Investor Presentation

February 2023

Cautionary Statements

Use of Non-GAAP Adjusted Financial Measures

This presentation provides financial measures that exclude amortization of acquired intangible assets, stock-based compensation expenses, acquisition related expenses, inventory step-up and contingent consideration, revaluation facilities transition costs, acquisition related expenses, expense related to a transaction made by a financial institution without Company authorization, revaluation of operating lease liabilities, amortization of debt discount and issuance costs, tax effect of non-GAAP adjustment and taxes attributed to one-time elective tax settlement, as applicable, and are therefore not calculated in accordance with generally accepted accounting principles (GAAP). Management believes that these non-GAAP financial measures provide meaningful supplemental information regarding Nova's performance because they reflect our operational results and enhance management's and investors' ability to evaluate Nova's performance before charges or benefits considered by management to be outside Nova's ongoing operating results. The presentation of this non-GAAP financial information is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with GAAP. Management believes that it is in the best interest of its investors to provide financial information that will facilitate comparison of both historical and future results and allow greater transparency to supplemental information used by management in its financial and operational decision making. A reconciliation of each GAAP to non-GAAP financial measure discussed in this presentation is contained in the accompanying financial tables.

Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of safe harbor provisions of the Private Securities Litigation Reform Act of 1995 relating to future events or our future performance, such as statements regarding, but not limited to, anticipated growth opportunities and projections about our business and its future revenues, expenses and profitability. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied in those forward-looking statements.

Factors that may affect our results, performance, circumstances or achievements include, but are not limited to, the following: catastrophic events such as the outbreak of COVID-19; increased information technology security threats and sophisticated computer crime; foreign political and economic risks; changes in global trade policies; inability to protect intellectual property; open source technology exposure; failure to compete effectively or to respond to the rapid technological changes; consolidation in our industry; difficulty to predict the length and strength of any downturn or expansion period of the market we target; risks associated with violations of environmental, safety and health regulations; factors that adversely affect the pricing and demand for our product lines; dependency on a small number of large customers; dependency on a single manufacturing facility per product line; dependency on a limited number of suppliers; difficulty to integrate current or future acquisitions; lengthy sales cycle and customer delays in orders; failures to attract, recruit and retain qualified employees due to intense competition for highly skilled personnel; political, economic, and military instability in Israel; risks related to our convertible notes; currency fluctuations; and quarterly fluctuations in our operating results. We cannot guarantee future results, levels of activity, performance or achievements. The matters discussed in this press release also involve risks and uncertainties summarized under the heading "Risk Factors" in Nova's Annual Report on Form 20-F for the year ended December 31, 2021 filed with the Securities and Exchange Commission on March 1, 2022. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission. Nova Ltd. does not assume any obligation to update the forward-looking information contained in this presentation .

PROCESS
INSIGHT

Nova is a leading innovator and a key provider of **metrology** solutions for advanced **process control** used in semiconductor manufacturing

A Trusted Partner

We measure ourselves by our ability to transcend expectations and boundaries

We partner with our customers to craft innovative process control solutions enhanced with unique value

KEY Facts

1993 | Date Founded | Dually Traded

>1100 | Employees

Presence | Israel HQ , Global Offices

>4800 | Active Systems

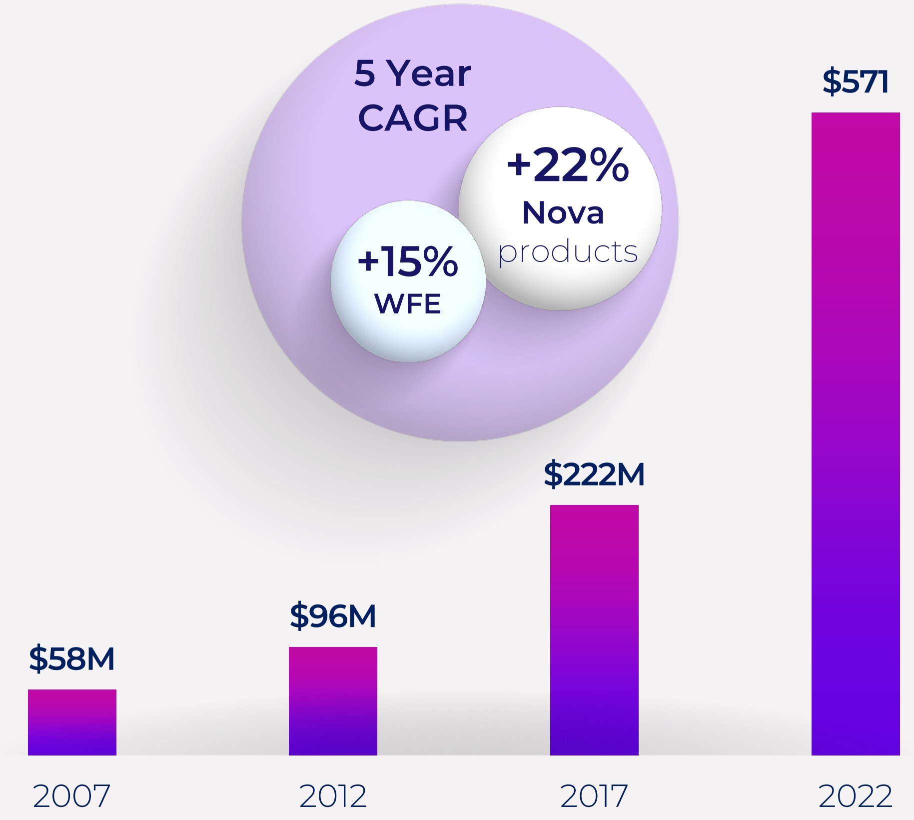
>200 | Customer Sites

R&D | Israel, USA, Germany

NOVA

Solid Track Record

- Proven Execution Ability
- Relative Industry Outperformance
- Revenue doubled every 5 years



Wide Metrology coverage

Differentiated portfolio

New organic engines

Diverse technology mix

Diverse customer mix

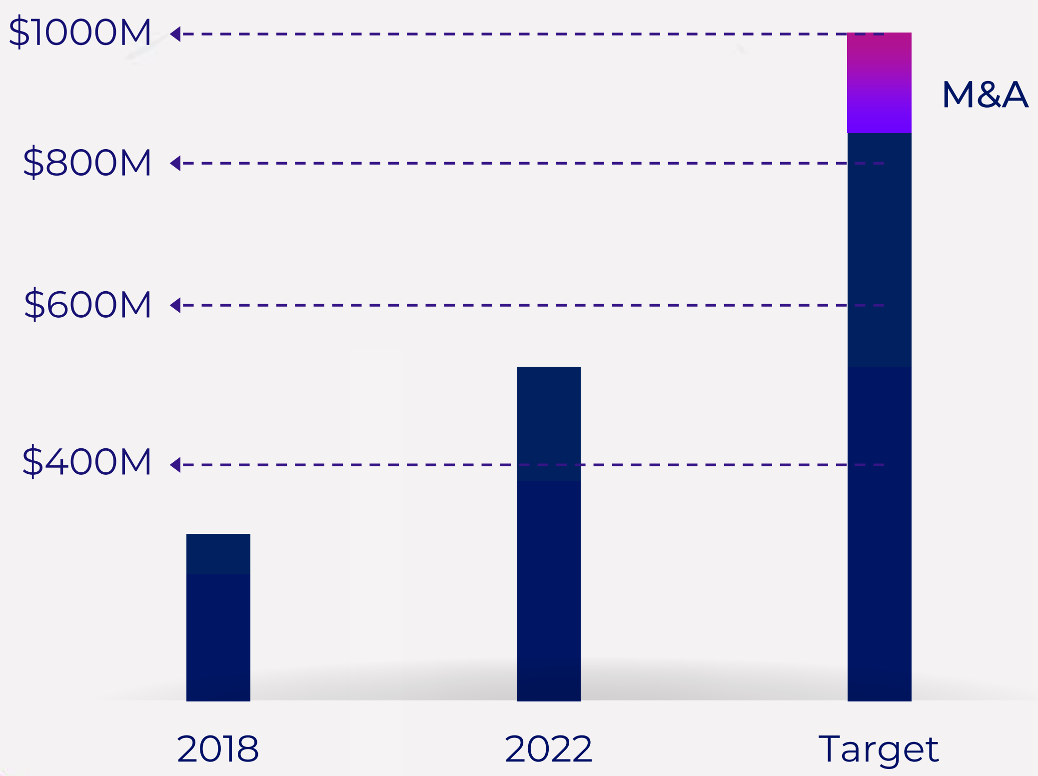
Diverse territory mix

Source: Gartner, Company product revenue, CAGR 2017-2022

Nova $1B Plan (5 Years)

Continuous Outperformance

- New Technologies Proliferation
- Chemical Analysis Growth
- Materials Metrology Leadership
- Diversified Markets
- Further M&A



Financial Target Model
(Organic)

Revenue	R&D Investment	Tax
$1B	15%-18%	14%

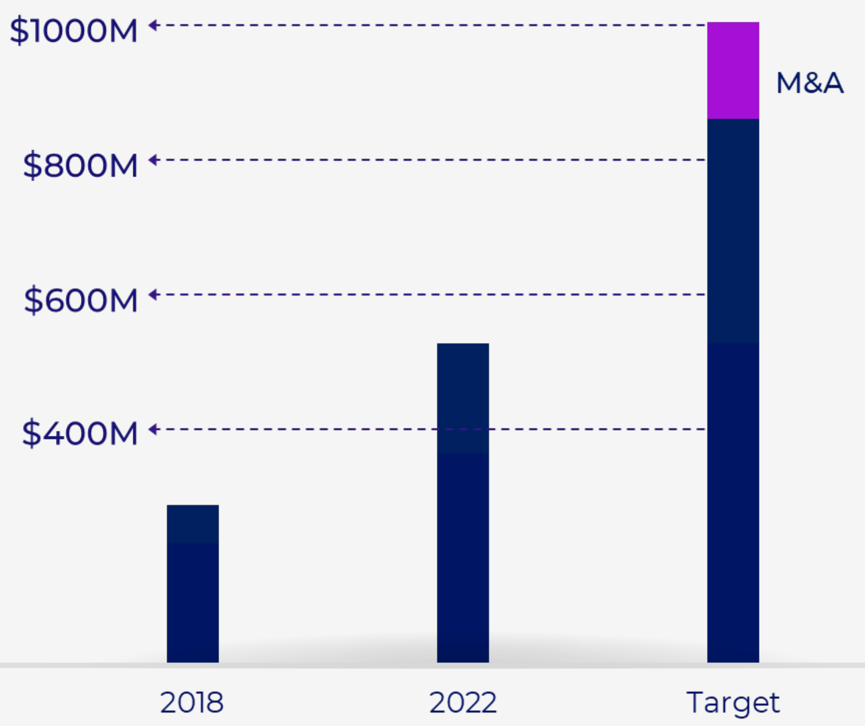
Gross Margin	SG&A	Share Count
57%-59%	13%-15%	32M

Operating Margin

27%-31%

Earnings

>7$



Non-GAAP Financials

NOVA

Semiconductor Industry
Eco System

Chip Design (Fabless)
BROADCOM, QUALCOMM, aws, NVIDIA, HISILICON, Meta

Front End Fabrication
SAMSUNG, tsmc, SK hynix, Micron, intel, IBM, SMIC, winbond, NANYA, KIOXIA, HLMC, CXMT, PSC, GLOBALFOUNDRIES, UMC

Packaging
BOSCH, qorvo, SPIL, ST, ASE GROUP, JCET, infineon, Amkor Technology, Powertech Technology Inc., tsmc, SAMSUNG, intel

Process Control
NOVA, KLA, onto innovation

HITACHI Inspire the Next, APPLIED MATERIALS, Rigaku, ADVANTEST, Camtek

NOVA (ancosys), ECI TECHNOLOGY, HORIBA

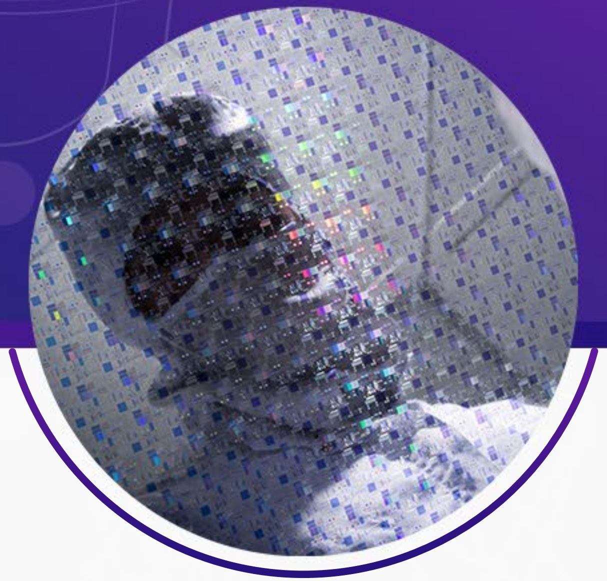
Process equipment
ASML, APPLIED MATERIALS, TEL, Lam RESEARCH, DISCO, SUSS MicroTec, SCREEN, Veeco, ASM NEXX, EVG, Besi, SPTS A KLA Company

Materials
ATOTECH, MacDermid Enthone INDUSTRIAL SOLUTIONS, Air Liquide, DUPONT, MERCK, CMC MATERIALS, JSR Micro JSR MATERIALS INNOVATION, BASF We create chemistry

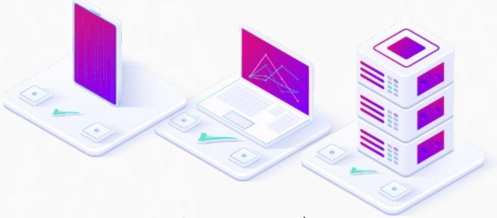
NOVA

Innovative Technology

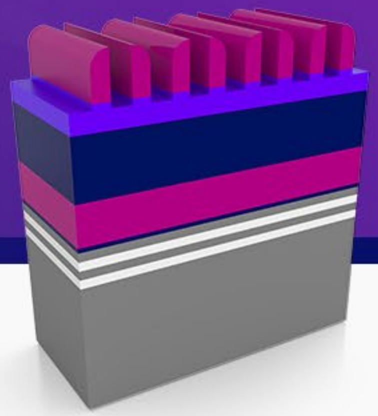
Optical / X-Ray / Chemical



LOGIC • FLASH • DRAM



Semiconductor Segments



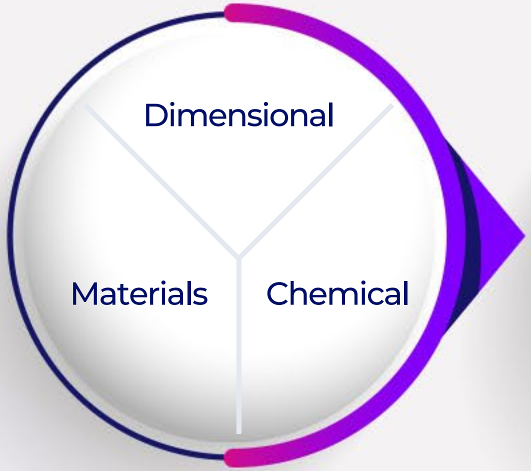
300mm	20um	3nm	0.5Å
Wafer	Pad	Node	Precision

[One ten-billionth of a meter]

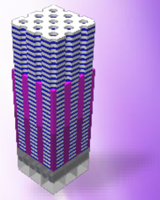
Dimensions / Materials Parameters

Revealing the Invisible

Actionable Insight, Critical Foresight

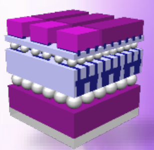


Memory
Device



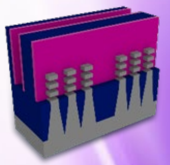
64 | **X6** Layers | 400

Packaging
Device



Flip-Chip Bump **<300µm** | **X30** I/O Pitch | 3D-SOC **<10µm**

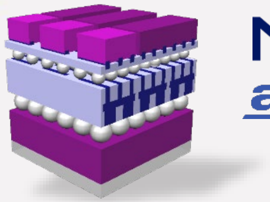
Logic
Device



A4 150M | **X100** Transistors | A15 16B

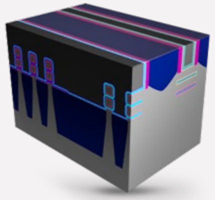
Addressing Multiple Markets

Advanced Packaging



NOVA PROCESS INSIGHT
ancosys

New Materials

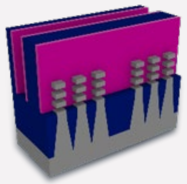


NOVA PROCESS INSIGHT
ancosys

Vertical Integration

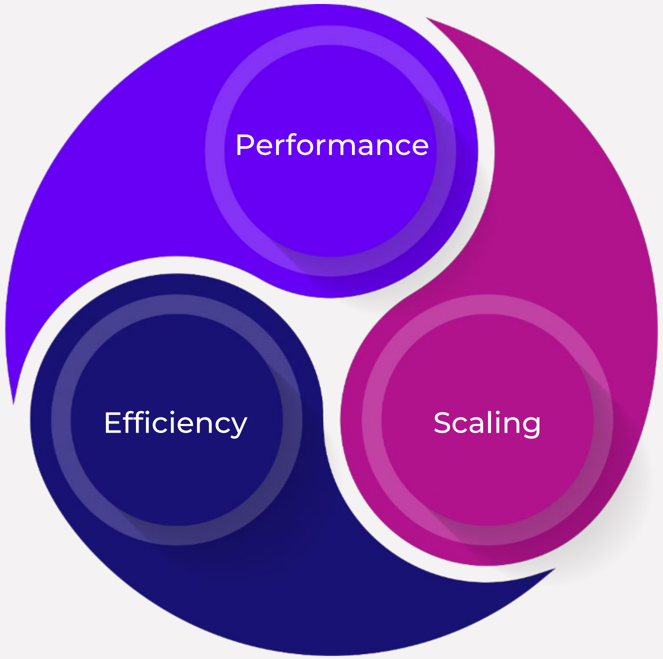
NOVA PROCESS INSIGHT

Device Scaling



NOVA PROCESS INSIGHT

Economics



NOVA

Rich Metrology Portfolio

Critical Dimensions

Integrated Metrology
Normal & Multi-Channel

Standalone Metrology

Spectral
Interferometry

Materials

Inline
X-Ray

Inline
SIMS

Inline
Raman

Chemistry

Front End
Chemistry Analysis

Back End
Chemistry Analysis

Backend
Chemistry
Replenishment

PCB Chemical
Analysis

Physical
Modeling

Machine
Learning

Big Data
Management

Core Technology

- Spectral Reflectometry (SR)
- X-Ray Photoelectron Spectroscopy (XPS)
- X-Ray Fluorescence (XRF)
- Physical Modeling
- Fleet Management

Innovative Approach to Address Future Needs

Disruptive Technology

- Spectral Interferometry (SI)
- Multi Channel Integrated Metrology
- Machine Learning & Deep Tech
- Raman Spectroscopy
- Secondary ion mass spectrometry
- HPLC, CVS, Titration, Optical Spectroscopy

NOVA

Multiple Demand Catalysts at Double-Digit CAGR

Cloud Computing 24%

AI 39%

Autonomous Vehicle 23%

5G 36%

Robotic Process Automation 28%

Industrial IoT 23%

VR 38%

Places → **People** → **Things**

Millions → **Billions** → **Trillions**

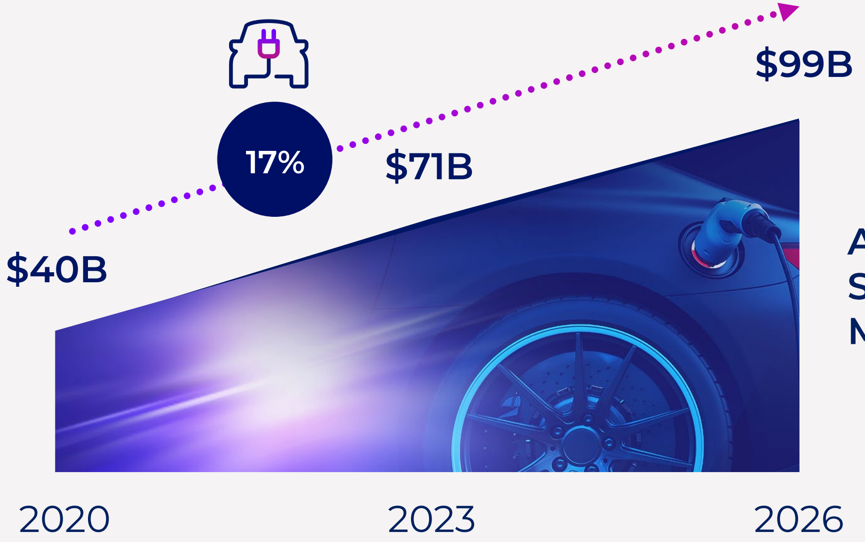
Sources: Bloomberg, IDC, Statista, Gartner , Company Estimates

NOVA

Automotive Exponential Growth

Electrification and autonomous trends are key drivers

Semiconductor Content
Combustion Engine
vs.
Autonomous Vehicle

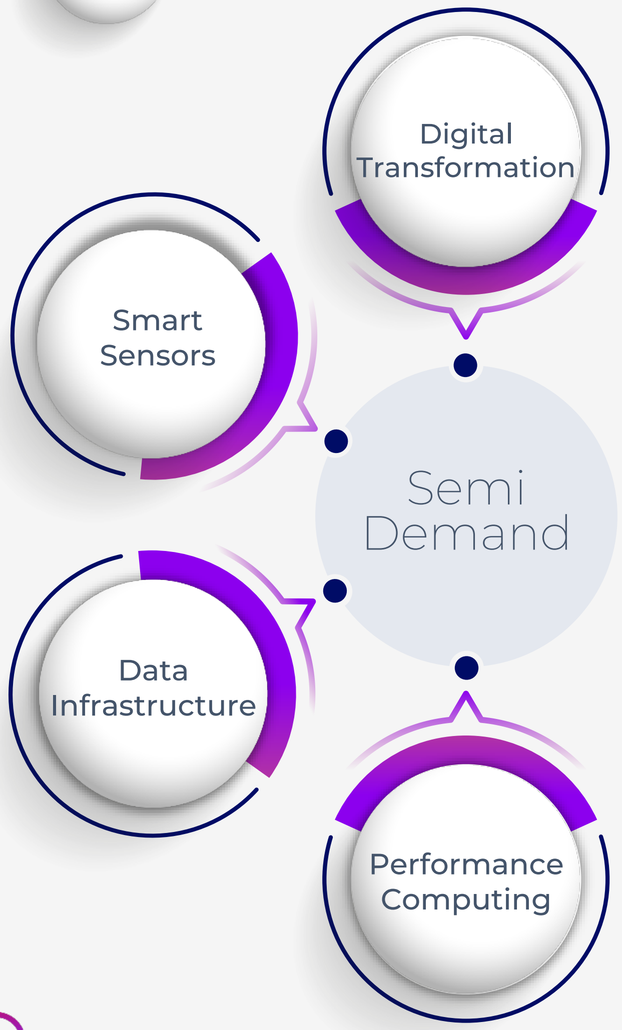


Automotive Semiconductor Market ($B)

Source: McKinsey, Gartner

Fundamental Drivers in Cyclical Environment

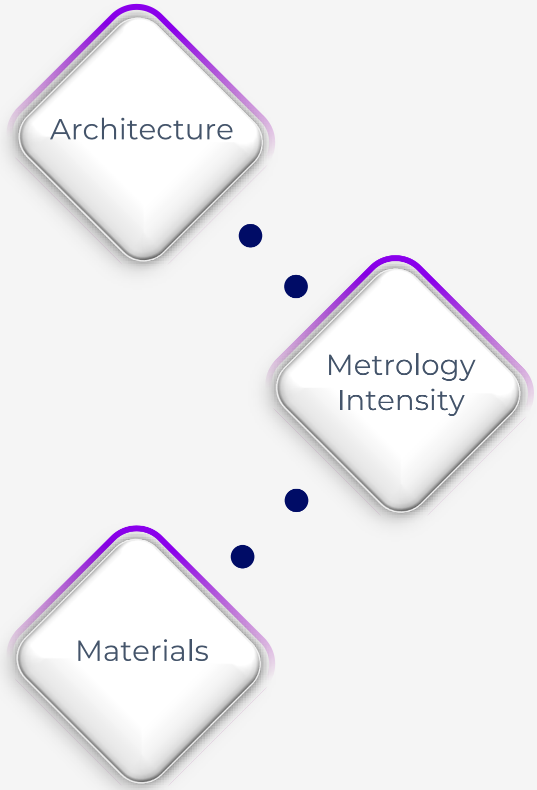
1 Multiple Tech Drivers



2 Disruptive Investment

- Investment across broad range of IC Devices
- Technology transitions to support performance demand
- Resume normal scaling cycles (EUV) Below 7nm
- Demand for increased content in advanced devices
- Geo-centric strategy drives diverse geographical investment
- Synergy between industry segments drives need for better process control

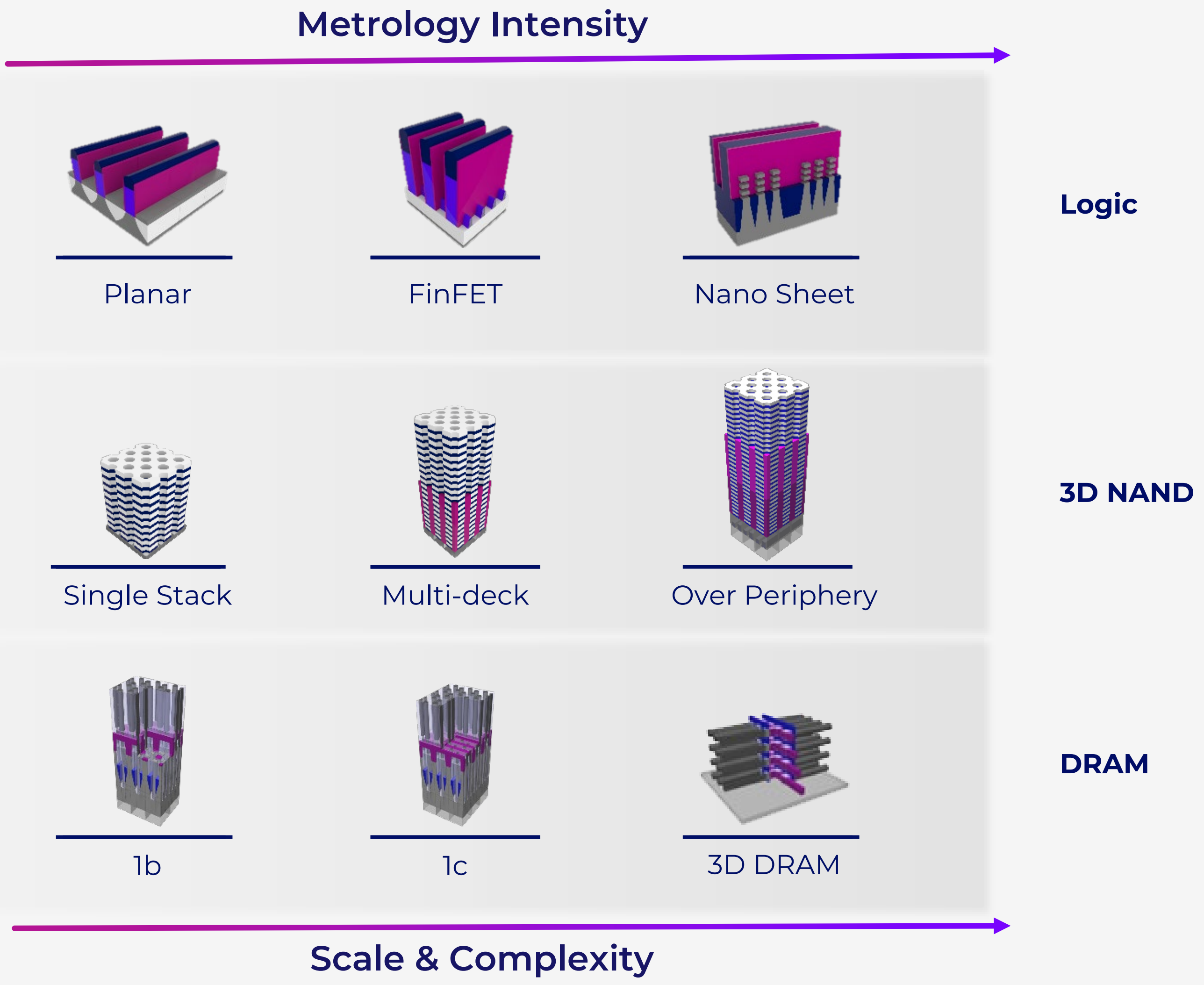
3 Technology Avenues



Dimensional Metrology Intensity

- Scaled Devices
- 3D Profiles
- Multiple Design Steps
- Films Variety
- Intricate Architecture

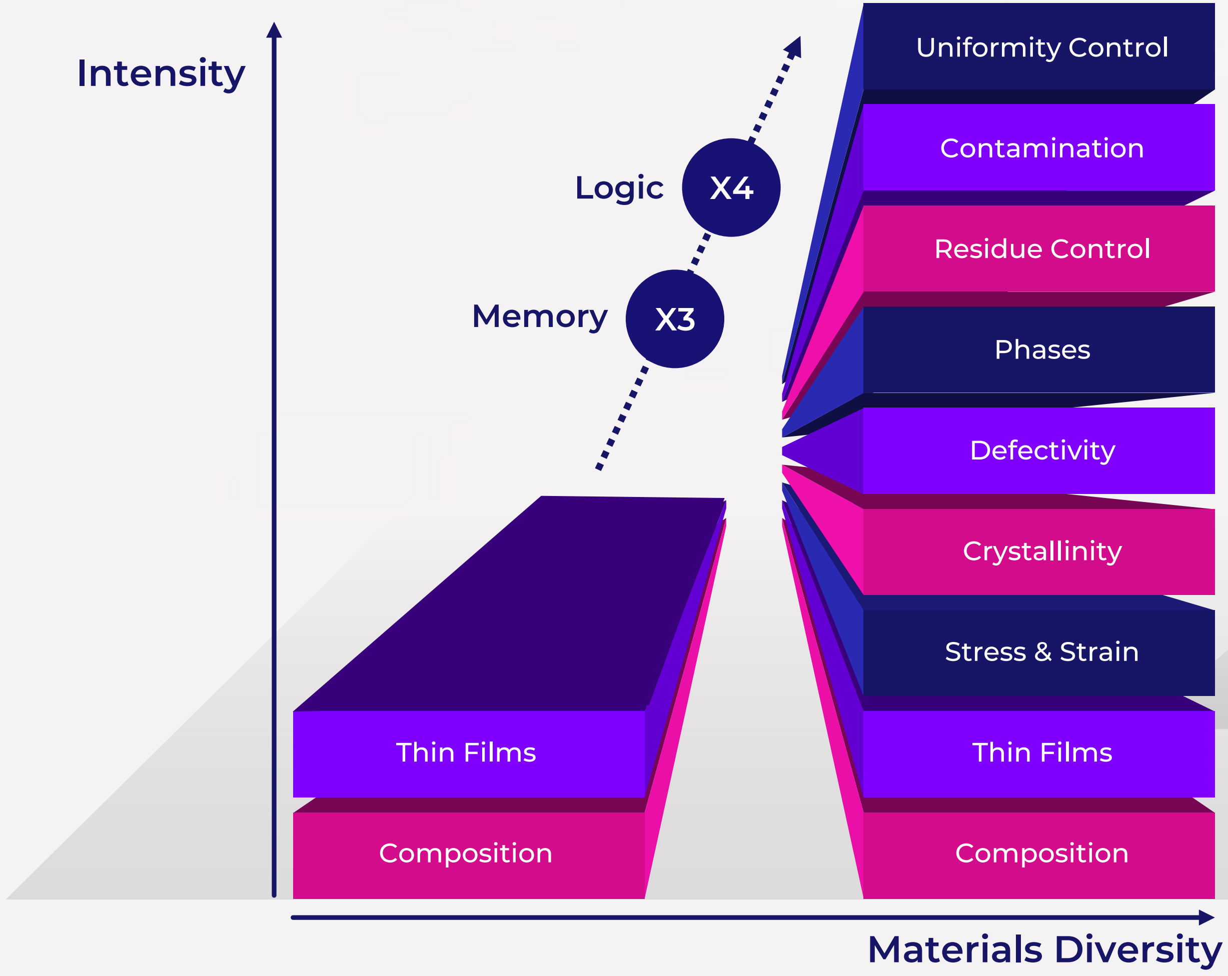
Scale & Complexity = Growing Demand
Growth in Design Steps



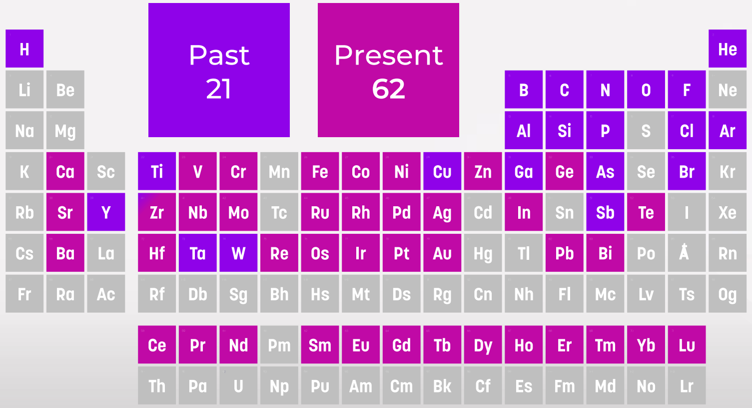
Sources: Jefferies, 2022

Materials Metrology Intensity

From 20 to 90 Steps



Broader Metrology Scope



Chemical Metrology Intensity

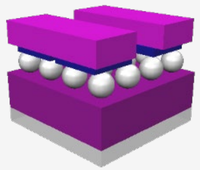
- Complexity
- New materials
- New chemistries
- Stability and purity
- Tighter process control

Complexity, Scale & New Chemicals

Intensity

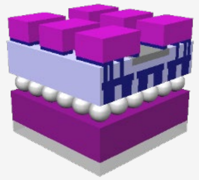
Back End: Advanced Packaging

<150μm



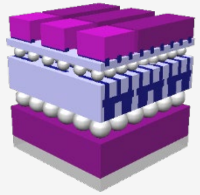
Flip-Chip

<60μm



Fan-Out

<40μm

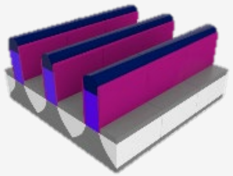


Hybrid 3D

I/O Pitch

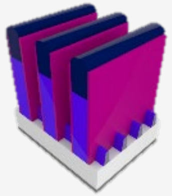
Front End: Interconnect

8



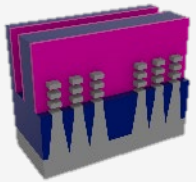
Planar

13



FinFET

17



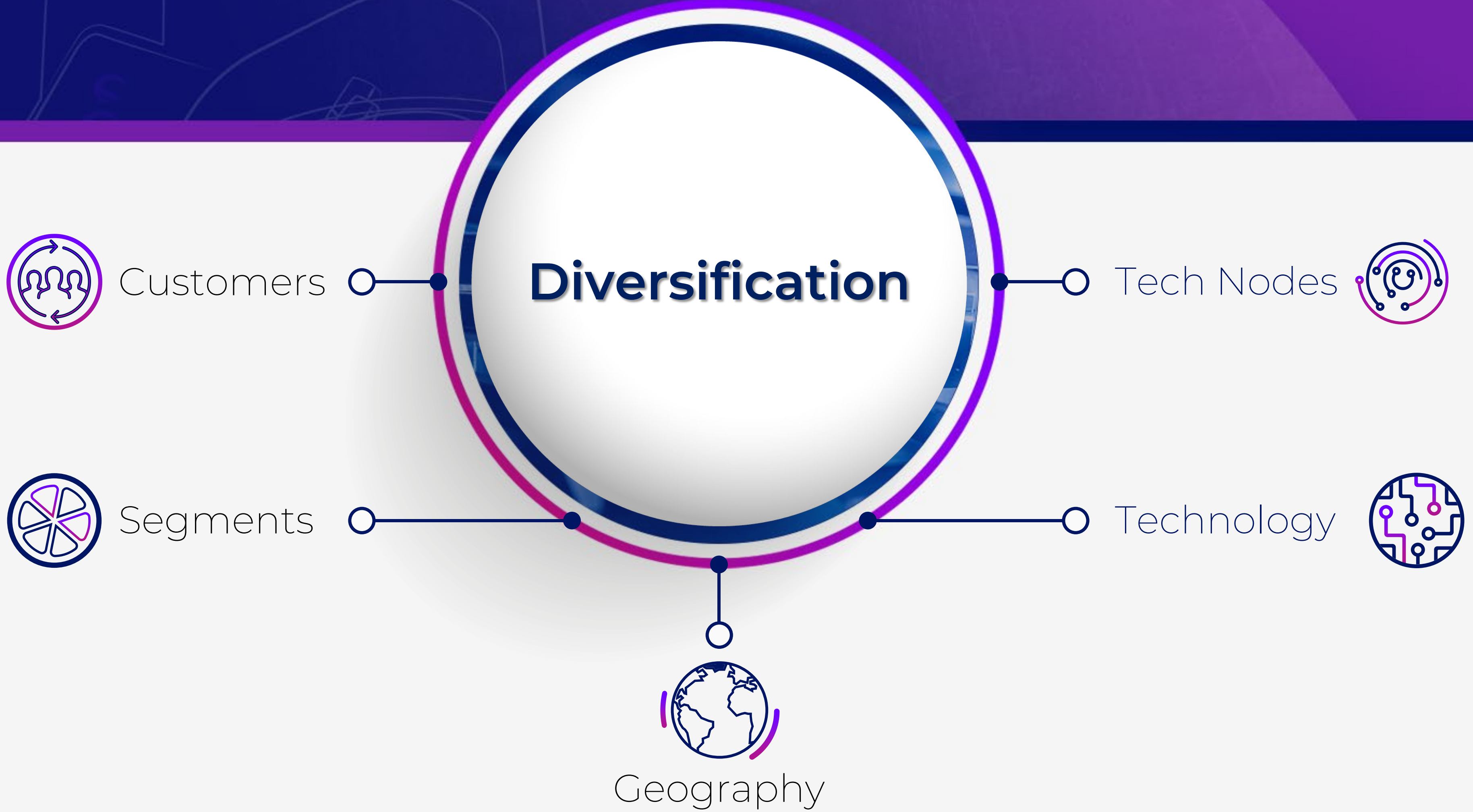
GAA

Interconnect Layers

Complexity

Why Do We **PREVAIL?**

Increasing Market Share while Expanding TAM

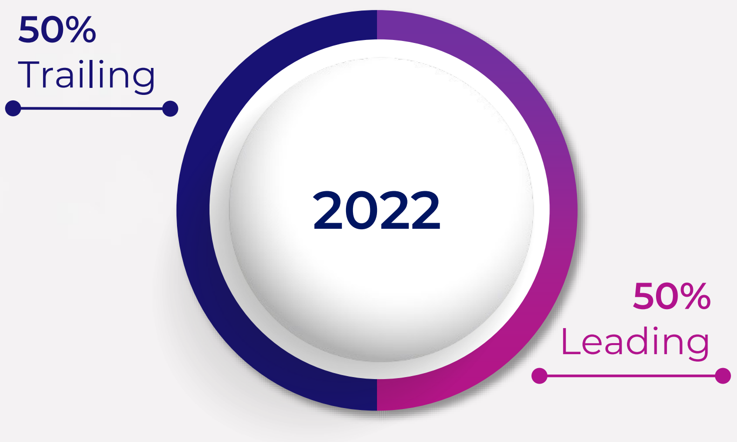


NOVA

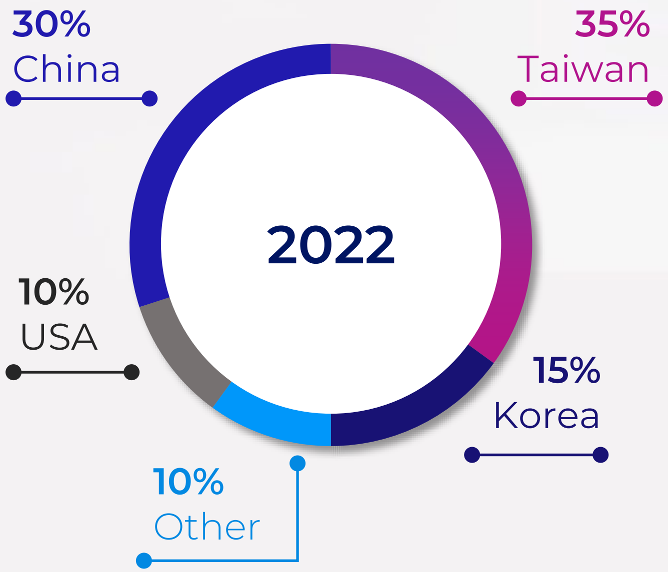
Balanced Exposure

Segments

Nodes

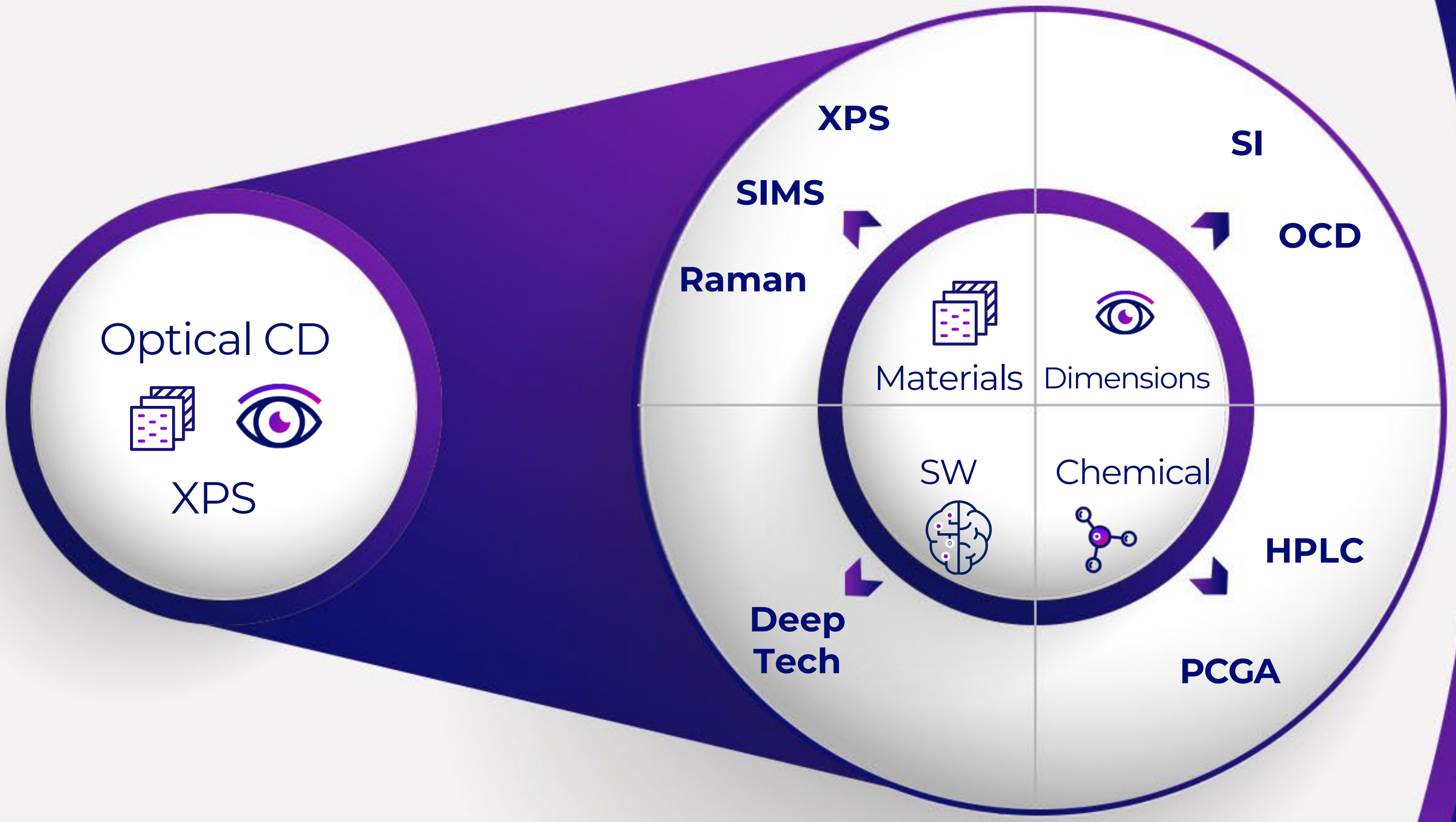


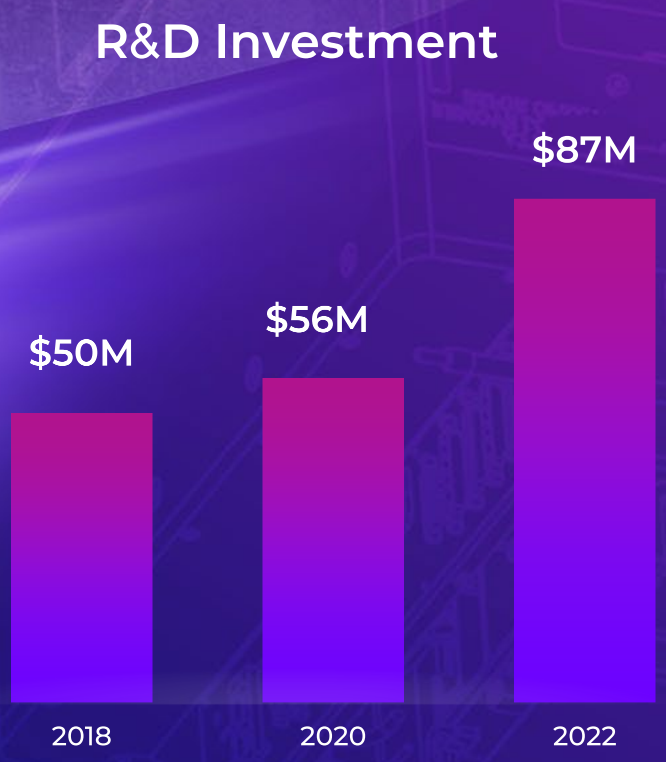
Geographies



Company Product Revenues, Leading logic <16nm & Leading memory

Diversifying
Product Offering





Non-GAAP Financials

Organic
Growth Engines

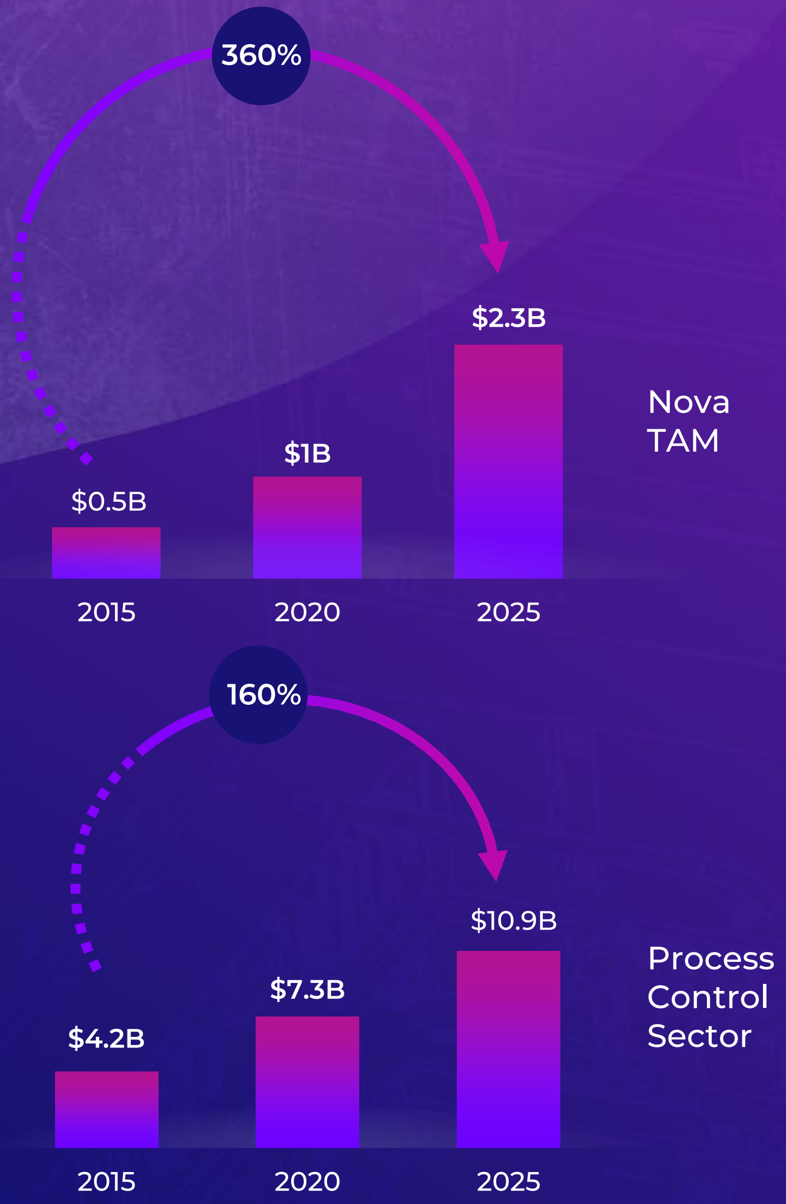
Differentiated Technology
Innovative Metrology
Raman, SIMS and Chemical Hybridization

Physical and ML Algorithms
Data-Driven Solutions
Training and Prediction Capabilities

Service Revenue
Extendibility & Enhancement
Value Added Services

Research Technologies
LAB to FAB

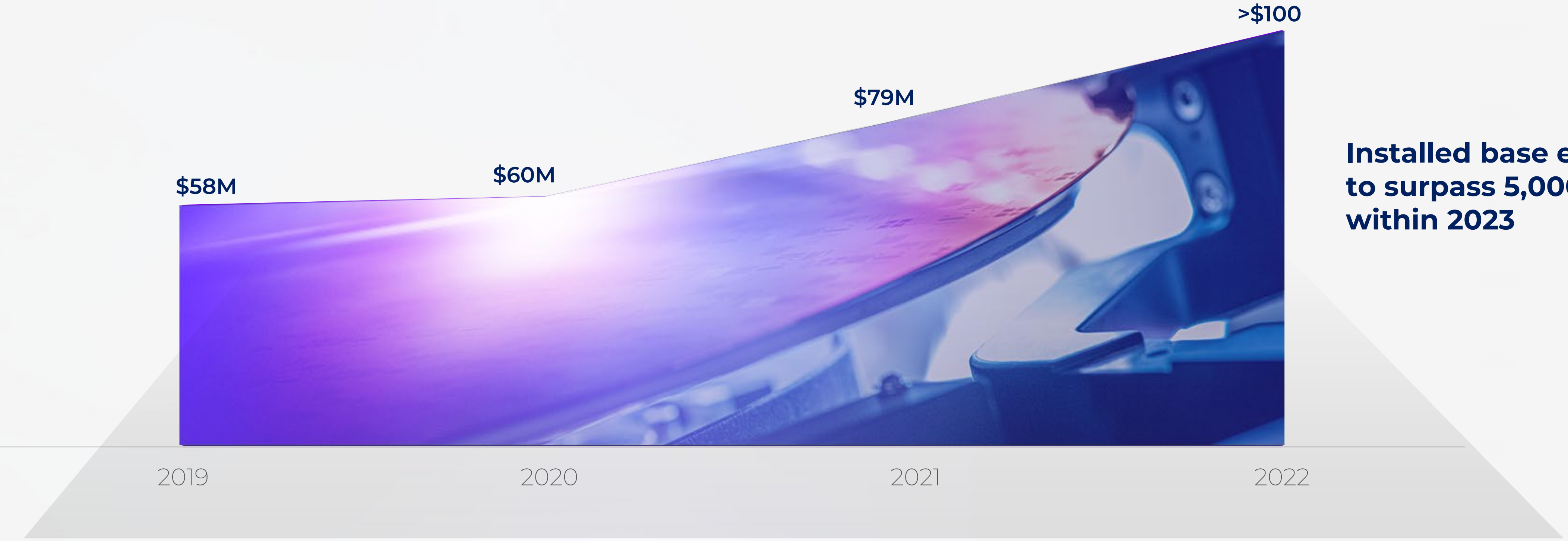
TAM Growth



Source: Gartner Research & company financial information

Service Revenue Engine

Expecting Double Digit Growth of Service Business in Coming Years



Installed base expected to surpass 5,000 systems within 2023

Non-GAAP Financials

Inorganic Approach

Search **Guidelines**

Early Access
Lab to Fab Technology

Materials
Leadership

Software Offering
Enhancement

Adjacent
Process Control Markets

Screening Elements

Top Line Synergy

Complementary Technology

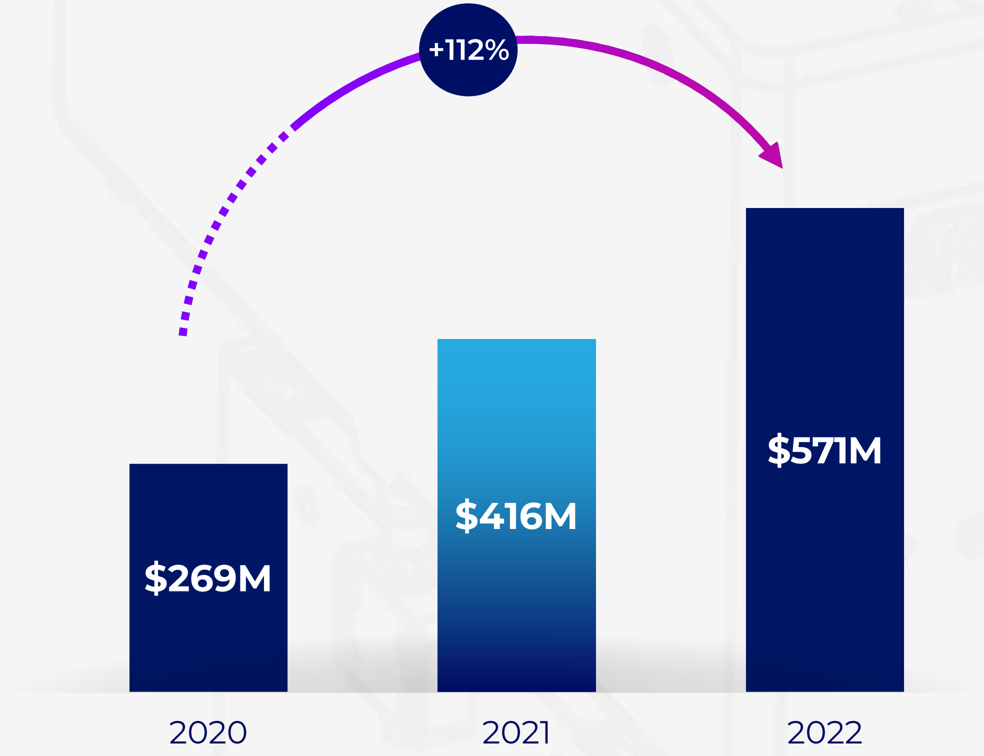
Operational Leverage (Accretion)

Diversification Within Core Capabilities

Transformational

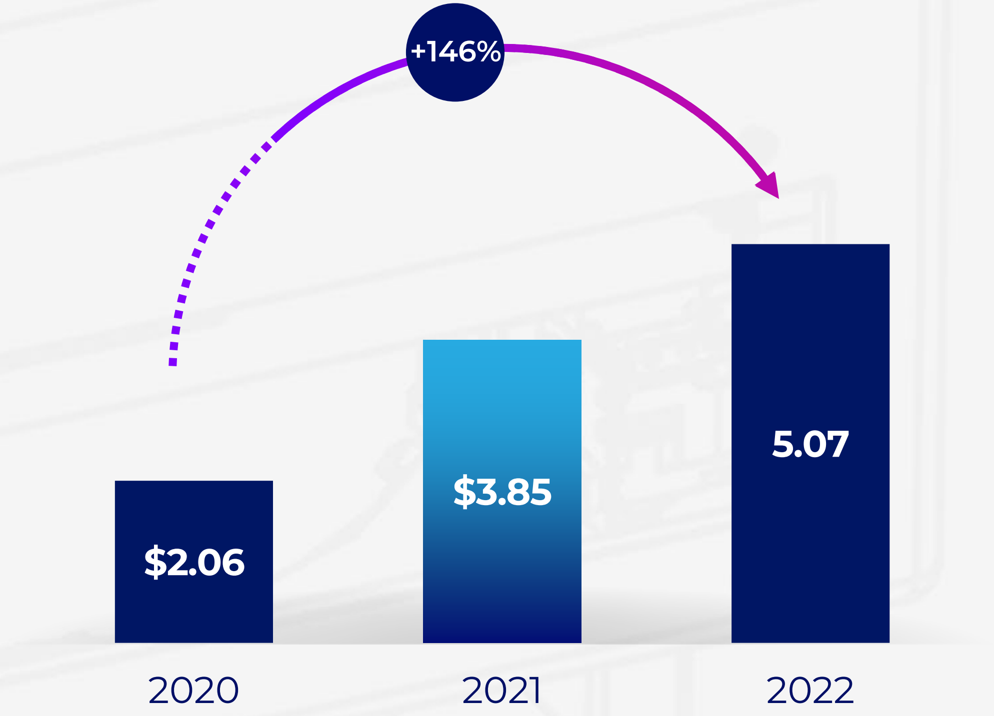
Financial Performance
Annual Results

Continuous Revenue Growth



Non-GAAP Financials

Earnings Per Share (Non-GAAP)

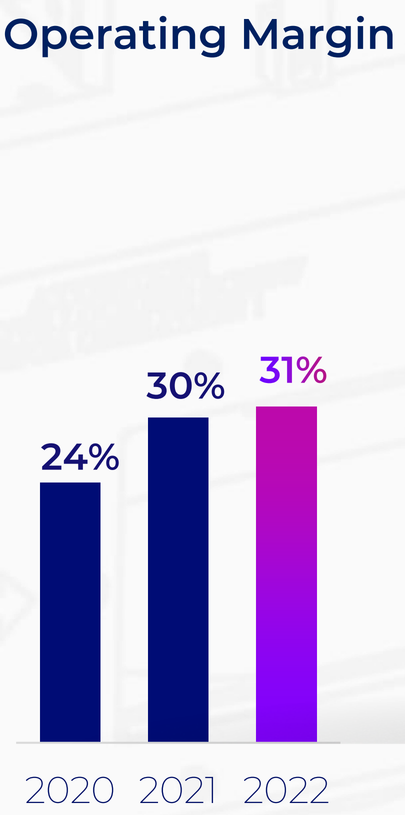


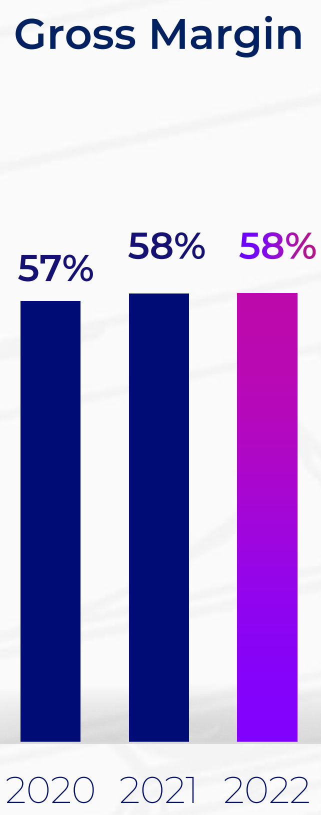
Non-GAAP Financials

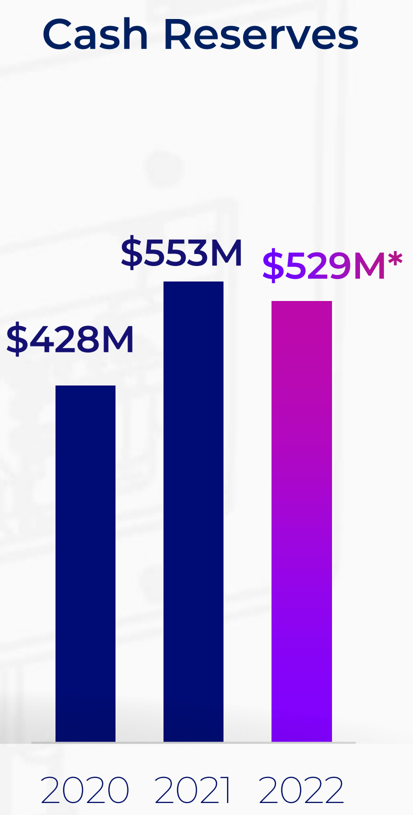
NOVA

Financial Performance

Annual Results



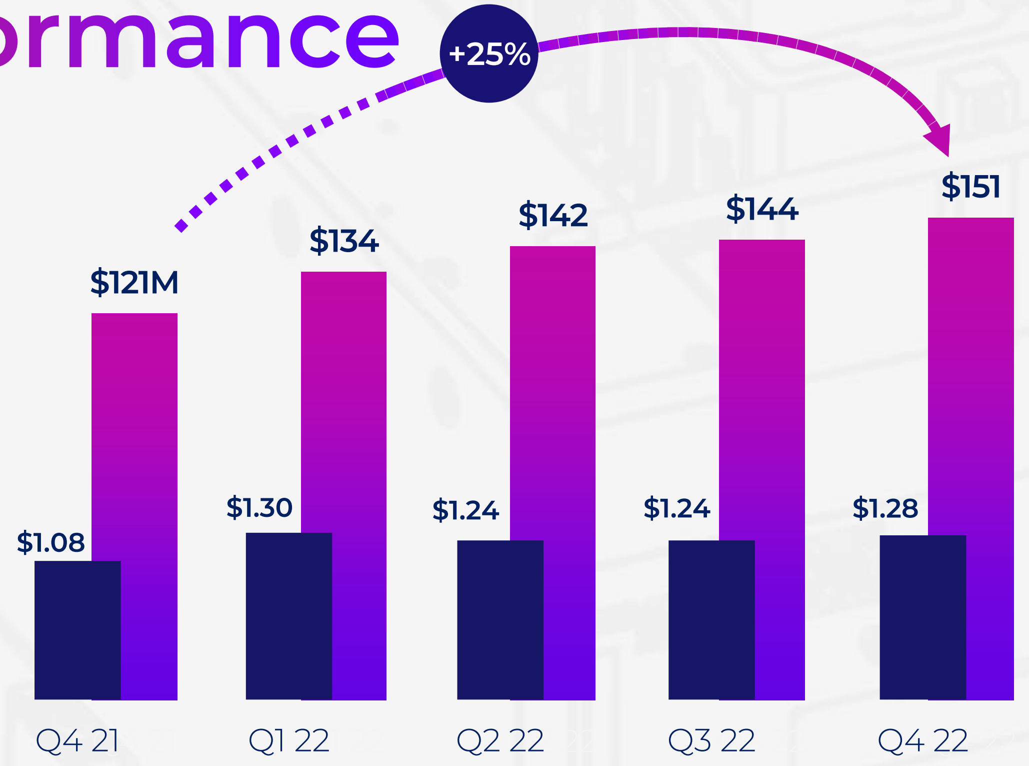




Non-GAAP Financials

*After acquisition of ancosys for ~$90M

Quarterly
Performance

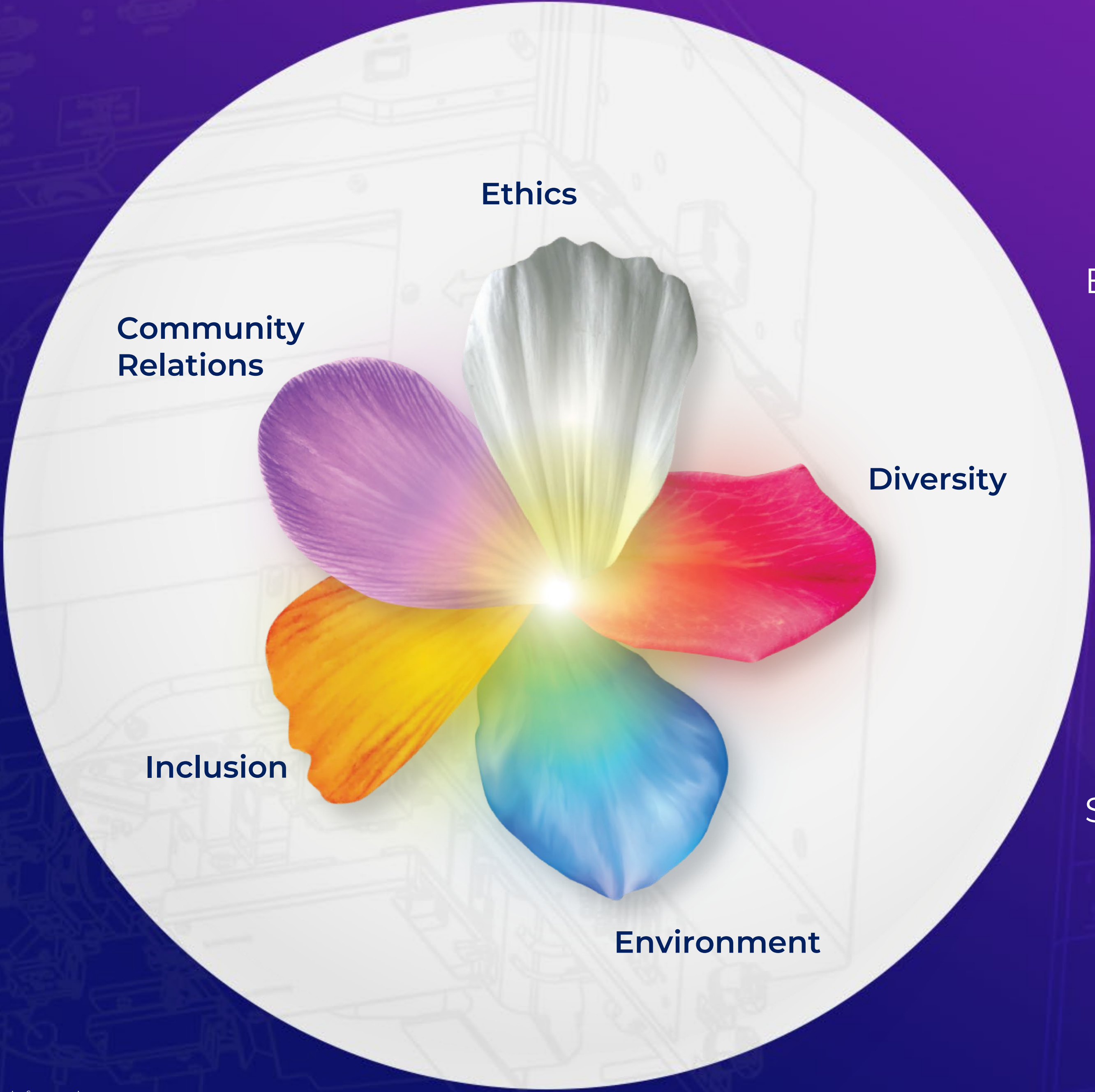


Company Guidance	Revenue	EPS
Q1 2023	$125M-$135M	$0.77-$0.98 (GAAP)
		$0.93-$1.14 (non-GAAP)

- Record annual product sales across all divisions
- The proliferation of most advanced product portfolio;
- Chemical meteorology penetration to leading front-end customers
- $100M in Service Revenues

Non-GAAP Financials

ESG



Encourage workforce diversity

Support Youth at Risk

Responsible & Ethical supply chain management

Optimize waste management and energy consumption

Sustainable facilities across the globe

Key Takeaways

Positioned for Continuous Growth

Growing demand for IC drives capacity & Increasing complexity
Increasing need for advanced metrology solutions

Unique and disruptive technology portfolio
Driving a stronger position and expanding TAM

Solid operational model
Supports clear strategy for growth

Proven performance towards Nova500
Outperforming the Industry

Cultural elevation with new CSR strategy
Combining business ethics with culture and social consciousness

Financial Target Model

Sales

1B$

Gross Margin

57%-59%

Operating Margin

27%-31%

Non-GAAP Financials

NOVA

Thank You