



Investor Presentation

May 2024

John Kibarian, President & CEO, Co-Founder

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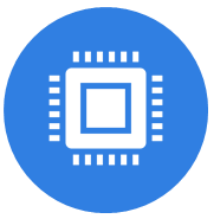
Adnan Raza, Executive VP, Finance & CFO

Certain statements in this presentation, and statements that may be made when discussing it, regarding the Company's future expected business performance and financial results are forward looking and are subject to future events and circumstances. Actual results could differ materially from those expressed in these forward-looking statements. Risks and uncertainties that could cause results to differ materially include risks associated with: the effectiveness of our business and technology strategies; current semiconductor trends; continued adoption of the Company's solutions by new and existing customers; project milestones or delays and performance criteria achieved; cost and schedule of new product development; the impact of global economic trends and rising inflation and interest rates; the provision of technology and services prior to the execution of a final contract; supply chain disruptions; the success of the Company's strategic growth opportunities and collaborations; our ability to successfully integrate acquired businesses and technologies; whether we can successfully convert backlog into revenue; customers' production volumes under contracts that provide Gainshare royalties; possible impacts from the evolving trade regulatory environment and geopolitical tensions; our ability to obtain additional financial if needed; and other risks set forth in PDF Solutions' periodic public filings with the Securities and Exchange Commission, including, without limitation, its Annual Reports on Form 10-K, most recently filed for the year ended December 31, 2023, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K and amendments to such reports. The forward-looking statements made herein or about this presentation are made as of the date hereof, and PDF Solutions does not assume any obligation to update such statements nor the reasons why actual results could differ materially from those projected in such statements.

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PDF Solutions Overview

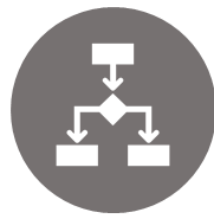
- PDF provides advanced data analytics, machine learning, and equipment connectivity products, services, and systems for the semiconductor supply chain
- PDF products improve process efficiency and product reliability:
 - Analytics software and services for the end-to-end needs of the semiconductor value chain
 - Connectivity and control software and services for factory equipment
 - Differentiated data from manufacturing, test, and in-field use based on IP integrated into semiconductor devices



IC Design



Fab



Sort



Assembly

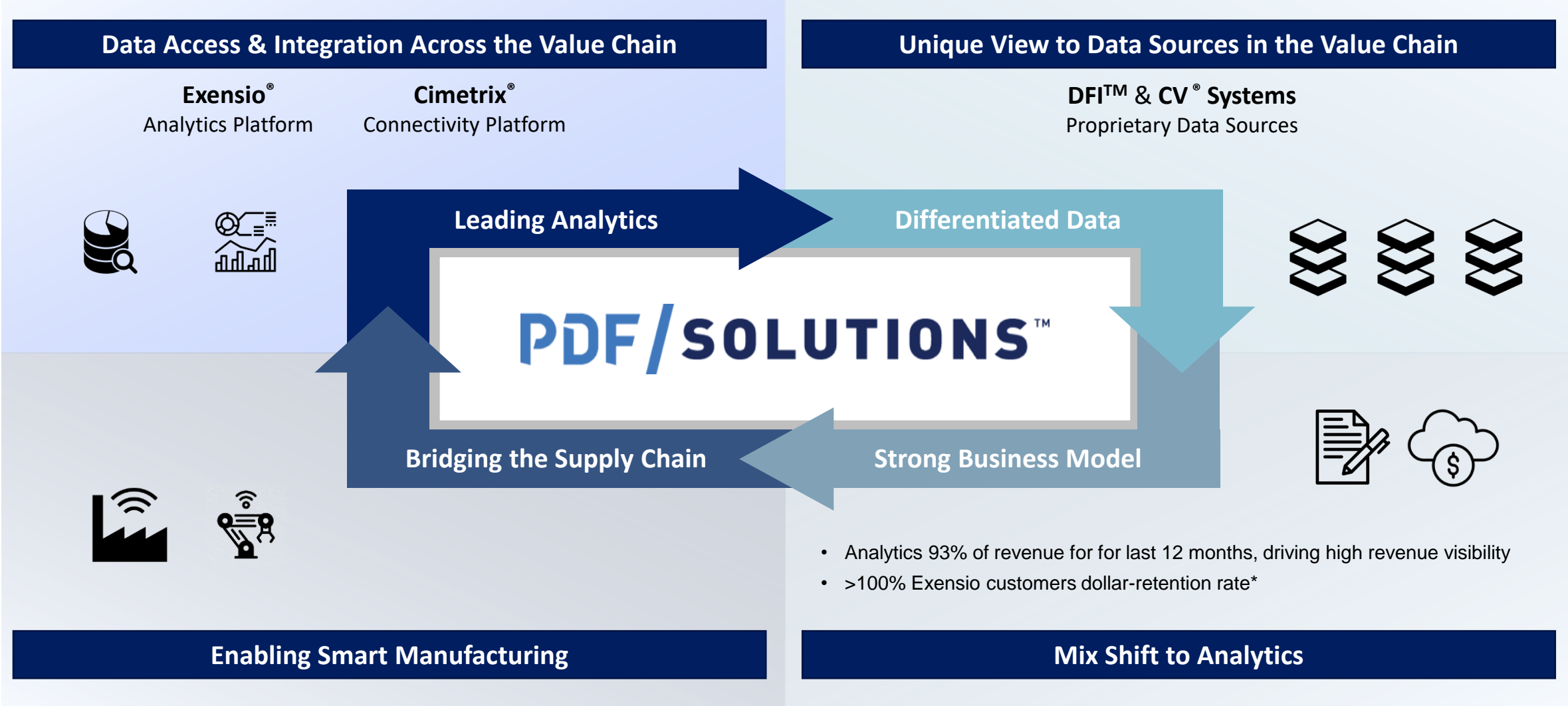


Test



System

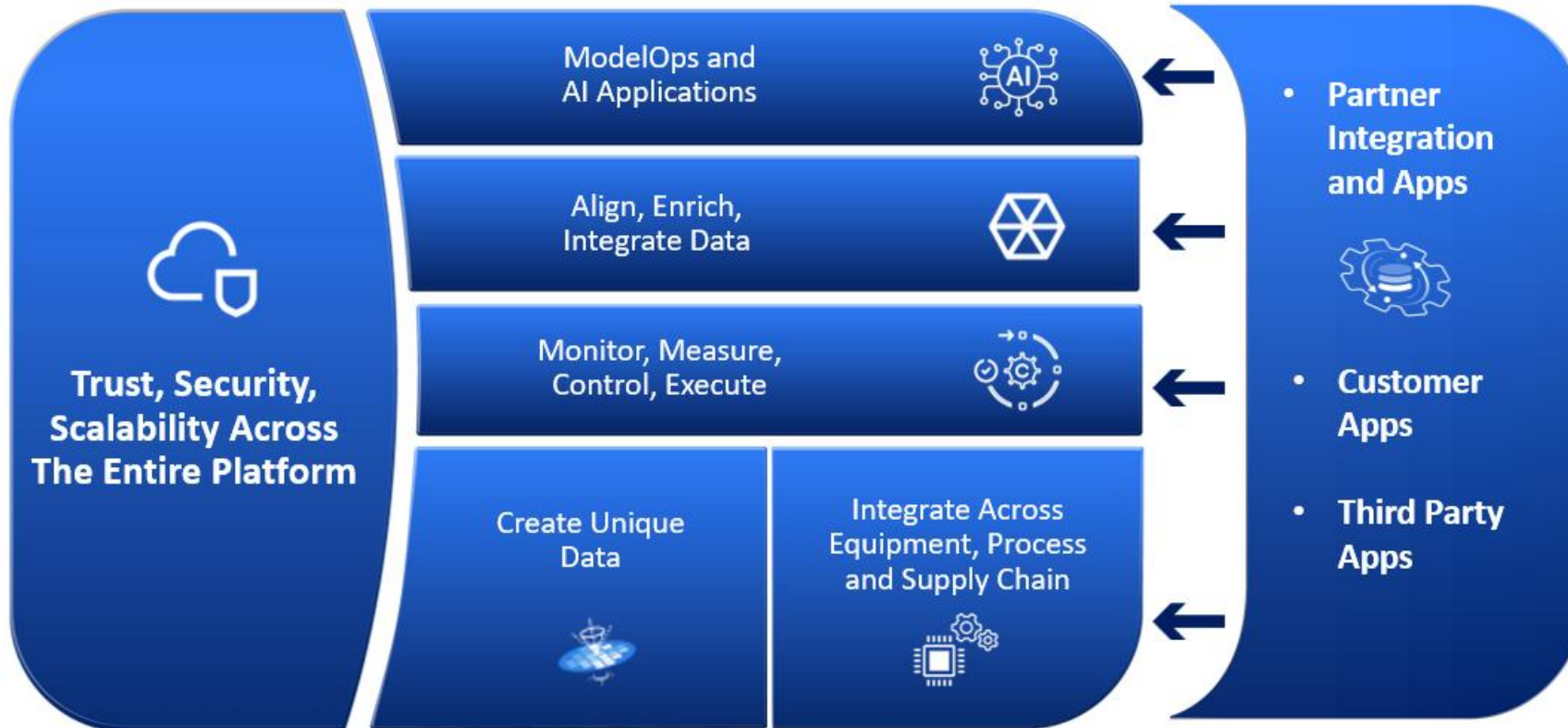
PDF Solutions Platform Overview



*TTM Q1'24 vs TTM Q1'23

PDF Solutions Integrated Platform Architecture

Fully integrated solution to accelerate production ramp, improve overall yield and quality



PDF platform revenue growth drivers:

- AI driven actionable insights
- New go-to-market paths via partnerships
- Transition to automotive electrification

Building a Platform for Success

GROWTH

- Analytics revenue grew 13% Y/Y from TTM Q1'23 to TTM Q1'24
- Analytics at 93% of total revenue in TTM Q1'24

PROFITABILITY

- GAAP gross margin of 67% for Q1'24
- Non-GAAP gross margin of 72% for Q1'24
- 70%+ non-GAAP gross margins target model

VISIBILITY

- Greater than 100% Exensio® customers dollar-retention rate*
- Strong ending backlog of \$262.2M as of Q1'24

DIVERSIFICATION

- No country outside the United States accounts for more than ~15% of revenue in TTM Q1'24
- North America Region grew by double-digit percentages on a Y/Y TTM basis

STRENGTH

- \$122.9M in cash and short-term investment as of Q1'24
- \$6.9M of share buyback completed so far during 2024

COLLABORATIONS

- Expanding strategic collaboration across various sectors
- Partnering with industry-leaders, including Advantest, AWS, IBM, K&S, proteanTecs, SAP, Siemens, and Teradyne

*TTM Q1'24 vs TTM Q1'23

Well-Received 2023 User Conference and Analyst Day



- 300+ registered attendees
- 17 customer/partner presentations
- Over 80 companies and industry organizations represented

Presenting Companies

ADVANTEST



IBM

intel.

MULTIBEAM

proteanTecs

RENESAS



SIEMENS

TERADYNE

Vendia

The Opportunity For PDF Is Expanding



Representative industry participants; not indicative of actual customers. Logos are the property of the respective trademark owners.

Established strong presence:

- >140k equipment factory connections with over >40k process tools
- 350+ revenue generating customers in 30 countries in TTM Q1'24

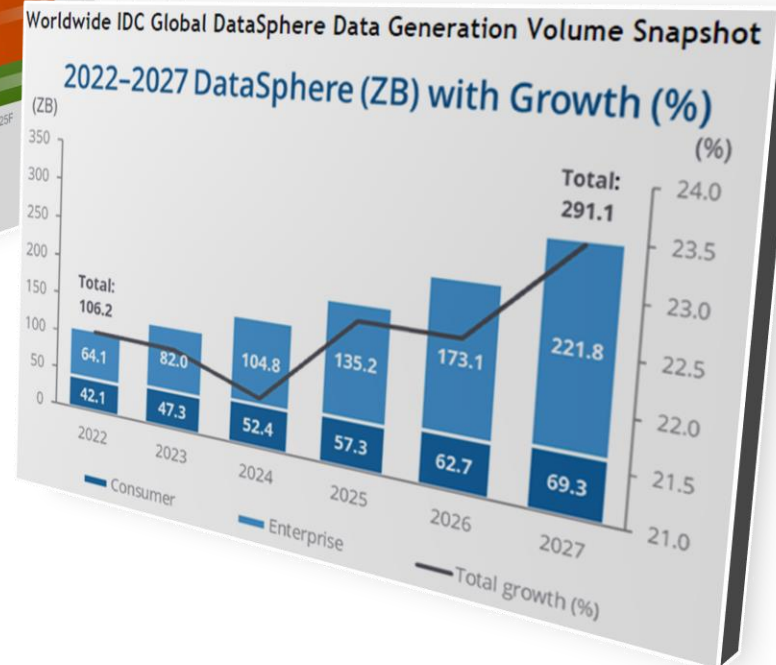
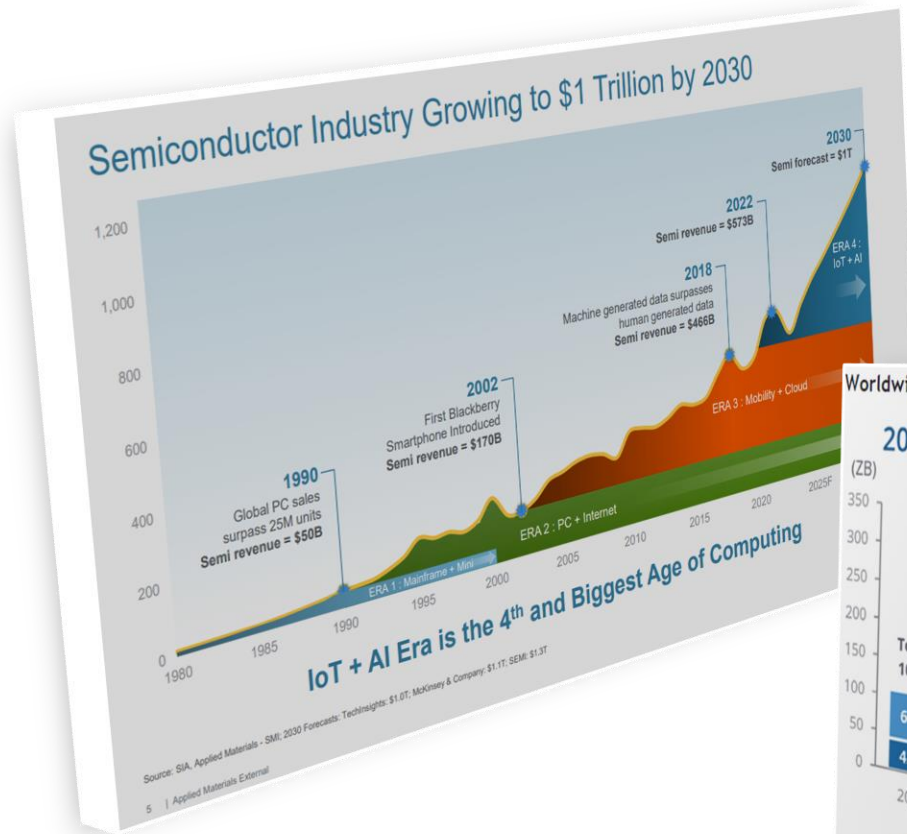
Strong product suite:

- Leading commercial provider of Lab to Fab optimization solutions: yield, test, OEE
- Leading commercial manufacturing Analytics and AI platform for the semiconductor industry
- Long history as an integration provider of semiconductor equipment

Expansion opportunities increasing:

- Strong position within equipment, IP, Factory and Product companies, while expanding to additional Product and System companies

Strong Semiconductor End-Market Drivers



- AI is driving increasing data generation and data availability, which in turn is driving semiconductor revenue
- Driven by AI, semi revenue expected to reach \$1T+ by 2030

Semiconductor Growth Inflection Points



<https://semiwiki.com/semiconductor-services/techinsights/316095-semicon-west-2022-and-the-imec-roadmap/>



<https://www.intel.com/content/dam/www/central-libraries/us/en/documents/2022-intel-investor-meeting-ifs.pdf>



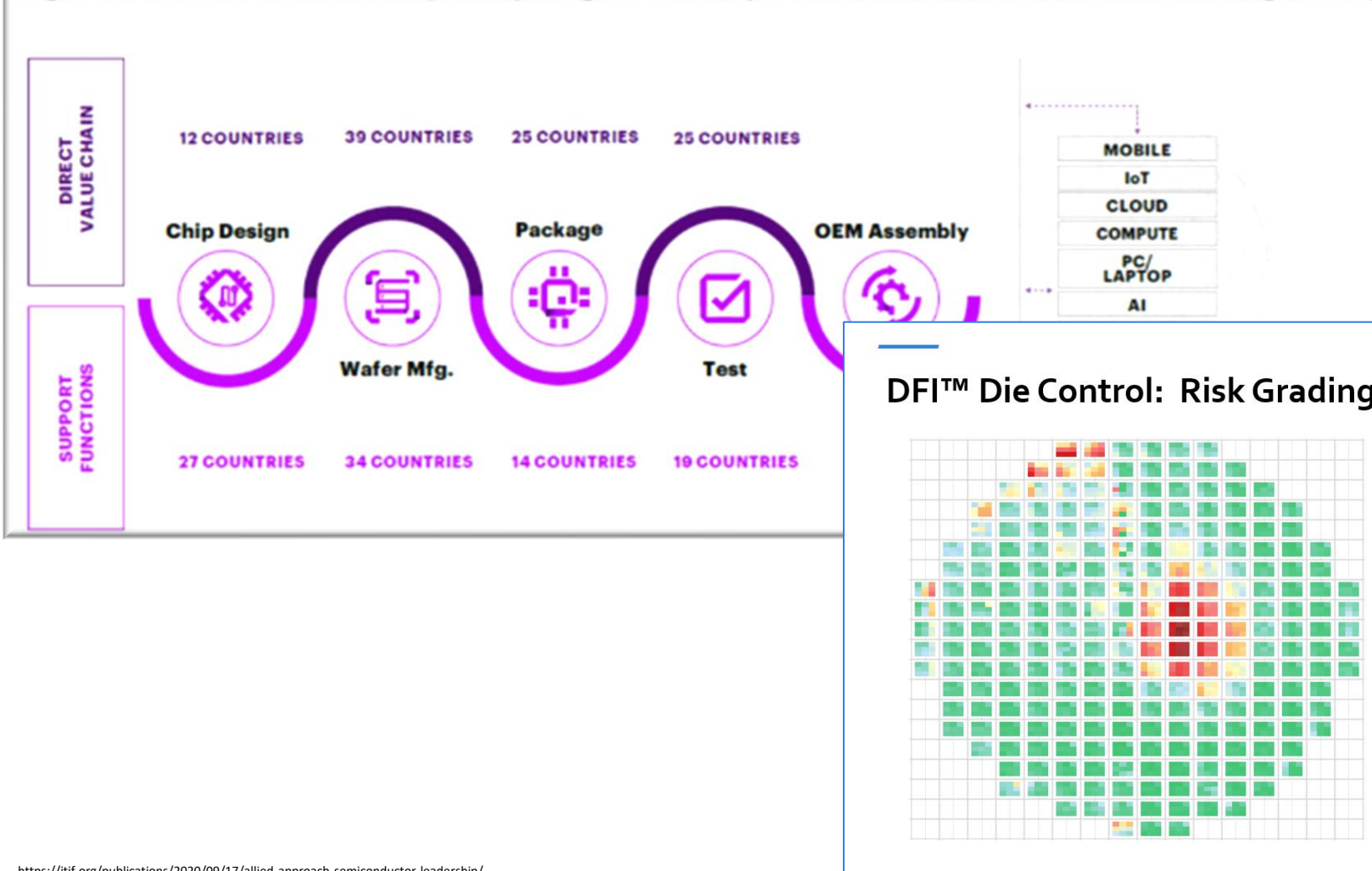
https://www.semiconductors.org/wp-content/uploads/2022/02/Global-Semiconductor-Incentives_2-4-2022.pdf

Achieving the necessary semi growth requires overcoming new inflection points

- New architectures & materials
- Chiplets
- Geographic disaggregation

AI Is Enabler For Rapid Growth

Figure 9: Number of countries participating in various phases of semiconductor manufacturing activity



<https://itif.org/publications/2020/09/17/allied-approach-semiconductor-leadership/>

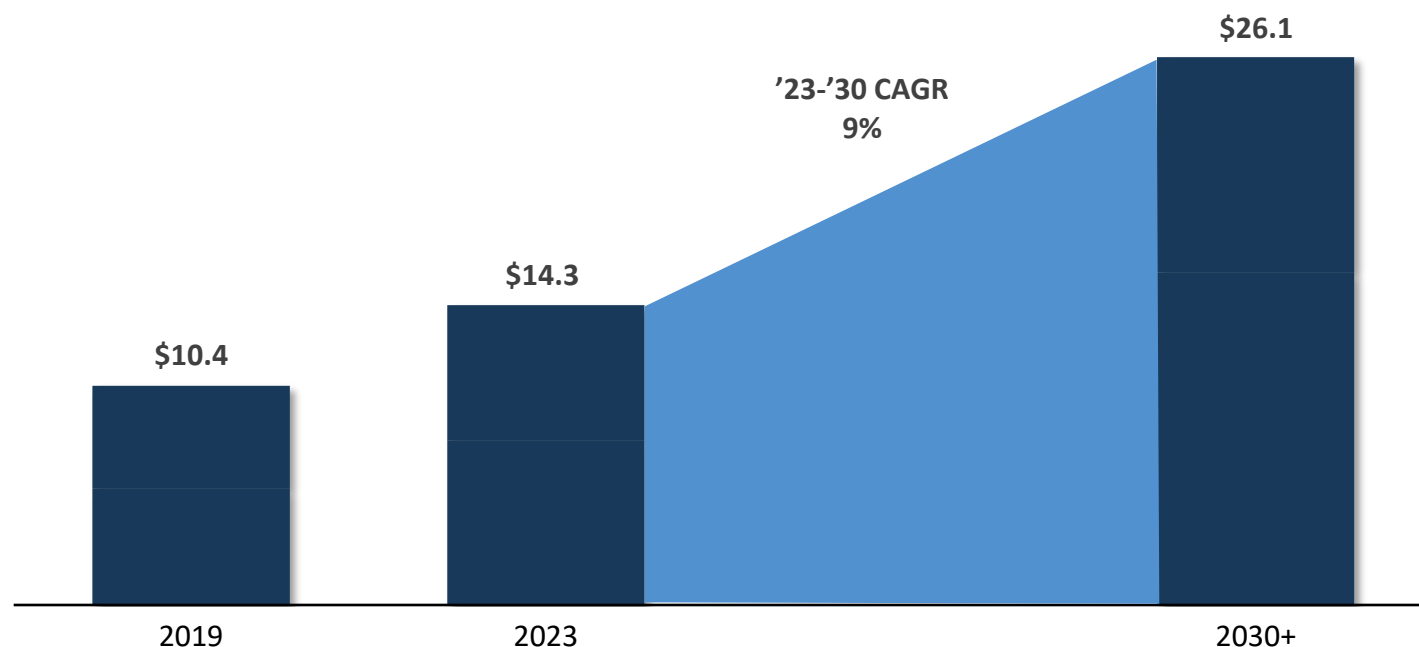
- AI adoption across the semiconductor supply chain is a key component to efficiently achieving semi growth

- Successful AI application requires:
 - Cross-supply chain data integration
 - The right data, not just more data
 - AI/ML model operations

Total Semiconductor Analytics TAM

Potential value capture of analytics in Semiconductors

(\$ in billions)

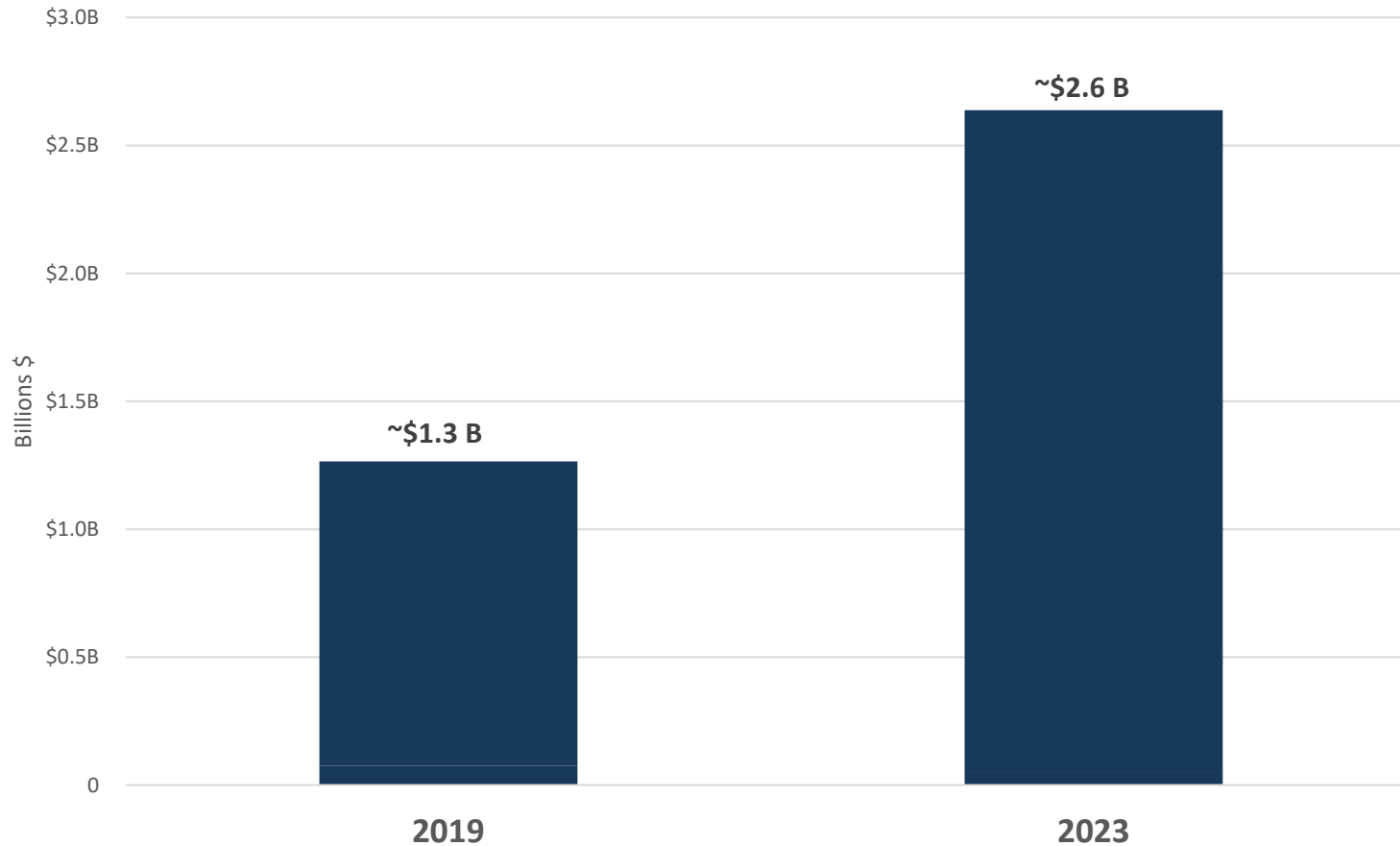


Source: FactSet and Wall Street estimates.

Methodology

- Analytics as a portion of total R&D and COGS spending by Semiconductor Companies across three categories:
 - Fabless-Logic
 - IDM
 - Memory/Storage
- Estimated % of spending attributable to analytics based on each company type – Fabless-Logic, IDM, Memory/Storage
- Based on FactSet consensus spending estimates for 2023 for individual companies and industry experts projecting a \$1T market for semiconductor revenue by 2030+

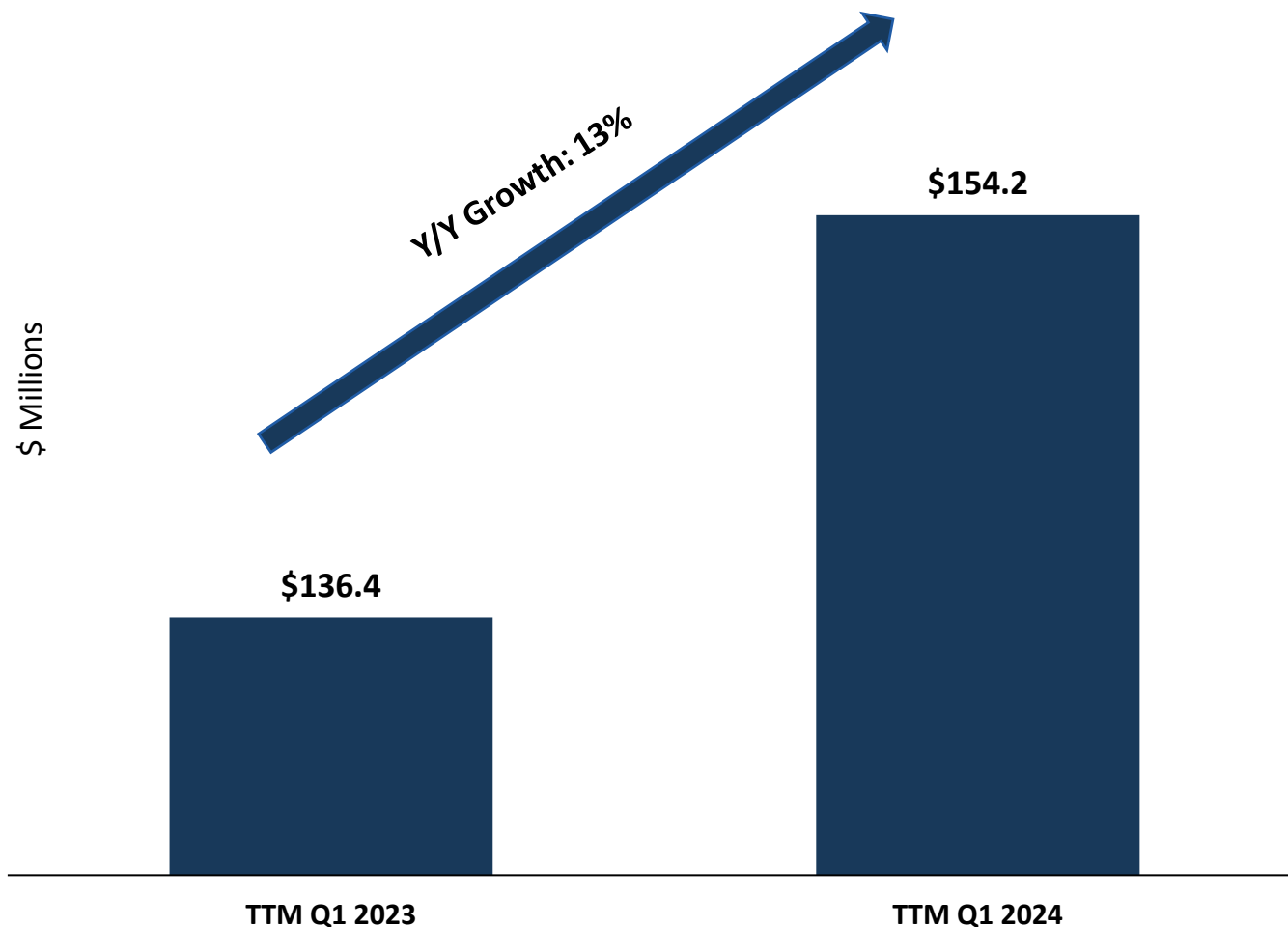
Market Opportunity – PDF SAM



Source: PDF Solutions estimates

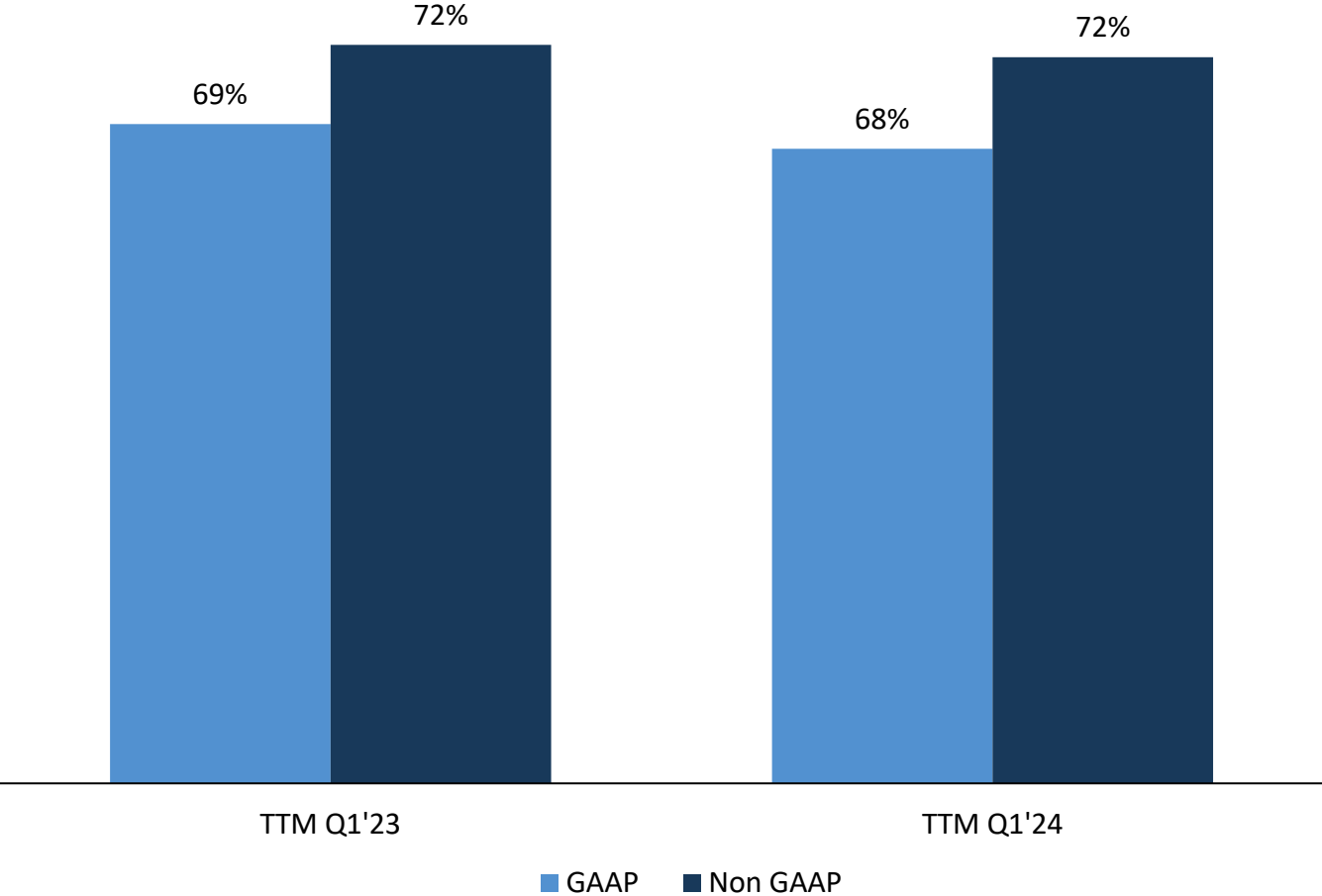
- SAM of more than \$2B (based on 2023 data)
- Growth drivers:
 - Adoption across supply chain
 - ML & advanced solutions
 - DFI for quality & reliability
 - Transition to cloud

Analytics Revenue



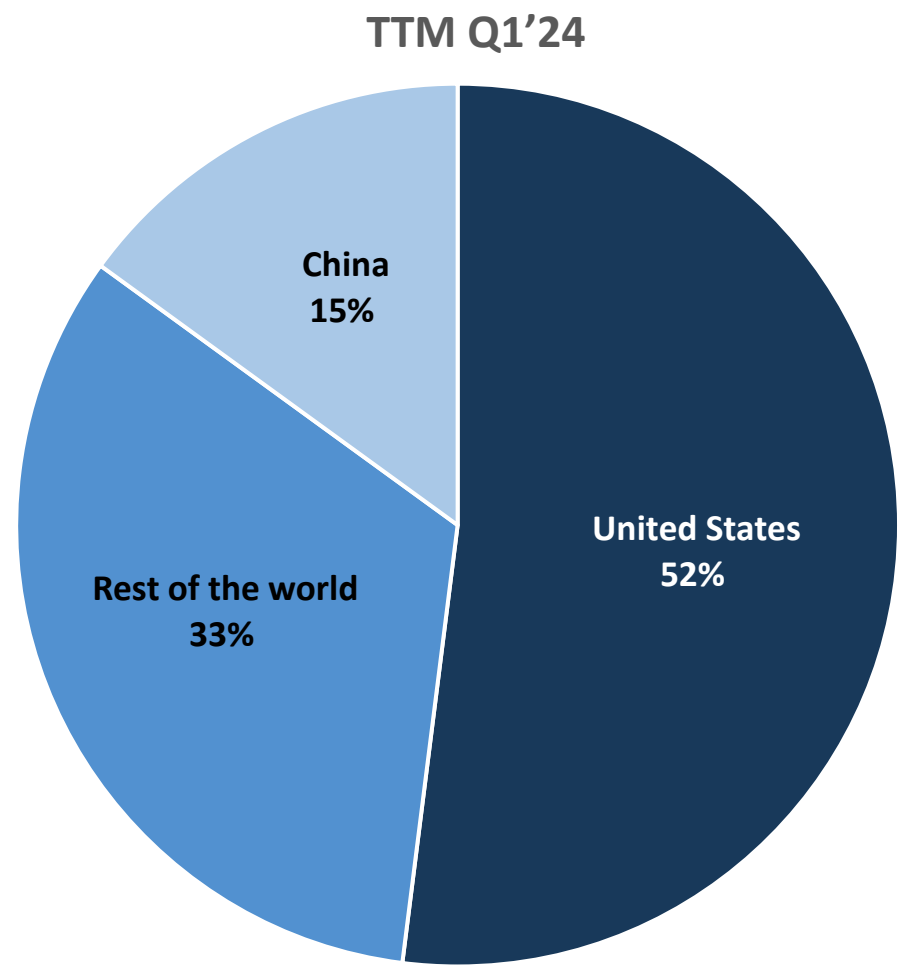
- Y/Y Analytics Growth of 13% from TTM Q1'23 to TTM Q1'24
- Average Analytics revenue per customer, excluding Cimatrix, \$911K in TTM Q1'24, a 12% increase from \$816K in TTM Q1'23

Gross Margins



- Achieved our long-term target Non-GAAP gross margin of 70%+ in TTM Q1'24
- Analytics customers transitioning to subscription and cloud over time
- First monetization of technology was IYR engagements with associated royalties
- Second wave of monetization consists of growing the Analytics business

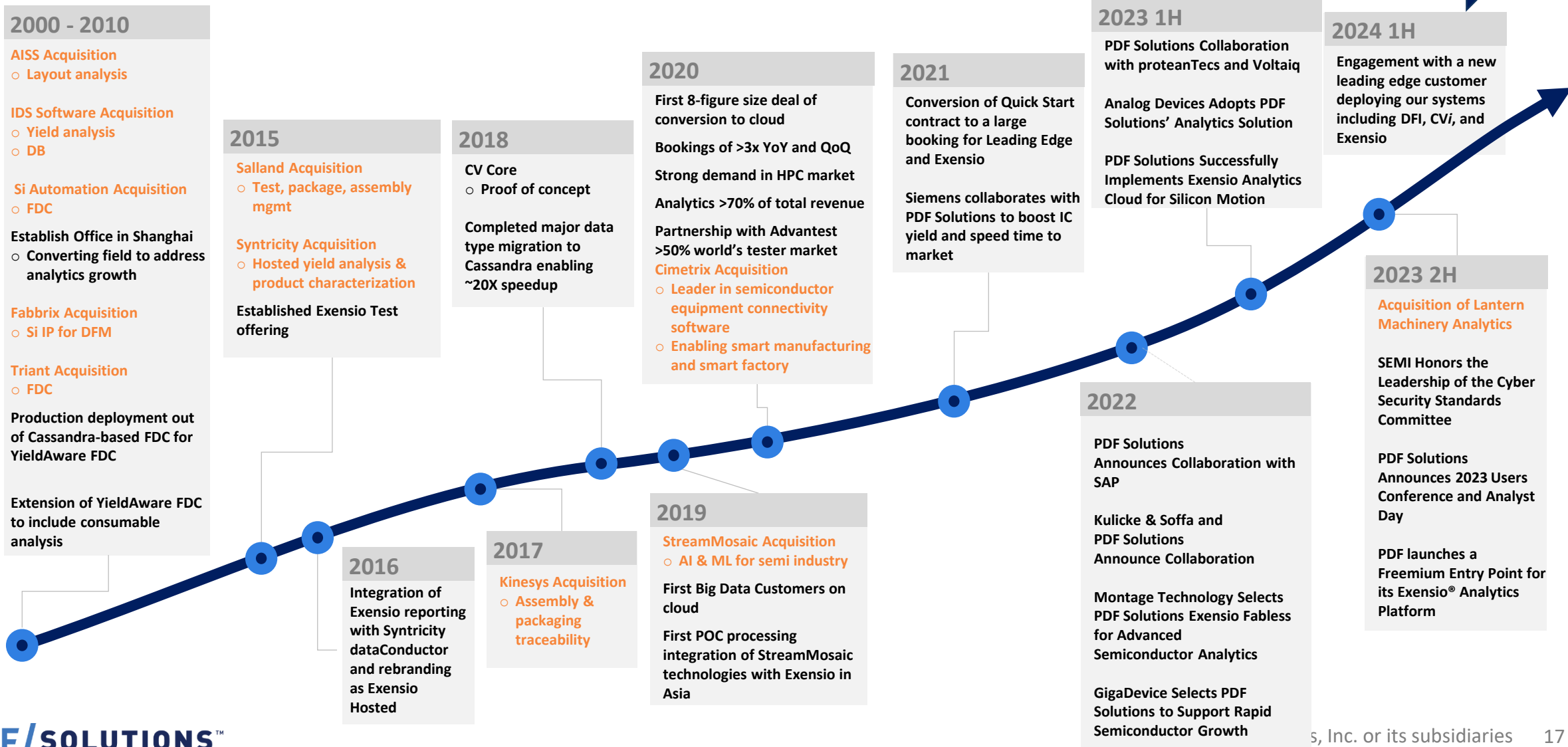
Global Geographic Revenue Distribution



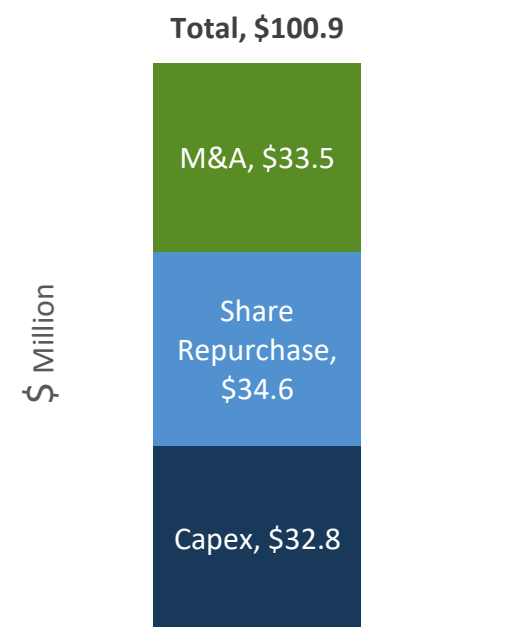
- Globally diverse geographic distribution
- No country outside the United States accounts for more than ~15%
- United States largest market at 52% of revenues

Acquisitions and Product Releases Expand Scope

Continued Transition To Subscription Model



Disciplined Capital Allocation



(\$ Millions)	End of 2019	End of 2020	End of 2021	End of 2022	End of 2023	Q1 2024
Cash and ST invt	\$97.6	\$145.3	\$140.2	\$139.2	\$135.5	\$122.9
Debt	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Share Repurchase	\$9.6	\$0.0	\$4.5	\$22.5	\$0.7	\$6.9

- Capex investments include DFI/eProbe, CVi, IP, DEX network, and infrastructure
- Cash balance has increased while PDF:
 - Invested in Capex
 - Returned capital to stockholders through stock buyback
 - Made acquisitions
 - Received strategic investment

Long-Term Target Financial Model

Total Revenue Growth	>20%
Non-GAAP Gross Margins	>75%
Non-GAAP Operating Margin	20%

Summary – PDF Solutions



Thank You

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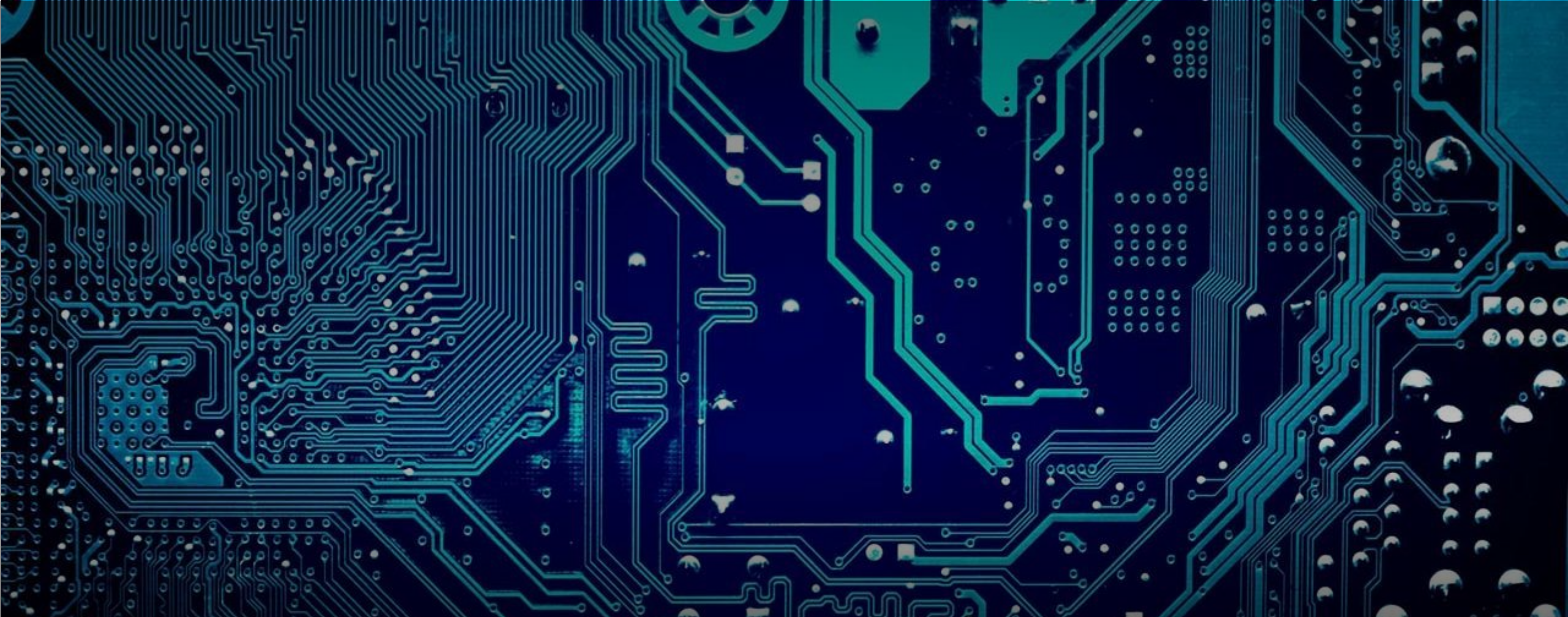
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Financials - Appendix

Non-GAAP Presentation

In addition to providing results that are determined in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP), the Company also provides certain non-GAAP financial measures. NonGAAP gross profit and margin exclude stock-based compensation expense and the amortization of acquired technology under costs of revenues. Non-GAAP net income excludes stock-based compensation expense, amortization of acquired technology under costs of revenues, amortization of other acquired intangible assets and the effects of certain non-recurring items, such as expenses related to an arbitration proceeding for a disputed contract with a customer, acquisition-related costs, proceeds from the sale of previously written-off property and equipment, and their related income tax effects, as applicable, as well as adjustments for the valuation allowance for deferred tax assets and reconciling items. These non-GAAP financial measures are used by management internally to measure the Company's profitability and performance. PDF Solutions' management believes that these non-GAAP measures provide useful supplemental information to investors regarding the Company's ongoing operations in light of the fact that none of these categories of expense has a current effect on the future uses of cash (with the exception of expenses related to an arbitration proceeding for a disputed contract with a customer and acquisition-related costs) nor do they impact the generation of current or future revenues. These non-GAAP results should not be considered an alternative to, or a substitute for, GAAP financial information, and may differ from similarly titled non-GAAP measures used by other companies. In particular, these non-GAAP financial measures are not a substitute for GAAP measures of income or loss as a measure of performance, or to cash flows from operating, investing and financing activities as a measure of liquidity. Since management uses these non-GAAP financial measures internally to measure profitability and performance; PDF Solutions has included these non-GAAP measures to give investors an opportunity to see the Company's financial results as viewed by management. A reconciliation of the comparable GAAP financial measures to the non-GAAP financial measures is included herein.

GAAP to Non-GAAP Income Reconciliation

in thousands (except share amounts, percent of revenue, and EPS)

	2020	2021	2022	2023	Q1'24
GAAP net income (loss)	\$ (40,363)	\$ (21,488)	\$ (3,429)	\$ 3,105	\$ (393)
Adjustments to reconcile GAAP net income (loss) to non-GAAP net income (loss):					
Stock-based compensation expense	12,463	12,931	19,648	21,484	6,110
Amortization of acquired technology under costs of revenues	705	2,079	2,213	2,266	584
Amortization of other acquired intangible assets	741	1,255	1,270	1,285	259
Write-down in value of property and equipment	490	3,183	-	-	-
Acquisition costs & adjustment to contingent consideration related to acquisition	752	-	-	209	-
Legal arbitration/litigation *	1,098	1,951	1,895	2,600	-
Proceeds from sale of previously written-off property and equipment	-	-	-	(105)	-
Tax Impact of Adjustments	23,309	3,091	1,326	(2,374)	(813)
Non-GAAP net income (loss)	\$ (805)	\$ 3,002	\$ 22,924	\$ 28,470	\$ 5,747
GAAP net income (loss) per diluted share	(1.17)	(0.58)	(0.09)	0.08	(0.01)
Non-GAAP net income (loss) per diluted share	(0.02)	0.08	0.60	0.73	0.15
Shares used in diluted shares calculation (in millions)	34.4	37.9	38.1	38.9	39.1

* Represents the expenses related to an arbitration proceeding over a disputed contract with a customer, which expenses are expected to continue until the arbitration is resolved.

GAAP to Non-GAAP Gross Margin Reconciliation

in thousands

GAAP Gross Margin

GAAP Gross Margin %

Adjustments to reconcile GAAP gross margin (loss) to non-GAAP gross margin:

Stock-based compensation expense

Amortization of acquired technology

Non-GAAP gross margin

Non-GAAP gross margin %

	2020	2021	2022	2023	Q1'24
GAAP Gross Margin	\$ 51,281	\$ 66,867	\$ 100,642	\$ 114,086	\$ 27,781
<i>GAAP Gross Margin %</i>	<i>58%</i>	<i>60%</i>	<i>68%</i>	<i>69%</i>	<i>67%</i>
Adjustments to reconcile GAAP gross margin (loss) to non-GAAP gross margin:					
Stock-based compensation expense	3,454	2,563	2,974	4,169	1,200
Amortization of acquired technology	705	2,079	2,213	2,266	584
Non-GAAP gross margin	\$ 55,440	\$ 71,509	\$ 105,828	\$ 120,521	\$ 29,565
<i>Non-GAAP gross margin %</i>	<i>63%</i>	<i>64%</i>	<i>71%</i>	<i>73%</i>	<i>72%</i>

(\$ '000)

Current assets:

145,296	140,226	139,181	135,522	122,884
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34,140	40,087	42,164	44,904	47,267
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13,944	8,194	12,063	17,422	17,165
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193,380	188,507	193,408	197,848	187,316
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39,242	35,295	40,174	37,338	36,088
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6,672	5,408	6,002	4,926	4,742
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48,286	44,558	39,087	50,023	58,677
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287,580	273,768	278,671	290,136	286,823
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Current liabilities:

4,399	5,554	6,388	2,561	5,729
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14,648	12,823	22,529	19,433	14,454
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1,926	1,758	1,412	1,529	1,625
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21,232	23,691	27,871	27,320	29,988
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42,205	43,826	58,200	50,843	51,796
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6,516	5,258	5,932	4,657	4,363
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2,443	1,905	1,802	1,426
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4,353	2,656	2,622	3,888	3,825
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53,074	54,183	68,659	61,190	61,410
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234,506	219,585	210,012	228,946	225,413
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287,580	273,768	278,671	290,136	286,823
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