

## Introduction

Artificial intelligence (AI) is becoming one of the most important technologies of our time (OSCE, 2019) and is one of the most important economic and social developments in history, characterized as the lynchpin of the Fourth Industrial Revolution (Schwab, 2017). Military applications of AI are pushing forward the capacity for warfare and will transform its nature. Military robots that incorporate AI will play a greater role in the future (Cummings, 2017). A future battle might be 'algorithms vs. algorithms', with the best algorithm victorious. The European Union (EU) is also taking action on AI.

## The EU Civil-Military Action Plan

The European Commission (EC) 2021 *Action Plan on synergies between civil, defence and space industries* concludes that the pervasiveness of emerging and disruptive technologies (EDTs) creates new opportunities for synergies among EU programmes and instruments.

In a challenging international environment, where the EU needs to maintain its technological edge and support its industrial base, the EU Multiannual Financial Framework 2021-2027 (MFF) significantly scales up investment in EDTs for defence or related civilian use, like security, cyber and space, *inter alia*, through: (a) research, development and deployment programmes such as Horizon Europe, Digital Europe programme (DEP), the Connecting Europe Facility (CEF), the Internal Security Fund, the European Defence Fund (EDF) and the Space programme; (b) procurement of innovative cross-sector technological solutions.

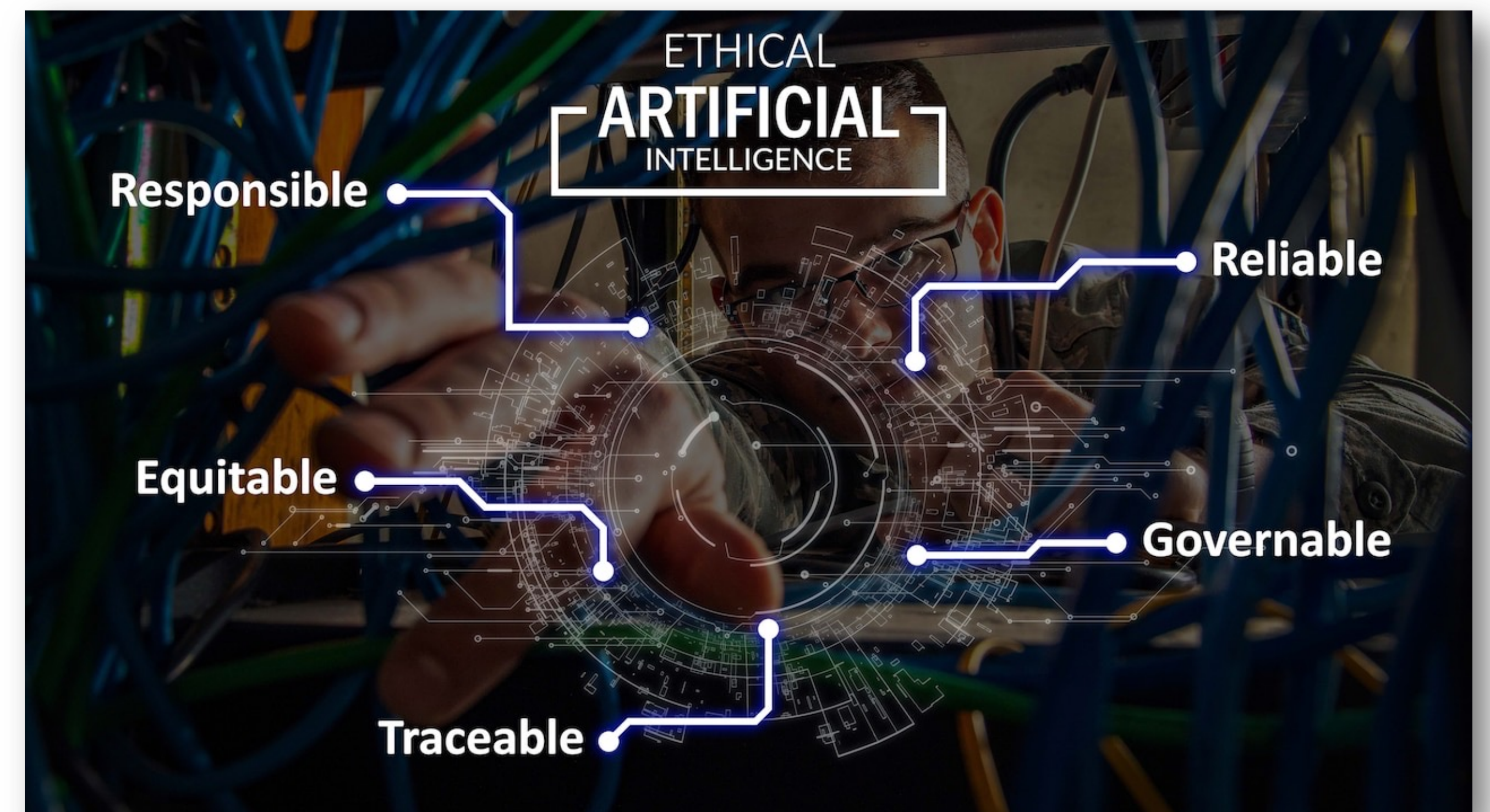
The EC acknowledges that many EDTs offer substantial potential for defence, including AI and robotics — the flagship project 'EU drone technologies' aims to enhance the competitiveness of the European industry in this critical technology area.

The European Defence Agency (EDA) considers technology a game changer on the defence sector, including military end-users (EDA, 2019).

## The AI European Strategy

The EC strategy, while on the one hand boosts artificial intelligence 'made in Europe', on the other hand warns that legal and ethical impacts of AI should be carefully addressed. The EC invites to consider new questions and to ensure an ethical and legal framework in compliance with fundamental human rights.

Stressing the European ambition to play a leading role globally, on 21 April 2021 the EC presented the first ever legal framework on AI, which addresses the potential risks of this technology to safety and fundamental rights. The proposed draft regulation lays down a ban on a limited set of uses of AI that contravene EU values or violate fundamental rights but does not include the development and use of AI for military purposes.



U.S. Department Of Defense (2020), Ethical Principles for Artificial Intelligence

## Conclusions and Recommendations

Competitive technological development is a state that the armed forces cannot accomplish on their own. It must be done in an ecosystem that includes both the EU Member States, academia and private sector. Part of the resulting technological developments are strictly applicable in the military domain, while other developments are potentially dual-use. Ethical and legal issues should be addressed, and proper solutions provided. In this process, researchers from academia may take the role of programme managers or developers in defence advanced research projects and then return to their positions in either governmental or private sectors; in doing that, they enrich both sectors.

## References

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