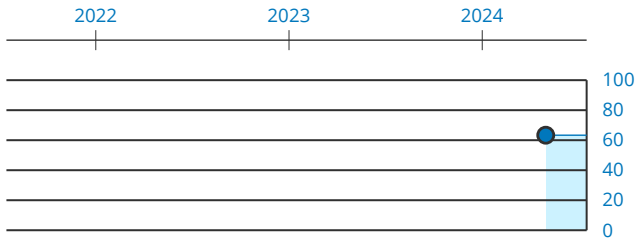


# 23. Ghana 63.33

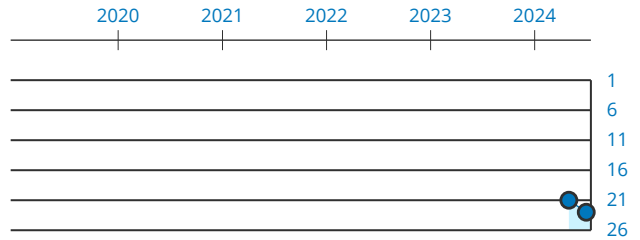
Population **27.7 million**  
 Area (km<sup>2</sup>) **238.5 thousand**  
 GDP per capita (\$) **4.6 thousand**

**23<sup>rd</sup> National Cyber Security Index** ██████████ 63 %  
**43<sup>rd</sup> Global Cybersecurity Index** ██████████ 87 %  
**106<sup>th</sup> E-Government Development Index** ██████████ 58 %  
**98<sup>th</sup> Network Readiness Index** ██████████ 39 %

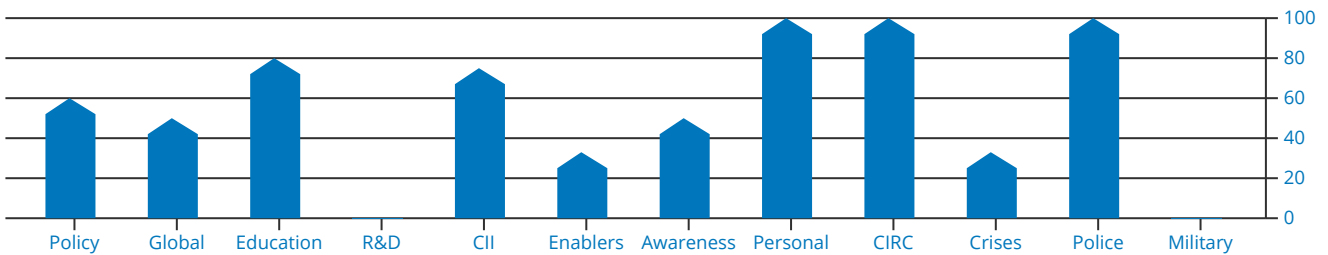
### NCSI DEVELOPMENT TIMELINE



### RANKING TIMELINE



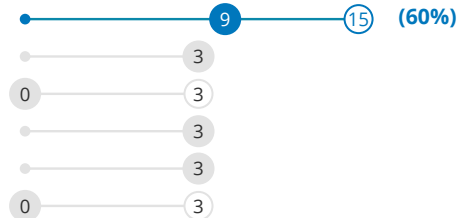
### NCSI FULFILMENT PERCENTAGE



### STRATEGIC CYBERSECURITY INDICATORS

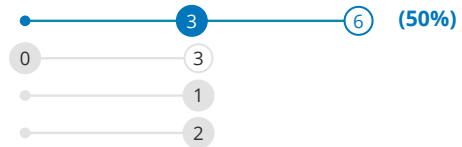
#### 1. CYBERSECURITY POLICY

- 1.1. High-level cybersecurity leadership
- 1.2. Cybersecurity policy development
- 1.3. Cybersecurity policy coordination
- 1.4. National cybersecurity strategy
- 1.5. National cybersecurity strategy action plan



#### 2. GLOBAL CYBERSECURITY CONTRIBUTION

- 2.1. Cyber diplomacy engagements
- 2.2. Commitment to international law in cyberspace
- 2.3. Contribution to international capacity building in cybersecurity



#### 3. EDUCATION AND PROFESSIONAL DEVELOPMENT

- 3.1. Cyber safety competencies in primary education
- 3.2. Cyber safety competencies in secondary education
- 3.3. Undergraduate cybersecurity education
- 3.4. Graduate cybersecurity education
- 3.5. Association of cybersecurity professionals



#### 4. CYBERSECURITY RESEARCH AND DEVELOPMENT

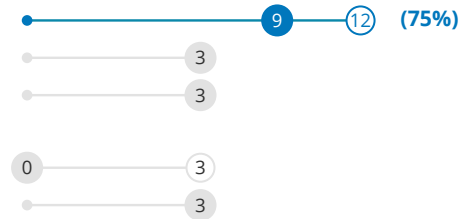
- 4.1. Cybersecurity research and development programmes
- 4.2. Cybersecurity doctoral studies



## PREVENTIVE CYBERSECURITY INDICATORS

### 5. CYBERSECURITY OF CRITICAL INFORMATION INFRASTRUCTURE

- 5.1. Identification of critical information infrastructure
- 5.2. Cybersecurity requirements for operators of critical information infrastructure
- 5.3. Cybersecurity requirements for public sector organisations
- 5.4. Competent supervisory authority



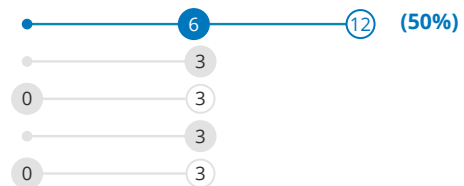
### 6. CYBERSECURITY OF DIGITAL ENABLERS

- 6.1. Secure electronic identification
- 6.2. Electronic signature
- 6.3. Trust services
- 6.4. Supervisory authority for trust services
- 6.5. Cybersecurity requirements for cloud services
- 6.6. Supply chain cybersecurity



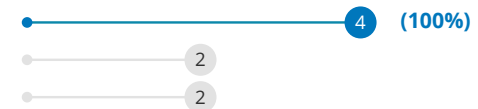
### 7. CYBER THREAT ANALYSIS AND AWARENESS RAISING

- 7.1. Cyber threat analysis
- 7.2. Public cyber threat reports
- 7.3. Public cybersecurity awareness resources
- 7.4. Cybersecurity awareness raising coordination



### 8. PROTECTION OF PERSONAL DATA

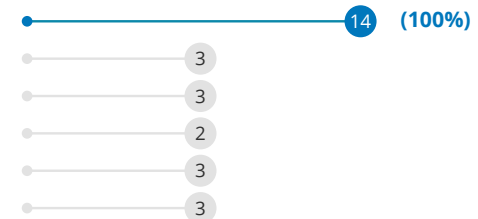
- 8.1. Personal data protection legislation
- 8.2. Personal data protection authority



## RESPONSIVE CYBERSECURITY INDICATORS

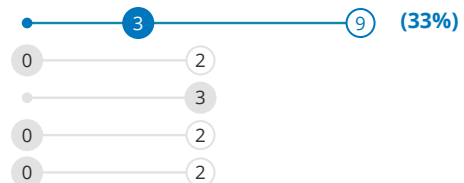
### 9. CYBER INCIDENT RESPONSE

- 9.1. National incident response capacity
- 9.2. Incident reporting obligations
- 9.3. Cyber incident reporting tool
- 9.4. Single point of contact for international cooperation
- 9.5. Participation in international incident response cooperation



### 10. CYBER CRISIS MANAGEMENT

- 10.1. Cyber crisis management plan
- 10.2. National cyber crisis management exercises
- 10.3. Participation in international cyber crisis exercises
- 10.4. Operational crisis reserve



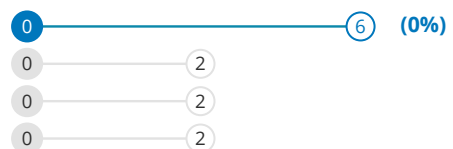
### 11. FIGHT AGAINST CYBERCRIME

- 11.1. Cybercrime offences in national law
- 11.2. Procedural law provisions
- 11.3. Ratification of or accession to the Convention on Cybercrime
- 11.4. Cybercrime investigation capacity
- 11.5. Digital forensics capacity
- 11.6. 24/7 contact point for international cybercrime



### 12. MILITARY CYBER DEFENCE

- 12.1. Military cyber defence capacity
- 12.2. Military cyber doctrine
- 12.3. Military cyber defence exercises





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