



Nasdaq: DAIO

Anthony Ambrose

May 2023

# Safe Harbor

Statements in this presentation concerning economic outlook, expected revenue, expected margins, expected savings, expected results, orders, deliveries, backlog and financial positions, semiconductor chip shortages, supply chain expectations, as well as any other statement that may be construed as a prediction of future performance or events are forward-looking statements which involve known and unknown risks, uncertainties and other factors which may cause actual results to differ materially from those expressed or implied by such statements. Forward-looking statement disclaimers also apply to the global COVID-19 pandemic, including the expected effects on the Company's business from Shanghai's COVID-19 lockdowns, the duration and scope, impact on the demand for the Company's products, the pace of recovery for the COVID-19 pandemic to subside, and the Russian invasion of Ukraine including any related international trade restrictions. These factors include uncertainties as to the ability to record revenues based upon the timing of product deliveries, shipping availability, installations and acceptance, accrual of expenses, coronavirus related business interruptions, changes in economic conditions, part shortages and other risks including those described in the Company's filings on Forms 10-K and 10-Q with the Securities and Exchange Commission (SEC), press releases and other communications.

Furthermore, the matters that we discuss today will include forward-looking statements that involve risks factors that could cause Data I/O Corporation's results to differ materially from management's current expectations. We encourage you to review the Safe Harbor statement contained in the earnings releases as well as our most recent SEC filings for a complete description.

Additionally, those forward-looking statements are made as of today, and we take no obligation to update them.

Data I/O, Lumen<sup>®</sup>X, SentiX<sup>®</sup>, ConneX<sup>®</sup>, FlashCORE are trademarks of Data I/O Corporation. All rights reserved.



CONFIDENTIAL

# Investment in DAIO



- Publicly traded pure play targeting the rapidly growing automotive electronics and IoT/industrial/factory automation markets



- High operating leverage, \$20M in NOLs and no debt -- \$1.32 per share in cash



- Optionality with SentiX<sup>®</sup> security deployment; multiple ways of software monetization targeting all cloud-based and IoT ecosystems

# Data I/O at a Glance

## What We Do

We enable global automotive and industrial electronics manufacturing

## Solutions

We deliver Programming Equipment, Consumables and Services for Global Manufacturers of Electronic Systems



Founded in  
1972



Patents



ISO 9001:2015  
Certifications



Global Service  
& Support



100

Employees

>57

US &  
International  
Patents

1.5

Billions of  
Devices  
Programmed  
Annually

>450

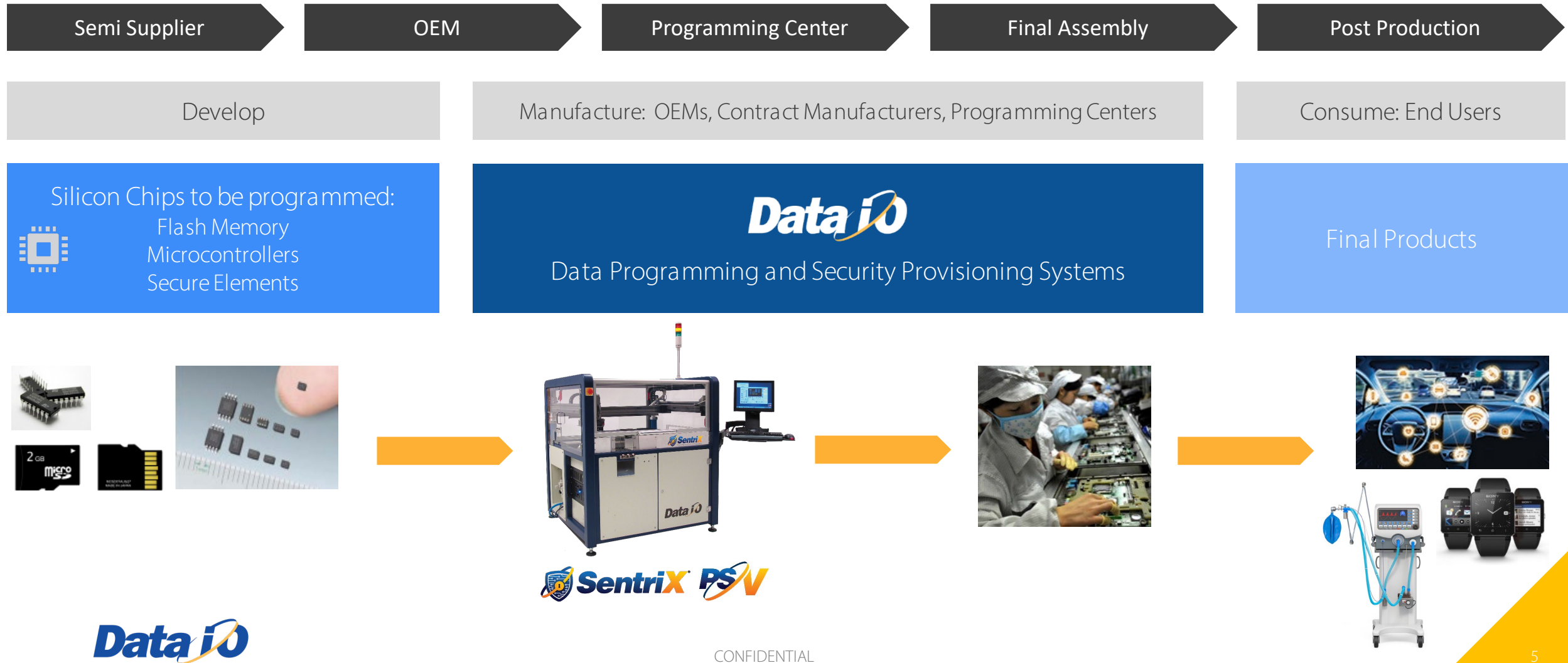
Automated  
Programming  
Systems Globally

>40

Countries with  
Sales & Service

# Supporting the Secure Digital World

Data I/O's programming systems are used by the world's leading manufacturers to securely program chips and bring their devices to life.



# Company Snapshot

## Recent Achievements and Trends

- Global Leader in programming revenue. Over 450 PSV systems sold since inception in 2013 representing over 1.5 billion units/year capacity in the installed base
- Strong momentum in Automotive Electronics for long-term growth
  - 18 of the top 20 Automotive Electronics companies are customers. ~61% of 2022 orders from Automotive Electronics customers
  - Analysts forecast 10-15% CAGR for Automotive Semiconductors through 2030
- Emerging SentiX Security Provisioning Platform; doubling of revenue in 2021 and 2022 with key wins in Automotive, Artificial Intelligence, Intelligent metering

## Committed to Growing Shareholder Value

- Focusing programming core competencies on higher growth, higher margin vertical markets with greater recurring/consumable sales. Target to reach over 50% recurring revenue within 3-5 years
- Differentiated market position through technology leadership and global support.
- Approx. 13% of stock (fully diluted) held or managed by insiders so that management and Board are aligned with shareholders

## Company Snapshot <sup>(1)(2)</sup>

NASDAQ:	DAIO
Headquarters:	Redmond, WA
Established:	1972
Recent Stock Price:	\$4.45
Market Cap:	\$40M
Diluted Shares:	9.0M
3-M Daily Avg. Volume:	15,000 shares
Sales (TTM):	\$26.5M
Net Income (TTM):	\$916,000
Diluted EPS (TTM):	\$0.09
Adj. EBITDA <sup>(3)</sup> (TTM):	\$2.8M
Cash & Sec. (3/31/23):	\$11.9M (\$1.32/share)
Debt (3/31/23):	\$0.0

(1) Stock price, market cap and volume as of 5/4/23 intraday; Source: Yahoo

(2) Financials for the TTM period ended 3/31/23 or as noted

(3) Adj. EBITDA is a non-GAAP financial measure. A reconciliation is provided in this presentation

# Market Outlook

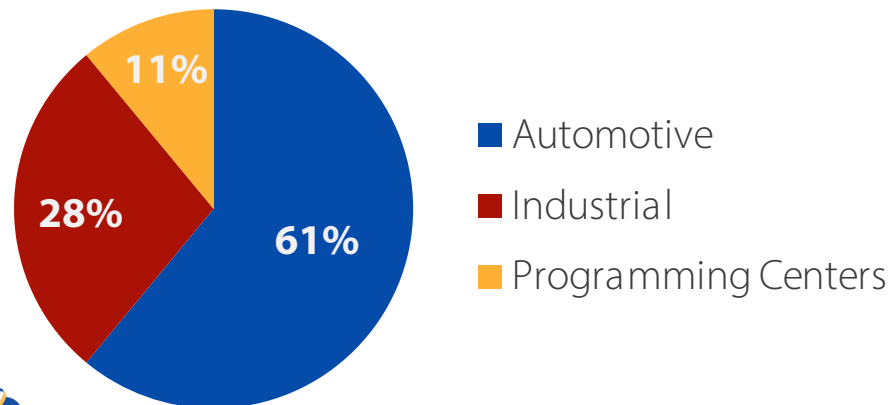
Bringing Devices to Life



# Serving Customers Globally in Growing Markets

- The largest programming company in the world, 2-3 times larger than the next programming company
- Trusted supplier to 18 of the top 20 automotive electronics suppliers
- 20 or more new customers for 2 consecutive years
- Providing mission critical medical applications for Class I and Class II devices
- Global footprint with headquarters in Redmond, WA, USA and subsidiary offices in Shanghai, China and Munich, Germany

2022 Annual Orders by End Market

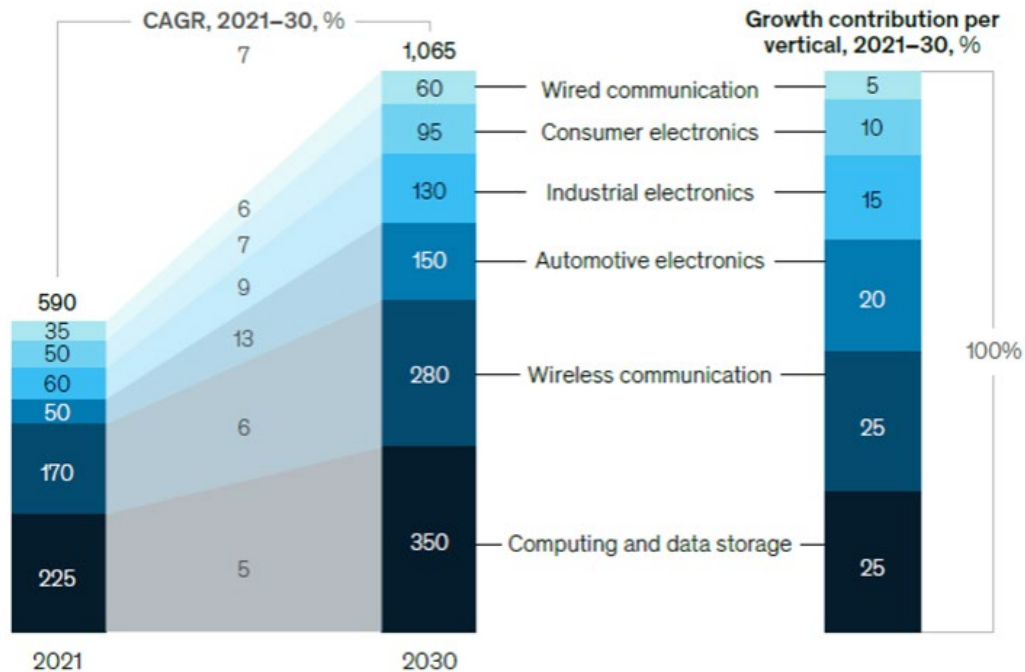




# Analysts Predict a Tripling of Automotive Silicon Content in 10 years

## Growth in Global Semiconductor Market Value by Vertical Market

(\$ billions)

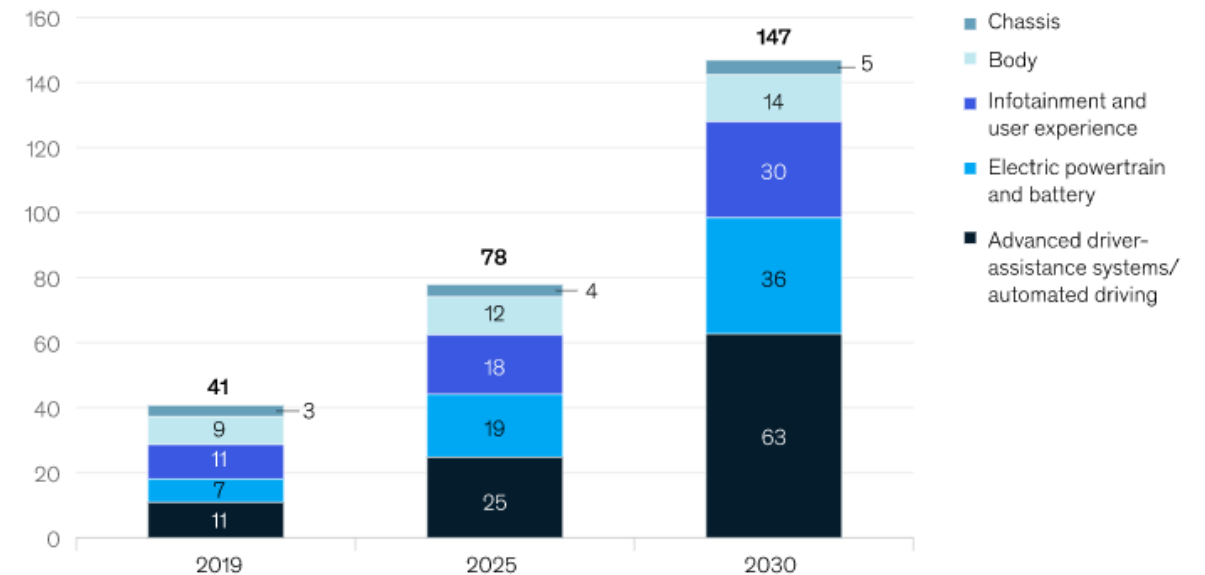


Note: Figures are approximate.

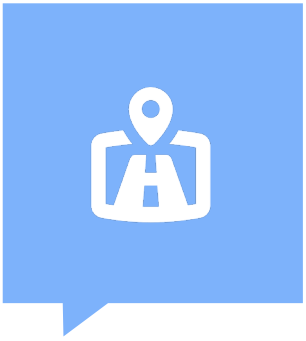
Source: McKinsey & Company report, April 2022

## Total Automotive Semiconductor Forecast by Application

Automotive-semiconductor market, \$ billion



# Automotive Electronics Growth Areas



## Infotainment/ IVI

---

2D map / application

---

Heads-up display

---

Digital cluster

---



## Electrification

---

New powertrain

---

Charging  
infrastructure

---

Better technology

---

Modularization

---



## ADAS/Autonomous Driving

---

Sensors

---

High performance  
computing

---

Big data / analytics

---

Artificial intelligence / deep  
learning

---

Navigation & guidance

---



## Connectivity

---

Vehicle

---

Infrastructure

---

Cloud

---

Wearables &  
personal devices

---



## Security

---

Ridesharing

---

Car sharing

---

Flexible bus

---

Micromobility

---

Delivery

---

# IoT Growth Across a Number of Markets

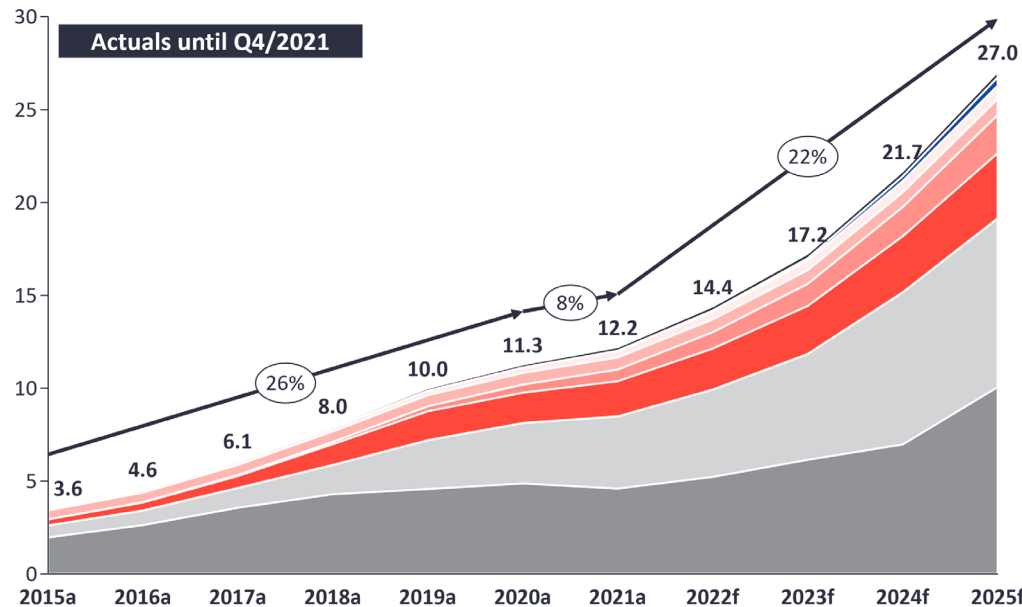


May 2022

Your Global IoT Market Research Partner

## Global IoT Market Forecast [in billion connected IoT devices]

Number of global active IoT Connections (installed base) in Bn



CONNECTIVITY TYPE	CAGR 20-21	CAGR 21-25
Wireless Neighborhood Area Networks (WNAN)	17%	11%
5G IoT	-	159%
Other	22%	20%
Wired IoT	4%	7%
LPWA	42%	34%
Legacy Cellular (2G/3G/4G)	16%	17%
Wireless Local Area Networks (WLAN)	19%	24%
Wireless Personal Area Networks (WPAN)	-6%	22%

**Note:** IoT Connections do not include any computers, laptops, fixed phones, cellphones or tablets. Counted are active nodes/devices or gateways that concentrate the end-sensors, not every sensor/actuator. Simple one-directional communications technology not considered (e.g., RFID, NFC). Wired includes Ethernet and Fieldbuses (e.g., connected industrial PLCs or I/O modules); Cellular includes 2G, 3G, 4G; LPWAN includes unlicensed and licensed low-power networks; WPAN includes Bluetooth, Zigbee, Z-Wave or similar; WLAN includes Wi-fi and related protocols; WNAN includes non-short range mesh, such as Wi-SUN; Other includes satellite and unclassified proprietary networks with any range.

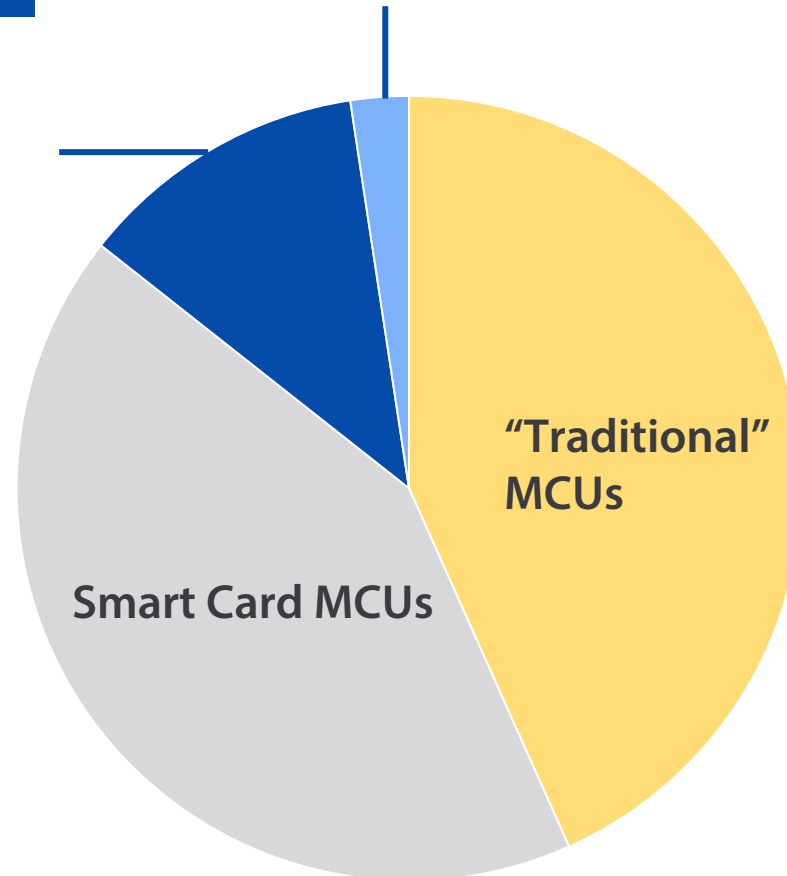
**Source:** IoT Analytics Research 2022. We welcome republishing of images but ask for source citation with a link to the original post and company website.

# Billions of Security Enabled Devices

**2023 Security Market:  
3-4 Billion Units**

**Standalone Secure  
Elements**  
AICs, ESEs, TPMs

**“Secure” MCUs with  
Embedded Secure Elements**



**Total Market:  
>25 Billion Units**

# IoT Device Security by SentiX®

SentiX secures the global electronics supply chain and protects IoT device intellectual property from point of inception to deployment in the field

With more than 20 security patents granted, SentiX from Data I/O offers a unique and highly differentiated approach for a large and fast-growing market addressing unmet cybersecurity concerns

2023 Updates:

- Clients moving in volume production: >100% growth in PPU units in '22
- Noa Leading Co., Ltd offering SentiX® security provisioning services in Japan
- Announced partnership with Nuvoton for new microcontroller family



Brand Protection



IP Protection



Regulation



Supply Chain Integrity



# OEMs Using Our SentiX<sup>®</sup> Technology

## Smart Lock Company

Smart locks and the brands of the OEMs manufacturing them depend on robust security and low power consumption found in hardware security-based microcontrollers.



## Water Meter OEM

Heated and chilled water metering is being mandated in Germany and requires strong security to protect revenue and meet regulations.



## Electric Meter OEM

A large smart meter manufacturer is using pre-programmed provisioning to secure their supply chain and protect their revenue and brand.



## Electric Vehicle Manufacturer

An electric vehicle manufacturer is using a trusted platform module to secure its supply chain and prevent cloning of its charging network.



## Industrial Marking OEM

An industrial marking and traceability solutions OEM protects accessory revenue and enables supply chain integrity with a secure microcontroller.



## Logistics Solution Provider

A logistics technology provider uses hardware RoT to protect user data and maintain privacy.



# Global Deployment

## SentriX Service Providers\*



## Silicon Partners



## Technology Partners



\*Announced deployments

CONFIDENTIAL



# Our Opportunity with SentriX

- The Internet of Things is a huge growth market, with security of supply chain and protection of firmware top of mind
- Data I/O and SentriX partners provide a scalable, easy to develop and deploy service for customers of all sizes. Initial applications are the 'tip of the iceberg' of what is possible with SentriX
- Next generation SentriX Security Deployment as-a-Service including updated hardware and SentriX Product Creator™ to support fully customizable and SentriX GO™ pre-configured security profiles
- Data I/O can now scale SentriX capabilities to over 450 PSV family systems already deployed
- Business model for SentriX drives high margin recurring revenue growth
- Long term, the data programming and security provisioning markets converge
- Regulatory and IoT/cybersecurity catalysts



# Financial Overview

Bringing Devices to Life



# Financial Overview

## First Quarter 2023 Highlights

- Net sales of \$7.2 million; bookings of \$5.7 million
- Quarter-end backlog of \$3.2 million
- Gross margin as a percentage of sales of 59.5%
- Net income of \$95,000 or \$0.01 per share
- Adjusted EBITDA\* of \$502,000
- Cash & Equivalents of \$11.9 million; no debt
- Automotive Electronics 63% of bookings
- SentiX® traction in Asia
- 10 new customer wins

## 2022 Insights

- Net sales up 11% in 2H22 from prior year period; 4Q22 up 14% from 4Q21
- FX reduced revenues in 2022 by est. \$1M
- Total recurring/consumable revenues 43% of 2022 net sales, up from 42% in 2021
- Bookings of \$26.4 million which are a 4-year high
- 4Q22 bookings of \$6.8M reached highest level for any 4Q since 2019
- Worldwide installed base of PSV systems grew by 58 systems in 2022 to over 440 systems
- Second consecutive year with 20 or more new customer wins
- SentiX® bookings and revenue increased over 100% for second consecutive year
- Record volume of SentiX programmed parts in 2022

\*Adjusted EBITDA is a non-GAAP financial measures. A reconciliation is provided in the tables of this presentation.

# Financial Outlook for 2023

- Positioned for revenue growth, increased net income and cash flow generation in 2023
- Double-digit revenue growth in 2023, consistent with the long-term double-digit semiconductor growth rate in the automotive electronics industry
- Gross margins expected to be in the mid-to-high 50% range for the year
- Operating expenses expected to be consistent with 2022, except for variability in incentive compensation, sales commissions, and currency
- Recurring revenues expected to continue to increase toward 50% of consolidated revenue in 3-5 years
- Strong operating leverage in model – approximately 40% of sales
- NOLs of approximately \$20 million in the USA, with foreign subsidiaries subject to local taxes

# Balance Sheet and Capital Structure Overview

## Balance Sheet Highlights

### At March 31, 2023:

- \$11.9 million in cash and cash equivalents
- No debt
- \$18.0 million of net working capital
- Total stockholders' equity of \$19.5 million, or approx. \$2.16 per diluted share outstanding
- EV/Sales at 1.1<sup>(3)</sup>
- NOLs of approximately \$20.0 million

## Balance Sheet Strategy

- Important to maintain strong balance sheet in a cyclical industry, with ~57% of revenues from capital equipment sales
- Financial flexibility allows the company to:
  - Invest in organic and acquisitive growth opportunities for the long term
  - Develop recurring revenue streams
  - Maintain strategy during cyclical

## Enterprise Value (\$K)

Market Cap <sup>(1)</sup>	\$ 40,200
Plus Total Debt <sup>(2)</sup>	0
Less Total Cash <sup>(2)</sup>	<u>\$ 11,900</u>
Enterprise Value	\$ 28,300
Diluted Shares Outstanding <sup>(2)</sup>	9,029,000

<sup>(1)</sup> At 5/4/23 <sup>(2)</sup> At 3/31/23 <sup>(3)</sup> Sales based on TTM through 3/31/23 financial results

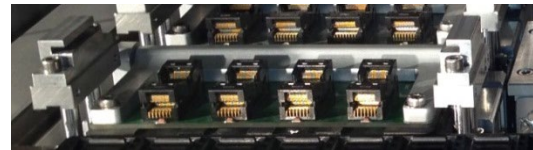
# Growing Recurring Revenue Mix

## Capital Equipment

- Approx. 57% of 2022 sales
- Data programming and security provisioning systems
- Automated systems cost \$68K-\$677K
- Manual systems cost \$10K-\$52K
- Usually last 5-7 years
- Adapters fit to these products
- Installed base drives recurring consumables sales

## Adapters

- Approx. 30% of 2022 sales
- Usually last 3-24 months

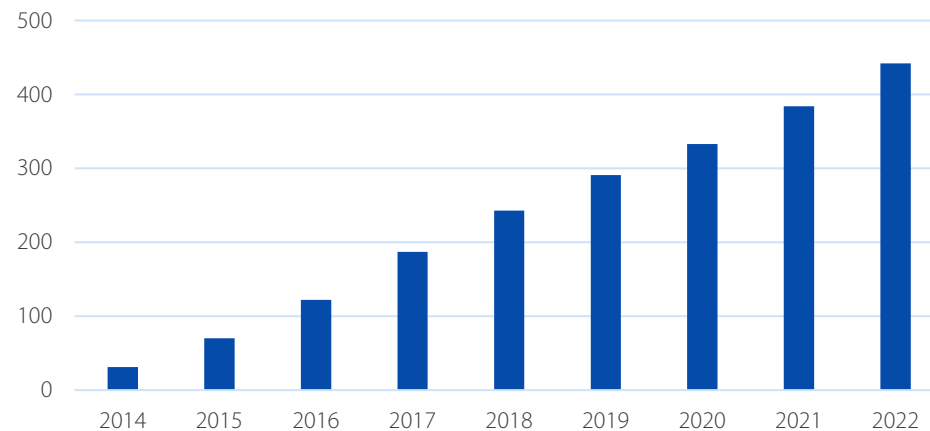


## Software, SentiX, Service

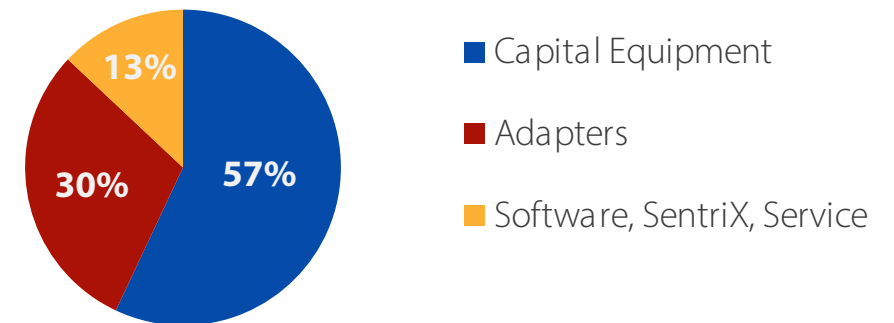
- Approx. 13% of 2022 sales
- Annual software/service contracts
- Device supports
- SentiX software and pay per use revenues



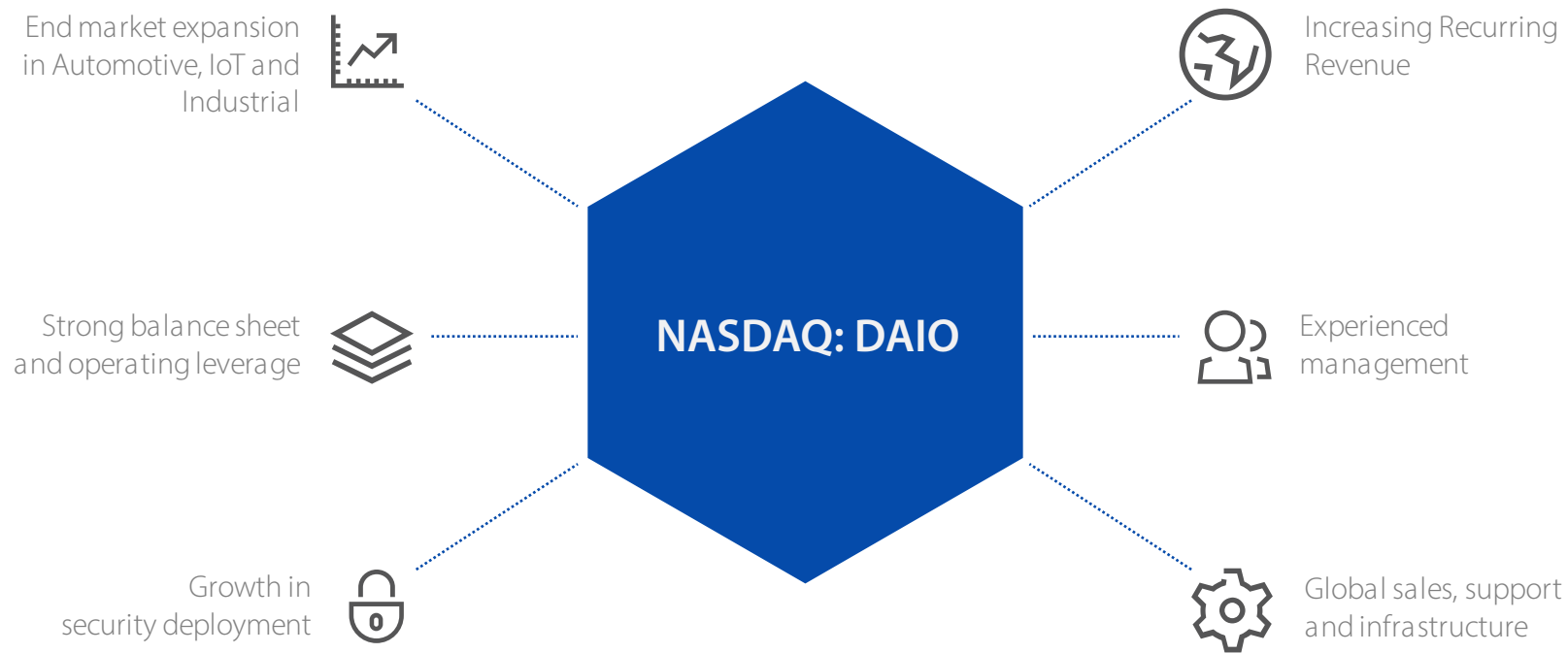
Data I/O PSV-x000 Installed Base Growth



2022 Revenue Diversification



# Investment Merits: Positioned for Long-Term Growth



**Strong Bookings and Backlog Create Forward Upside**

**Impact of Semi Shortages Abating**

**...with Near Term Catalysts, including EV Growth and Regulatory Acts**

The background of the slide is a faded image of a large conference hall. On the left, a stage features a large screen displaying the 'Data iO' logo. A person is standing on the stage, and a large audience is seated in rows of white chairs, facing the stage.

*Data iO*

**Thank You!**

**NASDAQ: DAIO**

For more information, please go to  
<https://www.dataio.com/Company/Investor-Relations/Data-I-O-Profile>

**Data iO**

# Backup & Financial Reconciliation

Bringing Devices to Life





# An Experienced Team of Technology Leaders

## Anthony Ambrose - President and CEO



Anthony Ambrose joined Data I/O in October 2012 as President, CEO and a Board Member. With a passion for product development and new technology, he led product divisions and global engineering teams at Intel and Radisys for over a decade, creating the standard high-volume server platforms in enterprise and telecom markets. Mr. Ambrose earned a Bachelor of Science in Engineering, Magna cum Laude, from Princeton University, and completed the Stanford Graduate School of Business Director Symposium. He has two US patents granted and is often requested to speak on connected and mobility innovations within the automotive electronics, industrial information technology, IoT and medical industries.

## Joel Hatlen - Vice President, COO and CFO



Joel Hatlen joined Data I/O in September 1991 and has been our Vice President, Chief Financial Officer, Secretary and Treasurer since January 1998. He served as Chief Accounting Officer since February 1997 and served as Corporate Controller from December 1993 to December 1997. Previously, he was Tax Manager and Senior Tax Accountant. From September 1981 until joining Data I/O, Joel was employed by Ernst & Young LLP as a Certified Public Accountant, where his most recent position was Senior Manager. Joel holds a Master's in Taxation from Golden Gate University and a Bachelor's in Business Administration in Accounting from Pacific Lutheran University.

## Rajeev Gulati - Vice President and CTO



Rajeev Gulati joined Data I/O in July 2013 and is our Chief Technology Officer and Vice President of Engineering. Prior to Data I/O, Rajeev served as Director of Software Engineering for AMD responsible for tools, compiler strategy and execution from 2006 to 2013. He has an extensive background in software, systems and applying technology to develop new markets. Previously, he served as Director of Strategy and Planning at Freescale from 2004 to 2006; as Director of Embedded Products at Metrowerks from 2000 to 2004 and Director of Compilers, Libraries & Performance Tools from 1997 to 2000 and programmer positions at Apple Computer, IBM and Pacific-Sierra Research. Rajeev holds a Master's of Science in Electrical & Computer Engineering from the University of Texas, Austin and a BE in Electrical Engineering from Delhi College of Engineering, New Delhi.

## Michael Tidwell - Vice President Marketing & Business Development



Michael joined Data I/O in May 2019 and brings a wealth of experience in Software, Security and Product Management to Data I/O. Prior to Data I/O, he was Vice President of Marketing & Business Development at Tignis, an AI and machine learning startup. From 2012 to 2018 Michael was head of Marketing and Business Development at Sansa Security, a leading software security IP provider that was sold to ARM Holdings. Prior to Sansa, Michael was Vice President of Business and Market Development at BSQUARE Corporation. Michael has a Master's of Science in Electrical Engineering from the University of Washington and a Bachelor's of Electrical Engineering (Summa Cum Laude) from Georgia Institute of Technology.

# Market Leading Technology

## Industry Leading Products

Automated Handlers



Programming Engines



Security Deployment Platforms



## History of Innovation

Data I/O's products are viewed as the “gold standard” for advanced programming equipment, IP management and security solutions

Research and Development focused on:

- Security Deployment Platform technology for Internet of Things and Automotive applications
- Programming technology to support explosive demand for automotive electronics using large FLASH Memory and microcontroller devices
- Integration into the Cloud and Factory MES Systems

During the past 15 years, Data I/O has been granted ~57 U.S. and International utility patents. Currently, Data I/O has approximately 20 patents related to the SentiX platform and security provisioning technology

## Over 35 Industry Awards



Service Excellence Award for World-Class **Device Programming**



NPI Award & Mexico Technology Award for New **Job Composer** Software Application



Technology Award, 5<sup>th</sup> Industry Award for Universal Flash Storage (**UFS**) Support on LumenX

# Adjusted EBITDA Reconciliation

## NON-GAAP FINANCIAL MEASURE RECONCILIATION

	Three Months Ended March 31,	
	2023	2022
(in thousands)		
Net Income (loss)	\$95	(\$1,820)
Interest (income)	(35)	(1)
Taxes	35	458
Depreciation and amortization	158	140
EBITDA earnings (loss)	\$253	(\$1,223)
Equity compensation	249	291
Adjusted EBITDA, excluding equity compensation	<u>\$502</u>	<u>(\$932)</u>

# Adjusted EBITDA Reconciliation – 2014-2022

## NON-GAAP FINANCIAL MEASURE RECONCILIATION

	Twelve Months								
	Ended December 31,								
(in thousands)	2022	2021	2020	2019	2018	2017	2016	2015	2014
Net Income (loss)	(\$1,120)	(\$555)	(\$3,964)	(\$1,187)	\$1,606	\$5,449	\$1,656	\$927	\$1,099
Interest (income) expense	(\$34)	(\$11)	(\$14)	(\$53)	(\$37)	(\$29)	(\$44)	(\$105)	(\$159)
Taxes	\$683	\$112	\$387	\$31	\$291	(\$288)	\$36	(\$5)	\$7
Depreciation and amortization	\$560	\$667	\$815	\$868	\$955	\$822	\$602	\$542	\$593
EBITDA earnings (loss)	\$89	\$213	(\$2,776)	(\$341)	\$2,815	\$5,954	\$2,250	\$1,359	\$1,540
Equity compensation	\$1,176	\$1,238	\$1,467	\$1,171	\$1,230	\$714	\$520	\$435	\$400
Restructure/Impairment charge	-	-	943	-	-	-	-	-	\$13
Adjusted EBITDA earnings (loss), excluding equity compensation and restructure/impairment charge	\$1,265	\$1,451	(\$366)	\$830	\$4,045	\$6,668	\$2,770	\$1,794	\$1,953

# Income Statement

**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)  
(UNAUDITED)

	Three Months Ended March 31,	
	2023	2022
Net Sales	\$7,231	\$4,965
Cost of goods sold	2,929	2,662
Gross margin	4,302	2,303
Operating expenses:		
Research and development	1,625	1,616
Selling, general and administrative	2,508	2,048
Total operating expenses	4,133	3,664
Operating income (loss)	169	(1,361)
Non-operating income (loss):		
Interest income	35	1
Gain on sale of assets	-	58
Foreign currency transaction gain (loss)	(74)	(60)
Total non-operating income (loss)	(39)	(1)
Income (loss) before income taxes	130	(1,362)
Income tax (expense) benefit	(35)	(458)
Net income (loss)	\$95	(\$1,820)
Basic earnings (loss) per share	\$0.01	(\$0.21)
Diluted earnings (loss) per share	\$0.01	(\$0.21)
Weighted-average basic shares	8,818	8,622
Weighted-average diluted shares	9,029	8,622

# Balance Sheet

## CONSOLIDATED BALANCE SHEETS (in thousands, except per share data) (UNAUDITED)

	March 31, 2023	December 31, 2022
<b>ASSETS</b>		
CURRENT ASSETS:		
Cash and cash equivalents	\$11,868	\$11,510
Trade accounts receivable, net of allowance for doubtful accounts of \$142 and \$147, respectively	4,932	4,992
Inventories	6,976	6,751
Other current assets	684	645
TOTAL CURRENT ASSETS	24,460	23,898
Property, plant and equipment – net	1,000	1,072
Other assets	2,012	2,195
TOTAL ASSETS	<u>\$27,472</u>	<u>\$27,165</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
CURRENT LIABILITIES:		
Accounts payable	\$1,534	\$1,366
Accrued compensation	1,493	1,670
Deferred revenue	1,733	1,575
Other accrued liabilities	1,544	1,596
Income taxes payable	124	112
TOTAL CURRENT LIABILITIES	6,428	6,319
Operating lease liabilities	1,298	1,500
Long-term other payables	221	237
COMMITMENTS	-	-
STOCKHOLDERS' EQUITY		
Preferred stock -		
Authorized, 5,000,000 shares, including 200,000 shares of Series A Junior Participating		
Issued and outstanding, none	-	-
Common stock, at stated value -		
Authorized, 30,000,000 shares		
Issued and outstanding, 8,818,076 shares as of March 31, 2023 and 8,816,381 shares as of December 31, 2022	22,153	21,897
Accumulated earnings (deficit)	(3,036)	(3,131)
Accumulated other comprehensive income	408	343
TOTAL STOCKHOLDERS' EQUITY	19,525	19,109
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	<u>\$27,472</u>	<u>\$27,165</u>