



IDEX Biometrics

Capital Markets Day

Oslo, September 20th, 2023

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Agenda

Programme

10:00-10:30	Registration and Product Demos
10:30-11:30	IDEX Update and QA
11:30-11:45	Break
11:45-12:45	Fireside Chat with Industry Leaders
12:45-13:00	Concluding Remarks
13:00-14:00	Buffet Lunch and Product Demos

IDEX Biometrics Team



Vince Graziani

Chief Executive Officer



Catharina Eklof

Chief Commercial Officer



Anthony Eaton

Chief Technology Officer



Hakan Acar

SVP Global
Payments



Anette Trulsson Corda

SVP Marketing
Communication



Claus Hansen

VP Sales APAC



Marianne Boe

Head of Investor
Relations

IDEX Biometrics

a complete platform for biometric authentication solutions

Mission

We secure trusted proof of identity by providing biometric authentication for smart cards and deliver next level of convenience and security for people, businesses and society

Target markets

Banking and Payment

Enterprise Security

Public Services

People

Industry leading software and system engineering team

International leadership team with extensive industry and commercial expertise

Technology

200+ patents, with technologies spanning:

Hardware

Industry leading biometric fingerprint technology with highest performance

Software

Matching algorithm outperforming the industry standards

Solutions

End-to-end biometric card solutions for manufacturers, issuers enterprises and governments

Customers

> 20 manufacturers

IDEZIA CompoSecure КОПА I



KL HI-TECH
SECURE PRINT LIMITED

E-KART

THAMES
TECHNOLOGY

Goldpac

Ecosystem partners



AUTHTREND



IDEX Biometrics is ramping up across payments and cyber security



Payments

- ⌚ 18 banks in motion with IDEX
- ⌚ Market expansion in Azerbaijan, Bangladesh and India
- ⌚ IDEX Pay passed full Mastercard certification



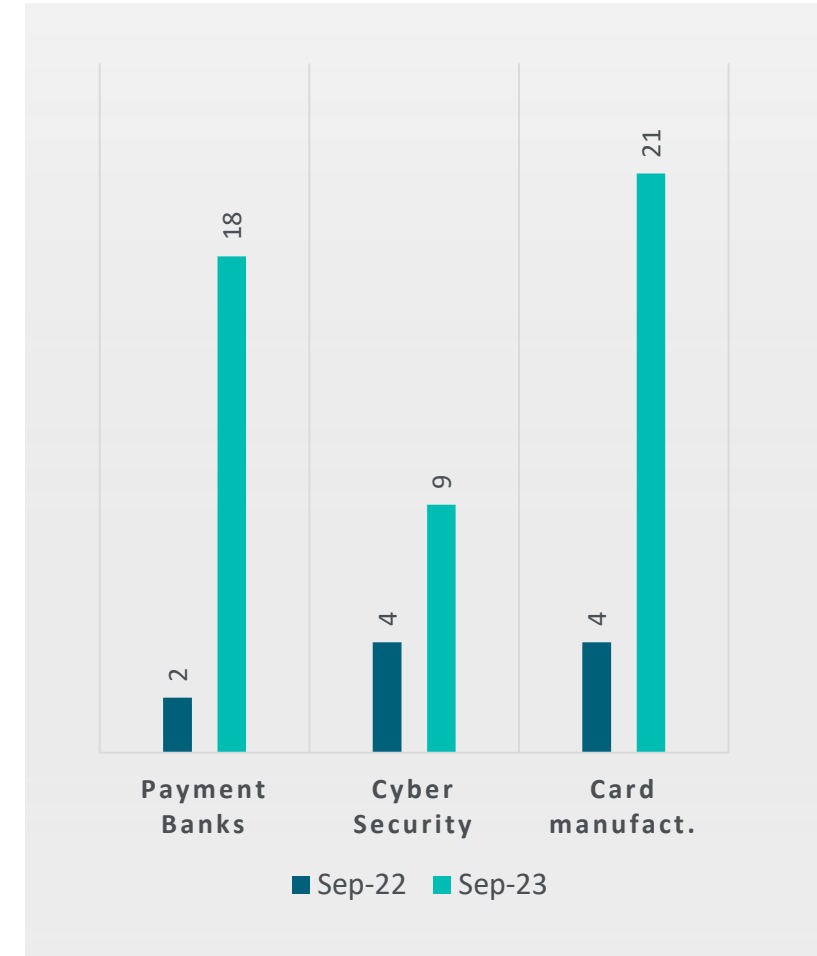
Cyber security

- ⌚ 9 partners in commercialization for cyber security
- ⌚ FIDO Alliance membership



Card manufacturers and technology partners

- ⌚ 20+ card manufacturers selected IDEX, whereof 3 metal card leaders
- ⌚ Strong acceleration in APAC and Eastern Europe



Source: IDEX Biometrics '23

Market Evolution



Global market trends

Digitalization

Global shift to a smart all-digital world has made trusted digital identity a must



Artificial Intelligence

AI to exploit weaknesses in existing systems through new fraud methods and tools



User Experience

Consumers demand frictionless consumer experience – without compromising on security



Source: 1. Astra Aug '23, 2. Fox News June '23, 3. NordLayer Dec '22

EMVCo standardization in progress will accelerate deployment of biometric payment cards globally

Outset

Proprietary Specifications in place



No Specifications in place



Standardized Specification

EMVCo is a global organization that develops and maintains the EMV standard for secure payment transactions.

Impact

- Increased cost efficiency
- Streamlining certification labs cost
- Mitigates development risks and complexity across multiple schemes
- Regional and domestic schemes to deploy biometric payment cards
- Shorter time to market for scaled biometric programs

IDEX Biometrics addresses large and well-established markets

Payments

EMV Payment Cards in Circulation
>12 billion

Annual card issuance
3 billion



Key drivers for biometric cards:

- ⇒ Seamless and faster experience
- ⇒ Reduced fraud
- ⇒ Differentiation - top of wallet effect

Cyber Security

Global cost for
cyber-crimes in 2023
\$8.4 trillion¹

Identity access
management market
\$50-100 billion



Key drivers for biometric cards:

- ⇒ Protection of proprietary information
- ⇒ Limit legal and negative brand exposure
- ⇒ Compliance
- ⇒ Employee productivity

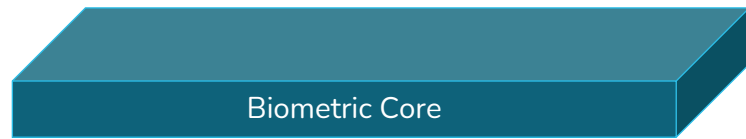
The Global Biometric Card Market expected CAGR of 117.8% (2022-2027) to reach a value of **\$2.7B by 2027**, across various segments, including banking, retail, and security gaming²

¹ McKinsey 2022 ; ² Modor intelligence

IDEX Technology

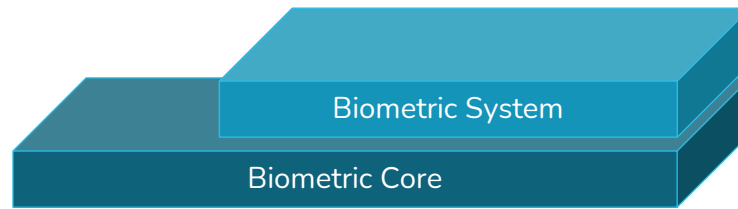


IDEX Biometrics is becoming an end-to-end solution company



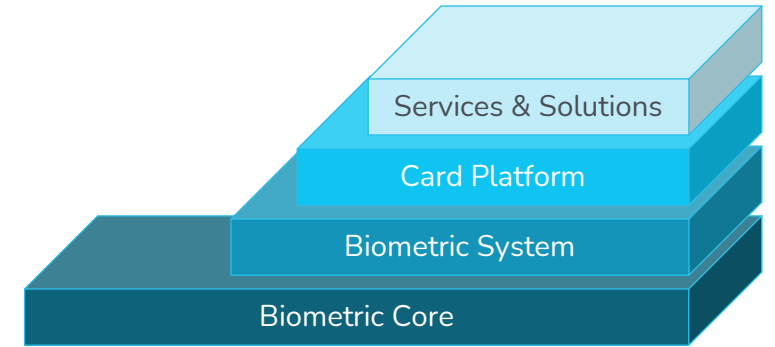
Component

- ⊕ Fingerprint Sensor & Software



System

- ⊕ Fingerprint Sensor & Software
- ⊕ Biometric Algorithms
- ⊕ Secure Biometric Stack



Solution

- ⊕ Fingerprint Sensor & Software
- ⊕ Biometric Algorithms
- ⊕ Card Operating System & Apps
- ⊕ Issuer / Manufacturer Solutions


<2017

2017-2021

2022+

IDEX Pay Certification – a major company milestone

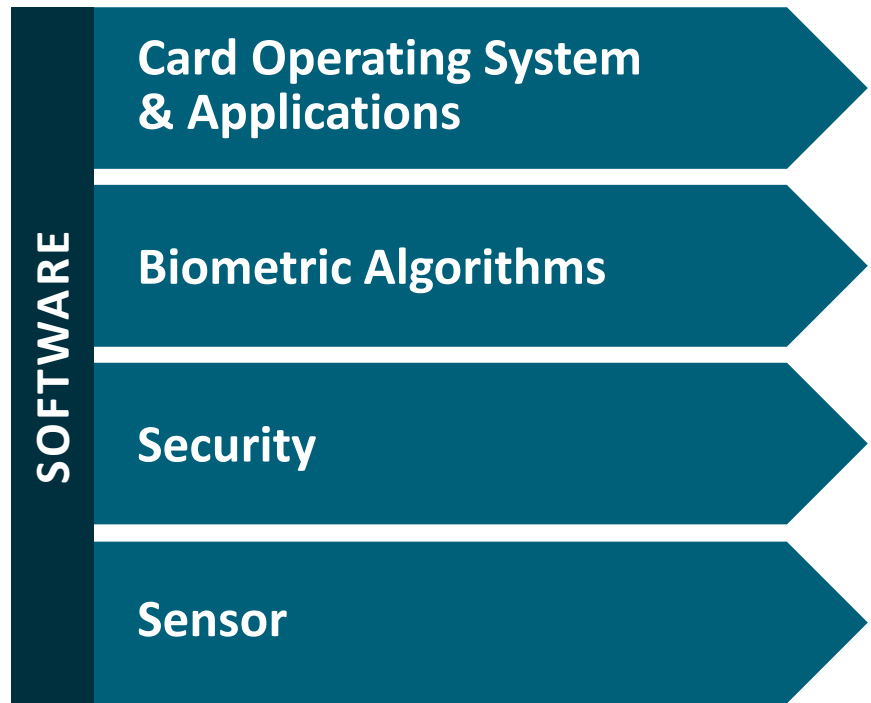


Mastercard Cardholder Devices Approval Process Component Conformity Statement	
	
Component Identification	
Supplier	IDEX Biometrics ASA Dronning Eufemias gate 16 NO-0191 Oslo Norway
Registration Number	DI/IDEX/2208/C01/MCABC/0A
Architecture Type	Dual Interface PIC including an antenna and a biometric sensor
Application Type	M/Chip Advance - Payment v1.2.3 with Biometric Card Application Specification January 2022
Application ID	04104E2200010000
Technical Name	IDX3601-01
Commercial Name	IDX3601 Biometric SmartCard Turnkey Platform
Protocol supported	T=0 ; Type A
Conformity Statement Details	
Conformity Statement	CCS-IDEX220801-230829(b), expires on April 28, 2026
Test Assessment Identifiers	MCABC-P-IDEX2208C01-0A-CEG-2303-C066+BSOC008 MCABC-A-IDEX2208C01-0A-CEG-2303-C066+BSOC008
Sensor	FP/IDEX/2201/S01, IDX3409 704-00001, FP/IDEX220201-CEG-2303-B001
CAST References	BCCN0012, expires on April 28, 2026

IDEX Pay Certification from Mastercard enables card manufacturers to get their own LOA¹

¹LOA = Letter-Of-Approval

Our software platform enables many use-cases across different markets



Secure Payments

Seamless and faster experience with enhanced security for consumers and merchants



Cyber Security

Protect proprietary assets from cyber attacks, reduce fraud risk



Crypto Asset Management

Access and control crypto funds in a highly secure and authenticated way



Taking our solution vision to the next level to embrace digital and cloud

Card platform



MULTI-APPLICATION BIOMETRIC CARD

Mobile interactivity



Card and cloud

BIOMETRIC SERVICES

End-to-end integration



MULTI-BIOMETRIC



Commercial Update

Go to market strategy

IDEX Biometrics business model

IDEX Biometrics



IDEX Products

- 1 **Biometric sensor**
- 2 **Biometric system**
(sensor + software)
- 3 **Certified card solution**
(incl. COS and applications)

IDEX Go To Market

- ⇒ Market education; demand creation
- ⇒ Card manufacturing partners
- ⇒ Resellers



**Payment
and Banking**



**Public and
Private Services**



**Enterprise/
Gov't Security**

18 banks launching biometric payment cards on IDEX Biometrics technology



Note: Sella, manager.one, FAB, Rocker and banks in France are with IDEMIA, Nordic Banks and KIB with Zwipec and banks in Turkey, Azerbaijan and Bangladesh with IDEX Pay

IDEX Biometrics focus markets representing highest potential for growth



India

- ⊕ Indian Population 1.4 BN
- ⊕ 1bn payment cards in circulation, growing at CAGR 25 %¹
- ⊕ 700 MN RuPay cards , domestic payment network
- ⊕ Governmental focus Rupay now focusing on biometrics
- ⊕ Government financial plan for digital inclusion



Turkey

- ⊕ Turkish Population 88 MN
- ⊕ 265m payment cards in circulation
- ⊕ Largest market in Europe
- ⊕ Highly innovative and competitive market leading the banks to invest in differentiation
- ⊕ 55% contactless penetration
- ⊕ IDEX Biometrics partner with E-Kart (G+D)



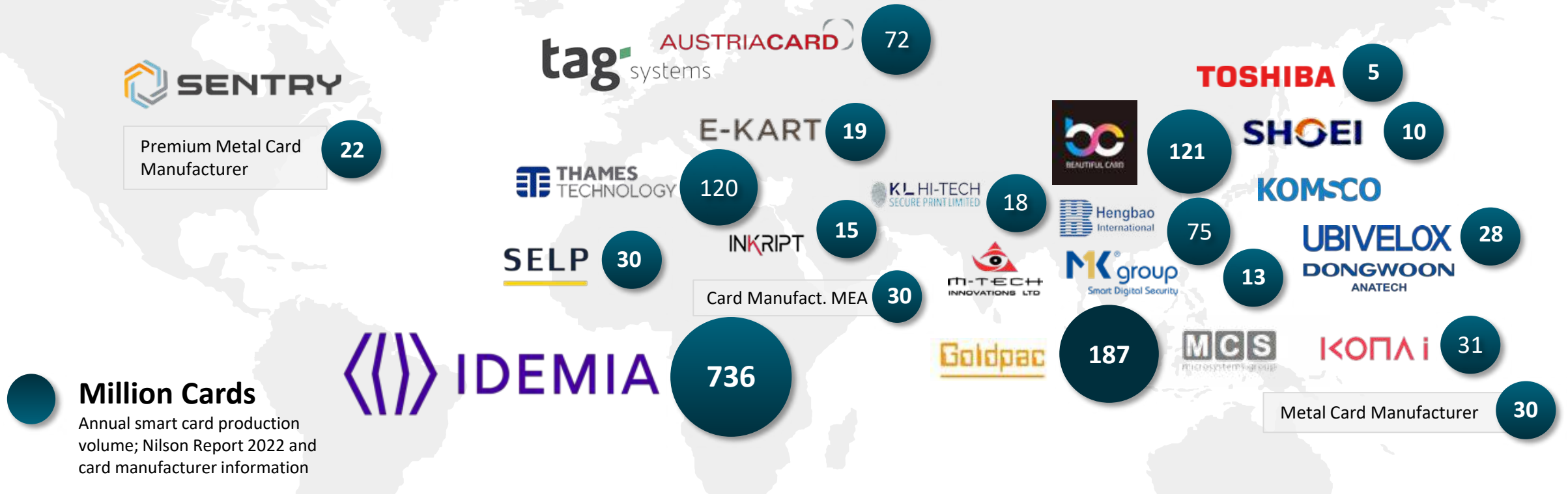
Bangladesh

- ⊕ Bangladeshi Population 173 MN
- ⊕ 33m payment cards in circulation
- ⊕ Digital Bangladesh –focus on payments growing at CAGR 20 %
- ⊕ 60m unbanked adults, 60% of population need digital ID solution for financial inclusion
- ⊕ Collaboration between banks and government implement card programs

Source: ¹2022–2026, reaching \$581.2bn in '26; Global Data (2023), ²203–2026, valued at \$365.1bn in '23; Global Data (2023)

21 card manufacturers in commercialization with IDEX Biometrics

...enabling a highly scalable platform



Million Cards
Annual smart card production volume; Nilson Report 2022 and card manufacturer information

Annual card production of these card manufacturers

> 1.5 billion cards

Specific bank customer segments are driving early adoption



Premium

Affluent, high networth customers, often frequent travellers and interested in biometric metal cards

//Accomplish



Corporate

Clients in need of stronger security to conduct high value corporate transactions

manager.one



Tech savvy

Young professionals seeking differentiation and preferring challenger banks

ROCKER



Vulnerable

Elderly or with special needs who struggle to maintain multiple passcodes and PINs or unable to use them



9 partners launching cyber solutions with IDEX Biometrics technology

- Cyber attack prevention
- Compliance driven demands
- User login convenience

Identity and Access management is a

\$50 -100 billion
market¹

IDEX solutions

- Biometric multifactor authentication
- On card biometric storage and matching
- NFC powered system (no battery required)

e-Signus 





TrustSec 





Enqura 



Reltime 



KOMSCO 



Sentry 



Pone 



MCS 



AuthenTrend 



Source: ¹ McKinsey, 2022

IDEX Biometrics solution suite for manufacturers, issuers and enterprises



IDEX Pay

Turnkey solution accelerates time to market for card manufacturers



Biometric Activation Suite

Mobile first biometric activation and integration



Implementation Programs

Product launch support for issuer and enterprises

Optimizing issuer investment and accelerating time to market

Suite of new activation solutions to support IDEX Pay

Mobile iOS



Mobile + Pad Android



In-branch

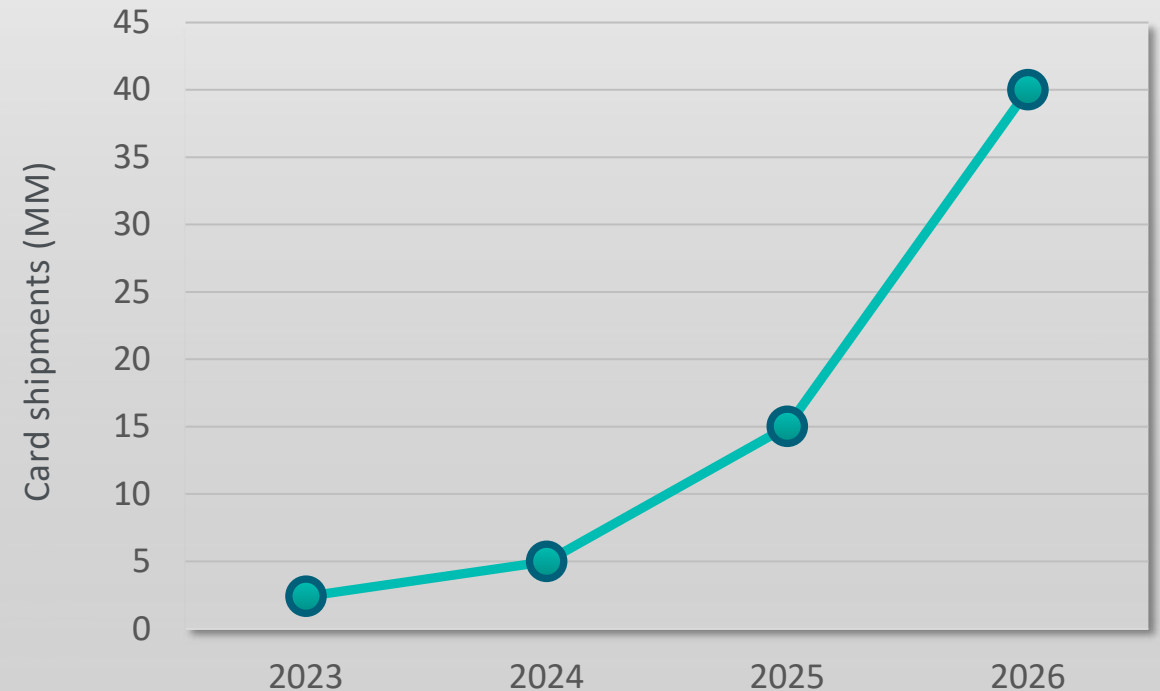


IDEX vision and market outlook

Repeat – and change Enabling the future of payments and authentication

- ⌚ IDEX Pay now certified
- ⌚ IDEX Pay certified solution has accelerated market penetration with 20+ card manufactures in motion, X LOAs expected in 2023
- ⌚ 18 banks and issuers coming to market with IDEX biometric payment solution
- ⌚ 9 partners for digital authentication and identity access solutions
- ⌚ IDEX is ideally positioned for global scale; one platform addressing multiple markets

Biometric Payment Card Shipments



Source: IDEX projection

Business Model and Financial Outlook

IDEX strategic distribution network of manufacturers is the foundation to commercial scale and path to break-even

20
manufacturers

3 customers each

6 million
cards

IDEX Revenue
>\$50MN



