

Onto Innovation

Investor Presentation
CEO Summit at SEMICON® West

DECEMBER 2021

innovation™
onto

Safe Harbor

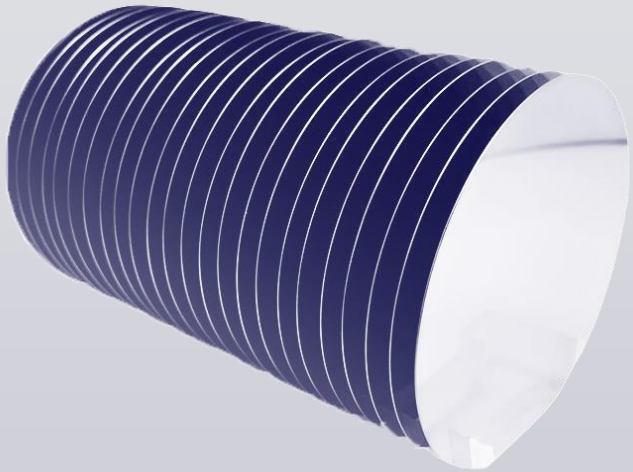
- The information presented herein contains forward-looking statements that relate to anticipated future operating results and performance. These statements are only predictions based on management's current expectations and assumptions, including market size and forecasted growth, Total Available Market (or "TAM"), Served Available Market (or "SAM") and revenue estimates, and necessarily involve risks and uncertainties. We do not assume any obligation to update the information provided. Actual events or results may differ materially from those projected, including as a result of changing industry and market trends, reduced demand for our products, the timely development of our new products and their adoption by the market, increased competition in the industry, price reductions and other subsequent developments and business conditions. Additional information and considerations regarding the risks faced by Onto Innovation are available in our Form 10-K reports for the year ended December 2020 and other filings with the Securities and Exchange Commission.
- This presentation includes non-GAAP financial measures which are not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with GAAP. Management uses both GAAP and non-GAAP measures when evaluating the business internally and therefore believes it is important to make these non-GAAP measures available to the financial community. Reconciliations of non-GAAP measures to the most relevant GAAP amounts are included in the Company press releases.
- As the forward-looking statements are based on Onto Innovation's current expectations, the company cannot guarantee any related future results, levels of activity, performance or achievements. Onto Innovation does not assume any obligation to update the forward-looking information contained in this presentation.

Onto Innovation: Serving the Semiconductor Industry End-to-End

Three main semiconductor production facilities

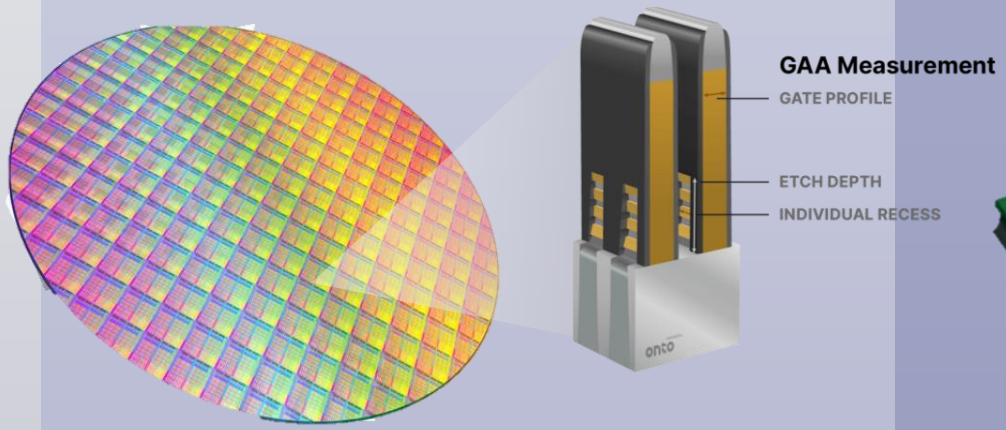
SILICON WAFER MANUFACTURING

Raw material for chips



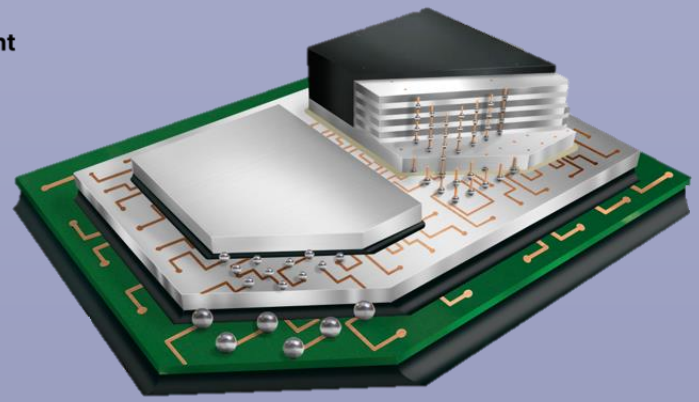
WAFER FABRICATION

Adding layers of printed circuitry



ADVANCED PACKAGING

Separating wafers to individual chips,
connecting multiple chips into a single package



Onto Innovation's Enabling Technologies

High tech capital equipment company specializing in optical process solutions for semiconductor and related markets

SILICON WAFER MANUFACTURING

Raw material for chips

Physical Defect Control
- Cracks
- Pits
- Foreign Material

Material Analysis
- Silicon Purity
- Unwanted Elements

WAFER FABRICATION

Adding layers of printed circuitry

3D Metrology
- Nanometer Measurements
- Feature Shape/Slope/Angles
- Film Thickness

Macro Defect Inspection
- Foreign Material
- Scratches
- Residue

Yield Analysis Software

ADVANCED PACKAGING

Separating wafers to individual chips, connecting multiple chips into a single package

3D Metrology
- Bump Connections
- Thru-Silicon-Via's

Macro Defect Inspection
- Placement Locations

Lithography
- Printing Connecting Circuits

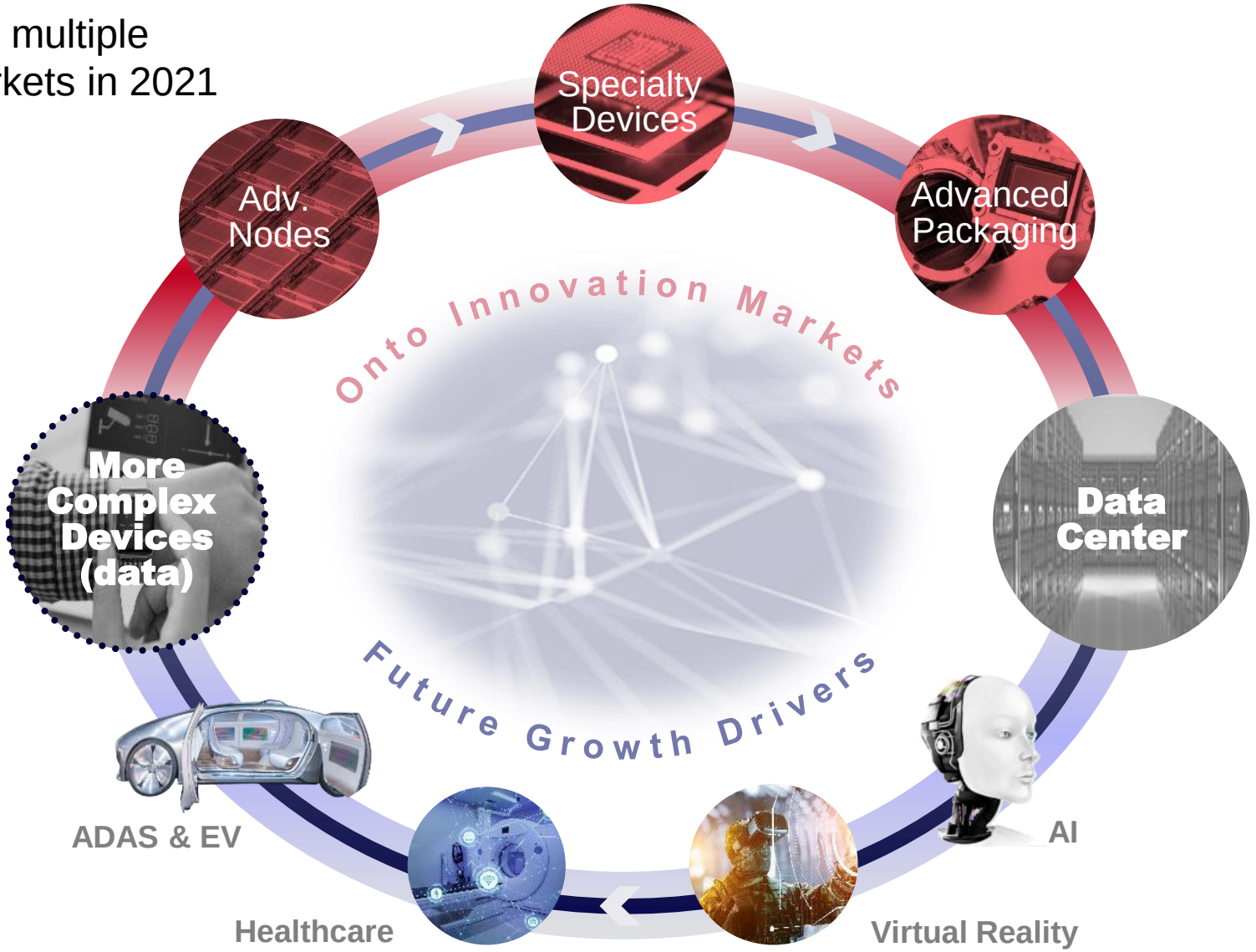
Yield Analysis Software

5G and Cloud Contribute to Virtuous Cycle Growth

Leading to growth in multiple
Onto Innovation markets in 2021

5G

2X 5G Handsets 2020- 2021[1]



Cloud

Servers
AI
Edge Compute
Streaming

Note 1: Needham Industry Forecast (MU) 1/8/21

“Data Era” Driving Multiple Secular Growth Industries

Advances in memory and transistor architectures enable growth in multiple industries



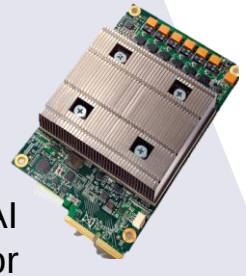
Smart City



Environment



Health



Google AI processor



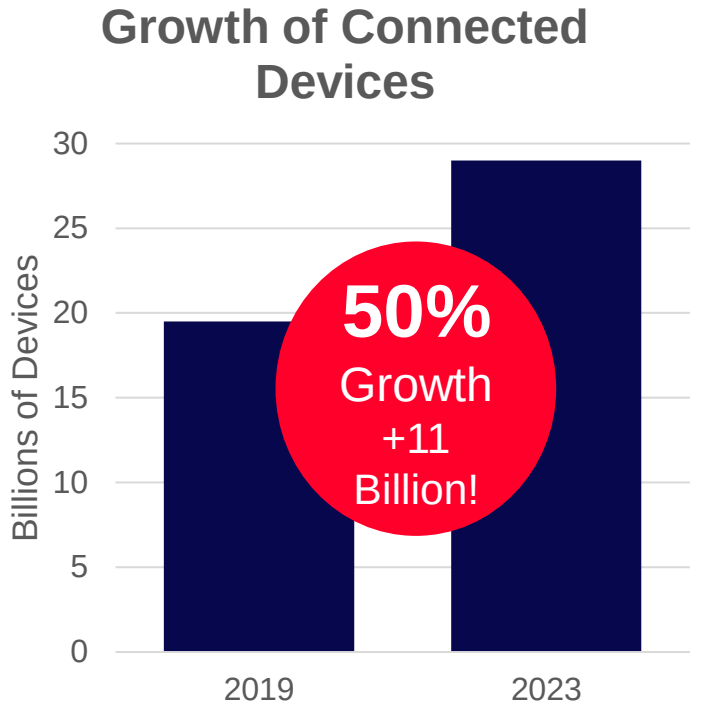
Mobile



Smart Home

Data Center



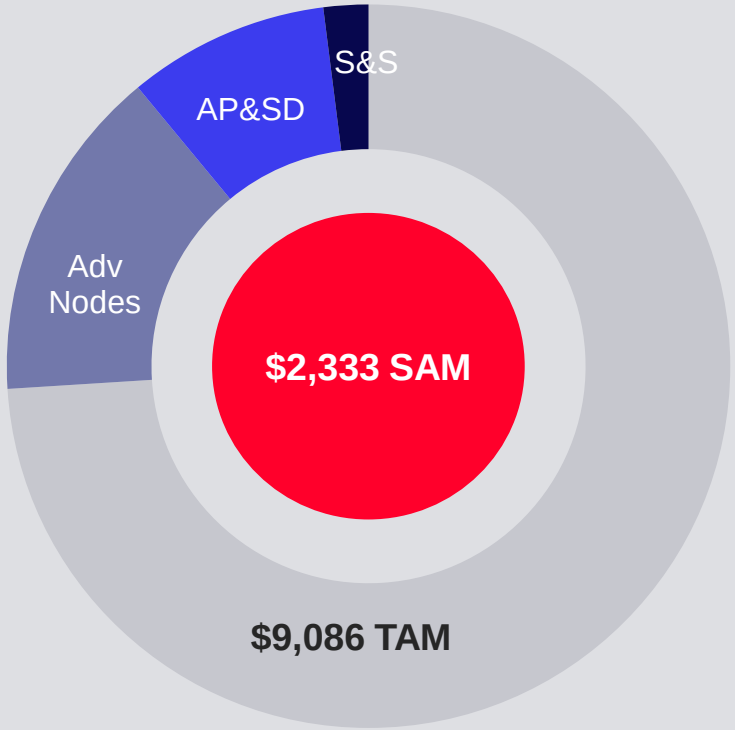


Global avg devices/connections per person grows from 2.4 to 3.6 in 2023

US Devices/Connections per person grows from 8.2 to 13.4 in 2023

Source: Cisco Annual Internet Report

Our Served Markets*

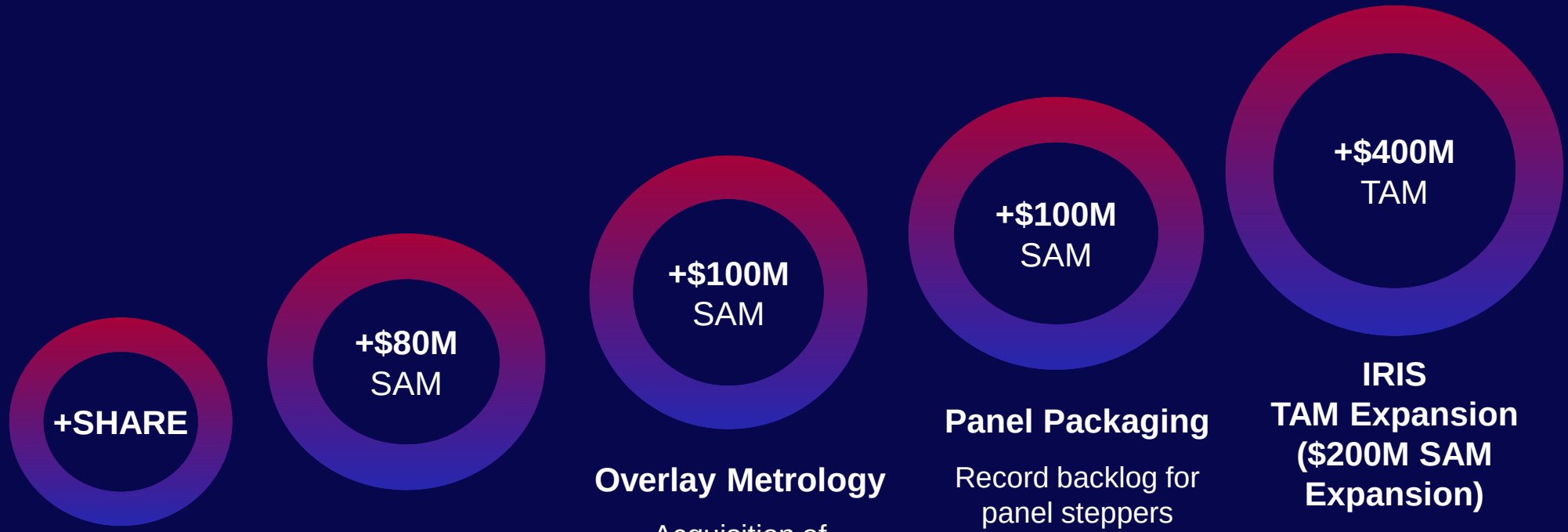


Total Process Control Market + AP Lithography Market	**$9,086 Million**
Advanced Nodes	
Optical Metrology (3D, Films)	$1,170 Million
Other Thin Film Metrology	$200 Million
Adv. Packaging & Specialty Devices	
Macro Defect Inspection (FE + BE)	$533 Million
Total AP Lithography Market	$310 Million
Software & Service	
Process Control Software	$120 Million
Total Onto Innovation Served Markets	**$2,333 Million**

*2020 Wafer Fab Equipment/Software Markets defined by Gartner, April 2021 + Company Estimated 20% increase for 2021

More Opportunities in 2021!

Foundation laid in 2020 expands served markets by over 20%



Integrated OCD

>50% YoY Revenue Growth

CIS / Dragonfly®

Multiple orders from 2nd top 5 CIS manufacturer

Overlay Metrology

Acquisition of Inspectrology, LLC leader compound semi overlay metrology

Panel Packaging

Record backlog for panel steppers

Introduced new JetSTEP X500 for AICS panels

IRIS TAM Expansion ($200M SAM Expansion)

Onto Innovation's Global Supplier Size

Why we matter to the largest manufacturers (strategic partner)

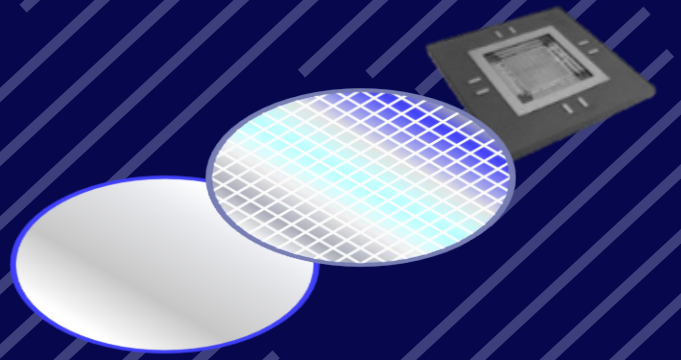
- Top 2 tiers are viewed as critical/strategic suppliers for top tier customers
- Big customers enter VPAs with these suppliers (ONTO has two: >$100M 2021 VPAs)
- Top tier suppliers have more R&D and service resources to support top customers

CUSTOMERS SPEND ~90% OF WFE SPEND WITH THE TOP 2 TIERS



Source: Company Rank Order based on 2020 Share of Total WFE Revenue, Gartner Market Share Data, April 2021

Why Invest In Onto Innovation?



MARKET AND PRODUCT DIVERSITY

EXPANDING MARKET SHARE WITH NEW PRODUCTS



EXPAND GROSS AND OPERATING MARGINS

LEADING MARGINS
55% GROSS MARGIN
26% OPERATING MARGIN

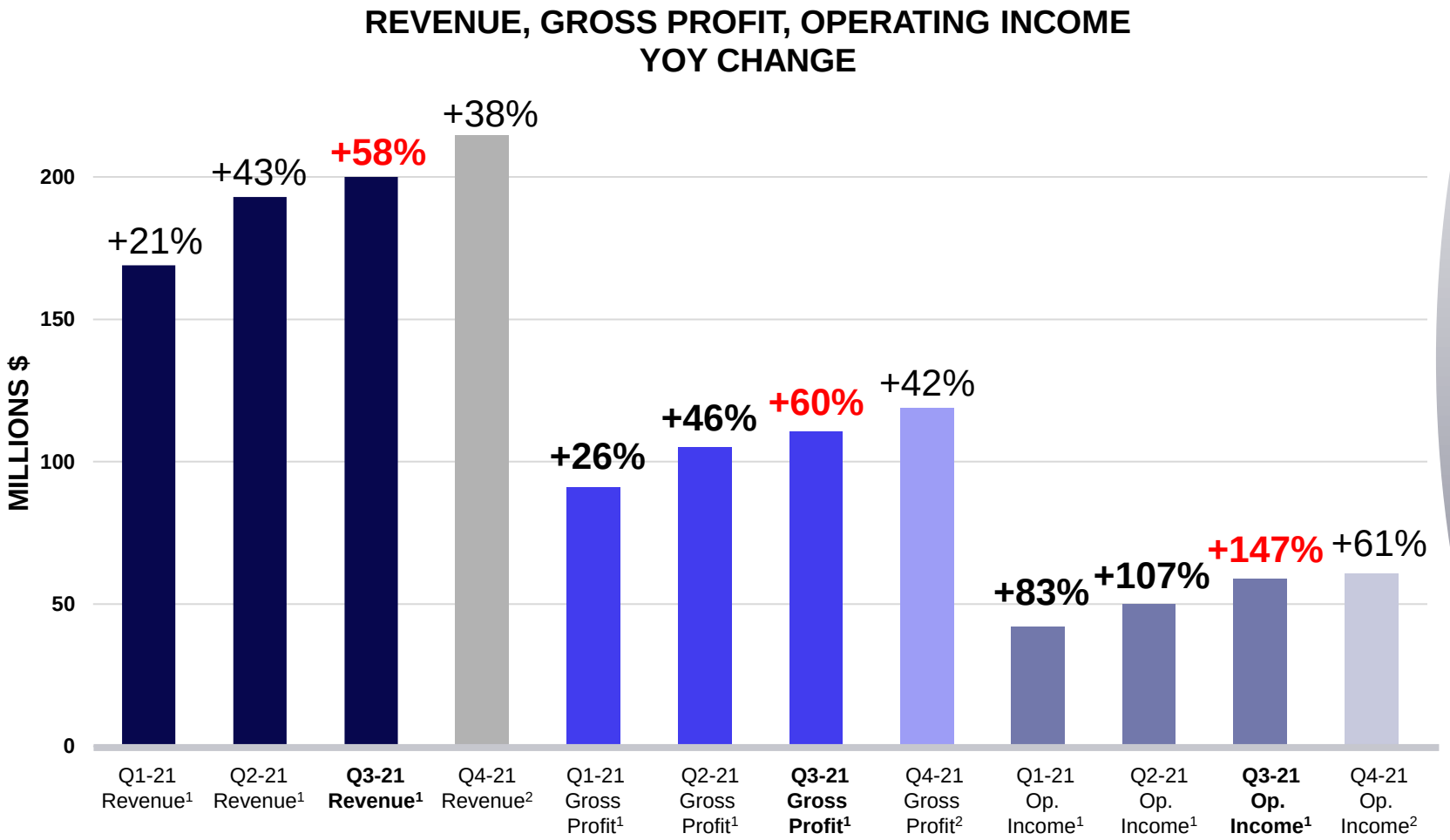


M&A TEAM TO INCREASE SHAREHOLDER VALUE

~ $461 MILLION CASH,
NO DEBT

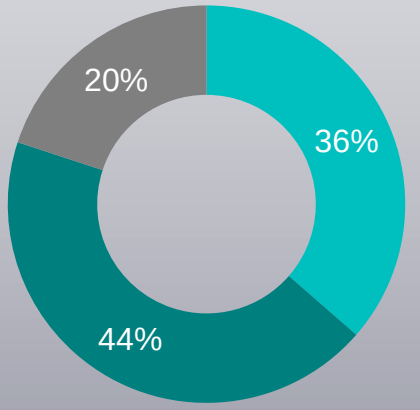
Financial Highlights and Trends

YoY gross profit and operating income growth outperform YoY revenue growth



Note 1: Revenue, Non GAAP Gross Profit , Op. Income vs. same period 2020
Note 2: Analyst Consensus: Revenue, Non GAAP Gross Profit , Op. Income vs. same period 2020

Balanced YTD Revenue Distribution



- Advanced Nodes
- Advanced Packaging & Specialty
- Software & Service

Onto Innovation's Long-Term Growth Drivers

2020 NEW PRODUCT INTRODUCTIONS

- Increase 2021 SAM
- Enable customers' 3nm Advanced Nodes and Advanced Packaging in 2022

INCREASED SCALE

- Onto Scale now viewed as a strategic supplier to leading manufacturers
- VPAs 25-30% higher than previous year purchases

Long-term Operating Model*

Organic Growth Resulting from Share Gains & Potential to Enter New Addressable Markets		
Annual Revenue	**$800M Model**	**$1B Model**
Gross Margin	55% - 56%	56% - 57%
Operating Profit	29% - 30%	32% - 33%
Earnings per Share	$3.85 - $4.00	$5.05 - $5.25

Reduce Comprehensive Carbon Footprint 30% by 2025	
Reduce Freshwater Usage	30% by 2025
Renewable Energy Usage	30% by 2025
Reduce Landfill Hazardous Waste	30% by 2025

*Non-GAAP Long Term Financial Model: excludes amortization and merger costs; includes stock-based compensation

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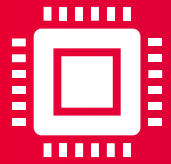
Why Invest in Onto Innovation?

TECHNOLOGY



Strong adoption of new products expanding our markets.
Further supported by projected growth across our markets.

OPERATIONS



Global operations supporting diverse ~150 customer base.
Long term financial model with $5 per share earnings power.

BALANCE SHEET



$461M cash, no debt, fuel for strategic M&A.

Thank You

Onto Higher Yields

Onto Higher Margins

Onto Higher Productivity

Onto Innovation

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www.ontoinnovation.com



Appendix

Long-Term Operating Model: Organic Growth

Major Products Portfolio

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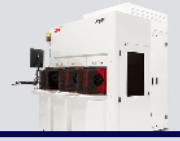
Onto Innovation's Major Products



Atlas® V
Standalone thin film and OCD metrology



Aspect®
OCD metrology for 3D NAND and high aspect ratio structures



IMPULSE® V
Integrated thin film and OCD metrology



MetaPULSE® G
Acoustic film metrology



Element™
FTIR metrology



Ivision™
Overlay and CD metrology



AWX™ FSI
Unpatterned frontside inspection



NovusEdge®
Automated all-surface defect inspection for unpatterned wafers



Dragonfly® G3
2D/3D inspection and metrology



Firefly®
Sub-micron panel inspection



NSX® and F30®
2D inspection, CD, RDL/TSV, 2D bump, 2D/3D metrology, all-surface ready



JetStep®
Litho for Advanced Packaging and FPD



Discover® Software
Inline yield and defect management



Control Software
Fabwide control software



AI-Diffract™ Software
AI-guided OCD modeling and analysis software

METROLOGY INSPECTION LITHOGRAPHY SOFTWARE