5th NATO Cyber Defence Smart Defence Projects' Conference:

Cyber NATO-EU Cooperation

Panel 2

Cyber Resilience & Preparedness:
Harmonizing Requirements to Delivering Operational Capabilities

Cyberspace Operations Centre

A Capability User Perspective

Brigadier General Sandor VASS, HUN-A
Director Cyberspace Operation Centre
(CyOC)

Outline

NATO & Cyberspace

- **History & Evolution**
- **Governance and Management**
- **Cyberspace Operations Centre**

CyOC in EU-NATO Cooperation

Prague Summit   **Bucharest Summit**   **Lisbon Summit**   **Wales Summit**   **Warsaw Summit**   **Brussels Summit**
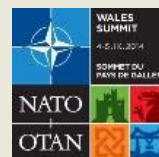
2002   2008   2010   2014   2016   2018

Political

Military

Technical

NATO & Cyberspace

Structure Adaptation

Why Is NATO Adapting It's Command Structure?

To meet the challenges of a complex and evolving security environment.

Why Is NATO Adapting It's Approach to Cyberspace?

NATO's adversaries have demonstrated, repeatedly and persistently, the means and will to attack us in cyberspace.

"NATO will continue to adapt to the evolving cyber threat landscape... Cyber Defense is part of NATO's core task of collective defense... We will establish a Cyberspace Operations Centre in Belgium to provide situational awareness and coordination of NATO operational activity within cyberspace."

NAC Communique Issued by Heads of State & Government, Brussels, 11-12 July 2018

NATO & Cyberspace

- History & Evolution
- **Governance and Management**
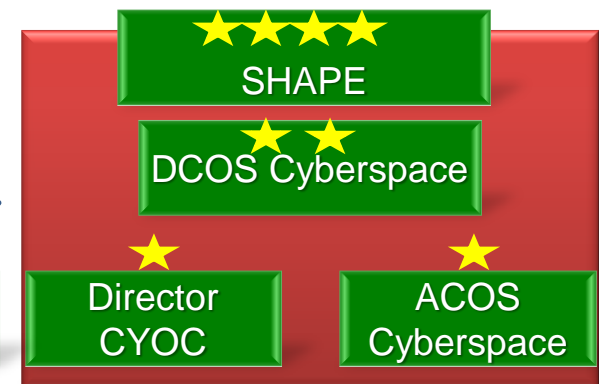- Cyberspace Operations Centre

CyOC in EU-NATO Cooperation

NATO & Cyberspace
Governance & Management – Military focus

NAC

← Authority

Political Military Level

CDC

Operations Planning Committee

CDMB

← Governance

Agency Supervisory Board	Security Committee	C3 Board	Military Committee
Agency Governance	Security Regulatory Governance	Technical CD Governance	Operational CD Governance

Strategic/Execution Level

NCIA
- CSSL
- OCSL
- NCIRC
- OC

← Execution →

★★★★ SHAPE

★★ DCOS Cyberspace

NATO CIS Group ★

★ Director CYOC

★ ACOS Cyberspace

Outline

NATO & Cyberspace
- **History & Evolution**
- **Governance and Management**
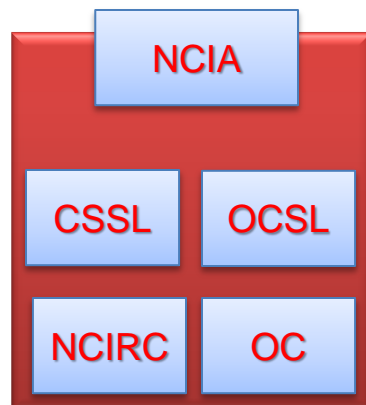- **Cyberspace Operations Centre**

CyOC in EU-NATO Cooperation

NATO & Cyberspace
Governance & Management – Military focus

SACEUR

COS

Strategic Employment

SHAPE Cyberspace

Operations Management Centre

Director CyOC

NATO CIS Group

J6 Cyberspace

Situational Awareness

Operations

Plans

8

 NATO's only theatre component for cyberspace

 Provide cyberspace situational awareness

 Provide cyberspace domain aspects of mission assurance

 Provide centralized planning for the cyberspace aspects of Alliance operations and missions

 Focal point for the preparation, planning, conduct and coordination or execution of cyberspace operations

Threat Aspects
(Red picture)

- **Intel community**
- **NATO HQ**
- **Subordinated Commands**
- **NCIRC**
- **Nations**
- **Industry**
- **Commercial**
- **Internet**
- **Media**

Mission Aspects
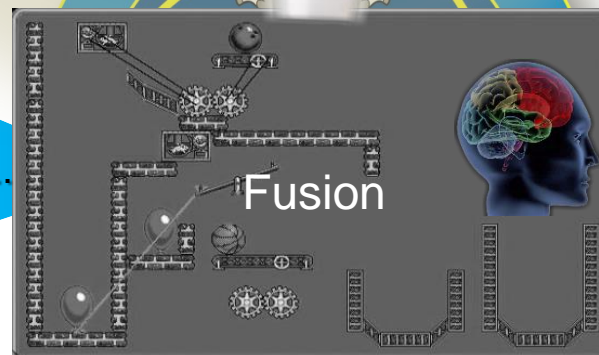(Blue picture + White picture)

- **Mission Owners**

CIS & Technical Aspects
(Network picture)

- **NCIA/NCIRC**
- **NCISG**
- **Other NATO CIS providers**
- **Commercial**
- **Industry**
- **Subordinated/other Commands**
- **Nations**

Fusion

Processes, SOPs...

Effects on the Operation/Mission

Cyberspace Domain Advice

Recognized Cyberspace Picture

11

- **Maintaining essential command and control … even in a contested cyberspace**

- **It's a Mission problem, not an IT problem**

We are here

Start

IOC

FOC

CyOC: Cyberspace Operations Centre

NATO & Cyberspace

- **History & Evolution**
- **Governance and Management**
- **Cyberspace Operations Centre**

CyOC in EU-NATO Cooperation

EU-NATO Cooperation

"The capabilities developed through the defence initiatives of the EU and NATO should remain coherent, complementary and interoperable. They should be available to both organisations, subject to the sovereign decisions of the countries that own them."

Heads of State and Government at the Brussels Summit

"We will ensure that the strategies we are developing are complementary, so that we can work together quickly and effectively in the case of a hybrid threat against any of our members."
-- Jens Stoltenberg
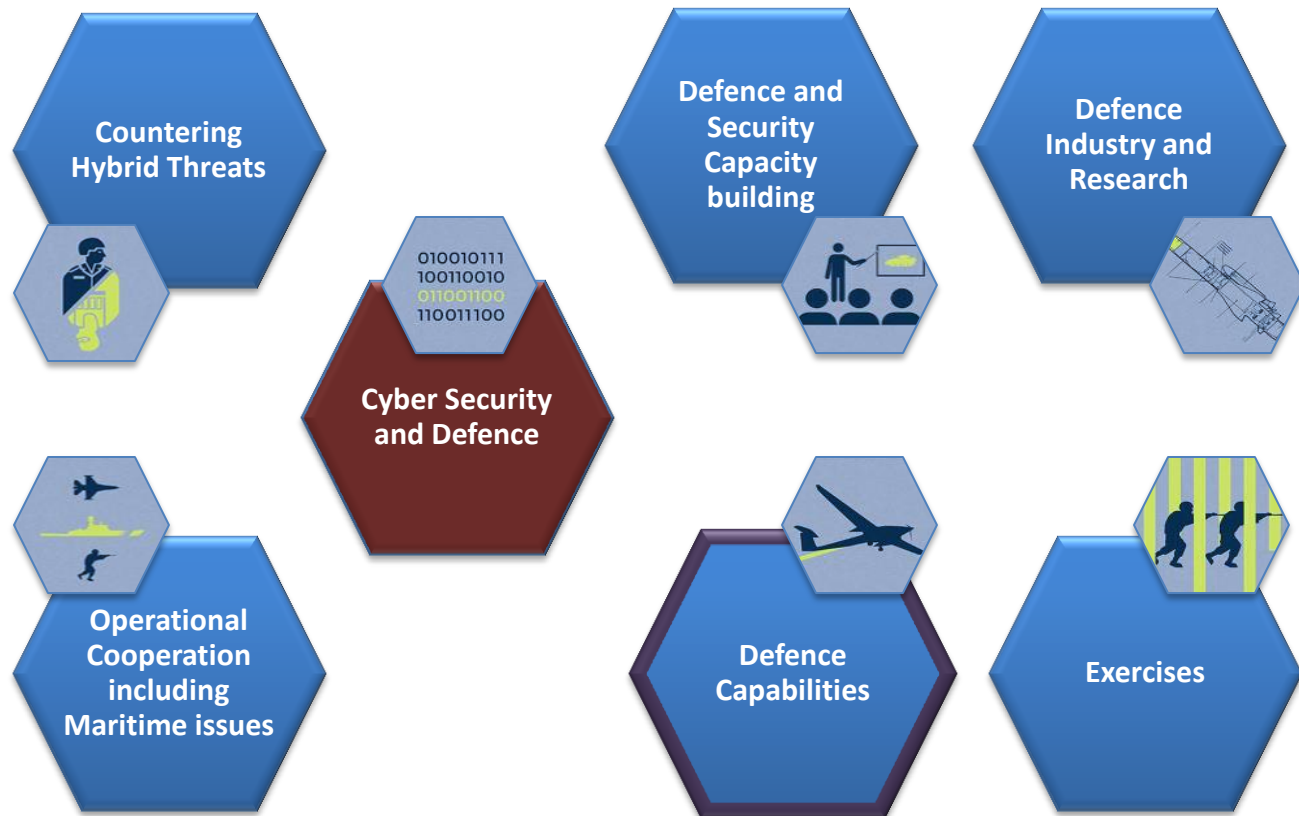
EU-NATO joint declaration

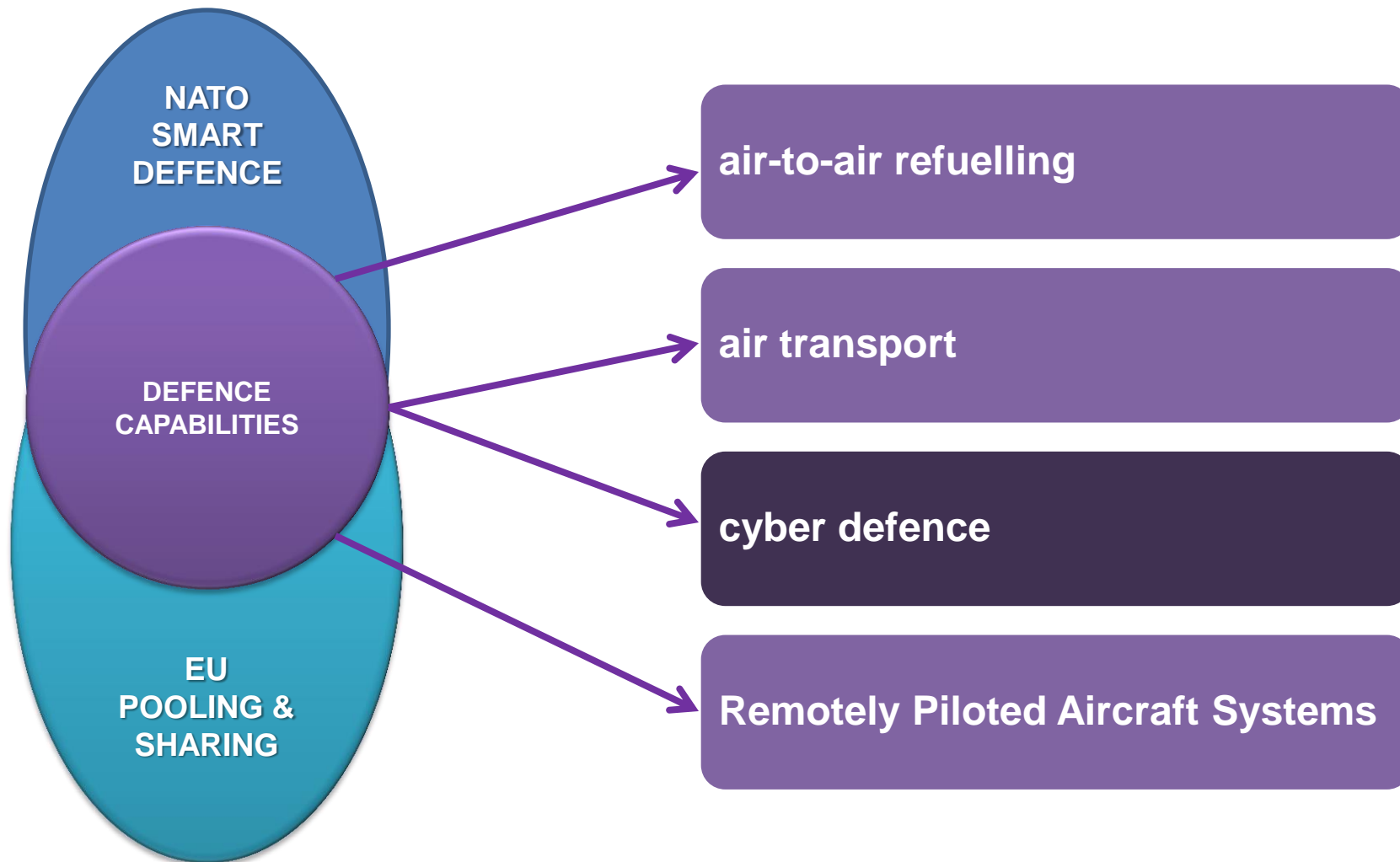Implementation to strengthen strategic partnership in concrete areas:

EU-NATO joint declaration

2016: implementation of 42 proposals in 7 areas

2017: implementation of 32 new proposals in 6 areas

74 proposals in 7 areas

- Countering Hybrid Threats
- Cyber Security and Defence
- Defence and Security Capacity building
- Defence Industry and Research
- Operational Cooperation including Maritime issues
- Defence Capabilities
- Exercises

16

NATO
SMART
DEFENCE

DEFENCE
CAPABILITIES

EU
POOLING &
SHARING

air-to-air refuelling

air transport

cyber defence

Remotely Piloted Aircraft Systems

EU-NATO Cooperation
Defence Capabilities Proposals

- NATO SMART DEFENCE
- DEFENCE CAPABILITIES
- EU POOLING & SHARING

- air-to-air refuelling
- air transport
- cyber defence
- Remotely Piloted Aircraft Systems
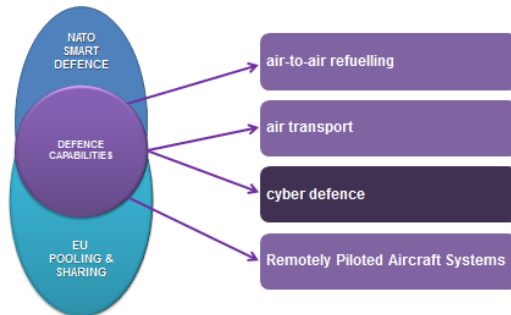
26

- National - CD Pledge

- Multinational -

    Smart Defence

- NATO - NDPP

CyOC: Operational-level user of capabilities; provides cyberspace requirements as inputs for capability development to ACT through ACO channels

18

CyOC in EU-NATO Cooperation

Exchange concepts on planning and conduct missions & operations

foster interoperability in cyber defence requirements and standards

Harmonize training requirements

Exchange information on existing and planned training courses

Cooperation in cyber exercises

Cyber Coalition

more than 700 participants from NATO Allies, partner countries, the European Union, industry and academia

CMX

CMX 19 include staff-to-staff exchanges with the European External Action Service, the EU Commission and the General Secretariat of the Council of the European Union.

PACE

EU - NATO parallel and coordinated exercises on Hybrids Threats

CYBRID

aims to emphasise the necessity of cooperation between EU and NATO

Cyber Europe

NATO has been invited as an observer

Conclusion

- Cyberspace Operations Centre is NATO's theatre component for Cyberspace, providing situational awareness, mission assurance, acting as focal point for cyberspace operations

- Possible areas to contribute to EU-NATO cooperation

    - ✓ Exchange concepts

    - ✓ Test these concepts in exercises

    - ✓ Feed back into capability development