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# IDEX WITH STRONG MOMENTUM IN BIOMETRIC SMART CARD SPACE

Multiple customer trials/launches completed



Additional card vendors integrated IDEX sensors







On-card enrollment solution featured by





Sensor for dual-interface cards ready for market

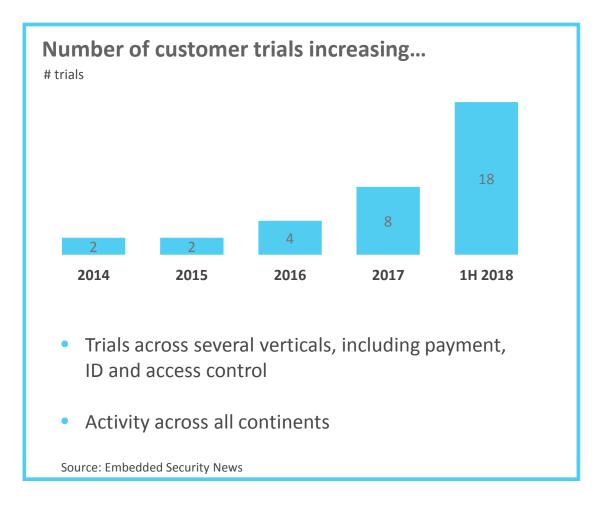


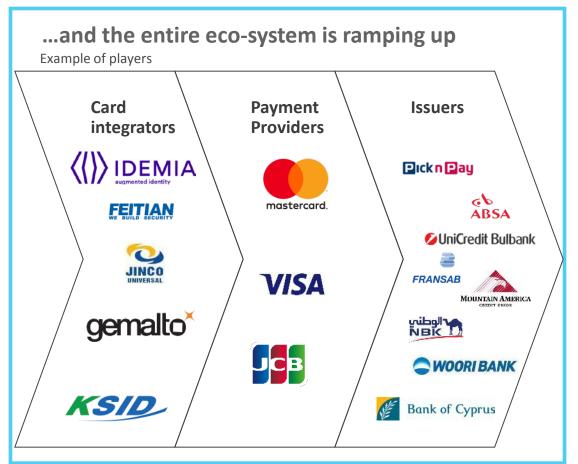
IDEX passed all requirements for certification at global payment provider





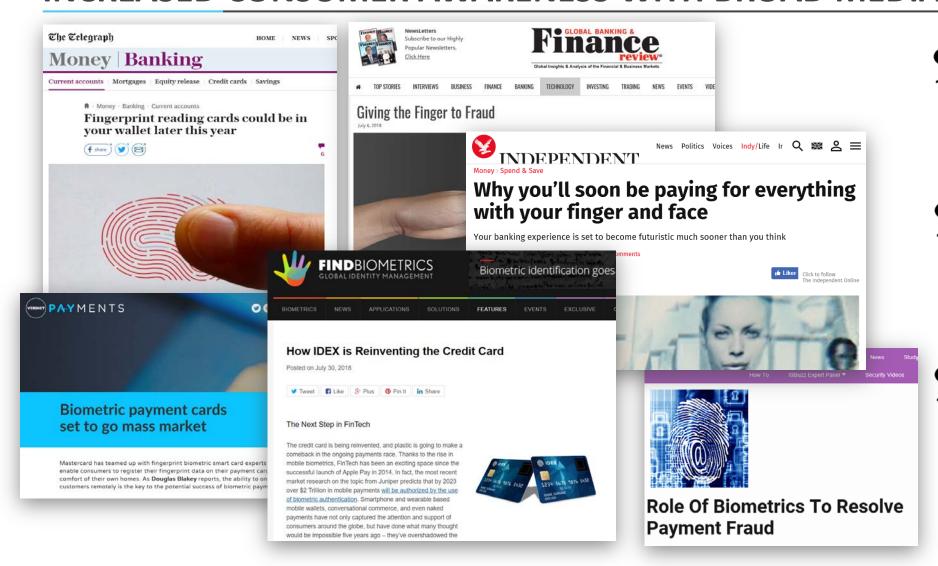
# THE MARKET FOR BIOMETRIC CARDS IS HAPPENING (I/II) – CARD ECOSYSTEM GEARING-UP FOR DEPLOYMENT







# THE MARKET FOR BIOMETRIC CARDS IS HAPPENING (II/II) – INCREASED CONSUMER AWARENESS WITH BROAD MEDIA COVERAGE



"Fingerprint reading cards could be in your wallet later this year"

The Telegraph

"Why you'll soon be paying for everything with your finger and face"



"Biometric payment cards set to go to mass market"





### SENSOR FOR DUAL-INTERFACE CARDS READY FOR MASS DEPLOYMENT

#### **IDEX'S SENSOR FOR DUAL-INTERFACE BIOMETRIC CARDS**

- Suitable for contactless and contact-based applications
- Low power consumption
- Successfully deployed and integrated into cards by customers





- IDEX's sensor successfully passed engineering integration and validation
- Cards intended for banking on a major
   Chinese payment network

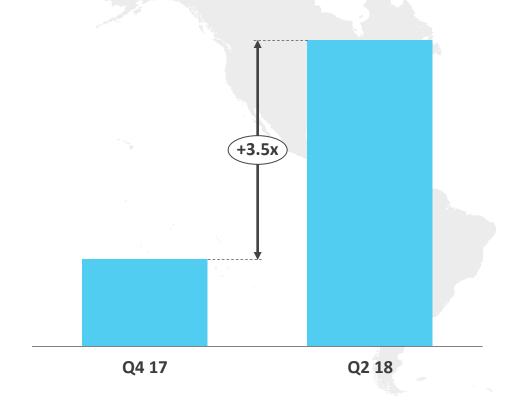


- Successfully integrated IDEX's sensor in dual-interface cards
- Cards intended for multiple applications including payments and identification



# HIGH LEVEL OF CUSTOMER ENGAGEMENTS

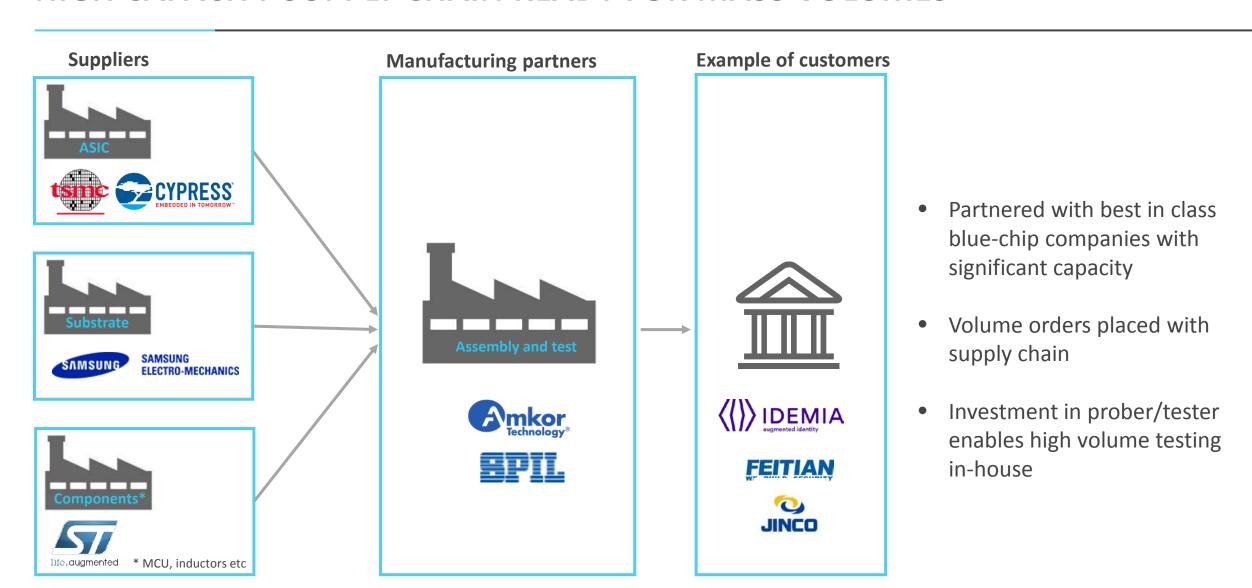
# **IDEX customer pipeline growing**Number of opportunities



- Significant amount of incoming interest
- Customers represent multiple verticals; payment, ID, access control and other
- Global customer engagements, especially strong interest from Asia, Africa and Europe

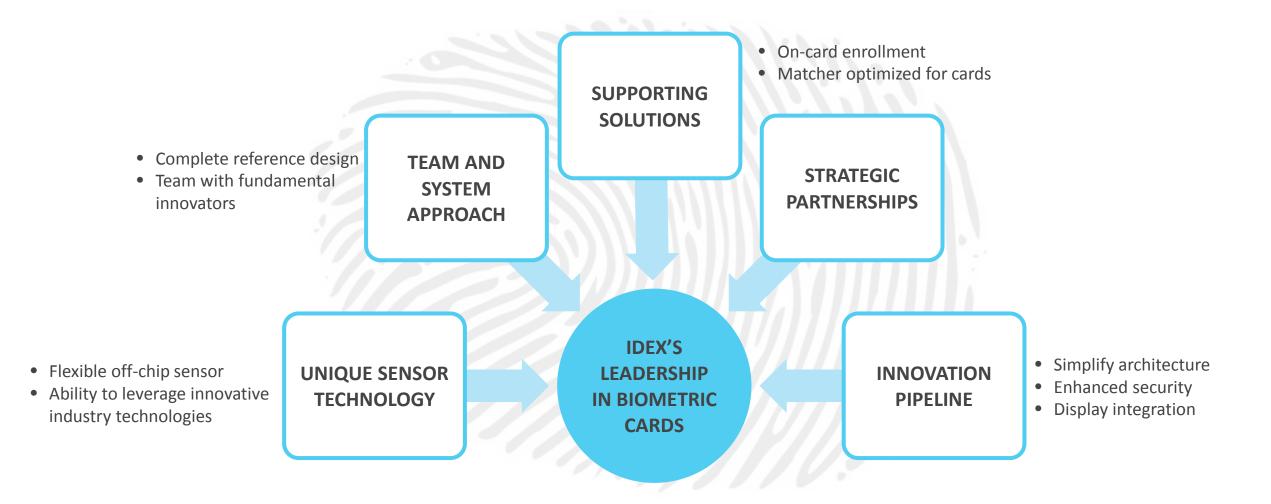


# HIGH CAPACITY SUPPLY CHAIN READY FOR MASS VOLUMES





# **IDEX'S LEADERSHIP IN BIOMETRIC CARDS**





### STRATEGIC PARTNERSHIPS YIELDING ADVANTAGEOUS INSIGHT



- IDEX's ecosystem partnerships drive frontiers and define future roadmap
- Example byproducts from advantageous insight include
  - On-card enrollment
  - Enhancing security
  - Display integration roadmap
  - Power management requirements for dual-interface



#### **ON-CARD ENROLLMENT A CRITICAL ENABLER**

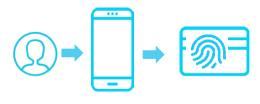
Traditional card enrollment a complex process...

Visit to physical branch





User device with sensor and special software



#### ...IDEX with a revolutionary improvement

- Simple and user-friendly on-card enrollment
- No applications or equipment needed from user
- Cost-effective suitable for high volume deployment
- Enrollment is "off-grid", so highly secure



Simply slide card into sleeve and touch the sensor square opening three times from each position A-B-C

...Simplifying the registration process will help speed adoption of biometrics by issuers and consumers alike ..."



"...considering most cards are currently mailed by issuers and activated by phone, the requirement of in-person enrollment creates a barrier to adoption..."





### IDEX & PARTNERS INTEGRATE ALGORITHM FOR MATCH IN SECURE ELEMENT

#### **Current high security solution**

Secure template storage in MCU

"No practical, scalable attack vectors"

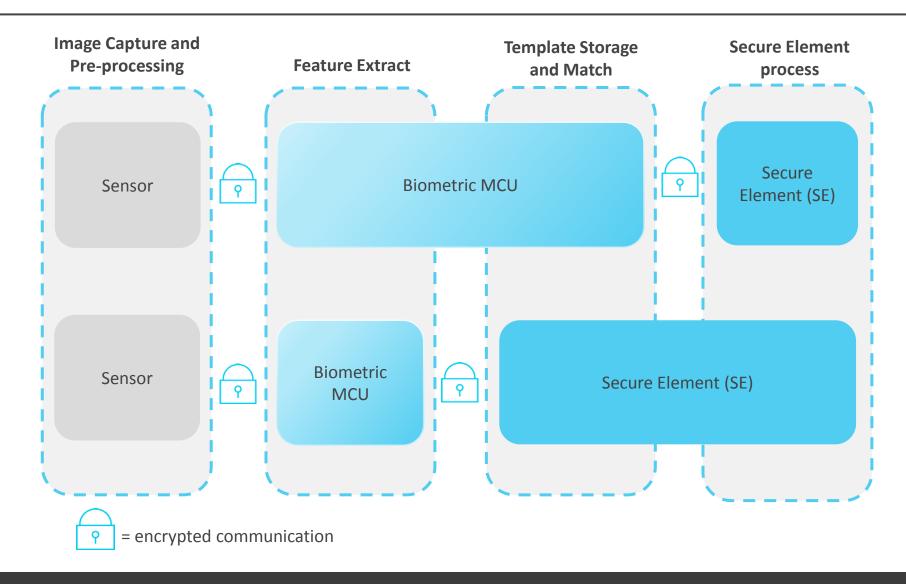
Independent Third Party

#### **Highest level security solution**

Secure template storage and match in SE

"...considered as resistant to high attack potential and no attack paths can be constructed from MCU towards SE..."

Independent Third Party





#### INNOVATION IN DISPLAY INTEGRATION WITH BENEFITS FOR BIOMETRIC CARDS

- Addressing card-present and card-not-present fraud
- IDEX merging its off-chip sensing technology with display backplanes
- Enabling biometric displays combined with fingerprint sensors
- Benefits include a thinner and more flexible sensor at a lower cost with enhanced performance
- Display can be used to show additional information such as card balance and verification feedback





#### **SUMMARY AND OUTLOOK**

#### Momentum is building for biometric cards

- Leading card ecosystem companies expand commercial activities
- Strong market and customer traction
- Announced pioneering on-card enrollment in partnership with Mastercard
- High capacity supply chain ready for volume ramp

#### **Key upcoming milestones in 2H 2018**

- Shipments in support of production orders
- Customer trials and launches of contact-based solution
- Pilots of dual-interface cards
- Multiple new partnerships



