

IDEX ASA



Enabling the mass market for secure ID



IDEX
THE ID OF YOU

April 2013

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IDEX VISION

*Secure and Simple ID
by biometric
authentication of
every device you own*

IDEX MISSION

*To be the leading
supplier of
fingerprint sensor
technology for the
mass market*

IDEX BUSINESS PROPOSITION

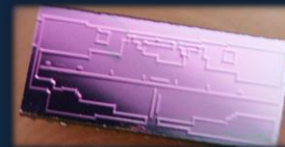
- 1 Demand for fingerprint sensors is on the cusp of explosive growth to a \$multi-billion mass market driven by smartphone adoption
- 2 Precedence on core patents for best in class sensor technology enabling low cost, secure & accurate fingerprint recognition
- 3 Transformation of market by Apple: 80% 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



*Pioneering
sensor IP*

1996-1999

Swipe sensor
patent
Fingerprint sensor
demonstrator

Core patent era

2000-2007

Key patents
Cross licensing ST,
UPEK & IDEX

*SmartFinger®
Technology*

2008-2009

Silicon sensor
Polymer sensor R&D

*Productisation
for Cards*

2010-2012

Listed Oslo Axess
Card demonstrator
Volume MOUs for
cards and bag locks

*Commercialisation for
mobile and cards*

2013 -

Strengthened
leadership team
Mobile comms
partnership
Mass market cost &
manufacturing set up

>\$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

TRANSFORMATION OF IDEX OPPORTUNITY

APPLE ACQUIRES FINGERPRINT SENSOR LEADER
AUTHENTEC \$356M IN 2012 TRANSFORMING DEMAND

IDEX HAS PATENT XLICENCE WITH AUTHENTEC

AUTHENTEC SUPPLIED TIER ONE OEMS: NOW CAPTIVE

IDEX ONE OF ONLY THREE SENSOR VENDORS INTO THE
NON-APPLE MOBILE HANDSET MARKET

IDEX IS UNIQUELY POSITIONED WITH FUNDAMENTAL IP

FINGERPRINT SENSORS
EXPECTED TO FOLLOW
CAMERA MASS ADOPTION
MODEL

LOW COST <\$1 ENABLING
NEW SECURE
APPLICATIONS



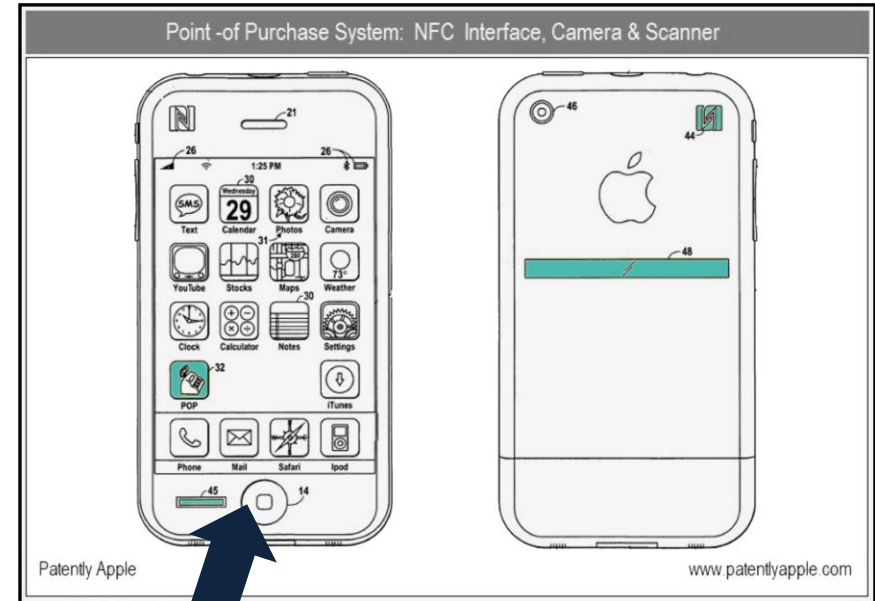
Biometrics
Login to the future
The ID of you



THE GAMECHANGER: APPLE'S PLANS?

- **Fingerprint-sensor in mobile devices:**

- *Unlock phone*
- *Authentication of the user*
- *Mobile Payments*
- *Bring-Your-Own-Device (BYOD)*
- *Personalization of services*



NOW: HOME BUTTON SENSOR

**NEXT: "HOLY GRAIL"
IMAGING THROUGH GLASS**

**ONLY IDEX patented technology
enables the sensor IN the screen**



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**



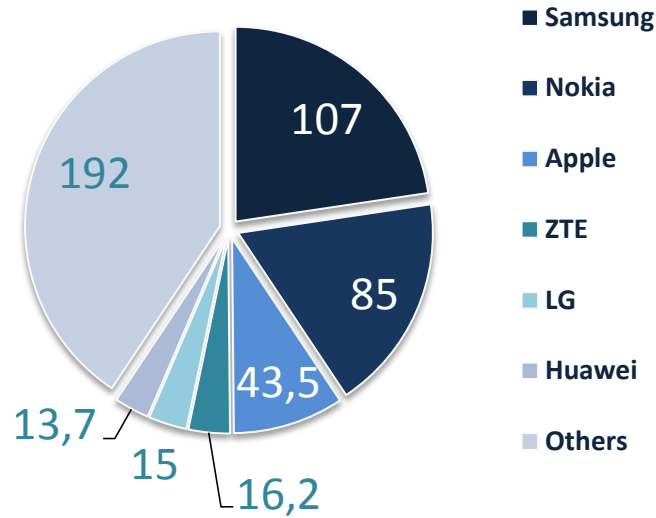
- **Non telecom cards 2.2B shipments 2013**



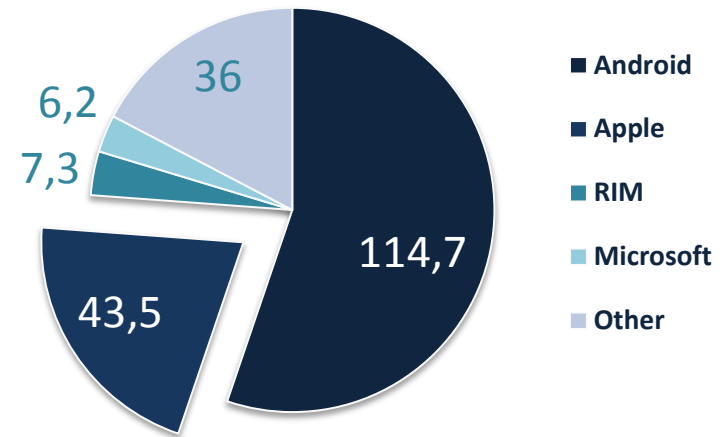
- **Internet of Things 25B connected by 2015**

MOBILE PHONE MARKET SCALE

Mobile Sales by volume Q4 12



Smartphone Sales by volume Q4 12



1.75B mobile phones 2012 (Gartner)

2.25B forecast 2017 (IDC)

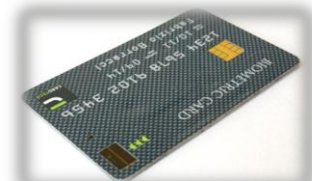
Rapid smartphone penetration majority now to ~70% in 2017

>80% forecast share not captive to Apple

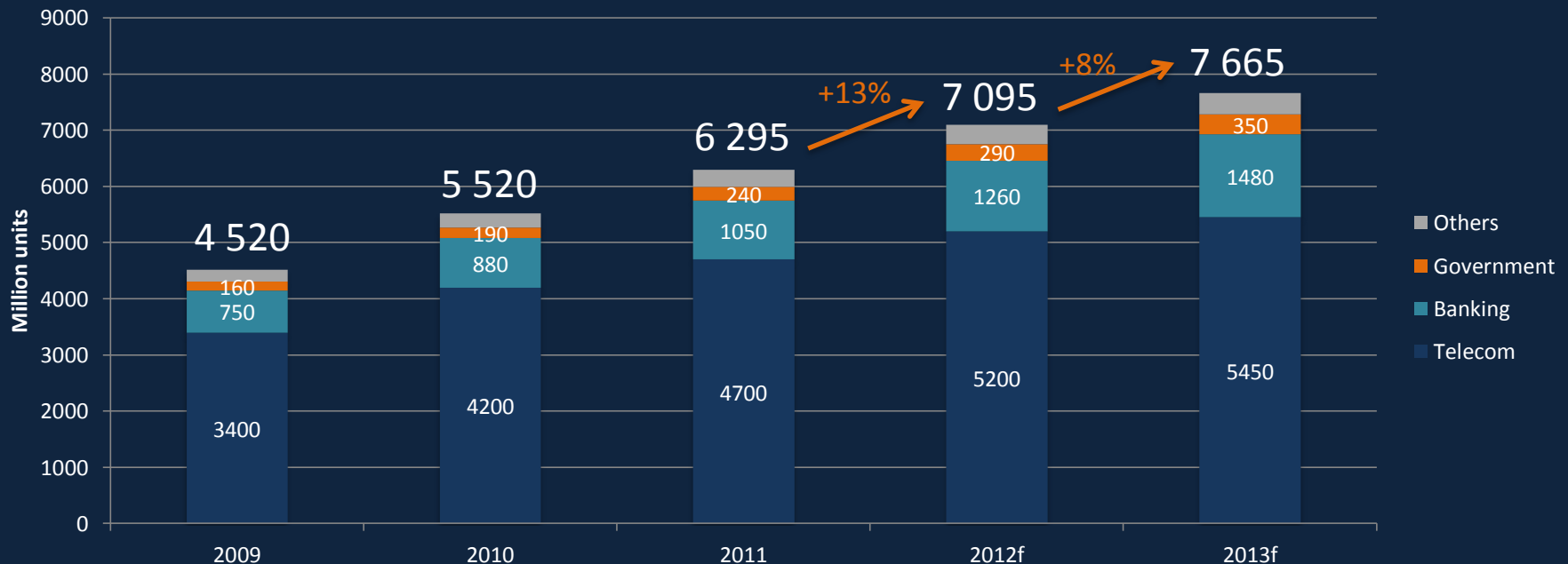
1.2 Billion unit market accessible by IDEX in 2017

NEXT: ID AND SMART CARD REVOLUTION

- Security and privacy in the digital world
- IDEX SmartFinger Film®; the only biometric sensor thin enough to comply to ID/smartcard form factors



Eurosmart Secure Device shipments estimates



THE FUTURE FOR IDEX



- **Mobile communications**
 - *Unprecedented Billion unit market catalysed by Apple acquisition*
 - *Apple transforms sensor market but restricts supply internally*
 - *Other handset manufacturers rapidly developing smartphones with sensors*
 - *80% market available: IDEX strong position with core patents & Apple Xlicence*
 - *Terms agreed with a global mobile comms partner in Q1 13*
- **Cards: ID and contactless**
 - *Only IDEX offer thin form factor meeting Card standards*
 - *MOU for China wide ID Q4 2012; forecast \$6M 2014, immense volume 2015*
 - *Gemalto: largest card manufacturer; e-Go consortium “touch access”*
 - *Multiple other partners*
- **Internet of things:**
 - *OEM Contract for tier 1 bag lock program Q4 2012; volumes expected 2014*
 - *Future Electronics: fourth largest electronics distributor; IDEX global channel*
 - *Multiple other partners*

IDEX CORE PATENT STRENGTH

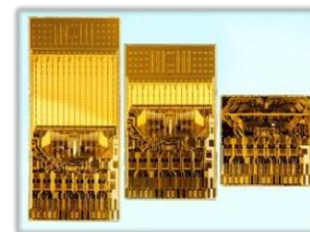
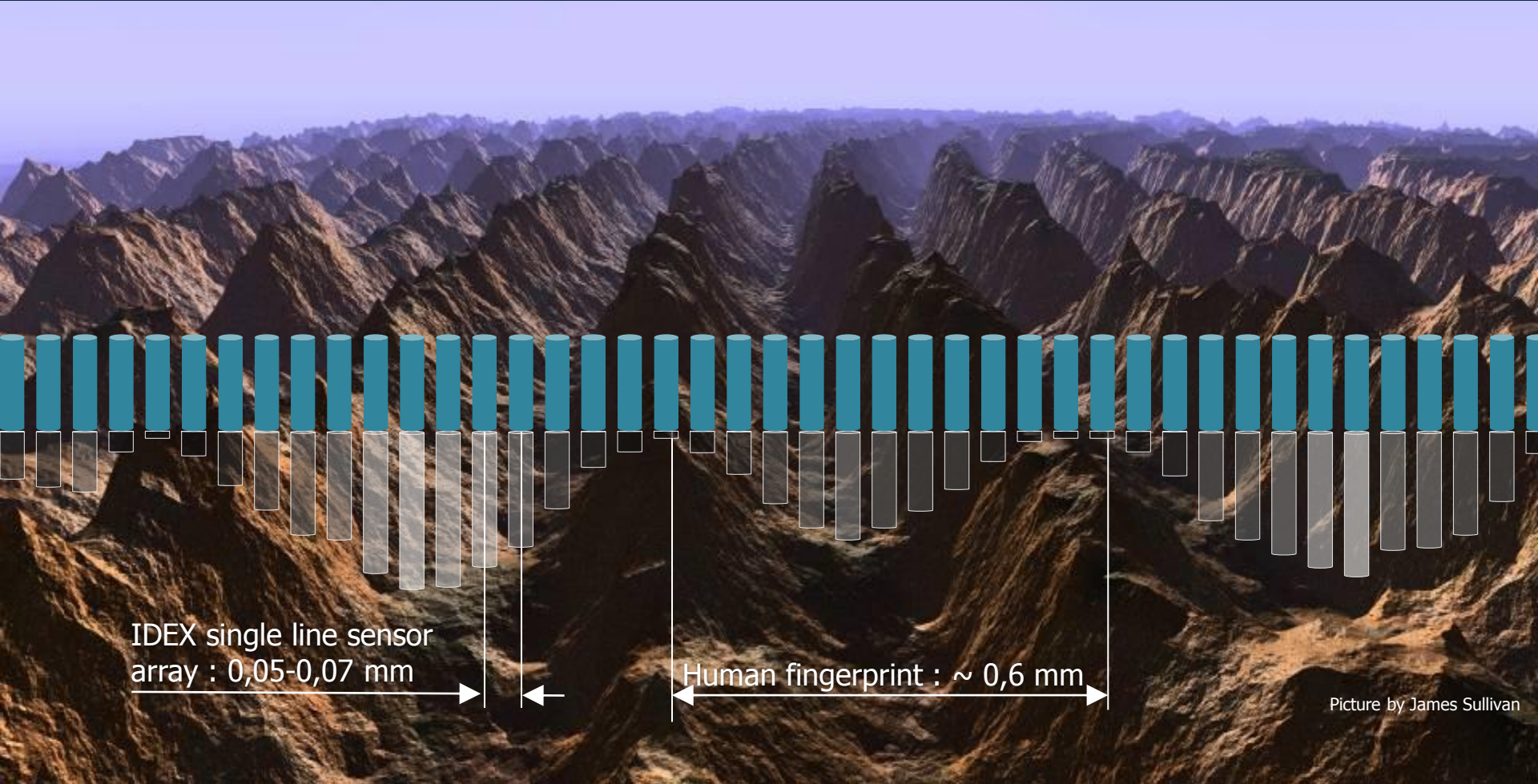


- **IDEX** most complete patent portfolio in capacitive fingerprint sensing outside **Apple**
- “First-to-file” patents covering **the fundamentals of these low cost sensors**
- **14 patent families granted and 3 in filing since 1997**
- **IDEX** patents have been assessed and verified in a litigation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

IDEX fundamental patent coverage vs competitors is highly attractive to customers

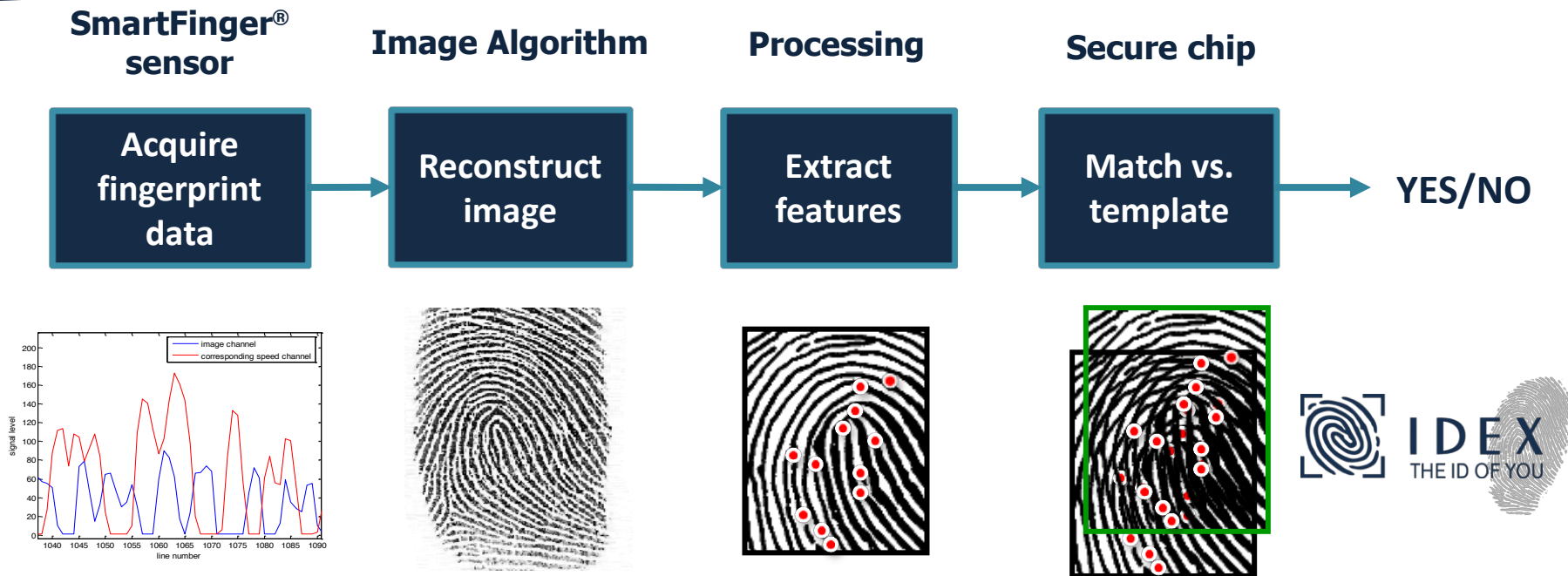
CORE PATENTS	IDEX	APPLE/AUTHENTEC	APPLICATION
ON THE FLY IMAGE RECONSTRUCTION	✓	✓	Most accurate fingerprint matching with swipe sensor
ANY MATERIAL SENSOR	✓	X	Thinnest, flexible sensor in multiple form factors
THROUGH MATERIAL SENSING (VIAS)	✓	X	Sensor IN glass screen
ACTIVE ELECTRODE	✓	✓	Fundamental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

THE LANDSCAPE WE EXPLORE



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 VIAS
- Thinnest sensor in flexible materials: only sensor meeting form factor for cards
- Protected by extensive patent portfolio





IDEX SENSOR COMPETITIVE ADVANTAGE

KEY BENEFIT	FEATURE	IDEX	Company A	Company B
SENSOR CARD INTEGRATION	Ultrathin Flexible sensor	***	X	**
SENSOR MOBILE DEVICE INTEGRATION	Small sized, low pin count surface mount sensor	***	**	X
SINGLE LINE, ROBUST ON-THE-FLY IMAGING	Algorithm handles varying finger directions and movements	***	X	**
BIOMETRIC PERFORMANCE	Image quality: lowest false rejection/false acceptance	***	**	**
ON-DEVICE SECURITY	Compact algorithm allows secure on-device authentication	***	X	X
TOUCH-SCREEN IMPLEMENTATION	Sensor-IN-glass solution	***	X	X
LOW POWER COSUMPTION	Low power fingerprint imaging and processing	***	***	*

**IDEX best in class technology for
low cost mobile devices and cards**

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 2,0 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 3,95 Billion USD

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



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IDEX INVESTMENT PROPOSITION

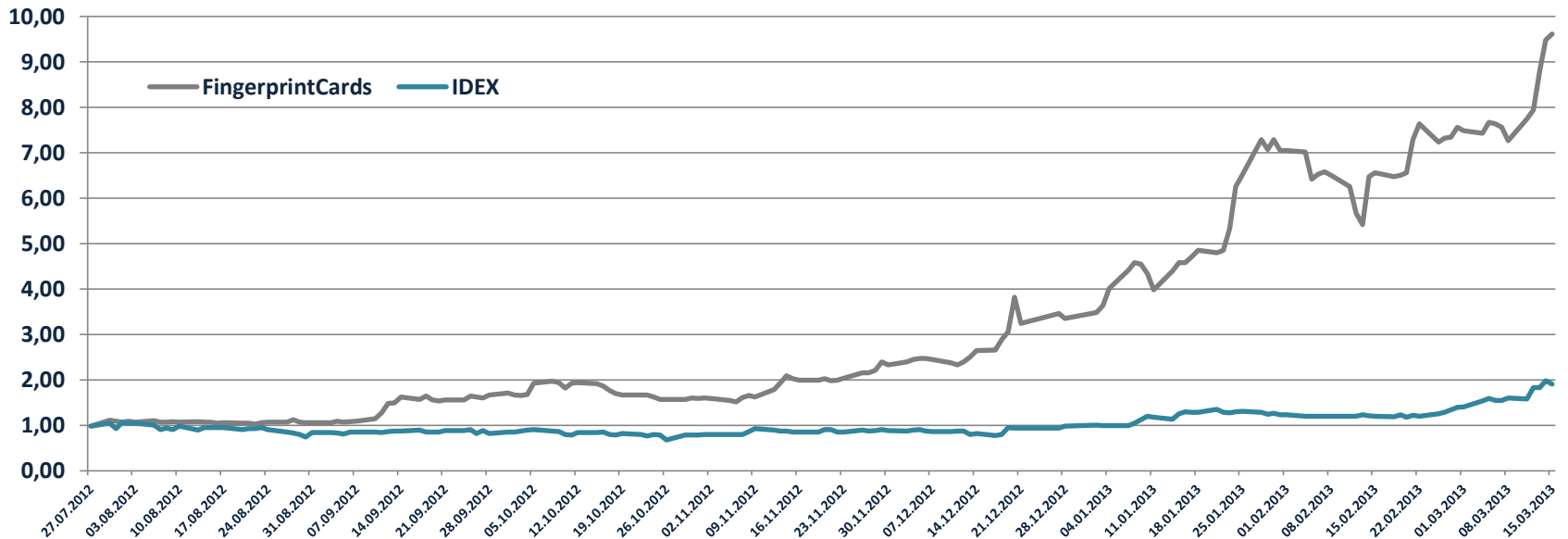
- **R&D investment and focus on emerging biometric market for smart card/ IOT where highest performance i.e security/accuracy/speed/thin/flexible/low power are critical**
 - *Only vendor with a ISO card solution*
 - *Now well positioned for smartphone explosion*
 - *Billion unit and billion dollar market opportunities*
- **Best in class swipe sensor performance**
- **Unique “holy grail” sensor in glass**
- **Fully protected by early patents and Apple/Authentec xlicence**
- **Now marketing to smartphone sector for the first time**
- **Manufacturing being established for volume & low cost**
- **Product and technology roadmap to support major partners**

IDEX INVESTMENT PROPOSITION

Cusp of significant growth exploiting leading IP platform in fingerprint sensors

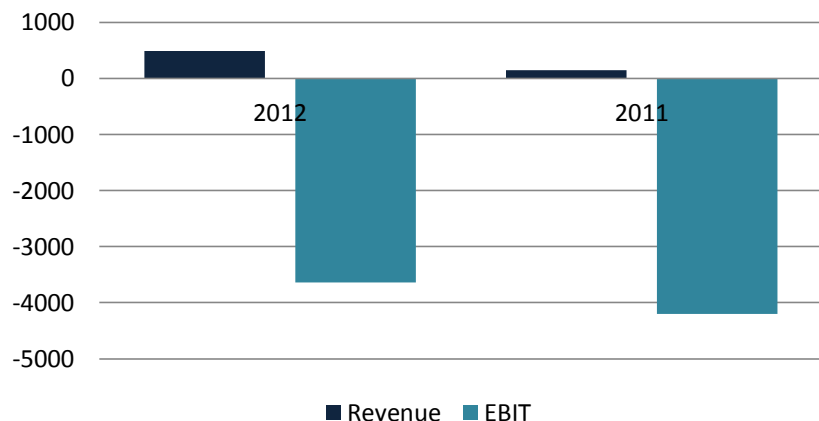
- Executing a global partner strategy to exploit mobile market during 2013
- Exploitation of high value added ID/smartcard and “Internet of things” following
- Investment to scale team and products to support market leading partners
- Significant value growth from mass market opportunity with limited competition
 - *IDEX \$100M vs Fingerprints Cards \$300M market cap Mar 13*

IDEX AND FINGERPRINTCARDS SHARE PRICE INCREASE SINCE APPLE BOUGHT AUTHENTEC

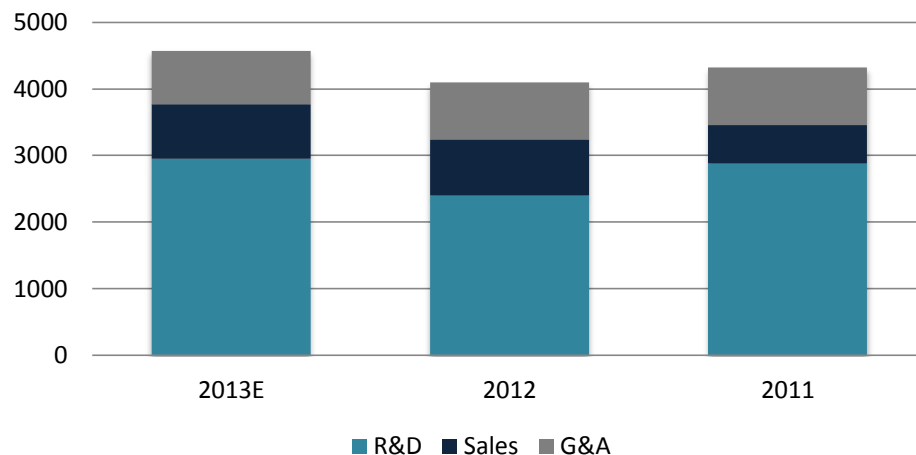


PROFIT AND LOSS STATEMENT

P&L (£k)



Operating Expense (£k)



- 2012 limited R&D revenues of £0.5M
- Restructuring in 2012; loss £3.6M principally R&D investment
- 2013 expansion of R&D and sales channels: estimated opex
- **TAX LOSS CARRYFORWARD ≈£35M**
 - 28% tax rate, no ageing restriction
- **LISTED IN OSLO**
 - 1,185 shareholders, 95 percent Norwegian
 - 28% share capital held outside Norway

CASHFLOW STATEMENT

£k	2013	2012	2011
Net cash flow from operational activities		-£3,211	-£3,815
Net cash provided by financing activities		£3,090	£4,756
Opening cash balance	£2,204	£2,313	£1,395
Closing cash balance		£2,204	£2,313

- **NO FINANCIAL DEBT, FUNDED BY EQUITY**
- **CASH 31 DEC 2012 £2.2M**
- **WORKING CAPITAL VIRTUALLY NIL**
- **2013 funding for business development ahead of revenue step change 2014**



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SUMMARY

- **High barrier to entry due to fundamental patents and technology**
- **Cross license with Apple on core patents**
- **Building out an exciting roadmap for low cost sensors**
- **A market ready for takeoff sparked by Apple**
- **Mobile market now, card market tomorrow, IOT the future...**
- **Limited competition in a multibillion volume market**
- **Valuable IP and attractive valuation vs competition**



THANK YOU

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