

## Agnitio's Approach to Forensic Analysis

Voice Biometrics has quickly become a key technology used by the forensic evidence, law enforcement and intelligence fields. Even though it is the largest and fastest growing segment for voice biometrics, only a few vendors have focused on delivering technology and solutions that focus on these markets' needs.

AGNITIO has been creating solutions for the forensics, law enforcement and intelligence communities since its inception, and is currently in place and being used in over 24 countries all over the world, with key deployments in Spain, France, Netherlands, Asia and the Americas. In the real world, AGNITIO's products are being used in the fight against terrorism and international crime, both in an investigatory and evidentiary support role.

Every country has different laws and regulations that affect the use of automated biometric technologies, both for the forensic evidence and intelligence activities (ie: the Daubert rules in USA or the directives of the European Community on Biometric data gathering and its use). AGNITIO believes that it has a responsibility to create solutions that makes it easier for users of its technologies to stay compliant with their national policies and advises its partners and customers to check local regulations before using our products. In any case, it is ultimately the responsibility of our customers to comply with the local and international laws and regulations, as well as with the ethical directives of their respective associations

AGNITIO also collaborates with international professional associations, such as the International Association of Forensic Phonetics and Acoustics (IAFPA), European Network of Forensic Science Institutes (ENFSI) and Asociación Iberoamericana de Ciencia y Estudios Forenses (AICEF), as well as regulatory bodies to help craft the next generation of biometric technology usage guidelines.

As one of the sole vendors supplying automated voice biometric solutions to the forensics community, we focus on being able to provide results that can be compared to those provided to forensic scientists when using (semi-) automated fingerprint and DNA analysis solutions. To this point, AGNITIO has introduced the use of a Bayesian approach when stating forensic results, providing forensic experts the best method in the market for calculating LR (Likelihood Ratio) in voice biometrics. AGNITIO has introduced and expanded their methodology into countries and forensic communities where a Bayesian approach was almost unknown.

AGNITIO advocates a multidisciplinary approach to forensic methodologies. AGNITIO's forensic solutions always provide a complete analysis of the performance and accuracy of the tools (Tippet plots, CMC curves, impact of different variables such as compression rates, SNR, etc...) so that the experts and agents can always understand the parameters of the results. If the input data does not meet the minimum quality for an accurate result, warning messages and reminders are provided as well.

AGNITIO's law enforcement and intelligence solutions are designed to fit the needs of investigatory services: providing results that can be used up through the warrant process and then handed off to a forensic scientist for identity verification. Investigatory users are always warned that results provided cannot be considered as conclusive identity verification and provides training to their customers for the use of our systems and its results.

Though the only person who can ensure the proper use of a technology is the user, AGNITIO takes an active role in ensuring the appropriate and ethical use of its solutions.