Cybersecurity Capacity Maturity Evaluation in Cyprus Findings and Recommendations

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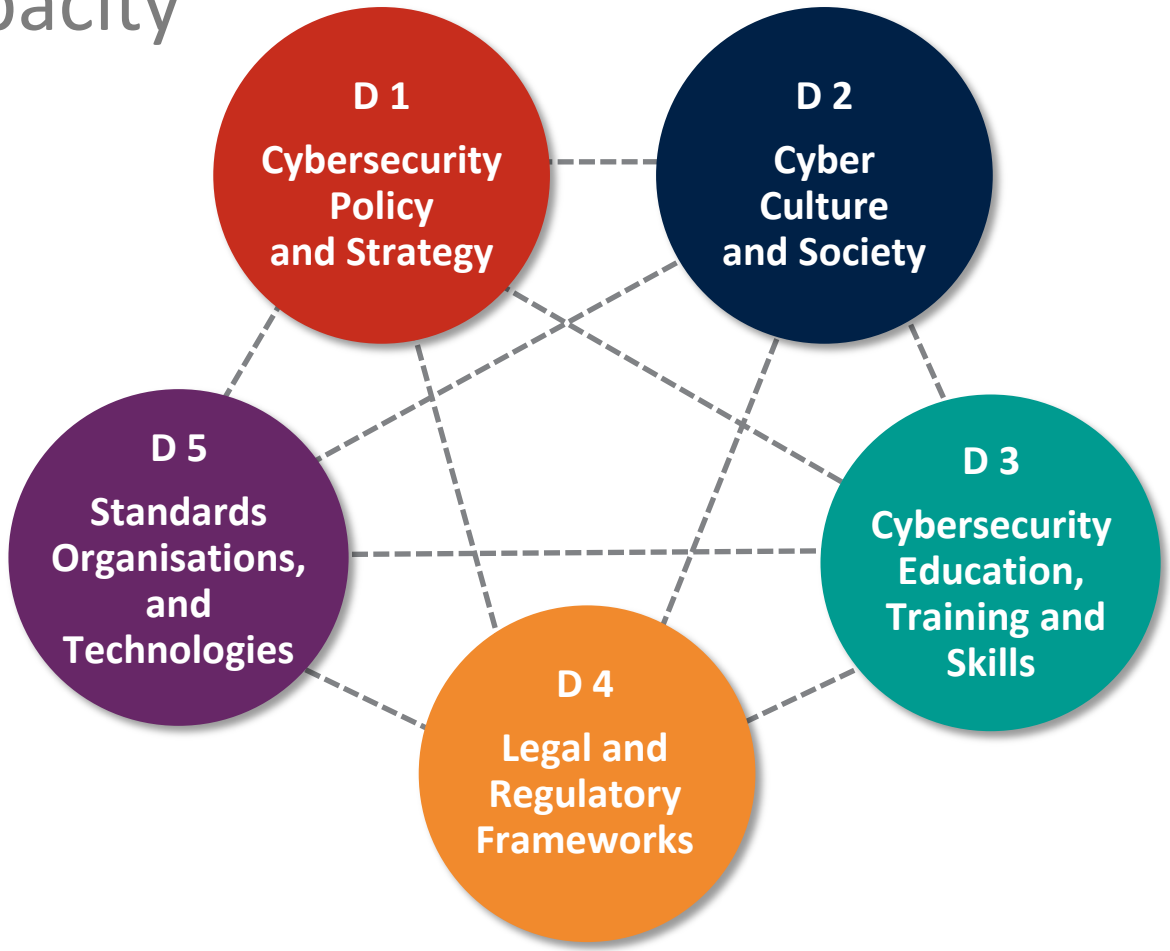
Cybersecurity Capacity Maturity Model for Nations (CMM)

The **5 DIMENSIONS** of Cybersecurity Capacity



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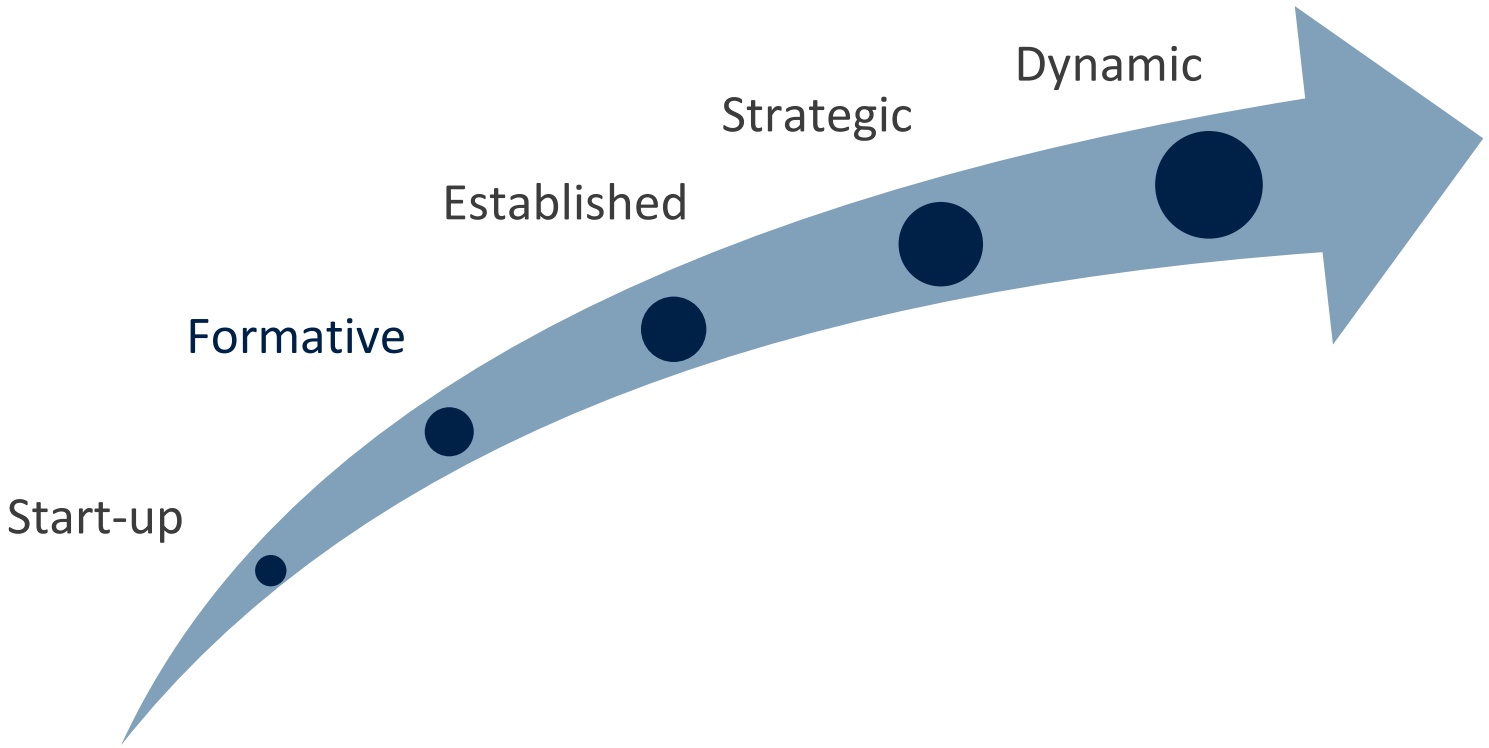
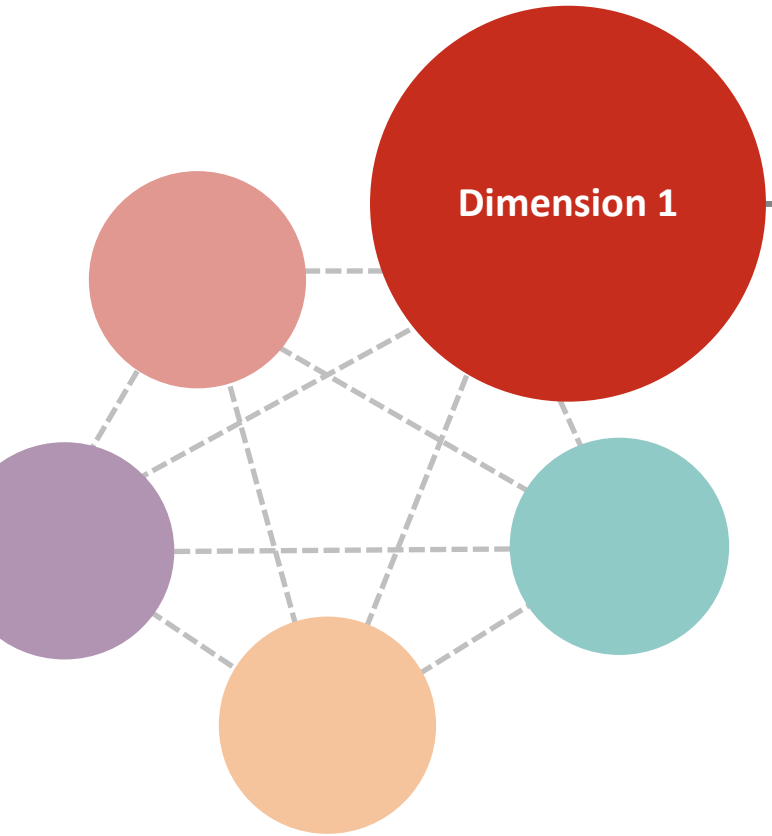
Stages of Maturity

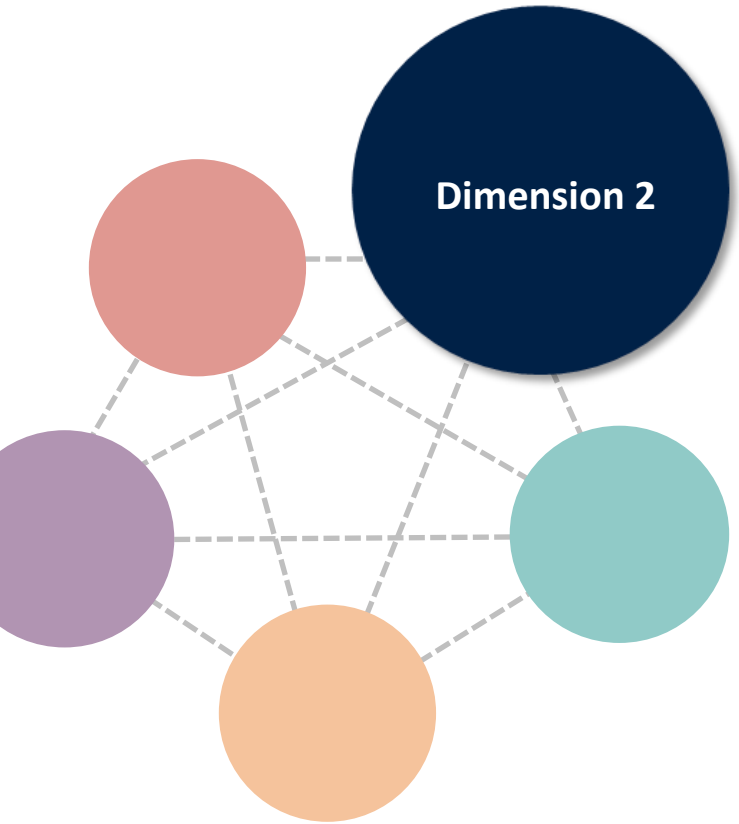


CYBERSECURITY POLICY AND STRATEGY



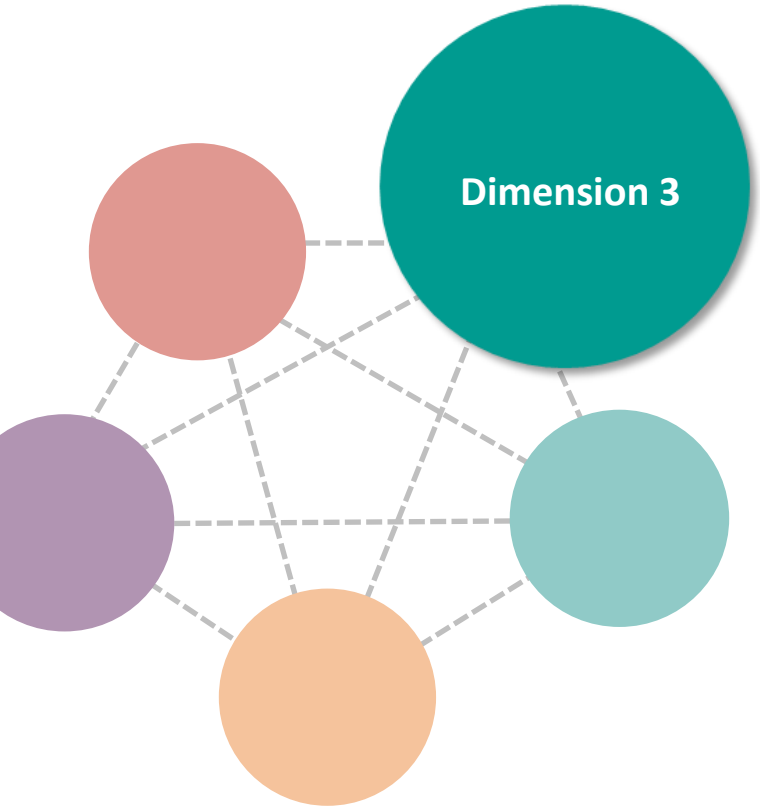
- D1.1 National Cybersecurity Strategy
- D1.2 Incident Response
- D1.3 Critical Infrastructure (CI) Protection
- D1.4 Crisis Management
- D1.5 Cyber Defence Consideration
- D1.6 Communications Redundancy

CYBERSECURITY CULTURE AND SOCIETY



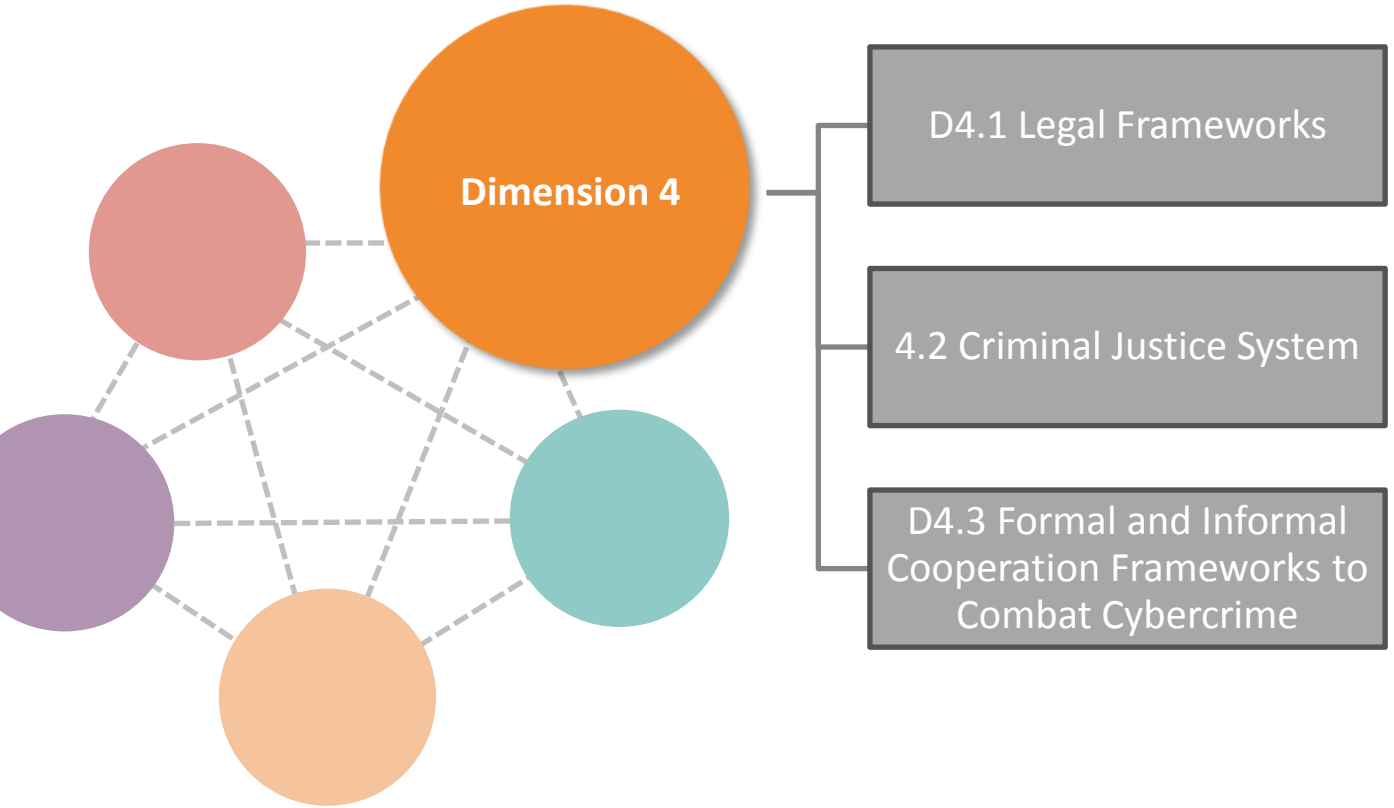
- D2.1 Cybersecurity Mindset
- D2.2 Trust and Confidence on the Internet
- D2.3 User Understanding of Personal Information protection online
- D2.4 Reporting Mechanisms
- D2.5 Media and Social Media

CYBERSECURITY EDUCATION, TRAINING AND SKILLS

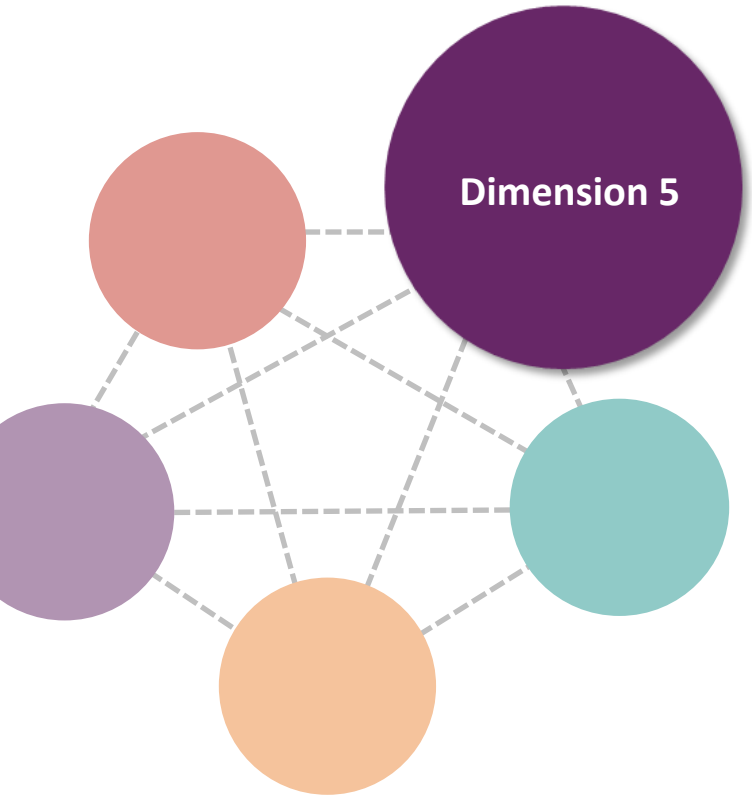


- D3.1 Awareness Raising
- D3.2 Framework for Education
- D3.3 Framework for Professional Training

LEGAL AND REGULATORY FRAMEWORKS



STANDARDS, ORGANISATIONS AND TECHNOLOGIES



- D5.1 Adherence to Standards
- D5.2 Internet Infrastructure Resilience
- D5.3 Software Quality
- D5.4 Technical Security Controls
- D5.5 Cryptographic Controls
- D5.6 Cybersecurity Marketplace
- D5.7 Responsible Disclosure

Cybersecurity Capacity Review
Republic of Cyprus

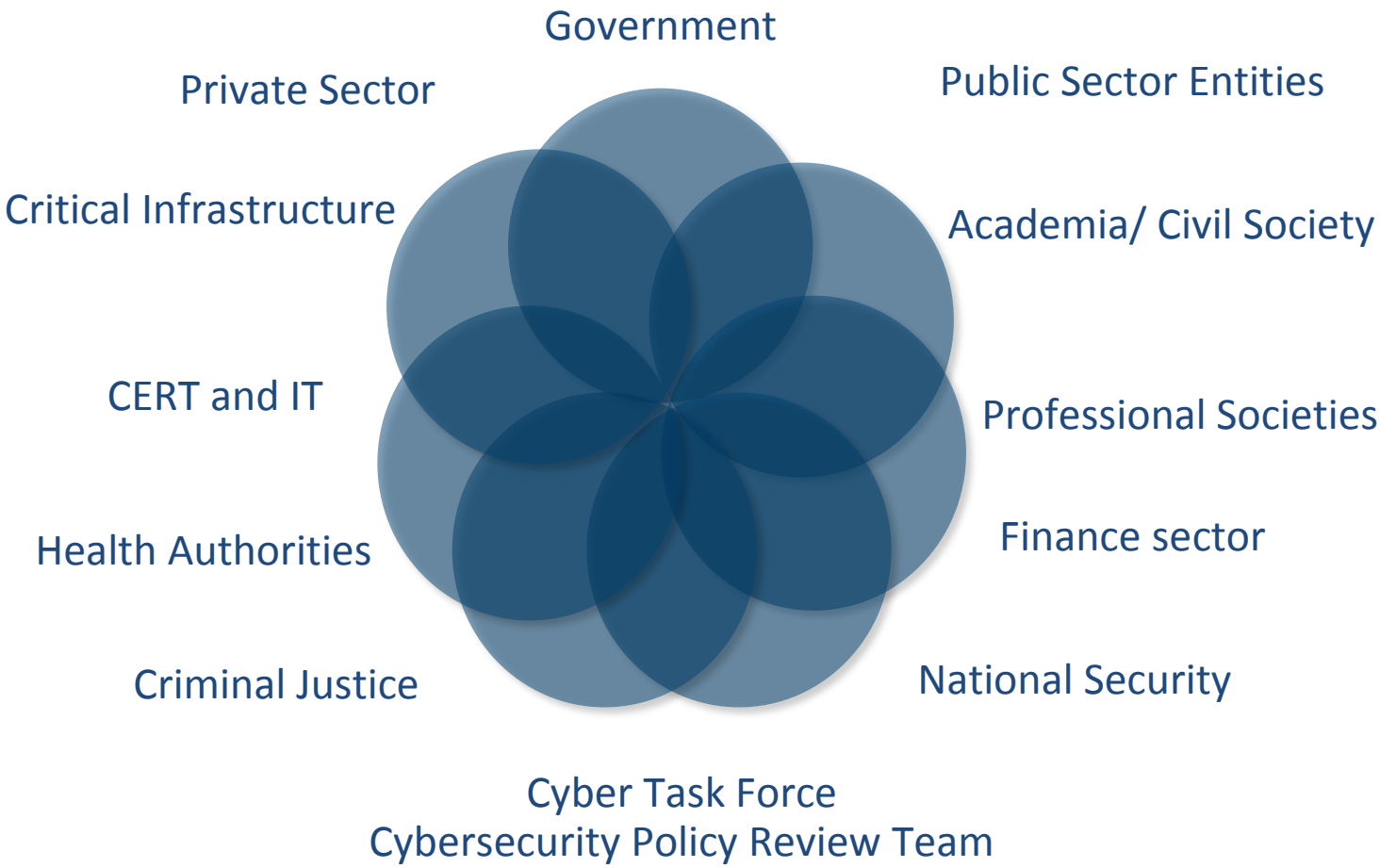
Methodology

Hosted by the Office of the Commissioner of Electronic Communications & Postal Regulation (OCECPR)

Over the period 12-14 July 2017

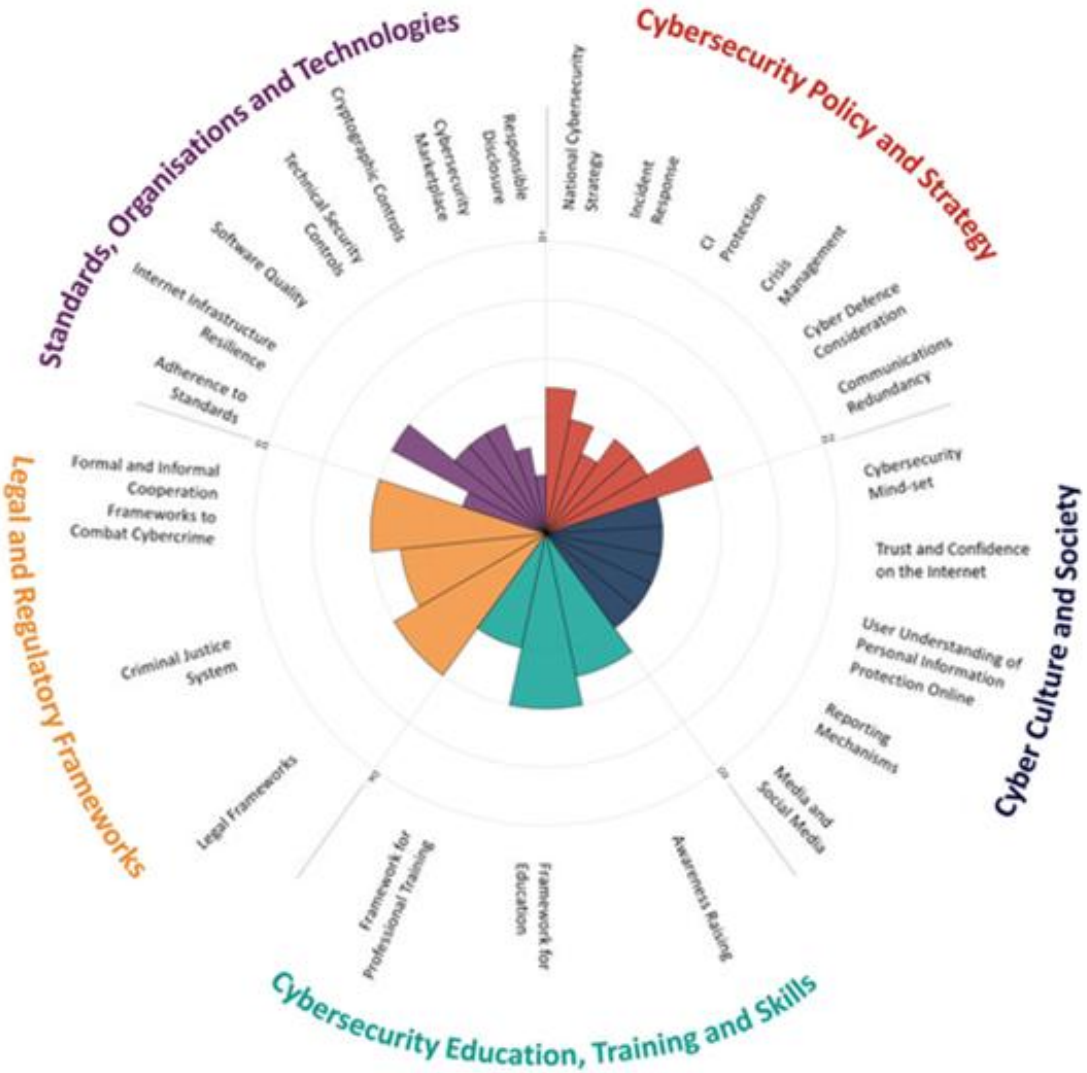
- In-country focus group discussions with key stakeholders from all sectors
- 9 sessions over 3 days
- Research team from the GCSCC

Stakeholder Clusters



CMM Review in Cyprus
Findings

Overall representation of the cybersecurity capacity in the Republic of Cyprus



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Cybersecurity Policy and Strategy

- Cyprus is in the process of revising the National Cyber Security Strategy, under the OCECPR while implementing the NISD and GDPR
- A National CERT has been established to act as a central point of contact
- A national level cyber risk assessment methodology developed
- CII asset list developed but not disseminated to all stakeholders
- Formal vulnerability disclosure for CII, Government and Telecoms

Cybersecurity Policy and Strategy

- Risk assessment exercises conducted every 2 years not necessarily including all CII stakeholders
- The National Defence Strategy considers elementary cybersecurity issues but no official cyber defence document developed
- Plans for a Cyber Defence Strategy under way based on the National Cybersecurity Strategy and the OCECPR cyber risk assessment plan
- The Ministry of Defence seeks collaboration with the government and the National CERT as well as other countries
- Emergency response assets in place

CYBERSECURITY CULTURE AND SOCIETY

- Recognition of cybersecurity across government with mandatory password update
- High levels of ''blind'' trust online
- E-government & E-commerce services established
- General knowledge on privacy and protection of personal information online
- Some reporting mechanisms exist on incidents online
- Ad-hoc media coverage of cybersecurity and incidents online

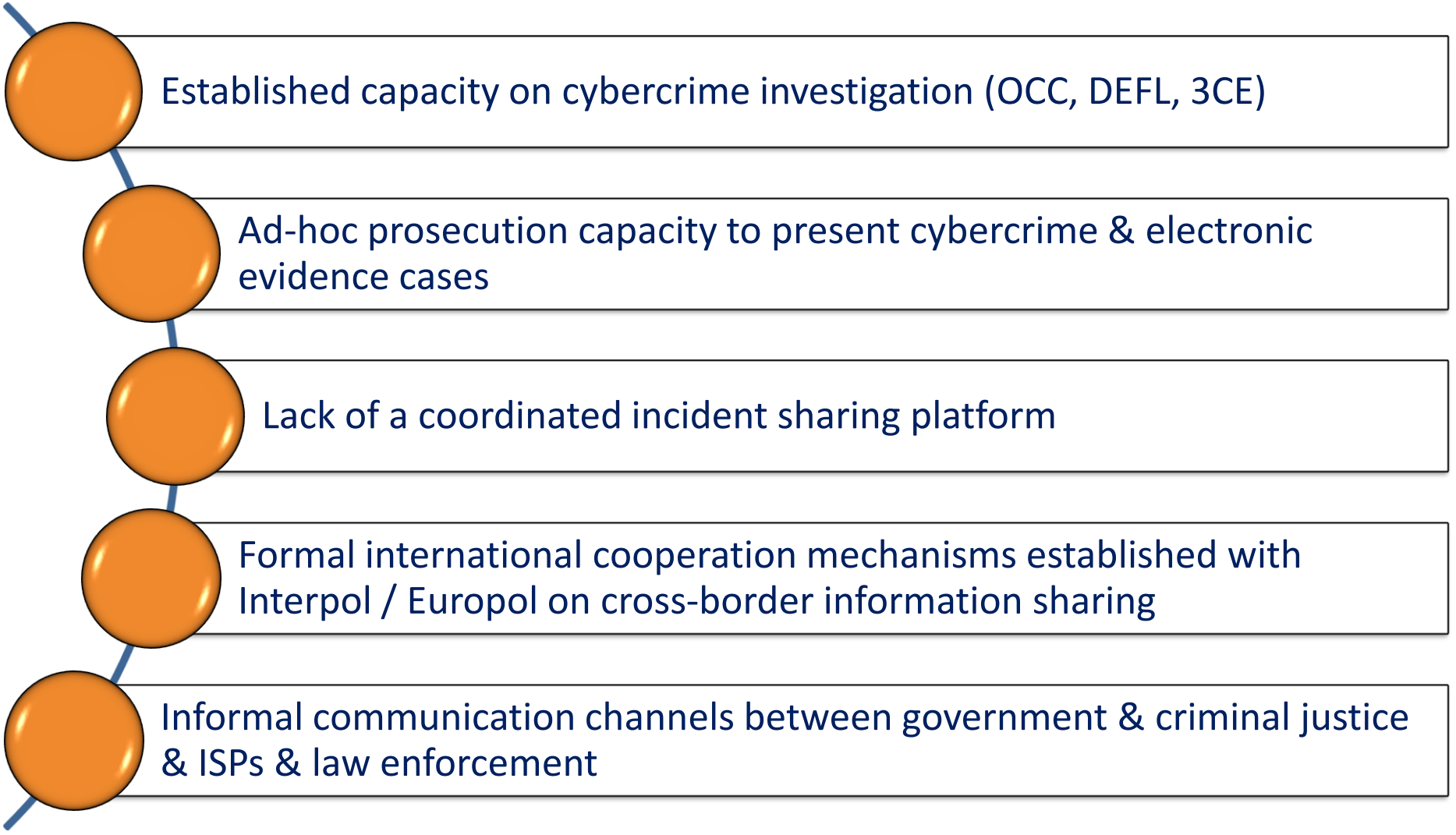
CYBERSECURITY EDUCATION, TRAINING AND SKILLS

- Awareness-raising initiatives developed but no national level programme – Action 14 of NCS speaks on a national awareness & education strategy
- General executive knowledge of cybersecurity issues
- University level courses in cybersecurity offered
- ICT professional certification available
- Need for training professionals in cybersecurity
- Ad-hoc provision of courses for CEOs in cybersecurity and risk management

LEGAL AND REGULATORY FRAMEWORKS

- Provisions on cybersecurity in ICT legislative and regulatory frameworks
- Work underway towards the implementation of NIS Directive and GDPR
- Fundamental human rights recognised in Law (freedom of speech, freedom of information etc.)
- Adopted Child Protection legislation
- Substantive cybercrime legal provisions in criminal law (Budapest Convention)

LEGAL AND REGULATORY FRAMEWORKS



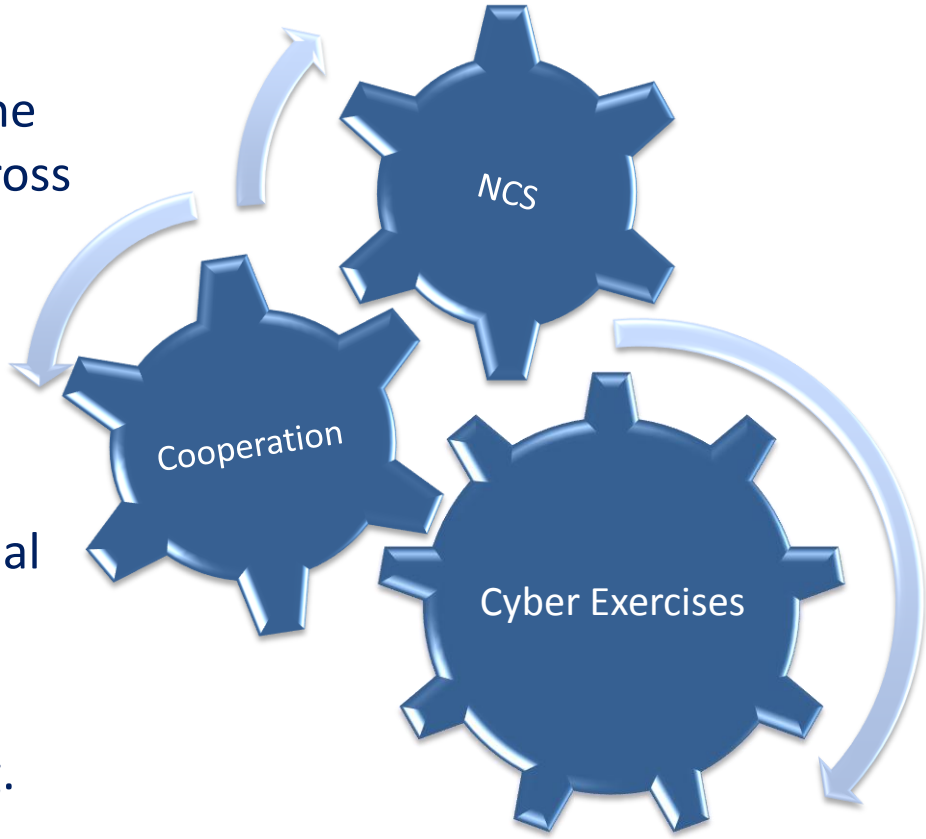
STANDARDS, ORGANISATIONS AND TECHNOLOGIES

- ICT security standards and good practise adopted in public & private sector
- Ad-hoc software quality assessment
- Varying adoption of technical security & cryptographic controls
- Lack of understanding of such controls by general public
- Limited market provisions of cybersecurity and cyber insurance products
- No official vulnerability disclosure framework at place

CMM Review in Cyprus
Recommendations

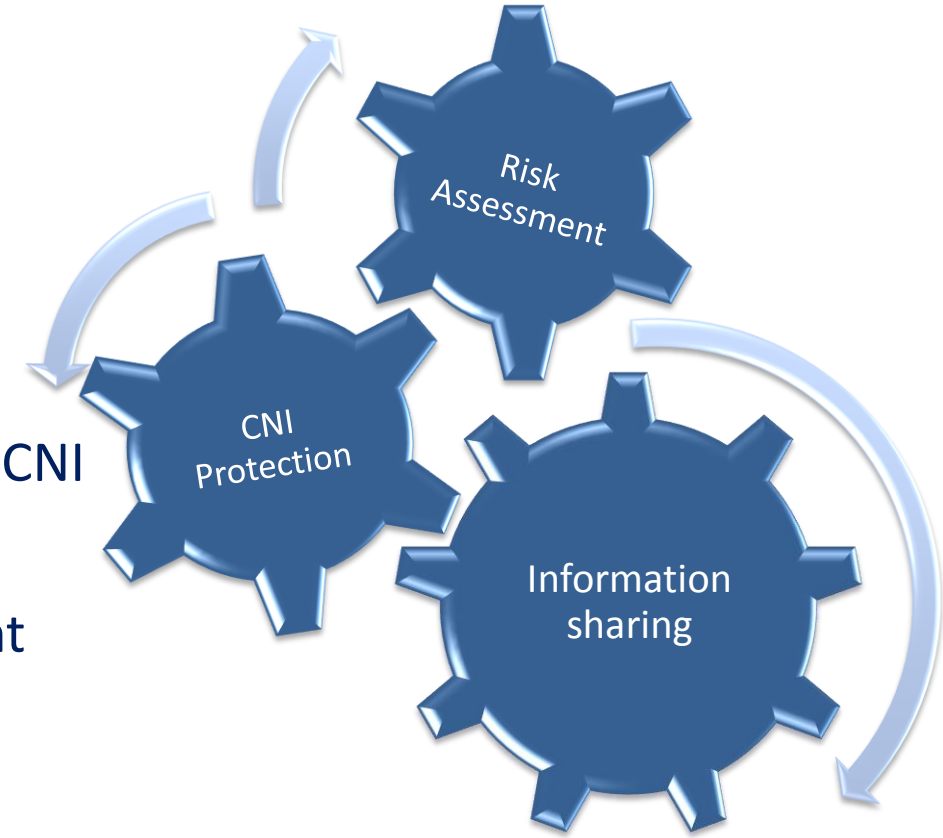
CYBERSECURITY POLICY AND STRATEGY
Recommendations

- Encourage the implementation of the National Cyber Security Strategy across government and other sectors.
- Conduct regular scenario cyber exercises that provide a picture of national cyber resilience.
- Develop a central registry for national level incidents.
- Promote cooperation with other EU CERTs for threat intelligence sharing.



CYBERSECURITY POLICY AND STRATEGY
Recommendations

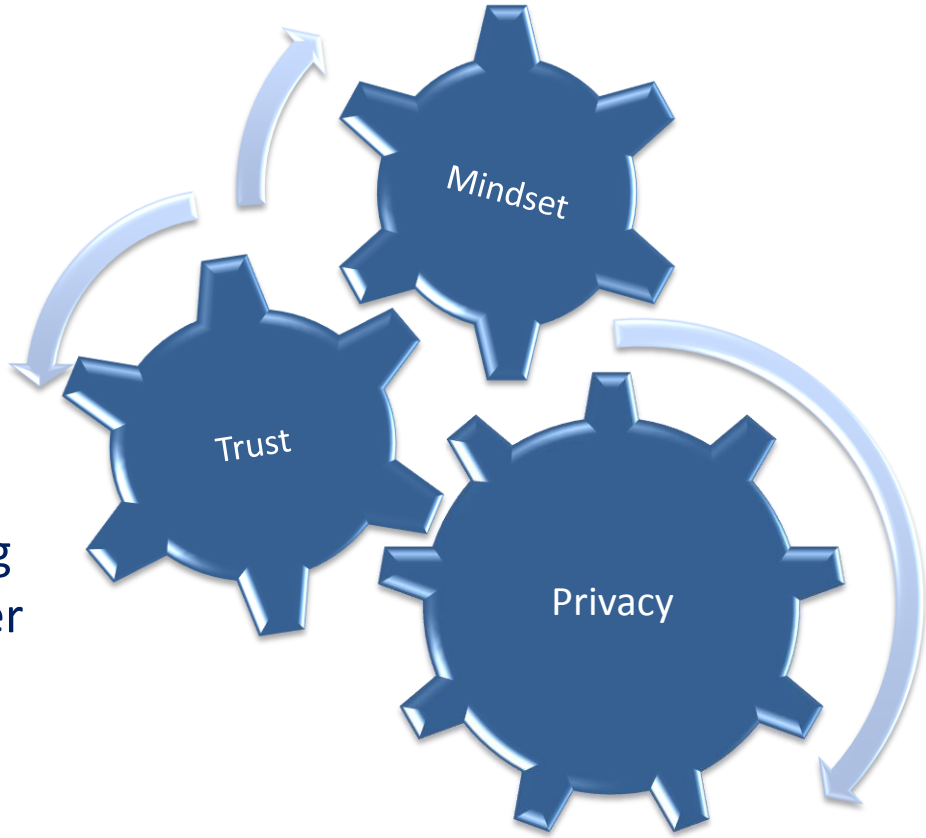
- Strengthen formal coordination regarding CNI protection.
- Promote information sharing between public - private sector & CNI owners.
- Develop a national risk assessment plan for defence.



CYBERSECURITY CULTURE AND SOCIETY

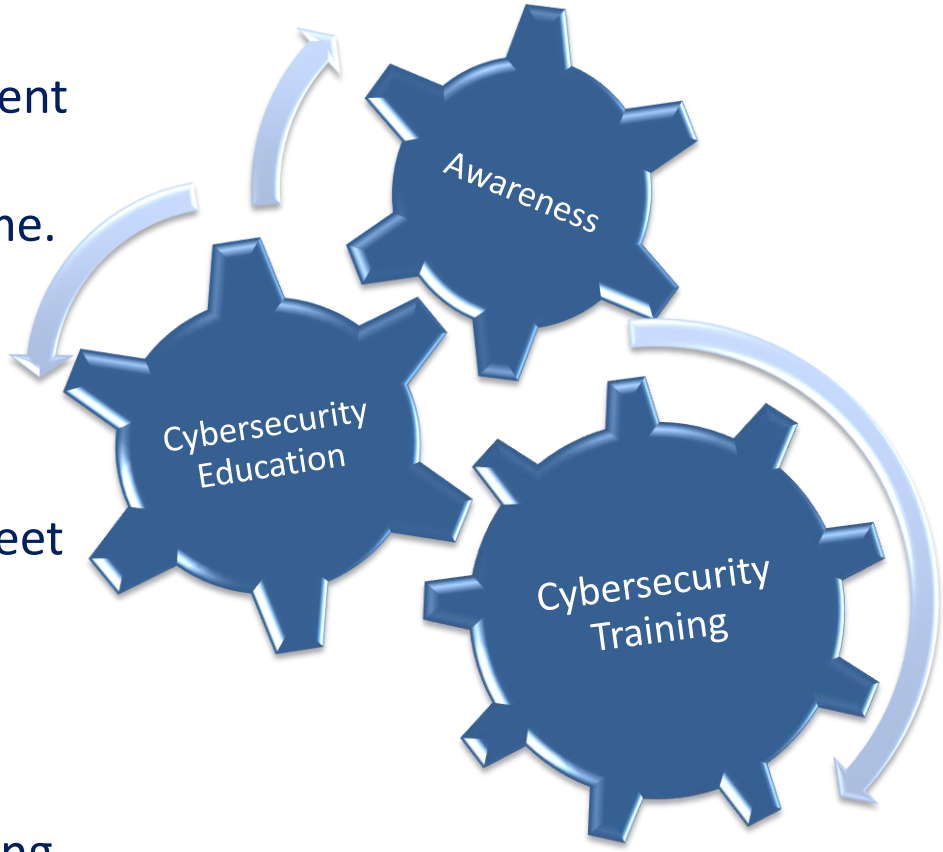
Recommendations

- Promote a cybersecurity mindset.
- Promote the understanding of data protection online.
- Apply security measures to establish trust in e-government and e-commerce services.
- Promote the use of existing reporting mechanisms on child abuse and other online incidents.
- Encourage discussions about cybersecurity on social media.



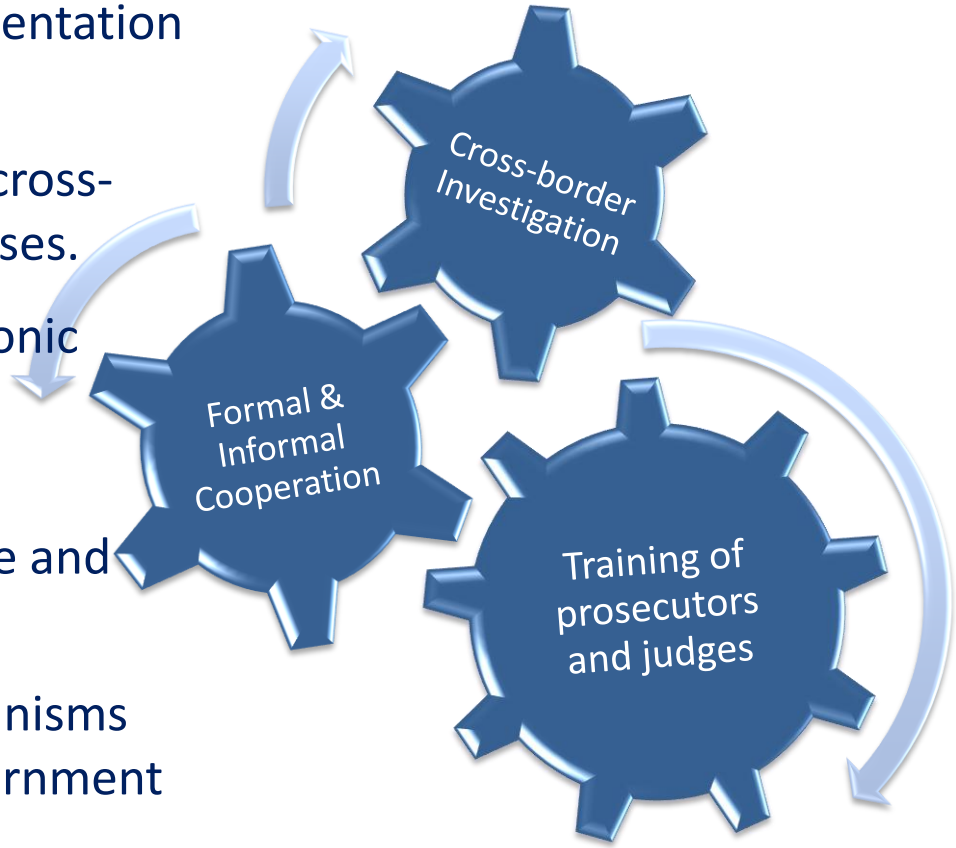
CYBERSECURITY EDUCATION, TRAINING AND SKILLS
Recommendations

- Continue working on the development and implementation of a National Cybersecurity Awareness programme.
- Create cybersecurity education programmes.
- Establish cooperation agreements between academia & industry to meet market demand.
- Establish cybersecurity training programmes for professionals.
- Develop a central platform for sharing training information for experts.



LEGAL AND REGULATORY FRAMEWORKS
Recommendations

- Coordinate work towards the implementation of NIS Directive and GDPR.
- Ensure procedural law provisions on cross-border investigation of cybercrime cases.
- Develop a platform for sharing electronic evidence.
- Enhance training and education of prosecutors and judges on cybercrime and data protection.
- Enhance informal cooperation mechanisms between ISPs, law enforcement, government & criminal justice.



STANDARDS, ORGANISATIONS AND TECHNOLOGIES
Recommendations

- Promote cybersecurity standard adoption in all sectors.
- Conduct regular assessments of processes on national information infrastructure security & critical services.
- Promote understanding of deployment of security controls across all sectors.
- Develop a responsible vulnerability disclosure framework with all stakeholders involved.

Thank you!

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