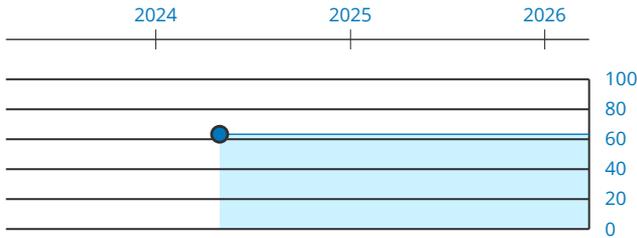


63. Ghana 63.33

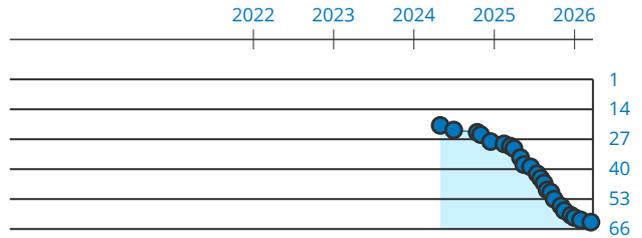
Population **33.8 million**
 Area (km²) **238.5 thousand**
 GDP per capita (\$) **7.5 thousand**

63rd National Cyber Security Index ██████████ 63 %
1st Global Cybersecurity Index ██████████ 99 %
108th E-Government Development Index ██████████ 63 %
87th Network Readiness Index ██████████ 44 %

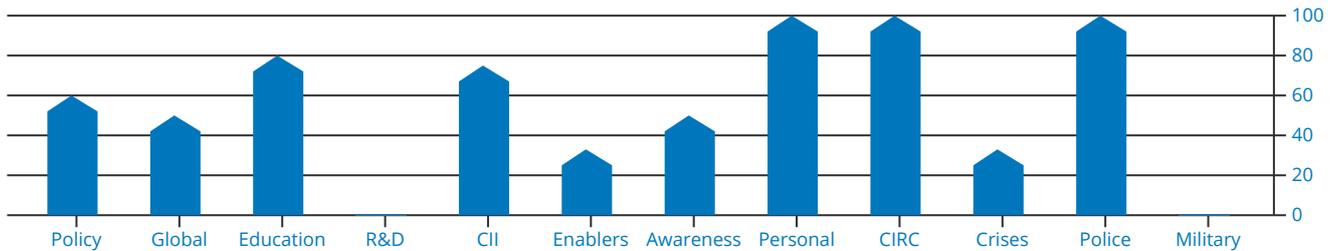
NCSI DEVELOPMENT TIMELINE



RANKING TIMELINE



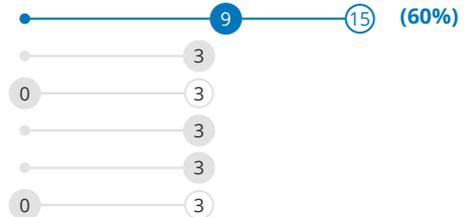
NCSI FULFILMENT PERCENTAGE



STRATEGIC CYBERSECURITY INDICATORS

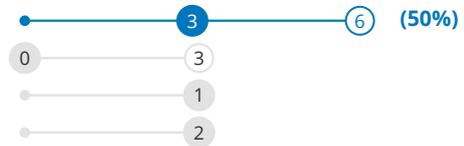
1. CYBERSECURITY POLICY

- 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



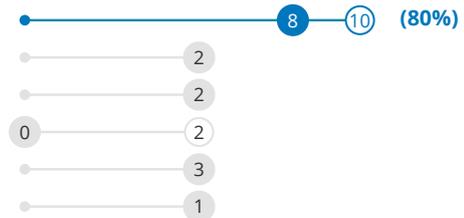
2. GLOBAL CYBERSECURITY CONTRIBUTION

- 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

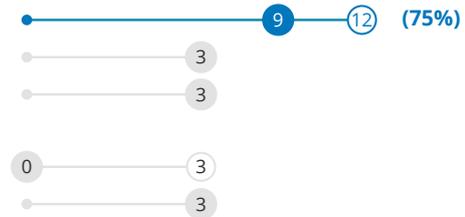
- 4.1. Cybersecurity research and development programmes
- 4.2. Cybersecurity doctoral studies



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



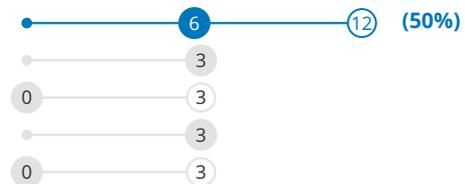
6. CYBERSECURITY OF DIGITAL ENABLERS

- 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

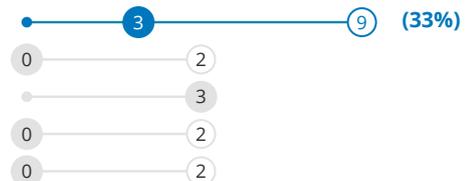
9. CYBER INCIDENT RESPONSE

- 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



NCSI is held and developed by
e-Governance Academy Foundation
Company code: 90007000

Rotermanni 8
10111 Tallinn
Estonia

P: +372 663 1500
E: ncsi@ega.ee
W: www.ega.ee