

Humane Interrogation through Scientific Technology For the Law Enforcement and Intelligence Industry



Krishna Ika
President & CEO

About Brainwave Science

Entrepreneurial savvy visionaries, scientists and technologists founded Brainwave Science in 2012. Company started with a core belief to bring a solution, which can eliminate human suffering and torture in the process of interrogation. We also realized that there lies a huge gap of innovation in Law enforcement, counter terrorism and counter intelligence agencies particularly in the field of investigation/ interrogation.

With the synergies of our competent technical team, scientists and experts from law enforcement we developed "Brain Fingerprinting", an innovative and revolutionizing technology to enable law enforcement, security and intelligence agencies across the globe to investigate and interrogate without torturing the suspect and reach the real perpetrator/perpetrators.

Knowledge, constant technical innovation and teamwork are the driving values with which we intend to take forensic science to next level by pinpointing and charting the very origin of deception stored within the brain. We aim to equip the law enforcement industry across the globe to solve and mitigate current and future acts of crime and terror.

Our commitment to constant innovation along with entrepreneurial spirits consistently pushes us to make an investigative forensic tool as best as possible at any point of time and integrate it with other tools and products to bring out maximum value for our customers.

In our mission to empower law enforcement and intelligence industry, we handhold investigation community to generate cutting-edge solutions which help them to stay ahead of criminals, perpetrators, terrorists and hackers minds. Brain Fingerprinting brings invisible clues to light and helps the investigation community around the world detect and solve a crime before and after it is committed.

At Brainwave Science, we constantly explore to bring right talent on board our mission to provide best possible tools for torture free investigation and interrogation. We thrive on our strong relations and ties with our customers. Once we deploy our product we give best in industry expert and technical support to our customers.

Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine

CEOCFO: Mr. Ika, what is the concept at Brainwave Science?

Mr. Ika: Brain Fingerprinting technology is a revolutionary scientific technology to detect whether specific information is stored in a person's brain. This technology can provide evidence to identify criminals and terrorists accurately and scientifically. In Brain Fingerprinting test, stimuli are presented to the subject in the form of words, phrases, or pictures on a computer screen. Brain responses are measured non-invasively from the scalp, digitized and analyzed to determine the presence or absence of information stored in the brain.

Three types of stimuli are presented: probes, targets, and irrelevant. Probes contain information that is relevant to the crime or other investigated situation. Probes have three necessary attributes:

1. Probes contain features of the crime that in the judgment of the criminal investigator the perpetrators would have experienced in committing the crime;
2. Probes contain information that the subject has no way of knowing if he did not participate in the crime; and
3. Probes contain information that the subject claims not to know or to recognize as significant for any reason.

Target stimuli are details about the crime that the experimenter is certain the subject knows, whether or not he committed the crime. They may have been previously revealed through news accounts, interrogation, etc.

Irrelevant stimuli contain information that is not relevant to the crime and not relevant to the subject. They consist of incorrect but plausible crime features.

In our next version, the system can also take video or audio clips as stimuli.

CEOCFO: *I am sure there are skeptics that just do not believe you can do it or that it is too invasive. Would you give us a little context for when and how it should be used and when and how people believe that it is real?*

Mr. Ika: Yes, it is true that Brain Fingerprinting technology can give whether specific information is stored in a suspect's brain or not. A suspect's brainwave responses to the stimuli are measured non-invasively using a patented wireless headset equipped with EEG (electroencephalograph) sensors.

Criminals and terrorists know who they are and what they have done. This information is stored in their brains. The fundamental difference between the perpetrator of a crime and an innocent person is that the perpetrator, having committed the crime, has the details of the crime stored in his brain, and the innocent suspect does not. Similarly, a trained terrorist has specific terrorism-related knowledge stored in his brain. This is what Brain Fingerprinting testing detects scientifically. Before Brain Fingerprinting, such brain-based evidence was unavailable to scientific measurement and investigative purposes.

This test can be conducted in all situations wherever there is evidence available in the situation or crime. Experts from FBI found Brain Fingerprinting can be applicable in over 85 -90% of cases whether it is a criminal or civil case. Whereas Fingerprints and DNA, which are considered as highly accurate as Brain Fingerprinting are applicable in only 1 or 2% of cases.

“Brain Fingerprinting—think of it as an infallible witness. It’s a science whose time has come.” - Krishna Ika

The first step in a Brain Fingerprinting test is developing the probe, target, and irrelevant stimuli to feed in to the system as inputs to conduct test on suspects. These probes, Targets and Irrelevant can be in the form of words, phrases or pictures relevant to a crime, terrorist act, terrorist training, or specific knowledge or expertise are presented on a computer screen to the suspect in a random order. A suspect's brainwave responses to these stimuli are measured non-invasively from the scalp using a patented wireless headset equipped with EEG (electroencephalograph) sensors; these responses are digitized, amplified and stored.

A proprietary computer program analyzes these stored responses to determine if the crime-relevant information is stored in the brain. A specific, measurable brain response known as a P300-MERMER is emitted by the brain of a perpetrator who has the details of a crime stored in his brain, but not by an innocent suspect lacking this record in his brain. The P300-MERMER brainwave pattern is elicited when an individual has an “Aha!” response, when he recognizes something significant such as the details about a crime that he has committed. P300 and P300-MERMER are well known peer reviewed and published scientific techniques in world famous journals.

CEOCFO: *What type of training is necessary to use the equipment and to make the evaluation?*

Mr. Ika: To conduct the brain fingerprinting test, the organization does not require any additional human resource or expertise. An investigator can become an examiner after he/she completes the training offered by Brainwave Science.

Brainwave Science offers following training options:

1. **Normal Training:** This is a one week training to investigators amongst our customers, who want to become Brain Fingerprinting examiners. This covers information about utilizing the system appropriately to conduct tests. It also trains investigators about various applications of the system in multiple cases and situations. For ex: Brain Fingerprinting test can be applied to: cases of violent crimes, espionage, organized crime, cybercrime, financial fraud, terrorism etc.
2. **Advanced Training:** It is a three day course and offered if somebody wants to become an expert in conducting tests in particular are like espionage, terrorism, counter-intelligence etc.

At the end of the training, the investigators have to qualify a test, which certifies them to conduct Brain Fingerprinting tests. Only qualified individuals will get the certificate and authority to conduct the test.

CEOCFO: *Would you tell us about the Florida police-training contract?*

Mr. Ika: We launched the Brain Fingerprinting technology worldwide in June 2014 and our first implementation of this technology in America is with Florida Police. This happened after our first international implementation in Singapore, which in fact was prior to our official worldwide launch. We did not really focus our marketing efforts in US but Florida Police approached us and we implemented the system with them.

Our current customers have approached us rather than us approaching them. This in itself is a very encouraging sign. We are proud to have very happy customers, as they are very impressed with our innovative technology. They are also demonstrating about this tool to agencies in their neighboring states and Countries.

CEOCFO: *What are some of the other instances where it would be appropriate?*

Mr. Ika: As I expressed before, Brain Fingerprinting technology can be applicable in all situations where evidence is available but it does not measure intention of the suspect. According to experts from FBI Brain Fingerprinting is applicable in over 85 – 90% of cases of both criminal and non-criminal nature. Moreover, its application is not just confined to law enforcement; this technology can also be applied to corporate and commercial sector. As part of our future plan, we intend to launch Brain Fingerprinting in commercial sector but as of now we want to focus on law enforcement and investigation community.

Brain fingerprinting is not a mind reading tool nor does it scan our thoughts. It only measures the response of our brain wave to a specific event or situation or issue etc. and determines if the person has related information or not. It does not intrude into anyone's privacy.

CEOCFO: *How are you reaching out to let the world know what you have?*

Mr. Ika: Given the unique characteristic and nature of law enforcement agencies, our marketing strategy is a combination of traditional and modern marketing methods. After launch in June 2014, we are primarily reaching out to our customers through emails, where we are getting good responses. Our sales team diligently works towards converting these positive responses to longstanding relationships. They, talk to prospective clients and conduct audio/video meeting online to demonstrate the product and further understand the customer's requirement. Thereafter, we conduct in-person meeting to showcase our technology through live testing in front of the customer. We do understand that it is a slow process but it has been time tested for a product like ours.

Since it is a unique and disruptive technology, in order to generate awareness and demonstrate our technology to the decision makers and concerned authorities, we selectively enroll in security/forensic trade shows, conferences and seminars worldwide.

As part of our social media strategy, our security experts actively respond to current security threats across the world through social media channels and blogs. We also use this medium to identify and influence the early adopters and generate awareness about the various applications and benefits of Brain Fingerprinting. At Brainwave Science, our aim is to effectively communicate with everybody on how a forensic tool like Brain Fingerprinting can solve current and future security challenges.

CEOCFO: *Are there particular patterns in countries, regions or sizes of law enforcement that have shown more interest?*

Mr. Ika: We have a very organized approach to selecting countries in various regions depending on size, wealth, type of government and geographic region. By type of government we refer to their progressiveness and openness to adopt new technology, which is an essential feature in context to a technology like ours.

The sales team conducts an in depth research into the target regions, countries and security agencies and understand the various security issues/challenges being faced by them. This helps us in gaining a deeper understanding about our customers and integrating our technology to their requirements.

Moreover, looking at the disruptive nature and huge ROI associated with Brain Fingerprinting technology, most of our current customers reached out to us rather than we reaching out to them. With such a strong product, we are confident that many government security agencies across the world will follow the trend as soon as they hear about the huge benefits, highest reliability and accuracy of Brain Fingerprinting technology through our simple marketing efforts.

Currently Brainwave Science is engaged in final contract negotiations with five countries and thirteen other countries from different regions have shown great interest in acquiring our technology as soon as possible. Our very committed sales team is in negotiations with them.

CEOCFO: *What is your revenue model?*

Mr. Ika: Brain Fingerprinting technology is sold through Brainwave Science's current revenue models:

- i. Sales of licenses: We offer multiple types of license with different attributes ranging from one year to perpetual
- ii. Associated training with each license
- iii. Product customizations
- iv. New version upgrades and
- v. Customer/technical support.

We have few other revenue models, which will be introduced in future:

- Product services – It has great demand from various sectors of the market ranging from individuals to very large corporations who need services of this technology
- Sales of distributorships/resellers and
- Product Integration: there is a huge potential for integration of this product/technology with other product or services in the industry.

CEOCFO: *What is the competitive landscape?*

Mr. Ika: Brain Fingerprinting is a scientific and patented technology and does not have any competition worldwide. In other words, there is no equivalent product/forensic tool with similar technique and technology that gives such highly accurate and reliable results as given by Brain Fingerprinting. Tools like DNA and Fingerprinting are very reliable but can only be applied to 1-2 % of all kinds of cases. Whereas Brain Fingerprinting can be applied with similar levels of reliability to more than 85-90% of criminal and non-criminal cases. Apart from this Brain Fingerprinting has several benefits like, portability, ease of use, objectivity, zero counter measures and it is non- invasive. No single product currently available in the industry can provide all these benefits in one package. Therefore, Brain Fingerprinting has great value for the Law Enforcement, Counter Terrorism and Counter Intelligence industry across the world.

A combination of highest reliability, accuracy and applicability leads to high return on investment (ROI) for our customers who in turn translate into high ROI for the company as a whole. Ultimately it is happy customers who lead to happy investors!

CEOCFO: *Would you tell us the relationship of Brainwave with your past government work?*

Mr. Ika: The relationship between both companies is very simple. Majority stockholders in both companies are same and it is run by the same management. The only difference is that they are two different companies with their different operations and concept

CEOCFO: *Why is Brainwave Science noteworthy?*

Mr. Ika: Brain Fingerprinting is a boon to investigation industry and Brainwave Science is an unmatched ROI to investors with multiple revenue streams. Brain Fingerprinting has multiple features and benefits embedded into one product which attracts our customers to invest upfront in this unique technology.

Brain Fingerprinting serves as a natural extension to data analysis tools that generate potential suspects. It will add value by narrowing down the list of potential suspects to reach the real perpetrator of an act of crime/ terror. Thus, it shows a great value adding potential in the future as it can be integrated with other data analysis software used for generating potential suspects for law enforcement agencies. Together, it will help in generating highest quality actionable intelligence from the massive data available with the agencies.

Brainwave Science product concept is unique in nature and has no direct competition. The rapid technological advancements calls for law enforcement industry across the globe to adapt and adopt as quickly as possible to solve and mitigate crime and terror in most effective and efficient manner and Brain Fingerprinting is the only answer for that! It is so because, most of the tools find perpetrator after the crime but Brain Fingerprinting can help identify criminals or terrorists or potential threats even before they commit an act of crime or terror.

Finally, I believe we at Brainwave Science have all good qualities an investor would like to see in a great company.

BIO: Krishna Ika is an international serial entrepreneur who has founded and managed a wide range of companies. Mr. Ika founded Brainwave Science in 2012 and he is the President and Chairman of the board of Brainwave Science LLC. He is also the Founder and President of Government Works, an information technology company specializing in Federal and State government space.

Through the years, Government Works has provided products and services to numerous U. S. Federal Govt. departments, including Department of Homeland Security, Department of Defense, Department of Justice, Department of Health and Human Services and others. Government Works also provides a web-based Medicare enrollment solution called CMS Gateway that streamlines the Medicare enrollment processes. Today Government Works is an established government contractor.

Prior to that, he co-founded Envitec Corp. named 34th largest fast growing commercial software consulting Corporation in New England area, ikaSystems, a leader in enterprise managed care Platform Company that raised over \$140 M in private equity funding. Most recently, he has co-founded RxAdvance, delivering real healthcare value and enhancing outcomes through innovative, collaborative, and patient centric pharmacy benefit management services, at the point-of-care and point-of-sale.

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