



QuickLogic Investor Presentation

March 2019
NASDAQ: QUIK



Safe Harbor Statement

This press release contains forward-looking statements regarding our future business expectations, which are subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are only predictions and may differ materially from actual results due to a variety of factors including: delays in the market acceptance of the Company's new products; the ability to convert design opportunities into customer revenue; our ability to replace revenue from end-of-life products; the level and timing of customer design activity; the market acceptance of our customers' products; the risk that new orders may not result in future revenue; our ability to introduce and produce new products based on advanced wafer technology on a timely basis; our ability to adequately market the low power, competitive pricing and short time-to-market of our new products; intense competition, including the introduction of new products by competitors; our ability to hire and retain qualified personnel; changes in product demand or supply; capacity constraints; and general economic conditions. These and other potential factors and uncertainties that could cause actual results to differ from the results predicted are described in more detail in the Company's public reports filed with the Securities and Exchange Commission (the "SEC"), including the risks discussed in the "Risk Factors" section in the Company's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and in the Company's prior press releases, which are available on the Company's Investor Relations website at <http://ir.quicklogic.com/> and on the SEC website at www.sec.gov. QuickLogic expressly disclaims any obligation to update or revise any forward-looking statements found herein to reflect any changes in Company expectations or results or any change in events.

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Company Overview

- Full-stack semiconductor solutions company enabling significantly longer battery life & immersive user experience for Smartphones, Wearables, Hearables, Tablets, Consumer Electronics, Industrial & IoT
- Practical, end-to-end solution for localized AI in edge and endpoint devices



AI at the Edge



- The rise of AI-enabled chips
- Convergence of IoT and AI at the endpoint
- Democratizing the power of machine learning

Recent Developments

SensiML - Transformative Acquisition Creating Inflection Point

- SensiML – Software-as-a-Service AI company
- Former Intel AI software team with core competence in ML/AI on low power embedded H/W
- Cross leverage between SensiML’s software suite, QuickLogic’s QuickAI™ platforms, and QuickLogic eFPGA IP – enables full-stack solution from semiconductor IP to SoC to Software
- Practicable End-to-End solution for emerging Edge/Endpoint AI market
- Target positive EBITDA of SensiML business unit for FY 2019
- Drives higher SaaS margins and “stickier” revenues / subscription model

Recent Accomplishments

- EOS™ S3AI Platform – single chip hardware and software solution for AI in edge/endpoint
- JD.com & SF Technology Company released new Bluetooth headsets designed with EOS S3
- Received first material revenue from QuickAI in fourth quarter 2018
- Signed 3rd Master Technology License Agreement (MTLA) and license revenue for eFPGA

Investment Rationale

Addressing Critical Needs

- Delivering a practical, end-to-end solution for AI where battery life, bandwidth, latency and security are critical

Top Tier Customers and Ecosystem Partners



Competitive Advantages

- ~100 patents in core IP
- eFPGA hardware accelerators optimize endpoint AI applications
- Practical end-to-end AI solution, from semiconductor IP through SaaS software
- Ecosystem partnerships with industry leaders

Driving to Profitable Growth

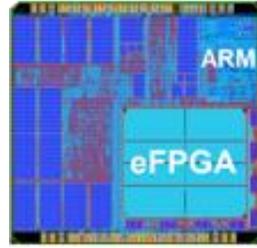
- Secured numerous SoC design wins for Smartphone, Wearable, Hearable, Tablet, Consumer Electronics, Industrial and IoT markets
- Executing license agreements for eFPGA IP
- Expanding market for technology with QuickAI™ platform for endpoint AI applications
- SensiML acquisition expands AI capability and Served Available Market

Product Lines



Voice / Sensor Processing System-on-Chip

- Multi-core SoC for sensor processing, Endpoint Devices, Artificial Intelligence, immersive user experience of sensor fusion and always-on deeply embedded voice recognition



Embedded FPGA IP Licensing (eFPGA) & devices

- Enables pre-processing for Artificial Intelligence in Edge and Endpoint Devices



SensiML AI Software Platform

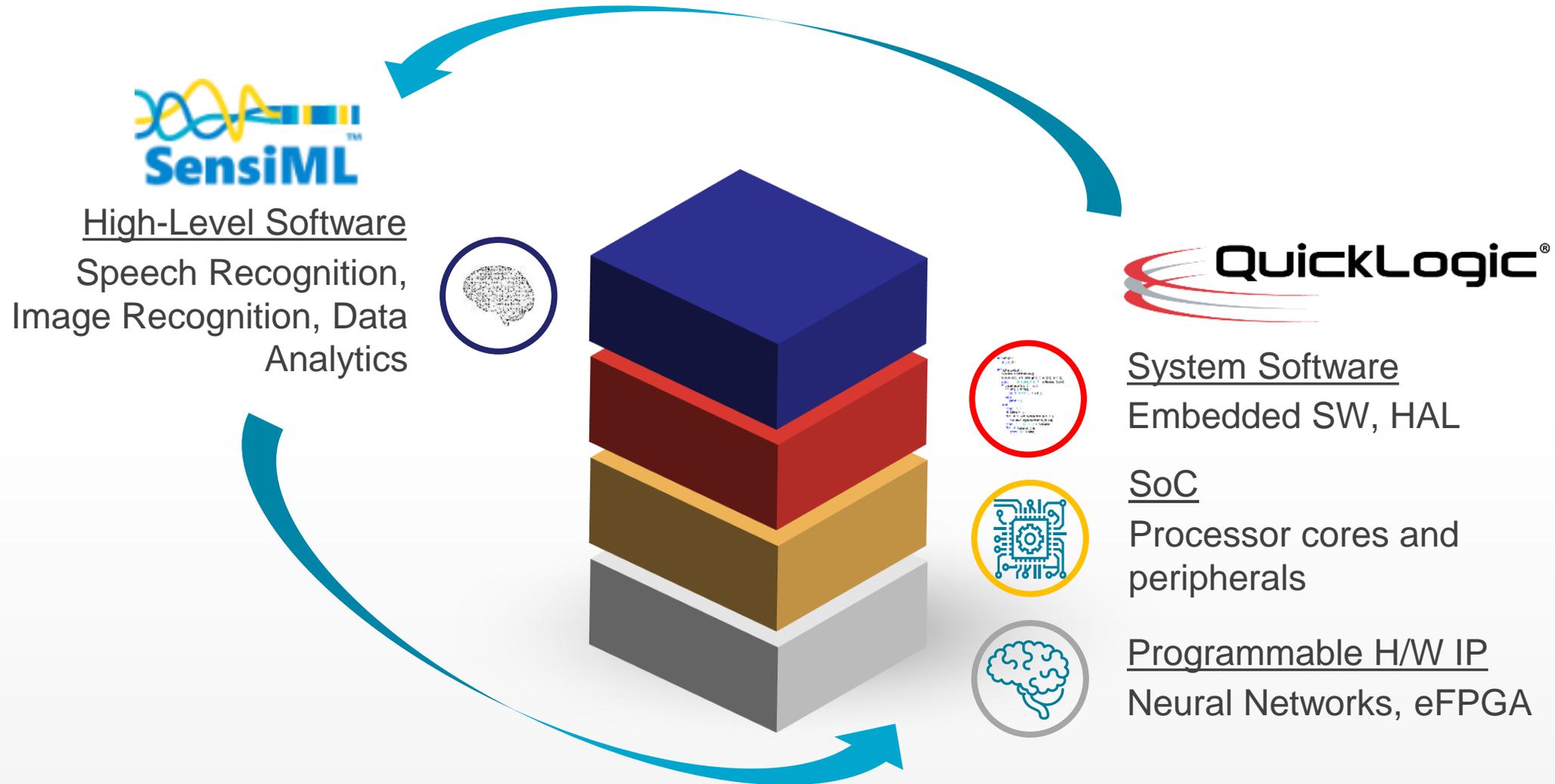
- SaaS AI software Tool Kit that makes building intelligent endpoint IoT products practical by democratizing the application of AI to Software Developers



Display Bridges & Connectivity

- Solves interface mismatches between Application Processors and Displays

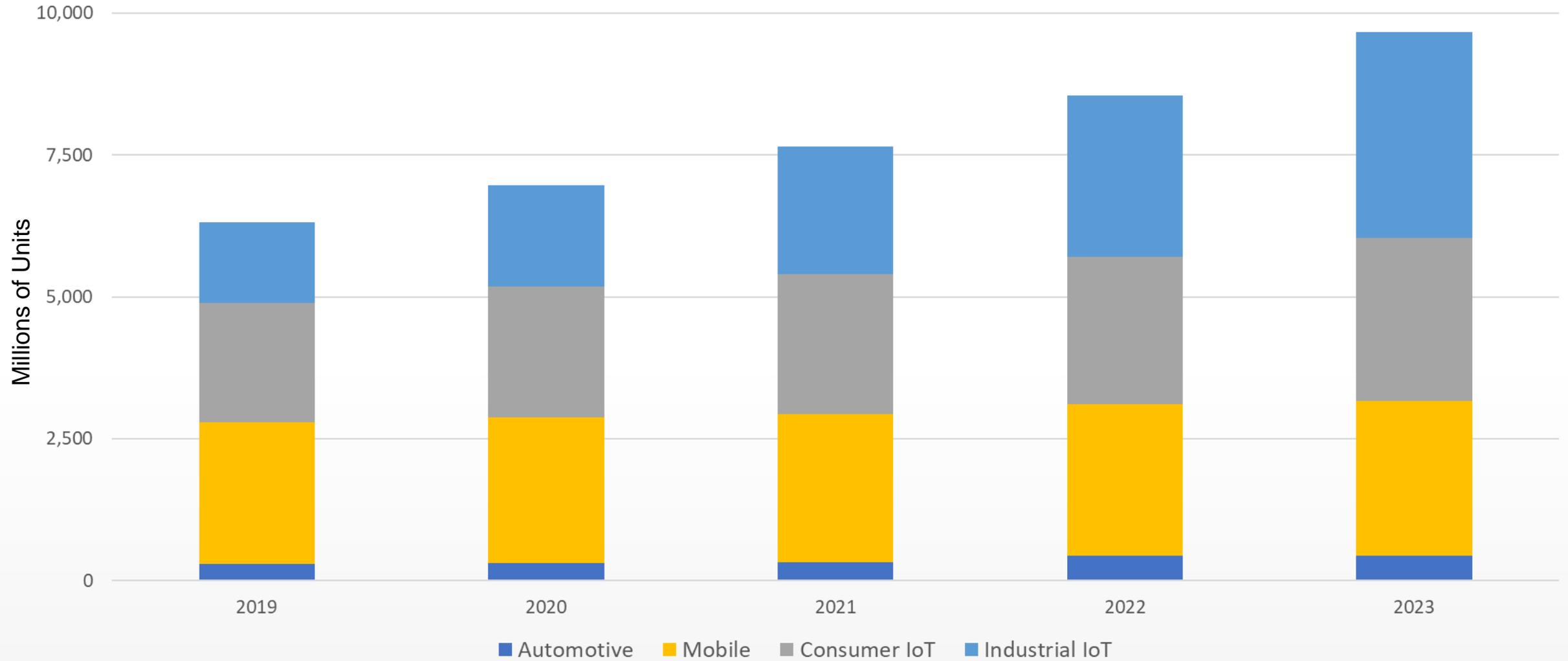
Cross-Leverage of the Full-Stack Solution



Voice / Sensor Processing SoC



IoT Market Growth – A ~10B Unit Market by 2023



Immersive User Experience Requires More Sensors

Motion Sensors



Biological Sensors



Environmental Sensors



Gesture Sensors



Always-Listening Driven by Cloud Platform Providers

Voice is the next interface...



Expanding Ecosystem Partnerships With Industry Leaders

Immersive User Experience & Artificial Intelligence at the Endpoint



Leading supplier of deeply embedded voice recognition technology



Global developer of embedded audio digital signal processing solutions



World leading vendor of Bluetooth® low energy Systems-on-Chip (SoCs)



Produces the NM500, a NeuroMem-based IC that enables artificial & intelligence in endpoint solutions



Leading-edge software tools that enable the quick and easy generation of application-specific pattern recognition code.



Leading supplier of Android-compliant sensor fusion algorithms for Chinese OEMs



A total solution company for audio products

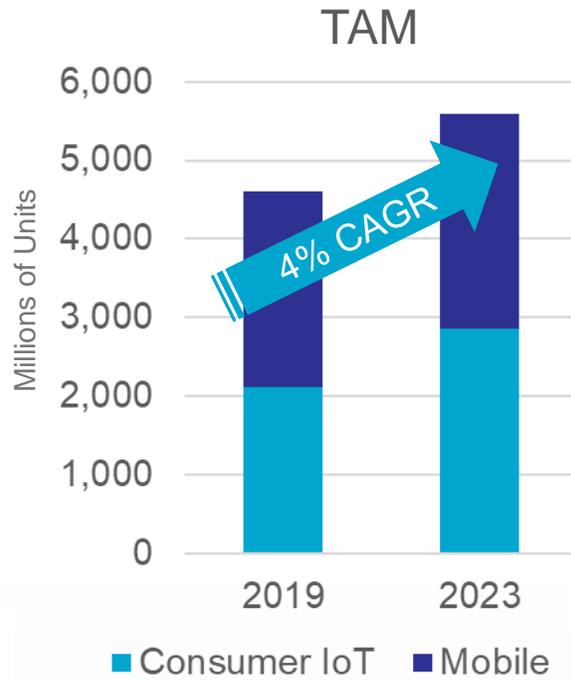


Rapidly growing leading enterprise provider of Artificial Intelligence (AI) speech technology

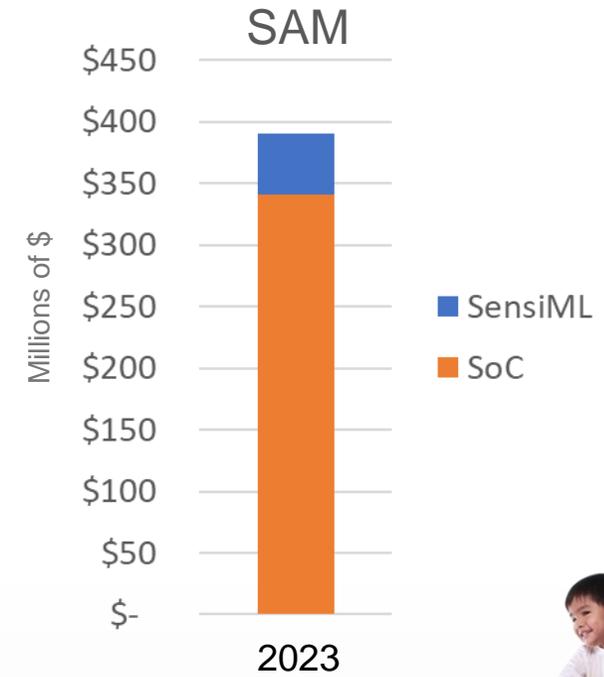


The inventor of NeuroMem, a scalable neural network technology

Consumer Application Example – Voice-Enabled Products



~\$400M SAM
created through
cross-leverage of
full-stack offering



■ Consumer IoT ■ Mobile

Challenges

- Integrating always-on voice at very low power with additional sensors for user experience

Solution

- EOS S3 Platform for Sensor & Voice Processing
- Optional SensiML AI toolkit for development of unique sensor algorithms



Hearables



Wearables



Smart Speakers



Tablets



Smartphones



CE & Appliances

Sensor Processing SoC Market Adoption

Ramping Now

Platform Wins

- Japanese OEM – standardizing on EOS S3 SoC for all MCU applications in smartphones, feature phones & IoT products
- Large CE product win launched at CES 2019
- EOS S3 engagement with a leading Consumer Goods company for a high volume AC powered always-on / always-listening application

Wearables

- Naver Labs in Korea (\$20B market cap) – Smartwatch Korea Telecom (KT)



Tablets

- Large Chinese OEM, EEBBK – Shipping in two Design Wins



Hearables



- JD.com shipping its new Pilot U-LIFE N1 smart headset
- 1More's Always-On Always-Listening Bluetooth Headset associated with large Chinese company shipping now
- SF Technology Company, Ltd. initiated deployment of its Xiaofeng Smart Bluetooth® Headset

Ecosystem

- Murata introduced battery-powered WiFi Smart Speaker in May 2018 at Japan IoT Show
- Ultra-low power Amazon Alexa support for products using Qualcomm Bluetooth audio SoCs

eFPGA Intellectual Property Licensing

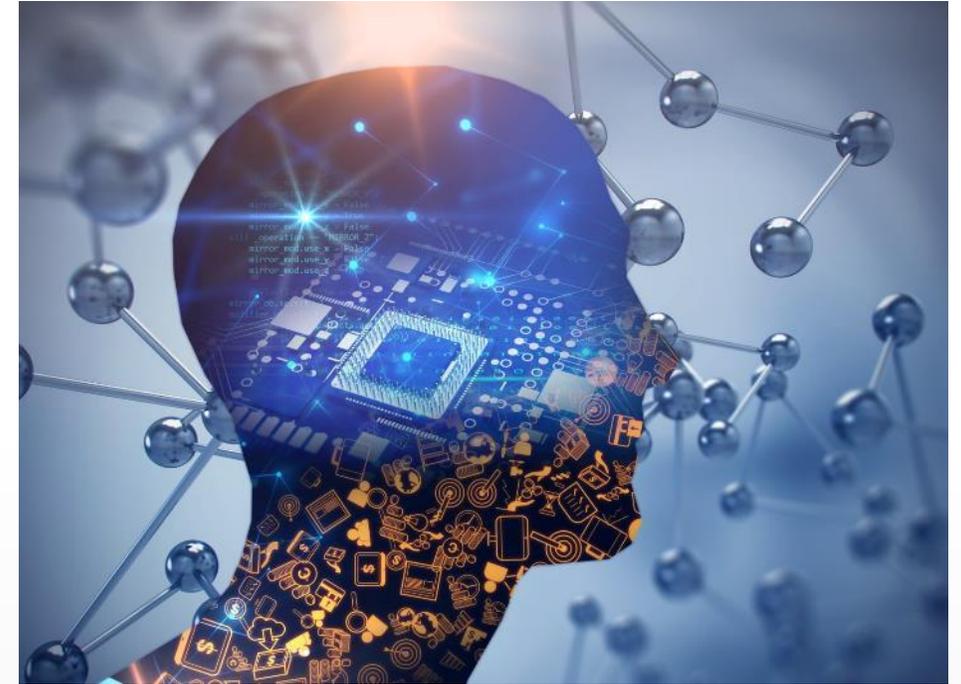


Licensing Model Brings New High Margin Business

eFPGA IP Licensing Positioning



- Targets significant financial potential
 - \$10M+ potential annual licensing revenue with upside on royalty revenue in 2+ years
- Creates new, high gross margin manufacturing licenses revenue streams
- Delivers flexibility and reduced R&D costs for SoC vendors



The embedded semiconductor intellectual property (IP) market is expected to grow from \$3.09B to over \$7B by 2022, according to Markets&Markets.

eFPGA – Market Momentum

- ETH Zurich has taped out Parallel Ultra Low Power (PULP) platform targeting GLOBALFOUNDRIES' 22FDX using QuickLogic eFPGA
- Strategic eFPGA Partnership with C-SKY Microsystems for C-SKY's ultra-low power common CPU platform
- Signed 3rd MTLA / License Agreement in Q4'2018
- Joined RISC-V Foundation to broaden the adoption of open-source architecture and ecosystems and to leverage the eFPGA IP

ETH zürich



SensiML AI Software Platform





Sensiml

MAKING SENSOR DATA SENSIBLE

The SensiML Team

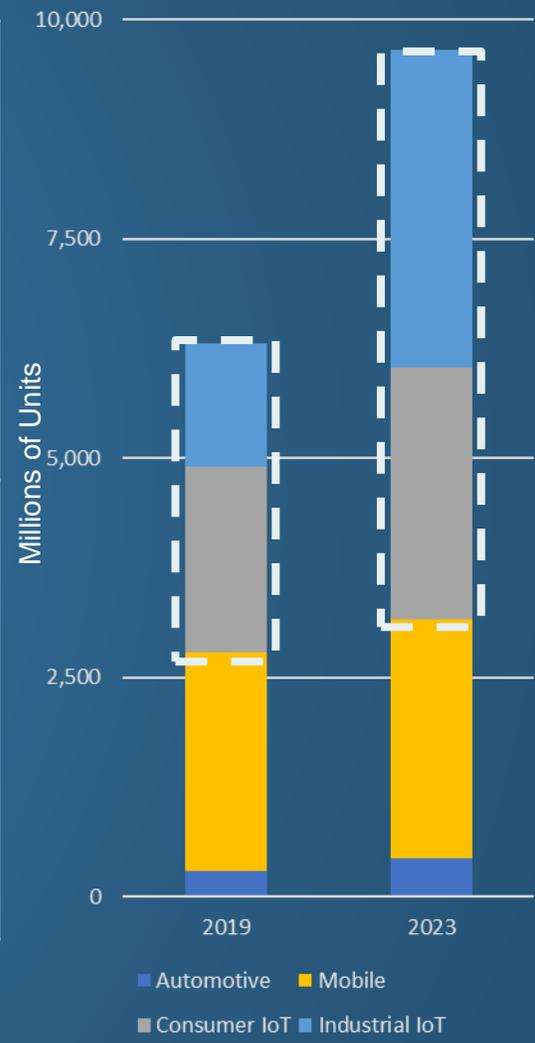
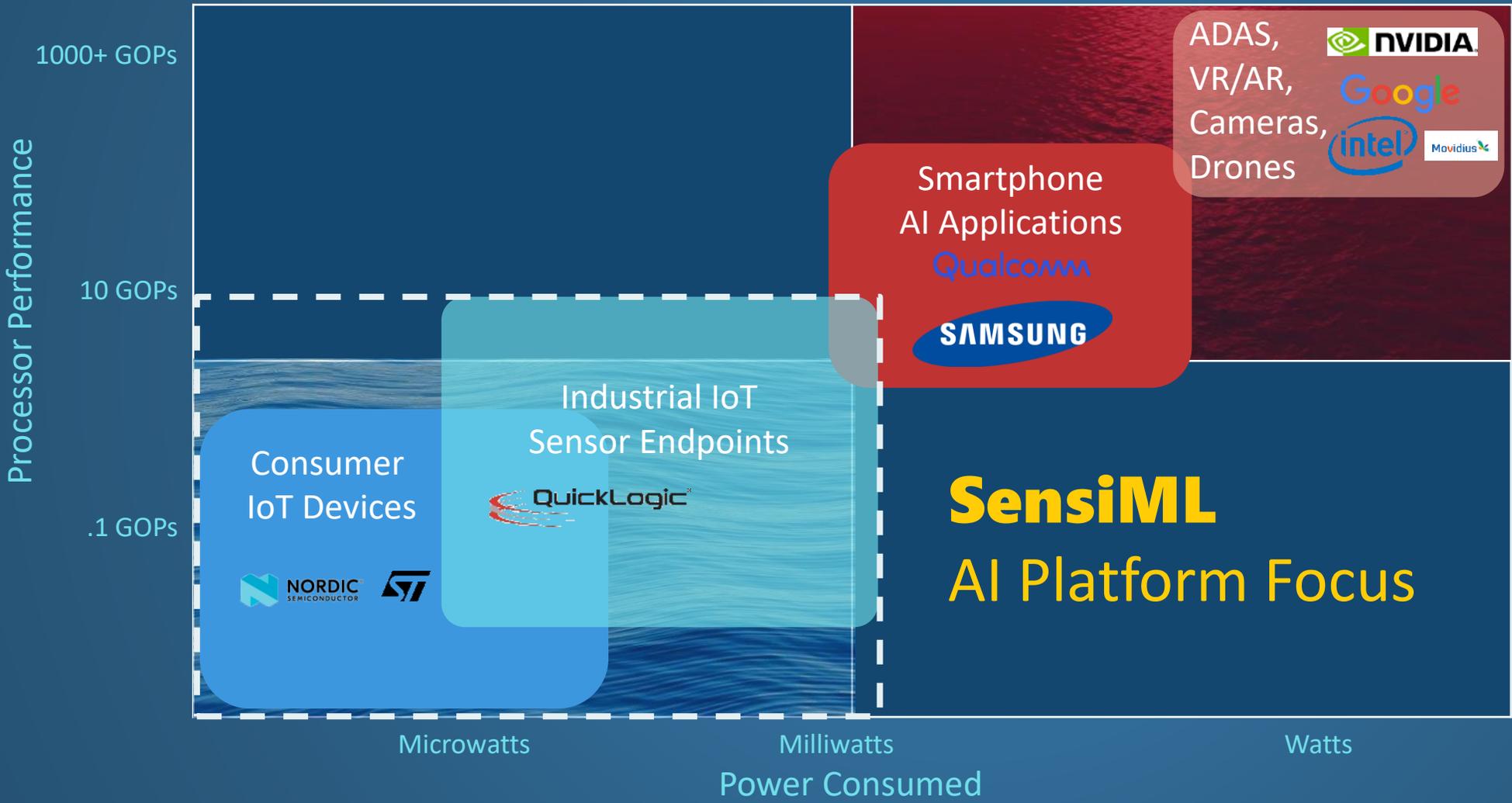
Former Intel[™] Curie and Quark AI Software Team

- Acquired Intel Knowledge Builder IP as spin-out in 2017
- Core competence in ML/AI on low-power embedded HW
- Intact core product team in Portland, Oregon formed in 2012

Established Software-as-a-Service (SaaS) Subscription and per unit royalty model
with nearly \$250M Served Available Market

Edge and Endpoint AI: Platform Segments

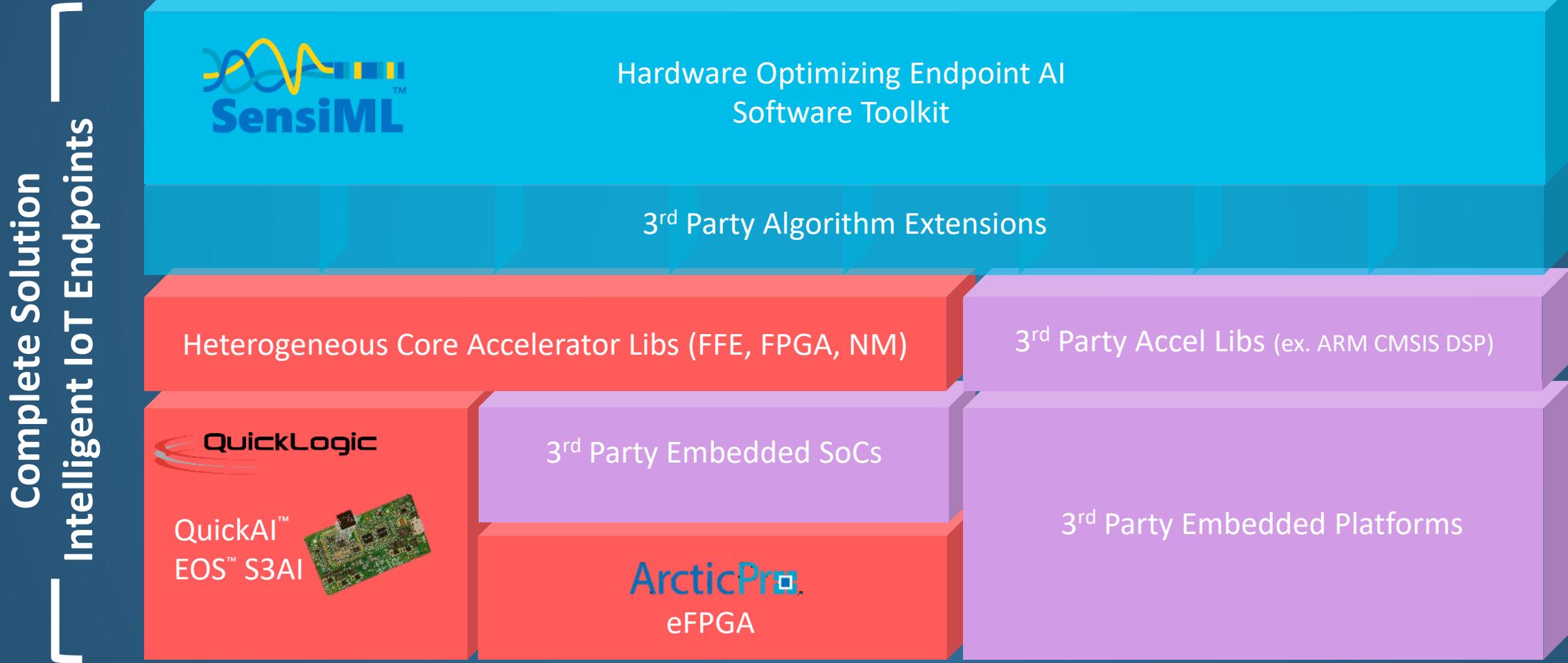
Increasing Silicon Cost →



Source: ABI Research 2019

QuickLogic and SensiML

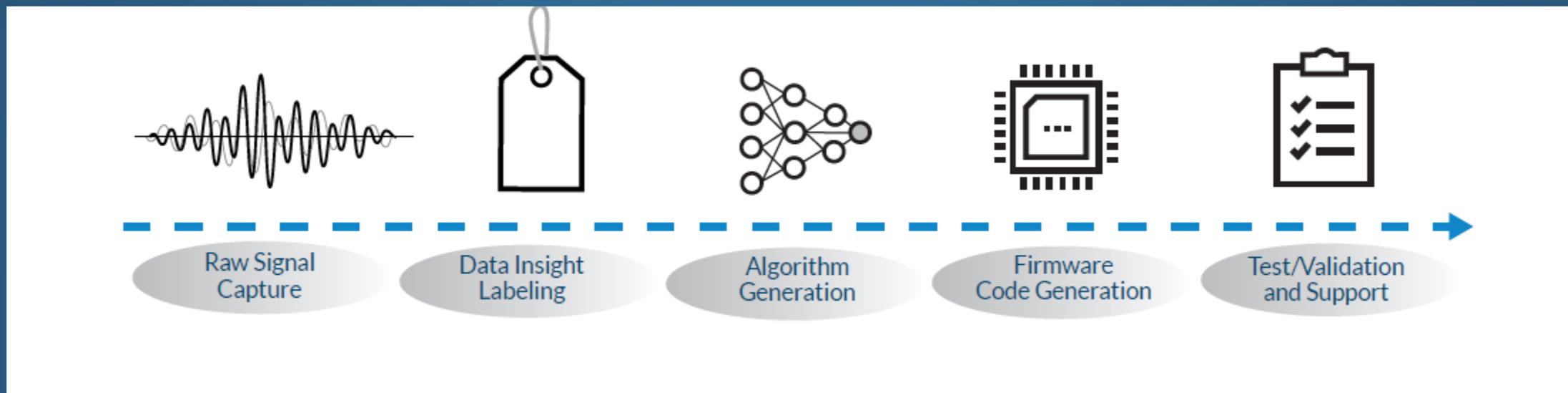
Highly Aligned Visions, Complementary HW / SW



FFE – QuickLogic Flexible Fusion Engine
NM – General Vision Neuromorphic Memory

CMSIS DSP – Arm DSP functions optimized for Cortex-M processor cores

Building Intelligent Endpoints Quickly and Easily



“Many semiconductor companies...have to understand the entire IoT stack’s requirement, and in some cases, create an end-to-end solution that facilitates market adoption.”... Deloitte, July 2018

What Problem Are We Solving?

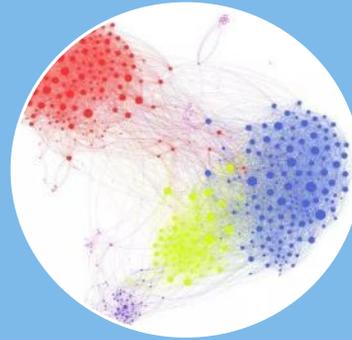
Teach Device To Recognize
Insights From Sensor Data and
Prior Insights



Supervised Learning

Uses labeled training data to
“teach” desired insights

Mine Available Data to Spot
Trends and Gain New Insights



Unsupervised Learning

No labels used during learning,
algorithm discovers similarities itself

Optimize a Unknown Process
Through Reward-Based
Learning



Reinforcement Learning

No training data or labels,
learning through maximizing outcomes

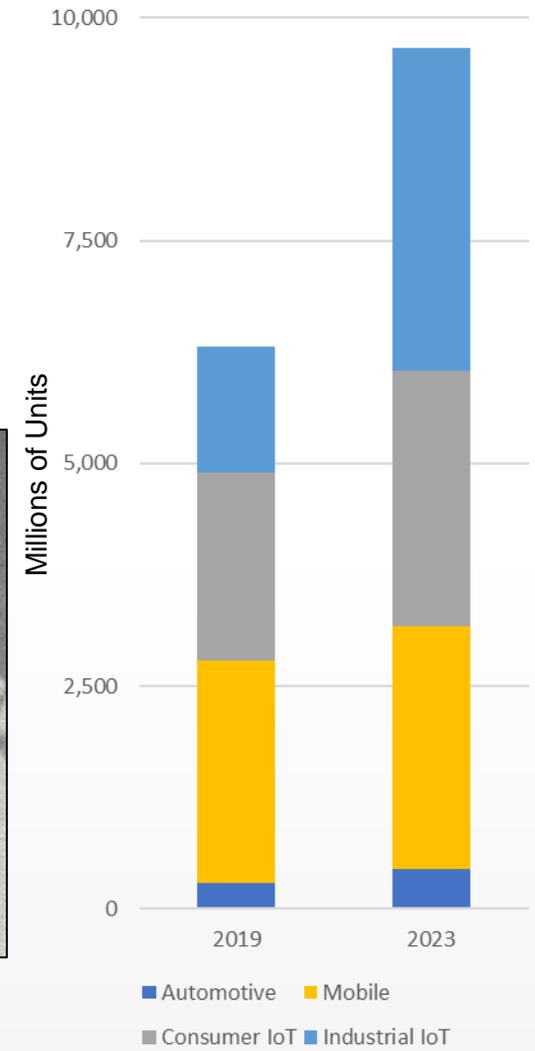
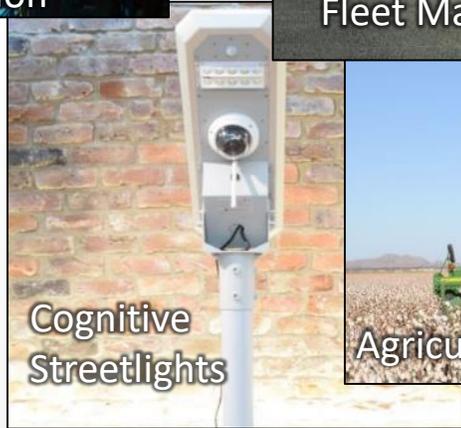
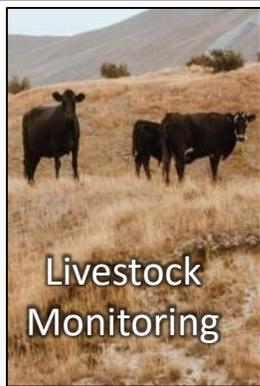
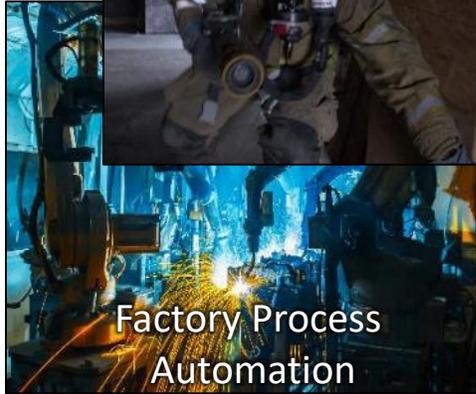
Nearly all smart IoT endpoints rely on supervised learning where
labeled training data is vitally important

QuickAI

Bringing AI to The Endpoint



Endpoint IoT SAM for QuickAI



QuickAI Applications and Market Momentum

- Industrial Predictive Maintenance
- Structural Health Monitoring

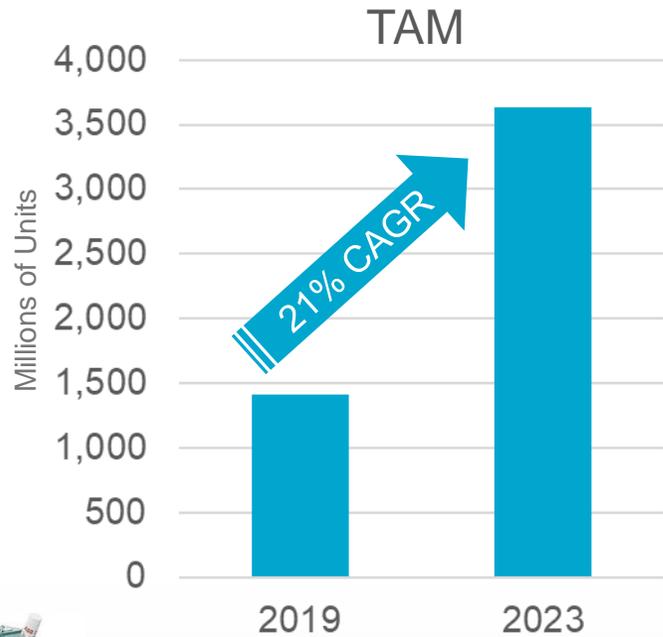


- Vision Inspection for Smart Agriculture

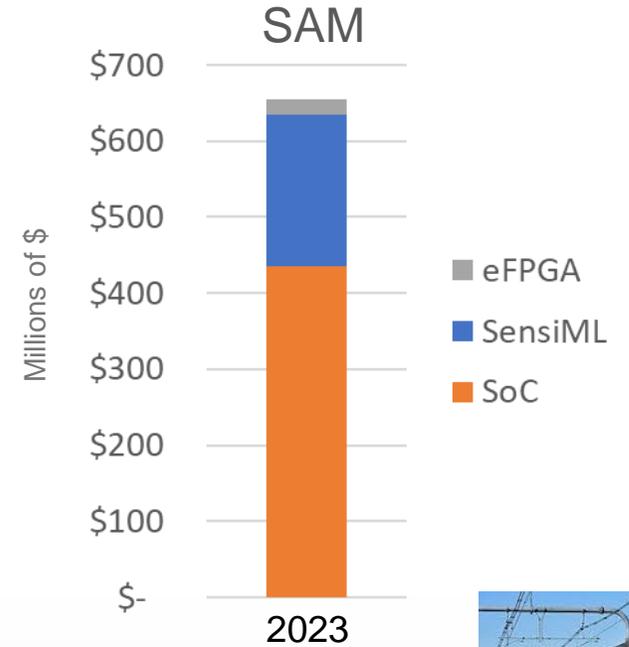


- Forecasting first material QuickAI revenue for Q4 2018
- mtes Neural Networks Selects QuickLogic's QuickAI HW/SW Platform for AI-Enabled Endpoint Devices

IoT AI Application - Predictive Maintenance and Structural Health



>\$650M SAM
created through
cross-leverage of
full-stack offering



Bearings



Motors



Buildings

Challenges

- No 'one size fits all' solution
- Cost and Power of sending data to cloud

Solution

- SensiML toolkit for Data Collection, Segmenting, Labeling, ML and AI Model Creation
- EOS S3 AI Platform for Low Power Sensor Processing



Railroad Tracks



White Goods



Bridges

Enabling Artificial Intelligence at the Endpoint - QuickAI



Introducing a Complete AI Platform Solution

- Supported by an Ecosystem of partners
- Enables AI at the Endpoint device

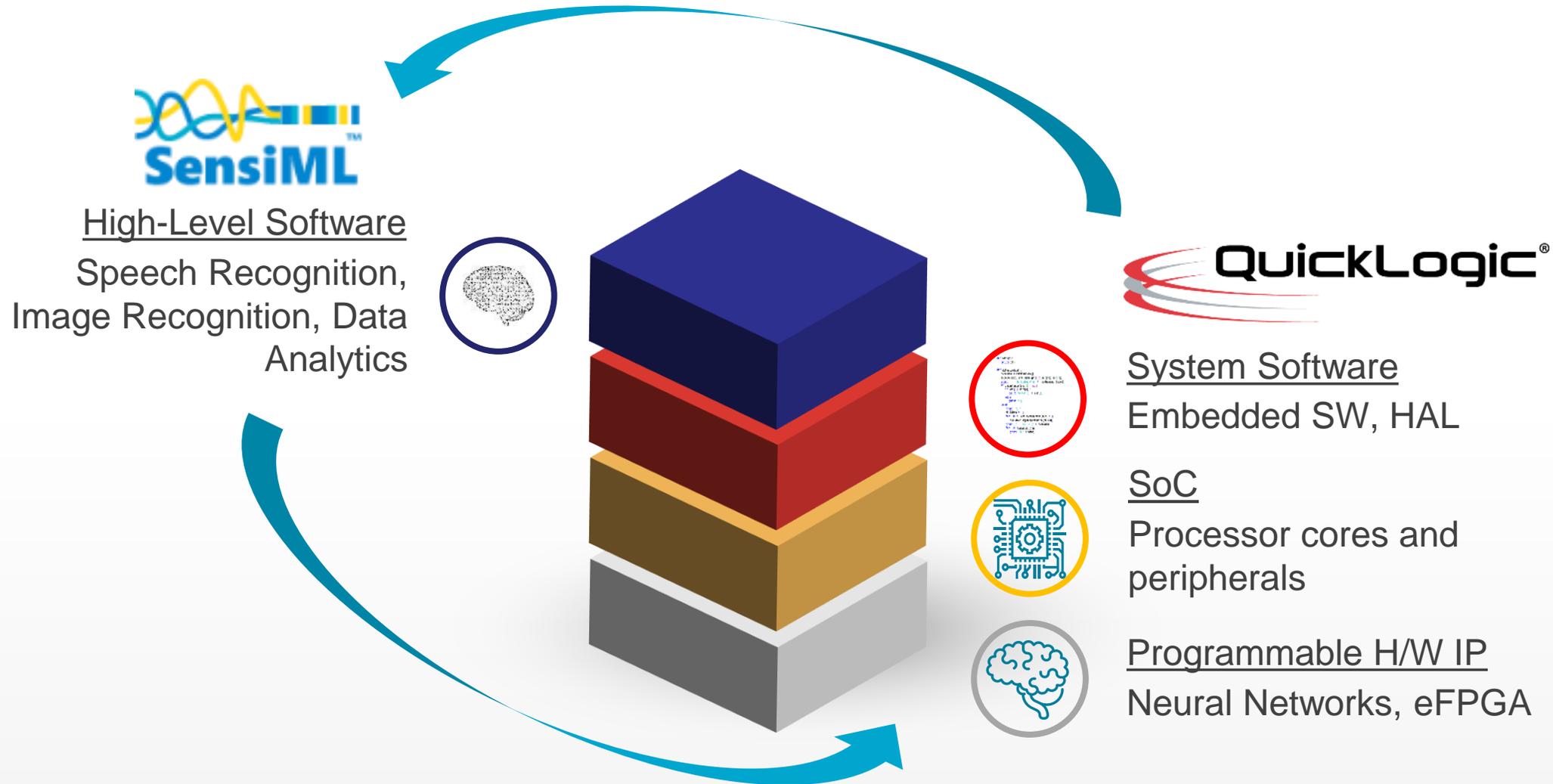
Benefits

- Includes Sensor Processing platform, Neurons for AI computing, and Application SW for Knowledge building of data and classification
- Scaling across bigger AI systems
- No need for in-house expertise of data analytics, DSP Processing, App Coding

Target Applications

- Industrial IoT
- Predictive Maintenance applications
- Vision Inspection System

Cross-Leverage of the Full-Stack Solution



Why Now?

Ramping Strategic New Product Revenue

- Numerous design wins in Consumer, driven by Voice-enabled solutions

Transforming to Full-Stack Edge/Endpoint AI Company

- SensiML acquisition brings AI technology and expanded SAM with SaaS revenue
- Executing license agreements for eFPGA IP
- Expanding SAM into Industrial IoT with QuickAI + SensiML AI Software

Building a More Efficient and Effective Growth Engine

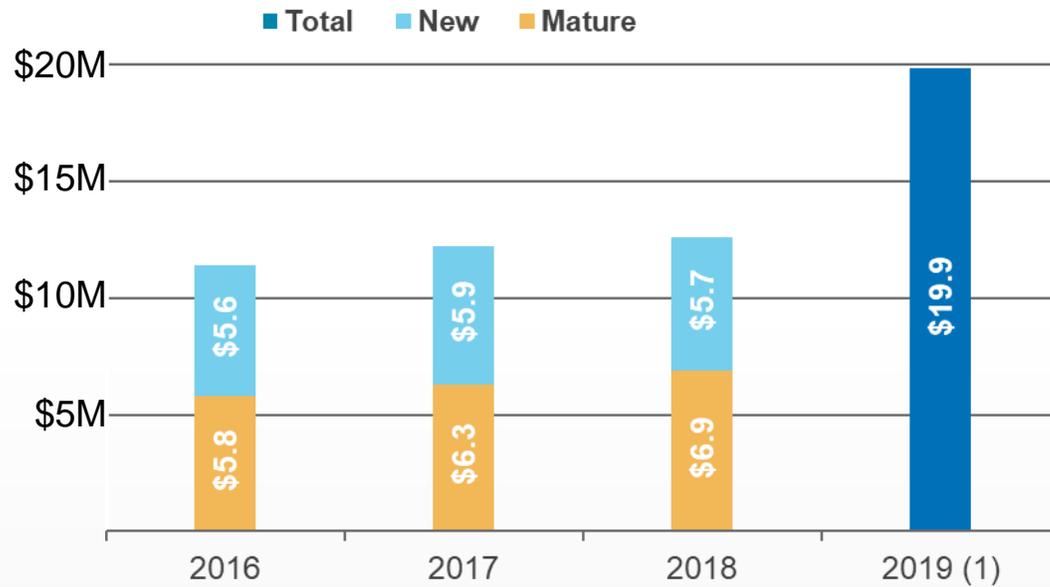
- Higher gross margin/stickier revenue driving to profitability

Financial Overview

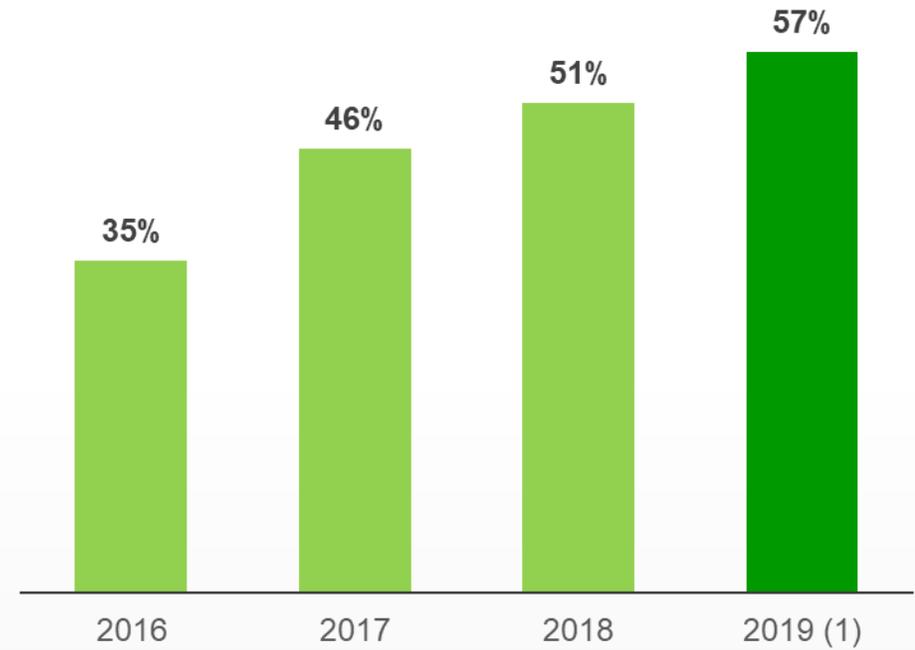


Financial Highlights

Revenue

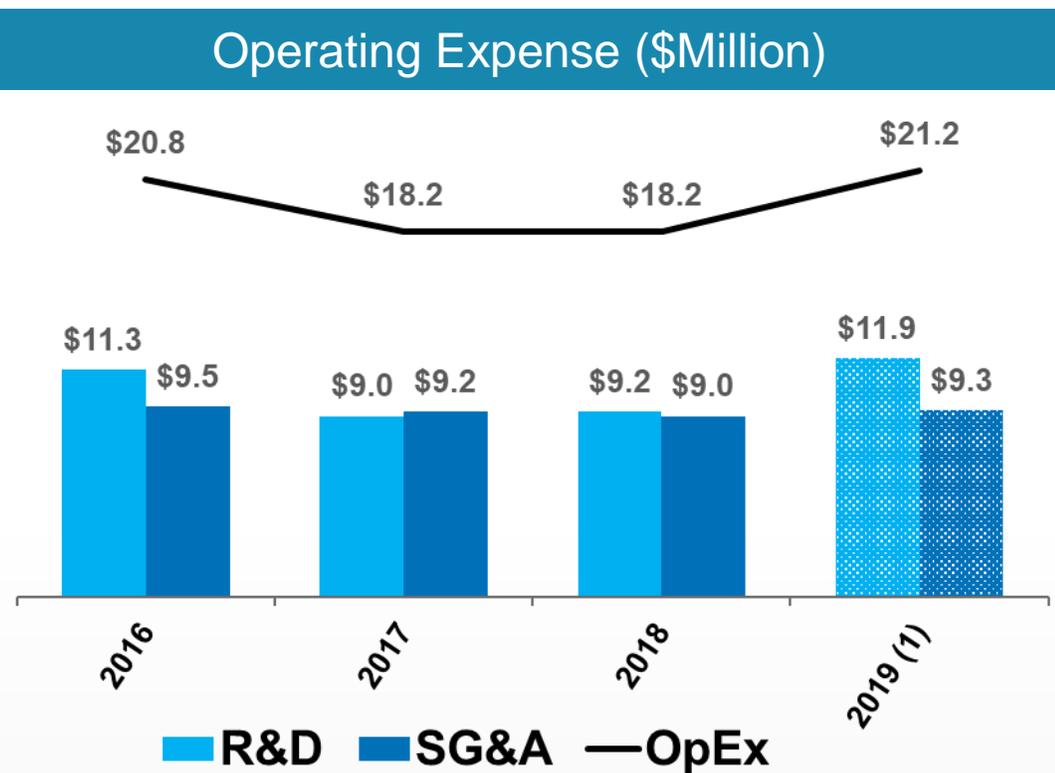


Gross Margin



(1) Based on analyst consensus estimates as of February 14, 2019

Financial Highlights



Balance Sheet Data (Millions)	12/31/2018
Total Cash	\$26.5
Bank Debt – 5.75% Int.	\$15.0

Increased revolving line of credit to \$15M in Dec. 2018

(1) Based on analyst consensus estimates as of February 14, 2019

QuickLogic Leadership

Executives

Brian Faith

Chief Executive Officer, Director

- Joined in 1996
- CEO in 2016
- VP of Worldwide Marketing/ VP of Worldwide Sales & Marketing 2008-2016
- Rising managerial & executive positions, including engineering, product line management, marketing and sales

Sue Cheung, Ph.D.

Chief Financial Officer

- Joined in 2007
- CFO in 2017
- VP of Finance/CAO since 2015, Corporate Controller 2007-2015
- Sr. Accounting management positions at Dell SonicWALL, VeriFone and other publicly traded and privately held companies
- Certified Public Accountant (CPA)
- Doctorate in Business Administration

Timothy Saxe, Ph.D.

Chief Technology Officer & SVP Engineering

- Joined in 2001
- CTO in 2008, SVP of Eng. in 2016
- Rising executive positions including VP of Eng. and VP of Software Eng.
- VP of FLASH Engineering at Actel Corp. and founder/CEO of semiconductor mfg. division at GateField Corp. (Zycad)
- Doctorate in Electrical Engineering

Rajiv Jain

VP Worldwide Operations

- Joined in 1992
- VP Worldwide Ops in 2014
- Sr. Dir. of Operations & Development Eng., Sr. Dir. of System Solutions & Process Technology, Dir. of Process Technology, and Sr. Process Technologist 1992-2014
- Sr. Engineering positions at National Semiconductor and Monolithic Memories

Board of Directors

E. Thomas Hart

Chairman

- QuickLogic CEO 1994-2009
- VP & GM of Advanced Networking Division at National Semiconductor Corp.
- Senior Manager, Motorola, Inc.

Michael R. Farese

Director

- 35 years in executive roles in telecomm & semiconductor industry including Antenna29; Entropic Comm. Inc.; BitWave Semicon, Palm; WJ Comm; Tropian Inc.; Motorola Corp.; Ericsson Inc.; Nokia Corp.; ITT Corp.; AT&T Corp.; and Bell Labs

Arturo Krueger

Director

- Over 40 years leadership in systems architecture, semiconductor design & development, operations and marketing
- Executive roles at Motorola, Inc. semiconductor products; Director, Marvell Technology Group Ltd

Andrew J. Pease

Director

- QuickLogic CEO/President 2009-2016, VP Worldwide Sales 2006-2009
- Executive roles at Broadcom Corp.; Synticity, Inc.
- Various sales positions at Advanced Micro Devices; Integrated Systems Inc.; and Vantis Corp.

Daniel A. Rabinovitsj

Director

- VP of Connectivity, Facebook
- COO, Ruckus Wireless, Inc.
- Executive roles at Qualcomm Atheros, Inc.; Atheros Communications; NXP Semiconductors; ST Ericsson; and Silicon Labs

Christine Russell

Director

- CFO, PDF Solutions, Inc.
- CFO, UniPixel, Inc., Vendavo, Inc.,
- CFO positions at Evans Analytical Group; Virage Logic Corp.; OuterBay; Ceva, Inc.; and Persistence Software, Inc.

Gary H. Tauss

Director

- Exec. Director & CEO, BizTech
- Executive roles at Mobidia Technology, Inc.; InfiniRoute Networks, Inc.; LongBoard, Inc.; and TollBridge Technologies

Thank You!



Appendix



Non-GAAP Measures

QuickLogic reports financial information in accordance with GAAP, but believes that non-GAAP financial measures are helpful in evaluating its operating results and comparing its performance to comparable companies. Accordingly, the Company excludes charges related to stock-based compensation, restructuring, the effect of the write-off of long-lived assets and the tax effect on other comprehensive income in calculating non-GAAP (i) income (loss) from operations, (ii) net income (loss), (iii) net income (loss) per share, and (iv) gross margin percentage. The Company provides this non-GAAP information to enable investors to evaluate its operating results in a manner similar to how the Company analyzes its operating results and to provide consistency and comparability with similar companies in the Company's industry. Management uses the non-GAAP measures, which exclude gains, losses and other charges that are considered by management to be outside of the Company's core operating results, internally to evaluate its operating performance against results in prior periods and its operating plans and forecasts. In addition, the non-GAAP measures are used to plan for the Company's future periods, and serve as a basis for the allocation of the Company's resources, management of operations and the measurement of profit-dependent cash and equity compensation paid to employees and executive officers. Investors should note, however, that the non-GAAP financial measures used by QuickLogic may not be the same non-GAAP financial measures, and may not be calculated in the same manner, as that of other companies. QuickLogic does not itself, nor does it suggest that investors should, consider such non-GAAP financial measures alone or as a substitute for financial information prepared in accordance with GAAP. A reconciliation of GAAP financial measures to non-GAAP financial measures is included in the financial statements portion of this press release. Investors are encouraged to review the related GAAP financial measures and the reconciliation of non-GAAP financial measures with their most directly comparable GAAP financial measures.

P&L – Non-GAAP

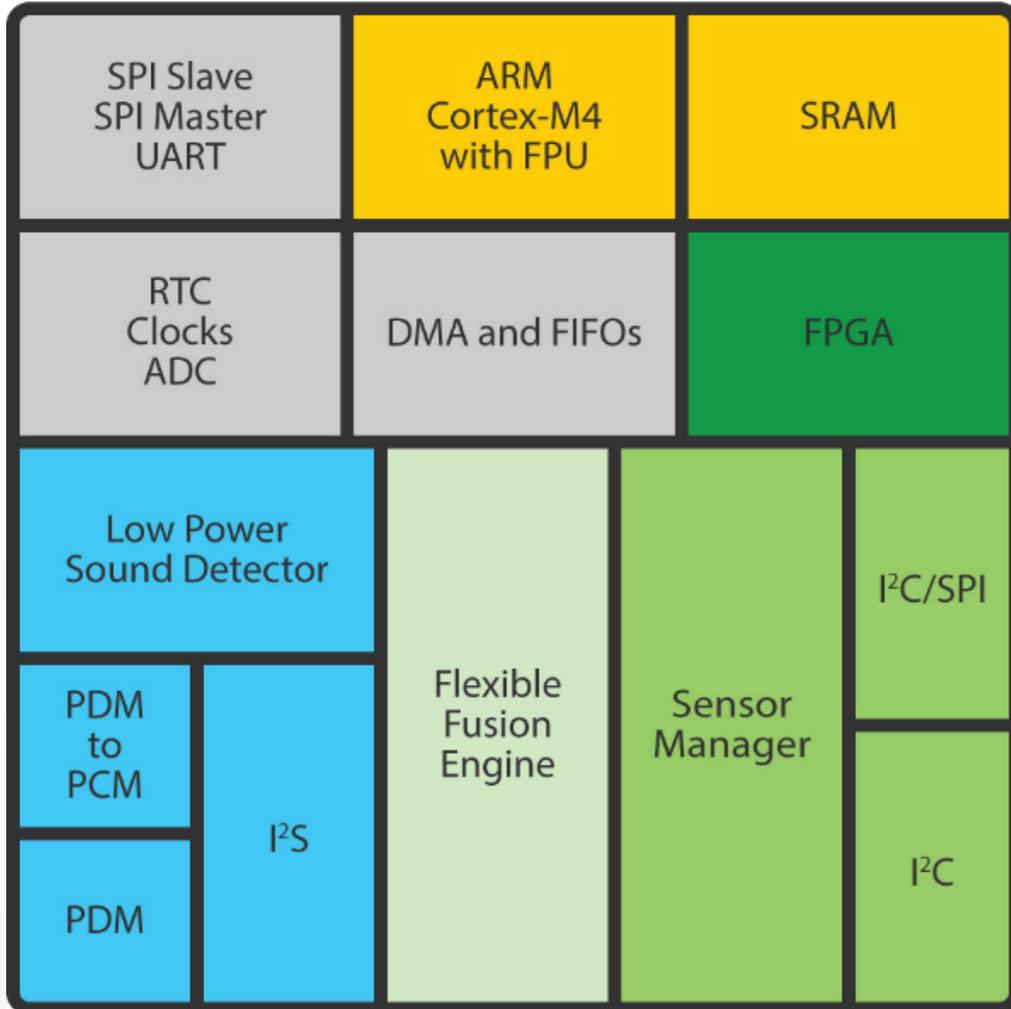
Non-GAAP Results Millions (except for EPS)	Q1'18 Actual	Q2'18 Actual	Q3'18 Actual	Q4'18 Actual
New Product Revenue	\$1.3	\$1.6	\$1.5	\$1.3
Mature Revenue	\$1.5	\$1.5	\$2.0	\$1.9
Total Revenue	\$2.8	\$3.1	\$3.5	\$3.2
Gross Margin %	52%	50%	51%	53%
Research & Development	\$2.5	\$2.2	\$2.2	\$2.3
SG&A	\$2.3	\$2.3	\$2.2	\$2.0
Total Operating Expense	\$4.9	\$4.5	\$4.5	\$4.3
Operating Income (Loss)	(\$3.4)	(\$3.0)	(\$2.7)	(\$2.6)
Net Income (Loss)	(\$3.5)	(\$3.0)	(\$2.7)	(\$2.6)
EPS	(\$0.04)	(\$0.04)	(\$0.03)	(\$0.03)

GAAP to Non-GAAP Reconciliation

	Q1'18	Q2'18	Q3'18	Q4'18
(In \$ '000)	Actual	Actual	Actual	Actual
Non-GAAP Operating Loss	\$ (3,434)	\$ (2,967)	\$ (2,711)	\$ (2,578)
Stock-based Compensation	(432)	(479)	(516)	(474)
Restructuring Costs	-	-	-	-
FA impairment and/or write-off	(5)	-	-	-
GAAP Operating Loss	\$ (3,871)	\$ (3,446)	\$ (3,227)	\$ (3,052)

Non-GAAP Net Loss	\$ (3,533)	\$ (3,005)	\$ (2,744)	\$ (2,591)
Adjustments:				
Stock-based Compensation	(432)	(479)	(516)	(474)
FA impairment and/or write-off	(5)	-	-	-
GAAP Net Loss	\$ (3,970)	\$ (3,484)	\$ (3,260)	\$ (3,065)

EOS S3 Multi-Core SoC Platform



Autonomously handles management and control of all sensors



10 MHz μ DSP-like processor for always-on, real-time sensor data



Allows implementation of additional FFE and other customer-specific IP



Digital mic interfaces and Low Power Sound Detection* (LPSD)
*LPSD optimized for Sensory TrueHandsFree™ Voice Control



80 MHz and 512 KB SRAM for general purpose processing and running O/S



SPI Master/Slave, I²C, UART



DMA, Integrated RTC, Oscillators, ADC, and LDO