findBIOMETRICS
Global Identity Management

Year in Review 2013

This is our **11ᵗʰ Anniversary Year in Review**. Thanks to all on our expert panel. This is the largest yearly global snapshot of our industry.

What a year for the Biometrics and Identification Industry!   The past year in biometrics was *explosive*. Biometrics has become *real*. From the rapid growth of the FIDO Alliance to the Consumer Electronics Show that hailed in 2014, biometrics are being talked about everywhere! Industry verticals like Border Control, Financial, Healthcare, Law Enforcement, National ID, etc. are all moving aggressively ahead into 2014. Our industry made headlines in 2013 and will continue to do so in 2014, so …be prepared…be innovative …be ready to capitalize on a rapidly growing marketplace.

We received responses from Canada, Spain, Russia, China, Ireland, Mexico, Brazil, Hong Kong, Sweden, Germany, UK, France, Korea, The Netherlands, Taiwan, Lithuania, Singapore, Japan, Italy, Malaysia and the USA.
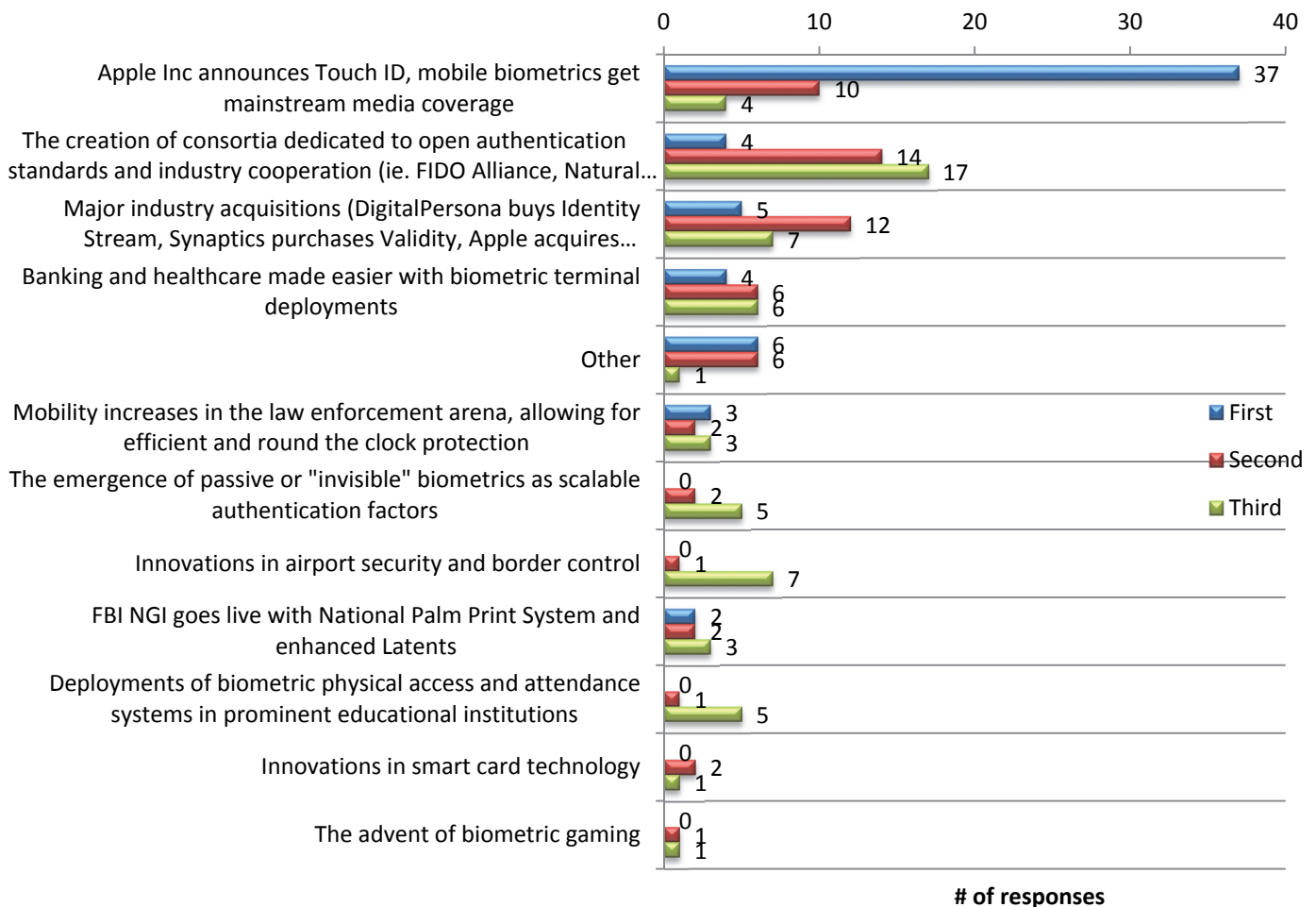
Participants include:

Iris ID Systems Inc., MorphoTrak, BIO-key, NEC, Cross Match Technologies, FIDO, Aware, Lockheed Martin, 3M Cogent, Acuity Market Intelligence, Smartmatic, ZKTeco, Northstar Recruiting, IdentityX, Synaptics, Lumidigm, Green Bit, Suprema, IBIA, WCC Smart Search & Match, Digital Persona, Nok Nok Labs, MorphoTrust USA, FaceFirst, Natural Security, AGNITiO, David-Link Fingerprint, Smart Sensors, Fingerprint Cards, SRI International, Cognitec, CMITech, EyeVerify, Fujitsu, IDair, Merkatum, Identification Technology Partners, Integrated Biometrics, S.I.C. Biometrics, ipsiti, Secunet, Neurotechnology, Precise Biometrics, SecurLinx, Vision-Box, VoiceVault, Speechpro, Unisys, Anviz, ekey biometric systems, Speed Identity, AOptix, Authentify, CyberExtruder, Synovation, Biometric Signature ID, eID Security, realtime North America, Voice Security Systems, M2SYS Technology, Meryta, SOFTPRO, Biometrie-Online.Net, and IriTech.

I hope you enjoy reading the 2013 Year in Review!

Peter O'Neill, CEO, findBIOMETRICS

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Year in Review 2013

In your opinion, what three newsworthy events or milestones best encapsulate what 2013 will be remembered for when it comes to biometrics and authentication?

Chart legend: First (blue), Second (red), Third (green)

Event	First	Second	Third
Apple Inc announces Touch ID, mobile biometrics get mainstream media coverage	37	10	4
The creation of consortia dedicated to open authentication standards and industry cooperation (ie. FIDO Alliance, Natural…	4	14	17
Major industry acquisitions (DigitalPersona buys Identity Stream, Synaptics purchases Validity, Apple acquires…	5	12	7
Banking and healthcare made easier with biometric terminal deployments	4	6	6
Other	6	6	1
Mobility increases in the law enforcement arena, allowing for efficient and round the clock protection	3	2	3
The emergence of passive or "invisible" biometrics as scalable authentication factors		0	2	5
Innovations in airport security and border control		0	1	7
FBI NGI goes live with National Palm Print System and enhanced Latents	2	2	3
Deployments of biometric physical access and attendance systems in prominent educational institutions		0	1	5
Innovations in smart card technology		0	2	1
The advent of biometric gaming		0	1	1

# of responses

Reality, meet biometrics.

The whirlwind that was 2013 saw strong authentication hitting an unprecedented level of public popularity, but at what point did biometrics become so real?

There is no big surprise here: all but 10 of the 64 experts polled put **the inclusion of a fingerprint sensor on the newest iPhone model** in their top three, and well over half of those who did, chose it as the most defining news event of the year in biometrics.

In 2012, findBIOMETRICS saw a clear trend emerging in biometrics, and that was MOBILITY. Mobility,

mobility and GROWTH. In September when Touch ID was announced as a security feature on the iPhone 5S, it proved that, if nothing else, the public was willing to put biometrics in their pockets. Even taking into account the subsequent spoofing, sensationalist press and inevitable demystification of the sapphire sensor, there can be no denying the mainstream attention Apple brought to mobile biometrics in the second half of 2013. Finally, biometrics became *real* everyday technology for iPhone users.

Of course, nothing says reality like a rush to set some ground rules! Firmly in second place for the year in strong authentication news was **the formation of standards organizations.** The FIDO Alliance, The Natural Security Alliance and collaborative initiatives like those demonstrated by Lockheed Martin and Tabula Rasa all made the news in 2013 as they each in their own way encouraged a united effort in bringing the necessary protocols to the changing authentication markets. This is a response to the market conditions and a natural need arising from increasing demands of everyday security, but it is also important to recognize the roles these organizations play in driving the post-password technology forward.

About as frequently as we saw organizations spring up in 2013, we also reported on some **ground-shaking acquisitions**. Apple purchased PrimeSense, DigitalPersona bought IdentityStream and - in a breaking news moment at Money 2020 - findBIOMETRICS President Peter O'Neill got the scoop on the acquisition of Validity by Synaptics. Can you see all of this painting a dynamic picture of the identity industry moving forward into 2014? We certainly can.

With those three major interests of the year taking almost the entirety of the first place votes, what we are left with is enthusiasm about the technological innovations to come. Mobility changed the entire landscape of biometrics, it's true, but the year was not without exciting advances in border control, national ID and every modality that findBIOMETRICS reports on.

FBI's Next Generation Identification (NGI) going live with National Palm Print System and enhanced Latents program gets mention here too. This comprises the first national palm print system in the U.S., enhanced latent print services, and rollout of the RISC mobile ID capability.

Additionally, due to the massive activity in strong authentication throughout the entire year, many non-survey suggestions were made. The NSA surveillance leaks were mentioned, as were several program-specific praises from around the world and across the verticals. This is all key too... an active and healthy industry that is ready to start a dialogue when presented with choices.

With the exception of the news in biometric videogames (which received only two votes overall) it appears from the data collected here that 2013 was all about the move of biometrics to the mainstream, preparing for what that means in regards to standards and industry structure, and the

constant refining of the technologies that allow for all of this to happen. This is the most real it's been in the 11 years findBIOMETRICS has reviewed.
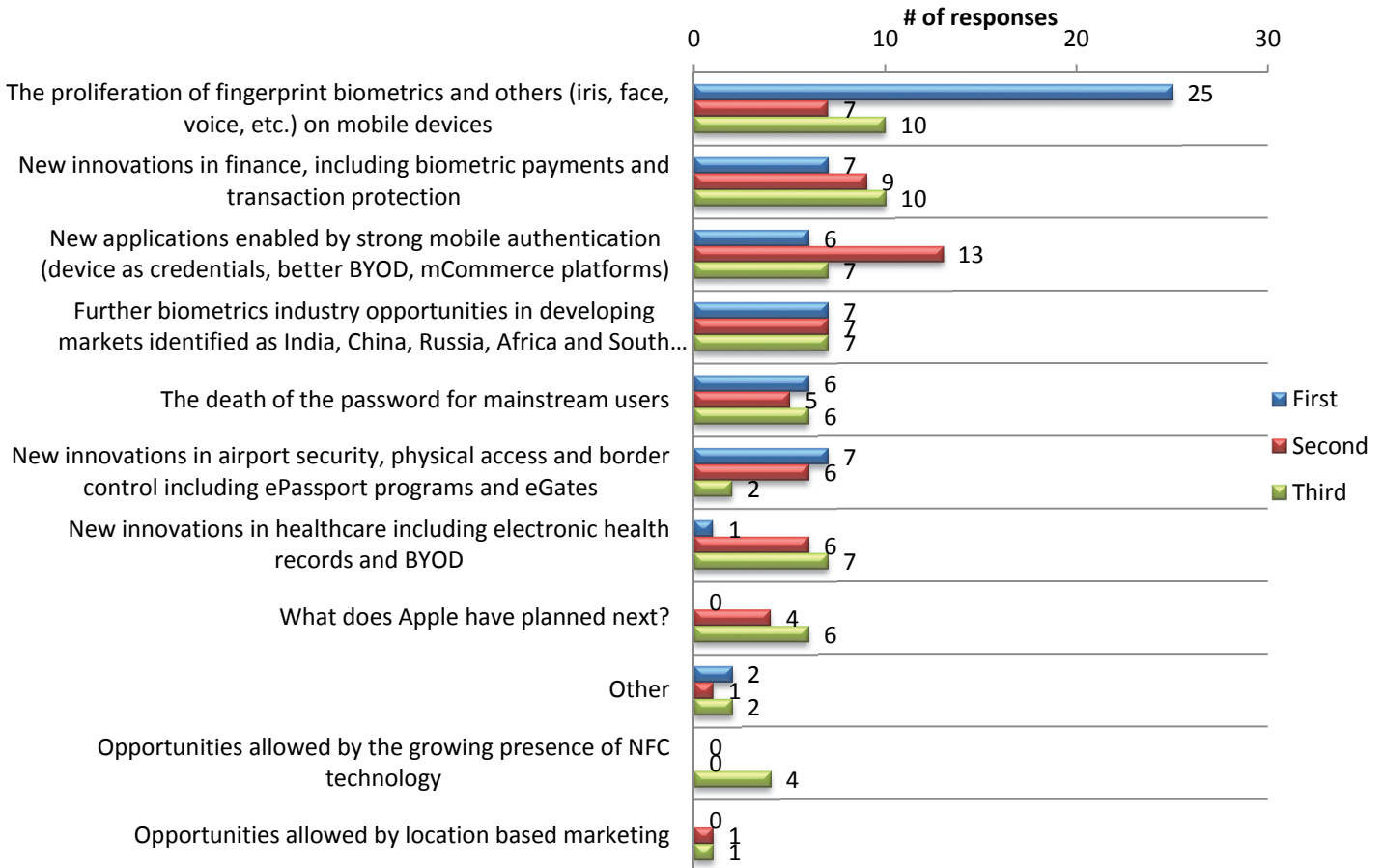
Please see the table below of the answers given to this survey:

In your opinion, what three newsworthy events or milestones best encapsulate what 2013 will be remembered for when it comes to biometrics and authentication? (Please rate your 3 top answers - First being the most significant.)				
Answer Options	First	Second	Third	Response Count
Apple Inc announces Touch ID, mobile biometrics get mainstream media coverage	37	9	4	50
The creation of consortia dedicated to open authentication standards and industry cooperation (ie. FIDO Alliance, Natural Security Alliance)	4	14	17	35
Major industry acquisitions (DigitalPersona buys Identity Stream, Synaptics purchases Validity, Apple acquires PrimeSense)	5	12	7	24
Banking and healthcare made easier with biometric terminal deployments	4	6	6	16
Other	6	6	1	13
Mobility increases in the law enforcement arena, allowing for efficient and round the clock protection	3	2	3	8
The emergence of passive or "invisible" biometrics as scalable authentication factors	0	2	5	7
Innovations in airport security and border control	0	1	6	7
FBI NGI goes live with National Palm Print System and enhanced Latents	1	2	3	6
Deployments of biometric physical access and attendance systems in prominent educational institutions	0	1	5	6
Innovations in smart card technology	0	2	1	3
The advent of biometric gaming	0	1	1	2

Other answers provided:

- The integration of biometric and video surveillance systems.
- Electronic voting systems, eID
- Emergence of Voice Biometrics as a significant player in the market
- The creation of mobile CAC/PIV readers and solutions to enable CAC and PIV authentication in a mobile environment
- Impact of PRISM - "Felt" trustworthiness in IT systems in general, especially if provided by government institutions (for example reflected in sinking willingness to use e-Government services in some countries)
- Advances in Facial Recognition within the industry
- Smartcard with a built-in fingerprint sensor
- The creation of the NASPO committee by NIST to develop new standards for in person and remote identity authentication.
- Biometrics are being featured by the US government's cyber security initiative (NIST NSTIC) for identity proofing at enrollment and authentication.
- Aadhar - India's Unique Identification project
- Greater adoption in non-traditional domains
- NSA surveillance leaks

Which three potential 2014 opportunities most excite you?

# of responses

Opportunity	First	Second	Third
The proliferation of fingerprint biometrics and others (iris, face, voice, etc.) on mobile devices	25	7	10
New innovations in finance, including biometric payments and transaction protection	7	9	10
New applications enabled by strong mobile authentication (device as credentials, better BYOD, mCommerce platforms)	6	13	7
Further biometrics industry opportunities in developing markets identified as India, China, Russia, Africa and South…	7	7	7
The death of the password for mainstream users	6	5	6
New innovations in airport security, physical access and border control including ePassport programs and eGates	7	6	2
New innovations in healthcare including electronic health records and BYOD	1	6	7
What does Apple have planned next?	0	4	6
Other	2	1	2
Opportunities allowed by the growing presence of NFC technology	0	0	4
Opportunities allowed by location based marketing	0	1	1

Looking forward at the opportunities that 2014 will hold, it looks like mobility still rules: 42 of the experts surveyed, placed **the proliferation of biometrics-capable technology on mobile devices** as a major opportunity for the year to come. Over half of these experts put it as their number one most exciting future opportunity. Already, the year is promising a wide variety of biometric modalities on smartphones and tablets: good reason to be optimistic!

Tied in total number of votes received for second place, we have the **promise of innovations in functionality**. Strong authentication enables a wide range of applications for customers, and as a result of this allowance there is a lot of excitement about what the year will hold in these potential areas of improvement.

Making it into official second place on our year in review survey by a single first-place vote, **innovations in finance technology** (payment protection and real life transaction methods) are exciting experts just a bit more than advances in the range of applications themselves (such as BYOD and mCommerce platforms). Mobile money solutions and payment protection in the form of digital wallets are expected to hit store shelves before September, and pay-with-your-phone apps are already being developed by financial networks like MasterCard and PayPal.

On the other hand, strong authentication is also making innovation possible on the relying party side of the equations too: adding a much needed high level of security to the infrastructures businesses can leverage to prevent fraud and the compromise of critical data. These two areas of opportunity in 2014 are inextricably connected and both are exciting. Once again, we see clear optimism in a mobile future.

There is also excitement about what the year holds for **developing markets**. All throughout 2013, research analysts and vendors alike have been stating just how much potential these places hold for biometrics. There has been lots of focus and aggressive posturing on an international level by many key players. In 2014, experts are excited to see how this global powder keg reacts to the spark of 2013's preparations.

Filling out the middle of the results, we find anticipation as end-users start moving away from passwords. In 2013, high-profile cyber-crime attacks combined with a growing interest in stronger than-password consumer solutions had the mainstream media asking the questions our industry has known the answer to all along: **that passwords are not enough**.

Meanwhile, continued innovations in border control have been seeing deployment on a global scale, making nations more secured to external threats and in turn streamlining the travel experience for citizens in transit.

What it all comes down to is a stronger security solution that is being welcomed by a population who find themselves exhausted by the futile work involved in complying with the current best practices in staying safe. Looking at the year to come there is an optimism being stoked by the very *real* consumer demand we have seen develop in 2013.
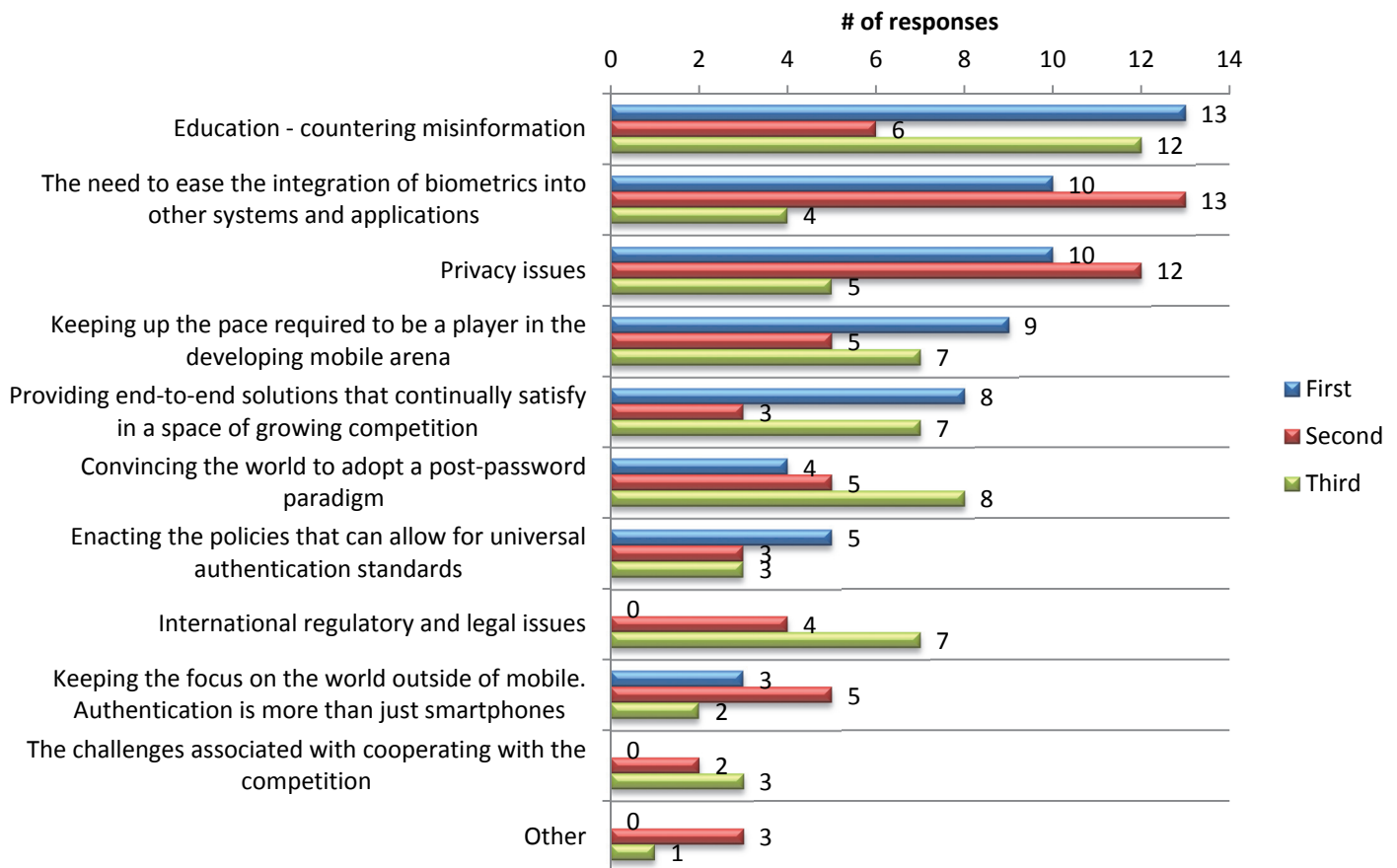
Please see the table below of the answers given to this survey:

Which three potential 2014 opportunities most excite you? (Rank them in order of interest "First" being most interesting, "Third" being the least)				
Answer Options	First	Second	Third	Response Count
The proliferation of fingerprint biometrics and others (iris, face, voice, etc.) on mobile devices	25	7	10	42
New innovations in finance, including biometric payments and transaction protection	7	9	10	26
New applications enabled by strong mobile authentication (device as credentials, better BYOD, mCommerce platforms)	6	13	7	26
Further biometrics industry opportunities in developing markets identified as India, China, Russia, Africa and South America	7	7	7	21
The death of the password for mainstream users	6	5	6	17
New innovations in airport security, physical access and border control including ePassport programs and eGates	7	6	2	15
New innovations in healthcare including electronic health records and BYOD	1	6	7	14
What does Apple have planned next?	0	4	6	10
Other	2	1	2	5
Opportunities allowed by the growing presence of NFC technology	0	0	4	4
Opportunities allowed by location based marketing	0	1	1	2

Other answers provided:

- Electronic voting system, eID

- The acceptance of embedded biometric devices

- Certification and evaluation of Biometrics!

- Growth of Mobile applications in government mandated markets

- Elections in 2015, as well as many law enforcement AFIS and first-generation FIPS-201 systems coming to end-of-life, are creating large-scale project opportunities including for innovation.

- Innovative application of the integration of biometric and video surveillance system.

- The broad acceptance of Multi-biometric, iris, finger vein in security industry will become the next technical standard.

What are the 3 most pressing issues facing the Identity Industry as we move into 2014?

# of responses

Issue	First	Second	Third
Education - countering misinformation	13	6	12
The need to ease the integration of biometrics into other systems and applications	10	13	4
Privacy issues	10	12	5
Keeping up the pace required to be a player in the developing mobile arena	9	5	7
Providing end-to-end solutions that continually satisfy in a space of growing competition	8	3	7
Convincing the world to adopt a post-password paradigm	4	5	8
Enacting the policies that can allow for universal authentication standards	5	3	3
International regulatory and legal issues	0	4	7
Keeping the focus on the world outside of mobile. Authentication is more than just smartphones	3	5	2
The challenges associated with cooperating with the competition	0	2	3
Other	0	3	1

Nothing quite illustrates the current hard reality of biometrics like the first three major concerns on our list. This year, more than ever, the biometrics industry has become accountable for making sure this revolutionary technology is embraced by consumers.

First off, we see participants agreeing that **countering-misinformation** and **providing proper education** on strong authentication technologies is a major concern. In 2013, on the heels of the Apple Touch ID announcement, release and subsequent spoofing, sensationalist media had a field day editorializing unsubstantiated sentiments that colored biometrics as not just inadequate, but in some cases as practically dangerous. The industry overcame these press hiccups, emerging with more momentum

pushing strong authentication into 2014. This year it will be as important as ever to communicate the correct messages to the public with a leadership voice!

Privacy issues are also a concern moving forward. The news in 2013 of the NSA's PRISM program has everyone asking heavy questions about security and surveillance. This is an obstacle in many ways, effectively turning what is already treacherously competitive space into an ethical and PR minefield. The positive way to look at these top three obstacles: biometrics has the attention of the public, now is our chance to shine on a mainstream stage and take a leadership approach to driving the industry forward!

Tied for second place with privacy issues is the need to **ease the integration of biometrics into other systems and applications.** As presented in the findBIOMETRICS webinar, "The Mobile Biometrics Market Landscape" with Maxine Most from Acuity Market Intelligence, 2013 saw the restructuring of the strong authentication playing field. With this restructuring come new roles and responsibilities, namely the mass implementation of biometric solutions across a wide range of new applications. This process will be fast paced, challenging and new, but to those companies that can manage to navigate it: incredibly beneficial.

Other challenges have to do with the increased pressure that comes with an industry that has been jolted into high gear. Concerns of **keeping up the pace required to viably compete in this new landscape** are expressed in our results, as well as the challenges that come along with the pressure of needing to provide satisfactory end-to-end solutions. As far as obstacles go, these are ones that indicate massive activity. Lots of competition and high demand are synonymous with industries that have boomed. Biometrics is one of these.

A major plus side is that collaboration with competitors barely registers on the concern scale, indicating that the surveyed experts expect no trouble in cooperating during this dynamic period of adoption. The amount of attention and success that has fallen on strong authentication consortia and alliances throughout 2013 really puts an emphasis on how important working together is going to be as we move forward in this very explosive and finally very real industry.

Please see the table below of the answers given to this survey:

What are the 3 most pressing issues facing the Identity Industry as we move into 2014? (First being the most pressing, third being the least)				
Answer Options	First	Second	Third	Response Count
Education - countering misinformation	13	6	12	31
The need to ease the integration of biometrics into other systems and applications	10	13	4	27
Privacy issues	10	12	5	27
Keeping up the pace required to be a player in the developing mobile arena	9	5	7	21
Providing end-to-end solutions that continually satisfy in a space of growing competition	8	3	7	18
Convincing the world to adopt a post-password paradigm	4	5	8	17
Enacting the policies that can allow for universal authentication standards	5	3	3	11
International regulatory and legal issues	0	4	7	11
Keeping the focus on the world outside of mobile. Authentication is more than just smartphones	3	5	2	10
The challenges associated with cooperating with the competition	0	2	3	5
Other	0	3	1	4

Other answers provided:

- Improving technology

- Companies investing more R&D to deliver affordable liveness detection for unattended/commercial applications.

- Convince Organizations that NO BIOMETRICS = NO ACCOUNTABILITY = MORE FRAUD OPPORTUNITIES (They just don't get it yet)

- Performance. We need for biometric solutions to operate at 99% success rate and Apple's 5S is showing signs of questionable performance.

- Demonstrating strong business case to address issue of who "pays" for increased security.

- Using fingerprint biometrics for enrollment in government social benefit programs remains one of the best ways to fight program fraud and identity theft. Biometrics safeguards identity; it doesn't compromise it. We need to continue our efforts to allay misperceptions regarding biometrics and inform constituent stakeholders of its benefits.

a. Was 2013 a good year for your company/organization/department and what were some of the highlights?

b. What will 2014 hold for your company/organization/department?

Mohammed Murad, Vice President, Iris ID Systems Inc.

a. 2013 was a significant year for our organization as we continued to provide support for major projects in the national ID space. We are providing our technology and services to NEC for India UIDAI program which is now reporting enrollment at 450 million people. We have also made great progress in providing our technology in commercial security to some of very well known entities. On the technology side we have made considerable progress and we shipped the new Iris ID series of devices, "iris at a distance", that has allowed access to new market segments in border crossing and immigration.

b. The Iris ID team is very excited about the prospects for 2014. We are in expansion mode with new products and solutions. We believe that there are many new projects in the pipeline and we will be showing off some of our new technologies in the coming year.

Scott Mahnken, VP Marketing, BIO-key

a. In an evolving and somewhat choppy market, BIO-key had a successful 2013. Frost and Sullivan recognized BIO-key's commitment to developing and delivering fast and accurate biometric authentication solutions for education, healthcare, government and the enterprise applications, by selecting the company as the winner of the 2013 North America Competitive Strategy and Leadership award. IBM and CA Technologies both validated BIO-key technology for integration within IBM TAM ESSO, IBM ISAM and CA SiteMinder. Caradigm agreed to OEM BIO-key's WEB-key technology in 2013 to support their SSO solution. The company also added two new blood center customers, expanding our footprint as the leading provider of biometric technology within that space. We also completed the final phase of the Nigerian SIM Card registration process.
In healthcare we completed the integration with Allscripts Professional EHR, rounding out our suite of solutions with Allscripts.
Late in 2013 BIO-key reached a collaborative agreement with AMD and earlier in 2013 the company announced a collaborative agreement with the InterDigital Corporation. Both agreements extend the potential reach of BIO-key technology.
Moving forward and point to 2014 we look forward to introducing FreeChoiceID; which allows customers to select the privacy option they prefer.

b. BIO-key is looking forward to 2014 for several reasons. The continued adoption of biometric technology is one reason; but we are also inspired by the compliance drivers in healthcare, as we are already seeing indications that this market is about to expand it's biometric footprint. Additionally, we anticipate that the commitment to our sales and strategic partners will continue to pay dividends. BIO-key partners include IBM, CA, Caradign, Epic, Allscripts and we've added new strategic partners such as IDC and AMD; therefore we feel that BIO-key is well positioned for long-term sustainable growth.
As the mobile marketplace evolves, we believe that FreeChoiceID will become a standard for any customer concerned about privacy and the storing of their biometric identity. Is it possible that 2014 will be a breakout

year for BIO-key and the industry? Once the mobile device manufacturers discover and introduce on device authentication on the majority of their devices - the game changes drastically; for the better!

Robert Horton, Senior Director of Marketing & Communications, MorphoTrak

a. 2013 was an extremely successful year for MorphoTrak. Most significant was the launch in May of Increment 3 of the FBI's Next Generation Identification (NGI) system, comprising the first national palm print system in the U.S., enhanced latent print services, and rollout of the RISC mobile ID capability. Morpho provides the matching engine and algorithms powering the NGI system. The NGI system will change the face of crime-solving by greatly improving the volume, speed, and accuracy of matching latent and other crime-scene prints against the FBI's database of finger and palm prints.

2013 also saw the launch of two revolutionary new products: our Iris at a Distance scanner for simultaneous capture of a subject's irises and face in less than one second; and the MorphoPASS integrated passenger-centric airport processing system, which was launched at the Paris Air Show.

The recent launch of the MorphoAccess™ SIGMA Series reader is the result of the successful integration of L-1's Bioscrypt division products and technologies into our suite of Access and Time products. The MA SIGMA offers NIST #1 ranked fingerprint technology and full compatibility for legacy Bioscrypt and Morpho customers.

We also enjoyed continued success with our existing products, in particular the global adoption of our flagship MorphoBIS biometric identification system, our MorphoIDent mobile ID device, and increased success with our expanded LiveScan product line.

b. In 2014 MorphoTrak expects increased opportunities to provide our industry leading solutions for civil biometric identification systems, particularly with the Biometric Exit portion of US VISIT. This program has long been stalled, but with the impending passage of HR3141, the Biometric Exit Improvement Act of 2013, we expect to see some movement in 2014.

In addition, we foresee increased market demand for security without the hassle of a PIN code or card; MorphoTrak can fill that need with our multimodal biometrics terminals combining fingerprint, finger vein and other biometrics for physical & logical access control, and time and attendance.

Finally, we expect 2014 will bring expanded use of fingerprint biometrics in healthcare and social benefit programs to protect against identity theft and fraud. With our finger, face, and iris recognition technologies, MorphoTrak is well placed to be a key player in providing solutions that meet these needs. Finally, Morpho is well positioned for the explosive growth of mobile biometrics with key capabilities in NFC and biometrics.

John Hinmon, SVP Marketing, Cross Match

a. 2013 saw the introduction of the lighter, smarter, and faster SEEK Avenger, introducing state of the art print and iris capture technologies and paving the way for future mobile device innovations. 2013 also saw the successful deployment of our WEBS biometric platform with its web-based enrollment module.

b. 2014 will see the continued roll out of the WEBS web-based biometric solution modules, as CMT adds WEBS Match and WEBS Mobile. Further innovation on the mobile handheld solution front is also scheduled.

David Benini, VP, Marketing, Aware

a. Most notable for Aware in 2013 was that we divested our DSL business, and so we can now focus our efforts on biometrics. Our most significant product deployments were for biometric visa applicant screening systems in Canada and Saudi Arabia, and the mobile biometric solution for the US Navy. We achieved continued revenue growth.

b. Aware plans to introduce several new products in 2014.

Peter C. Went, CEO, WCC Smart Search & Match

a. For WCC 2013 was a phenomenal year, showing close to 50% organic growth over 2012. Not only did we sign-up a record of sizeable (above $1M) contracts in a single calendar year, we were also able to develop a large pipeline.

A noteworthy contract in 2013 is EU VIS, the European Visa Information System, which we're now delivering against with go live planned in first half of 2014.

b. Our pipeline makes us expect triple digit growth in 2014. It is important to note that WCC is transforming from a technology company into more of a solutions company. So growth does not only come from more or bigger contracts, it also comes different types of contracts.

For example, in Finland with the Finnish Police, we initially sold a technology license. Currently we're delivering end-user solutions. These solutions are in the area of desktop search, mobile search and analytics. It is exciting to be entrusted to help front-line police officers with real-time information on their mobile devices. This is going to have a big impact for the Finnish Police.

We also see WCC becoming a trusted partner to our clients, where we engage in joint projects and open communication. Undoubtedly that will create a whole new range of opportunities in the years to come.

It must be noted that WCC experiences growth because of the trust and support we receive from our clients and partners. Without them, WCC would just be another technology company. We are very grateful for that trust and support.

Raffie Beroukhim, VP, Biometrics Division, NEC Corporation of America

a. 2013 was a great year for NECAM Biometrics. On April 8, 2014, we launched the multifaceted NeoFace® Product Suite; consisting of NeoFace®Match for basic facial recognition capabilities, NeoFace®Reveal for latent face investigation, NeoFace®Smart ID for mobile identification and investigation, and NeoFace®Watch for real time video surveillance with identification. The product suite is rooted in the most advanced and accurate facial matching technology available as tested by NIST and an independent test done by Michigan State University (MSU). This new product suite provides four distinct solutions targeted at specific users. Addressing forensic, security, in the field and appliance requirements, NeoFace supports the need of our existing and future clients seeking optimal performance, accuracy and reliability in their identification systems. Extraordinary tolerance for poor quality images (as low as 2,000 bytes and inter-eye distance of as low as 24 pixels) from highly compressed

surveillance videos or photographs results in higher rate of positive identification and unparalleled accuracy. NECAM Biometrics is winning major competitive awards and contracts from state and local government agency customers as well as contract purchases from enterprise commercial customers!

NECAM Biometrics continues to excel in AFIS product development and deliveries. We successfully developed and certified Integra-ID with big data and cloud technologies in order to successfully complete the Western Identification Network Factory Acceptance Test. NECAM has also delivered new and major AFIS system upgrades based Integra-ID to Indiana, Georgia, Texas and Virginia.

b. NECAM Biometrics plans to build upon the product development success of 2013 and deliver this technology and innovation to more government and commercial customers in 2014. First, NECAM will rollout and expand the WIN Integra-ID Identity as a Service to eight member states and more in 2014. Also, several AFIS contracts awarded in the final quarter of 2013 will be configured and deployed.   Last but not least, NECAM Biometrics anticipates growing business and orders from the enterprise commercial marketplace for NeoFace facial recognition products in and finance, healthcare, hotels and entertainment parks, public security venues, retail businesses and social media. NECAM will be working on furthering improving our accuracy on facial recognition and incorporating video analytics.

Phil Scarfo, Sr. VP Sales & Marketing, Lumidigm

a. 2013 was another exceptional year for Lumidigm. In particular, we saw serious adoption of our biometric authentication solutions in the financial services and healthcare sectors in Latin America and in South Africa.

The most encouraging trend for us is that security managers, of course, but also those responsible for expanding business have now experienced the benefits of our products and their unique ability to both lower risks and streamline business processes. The convenience provided in a secure package is making a real difference for our customers as more and more types of transactions require BOTH a simple and secure means of user authentication.

b. Our pipeline for business has grown significantly not only in numbers but in quality as well. We are quite bullish going into next year that those customers who witnessed the success of others in the past two years are now preparing to roll out their own biometric kiosks, ATMs, etc.

The narrative is no longer, "Should we consider biometrics?" but rather, "How quickly can we copy the success of others?" It's also encouraging that customers now value technology that works and is reliable rather than technology that is simply lowest cost and "good enough".

I believe that the bar has been reset and expectations now are that biometrics performance must be delivered, not just promised and that additional capabilities such as meaningful anti-spoof, intrusion detection and embedded security are now expected.

When the technology is shown to work and is truly reliable, the opportunities for managing risks and, more importantly to some, the ability to grow their customer base by making services more convenient and secure become compelling. Customers are becoming increasingly more sophisticated about their choices in biometrics technology and we will reap the benefits of that again 2014.

Sebastien Taveau, Chief Evangelist, Synaptics

a. Very good year

b. Even bigger than 2013.

Mike Goldgof, VP Marketing, AGNITiO

a. 2013 was a great year for AGNITiO.
- We have experienced continued strong growth in our traditional government markets and breakout growth in contact centers.
- We have completed a number of successful Proof of Concept trials in Mobile ID Online and many more are under way.
- We have introduced a number of new products and continued to differentiate our core engine.
- As founding member of the FIDO alliance, we have seen tremendous growth from 6 members to over 60, with major players joining the alliance.
- We have successfully launched new Voice iD branding and a new website.

b. 2014 is shaping up to be another exciting year for AGNITiO.
- We expect continued strong growth in our traditional government markets.
- We expect very strong growth in contact centers, particularly in fraud detection.
- We expect to convert a number of ID Online POC Trials into broad deployments.
- We expect more FIDO Ready devices shipping with biometrics, including Voice iD.
- We expect strong growth in the biometrics market in Financial Services and Healthcare.

Richard Agostinelli, President and CEO, DigitalPersona Inc.

a. Yes, 2013 was a good year for DigitalPersona. We expanded our secure banking solutions portfolio with the acquisition of Identity Stream, the provider of the T24 Biometrics Module which is used in the Temenos core banking system. In November we launched Altus – a software platform that addresses the needs for identity verification using fingerprints to bind the physical and logical identity.   We also introduced several new optical readers and now offer the broadest range of fingerprint readers on the market today.

b. In 2014, DigitalPersona will focus on using its deep understanding of biometrics and experience in authentication to help solve identity fraud and authentication problems. Our new biometrics-based identity verification solution, Altus, combined with professional services that provide customers with guidance in every phase of their deployment, from design to implementation, will provide security-minded enterprises the ability to authenticate customers and employees.

Suzanne Matick, Media Relations, The FIDO Alliance

a. The FIDO Alliance launched in February 2013 with six founding members: PayPal, Lenovo, Validity, Nok Nok Labs, Infineon, and AGNITiO.

- Within three months, Google, NXP, CrucialTec and Yubico had joined the FIDO Alliance Board, and membership had doubled
- By Fall, BlackBerry, MasterCard, and Oberthur Technologies had joined the FIDO Alliance Board of Directors, and many new members joined as sponsors and associates, including Ping Identity, LG Electronics, EyeLock, SecureKey, Goldman Sachs, and Fidelity Investments to exceed 50 members in less than eight months, confirming compelling interest in standards for universal strong authentication.
- In December, the FIDO Alliance announced new board members Microsoft and Discover Card and membership exceeds 70 members, with 20 more joining in a single month.
- The FIDO Alliance began certifying FIDO Ready™ products in November, 2013.

b.
- CES 2014 will feature early FIDO Ready™ products in demonstrations based on working draft FIDO specifications, which are open to FIDO members.
- The FIDO Alliance will release specifications for two FIDO protocols: UAF (Universal Authentication Framework) and U2F (Universal Second Factor)
- FIDO Ready™, Interoperability, and other FIDO certifications testing and licensing will continue and escalate throughout 2014, as more authentication products and services become available to meet the FIDO specifications criteria. FIDO Ready™ solutions have undergone an interoperability testing process against the draft specification, hosted by an independent testing organization and leveraging the Nok Nok Labs Multifactor Authentication Client and Server.
- FIDO Alliance education is important throughout 2014, so the public and mass media accurately perceive what strong authentication means, how it benefits users and Relying Parties, how biometrics work and do not work within a FIDO framework, and the many benefits of open FIDO standards to effect universal strong authentication.

Anna Liu, Marketing Manager, ZKTeco. Inc

a. In 2013, our progress in multi-biometric technology and innovation of its applications accelerated our business growth and brand awareness improvement.
 Technical Innovation:
- Our fingerprint scanner has passed the test and has received approval from Chinese government officials. We have now been chosen as the official provider of Chinese national ID card. Today, our fingerprint scanner is broadly used within the national ID card project.
- We released our own developed tripod turnstile which is integrated with inBio control panel.
- We released a self-developed elevator control system integrated with C3 control panel.
- We released Android time & attendance terminal, and promoted new business mode based on Cloud in China Market.
- We released the first IP Camera embedded with face detection world-wide.
- We released Multi-biometric terminal with fingerprint, face, iris, and finger vein identification.
 The development of theCompany:
- Set up branches in Argentina, Russia, Philippines, etc. and strengthen international network.
- To coordinate the development of the project, we set up a factory for Channel Control and Park Management devices.
- Set up R&D center in Spain and Egypt, set foundation for the global technical service network.

b.

- Time & attendance management based on Cloud will change the traditional solution and achieve more possibilities.
- Biometric devices with Android system will be widely accepted due to its user-friendly experience
- Total security system integrated with visitor management, access control, video surveillance, elevator control, parking management, and channel control will make security management more convenient, and it is definitely worth your anticipation
- The industrialization of Multi-biometric technology, iris identification, and the mass production technology are our core objectives.

Christian Rutgliano, International Sales Manager, Green Bit S.p.A.

a. The year 2013 has been successful and satisfying for Green Bit. Results have been above expectation and we managed to strengthen our market presence in our incumbent market spaces whilst further broadening our presence in new and emerging markets like Africa and Asia.

To our biggest satisfaction we have been able to close high volume deals in the Law Enforcement sector in China which becomes an ever more important market which allows us to steadily increase economies of scale which brings advantages we're giving back to our customers. Offering high end products at a highly competitive price/performance ratio we're proudly providing our partners with a competitive edge over their competition.

Further we introduced the world's first Palm Livescan able to capture major case prints, the MultiScan 527, which we will offer most aggressively in order to penetrate new markets and to tackle existing markets looking to substitute legacy systems.

b. 2014 will be under sign of conquering new markets worldwide. A huge wave of Civil ID and Law Enforcement projects are coming up and we have the right offer and value proposition to look most optimistic to these opportunities.

From a product perspective we will continue to invest in our technology in order to add more and more value to our offering. We'll be coming up with new and complementary products to our current product line enabling our customers to address a wider range of applications.

Gifford Hesketh, VP, Engineering, FaceFirst

a. 2013 was a landmark year for our company with significant adoption of our face recognition solutions in law enforcement and retail sectors.

b. 2014 promises to be another high-growth year, with expansion in new geographical markets as well as further adoption by current and new customers. Our new products in 2014 will also further our competitive lead and create significant new business opportunities.

André Delaforge, CCO, Natural Security

a. Launch of Natural Security Alliance (31 members on 20th of December) including card schemes, banks...

Founding of the Biometrics Alliance Initiative …framework for evaluation of Security and Usability of biometrics technologies for services.

James N. Albers, Senior Vice President, MorphoTrust USA

a. Yes- MorphoTrust has experienced highlights in 2013:

- Expansion of civilian identity related programs
- Expansion of multi-modal biometrics beyond the DOD into DHS
- Growth in airport/trusted traveler programs

b. We will continue to work the theme that biometrics is a tool to secure identities, and is not a threat to privacy.

We expect continued growth in border control, immigration related biometric programs, as well as growth in the commercial/financial arena.

Jamie Cowper, Senior Director, Business Development, Nok Nok Labs

a. Yes - we launched Nok Nok and the FIDO Alliance in February 2013 and we've seen significant interest and developments over the course of the year.

Microsoft, Google and MasterCard joining the FIDO Alliance has been hugely significant to the ongoing growth of the standard.

b. Continued work on delivering the FIDO protocol to smartphones, PCs and tablets. We should see mass market deployments that will allow people to use biometrics to make payments, access cloud storage and simplify their online experiences.

Johan Carlström, CEO, Fingerprint Cards

a. A great year!
We have grown the organization with 300% and the revenue by almost 900%.
We have launched the 1020 sensor the first touch sensor for Android mobiles and tablets and Windows devices.
We have won 35 DWs and 16 phones and tablets with our sensor embedded has been launched in the markets of Japan, China and Korea.
We have become a member of Global Platform and FIDO and are active in defining the user interfaces for secure mobile transactions in both bodies.

b. Much more of the above!
Going from early adopters to mainstream and from tier 2 to the world's largest Tier 1's that will launch phones

and pads with both swipe and touch sensors embedded. Touch sensor is likely to prevail in high-end segment and with the largest Tier 1's.
FIDO and securing mobile transactions and payments will increasingly become a focus area.

Denise Myers, Director of Marketing, EyeVerify

a. 2013 was an EXCELLENT year for EyeVerify. We won start up of the year by Silicon Prairie News in October. Additionally, last month we won the National and International competition for Get In The Ring, a startup competition that had over 1,000 startups competing for over $1M. We were featured in the Wall Street Journal, Fast Company, TIME, and many others. We are bringing to market an incredibly stable biometric that is a software-only solution thus bringing biometrics to the masses and providing a solution to "killing the password".

b. EyeVerify will become commercially available in 2014 and we will have some significant customer announcements in 2014. Additionally, we will continue to expand our company and enhance our product including bringing to market a tablet version.

Wendy Lin, Product Development Manager, David-Link Fingerprint USA Corp

a. Yes. Our sales improved by 20% especially over in Q3 and Q4. demand in Biometric Time & Attendance and biometric safe increased dramatically.

b. The 2014, we will continue to bring in new products consist of quality and price advantage for customers. municipal projects and enterprise projects that require different combination of the biometric devices will be found and resolved all at one stop here.

Bob Cook, President -- WW Sales, Smartmatic

a. Yes, it was a good year with major projects completed or initiated in Haiti, Philippines and Venezuela.

b. We are looking at a year with many opportunities.

Elke Oberg, Marketing Manager, Cognitec Systems

a. In response to large-scale pilot projects in the retail and airport space, Cognitec has further advanced the capabilities of the video screening and analytics product FaceVACS-VideoScan. On the other hand, a new product edition now addresses entry-level, anonymous face recognition applications such as intelligent signage and people counting. In August 2013, the company announced its participation in the EasyPASS project that will supply eGates to passport control areas at all major German airports, following a contract award by the German Border Police. All EasyPASS gates will be equipped with FaceVACS-Entry, a new product that combines smart hardware for image acquisition with market-leading software for verification processes. Cognitec is expecting record revenues for 2013.

b. Cognitec is preparing the product release of FaceVACS-Entry. The technology is ready for integration into

electronic gates (eGates) which provide travelers with electronic passports (ePassports) the option to pass through automatic passport checks. Development and market release of this product respond to the high demand for fast, accurate face recognition solutions at border control points.

Maxine Most, Principal, Acuity Market Intelligence

a. The highlights for Acuity in 2013 were all related to mobility - the webinars we co-hosted with findBIOMETRICS, the extremely well received Biometrics UnPlugged event - also co-hosted with findBIOMETRICS, and the publication of Acuity's latest market brief on mobility - "The Center of Gravity Has Shifted".

b. New reports on Biometrics and Mobility and Automated Border Control, updates of the previously published reports on ePassports & eVisas and National IDs, and more on and off-line events, programs, and publications related to identity and mobility.

Conor White, President, IdentityX Inc

a. Yes, 2013 was a great year. We accomplished some significant and important milestones including deploying our technology at a number of financial institutions and tech companies in multiple countries. 2013 was also the year when we brought a major new iteration of our IdentityX product (IdentityX 3.0).

b. Hopefully, continued success with more companies adopting our product and users using it. We expect to see IdentityX 3.0 gain broad adoption as many of the features were designed by our customers to help them offer better speed, security and service to their customers.

Mark Clifton, Vice President, Products and Services, SRI International

a. Yes. With the government accelerating their adoption of the iris as one of their important biometrics for authentication, we have seen a growth in demand for our products.

b. SRI will be pushing distance and unconstrained iris collection to mobile devices. We are constantly pushing to make the use of iris systems easier for the user.

John Mears, Senior Fellow, Lockheed Martin Corporation

a. 2013 was a good year for Lockheed Martin in biometrics. A Lockheed Martin-led team continued to deliver significant capability to the FBI's Next Generation Identification (NGI) program this year.   NGI Increment 3 was deployed on May 5, 2013, providing improvements in latent fingerprint search accuracy and a new nationwide palm print identification system to help solve cold cases and improve crime-solving capabilities.

The improvements are the largest so far in a series of phased upgrades to the FBI's biometric identification services, providing powerful new and enhanced biometric capabilities for more than 18,000 local, state, tribal, and federal law enforcement agencies across the country.

In addition to creating a system with powerful matching algorithms, the new National Palm Print System (NPPS) contains latent palm prints that will be searchable on a nationwide basis for the first time. Identification of palm prints, which represent about a third of all latent prints, has been used successfully in the past by investigators to match prints from a crime scene against those of known suspects. Now, law enforcement agencies can use the NPPS to compare latent palm prints in a matter of minutes to all of the records in the national database.

b. In 2014 we look forward to continuing to deliver leading capabilities to the FBI for NGI.   We also see significant international biometric opportunities, including those related to automated border control and integration of machine-readable travel documents with biometrics. Immigration reform in the U.S. could be a driver of identification services, as well as upgrades to border and port security. The continued migration of many capabilities to the cloud will include biometric identification services. Lockheed Martin's Identification as a Service (IDaaS) will address this market need with multi-modal biometric enrollment and matching services based on the FedRAMP JAB-authorized, secure government community cloud offering known as SolaS®.

Jeff Scott, VP Sales - Americas, Precise Biometrics

a. 2013 has been the year of partnerships for Precise Biometrics as we build a strong foundation with our products and our partners. This foundation was crucial so we, with our partners, are ready to deliver the complete secure mobile solutions to our customers. By building up such an ecosystem customers will have the greatest range of solutions to help enable their move from a secure desktop to a secure mobile environment. Our Tactivo line of products are all USA made and have been certified through the FICAM GSA APL (formerly FIPS 201 EP).

We are also seeing growth in our fingerprint algorithm technology as the adoption and globalization of biometrics is rapidly taking off. We expect to see this grow much more in 2014.

Some main highlights have been the release of our Tactivo products for Android and iOS, the release of our partner ecosystem and the release the first smart phone that integrates a FPC sensor with Precise Biometrics Algorithm Precise BioMatch™ Mobile.

b. 2014 should be a very exciting and fast paced year. Mobile solutions are maturing, organizations are ready to deploy and most importantly end users are ready to embrace biometrics and smart credentials. We will see a mass adoption of biometric sensors in smart devices throughout the year which we are ready for with our algorithm solutions. Mobile Solutions with the ability to authenticate using smart credentials and biometrics will rapidly grow within key verticals like government, healthcare and banking around the world. We look forward to continued growth of our partner ecosystem, growth of our algorithms solutions and cooperating with our partners and competitors to deliver the best solutions to our customers.

Phil Tusa, COO, CMITech Company

a. For CMITech, it was an excellent year. In the last 6 months, we completed deployment of several large scale projects that demonstrate the viability of our technology and product line as well as competitiveness of the iris modality. We received strong confirmation on the value of our products, including the key attributes of cost effectiveness, subject usability, image quality and ease of integration. Our customers, who are systems

integrators and OEM's, are expressing strong continued support for our products as core elements within their end-to-end solutions.

b. CMITech is looking to expand our base of relationships with systems integrators and OEM's on a global basis, as we believe the mainstream of adoption of iris biometrics is occurring as much, if not more, in developing or emerging markets as it is in Europe or North America. We are also looking to validate the utilization of our product line and the iris modality across a range of commercial applications, including physical access control, healthcare and financial services.

Robert Harbour, Chairman, International Biometrics Identification Association

a. As our industry expands its reach, our membership and association initiatives have broadened to keep pace with this dynamic growth.
Our member companies now provide identity solutions for a broad range of application needs across government,industrial, commercial and consumer markets.
Our association working groups are actively addressing the the following important areas critical to our industry success : Public Policy Advocacy, Education & Outreach, Mobility, Healthcare, Financial Services and Advances in Biometric Technologies.

b. IBIA has teamed up with SMP (Science and Media Partners) to deliver "connect:ID", an exciting new conference and exhibition March 17-19 2014 at the Ronald Reagan Conference Center, Washington DC that will focus on all aspects of human identity in the physical and digital worlds.
Our recruiting emphasis is twofold with continued growth in: member companies that serve commercial and consumer markets and international companies in regions where the industry is enjoying rapid growth.

Jose Luque, President / CEO, Merkatum

a. Tough year, yet good towards the end of it. Our target markets in Latin America, government agencies, going through political, operational, and budgetary changes and challenges. Long project delays and lack of decision-making were paramount. Yet, key drivers remain intact: the need to properly authenticate/identify individuals to improve safety, intelligence, anti-fraud, and productivity. Merkatum was successful in closing and implementing projects for two major federal government agencies in Mexico, and setting ground for relevant deployments during 2014.

b. Growth, systems replication/repetition in other markets, continuity of business strategies and effective positioning and execution of existing and new projects. Merkatum sees 2014 as a very important and positive year for the company and for our industry as a whole.

Martin George, CEO, Smart Sensors Limited

a. Smart Sensors continued to make excellent technical progress in 2013 with efficiency savings in its software products that translate into improved performance especially on mobile devices. On that front, the company's R&D innovations in iris biometrics on mobile smart phone devices, using the same underlying camera modules as are used by the industry, have yet to gain traction - competing with the noise of Apple's acquisition of

Authentec, Synaptics of Validity, and the launch of the iPhone 5S has been a challenge for a small company of limited resource! But ultimately that should be good for us as biometrics gets bootstrapped into mainstream consumer consciousness. During the year Smart Sensors also launched its Iris Physical Access Control solution - sold in the UK by Securefast plc as Iris Entra. That's the first in a line of interesting developments to come, with initial success in the construction industry. We have also introduced the Biometrica Pocket Iris device with our code and match software used in the Vault personal data protection suite, giving excellent image quality in a trendy package at a great price.

b. We are really hoping to capitalise in 2014 on the new products recently introduced, especially in the field of iris access control where our partners CMI Tech have built a fully integrated product with powerful embedded processing, again using our on-board software. We see 2014 being the year when hands-free iris access control can compete with fingerprint technology on cost and ease of use. We're also pursuing initiatives to use iris biometrics and encryption/hash techniques for the protection of Personally Identifiable Information. Our Partners Biometrica, Identity Assurance Systems and Biometric ID Security will all have solutions rolled out in 2014, available for system integrators to make use of in areas such as remote document collaboration by tele-workers, securing access to remote resources such as in subscription services, and simple password replacement. Watch this space...

Chris Palmer, PR/Marketing Specialist, Anviz Global Biometrics

a. For several reasons, 2013 was a marquee year for Anviz Global Biometrics. Anviz unveiled several new products in 2013. Devices such as the iris-scanning UltraMatch generated quite a bit of interest from consumers and partners alike. Similarly, the time attendance-access control device C5, was also introduced. Anviz showcased a wide range of surveillance devices in 2013. All of these devices were displayed at various trade shows in which Anviz was well-represented. The company hosted a booth at six events in 2013, ranging from Brazil to Russia.

b. Everyone at Anviz is excited about the prospects for 2014. In many ways, the hard work implemented during the 2013 campaign will yield greater results in this coming year. Primarily, Anviz will expand its biometric department. The launch of the iris scan device, UltraMatch, is set to be a major event in 2014. Additionally, the company will be expanding the current surveillance product line. A flurry of IP cameras were launched in the fourth quarter of 2013. Anviz is proud to be launching another round of cameras and recorders for this coming year. The evolution of the Anviz's unique AIM Intelligent Management proceeds unabated. AIM software strives to merge time attendance and access control into one east-to-use format.

Walter Hamilton, Senior Consultant, Identification Technology Partners

a. 2013 was a status quo year for us. The biometrics industry, and other industries in general that rely on the U.S. government market, have suffered from the uncertainty caused by U.S. government dysfunction. It's difficult for small business to compete with the onslaught of government regulations (e.g., Dodd-Frank, taxes, healthcare, etc.) and uncertainty over continuing budget resolutions which constrain acquisitions. Also, it's difficult to find reasons to invest and expand a business in such an uncertain environment.

b. We think that the budget resolution in the U.S. Congress will stabilize our business environment which is primarily focused on U.S. government agencies.   We hope that the drag on our primary market caused by budget uncertainty is behind us.

Magnus Loefgren, CEO, Speed Identity AB

a. A 30+% growth in revenue, deliveries to 4 major, international systems integrators, first full-solution supply (enrollment stations + middleware + enrollment workflow application software) to SGS for Irish Driving License enrollment (outsourced by the RSA).

b. Continued growth, expansion in product/platform offering and intensified cooperation with systems integrators.

Georg Schaffer, Export Director, ekey biometric systems GmbH

a. The outgoing year was yet again a very successful one for ekey. The highlights included the launch of several new fingerprint modules for door entry systems in cooperation with industry leading partners (OEM) as well as a number of successfully realized projects for integration into automation systems.
ekey also proclaimed 2013 to be another scientific year with strong focus on basic research in fingerprint technology leading to further advancement of ekey's proprietary matching algorithm.

b. 2014 will be dedicated to the release of new and exciting biometric solutions. The spectrum will range from the smallest possible fingerprint reader "ekey arte" all the way to a finger scanner with an integrated Bluetooth reader. Several joint-developments with multinational players are in the pipeline, leading to further proliferation of our products in the residential and corporate market.

Stephen Thies, CEO, Integrated Biometrics

a. Great Year;
- New Products Launched - Sherlock, Columbo
- Securing new integrators and government contracts

b.
- Revenue Growth
- New Products
- Growth in distribution

Jeff Maynard, CEO, Biometric Signature ID

a. 2013 was a great year for Biometric Signature ID. Coming off a 1000% increase in sales in 2012, we had continued high demand for our gesture/signature biometrics in more markets including healthcare, higher education and financial services. Using the patterns captured when a user creates their password using their mouse or finger we are now identifying users identity remotely from 55 countries and all US states. BSI launched our newest software update with major enhancements that have positively impacted the user experience. We are very pleased with our participation as one of the pilots with the NSTIC initiative. With our partners we have made advances and will be reporting how we are combining private and public government authentication technologies to gate access in a major healthcare entity.

b. Biometric Signature ID has been working with several large companies in several market sectors and we will be launching new exciting partnerships. We expect that the use of our gesture biometrics will find even higher levels of interest and use because we do not require any special equipment and can be used on any BYOD. As the market evolves, uptake will become all about the user experience. BSI is well positioned to become a favorite option in this regards. We have already completed studies indicating nearly 50% of first time users find its use is "intriguing or entertaining and 98% have a positive experience. We believe 2014 will the year for choices and we welcome the positive energy into the market for biometrics!

Darrell Geusz, Senior Vice President, Ipsiti, inc.

a. Increased market demands in richer, more capable and flexible centralized authorization (e.g. policy and attribute management, trust frameworks, etc.) has validated Ipsiti's premarket move to deliver the world's first patented ID Trust Network®. Although the attribute based access control (ABAC) market is still nascent, implementation efforts at NIST, by the IDESG, and models adopted for FICAM (not to mention international efforts and successes in UK, New Zealand, Australia, Belgium and others) solidify that authorization will be decoupled from authentication leveraging trust frameworks. Furthermore, Ipsiti continues to be a market leader having established and proven two successful business models, including delivering a nationwide service on two continents (North America and South America) that support identity transactions occurring via mobile devices including native applications for smartphones and SMS/MMS texting for the not-so-smart phones. Over 1,000 government agencies and commercial organizations are full members of either or both trust frameworks receiving increased facility security and personal safety simultaneously with increased speed of access for an affordable subscription fee. These fully operational ID Trust Networks are larger than any NIST NSTIC pilot program underway and proves that trust frameworks, including those that include both public and private sector organizations and individuals, can be implemented leveraging key technical solutions (including those from Ipsiti).

b. In 2014 we will solidify our brand and market presence, including enabling new and renewal ID card holders (and other token holders) to benefit from multiple new privileges linked (virtually and dynamically) to their ID cards (or tokens) using one or more ID Trust Networks. As the only company currently holding a US patent and with global patents pending in the authorization market segment, Ipsiti is positioned to float to the top as a preferred vendor for new projects and programs. Expansion of the existing trust frameworks, including beyond the three US states and one Latin American country already served, and the addition of one or two more new trust frameworks, are both in the works. Professional services and consulting will continue to be a supplemental strategic business activity having already served as solutions architect for major projects for NATO, the UN, US Coast Guard, multiple Mexican federal agencies, cities such as San Francisco and many others.

Georg Hasse, Senior Product Manager, secunet Security Networks AG

a. 2013 has been a very good year for our comapny with winning the large German eGate project EasyPASS as the major highlight for our portfolio eID.

b. We see quite a number of interesting automated border control opportunities in 2014 and an increase of PKI opportunities for border control.

Thomas Neudenberger, Chief Operating Officer, realtime North America Inc. (bioLock)

a. Yes, 2013 was a great year. We finalized new projects in South Africa, Namibia, Zimbabwe, Ghana and Nigeria, along with some solid new distributor relationships. We also started to get some decent traction in Mexico, Chile, Argentina and Australia. New developments include Employee Self-Service (ESS) kiosks that connect directly to SAP® HR and Payroll, allowing non-technical users to extract their own data after authenticating themselves biometrically on the kiosks. Payroll-related activities such as time and attendance or shift changes are also made possible with this simplified yet robust interface to SAP, all made possible via biometric user management and authentication.

Another major technical development is the integration of the Fujitsu Palm Vein scanning technology into our bioLock control and monitoring center for SAP. The Fujitsu PalmSecure scanners have proven to be very accurate and fast, and present a very strong, non-intrusive alternative to widely adopted fingerprint technology.

b. We are actively building strategic partnerships around the globe to deliver and locally support the bioLock™ technology in all major SAP markets. We are expanding in certain industry verticals such as government and Public sector. We are seeing a lot of movement in Africa, Middle East, Australia and South America and we have taken proactive steps to appropriately deal with those market needs.

Barry Hodge, CEO, SecurLinx

a. Domestically we felt the pressure on budgets in the law enforcement and government space. However, the private sector interest and growth was much stronger than anticipated. The major shift for SecurLinx was that for the first time in our 10 year operating history, our international business was larger than our domestic business.

b. In light of the privacy issues and economic uncertainty facing American users we expect the growth of international markets to outstrip U.S. growth rates. Countries implementing biometric-enabled national ID cards are opening significant commercial markets in financial services and access control.

Terry Hartmann, VP Security Solutions & Industry Applications, Unisys

a. Yes - several of the largescale biometric contracts postponed from 2012 finally went to market in 2013, and we came first or second in every opportunity we bid.

b. Growth

Eric Talbot, CEO, S.I.C. Biometrics Inc

a. It was a excellent year on our international business. North-America is not an early adopter player in the biometric market and we are glad to have unique solutions that are requested all around the world.
We developed again 3 new products and applications that keep an important edge on our competitors.
We got private investment to accelerate our market penetration, so 2014 will be the year that S.I.C. will grow very fast.

b. 2014 will start with major deployments in healthcare, financial and Government out side of North America. From the 2nd quarter S.I.C. will start to deployed a new kind of biometric platform that will generate a lot of interest ans set the new standards in biometric authentication.

Alexey Khitrov, Director, Speechpro

a. 2013 was a good year for voice biometrics and Speechpo in particular.

Introduction of VoiceKey voice verification product line generated a lot of interest in the market place and as a result we are working on more projects than ever before! Passive (text-independent) verification was one of the hottest tickets. Ability to verify customers without hassle and passwords was something that a lot of customers immediately were attracted to.
Multi-modal biometrics on mobile devices is another trend that we see in the market. Ability to utilize existing hardware (camera and microphone) on billions of smartphones for easy and secure authentication makes this approach extremely attractive. 2013 also brought a great geographic expansion of voice biometrics. Speechpro was involved in projects in more countries than ever before and we think that this is only the beginning.
Most importantly 2013 was a year of recognition that voice biometric recieved from the market place, The industry as a whole is finally moving from the outskirts of the biometric world to the position of an established and respected technology. Customers are no longer curious about the voice biometric capability, they need it!

b. We believe that 2014 will see a double digit growth for the voice biometric market place. Mobile platforms (what can be more natural than voice ID on a phone), passive verification, global expansion and multi-modal biometrics, these are the trends that we believe will drive the growth in the space.

Speechpro is looking into achieving significant growth and is very optimistic about 2014. With the strongest R&D arm in the industry and probably the broadest product line we are extremely well positioned on the marketplace to take advantage of the growing market and expend our leadership position.

John Trader, Director of Communications, M2SYS Technology

a. 2013 was truly a banner year for M2SYS Technology. As we expand our focus to markets that include voter registration, national ID, border control, local AFIS & ABIS, ePassports, mobile biometrics we coincided the push to these markets with the release of several new products & solutions including:

> 1. M2-FuseID - a multi-modal, hybird, fused finger vein and fingerprint device featuring liveness detection and the only device to perform both 1:1 and 1:N fingerprint and finger vein matching in a PC based environment

> 2. RapidCheck - an egronomic multi-modal mobile biometric device that wirelessly connects to smart devices and is a much more portable device than those currently on the market

> 3. RapidDNA -fast, reliable DNA profile matching through a customizable interface

> 4. FLUID - a flexibility identity management application framework that can be quickly and easily configured to meet the unique requirements of any identity management application

We also witnessed significant growth in the healthcare market where our RightPatient multi-modal biometric patient identification using iris recognition solution was adopted by several large hospital networks as well as continued international growth of our ABIS software solutions, deployed by two countries for voter registration and a national ID card.

Overall, 2013 has been the best growth year on record for M2SYS!

b. Continued expansion throughout the global market for our ABIS solutions as well as our solutions designed for healthcare including RightPatient, our multi-modal biometric patient identification solution as well as our SSO solution for hospital networks.

We also expect to see significant growth in the application of our RapidCheck mobile biometric device throughout the global markets as governments and private enterprise search for more portable, mobile biometric wireless technologies for field use. We also expect to release new, innovative, flexible products and solutions that the market demands based on our human factor engineering design approach.

2014 will be another year of record growth and reach for M2SYS, powered by our industry thought leadership, social marketing efforts, and content creation strategies.

Julia Webb, VP Sales and Marketing, VoiceVault Inc.

a. Yes, 2013 was a good year for VoiceVault as it saw:

- Verification from Microsoft that VoiceVault's voice biometric solution scales to 1 billion authentications a year.
- The debut of VoiceVault's language independent personalized passphrase modes as part of their 8.0 VoiceVault Fusion release; enabling organizations to deploy highly customized user experiences.
- VoiceVault voice biometrics utilized as part of a multifactor authentication process for securing commercial banking ACH payments and wire transfers for a top five global US financial institution. Billions of dollars in transfers have already been secured by active users in over 40 countries.
- A breakthrough in home automation with the launch of Granta from GEO Semiconductor, SpeechFX and VoiceVault patnership.
- The distinction of being the first voice biometric company to offer a complete range of voice biometric system deployment models inclusive of: hosted, on-premise, through a managed service provider or a pre-installed application.
- VoiceVault voice biometrics integrated into a leading mobile identity platform as part of a multi-factor authentication system

b. VoiceVault is excited to enter 2014 with a focus on mobile device application integration and a continued commitment to delivering highly secure, convenient and cost effective, authentication solutions. We especially look forward to making available a new demonstration app (for both iOS and Android) and debuting a completely redesigned VoiceVault.com within the coming months.

Larry Gardner, CEO, CyberExtruder

a. 2013 was very challenging. We had many pluses and minuses. The government budget issues and shut down hurt our cash flow significantly. Our software was finally being recognized by some very influential groups. Our software was embedded into several commercial identity management solutions.

b. Some government programs have received significant funding. Our commercial OEM relationships should generate significant recurring revenue in 2014.

Derek Northrope, Head of Biometrics, Fujitsu

a. A number of deployments of large scale biometric systems.

b. A significant push into Cloud based biometric services.

Andrew Rolfe, CTO, Authentify Inc

a. Fantastic year, mainly due to market growth and the release of our next generation mobile product and platform.

b. Significant growth and new innovation.

Sherrie Adcock, CEO, Voice Security Systems Inc.

a. This is my car or lock to homes, building, you decide?
Personalized by FREEKEY®. What, you don't know what FREEKEY® is? Where have you been? Watch video on our site to see.

b. Continuous development in the stand alone embedded space.

Catarina Meleiro, Marketing Communications, Vision-Box

a. Implementation of an innovative two-step segregated ABC (Automated Border Control) solution, integrating self-service verification kiosks and automated eGates, at Lennart Meri Tallinn.

Kick off of the largest ABC deployment in Europe ever, including Manchester, Heathrow, London City, Gatwick, Luton, East Midland, Cardiff, Bristol, Birmingham, Stansted, Edinburgh, …and more to come.

Deployment of 24 new generation ABC eGates at the new pier of Terminal 1 at Lisbon Airport.

Implementation of ground-breaking Automated Passport Control (APC) Kiosks at the Miami International Airport.

Colin Keogh, President, Synovation

a. With all the mergers and paradigm shifts, our consulting business did very well.

b. We are shifting to an educational mode that will help companies roll out biometric solutions without the fear of privacy loss.

Joerg Lenz, Manager PR, SOFTPRO GmbH

a. In 2013 SOFTPRO celebrated 30 years in business. Since 1987 the company is focusing on digital capture, management and verification of handwritten signatures. 15 years ago the company tapped into the field of Signature Biometrics.

Today the major part of the company's turnover in new business on a global scale is created with Electronic Signature Solutions which involves trustworthy capturing of biometric signature data. SOFTPRO has enterprises around the globe utilizing their biometric E-Signature technology to sign nearly 200,000,000 documents a year electronically. Together with its partners SOFTPRO is serving customers in more than 50 countries on five continents including 12 of the 25 leading banks.

The sector which embraced SOFTPRO Technology with the most outstanding growth rate in 2013 was the insurance industry, followed by companies in the telecommunication sector. The banking sector is still the strongest sector among SOFTPRO customers however the customer structure of The Signature Professionals becomes increasingly diverse as E-Signing becomes popular in many industries.

Within the last twelve months the adoption of software and services for biometric signing was taking off in many ways: Banking, insurance and telcos are really going paperless in contract, agreement and waiver signing now. The benefits are clear: Operational user convenience improvements, efficiency gains and fulfilment of compliance requirements. Organizations in many other industries are following.

Especially in the second half of 2013 SOFTPRO's solutions have been selected by many industry leaders. Several companies signed contracts defining the Signature Professionals as their global standard solution provider for electronic signature technology. For example is Manulife Asia is implementing SOFTPRO's electronic signature technology into its workflow for life insurance applications in Asia starting with Singapore. Manulife Asia is one of the principal operations of Manulife Financial, one of the largest life insurance companies in the world by market capitalization.

These global players require the support of many types of signature capturing devices and may intent to run E-Signing on-premise and in the cloud. Hence they need a rock-solid hardware agnostic platform for their E-Signing processes. SOFTPRO has designed its SignDoc Web platform to cater exactly for all these requirements. The Signature Professionals have released more new and updated software products than ever. E-Docs may be signed now on any tablet or smartphone running on Android, iOS or Windows. Free apps in the stores of Apple, Google, Samsung and Windows allow everyone to sign on documents. Professional users aiming to use the signing service for business purposes without advertisement inserts in signed documents can subscribe to a „Pro Service". Outstanding expertise of the consulting team, easy ways to integrate the solutions, a clear commitment to industry standards and a secure solution design are other important reasons why companies choose SOFTPRO.

b. There are some signature overall trends like going mobile with smartphones and tablets and moving processes into the cloud plus BYOD. With the increasing availability of more signature capturing options than ever SOFTPRO's signature business is poised to grow significantly in 2014 again.

Hence the business horizon for SOFTPRO and its partners is looking bright. Together we are working on many fascinating prospects around the world. We will intensify the transfer of know-how to prospects, partners, customers, analysts and other opinion leaders.

Several of our hardware partners are preparing the launch of exciting devices which will broaden the choice of signature capturing options even more. Watch out for CES, GSM or CeBIT and the coverage of these events in our Social Media channels in particular.

2014 will see new major milestones in managing signatures even more easy and efficient. The Signature Professionals will provide new innovative and further enhanced products and services.

The core competence of Softpro continues to be "everything about signatures". Other biometrics (like finger print, face, voice, etc.) will be integrated in this E-Signing platform on a project basis.

Besides that 2014 will be a year to celebrate several signature milestones:
- 20 years ago the first automatic signature verification which was deployed as part of the payment processing workflow in a bank was provided by SOFTPRO and one of our partners in Switzerland .
- 10 years ago US banks trusted in SOFTPRO and selected FraudOne as their preferred Fraud Prevention Solution system. In the same year SignDoc was voted as best business application for tablet computing.

Rafael Flores, Partner, Meryta

a. I live in Mexico and it was a very difficult year because the Government did not spend all the programmed budget they had for the year. That made the economy move slower with many projects cancelled affecting all kinds of companies.

b. The expectation of a better year considering new projects the big companies have mentioned they want to develop.

Truc Phan, VP. Biz. Development, IriTech, Inc.

a. Yes, 2013 was a good year for IriTech.
1. Our flagship camera, IriShield with on-board matching capability, got "near perfect" performance in UIDAI's FRR real-field test and is expected to dominate the coming UIDAI authentication market.

2. US Navy and another government agency have bought hundreds of licenses of our iris recognition SDK for their second deployment after the success of their first deployment a few years ago.

3. The first working prototype of iris-enabled tablet, co-manufactured by IriTech and one of Qualcomm's reference design companies, was introduced in Qualcomm Uplinq Conference in San Diego on Sept. 3-5, and Qualcomm 3G/LTE Summit in Hong Kong on Dec. 10-12.

b.
1. India's UIDAI is carrying out pilot program with IriTech's IriShield cameras for biometric authentication in banking applications nationwide. As such, we expect to sell hundreds of thousands of IriShield in this market in 2014.

2. We are in discussion with several smartphone/tablet manufacturers and expect we can release iris-enabled smartphones/tablets in 2014.

Irmantas Naujikas, Director, Business Development, Neurotechnology

a. It was a busy but successful year. We continuously worked on improving our technologies and algorithm to make them work faster and more accurately, while ensuring that our products are easier to use and integrate. As a result, we have released new versions of all our products. Worth mentioning new features in our biometric product line are: smile detection, closed-eyes detection, open-mouth detection, glasses detection and dark-glasses detection, text-independent speaker recognition algorithm.

We started the year 2013 with the release of MegaMatcher Accelerator 5.0 improves the accuracy and versatility for use in the large AFIS implementations. Currently we support all major biometric modalities and their combinations in this product - fingerprint, iris and face.

Our efforts working on iris recognition technology was acknowledged by NIST. **NIST IREX IV** evaluation has judged the Neurotechnology iris recognition algorithm as one of the fastest and most accurate among the participants. The Neurotechnology algorithm placed in the top four for iris identification accuracy and the top two for speed among the 66 algorithms from 12 participating companies and research institutions.

We have announced several case studies showing our technology usage and ensuring unique id:
- **Venezuela Voter Registration System uses MegaMatcher Accelerator solution**. A new integrated biometric platform for the Venezuelan voter registration system has been developed using the MegaMatcher SDK and MegaMatcher Accelerator solution. The system was used during the 2012 Venezuelan presidential election and proved its speed and accuracy with biometric data from nearly 18 million registered people.
- **Sri Lanka Foreign Employment Passport Tracking & AFIS System** is based on MegaMatcher technology. The *CenAFIS* by Cenmetrix has been used by the Sri Lanka Bureau of Foreign Employment to accurately identify and record Sri Lankan citizens working in different countries around the world, as well as eliminate the use of fraudulent passports. Since 2012, more than 100,000 people have been enrolled in the system, with 350 to 450 new enrollments per business day.
- **Sierra Leone Biometric Voter Registration System** is based on MegaMatcher Accelerator solution. The National Electoral Commission of Sierra Leone implemented a new multi-biometric voter registration system and sought a solution that would both ensure accurate registration of all eligible voters through de-duplication of the voter registration database and provide printed electoral lists and personalized voter cards. Zetes provided the National Electoral Commission of Sierra Leone with multi-biometric AFIS and facial image voter registration de-duplication services using MegaMatcher Accelerator. 2.7 million voter records were processed in less than 6 weeks.

b. Biometric is becoming critical part of passports, National ID, voting systems and border control projects around the globe. For these projects fast and accurate matching, and support of multi-biometrics is essential to ensure accurate and fast response, ensuring unique id. However, it should be ensured easy to integrate and use

of biometric technologies. In our new product version and releases we will continue strive to achieve these goals.

We also see increasing demand of biometrics in mobile applications and cloud computing, this demand should continue increasing in 2014 as well. Biometric usage in surveillance systems combining with other computer visions techniques will also becoming more popular in 2014.