

# IDEX presentation 3 November 2010



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Ralph W. Bernstein, CEO and Erling Svela, CFO  
IDEX ASA

# IDEX Interim report Q3 2010

## Presentation 3 November 2010

Ralph W. Bernstein, CEO

Erling Svela, CFO

- Q3 highlights
- Q3 financial statements
- Business update

# Q3 highlights

## **IDEX fingerprints the card market**

- The SmartFinger<sup>®</sup> Film sensor and software has been designed into the ValidCard
- The SmartFinger<sup>®</sup> Film technology is finalist in the prestigious Sesames award competition
- The eGo<sup>™</sup> Project with twelve European R&D and industrial partners launched
- The joint project with major semiconductor manufacturer has reached a key milestone
- SmartFinger<sup>®</sup> Film presented to the U.S. market

# Q3 financial statements – Profit/loss

Consolidated interim Statements of comprehensive income Amounts in NOK 1,000	1 July- 30 September 2010	1 July- 30 September 2009	1 January- 30 September 2010	1 January- 30 September 2009	1 January- 31 December 2009
<b>Operating income</b>					
Sales revenue	-	3	32	3	3
Other operating revenue	13	10	64	52	65
<b>Total revenue</b>	13	13	96	55	68
<b>Operating expenses</b>					
Payroll expense	1 823	1 843	7 393	6 481	9 013
Share-based remuneration	225	534	2 248	1 897	2 993
Research and development expenses	1 333	1 254	4 705	3 997	4 989
Other operating expenses	1 281	1 520	5 688	4 861	8 296
<b>Total operating expenses</b>	4 662	5 151	20 034	17 236	25 291
<b>Profit (loss) before interest, tax, depreciation and amortization (EBITDA)</b>	(4 649)	(5 138)	(19 938)	(17 181)	(25 223)
Depreciation	34	5	86	15	43
<b>Profit before interest and tax (EBIT)</b>	(4 683)	(5 143)	(20 024)	(17 196)	(25 266)
<b>Financial Income and Expenses</b>					
Interest income	60	7	151	63	116
Other financial income	(19)	46	42	88	114
Interest expense	-	(623)	(271)	(1 831)	(2 420)
Other financial expense	(3)	(75)	(24)	(91)	(129)
<b>Net financial items</b>	38	(645)	(102)	(1 771)	(2 319)
<b>Net result before tax</b>	(4 645)	(5 788)	(20 126)	(18 967)	(27 585)
Taxes	-	-	-	-	-
<b>Net profit (loss) for the period</b>	(4 645)	(5 788)	(20 126)	(18 967)	(27 585)
<i>Profit (loss) per share -basic and diluted</i>	<b>NOK (0.02)</b>	<i>NOK (0.05)</i>	<b>NOK (0.11)</b>	<i>NOK (0.31)</i>	<i>NOK (0.20)</i>

# Q3 financial statements – Assets

Consolidated interim balance sheets	30 September 2010	30 September 2009	31 December 2009
Amounts in NOK 1,000			
<b>ASSETS</b>			
<b>Long-term assets</b>			
<b>Fixed assets</b>			
Machinery and office equipment	612	17	409
Total fixed assets	612	17	409
<b>Financial assets</b>			
Long-term receivables	313	-	313
Total financial assets	313	-	313
<b>Total long-term assets</b>	<b>925</b>	<b>17</b>	<b>722</b>
<b>Current assets</b>			
<b>Receivables</b>			
Accounts receivable	-	16	16
Other receivables	1 188	1 680	3 189
Prepaid expenses	498	436	125
Total receivables	1 686	2 132	3 330
<b>Cash and bank deposits</b>			
Cash and bank deposits	17 296	12 247	5 286
Total cash and bank deposits	17 296	12 247	5 286
<b>Total current assets</b>	<b>18 982</b>	<b>14 379</b>	<b>8 616</b>
<b>TOTAL ASSETS</b>	<b>19 907</b>	<b>14 396</b>	<b>9 338</b>

# Q3 financial statements – Liabilities, equity

<b>Consolidated interim balance sheets</b> Amounts in NOK 1,000	<b>30 September 2010</b>	<b>30 September 2009</b>	<b>31 December 2009</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
<b>Paid-in-capital</b>			
Share capital	31 574	17 712	17 712
Share premium reserve	28 676	4 996	-
Other paid-in capital	3 405	1 897	-
<b>Total paid-in-capital</b>	<b>63 655</b>	<b>24 605</b>	<b>17 712</b>
Other equity	(47 109)	(26 197)	(25 903)
<b>Total equity</b>	<b>16 546</b>	<b>(1 592)</b>	<b>(8 191)</b>
<b>Liabilities</b>			
<b>Long-term liabilities</b>			
Financial loan			11 954
<b>Total long-term liabilities</b>	<b>-</b>	<b>-</b>	<b>11 954</b>
<b>Short-term liabilities</b>			
Financial loan		12 493	
Accounts payable	781	1 537	2 796
Public duties payable	315	190	638
Other short-term liabilities	2 265	1 768	2 141
<b>Total short term liabilities</b>	<b>3 361</b>	<b>15 988</b>	<b>5 575</b>
<b>Total liabilities</b>	<b>3 361</b>	<b>15 988</b>	<b>17 529</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>19 907</b>	<b>14 396</b>	<b>9 338</b>

# Q3 financial statements – Cash flow

<b>Consolidated interim cash flow statements</b> Amounts in NOK 1,000	<b>1 July-30 September 2010</b>	<b>1 July-30 September 2009</b>	<b>1 January-30 September 2010</b>	<b>1 January-30 September 2009</b>	<b>1 January-31 December 2009</b>
Profit (loss) before interest and taxes	(4 683)	(5 143)	(20 024)	(17 196)	(25 266)
Share-based remuneration (equity part)	228	543	2 341	1 897	2 882
Depreciation	34	5	86	15	43
Interest paid	-	(625)	(174)	(1 250)	(1 287)
Change in working capital and other items	(1 338)	(567)	(560)	(1 381)	(450)
<b>Net cash flow from operational activities</b>	<b>(5 759)</b>	<b>(5 787)</b>	<b>(18 331)</b>	<b>(17 915)</b>	<b>(24 078)</b>
Purchases of property, plant and equipment	(94)		(290)		(420)
Interest received	60	7	151	63	116
<b>Net cash provided by investing activities</b>	<b>(34)</b>	<b>7</b>	<b>(139)</b>	<b>63</b>	<b>(304)</b>
Share issues	1 064	15 066	43 610	25 255	25 137
Change in financial loan	-		(13 130)		
Change in long-term receivables	-	796		820	507
<b>Net cash provided by financing activities</b>	<b>1 064</b>	<b>15 862</b>	<b>30 480</b>	<b>26 075</b>	<b>25 644</b>
<b>Net change in cash and cash equivalents</b>	<b>(4 729)</b>	<b>10 082</b>	<b>12 010</b>	<b>8 223</b>	<b>1 262</b>
Opening cash balance	22 025	2 165	5 286	4 024	4 024
Closing cash balance	17 296	12 247	17 296	12 247	5 286

# Business update



**IDEX**  
THE ID OF YOU





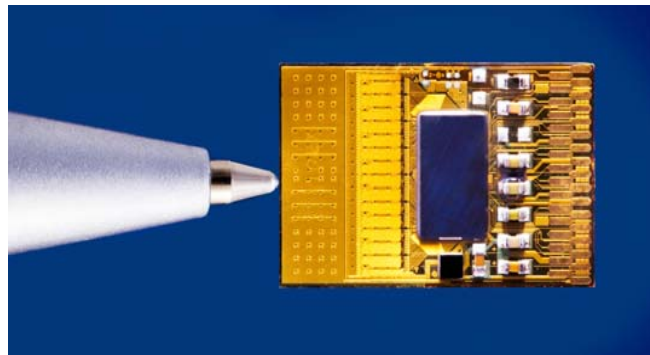
# Our vision

IDEX shall ensure safe, secure, and simple use of personal ID.



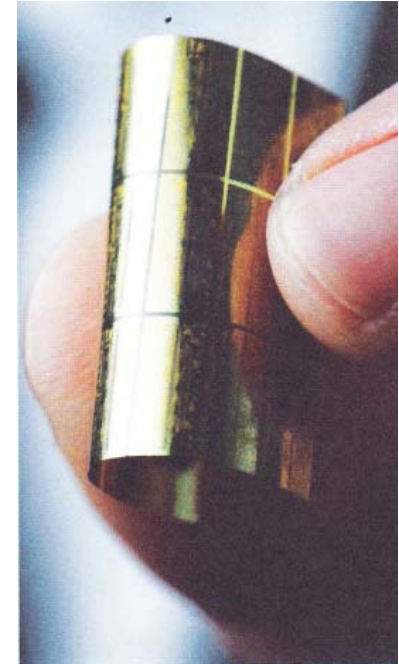
# Our business

IDEX develops and delivers world leading swipe fingerprint sensor technology, products and authentication solutions.



# About IDEX ASA

- IDEX is headquartered at Fornebu (Oslo), Norway with representative offices in France (Europe) and Philippines (Far East)
- IDEX has recently released the ground-breaking, thin and flexible SmartFinger® Film fingerprint sensor family and embedded authentication solution
- SmartFinger® Film, is a finalist in the Sesames Awards competition at Cartes 2010 in Paris
- IDEX is a public company and shares trade at the Oslo Axess list at Oslo Børs (Oslo Stock Exchange)



# The challenge



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Identity fraud – a massive problem

Dagbladet



# Bulgarsk bande kan ha kopiert 6000 bankkort:

# Angrep mini-bankene

Ny skimmingbølge: Bulgarske kriminelle har gått systematisk til verks mot nærmere 60 minibanker i Norge. Så langt skal bankkort være tappet for mellom fem og ti millioner kroner. SD14-15

DagensNæringsliv  
**DN**

# GERMAN "SECURE" ID CARDS COMPROMISED ON NATIONAL TV

- A German TV programme showed hackers from the Chaos Computer Club using off-the-shelf equipment to extract personal information from the government's new "secure" ID card, which stores scans of fingerprints and a six-digit PIN that can be used to sign official documents and declarations.

## Chip and PIN is Broken

Steven J. Murdoch, Saar Drimer, Ross Anderson, Mike Bond  
*University of Cambridge*  
*Computer Laboratory*  
*Cambridge, UK*  
<http://www.cl.cam.ac.uk/users/{sjm217,sd410,rja14,mkb23}>

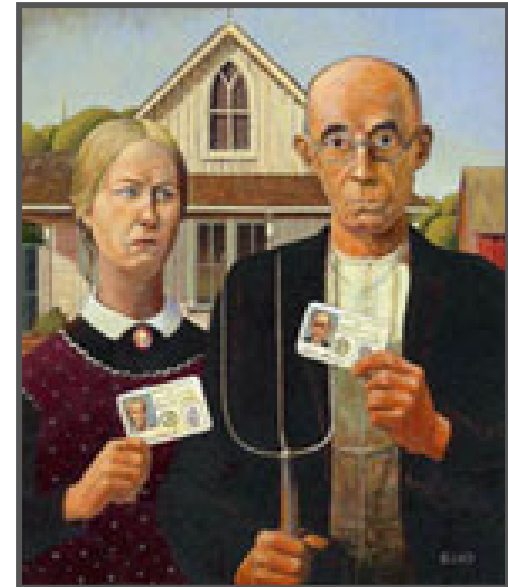
### X. CONCLUSION

We have shown how the PIN verification feature of the EMV protocol is flawed. A lack of authentication on the PIN verification response, coupled with an ambiguity in the encoding of the result of cardholder verification as included in the TVR, allows an attacker with a man-in-the-middle to use a card without the correct PIN. This attack can be used to make fraudulent purchases on a stolen card. We have shown that the live banking network is vulnerable by placing a transaction using the wrong PIN, with every major UK bank and foreign banks too. The records indeed falsely show that the PIN was verified, and the money was actually withdrawn from an account.



# Identity fraud - a massive problem

- Identity theft is increasing rapidly
- Substantial cost related to fraud:
  - 55 bill. USD in USA
  - 2,8 bill. £ in UK
- Added security is required for ID, transactions and access control.
- **Fingerprint biometrics is an obvious solution.**





## Two-Thirds of Consumers Prefer Credit Card Verification by Fingerprint, According to Unisys Poll

- **BLUE BELL, Pa. – October 14, 2010** – A recent online poll by Unisys Corporation (NYSE: UIS) reveals that consumers **trust fingerprint biometrics** when using a credit card or over photo identification, PIN numbers or handwritten signatures to verify their identities requesting personal information.
- Responding to the question, “Which do you believe is the safest method to prove your credit card is being used by you?” the online poll found that **63 percent** of more than 300 respondents preferred fingerprints as the best method for identity verification and authentication

<http://www.unisys.com/unisys/news/detail.jsp?id=1120000970006010116>

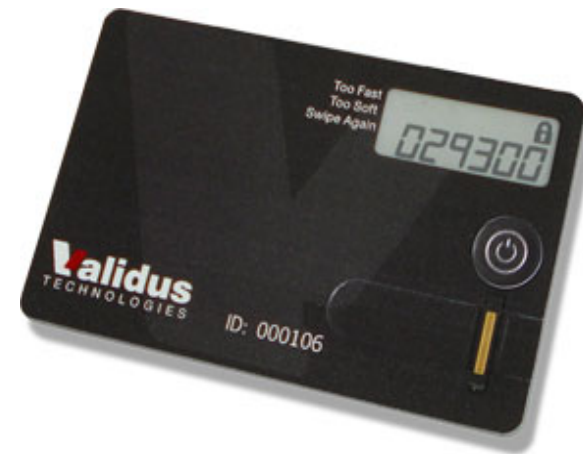


# Biometrics for ID, transactions and access control



# Biometric cards; 3 approaches

1. Biometric template-on-card (e-passports)
2. Biometric match-on-card
3. Biometric system-on-card



# 1. Biometric template-on-card

1. Fingerprint images or templates stored on card
2. Fingerprint transferred from card to reader
3. Verification takes place on reader

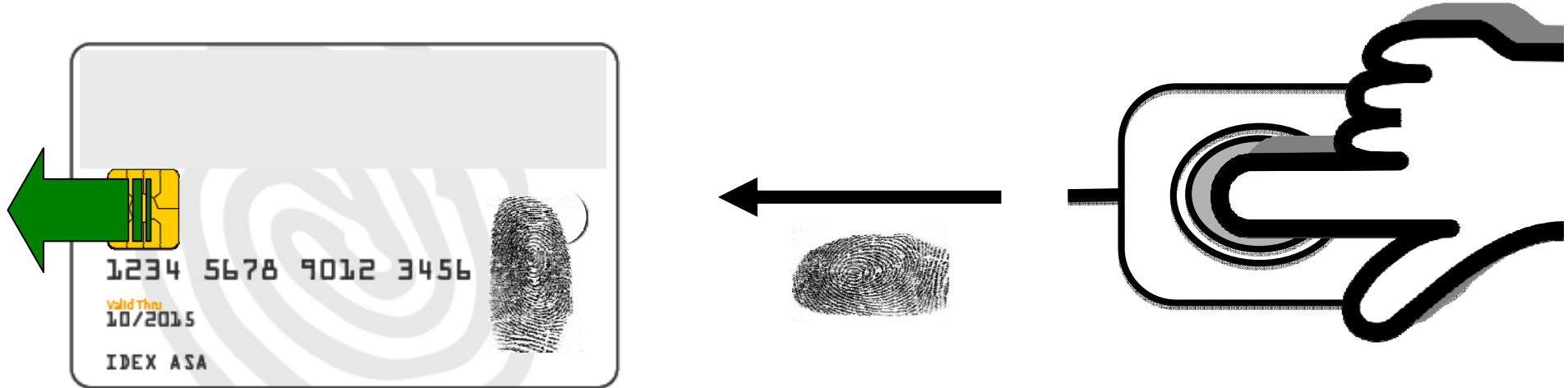
**Requires infrastructure of readers for enrollment and verification**



## 2. Biometric match-on-card

1. Fingerprint templates stored on card
2. Fingerprint information transferred from reader to card
3. Fingerprint matching takes place on card

**Requires infrastructure of readers for enrollment and verification**



# The solution



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Biometric system-on-card

# Fingerprint ID for the mass-market

## Requirements

1. Security and convenience
  - No PIN code to remember
2. Privacy
  - Avoid centralized databases of fingerprint
  - Secure storage of fingerprint information
3. No added infrastructure
  - Terminals and ATM's (minibank)
  - Log-on to internet, enterprise systems and online banking
  - Access gates



# 3. Biometric system-on-card

1. Fingerprint template stored on card
2. Enrollment and verification takes place on card

**Fingerprint information never leaves the card**

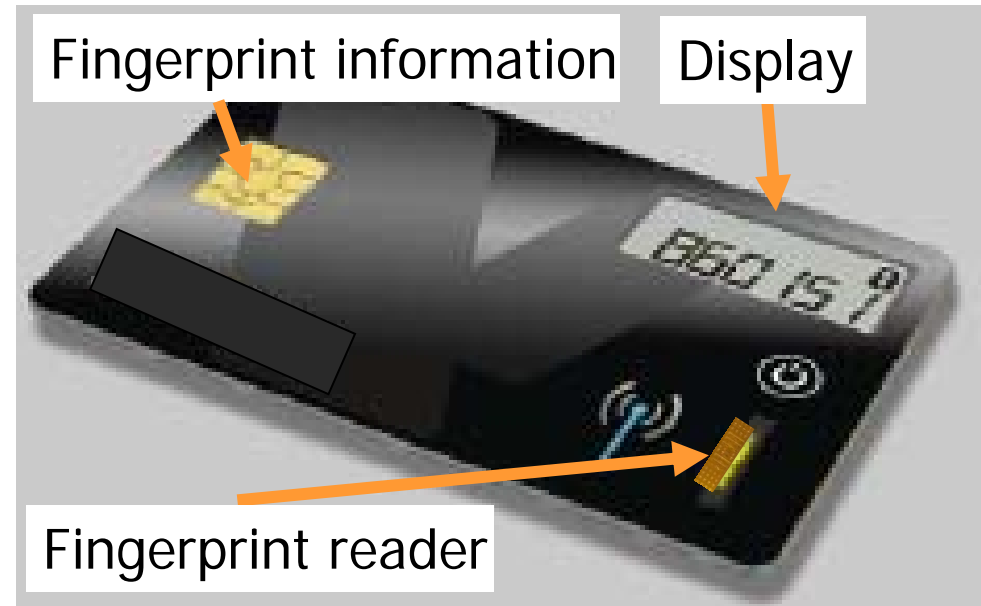
**Do not require infrastructure for enrollment and verification**





# Biometric system-on-card

- *All-in-one*; Fingerprint reader incorporated in the card
- *On-card* enrollment and verification
- Fingerprint information stored on card only
- Fingerprint information never leaves the card

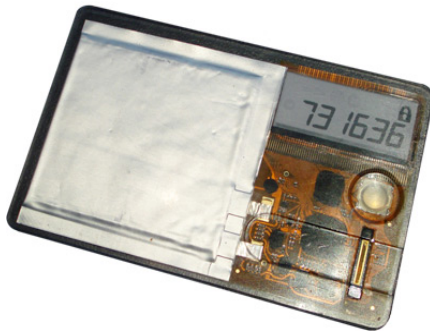


# Personal security for every card you own

- *Stand-alone* biometric systems incorporated in the card
- *Independent* of centralized databases and external readers
- Suitable for *mass market* applications
- **Ensures safe, secure, and simple use of personal ID in the everyday life**



# One-time-password (OTP) introduced in 2010



- Credit & Debit cards
- Online banking
- Secure Network Access
- Secure Online Shopping
- National and governmental ID cards

# A variety of applications and markets

- E-commerce
- Online banking services
- Universities
- Health care
- Physical & logical access
- Government ID
- Airport security
- Online brokerages
- P2P money exchange
- Credit & Debit cards
- IT service providers
- Prepaid cards
- Transportation
- Telecoms

# IDEX SmartFinger® Film



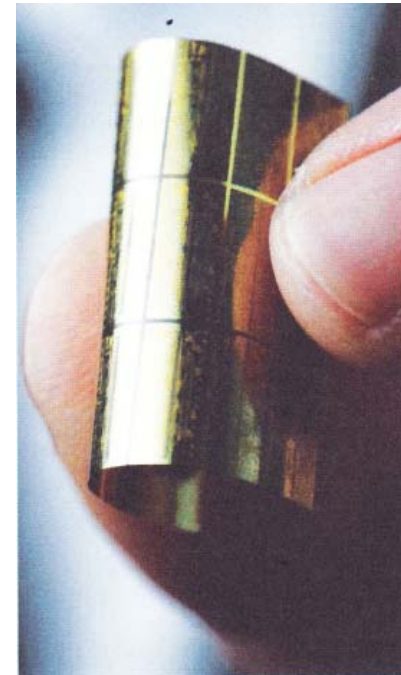
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Next generation fingerprint sensor  
technology

# The SmartFinger® Film technology

- IDEX' next generation fingerprint sensor technology
- Based on state-of-the-art polymer manufacturing and offers small, ultrathin and flexible fingerprint sensors
- Technology and products are covered by approved and filed IDEX patents
- **SmartFinger® Film raises card security to the next level by incorporating biometric ID within existing systems.**



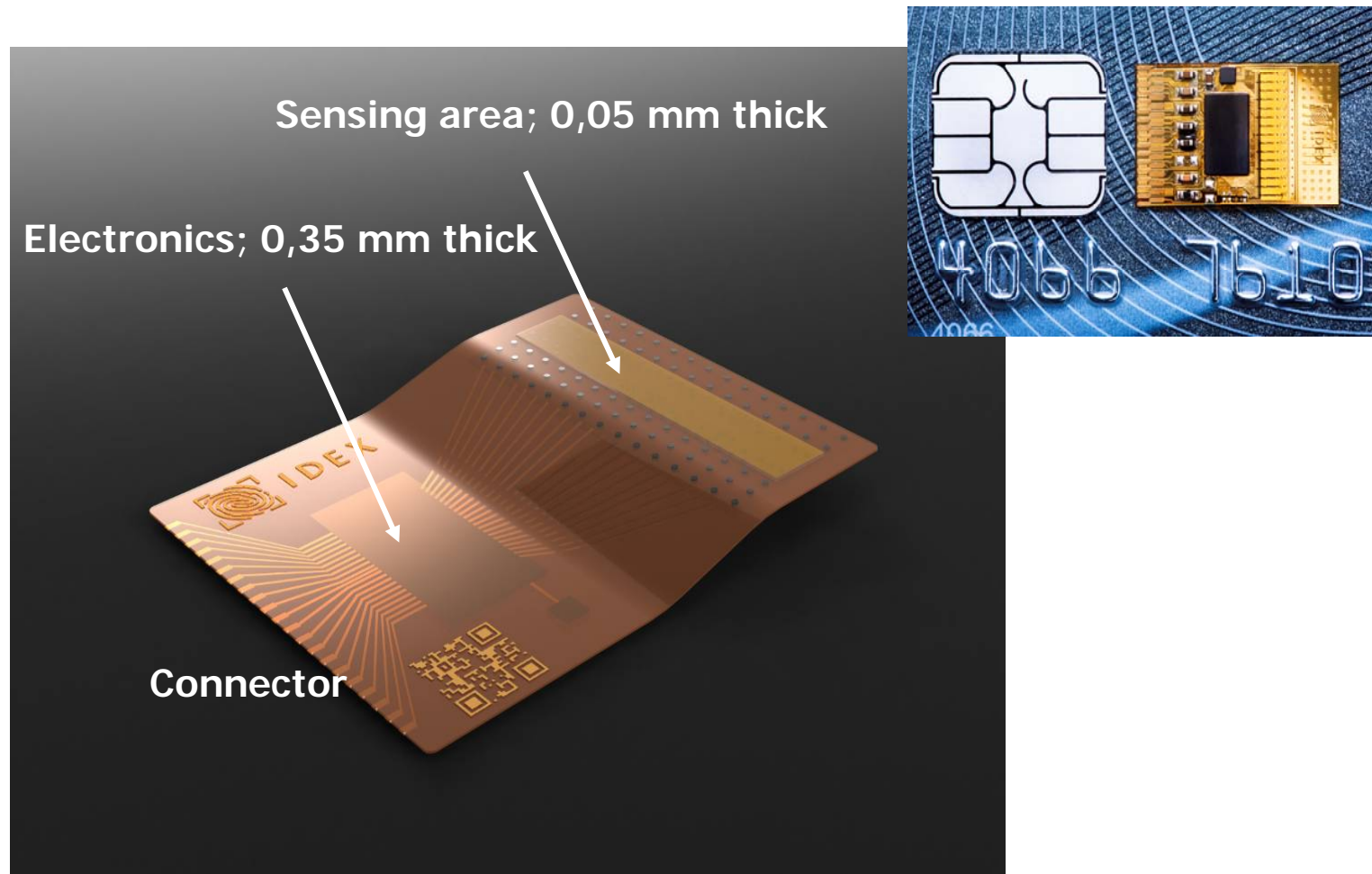
# Presenting the most versatile swipe fingerprint authentication solution

## SmartFinger® Film

- *World's thinnest*, flexible swipe fingerprint sensor
  - Thin (0.35 mm)
  - Flexible
  - Customization of sensor geometry
- *Smallest software footprint* for embedded authentication solutions

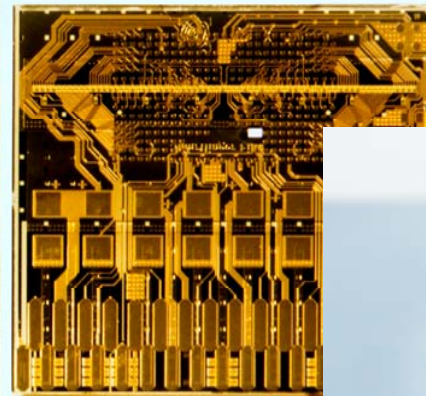
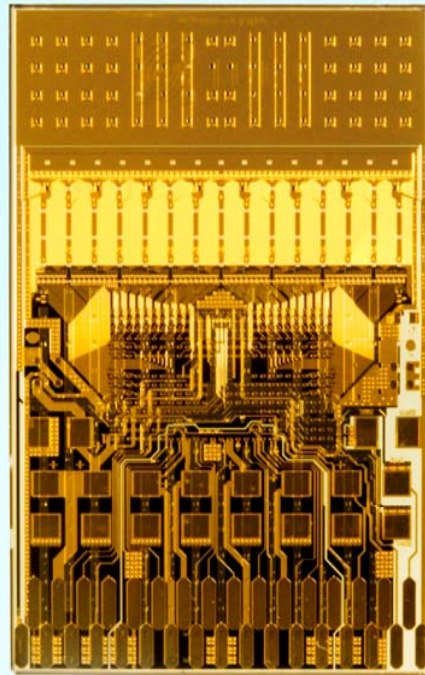
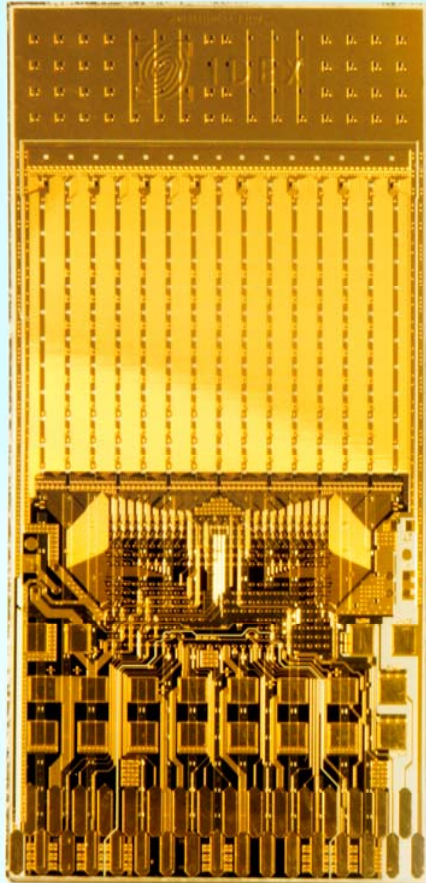


# SmartFinger® Film- designed for card integration





# The SmartFinger<sup>®</sup> sensor family



# Summary

- ID theft and fraud is an immense problem in the society.
- Biometrics verification is an obvious solution in order to add security.
- System-on-cards may many challenges related to introduction of fingerprint ID.
- IDEX' SmartFinger<sup>®</sup> Film fingerprint sensor technology and authentication solution is especially suited for system-on-card applications.

