

About Ingenium Biometric Laboratories

Ingenium offers a broad range of services: consultancy, testing, certified testing, research and development, and training. We have a long experience in working in government and commercial sectors and are global leaders in the provision of biometric and identity technology test services.

We can manage the initial engagement to assess customer requirements, through product evaluation, to final sign off. We provide advice and guidance for the implementation of biometric, age assurance systems and document authentication systems, including the provision of detailed advice on specific technologies, security considerations, incremental testing and evaluation. We are also able to offer advice on national and international regulatory and legislative landscapes, together with pre-sales consultancy and market analysis across both the broad public and private sectors. An important function we provide is the link between customer and vendor to help the customer understand exactly what the technology provides and to help the vendor engage and work with non-expert customers.

Testing is vital to the success of a biometric, age assurance or document validation system. It helps customers to meet business requirements and to demonstrate the functionality and strengths of the system. Ingenium has a rigorous standards-based approach to testing and evaluation of biometric and identity technologies in our ISO 17025 accredited facilities.

In addition to performance testing, Ingenium has a wealth of experience in presentation attack vulnerabilities and can provide support to customers through the testing of a system against a wide range of presentation attacks, deepfakes and injection attacks, including the development of new attacks. We have specialist knowledge and skills relating to AI and adversarial AI in biometric, document authentication and age assurance systems. In addition, we can provide wider cyber security advice and testing for biometric, age assurance and document validation systems.

Ingenium testing services can evaluate systems in various ways including measuring:

- Performance assessment
- Matching accuracy
- Quality assessment
- Demographic bias / equality of outcome
- Presentation attack detection
- Injection attack detection
- Machine learning and AI attacks
- Deepfake detection

Key to the delivery of a service is the maintenance of an up-to-date understanding of threats and vulnerabilities for biometric systems, particularly around presentation attack detection. This lies at the core of our research and development strategy, and informs both the delivery of consultancy and test services, as well as maintaining our wider knowledge base on biometric technologies.

In support of all the other services that Ingenium offers, we are able to offer a wide range of training services. We can offer company, or sector-specific training packages for all common biometric modalities. Training can be delivered in a number of ways: face-to-face, interactive, online and self-managed training.

We have partnerships with the National Protective Security Agency, National Physical Laboratory, the Universities of Kent and Southampton and collaborations with a number of international research institutions, industry and government bodies including the Accelerated Capability Environment (ACE), the FIDO Alliance, the US based Center for Identification Technology Research, MOSIP, and the internationally recognised Biometrics Institute