



Nasdaq: DAIO

Anthony Ambrose
August 2021



Safe Harbor

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.

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Data I/O at a Glance



Founded
in 1972



NASDAQ:
DAIO



ISO 9001:2015
Certifications



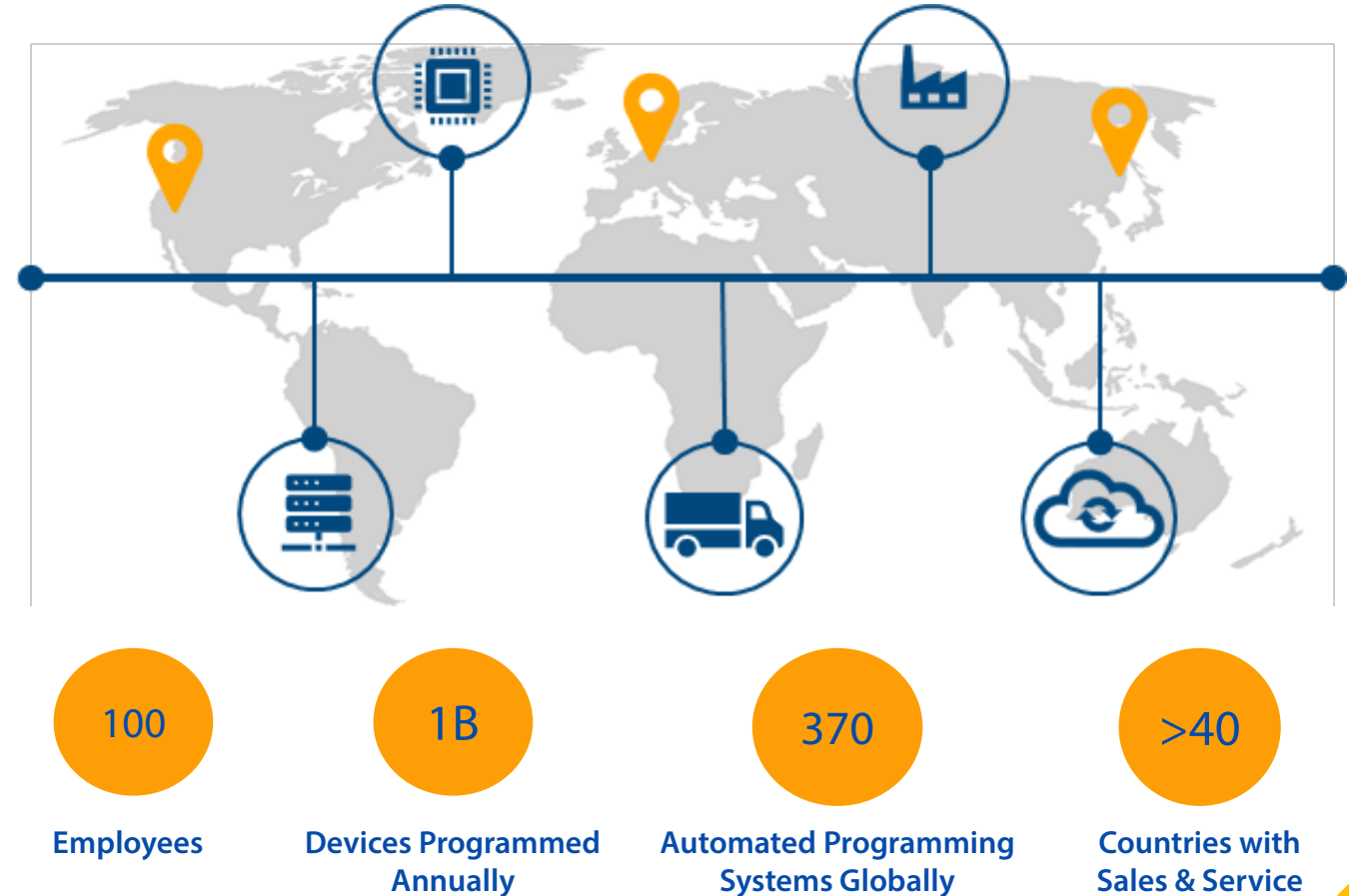
Global Service
& Support

What We Do

- Silicon Device Programming Equipment
- Security Deployment as-a-Service

Solutions

We deliver the most secure and efficient systems to deploy firmware, data and secrets into IoT and automotive devices in high volume electronics manufacturing



Company Snapshot

Recent Achievements and Trends

- Very strong growth in 2021. Surge in demand continued through first half of year with booking at highest level in nearly 4 years. We are seeing strong demand globally.
- Strong momentum in Automotive for long term growth
 - 8 of top 9 and 16 of top 20 Automotive Electronics companies are customers. ~56% of Q2 orders from Automotive Electronics customers.
 - Industry Analysts and Customers forecasting 10-15% CAGR for Automotive Semiconductors for a decade.
- Over 370 PSV systems sold. 1 billion units/year capacity in the installed base. Installed base growth drives increase in recurring revenue over time.
- Traction for SentiX Security Provisioning Platform; Release of Next Generation SentiX® Security Deployment Platform and SentiX Product Creator™ Software Tool Suite. First win in Automotive sector and first booking of capital equipment sale. Field conversions now possible for PSV5000 and PSV7000

Committed to Growing Shareholder Value

- Focusing programmable core competencies on higher growth, higher margin vertical markets with greater recurring/consumable sales
- 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
- 3 buybacks since 2012 for \$8.1 million returned to shareholders

Company Snapshot ⁽¹⁾⁽²⁾

NASDAQ:	DAIO
Headquarters:	Redmond, WA
Established:	1972
Stock Price:	\$6.27
Market Cap:	\$54M
Diluted Shares:	8.6M
3-M Daily Avg. Volume:	52,000 shares
Sales (TTM):	\$23.6M
Net Income (TTM):	\$(2.7)M
Diluted EPS (TTM):	\$(0.15)
Adj. EBITDA ⁽³⁾ (TTM):	\$744,000
Cash & Sec. (6/30/21):	\$13.0M (\$1.51/share)
Debt (6/30/21):	\$0.0

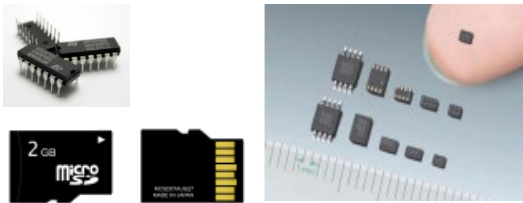
(1) Stock price, market cap and volume as of 8/4/21; Source: Yahoo

(2) Financials for the TTM period ended 6/30/21 or as noted

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

Supporting the Secure Digital World

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

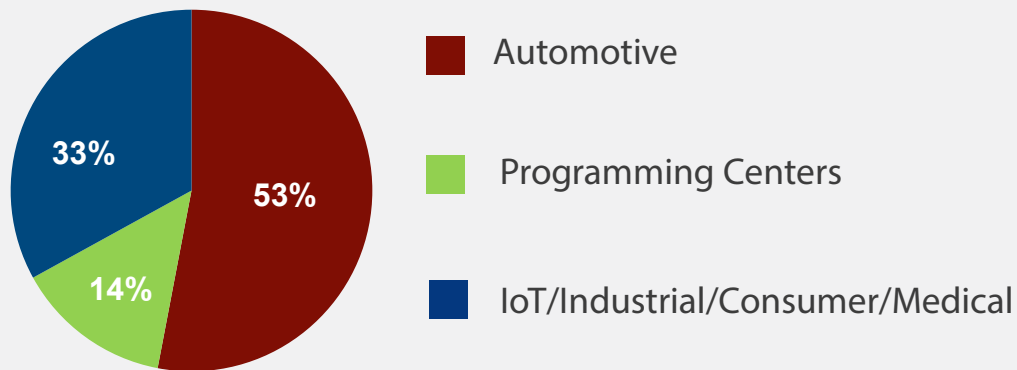


Serving Customers Globally in Growing Markets

- The largest programming company in the world, 2-3 times larger than the next programming company
- Trusted supplier to 8 out of the top 9 and 16 of the top 20 automotive electronics suppliers
- 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



2020 Annual Orders by End Markets



How Data I/O Markets Grow

Market Forces

IoT and Automotive Growth

- More Semiconductor Content
- Devices Get Smaller
- Move Towards Automation

Products will increase their code size as customers want more features

Products will be more secure, creating new opportunities

Programming Impact

Unit Growth

Bit Growth

Added Complexity + Security Requirements

Programming Demand = Units x Bits x Security

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 ~50 U.S. and International utility patents. Currently, Data I/O has ~20 U.S. and International utility patents pending

35 Industry Awards



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



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



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

Market Outlook

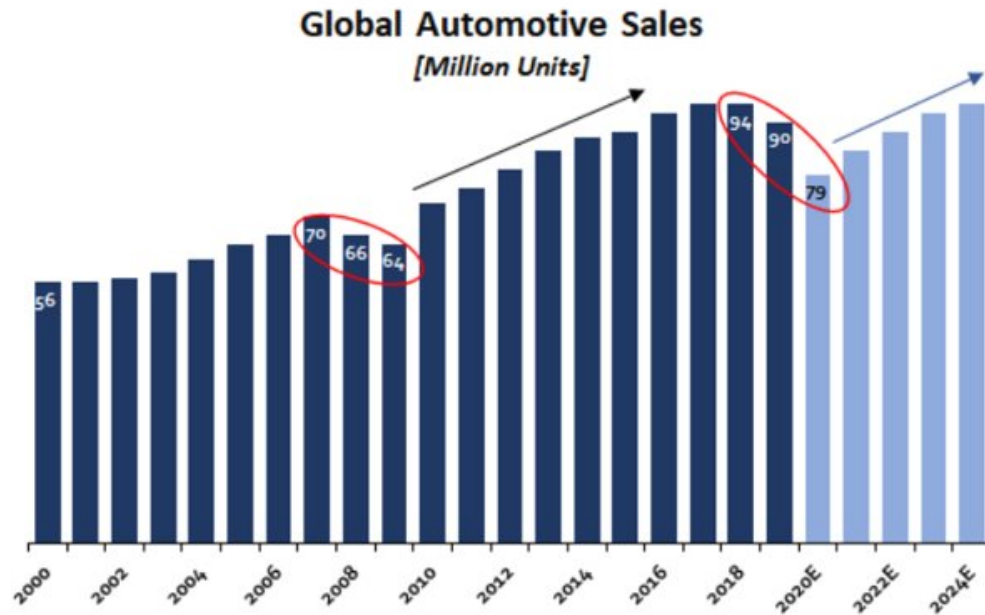
Bringing Devices to Life



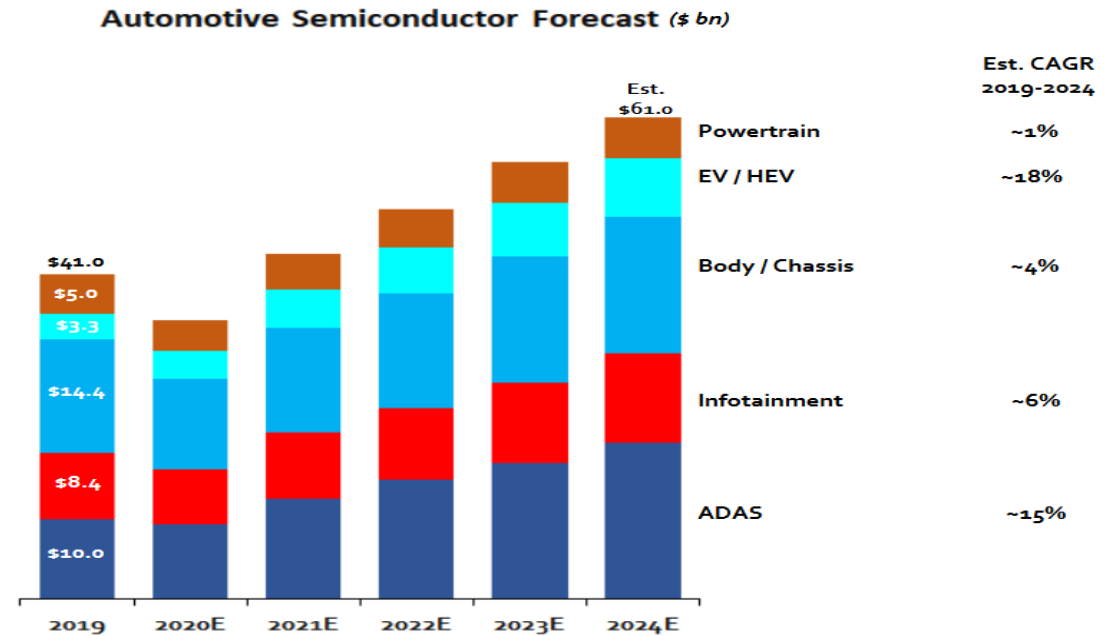
Automotive Recovery Driven by Electronics Content Growth

...while Automotive units may take years to rebound from recent declines....

IC content per vehicle estimated to increase 55% from \$450 in 2018 to \$700 by 2022 according to Gartner, driven by Growth in EV and Hybrid Vehicles.



Source: Gartner (March 2020, December 2019)



Source: Gartner – Semiconductor Forecast Database, Worldwide, Q1'20 Update

“We expect the market for car electronics and software to grow much faster than the overall automotive market”

Automotive Electronics Growth Areas



Infotainment



Electrification



ADAS/Autonomous
Driving



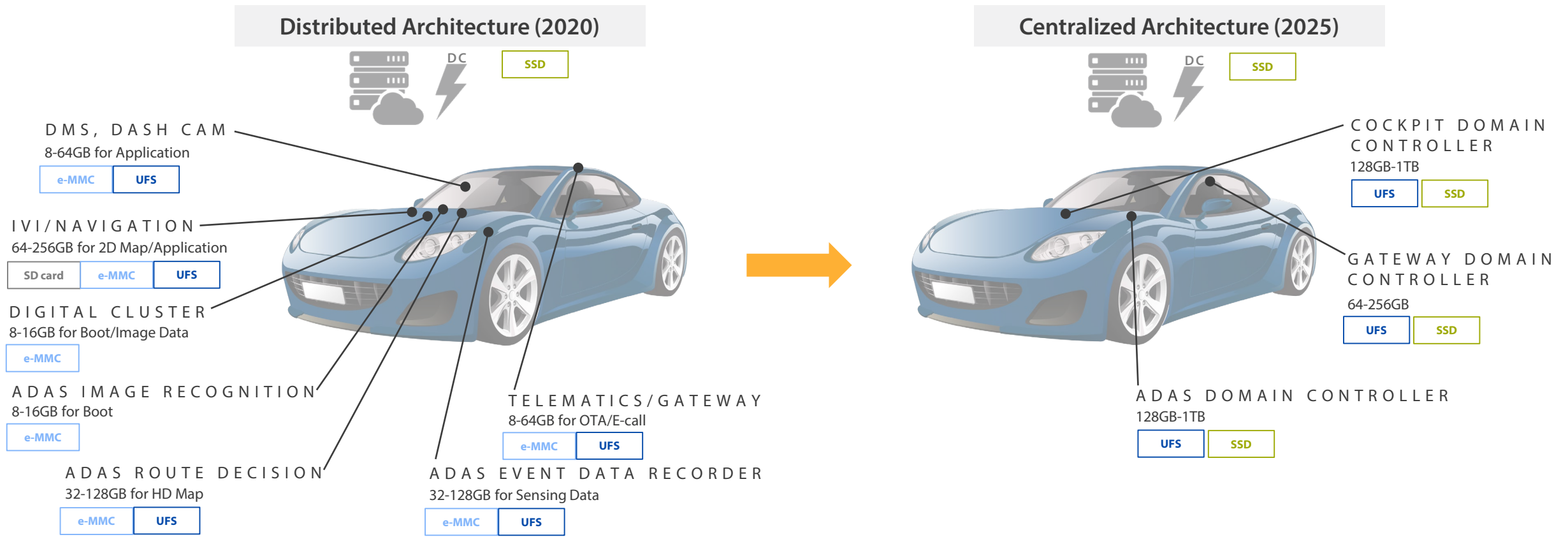
Security



Connectivity

Storage Demands in Future Automotive System

Along with the development of IVI, ADAS and autonomous driving, demands for storage devices will dramatically increase. Autonomous car needs over 1.5TB storage device in vehicle in 2025.



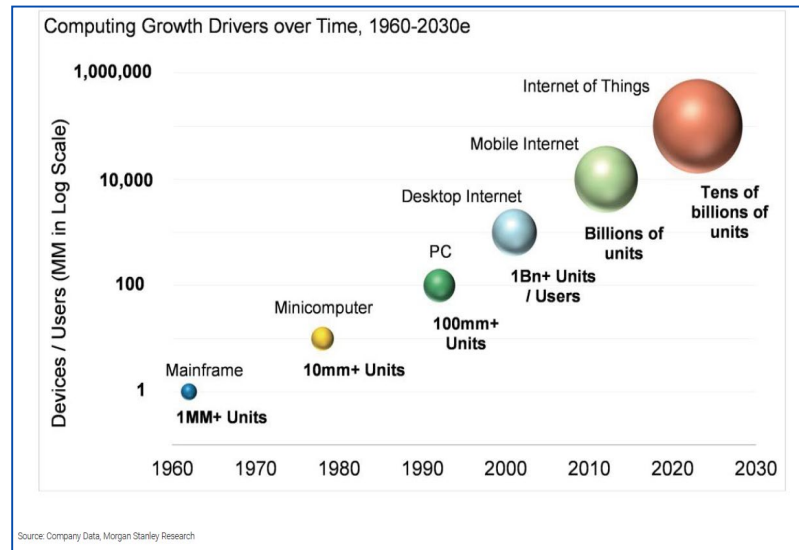
IoT Market Drivers - Multi-Year Secular Growth

The IoT is forecast to be bigger than the mobile internet and desktop markets

"We believe nearly every single industry will eventually migrate to an IoT model yielding 50 billion connected devices by 2020."

Needham & Company

Security Issues are top of mind and must be addressed



Computing

NSA Hacking Chief: Internet of Things Security Keeps Me Up at Night

The leader of the National putting industrial controls secure.

by Tom Simonite January

The trend to connect devices the Internet is making life hackers—but also keeping

Internet of Things: Shoddy security and IoT hackers are putting human lives at risk

Experts say need for IoT security isn't overhyped

Hackers demonstrated first ransomware for IoT thermostats at DEF CON

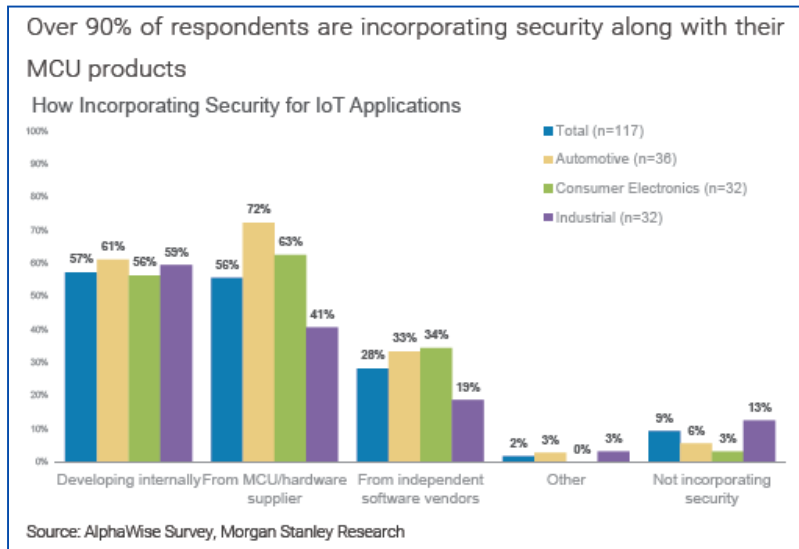
Ha! You Suck! Pay 1 Bitcoin to get control back

MORE LIKE THIS

- Thugs developing ransomware for And Hitler ransomware f
- Cryptoworms: The full ransomware hell
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on IDG Answers How to set network location in Wi so that PC can be seen by other...

IN THE



IoT Device Security in Mass Production



Commercial Benefits

- Low upfront cost
- No minimum order quantities
- Per part as-a-Service model
- Offer a premium value-added and revenue-generating service
- Upgrade an existing PSV5000 or PSV7000 to SentiX



Easy to Use

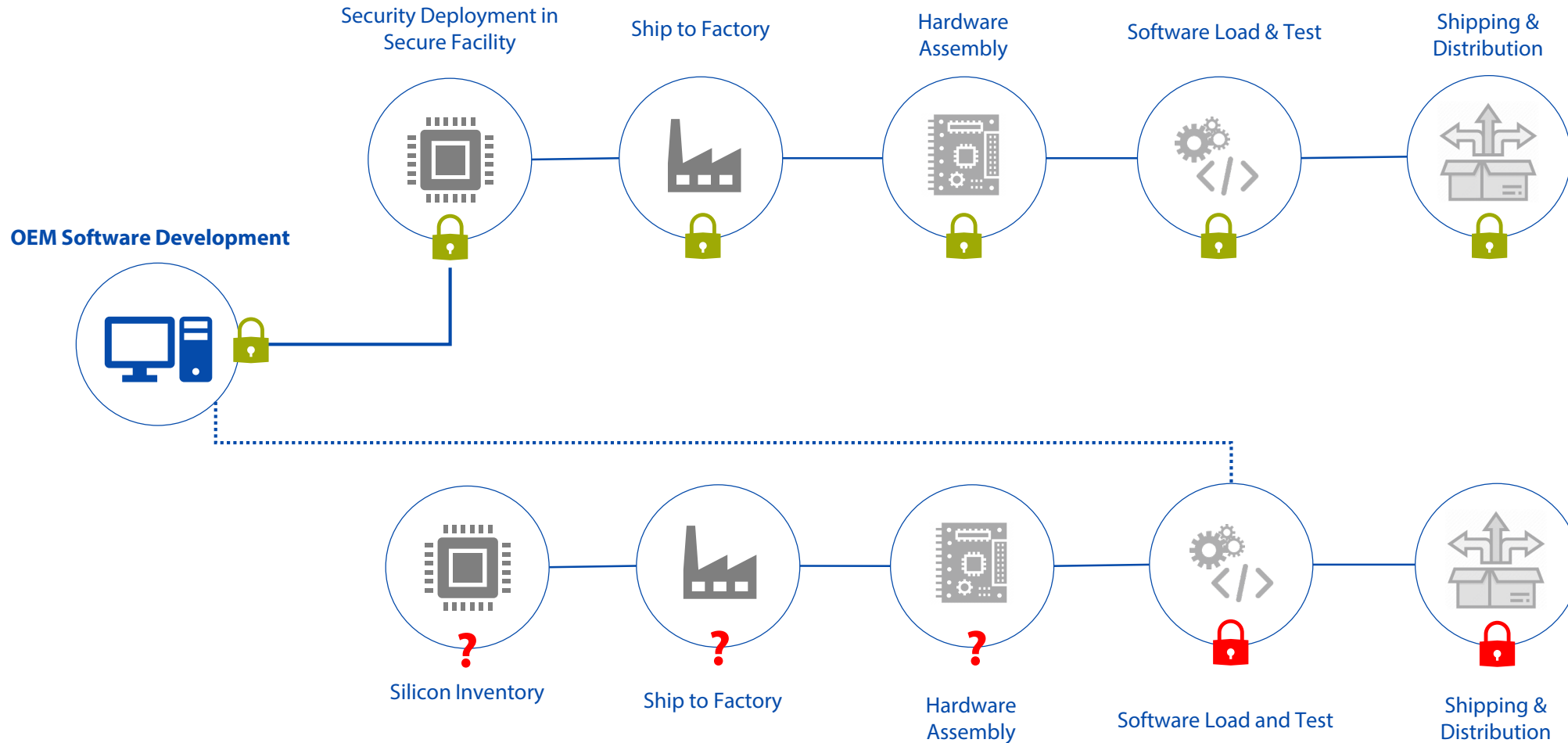
- Preconfigured security use cases
- Intuitive collaboration tool
- Low or high-volume production
- Optional services, e.g. automated cloud onboarding



Robust Security

- Pre-manufacturing assembly security deployment
- Authenticates parts
- Cryptographic protection of secrets & firmware
- Supports hardware Roots of Trust
- FIPS 140 compliant hardware security module (HSM)

Security Deployment as-a-Service



SentriX Security Deployment as-a-Service

- Per part fee, no MOQ
- Reduced attack surface

Traditional Security Deployment

- Large upfront & operating expense
- Increased attack surface

New Partnerships for Growth

SentriX
Deployments



Silicon Partners



Technology Partners

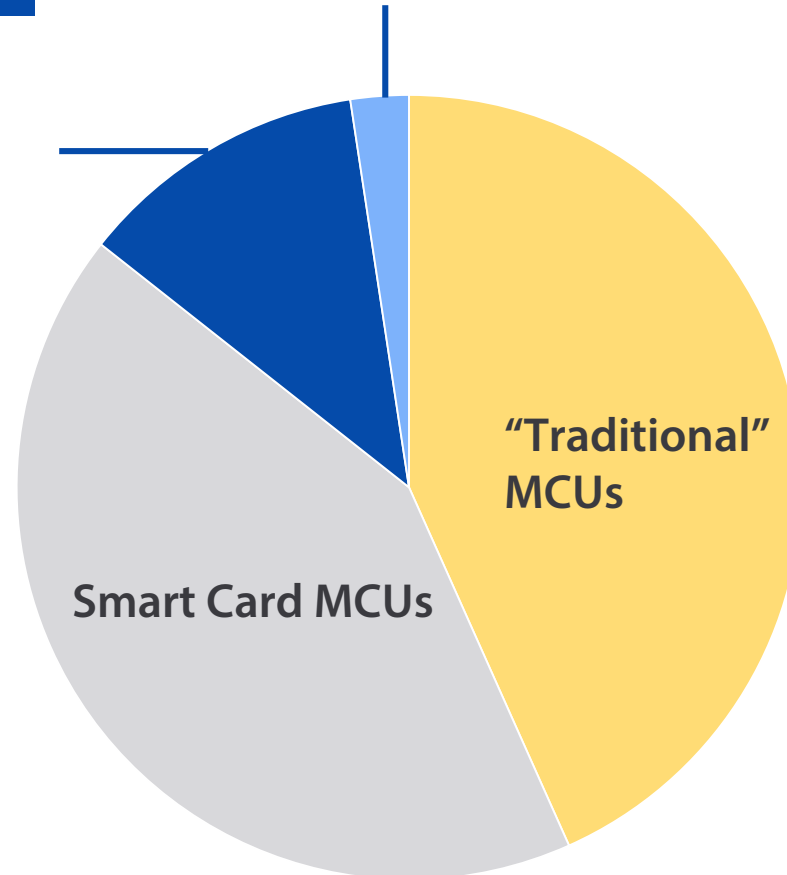


Billions of Security Enabled Devices

2023 Security Market:
3-4 Billion Units

Standalone Secure
Elements
AICs, ESEs, TPMs

“Secure” MCUs with
Embedded Secure Elements

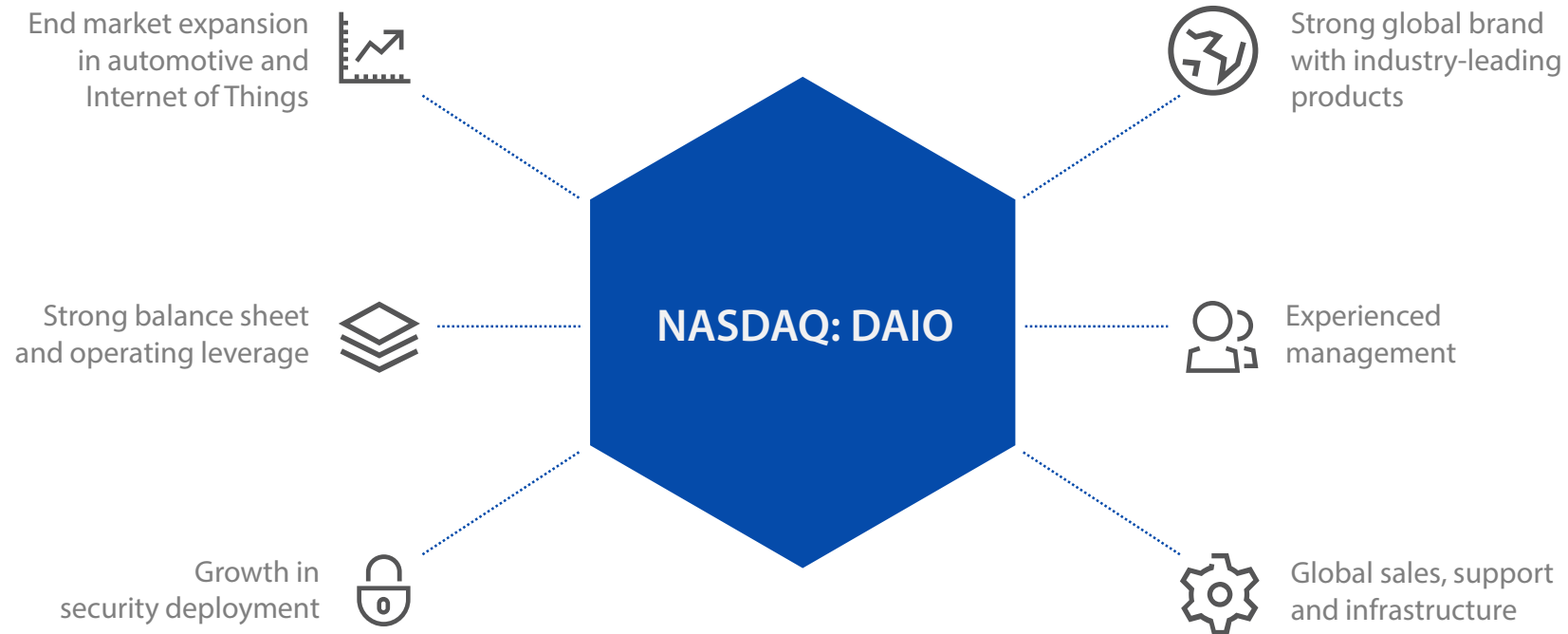


Total Market:
>20 Billion Units

Our Opportunity with SentiX

- 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 SentiX 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 SentiX
- Data I/O can now scale SentiX capabilities to over 370 PSV family systems already deployed
- Per Part Fee model drives high margin recurring revenue growth
- October 2020: released next generation SentiX Security Deployment as-a-Service including updated hardware and SentiX Product Creator™ to support fully customizable and SentiX GO™ pre-configured security profiles

Investment Merits: Positioned for Long-Term Growth



Cycle Trending Favorably in 2021

Financial Overview

Bringing Devices to Life



Financial Overview

Second Quarter Highlights

- Net sales of \$6.7 million; bookings of \$8.9 million
- Strong quarter-end backlog of \$5.0 million
- Gross margin as a percentage of sales of 57.0%
- Net loss of (\$29,000) or (\$0.00) earnings per share
- Adjusted EBITDA* of \$597,000
- Cash & Equivalents of \$13.0 million; no debt
- Automotive Electronics represented 56% of second quarter 2021 bookings
- Six new customer wins in the quarter
- Growth in SentiX® Security Deployment Platform supports and design wins
 - First booking of SentiX capital equipment sale with software license
 - Qualification of PSV5000 for field upgrades; completed first PSV7000 field conversion to SentiX

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

Balance Sheet and Capital Structure Overview

Balance Sheet Highlights

At June 30, 2021:

- \$13.0 million in cash and cash equivalents
- No debt
- \$18.2 million of net working capital
- Total stockholders' equity of \$19.5 million, or approx. \$2.26 per diluted share outstanding
- EV/Sales at 1.5x⁽³⁾
- NOLs of approximately \$13.0 million

Enterprise Value (\$K)

Market Cap ⁽¹⁾	\$ 54,044
Plus Total Debt ⁽²⁾	0
Less Total Cash ⁽²⁾	<u>\$ 13,013</u>
Enterprise Value	\$ 41,031
Diluted Shares Outstanding ⁽²⁾	8,619,522

⁽¹⁾ At 8/4/21

⁽²⁾ At 6/30/21

⁽³⁾ Sales based on TTM through 6/30/21 financial results

Balance Sheet Strategy

- Important to maintain strong balance sheet in a cyclical industry, with about 60% of revenues from capital equipment sales
- Financial flexibility allows the company to:
 - Withstand, and advance during, downturns in semi cycle and COVID-19
 - Invest in organic and acquisitive growth opportunities for the long term
 - Develop recurring revenue streams
- \$2 million buyback completed in quarter ended 9/30/19
- Approx. \$8.1 million returned to shareholders from buybacks authorized in '12, '16 and '18

Growing Recurring Revenue Mix

Capital Equipment

- Approx. 56% of 2020 sales
- Off-line and in-line programming 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. 28% of 2020 sales
- Usually last 3-24 months

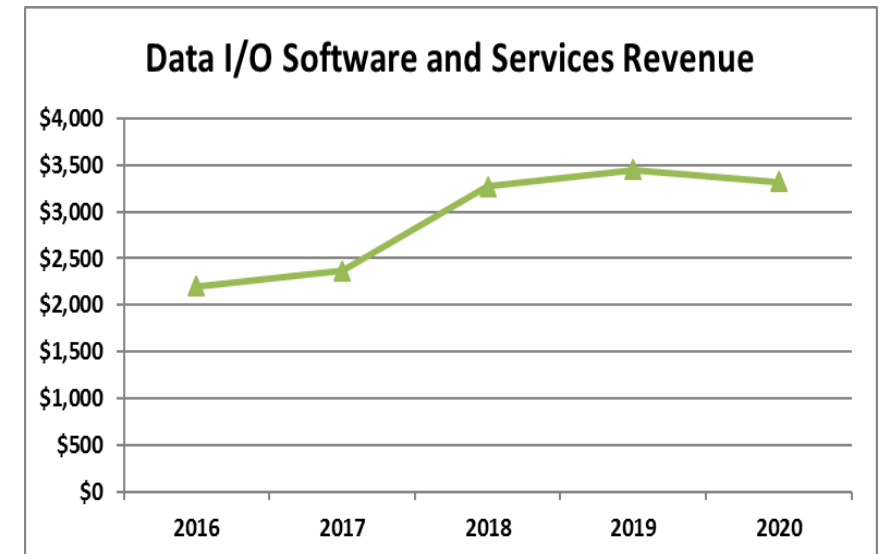
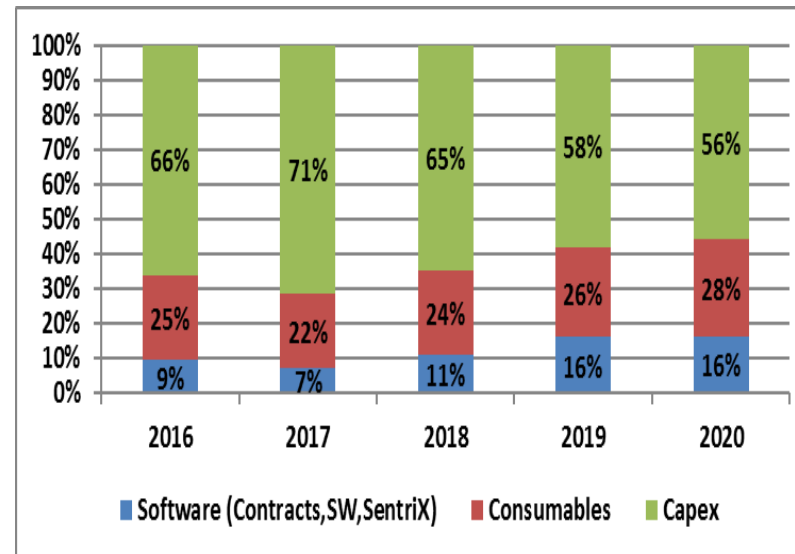
Software, SentiX, Service



- Approx. 16% of 2020 sales
- Annual Software/Service Contracts
- Device Supports
- SentiX Revenues

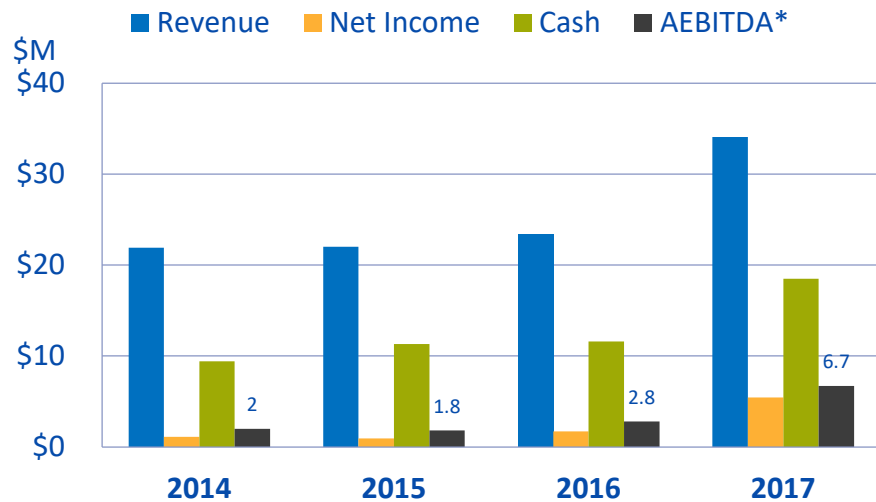
2020 Highlight

Percentage of total sales attributable to consumables, software and services increased for third consecutive year

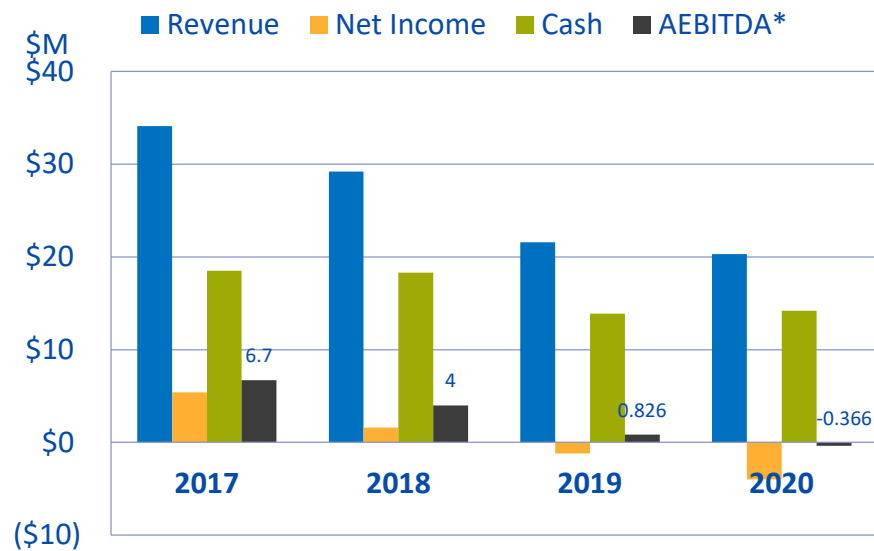


Operating Leverage Poised for Upcycle

Prior Upcycle: 2014-2017



Prior Downturn: 2017-2020



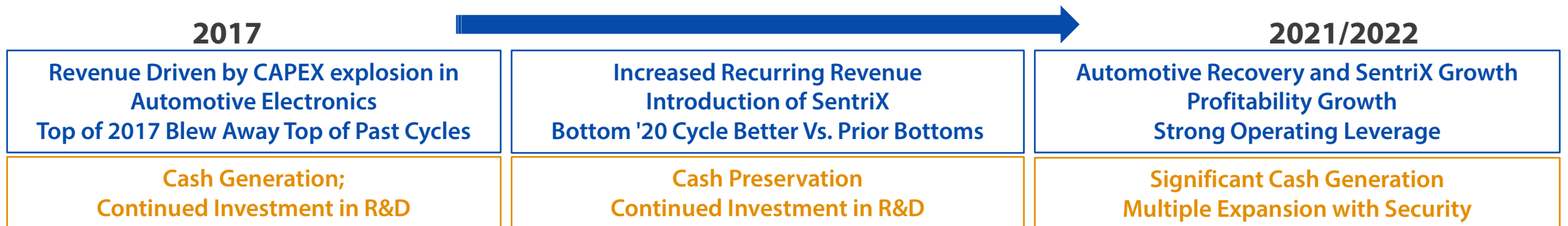
*Adjusted EBITDA is a non-GAAP measure; reconciliation to GAAP provided.

- Prior Upcycle: 2014-2017/2018**
- PSV programming systems launched
 - Revenue increased 56%
 - Gross margin peaked at over 62%
 - Net Income increased 390%
 - Cash increased 97%
 - AEBITDA margin from 9.1% to 19.6%

- Prior Downturn: 2018-2020**
- Consumables increase as % of rev's
 - Capital equipment break to upside in 4Q19 interrupted by COVID-19
 - Gross margin bottomed at over 52%
 - OpEx sustained near \$3.4M
 - Cash ~\$4M higher than at 2014
 - AEBITDA maintained near breakeven
 - PSV installed base of 330+ drives service revenue
 - SentiX launched

- Next Upcycle Opportunity:**
- Automotive and SentiX Growth
 - Improved gross margins
 - Higher % of Recurring Revenue
 - Operating Leverage accelerated

Path to the Next Upcycle



A large conference room with many people seated at desks with laptops. A screen at the front displays the Data IO logo. The room has a modern, professional appearance with wood paneling and recessed lighting.

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

Management Team & 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.



Adjusted EBITDA Reconciliation

NON-GAAP FINANCIAL MEASURE RECONCILIATION

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2020	2019	2020	2019
(in thousands)				
Net Income (loss)	(\$1,646)	(\$496)	(\$3,964)	(\$1,187)
Interest (income)	(1)	(6)	(14)	(53)
Taxes	(55)	(21)	387	31
Depreciation and amortization	194	196	815	868
EBITDA	(\$1,508)	(\$327)	(\$2,776)	(\$341)
Equity compensation	371	260	1,467	1,171
Impairment & related charges	943	-	943	-
Adjusted EBITDA, excluding equity compensation and impairment & related charges	(\$194)	(\$67)	(\$366)	\$830

(in thousands)				
Gross Margin	\$2,322	\$3,280	\$10,822	\$12,550
Impairment related obsolete inventory charges	291	-	291	-
Adjusted gross margin excluding impairment related obsolete inventory charges	\$2,613	\$3,280	\$11,113	\$12,550

Gross Margin as a % of sales	47.0%	55.9%	53.2%	58.2%
Impairment related obsolete inventory charges as a % of sales	5.9%	0.0%	1.5%	0.0%
Adjusted gross margin excluding impairment related obsolete inventory charges as a % of sales	52.9%	55.9%	54.7%	58.2%

Impairment & related charges include the following:

(in thousands)

Impairment charges	\$652	-	\$652	-
Obsolete inventory charges	291	-	291	-
Total impairment & related charges	\$943	-	\$943	-

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
(in thousands)				
Net Income (loss)	(\$29)	(\$1,057)	(\$362)	(\$1,611)
Interest (income)	-	(1)	(3)	(9)
Taxes	75	97	107	102
Depreciation and amortization	150	249	348	447
EBITDA	\$196	(\$712)	\$90	(\$1,071)
Equity compensation	401	481	680	730
Adjusted EBITDA, excluding equity compensation	\$597	(\$231)	\$770	(\$341)

Adjusted EBITDA Reconciliation – 2014-2020

NON-GAAP FINANCIAL MEASURE RECONCILIATION

(in thousands)	Twelve Months Ended December 31,						
	2020	2019	2018	2017	2016	2015	2014
Net Income (loss)	(\$3,964)	(\$1,187)	\$1,606	\$5,449	\$1,656	\$927	\$1,099
Interest (income) expense	(\$14)	(\$53)	(\$37)	(\$29)	(\$44)	(\$105)	(\$159)
Taxes	\$387	\$31	\$291	(\$288)	\$36	(\$5)	\$7
Depreciation and amortization	\$815	\$868	\$955	\$822	\$602	\$542	\$593
EBITDA earnings (loss)	(\$2,776)	(\$341)	\$2,815	\$5,954	\$2,250	\$1,359	\$1,540
Equity compensation	\$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	(\$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 December 31,		Twelve Months Ended December 31,			Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019		2021	2020	2021	2020
Net Sales	\$4,941	\$5,868	\$20,328	\$21,568	Net Sales	\$6,733	\$4,655	\$12,748	\$9,440
Cost of goods sold	2,619	2,588	9,506	9,018	Cost of goods sold	2,896	2,216	5,573	4,217
Gross margin	2,322	3,280	10,822	12,550	Gross margin	3,837	2,439	7,175	5,223
Operating expenses:					Operating expenses:				
Research and development	1,594	1,583	6,357	6,451	Research and development	1,673	1,614	3,279	3,196
Selling, general and administrative	1,567	2,039	6,891	7,377	Selling, general and administrative	2,054	1,703	4,116	3,514
Impairment	652	-	652	-	Total operating expenses	3,727	3,317	7,395	6,710
Total operating expenses	3,813	3,622	13,900	13,828	Operating income(loss)	110	(878)	(220)	(1,487)
Operating income(loss)	(1,491)	(342)	(3,078)	(1,278)	Non-operating income:				
Non-operating income:					Interest income	-	1	3	9
Interest income	1	6	14	53	Foreign currency transaction gain				
Gain on sale of assets	-	4	-	64	(loss)	(64)	(83)	(38)	(31)
Foreign currency transaction gain (loss)	(211)	(185)	(513)	5	Total non-operating income	(64)	(82)	(35)	(22)
Total non-operating income	(210)	(175)	(499)	122	Income(loss) before income taxes	46	(960)	(255)	(1,509)
Income(loss) before income taxes	(1,701)	(517)	(3,577)	(1,156)	Income tax (expense) benefit	(75)	(97)	(107)	(102)
Income tax (expense) benefit	55	21	(387)	(31)	Net income(loss)	(\$29)	(\$1,057)	(\$362)	(\$1,611)
Net income(loss)	(\$1,646)	(\$496)	(\$3,964)	(\$1,187)					
Basic earnings(loss) per share	(\$0.20)	(\$0.06)	(\$0.48)	(\$0.14)	Basic earnings(loss) per share	\$0.00	(\$0.13)	(\$0.04)	(\$0.19)
Diluted earnings(loss) per share	(\$0.20)	(\$0.06)	(\$0.48)	(\$0.14)	Diluted earnings(loss) per share	\$0.00	(\$0.13)	(\$0.04)	(\$0.19)
Weighted-average basic shares	8,416	8,212	8,333	8,247	Weighted-average basic shares	8,517	8,302	8,469	8,261
Weighted-average diluted shares	8,416	8,212	8,333	8,247	Weighted-average diluted shares	8,517	8,302	8,469	8,261

Balance Sheet

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

	June 30, 2021	December 31, 2020
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$13,013	\$14,167
Trade accounts receivable, net of allowance for doubtful accounts of \$83 and \$66, respectively	4,502	2,494
Inventories	5,611	5,270
Other current assets	1,179	1,319
TOTAL CURRENT ASSETS	24,305	23,250
Property, plant and equipment – net	971	1,216
Other assets	1,614	1,126
TOTAL ASSETS	\$26,890	\$25,592
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$1,720	\$1,245
Accrued compensation	1,700	1,509
Deferred revenue	1,340	1,068
Other accrued liabilities	1,293	1,307
Income taxes payable	93	62
TOTAL CURRENT LIABILITIES	6,146	5,191
Operating lease liabilities	1,085	588
Long-term other payables	161	174
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, 8,619,522 shares as of June 30, 2021 and 8,416,335 shares as of December 31, 2020	20,320	20,071
Accumulated earnings	(1,818)	(1,456)
Accumulated other comprehensive income	996	1,024
TOTAL STOCKHOLDERS' EQUITY	19,498	19,639
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$26,890	\$25,592