

Study on AI-Based Capabilities for Border Security



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News

On 26 March 2021, Frontex published its [final report](#) on Artificial Intelligence (AI)-based capabilities for border and coast guard applications. It presents the main findings of a study commissioned by Frontex in 2019.

The report provides a characterisation of the evolving landscape of AI-based capabilities in border security. It maps the technology, capability areas, and border security functions to which AI may be applied. In addition, it outlines the current and desired capability levels for nine selected technology areas, as well as the pathways for their adoption. These technology areas include:

- Automated Border Control (ABC);
- Maritime domain awareness;
- Machine learning optimisation;
- Surveillance towers;
- Heterogeneous robotic systems;
- Small unmanned aerial systems (sUAS);
- Predictive asset maintenance;
- Object recognition;
- Geospatial data analytics.

In addition, the report looks at cross-cutting enablers of and barriers against adoption of AI-based capabilities in border security, and it reflects on the implications of the new technology for Frontex.

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