

# IDEX ..... the ID of you.

IDEX has developed the patented SmartFinger<sup>®</sup> swipe sensor technology, taking the proven biometric ID of fingerprinting into the digital age mass markets.













# The SmartFinger® swipe sensor

- Finger is swiped over sensor
- Fingerprint image reconstructed by measuring movement of finger
- Patented sensing principle, imaging scheme and chip solution
- SmartFinger<sup>®</sup> award winning technology
  - Small size and low power consumption
  - Unsurpassed image quality
  - High biometric performance
  - Suitable for low cost and mass production
  - Simple product integration

#### Competitive advantages Usability of sensor Superfast biometric performance (false rejection, false acceptance) Flexibility of speed and direction of finger movement Durable surface coating for long term operation and high reliability Production cost Low cost sensor chip technology Separate small, cost optimized electronics Ease of integration Flat and thin A variety of packaging options Power saving and finger-on detection Small software footprint allows for *on-card* verification independent of online or database DEX connections

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# SmartFinger<sup>®</sup> features

- Biometric authentication
- Navigation
- Pointing
- Tap /double tap
- Scrolling
- Power saving and wake up functionality





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# SmartFinger<sup>®</sup> is a breakthrough technology in mass market biometric identification







# Identity theft - an immense problem

- Identity theft is doubling every year
- Identity fraud in the U.S. alone cost more than USD 55 billion USD
- Multifactor authentication is required for ID, access control and transactions
- Fingerprint biometrics is the obvious solution





## Fingerprint ID for the mass-market

- "On-device" authentication to avoid centralized databases of personal biometric information
  - Privacy
  - Data handling
  - Security
- Compatibility with existing infrastructure
  - Terminals
  - Internet banking and commerce
  - Access gates
  - ATMs





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# On-Card fingerprint system

- *On-card* fingerprint enrollment
- On-card authentication
- Utilizes existing infrastructure
- Communication options
  - Display
  - Near-field
     communication
  - Smartcard chip



the next level by incorporating biometric ID within existing systems.

## A variety of applications and markets

- E-commerce (accommodates high value & volume transactions and opens cross border transactions)
- Online banking services (access & transactions)
- Universities (access to sensitive data & identification)
- Health care (access to medical records, prescriptions & current research)
- Physical & logical access
- Government and civilian identification

- Airport security (increased deployment in nonsupported Clear<sup>®</sup> airports)
- Online brokerages (increased security & authentication for online trading)
- P2P money exchange (increased security over current static PINs)
- Credit & Debit cards (POS requires software modification only)
- IT service providers
- Prepaid cards (POS requires software modification only)
- Transportation
- Telecoms

## The card market is an immense potential

Annual total	9 billion cards	
Enterprise & physical access	1 billion cards	Martin Minister in
Financial institutions	3 billion cards	
Military	75 million cards	Arrest and Arrest Arres
Governmental ID	5 billion cards	



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## Example: Visa cards

Visa Inc. is the world's largest retail electronic payments network, with more than US\$4.4 trillion transacted on our payment products over the four quarters ended December 31, 2009.

VISA INC. OPERATES THE WORLD'S LARGEST RETAIL ELECTRONIC PAYMENTS NETWORK*		
16,100	Financial institution customers (As of September 30, 2009)	
1.8 billion	Visa cards (As of September 30, 2009)	
US\$4.4 trillion	Total volume** (During the four quarters ended December 31, 2009)	
US\$2.8 trillion	Payments volume (During the four quarters ended December 31, 2009)	
1.6 million	ATMS*** (As of September 30, 2009)	
62 billion	Total transactions**** (During the four quarters ended December 31, 2009)	
Excludes Visa Europe, un	less otherwise noted	

\*Based on payments volume, total volume, number of transactions and number of cards in circulation. Figures are rounded. \*\* Includes payments and cash transactions. \*\*\* As reported by client financial institutions and therefore may be subject to change; includes merchant outlets and ATMs in the

\*\*\* As reported by client financial institutions and therefore may be subject to change; includes merchant outlets and ATMs in the Visa Europe territory.
\*\*\*\* Includes payments and cash transactions.

http://corporate.visa.com/about-visa/







## The road to mass markets

- IDEX has offered superior performance from the out-set, but no commercial success to date
  - The chosen markets, mobile and PC, has been slow adopters
  - Lacked commercial volume manufacturing partner
  - Cost never low enough for commercial adoption
- Currently well positioned
  - Established manufacturing partners to bring cost down
  - Price/performance potentially best in industry
  - Continuous development has put us into the lead with a new generation sensor and authentication software
  - Identification and focus on exciting mass market; ID, access and financial cards
  - Combination of market opportunity and pricing can set off mass adoption







# Outlook

2010..



DEX

- Release of next generation fingerprint sensor
- To have the SmartFinger<sup>®</sup> technology implemented in products on the market

#### ..and beyond

- SmartFinger<sup>®</sup> the chosen technology in the card mass markets
- Manufacturing partners chosen
- The road to mass adoption of the SmartFinger<sup>®</sup> begins!



### Key assumptions

- Current unit pricing, manufacturing costs and margins
- Agreed license terms and royalty rates where fixed by contract, otherwise terms as expected
- OEM 1: Customer's volume forecast, IDEX has prolonged the ramp-up stage by one quarter
- OEM 2: Expected timing and volumes based on enquiries
- Licensee 1: Current joint plan and IDEX' volume projection
- Licensee 2: Current joint plan and IDEX' volume projection



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# Product development

- In 2008 IDEX released the SmartFinger® IX 10-4 silicon swipe fingerprint sensor based on the patented sensor technology, chip solution and imaging principle
- In 2009 a design for stand-alone fingerprint authentication modules was completed
- Next generation fingerprint sensor technology based on low-cost material technology enabling design into ID cards and Smartcards



# Business & development partnerships

- January 2009:
  - Agreement with a major semiconductor company

#### • July 2009: Validus

- IDEX and Validus Technologies Corporation announced a strategic commercial licensing agreement for use of IDEX's patented SmartFinger® technology in Validus' new generation of patented biometric powered cards (VALIDcard<sup>™</sup>)
- Validus is a technology and solution provider in the area of security and authentication, with a specific focus on combating identity theft and cyber crime





# About IDEX ASA

- IDEX is headquartered at Fornebu (Oslo), Norway with its US office in Silicon Valley, California
- Staff
  - 8 persons in Norway (2 part-time)
  - 1 person full time in USA
  - 5 contractors working 50-100 per cent time at IDEX' premises
- IDEX ASA is a public company
- Trades are currently reported on the NOTC list
- IDEX was recently admitted to listing at the Oslo Axess if Oslo Børs latest 12 March 2010



FROST Ó SULLIVAN

2009 PRACTICES





- IDEX has identified suitable applications with technologically receptive markets of immense potential.
- IDEX has established relationships with suitable manufacturing partners to deliver solutions at a *price/performance nexus* that will disrupt competition.







#### History - key events

- 1996: Established. Business idea: Commersialization of fingerprintbased ID technology
- 1997: Partnership with SINTEF
- 1999: First prototype
- 1999: Trades reported on NOTC
- 2000: Key functionality patented (pointing, navigation)
- 2001: Licensing agreement with ST Microelectronics
- 2003: First version of SmartFinger® sensor manufactured by ST Microelectronics
- 2004: Admitted to NOTC A-list

- 2007: Licensing agreement with ST Microelectronics terminated due to technical and IP dispute
- 2008: SmartFinger® IX-10-4 sensor released to partners and customers
- 2009: Verification of second generation SmartFinger® prototype
- 2009: Receives Frost & Sullivan Global Swipe Sensor Product Differentiation Innovation of the Year Award
- 2009: Strategic alliances with Validus Technologies (cards) and Ionics EMS (manufacturing)
- 2010: Listed at Oslo Axess

#### Pro forma balance sheet 31 December 2009 + Q1 2010 + Funding • Fixed assets 0.7 • Equity 28.9 Receivables 3.3 • Debt 0 Cash 29.3 • Payables 4.4 • Assuming Q1/2010 equals average of 2009, NOK 6.0 million cash costs per quarter (ex financial items) • Assuming NOK 15.0 million placement • Assuming NOK 15.0 million warrants exercise IDEX

Consolidated interim				
Profit and loss statements	2009	2008 1 Oct -31 Doc	2009 1 Jan - 31 Dec	2008
	T OCL-SI DEC.	I UCL-JI DEC.	I Jan-SI Dec.	I Jan-JI De
Operating income				
Sales revenue	-	-	3	
Other operating revenue	13	-	65	2 2
Total revenue	13	-	68	2 2
Operating expenses				
Payroll expense	2 532	2 400	9 013	9
Share-based remuneration	1 096	735	2 993	1.
Research and development expenses	992	984	4 989	4.
Other operating expenses	3 435	2 554	8 296	6.
Total operating expenses	8 055	6 673	25 291	21 4
Profit (loss) before interest tax				
depreciation and amortization (FBITDA)	(8 042)	(6 673)	(25 223)	(10.2
Depreciation	(8042)	(0073)	(25 225)	(192
Profit before interest and tax (FBIT)	(8 070)	(6 679)	(25 266)	(19.2
		(0010)		(
Financial Income and Expenses				
Interest income	53	117	116	
Other financial income	26	1	114	
Interest expense	(589)	(583)	(2 420)	(2 2
Other financial expense	(38)	(7)	(129)	
Net financial items	(548)	(472)	(2 319)	(19
Net result before tax	(8 618)	(7 151)	(27 585)	(21 1
Taxes	-	-	-	
Net profit (loss) for the period	(8 618)	(7151)	(27 585)	(21

