Responsible AI and data exploitation at NATO

NATO HQ, Innovation, Hybrid and Cyber Division

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AI & Data Exploitation: Policies landscape in NATO

Key milestones in NATO's approach to EDTs

2021

- Foster and Protect: NATO's Coherent Implementation Strategy on Emerging and Disruptive Technologies

- AI Strategy

- Data Exploitation Framework (DEF) Policy

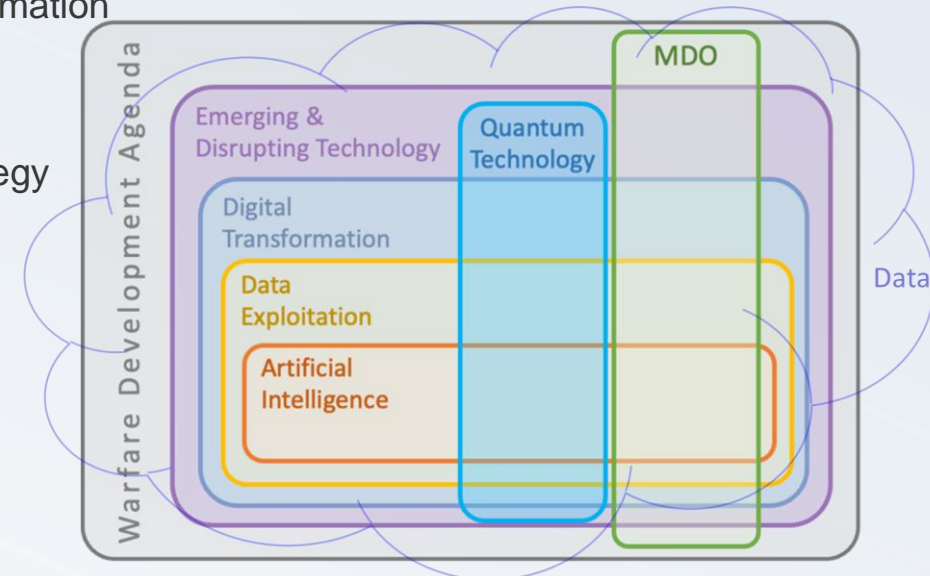- Warfare Development Agenda Data Exploitation Programme

2022

- Establishment of the Data and AI Review Board

- DEF Strategic Plan

- Autonomy Implementation Plan

2023

- Warfare Development Agenda Data Exploitation Programme Implementation Plan

- Digital Transformation Implementation Strategy

- Quantum Strategy

2024

- Biotechnology and Human Enhancement Strategy

https://www.nato.int/cps/en/natohq/topics_184303.htm

NATO's AI Strategy

- Lead by example and encourage the development and use of AI in a responsible manner for Allied defence and security purposes.

- Accelerate and mainstream AI adoption in capability development and delivery, enhancing interoperability within the Alliance.

- Protect and monitor our AI technologies and ability to innovate, addressing security policy considerations.

- To identify and safeguard against the threats from malicious use of AI by state and non-state actors.

NATO Allies take further steps towards responsible use of AI, data, autonomy and digital transformation

13 Oct. 2022 - | Last updated: 13 Oct. 2022 15:54

English | French | Russian | Ukrainian

On Thursday (13 October), NATO Defence Ministers agreed to establish a Review Board to govern the responsible development and use of Artificial Intelligence (AI) and data across the NATO Enterprise.

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The Board's first task will be to develop a user-friendly Responsible AI certification standard, including quality controls and risk mitigation, that will help align new AI and data projects with NATO's Principles of Responsible Use approved in October 2021. The Board will also serve as a unique platform to exchange best practices, guide innovators and operational end-users throughout the development phase, thereby contributing to building trust within the innovation community. At present, NATO is piloting AI in areas as diverse as cyber defence, climate change and imagery analysis.

In response to the 2022 Strategic Concept's call to expedite digital transformation, NATO Allies also approved NATO's first Digital Transformation vision. By 2030, NATO's Digital Transformation will enable the Alliance to conduct multi-domain operations, ensure interoperability across all domains, enhance situational awareness, and facilitate political consultation and data-driven decision-making.

PROGRAMME

Meetings of NATO Ministers of Defence
Brussels, Belgium
12-13 October 2022

> Event agenda including links to transcripts, photos, audio and video

OFFICIAL TEXT

> Summary of NATO's Autonomy Implementation Plan
13 Oct. 2022

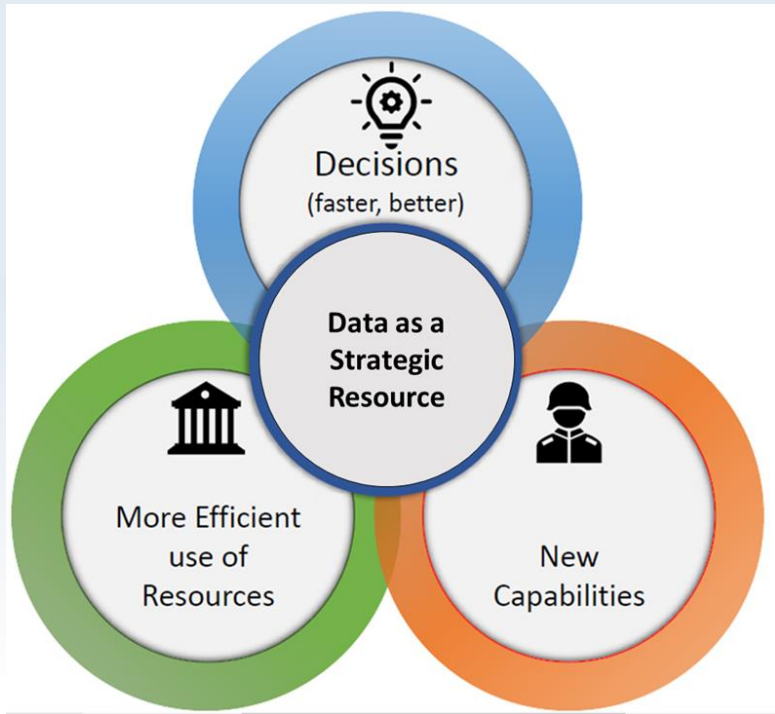> Summary of the establishment of the Data and Artificial Intelligence Review Board
13 Oct. 2022

TOPICS

> Emerging and disruptive technologies

NEWS

> NATO releases first-ever strategy for Artificial Intelligence
22 Oct. 2021

Data Exploitation Framework Policy

- Sets out NATO's strategic goals and objectives for the use of data as a strategic resource

- Lays foundations for AI and digital transformation.

- Establishes principles to enable governed, trusted, responsible, interoperable and protected data exploitation

- Delivers enablers – including people, processes and technology - that will help NATO govern, manage, share, integrate, use data better.

Principles of Responsible Use for AI in Defence

Principles of Responsible Use

1. Lawfulness

2. Responsibility and Accountability

3. Explainability and Traceability

4. Reliability

5. Governability

6. Bias Mitigation

Data & AI Review Board (DARB)

1. Building **Trust** – with publics, innovators and operational end users

2. Guiding **Responsible AI** (RAI) **Adoption** – translating Principles of Responsible Use into user-friendly RAI standards, assessments, toolkits and best practices

3. Acting as a **Forum** – For Allies and the NATO Enterprise to share best practices, and exchange views

Considerations for AI & Data adoption across NATO

AI & Data Exploitation – implications for defence and security

Main opportunities

- Support to decision-making and advising at different levels, including through better and faster data analysis for situational awareness, intelligence, and strategic communications.

- Improved training and exercises.

- Enhanced cyber security and cyber defence.

- Process efficiencies.

Main challenges

- Low availability and lack of quality data

- Still a black box. This affects the trust of decision-makers, operational end users and publics.

- The technology evolution is outpacing the development of rules and standards, and the ability of organizations to adopt it.

- Hastening further corrosion of the information space.

- Complicating the cyber threat landscape.

- Adversarial use.

What NATO is doing to accelerate responsible AI & data adoption

Ensure adoption driven by operational requirements

- Foster use case development, operational experimentation and development of AI-enabled capabilities

- Implement change management strategies and visibly demonstrate AI's benefits with pilot use cases

- Demand data-driven analysis and integration of AI technologies into processes and briefings that support decision-making
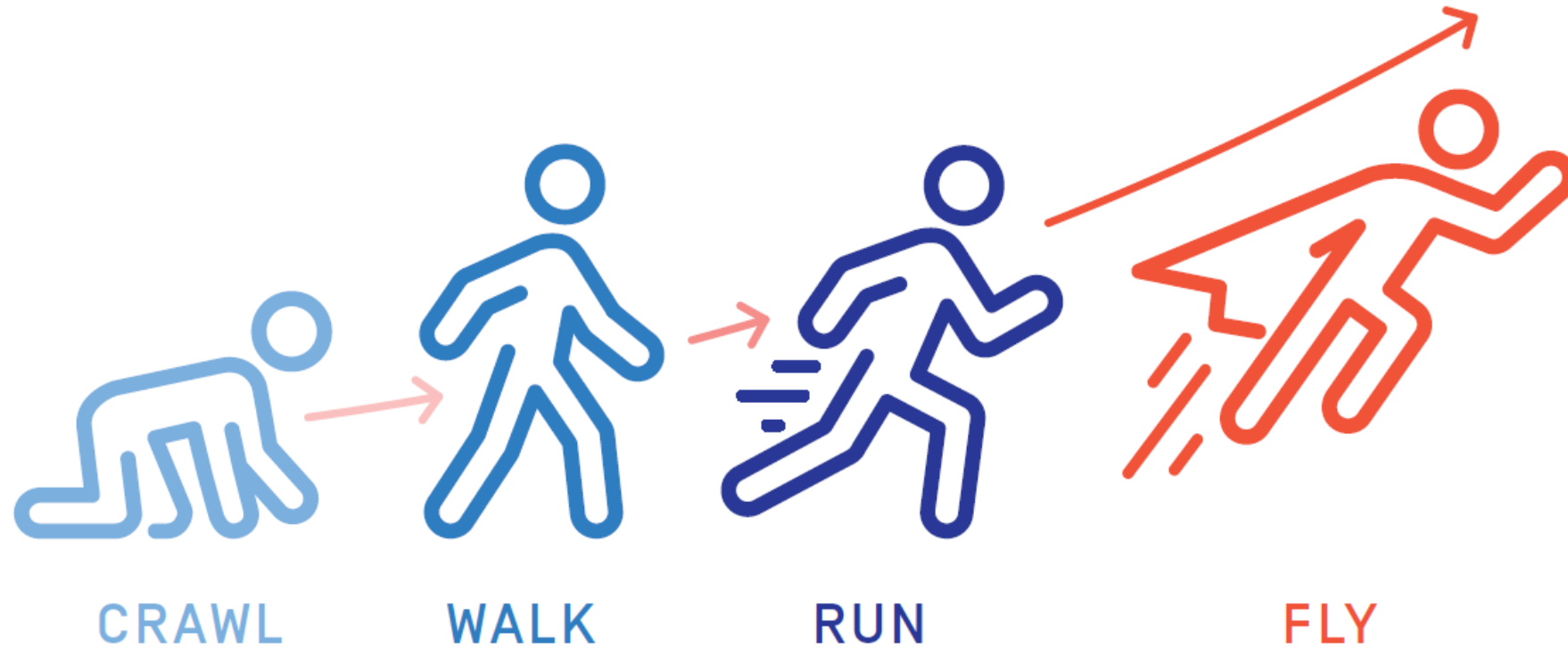
Accelerate Responsible AI adoption

- Request assessments of AI and data exploitation applications and capabilities

- Incentivise and encourage innovation and data sharing to improve operational and decision-making processes

Getting the data right

- Establish robust data management roles, processes, and data collection plans

- Call for improved data quality controls, data registration, and data sharing

Investing in talent

- Train staff and senior leadership

- Assess operational priorities, and strategically set up AI & data exploitation cells

CRAWL   WALK   RUN   FLY

Source: https://www.linkedin.com/pulse/vital-step-by-step-approach-crawl-walk-run-ai-adoption-woodson-wtide/

Revision of the NATO AI Strategy with a focus on accelerating responsible adoption –
to be delivered at the Washington Summit in July 2024

AI & Data in Digital Transformation:
Alliance Data Sharing Ecosystem

> **By 2030, NATO Digital Transformation will enable the Alliance to conduct multi-domain operations, ensure interoperability across all domains, enhance situational awareness, and facilitate political consultation and data-driven decision-making.**
>
> — NATO's Digital Transformation Vision

DTIS Beacon Project: Alliance Data Sharing Ecosystem Pilot

- Enable the Alliance to better exploit **publicly available and unclassified information now**,

    - while piloting approaches for the Allies and NATO Enterprise to break down data silos between various Enterprise and Allied communities of interest (CoIs)

- Increase availability of quality, tagged data for **AI models development and training**

- Provide adequate resources to **deliver new insights and innovative** ways to leverage the public and unclassified data, which could be integrated into NATO capabilities

Possible ADSE Pilot for Maritime

- Automatic Identification System (AIS)

- Satellite Imagery

- GPS

- EO/IR (OBR/CBV) (By Vessels, UxS, Static)

- Industrial Survey/System/Line Monitoring

- Oceanographic/GEOMETOC – Mil & Civ

- Radar/Sonar – Mil/Civ

Planned Next Steps

- **Explore leveraging on exercises, e.g. REPMUS,** to establish pilot data space for maritime underwater data

- **Identify nations interested in leading/contributing** to pilot data space

- **Engage with industry** to share data

- **Establish community and processes** to tag, label, share, and exploit data for underwater common operating picture

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