Biometrics in the ICAO Traveller Identification Programme (TRIP)

Biometrics play a central role in strengthening the integrity, security, and efficiency of global traveller identification systems. Under the ICAO Traveller Identification Programme (TRIP), biometrics are a key enabler of reliable identity verification, supporting States in implementing robust, interoperable, and secure processes that facilitate safe and seamless travel.

ICAO has promoted the use of biometrics for over two decades. The 2002 Berlin Resolution endorsed the face as the globally interoperable biometric for machine-assisted identity verification, a position reaffirmed in the 2003 New Orleans Resolution, which recognized the facial image as the primary identifier for travel documents. These foundational decisions paved the way for today's biometric passports and continue to shape secure identity management in civil aviation.

ICAO sets the international specifications for biometric use in travel documents through Doc 9303 — Machine Readable Travel Documents (MRTDs), which defines the globally harmonized standards for capturing, storing, and verifying biometric data, including the mandatory use of the facial image as the primary biometric for ePassports. These specifications ensure universal interoperability, enabling States to authenticate travel documents issued by any other State and verify the identity of travellers with confidence.

Biometrics also support the broader objectives of Annex 9 — Facilitation, helping Member States improve border control management, reduce identity fraud, and streamline traveller processing. When combined with secure document issuance, advanced data systems, and inspection technologies, biometric verification provides a strong foundation for both physical and digital identity management across the travel continuum.

As States modernize their identity ecosystems, the use of biometrics is expanding beyond the ePassport. Applications now include automated border control (ABC) systems, enhanced traveller facilitation programmes, digital travel credentials (DTCs), and interoperable identity solutions that strengthen connectivity between national identity authorities and border management agencies. These developments reinforce the TRIP Strategy's goal of ensuring that each traveller possesses a unique, secure, and verifiable identity—supported by trusted, globally recognized standards.

ICAO continues to work closely with its Member States, international organizations, and industry partners to advance the responsible and effective use of biometrics. This includes ongoing technical guidance, capacity-building, and the development of standards that promote security, privacy, and human rights while enabling innovation. Through this collaborative approach, ICAO supports States in building secure, efficient, and future-ready identity management systems that underpin safe international civil aviation.