

PROJECT CONSORTIUM

15 partners from 12 countries – research institutes, technology companies, border authorities and civil society organisations



Polish Platform
For Homeland Security



MINISTRY
OF INTERIOR
OF THE SLOVAK REPUBLIC



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GET INVOLVED

Join our Stakeholder Network

Become part of the OnMoveID community: share your expertise, stay connected with our research, and help shape the future of border management.



www.onmoveid.eu



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BIOMETRICS IN MOTION

Solution for fast and secure border control



OnMoveID explores privacy-preserving, on-the-move identity verification to support efficient border-crossing processes across land, sea, and air

A Horizon Europe Project
Exploring the future of border crossings

www.onmoveid.eu

KEY OBJECTIVES

Secure on-the-move border verification

- Faster crossings for travellers
- EUDI wallet-based identity checks
- Privacy-preserving biometrics
- Support for walk-through, drive-through and bus checks
- Decision support for border guards
- Validation through pilots in Finland, Slovakia and the UK

KEY TECHNOLOGIES



EUDI Digital Wallet

Extended EUDI-compatible wallet for secure identity storage, NFC communication with border sensors, and privacy-preserving selective disclosure.



Mobile Biometrics SDK

Multimodal face and fingerprint verification via smartphone, with morphing attack detection and presentation attack protection meeting ISO standards.



Multispectral Cameras

Polarised and NIR camera arrays capture high-quality face images under varying lighting, enabling real-time face recognition at speeds up to 30 km/h.



UWB Heartbeat Detection

Ultra-Wideband radar (<10.6 GHz) detects human heartbeats through vehicles, enabling body-count verification at up to 3 m range.



Ultrasound Localization

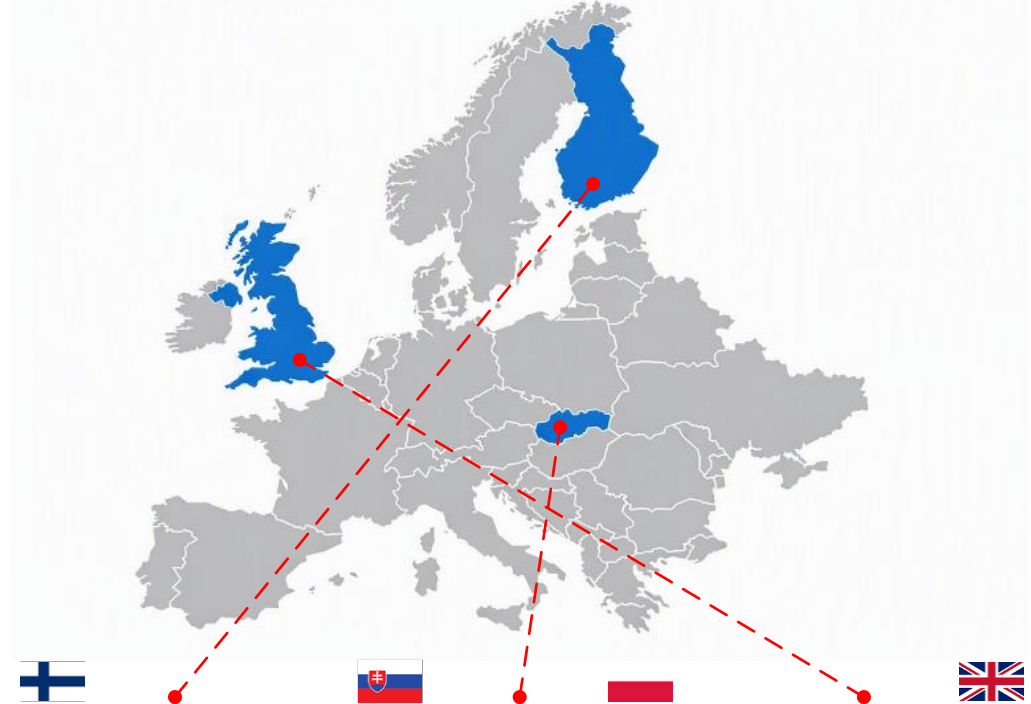
Acoustic smartphone localization with sub-10 cm accuracy for real-time tracking through walk-through lanes, vehicles, and buses.



AI & Cybersecurity

AI-powered document verification, risk-based decision-making, log-based anomaly detection, and secure cloud orchestration with automated infrastructure security checks.

PILOT DEMONSTRATOR



Helsinki-Vantaa Airport

The first pilot will validate key software functions and performance with partners and volunteers, collecting feedback and identifying remaining issues before the next verification phase.

Slovakia to Poland Land border

Second functional and performance tests will gather feedback from border guard partners, associated partners, local stakeholders, and traveller volunteers on the project's interface solutions.

Portsmouth (UK) Sea border

Full-scale pre-qualification tests will validate final app, sensor, and localization solutions with border partners, stakeholders, and volunteers.

All pilots are conducted in realistic test environments representative of border-control operations, while remaining fully isolated from live operational border systems.

OnMoveID targets a Technology Readiness Level (TRL) of 6–7.