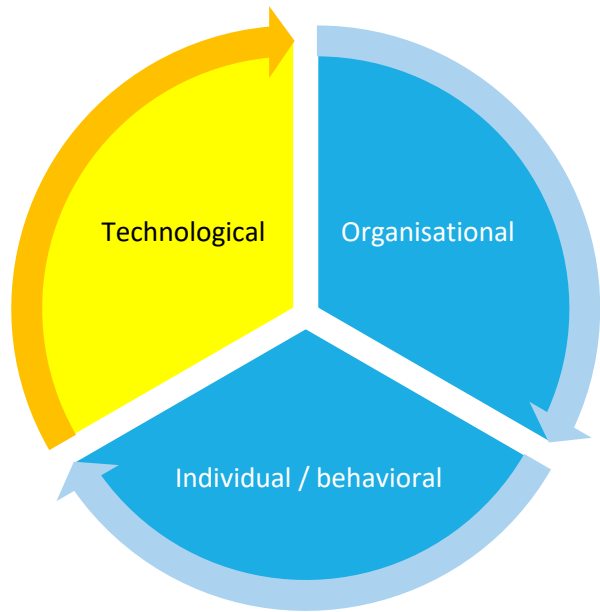




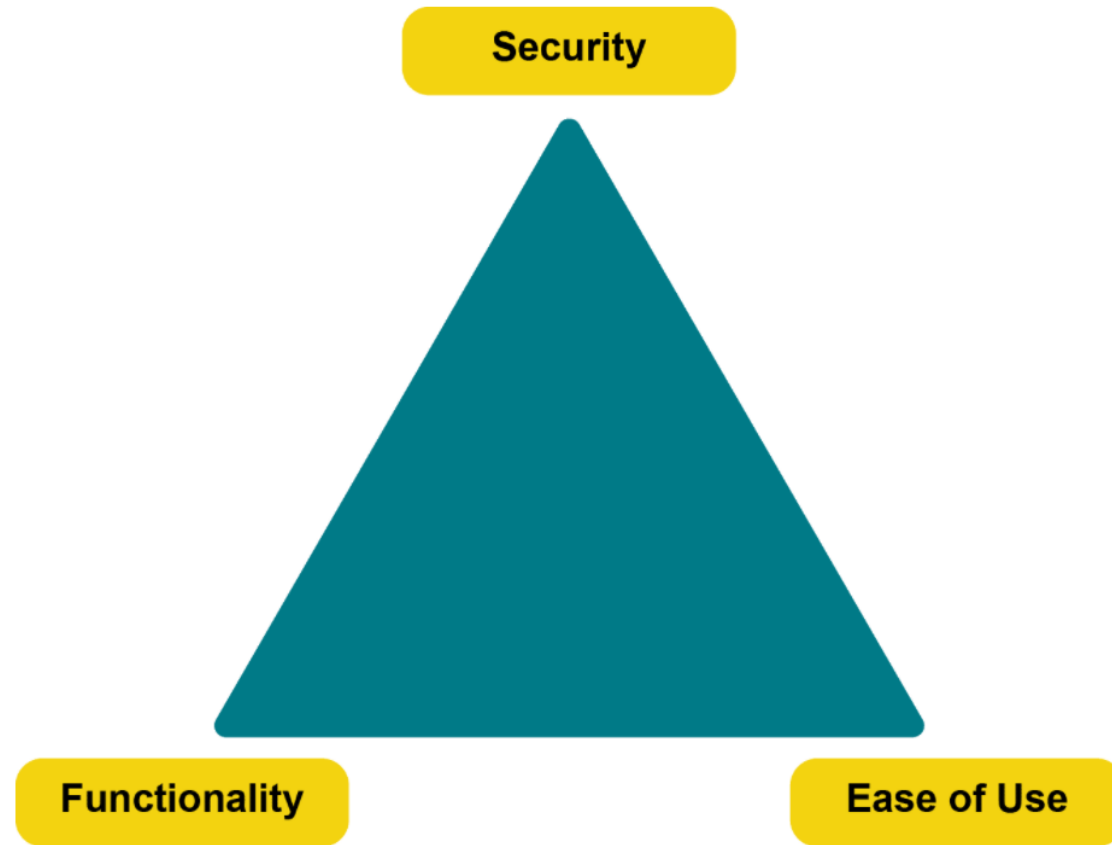




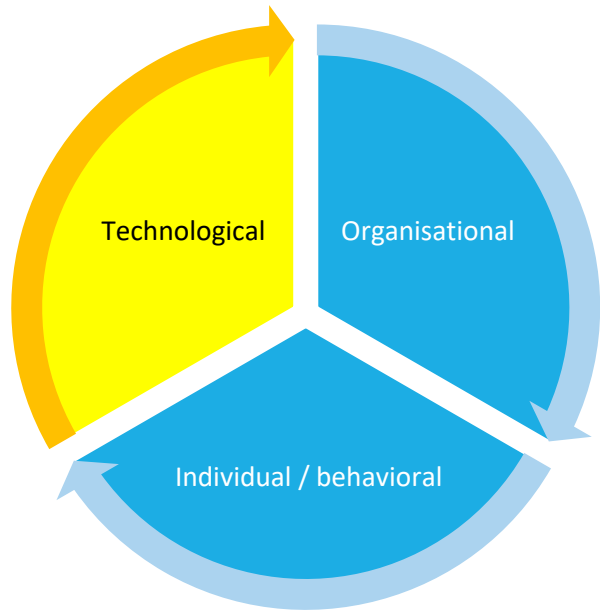
# Usable security



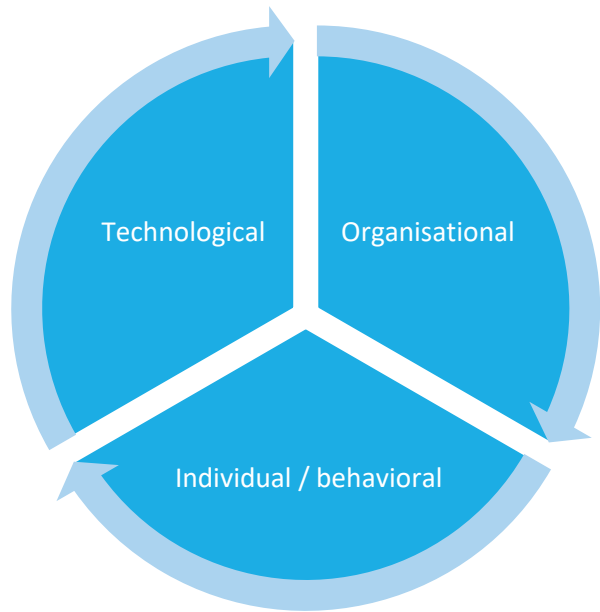
- Security well integrated in workflows
- Avoid any unnecessary call to action
- Security messages properly emphasized
- Good structure within e.g., security settings
- Pictograms
- keep security texts short, use understandable terms
- Easy & secure authentication (OTP, 2FA)
- Progressive disclosure







- Blockchain
- Artificial Intelligence (AI): (accidental) Insider threats detection



fitting the task to the human is in the long run proven to be more cost effective than vice versa. (Waite 2010)



Solution

