

IDEX ASA



Enabling the mass market for secure ID



16 May 2013
Ralph W. Bernstein
Hemant Mardia
Kristian Wiermyhr

Significant progress towards commercial breakthrough



- **Major breakthrough for IDEX in the mobile market:**
IDEX agrees partnership with a global player in the mobile communications market
- **IDEX strengthens executive team and appoints new CEO:**
Hemant Mardia appointed as CEO. Ralph W. Bernstein continues as CTO
- **New fingerprint sensor being prepared for high volume mobile and embedded markets:**
The new SmartFinger Colibri sensor is under evaluation, and being prepared for market launch
- **Private placement in April to fund expansion was oversubscribed:**
Adding NOK 30 million new equity
- **Recognition of IDEX's unique IP and patents:**
Apple/AuthenTec verifies licensing agreement with IDEX
- **Promising progress on important customer agreements:**
The project with Chinese technology company for a security device using IDEX's SmartFinger sensor is progressing.
The European OEM partner is currently adding further functionality to luggage locks

1. Major breakthrough for IDEX in the mobile market

- Securing a partnership agreement with a global player in the mobile communications market.
- An important step for IDEX to exploit the extremely strong demand for fingerprint sensors in the mobile market.
- Technical collaboration activities are ongoing.
- An essential milestone in delivering IDEX technology to the mobile market.

2. Patent License with Apple and AuthenTec validated

- IDEX owns and controls the earliest, basic patents for low cost fingerprint sensors.
- In 2007 IDEX was granted a license to certain key patents from UPEK Inc., later assigned to AuthenTec which was acquired by Apple last year.
- Apple and AuthenTec have now verified the Licensing Agreement.
- This license reinforces the IDEX's leading patent position.
- In our assessment IDEX holds the strongest IP portfolio besides Apple/AuthenTec.

3. SmartFinger Colibri a miniaturized sensor

Reduced cost

Small sized

Robust

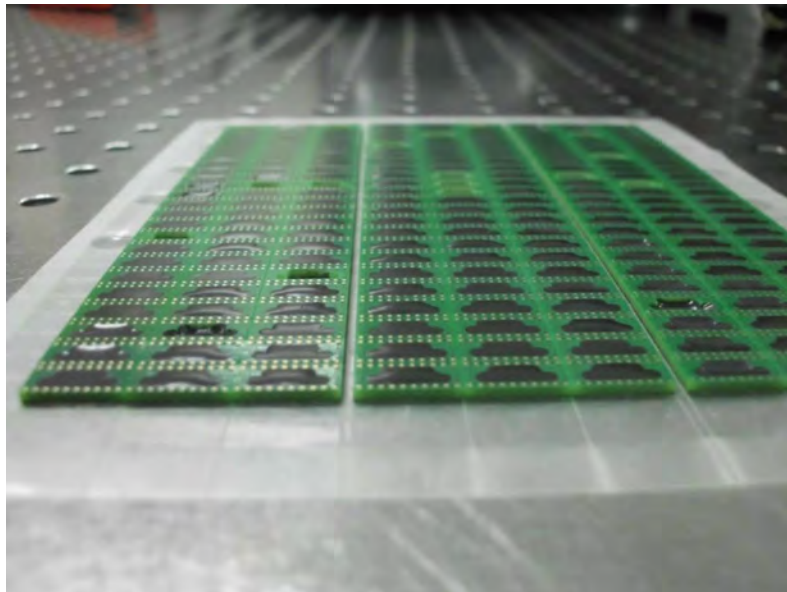
Easy to integrate

Patent protected

Versatile



Preparing for market launch



4. Hemant Mardia appointed as CEO

- IDEX strengthens its executive team and appoints Hemant Mardia as CEO.
- Hemant Mardia has a track record leading high growth technology businesses.
- Hemant will lead the commercialization of IDEX's leading fingerprint biometric sensor technology.
- Ralph W. Bernstein has served IDEX in the combined CEO & CTO role since 2008 and continues in the CTO position.

IDEX BUSINESS PROPOSITION

- 1** Demand for fingerprint sensors is on the cusp of explosive growth to a \$multi-billion mass market driven by smartphone adoption
- 2** Precedence on core patents for best in class sensor technology enabling low cost, secure & accurate fingerprint recognition
- 3** Transformation of market by Apple: 80% of smartphone market addressable by only IDEX and 2 other principal vendors
- 4** Only sensor technology for emerging ID and smart card market



**IDEX' OFFERING:
SMARTFINGER®**



LOW COST



ACCURATE & SECURE



THIN & FLEXIBLE

IDEX POSITIONED FOR GROWTH



>\$50M invested in **best in class** fingerprint sensor technology

Key originators:

IDEX, AuthenTec, ST, UPEK, Fingerprint Cards, Infineon, Fujitsu, Sony, Atmel, Hitachi, NEC, Atrua, Veridicom

Remaining vendors:

Apple acquire AuthenTec (UPEK)
IDEX, Fingerprint Cards, Validity

Multiple sensor technologies:
Capacitive, optical, thermal, pressure

Surviving mass market technology:
Capacitive: deployed in volume

IDEX GO TO MARKET STRATEGY

New MASS market services enabled by low cost biometric authentication



Leverage uniquely strong IP and patent portfolio: safe haven

Proven low cost, thin, secure and accurate sensors and algorithms

Strengthened leadership team to deliver commercial exploitation

Developing major global OEM partners for mass market scaling

Limited competitors with high barrier to entry in a large market

IDEX MASS MARKET OPPORTUNITY

**THE
BILLION
DOLLAR
PLAY:**

“ Identity is the new money ”

David Birch, UK consultant and media personality

“ Your smartphone will be your wallet and biometrics will keep your valuable information secure ”

Daniel Burrus, leading futurist on tech trends



- **Smartphones 1.2B shipments by 2015**
- **Tabs/PC 0.75B 2013**



- **Non telecoms cards 2.2B shipments 2013**



- **Internet of Things 25B connected by 2015**

11

IDEX MASS MARKET OPPORTUNITY



2015

Consumer Electronics

Cards

Other markets

2017



1 billion Consumer Electronics with fingerprint sensors sold, ASP 1.1 USD

(Consumer electronics includes smart phones, tablets, laptops, gaming consoles etc.)

150 million cards, ASP 2.5 USD

130 million other devices, ASP 4.5 USD

Total industry revenue 2 billion USD



1.5 billion CE with fingerprint sensor sold, ASP 0,9 USD

700 million cards, ASP 2 USD

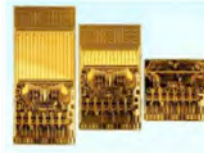
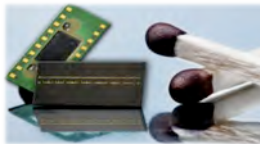
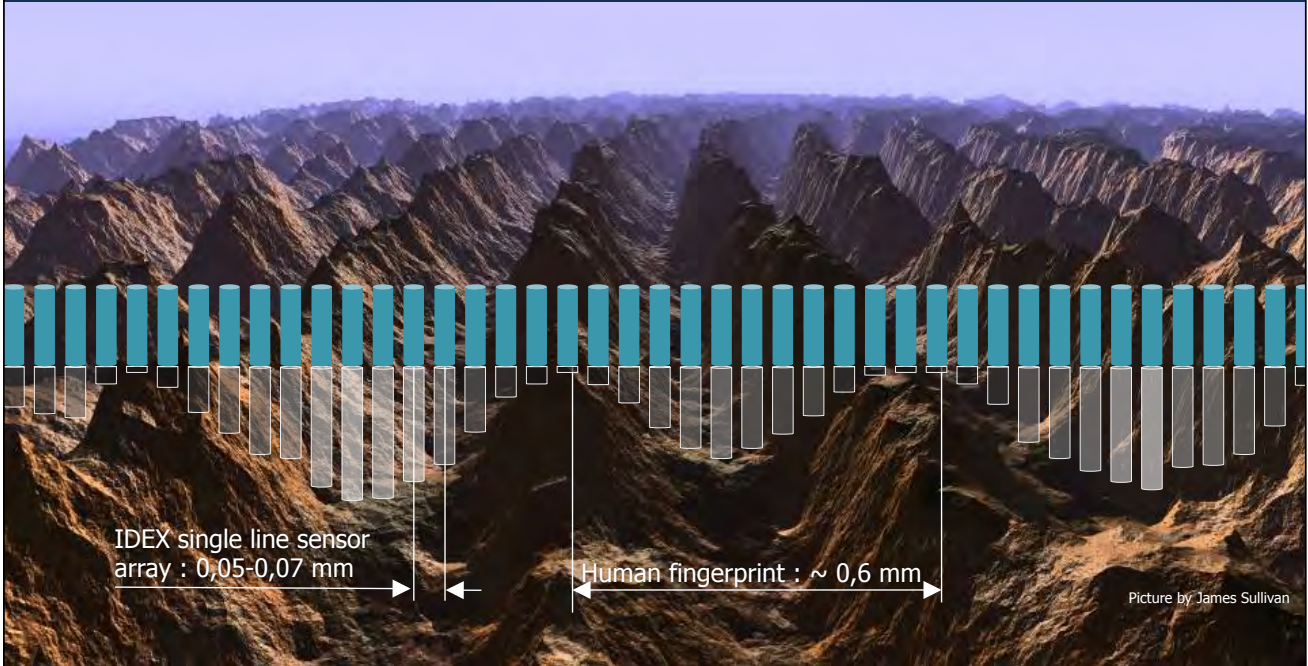
400 million other devices, ASP 3 USD

Total industry revenue 4 billion USD

**IDEX mass market volumes expected 2014; design wins 2012/2013
IDEX positioned for significant market share as one of three vendors**

12

THE LANDSCAPE WE EXPLORE



IDEX CORE PATENT STRENGTH



- IDEX holds most complete patent portfolio in capacitive fingerprint sensing outside **Apple**
- First-to-file patents covering **the fundamentals of these low cost sensors**
- **14 patent families granted and 3 in filing since 1997**
- IDEX patents have been assessed and verified in a litigation between IDEX and UPEK (acquired by AuthenTec)/ST Microelectronics and a cross-license agreed

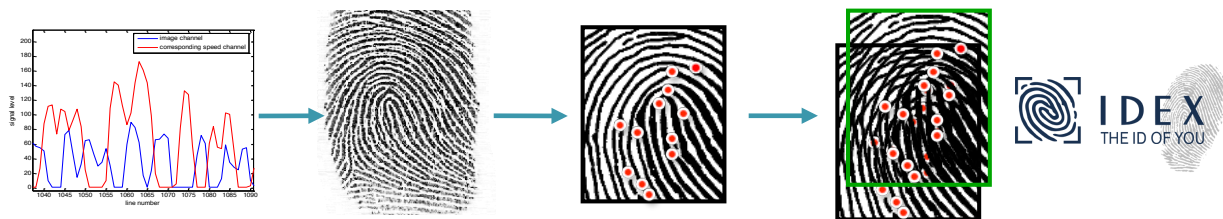
IDEX fundamental patent coverage vs competitors is highly attractive to customers

CORE PATENTS	IDEX	APPLE/AUTHTENEC	APPLICATION
ACTIVE ELECTRODE	✓	✓	Fundamental to low cost , small swipe and touch sensors
ON THE FLY IMAGE RECONSTRUCTION	✓	✓	Most accurate fingerprint matching with swipe sensor
ANY MATERIAL SENSOR	✓	X	Thinnest, flexible sensor in multiple form factors
THROUGH MATERIAL SENSING (VIAS)	✓	X	Sensor IN glass screen

IDEX OFFERS A COMPLETE RECOGNITION SOLUTION

- **SmartFinger®** offers unsurpassed image quality and biometric performance
- On the fly imaging: wide range of finger swipe speeds, directions and movement
- Sensing through material including glass using microvia connections
- Thinnest sensor in flexible materials: only sensor meeting form factor for cards
- Protected by extensive patent portfolio

YES/NO



15



IDEX WELL POSITIONED

- **R&D investment and focus on emerging biometric market for smart cards, embedded system, and IoT where highest performance is critical**
 - *Only vendor with a ISO card solution*
 - *Now well positioned for smartphone explosion*
 - *Billion unit and billion dollar market opportunities*
- **Best in class swipe sensor performance**
- **Unique “holy grail” sensor in glass**
- **Fully protected by early patents and Apple/AuthenTec cross-licence**
- **Now marketing to smartphone sector for the first time**
- **Manufacturing being established for volume & low cost**
- **Building out an exciting roadmap for low cost sensors**
- **Limited competition in a multibillion volume market**

16



THANK YOU

IDEX ASA
Rolfsbuktveien 17,
NO-1364 Fornebu,
Norway

Phone:
(+47) 67 83 91 19
EMAIL:
mailbox@idex.no