ARM MARCH 1, 2022

MGI FORECASTS: Automated Revenue Management Software Global Forecast 2022-2026

MGI Research

mgiresearch.com

ARM SOFTWARE GLOBAL FORECAST 2022-2026

March 1, 2022

ABSTRACT

This MGI Research Forecast provides a quantitative estimate for the total addressable market (TAM) for cloud-based Automated Revenue Management (ARM) software solutions from 2022-2026. Included in this report are the worldwide annual estimates of spending, growth rate, breakdown of spending by company size, industry, and geography, and the demand impact of major secular trends like IoT, the Subscription Economy, and Digital Transformation, among others. This research is based on MGI Research's proprietary MGI Forecasts global analytics model, a database that includes every publicly listed operating company with revenue greater than $1 million per year.

This forecast uses the Global Industry Classification Standard (GICS®) taxonomy to organize its data. In addition, the MGI Forecasts Model supports all mainstream taxonomies, including the NAICS, ICB, and TRBC taxonomies on-demand (See APPENDIX A for definitions of each taxonomy).

This report is intended as an introduction to the projected trends and growth patterns in the ARM market. In-depth data and analysis can be accessed with a subscription to MGI Research.

EXECUTIVE SUMMARY

The market for ARM software represents a sizeable opportunity with a total addressable market (TAM) of **$8.17 billion** over five years from 2022 to 2026. MGI Research estimates spending on ARM solutions to grow from **$1.16 billion** in 2022 to **$2.19 billion** in 2026, representing a five-year compound annual growth rate (CAGR) of **17.3%**. The key drivers for this market are the need for digital tools to help automate and scale the revenue recognition function beyond the ASC 606 and IFRS 15 compliance deadlines, a desire for greater business agility and speed, and the opportunity to transform a back-office necessity into a major differentiator. Companies experiencing moderate-to-high growth have already begun investing into automating revenue management. Large and midsize Software and Internet & Direct Marketing Retail companies are expected to be the largest adopters of ARM solutions, followed by organizations in the Electronic Equipment, Instruments & Components, and IT Services industries. The data in this report indicate that aggressive users of technology as well as mainstream technology adopters will be contributing approximately **90%** of the five-year spend in ARM tools. Modern, cloud-based ARM tools are among the most efficient and effective tools available for C-suite executives and finance departments to address these growing challenges.

Table of Contents

List of Figures

About MGI Research

MGI Research is an independent industry research and advisory firm focused on disruptive trends in the technology industry. The firm was founded in 2008 by a group of senior analysts and executives from firms such as Gartner, Soundview and Morgan Stanley. MGI is the only firm with a dedicated practice around Agile Monetization, including billing, CPQ, payments, e-commerce, contract management, financials, accounts receivables automation, and ARM (see Fig. 1 below).

Through its research, ratings, forecasts, advisory engagements, industry studies and conferences, MGI Research helps clients identify opportunities for reducing IT costs and minimize technology risks.

MGI Research analysts have on average 25 years of tech industry experience as IT and/or vendor executives, CIOs, Wall Street professionals, management consultants, and academics.

MGI Research emphasizes the application of highly quantitative and structured methods in creating decision support frameworks for its clients. MGI has built proprietary industry metrics, benchmarks, and indices such as the MGI Cloud30 Index, and MGI 360 Ratings.

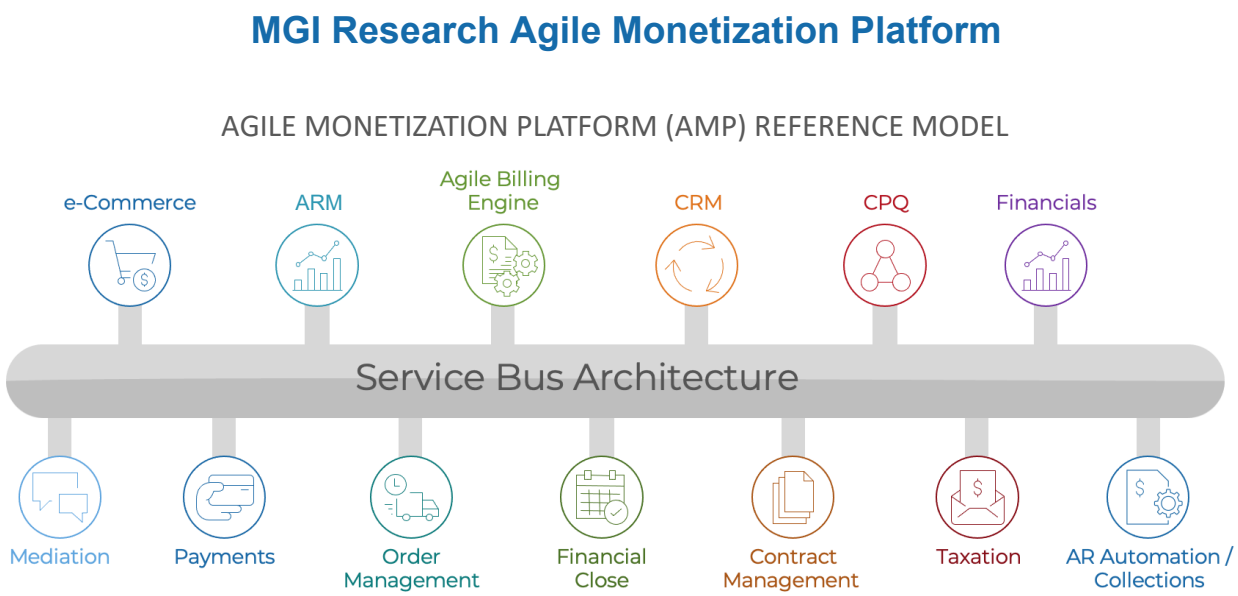


Figure 1 – Full Bus of Services Covered by MGI Research Agile Monetization Platform

INTRODUCTION

Once viewed as an adjunct to the general ledger of an accounting application and considered an automation tool for revenue recognition, Automated Revenue Management ("ARM") solutions have blossomed into a standalone category that meets essential accounting needs of a growing number of industries. Contrary to conventional wisdom, the market for ARM solutions actually expanded and accelerated in growth since the adoption of new accounting standards. At the time of the arrival of ASC 606 and IFRS 15, many in the industry believed that corporate investment in revenue automation tools would decline after the reporting deadlines passed. Instead, as MGI Research predicted at the time, the market has in fact accelerated with more spending, more choices in the market, and more demand for ARM solutions in business and finance. The supplier's market for ARM solutions is experiencing a period of investment and innovation. New start-ups are delivering innovative solutions and attracting funding, while existing players are dedicating more investment and resources to improving their offerings. The buyer's perspective is shifting, no longer seeing ARM as a point solution to meet regulatory compliance requirements, but instead expanding into broader adoption as a method to automate and scale revenue accounting. The market is beginning to realize that ARM products are responsible for much more than simply automating accounting at the end of the month or quarter – they give finance leaders the ability to influence operational decisions in real-time as business is transacted. For the most progressive CFOs and CAOs, ARM solutions are viewed as a proactive intelligence tool that enables decision-making during the financial quarter. While some investment in ARM solutions is driven by a migration from legacy systems to cloud-based tools, the bulk of the spend is net new spend for companies of all sizes as the ROI and business benefits justify significant investment in the category.

HOW TO USE THIS FORECAST

MGI Forecasts are used in myriad ways by a variety of business users. The bottom-up approach and highly granular nature of the MGI Forecast model provides a richness of strategic and operational insights that would be impossible in traditional top-down models. This makes MGI Forecasts useful for a wide set of users.

- **Professional investors** depend on the reliable market size estimates to inform key investment decisions.
- **Boards of Directors** rely on the forecasts to communicate externally and set internal objectives.
- **Sales leaders** set territories, allocate quotas, and make key country/vertical industry entry decisions.
- **Marketing executives** combine the granular forecast data with other internal data to target specific companies and industries.
- **Product managers** make essential decisions regarding product roadmap choices.
- **MGI clients** access the full data via a multi-dimensional tool, enabling the creation of unique, custom TAM analysis based on detailed parameters – e.g., a custom TAM based on the specific market the client is addressing using data points like company size, industries, and geography.

KEY BUSINESS AND TECHNOLOGY DRIVERS – BEYOND COMPLIANCE

Modern finance departments are under increasing pressure to provide greater support to the business while also responding to a growing number and complexity of regulatory mandates. This is coming at a time when many organizations still rely on reporting tools and processes that were designed in an era of batch processing, with expectations of speed and integration that do not match today's requirements landscape. Despite its known limitations as a production tool (e.g., data input errors, inaccurate macros, et al.), Microsoft Excel remains the dominant fallback choice within finance operations today.

One finance area in particular – revenue recognition – faced an imminent regulatory deadline that drove CFOs and finance teams to rethink current processes and invest in a new generation of finance automation tools with deeper functionality than what was traditionally offered by standard accounting packages. This regulatory change – the converged guidance issued by FASB and IASB in 2018 – combined with the increased velocity and scale of demands on finance, sparked demand for specialized solutions to automate as much of the revenue recognition effort as possible. The pressures on a modern finance department are such that tools for automating the financial close process and revenue accounting are becoming the rule, rather than the exception. Even though we are several years past the deadlines to adopt the new guidelines, many finance teams are still in the process of reworking their reporting processes, many of which were done in haste to meet the deadlines. It will be another two to three years for organizations to move from the "brute force standards adoption," which often included semi-automation or partial implementation of an ARM tool, toward full automation and a more complete embrace of automated tools.

Beyond ASC 606 compliance, many companies seek to automate manual and semi-manual processes, particularly those in which the scope and scale of the business are such that only an automated tool can provide accurate support for the business requirement.

For companies with very large-scale issues (e.g., retailers managing millions of gift cards or tens of thousands of contracts) and/or organizations with considerable complexity (e.g., a diversity of contractual arrangements with many considerations such as performance bonuses/penalties, price concessions, multi-party arrangements, subscription bundles), the need for an automated tool exists independently of past or future compliance requirements.

New tools for supporting more complex business models and pricing strategies (e.g., agile monetization platforms) make it easier for the business to support customer relationships with an order of magnitude greater complexity. To cost effectively scale their operation, finance organizations must look to the use of off-the-shelf revenue recognition packages. The only way for finance to accurately account for these new economic relationships is through automation.

While the finance team members are the only direct users of a revenue recognition solution, the output and reports from a modern revenue recognition application are important enablers of overall business agility.

Automation takes it a step further – aiming to reduce the number of tools while increasing the amount of revenue that is processed. For some shops, this means moving from 50/50 automation/manual processing to 75-85% automation while still handling a small minority of customers and agreements via manual efforts or specialized tools designed just for those customers.

The next big step will be Intelligence. Today, it is the visionaries, or top performing companies, who use automated revenue management tools to provide a deeper level of intelligence to their business. As described in more detail below, these finance leaders use ARM tools to make critical business decisions in near real-time.

Adjustments in sales quotes are made based on how the quarterly revenue is coming in. Planning the business two to four quarters into the future can be done with more confidence and precision based on the insights that come from more accurate revenue accounting. While primarily the elite CFOs and CAOs are doing this today (less than 5% of companies), this number is projected to grow to over 30% of companies in the next five years.

A second major trend driving ARM spend is the influx of investment into this market. Large ERP accounting vendors have recognized the market demand and are spending to improve their solutions and more aggressively market and sell their enhanced capabilities. The added investment in sales and marketing helps to expand the market as overall awareness catalyzes user adoption of ARM. Further, a group of new, innovative solutions is coming to market, stirring the imagination of finance and business leaders and opening new possibilities for finance to be a key business enabler, not just a back-office compliance and reporting function.

WHO WITHIN THE ORGANIZATION WILL BE IMPACTED BY REVENUE MANAGEMENT SOFTWARE?

The primary buying center for ARM is finance. Depending on the size of the organization, the purchaser/key decision-makers are the CFO, CAO, VP of Finance/Accounting, Director of Finance Accounting, Controller, and similar positions. The IT department may also be involved in the evaluation/purchasing process, and to a lesser degree in the implementation/ongoing operations of the system. In larger enterprises, the IT organization has more responsibility and involvement throughout the lifecycle of an ARM solution.

BENEFITS AND BENEFICIARIES

The casual observer might imagine that only the finance organization was impacted by the new revenue recognition standard. However, for companies in those industries required to adopt IFRS 15/ASC 606, revenue management has gained notoriety beyond the finance function. This will likely play out in other industries that are required to adopt new accounting standards (e.g., lease accounting).

ASC 606 – Impact on the Sales Organization

Under the new rules, companies are required to capitalize the incremental costs of obtaining a contract (e.g., sales commissions) at the outset if the contract exceeds 12 months in duration. This deferred expense is then amortized over the period of the contract. However, there is a more nuanced treatment for the incremental costs. For compensation tied to goal achievement (e.g., sales volumes) for sales management (e.g., supervisors/managers), the cost is expensed in the period in which it is incurred. Clearly, the new guidance impacted more than finance – it hit the sales organization as well.

There is a real connection between contract management solutions, sales compensation/incentive compensation management solutions, and revenue recognition software. To optimize sales behavior and maximize selling, sales operations need to know what revenue will be recognized upfront versus what will be recognized over time. Sales operations teams may need to reconsider sales incentive plans in light of revenue recognition. For example, items that were previously used to accelerate deal closing – e.g., extended warranty periods, additional support and/or training credits, etc. – may now impact the recognition of revenue in the contract. Further, in cases where sales reps previously received commission on revenues at the time of a contract closing, commission may now be credited and paid at a later date, once the revenue is actually recognized.

Having up-to-date insights into the quarterly revenue picture enables management to take action within a given quarter. Forward-thinking executive teams are exploring how advanced insight into revenue accounting can be used to drive end-of-quarter activity. For instance, in a weak quarter where sales organizations may be struggling to reach targets, management may incentivize sales reps to sign contracts with revenue that can be recognized immediately. Conversely, in a strong quarter that reaches its performance goals early, management may encourage sales reps to sell incremental deals to deliver revenue that can be recognized in future quarters.

As revenue recognition solutions increase in capability and offer more predictive, prescriptive analytics, sales operations and financial planners will be drawn into using the data and functionality of rev rec solutions connected to other elements of an Agile Monetization Platform (AMP) like incentive compensation, contract management, and billing. (For further information on AMP, see APPENDIX A.)

MGI FORECAST - STUDY SCOPE AND METHODOLOGY

This study aims to assess the total addressable market (TAM) for cloud-based ARM solutions globally. MGI Research maintains a proprietary database of every listed company with more than $1 million in revenue. Each company is curated into the proper geography and vertical industry. Private companies, publicly listed investment vehicles (investment trusts and ETFs), not-for-profit organizations, educational institutions, and government entities were all excluded from this analysis. The study analyzed what each company and each industry will likely spend on ARM solutions, using existing market data and intelligence as the foundation. (For more information on scope of research, see APPENDIX C.)

COLOR KEY

In this report, figures referring to company size will be written in **red**, numbers referring to sectors will be in **purple**, those referring to regions and countries will be in **blue**, industries will be in **orange**, type of spend (in-house vs. external; on-premises vs. cloud-based) will be in **yellow**, impact from major industry trends will be in **magenta**, type of growth will be noted in **brown**, and figures referring to total, global TAM projections will be in **green**.

ARM SOFTWARE TOTAL ADDRESSABLE MARKET (TAM) 2022-2026

MGI Research estimates that the market for cloud-based automated ARM software tools will grow from **$1.16 billion** in 2022 to **$2.19 billion** in 2026, representing a five-year CAGR of **17.3%**, with large and medium sized enterprises representing the majority of buyers. The total five-year spend in the cloud-based ARM market is projected at **$8.17 billion**.

ARM SOFTWARE TAM FORECAST 2022-2026

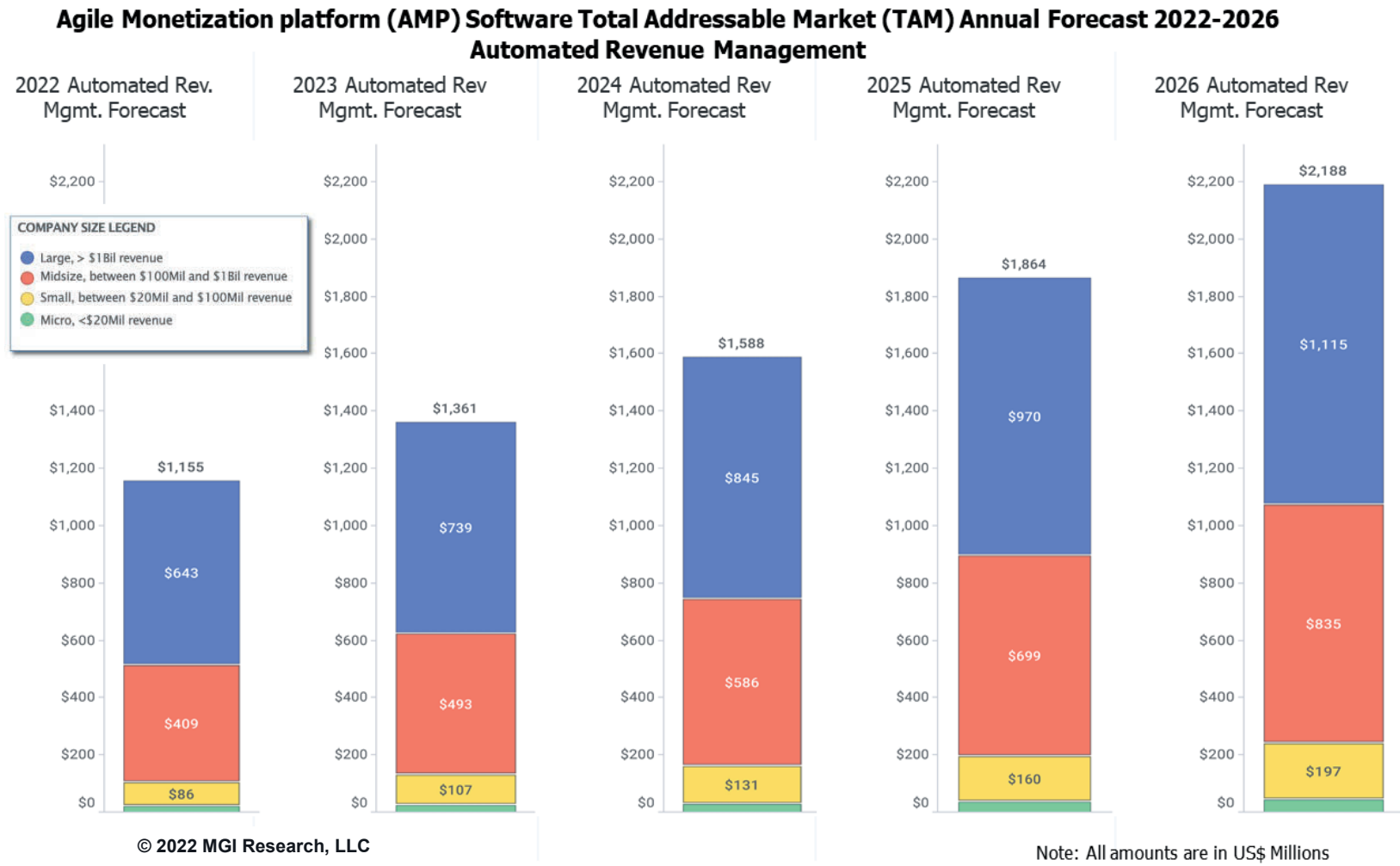


Figure 2 – ARM Forecast 2022-2026

Large and Midsize companies are projected to make up the majority of annual spend each year – combined, **$1.05 billion** (**90.9%** of the yearly TAM) in 2022 and **$1.95 billion** (**89.1%**) in 2026 (see Fig. 2 above).

ARM SOFTWARE TAM BY SIZE AND SECTOR 2022-2026

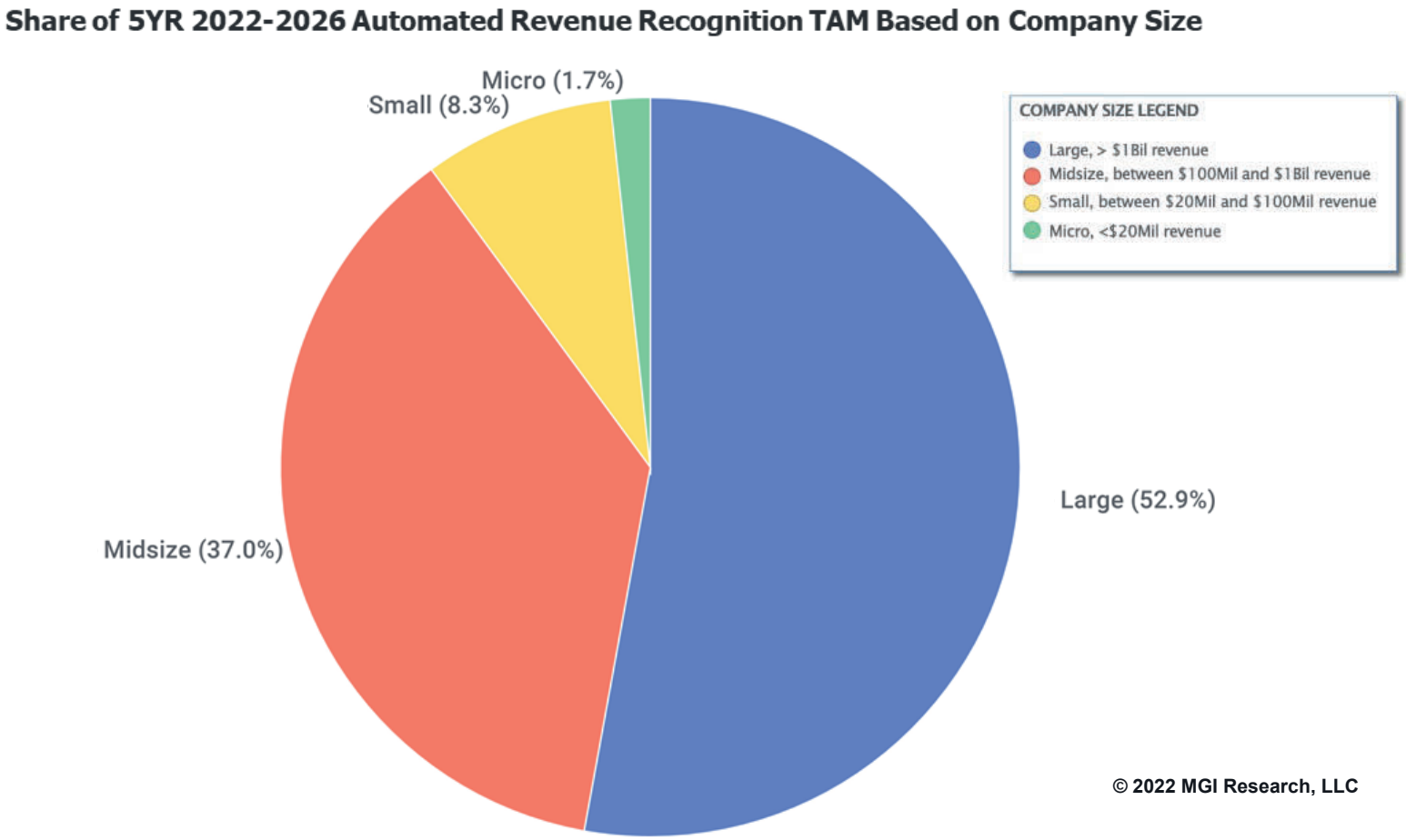


Figure 3 – Total ARM TAM by Company Size 2022-2026

The TAM for cloud-based ARM tools in the five-year period beginning in 2022 and ending in 2026 is worth **$8.17 billion**, of which **52.9%** (**$4.3 billion**) is expected to be spent by large enterprises worldwide, **37.0%** (**$3.0 billion**) is expected to be spent by medium sized companies, **8.3%** (**$680.9 million**) is expected to be spent by small enterprises, and the rest is expected to be spent by micro-organizations (see Fig. 3 above). Together, Large and Midsize companies are estimated to represent over **91%** of the market share.

2022-2026 Automated Revenue Management Total Addressable Market by Company Size

AMP Category	Company Size	2022 AMP Spend	2023 AMP Spend	2024 AMP Spend	2025 AMP Spend	2026 AMP Spend
ARM	Large	$642.66	$739.49	$844.88	$970.34	$1,114.92
	Midsize	$408.78	$492.64	$585.59	$699.38	$835.32
	Small	$86.07	$106.88	$130.56	$160.35	$197.04
	Micro	$17.47	$22.02	$27.41	$34.30	$40.67
Grand total		$1,154.98	$1,361.03	$1,588.44	$1,864.38	$2,187.94

COMPANY SIZE LEGEND

Large, > $1Bil revenue
Midsize, between $100Mil and $1Bil revenue
Small, between $20Mil and $100Mil revenue
Micro, <$20Mil revenue

Note: All amounts are in US$ Millions

Figure 4 – Yearly ARM TAM by Company Size 2022-2026

Together, Large and Midsize companies are projected to comprise **89.8%** of the five-year spend in ARM. That figure is forecasted to decrease by approximately half a percent each year from 2022-2026. In 2022, Large and Midsize companies are estimated to represent **90.9%** of the 2022 yearly spend. In 2023, they are estimated to make up **90.5%** of the market. In 2024 – **90.0%**. In 2025 – **89.5%**. In 2026 – **89.1%**. Conversely, small and micro businesses are projected to rise from **8.9%** of the market share in 2022 to **10.8%** in 2026 (See Fig. 4 above).

2022-2026 5YR Automated Revenue Management Forecast by Sector and Company Size

	Company Size				
SECTOR	Large	Midsize	Small	Micro	Grand total
Communication Services	$506	$429	$120	$29	$1,084
Consumer Discretionary	$1,395	$353	$67	$11	$1,826
Consumer Staples	$74	$25	$5	$1	$106
Energy	$32	$79	$12	$2	$126
Financials	$182	$100	$15	$2	$298
Health Care	$95	$81	$23	$7	$206
Industrials	$594	$489	$98	$16	$1,198
Information Technology	$1,327	$1,345	$318	$69	$3,060
Materials	$37	$56	$10	$1	$105
Real Estate	$26	$45	$12	$3	$86
Utilities	$46	$24	$3	$1	$74
Grand total	$4,315	$3,028	$684	$141	$8,167

COMPANY SIZE LEGEND

Large, > $1Bil revenue
Midsize, between $100Mil and $1Bil revenue
Small, between $20Mil and $100Mil revenue
Micro, <$20Mil revenue

Note: All amounts are in US$ Millions

Figure 5 – Five-Year ARM TAM by Sector and Company Size

The four largest spending economic sectors are projected to be Information Technology (**$3.06 billion**), Consumer Discretionary (**$1.83 billion**), Industrials (**$1.2 billion**), and Communication Services (**$1.08 billion**). These four sectors together are estimated to account for more than **87%** of the five-year TAM for cloud-based revenue recognition tools (see Fig. 5 above).

Automated Revenue Management 2022-2026 Total Addressable Market Forecast by Sector

AMP Category	SECTOR	2022 AMP Spend	2023 AMP Spend	2024 AMP Spend	2025 AMP Spend	2026 AMP Spend
Automated Rev Mgmt.	Communication Services	$149.29	$177.53	$209.88	$249.58	$296.80
	Consumer Discretionary	$256.34	$302.34	$354.66	$418.23	$493.18
	Consumer Staples	$16.70	$18.69	$20.80	$23.24	$25.97
	Energy	$18.84	$21.66	$24.67	$28.25	$32.36
	Financials	$47.73	$53.34	$58.98	$65.41	$72.50
	Health Care	$31.36	$35.63	$40.23	$45.64	$51.81
	Industrials	$178.56	$205.67	$234.48	$268.53	$307.60
	Information Technology	$416.69	$500.54	$592.84	$706.37	$840.39
	Materials	$15.86	$18.19	$20.54	$23.25	$26.29
	Real Estate	$11.94	$14.33	$16.76	$19.69	$23.09
	Utilities	$11.67	$13.12	$14.59	$16.18	$17.94
Grand total		$1,154.98	$1,361.03	$1,588.44	$1,864.38	$2,187.94

Note: All amounts are in US$ Millions

Figure 6 – Yearly ARM TAM by Sector

Information Technology is forecasted to be the largest spending vertical in Automated Revenue Management, growing from **$416.69 million** in 2022 to **$840.39 million** in 2026, for an estimated CAGR of **19.1%**. Consumer Discretionary is projected as the second largest sector, growing from **$256.34 million** to **$493.18 million** over five years, for an estimated CAGR of **17.7%**). The IT and Consumer Discretionary sectors will be followed by Industrials (estimated CAGR: **14.5%**) and Communication Services (estimated CAGR: **18.7%**) (see Fig. 6 above).

ARM SOFTWARE TAM BY GEOGRAPHIC REGION 2022-2026

2022-2026 5YR AMP Forecast per AMP Category and Region

	REGION										
AMP Category	North America	Europe	East Asia	South Asia	Southeast Asia	Middle East	Latin America/ Caribbean	Africa	Australia/ New Zealand	CIS	Grand total
Automated Rev Mgmt	$2,909	$1,582	$2,904	$125	$223	$156	$89	$13	$140	$27	$8,167
Grand total	$2,909	$1,582	$2,904	$125	$223	$156	$89	$13	$140	$27	$8,167

Note: All amounts are in US$ Millions

Figure 7 – Five-year ARM TAM by Geographic Region

North America, Europe, and East Asia (which includes China, Japan, and S. Korea) are projected to represent nearly **90.5%** of the five-year spend on ARM software (see Fig. 7 above). North America alone is expected to exceed **$2.9 billion**, making up over **35.6%** of the total market. (For a full list of countries represented in each region, see Appendix C.)

Automated Revenue Management 2022-2026 Total Addressable Market Forecast by Region

AMP Category	Region	2022 AMP Spend	2023 AMP Spend	2024 AMP Spend	2025 AMP Spend	2026 AMP Spend
Automated Rev Mgmt.	North America	$418.96	$486.09	$565.30	$661.75	$775.15
	Europe	$240.60	$272.44	$309.17	$353.29	$404.15
	East Asia	$392.92	$476.86	$563.91	$670.03	$795.40
	South Asia	$13.74	$18.24	$23.75	$30.62	$38.97
	Southeast Asia	$29.94	$36.99	$43.55	$51.54	$60.88
	Middle East	$22.07	$26.33	$30.50	$35.47	$40.78
	Latin America/Caribbean	$12.07	$14.68	$17.25	$20.36	$24.02
	Africa	$1.59	$2.00	$2.49	$3.09	$3.81
	Australia/New Zealand	$19.42	$22.86	$26.97	$32.04	$37.90
	CIS	$3.67	$4.54	$5.57	$6.18	$6.87
Grand total		$1,154.98	$1,361.03	$1,588.44	$1,864.38	$2,187.94

Note: All amounts are in US$ Millions

Figure 8 – Yearly ARM TAM 2022-2026 by Geographic Region

ARM spend in North America is expected to rise from **$418.96 million** to **$775.15 million** at a CAGR of **16.6%** from 2022 to 2026 (only marginally slower than the global market's projected CAGR at **17.3%**). The ARM market in Europe is projected to increase by a CAGR of **13.8%** (from **$240.60 million** to **$404.15 million**) over the same five-year period, while East Asian ARM spend is projected to experience the most rapid growth with a CAGR of **19.2%** (rising from **$392.92 million** to **$795.40 million**). The East Asian ARM market is forecasted to surpass North America's in 2025 and 2026 (see Fig. 8 above).

ARM TAM DISTRIBUTION 2022-2026 – TOP 20 INDUSTRIES

The three largest spending industries in revenue recognition are projected to be Software (**$921 million**), Internet & Direct Marketing Retail (**$752 million**), and Electronic Equipment, Instruments & Components (**$581 million**). Close behind will be the IT Services (**$553 million**), Semiconductors & Semiconductor Equipment (**$536 million**), and Automobiles (**$512 million**) sectors (see Fig. 9 below).

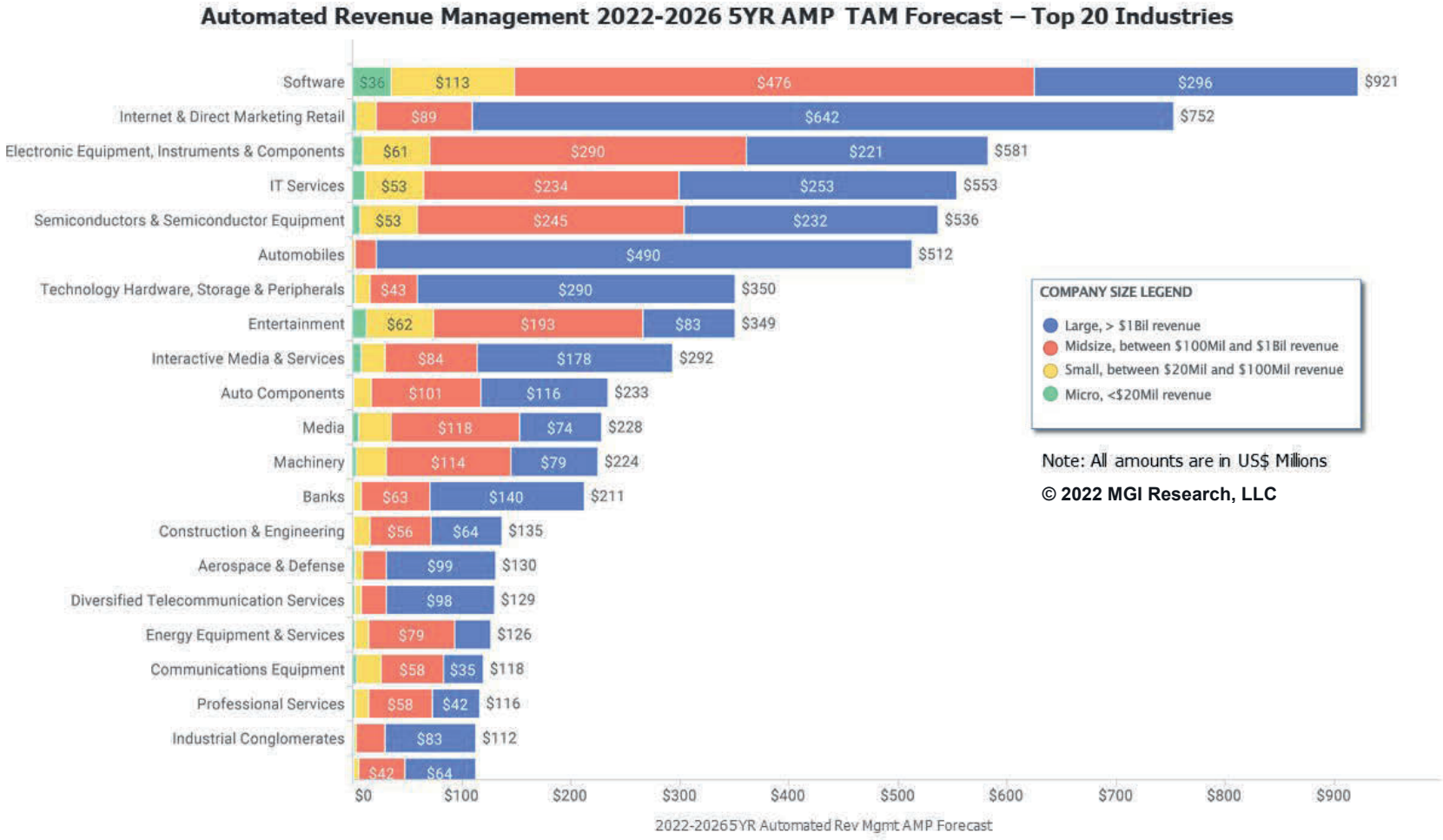


Figure 9 – ARM TAM 2022-2026 by Top 20 Industries

ARM TAM DISTRIBUTION 2022-2026 – TOP 20 COUNTRIES

The three countries projected to spend the most in ARM in the next five years are the United States (**$2.76 billion**), Japan (**$1.32 billion**), and South Korea (**$680 million**). The United States alone represents over **33.8%** of the five-year billing TAM (see Fig. 10 below).

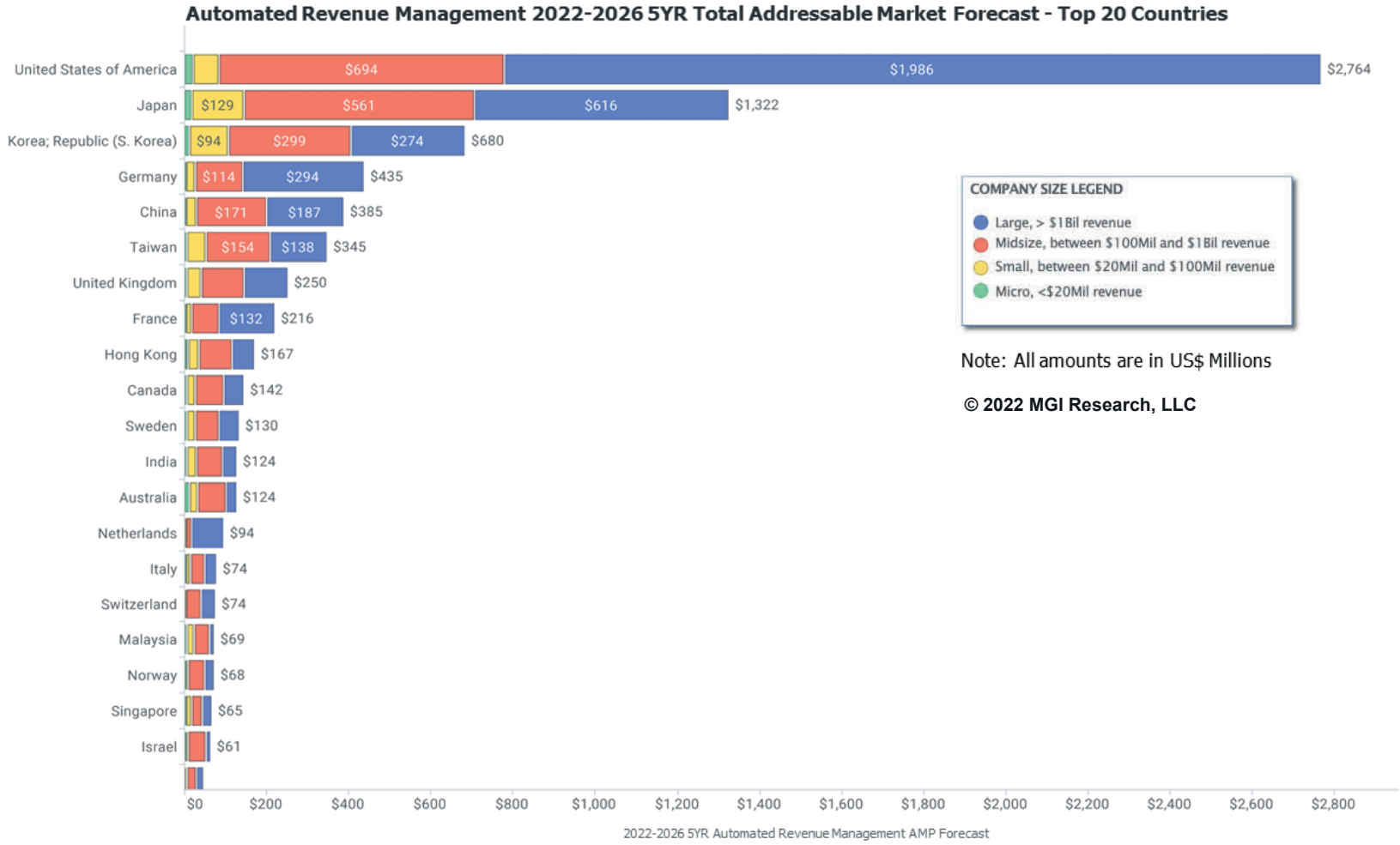


Figure 10 – ARM TAM 2022-2026 by Top 20 Countries

ARM COMMERCIAL SPEND VS. INTERNAL SPEND

Automated Revenue Recognition 2022-2026 5YR Commercial Spend

AMP Category	Large	Midsize	Small	Micro	Grand total
ARM	$2,032	$1,431	$323	$67	$3,854

COMPANY SIZE LEGEND

Large, > $1Bil revenue
Midsize, between $100Mil and $1Bil revenue
Small, between $20Mil and $100Mil revenue
Micro, <$20Mil revenue

Note: All amounts are in US$ Millions

Figure 11 – Five-Year ARM Commercial Spend 2022-2026

Automated Revenue Recognition 2022-2026 5YR In-House Spend

AMP Category	Large	Midsize	Small	Micro	Grand total
ARM	$2,280	$1,590	$358	$75	$4,303

COMPANY SIZE LEGEND

Large, > $1Bil revenue
Midsize, between $100Mil and $1Bil revenue
Small, between $20Mil and $100Mil revenue
Micro, <$20Mil revenue

Note: All amounts are in US$ Millions

Figure 12 – Five-Year ARM In-House Spend 2022-2026

Five-year commercial spend in the ARM space is projected to reach **$3.85** billion (**47.2%** of the total TAM), whereas in-house spend is forecasted at **$4.30** billion (**52.8%** of the total TAM) from 2022-2026 (see Figs. 11 & 12 above).

ON-PREMISES ARM SPEND

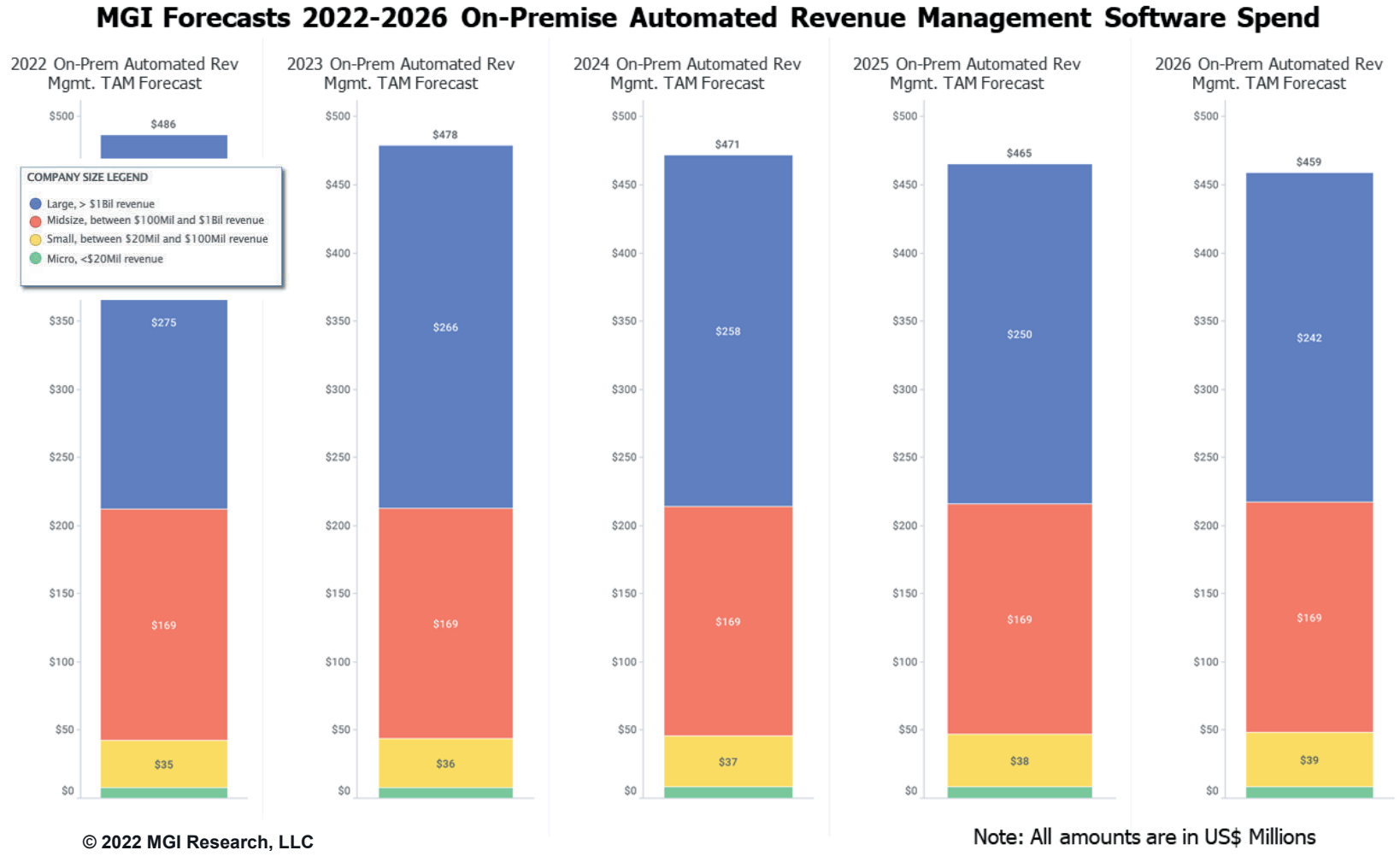


Figure 13 – On-Premises ARM Software Five-Year Spend

On-premise spend is forecasted to drop from **$486 million** in 2022 to **$459 million** in 2026, for a CAGR of **-1.42%** (see Fig. 13 above). In comparison, the cloud-based ARM CAGR over the same five-year period is projected to grow at **17.3%**.

IMPACT OF MAJOR INDUSTRY TRENDS

This MGI Forecast also examined the impact of major industry trends on spending patterns in the ARM space. For example, style of technology adoption (Aggressive, Mainstream, or Conservative) can have a significant impact on spending trends. Aggressive technology users view IT and technology solutions as key business enablers and typically invest at the same rate or higher than their respective industry average. For these companies, technology is perceived to be a necessary tool to deliver top- and bottom-line growth. In contrast, Mainstream technology users invest in IT and technology solutions at an average rate, while Conservative technology users invest below the industry average in IT and technology solutions.

IMPACT OF TECHNOLOGY ADOPTION STYLE ON TAM 2022-2026

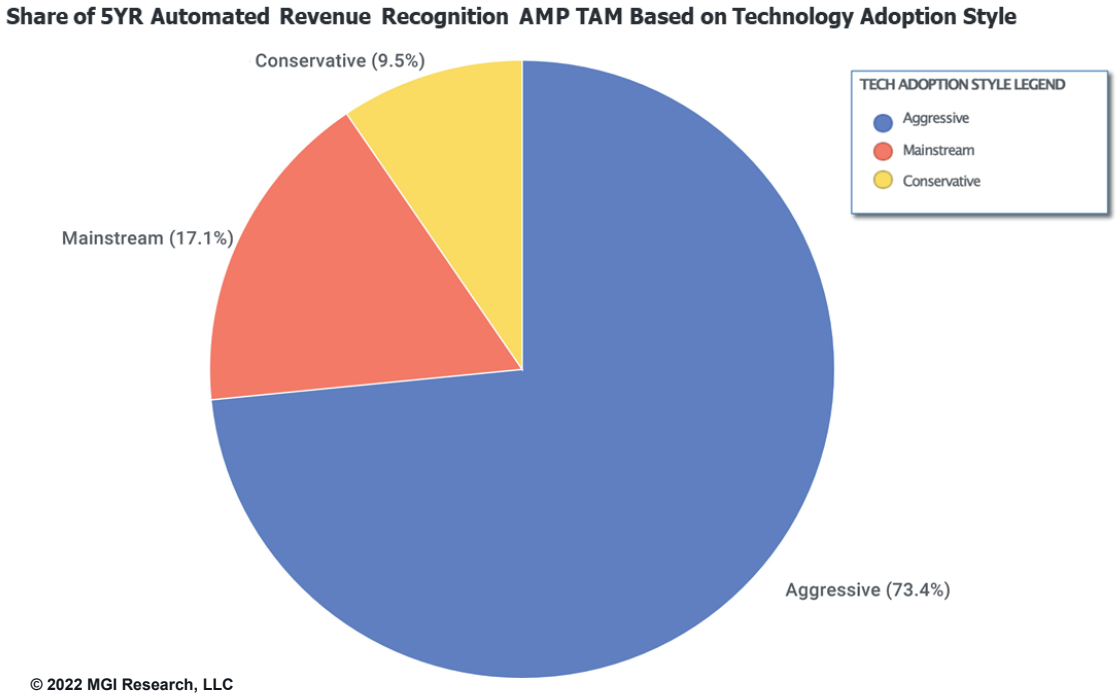


Figure 14 – Impact of Technology Adoption Style on ARM TAM

Analyzing the five-year spend by type of buyer, **90.5%** of the ARM market is projected to come from enterprises classified as "Aggressive" or "Mainstream" technology buyers (see Fig. 14 above). Similarly, Digital Transformation is expected to have a material impact on overall spending on ARM solutions (see Fig. 15 on the next page).

IMPACT OF DIGITAL TRANSFORMATION ON TAM 2022-2026

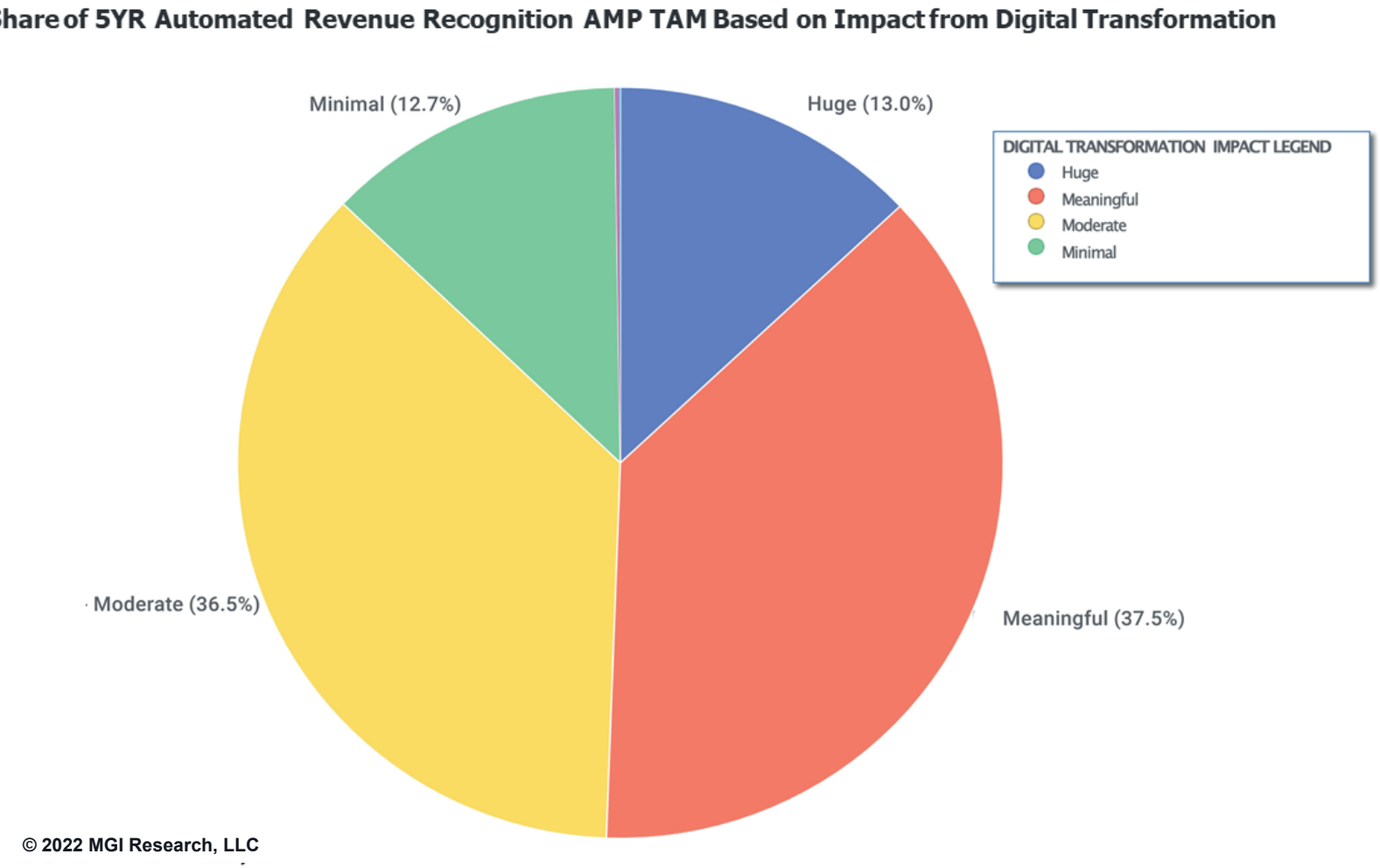


Figure 15 – Impact of Digital Transformation on ARM TAM

Digital transformation projects are forecasted to accelerate spending on ARM. More than **50%** of the ARM five-year spend is projected to represent companies who are either hugely or meaningfully impacted by digital transformation (see Fig. 15 above).

IMPACT OF IoT ON TAM

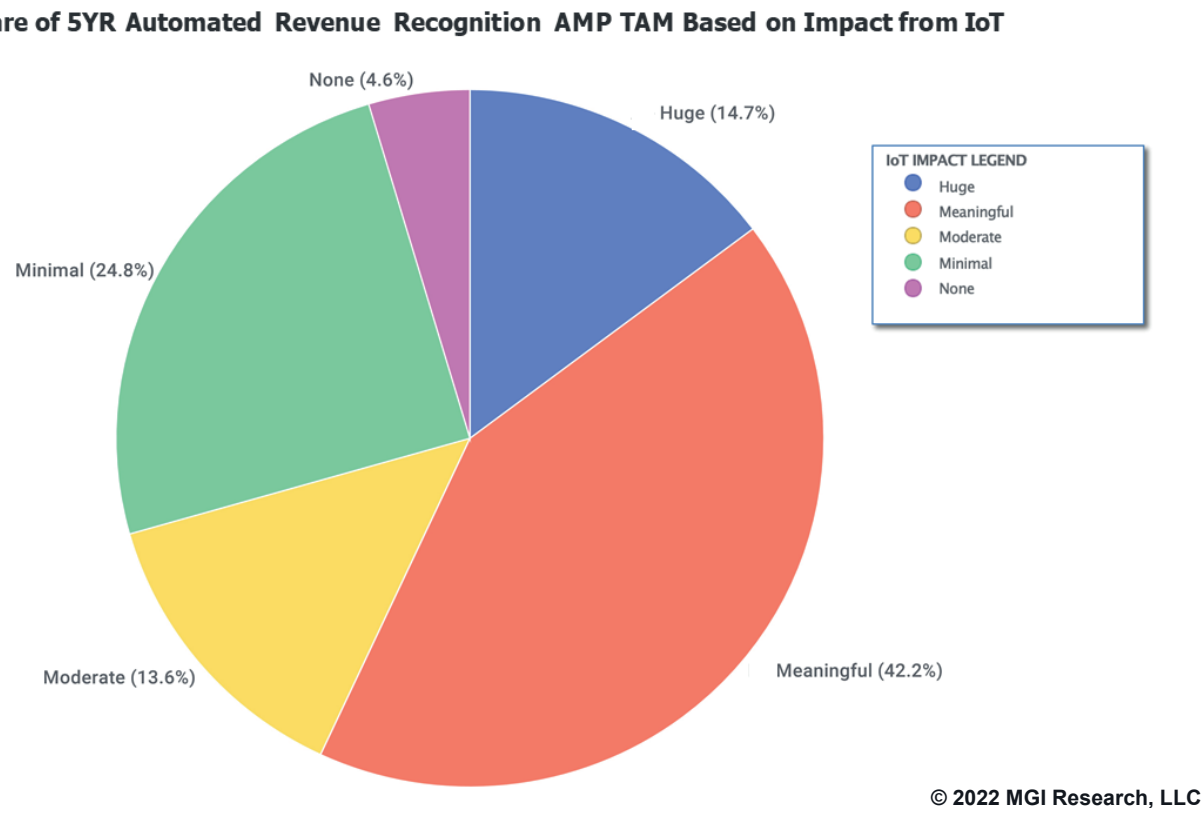


Figure 16 – Impact of IoT on ARM TAM

While intuitively one may expect that companies with a Huge impact from IoT adoption may be responsible for a majority of the ARM spend, in actuality it is the second wave of IoT impact – those with a Meaningful impact from IoT – that is projected to drive most of the five-year TAM. While companies with a Huge impact from IoT make up an estimated **14.7% ($1.20 billion**) of the five-year spend, companies with a Meaningful impact represent nearly twice that at **42.2% ($3.44 billion**). The rise in popularity of usage billing, combined with subscription billing and more traditional upfront payments, will have a meaningful impact on how companies bill revenues from complex contracts. **55.8% ($4.64 billion**) of the five-year TAM is expected to be driven by either a Huge or a Meaningful shift to IoT (see Fig. 16 above).

IMPACT FROM A SHIFT TO SUBSCRIPTIONS ON TAM

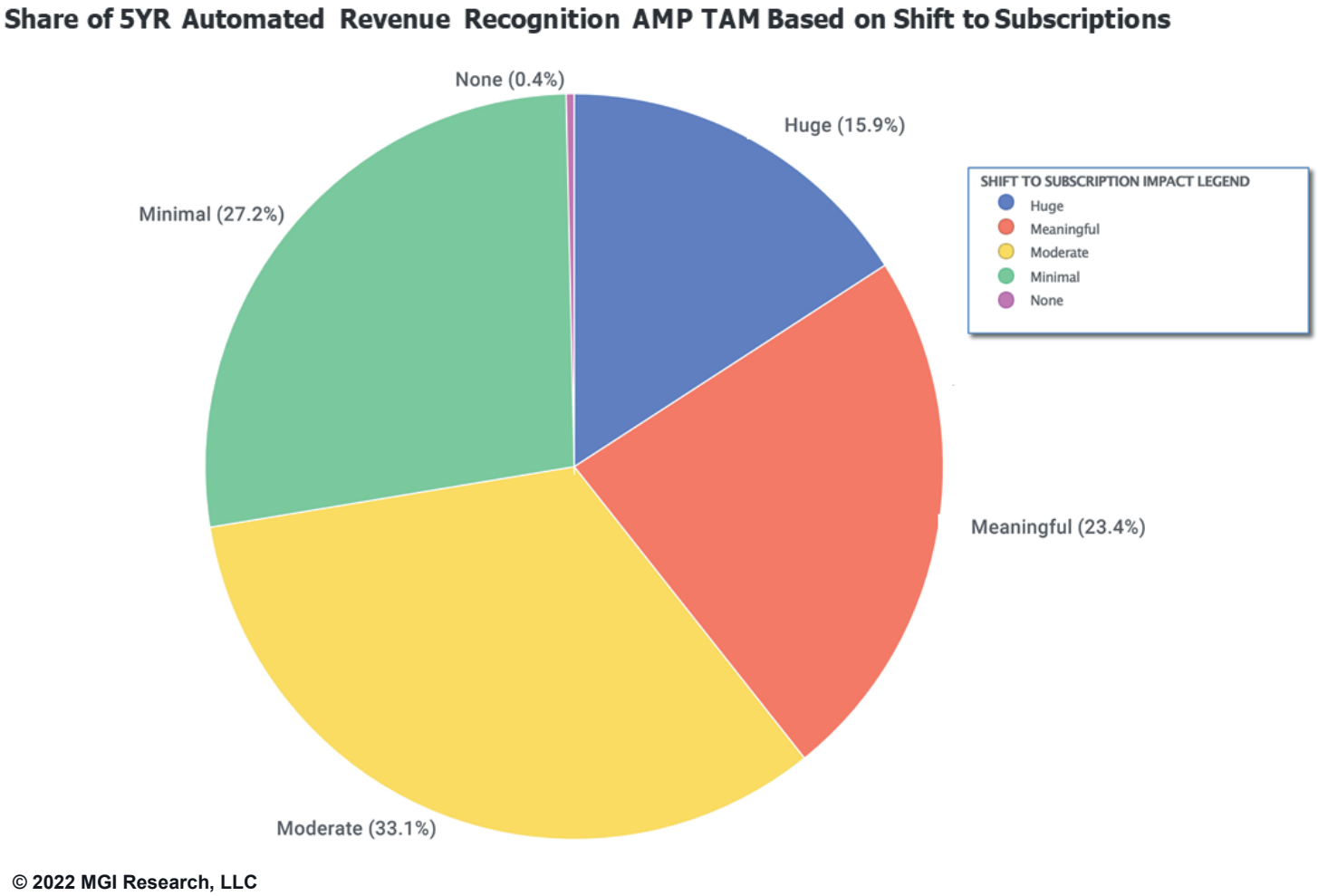


Figure 17 - Impact on ARM TAM from Shift to Subscriptions

An estimated **39.3%** of spend in ARM will be driven by a Huge or Meaningful move towards the subscription economy, while Moderate subscription adoptees will represent another **33.1%** will (see Fig. 17 above). By its nature, subscription business has more complex revenue recognition requirements, which in turn necessitate the need for a specialized tool.

IMPACT FROM GROWTH CATEGORY

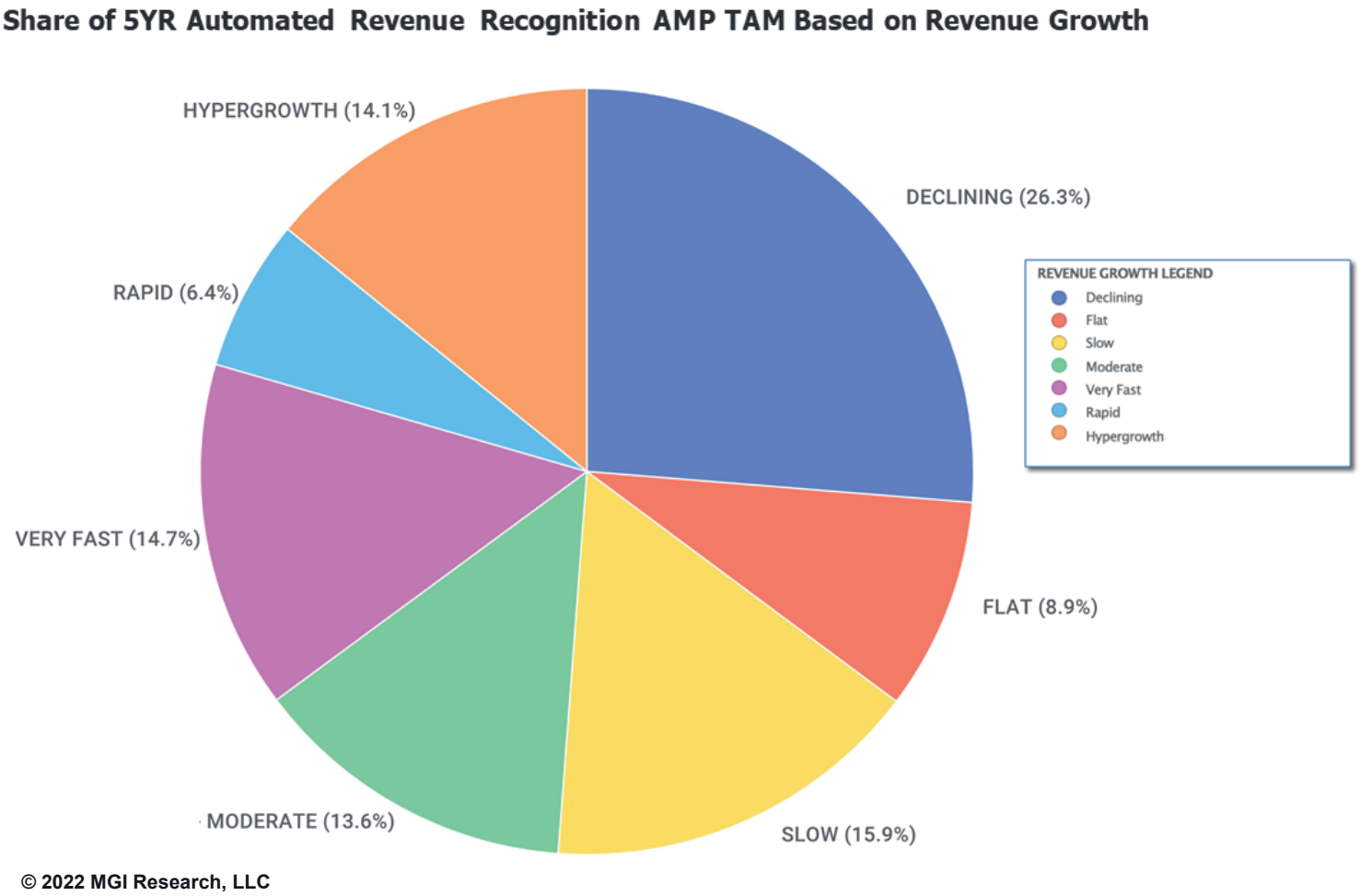


Figure 18 – Impact on ARM TAM from Growth Category

Analyzing expected ARM spend by company growth rate reveals that very fast, rapid, and hypergrowth companies are estimated to represent **$2.8 billion** (**35.2%**) of the total investment in the market over the next five years. Interestingly, enterprises with slow, flat, and declining revenues are anticipated to invest **$4.1 billion** (**51.1%** of the five-year spend) from 2022 to 2026 (see Fig. 18 above). The broad character of spending points to the critical nature of requirements for ARM.

SUMMARY

- MGI expects spending on ARM solutions to increase from **$1.14 billion** in 2022 to **$2.18 billion** in 2026, for a five-year total addressable market of **$8.17 billion**.

- At the time of the arrival of ASC 606 and IFRS 15, many in the industry believed that corporate investment in revenue automation tools would decline after the reporting deadlines. Instead, as MGI Research predicted at the time, the market has in fact accelerated with more spending, more choices in the market, and more demand for ARM solutions in business and finance.

- The drivers behind the adoption of ARM solutions are:

  1) Despite being several years past the deadlines to adopt the new revenue recognition guidelines, many finance teams are still in the process of reworking and increasing the automation of their reporting processes, many of which were done in haste to meet the deadlines. It will be another two to three years for organizations to move from the "brute force standards adoption," which often included semi-automation or partial implementation of an ARM tool, toward full automation and a more complete embrace of automated tools.

  2) Beyond ASC 606 compliance, many companies seek to automate manual and semi-manual processes, particularly those in which the scope and scale of the business are such that only an automated tool can provide accurate support for the business requirement.

- The market for on-premises ARM is smaller than the cloud-based spend and experiencing negative growth with a compound annual growth rate of **-1.54%**. In comparison, the cloud-based ARM market is growing at a CAGR of **17.3%**.

- The largest three verticals are: Software – **$921 million**, Internet & Direct Marketing Retail – **$752 million**, and Electronic Equipment, Instruments & Components – **$581 million**.

- The largest three markets by region are: North America –**$2.9 billion**; Europe – **$1.58 billion**; and East Asia, including Japan – **$2.9 billion**.

- The market opportunities by company size are concentrated around large and midsize companies; combined, they represent over **90%** of the addressable market.

APPENDIX A – DEFINITIONS

ARM

Automated Revenue Management (ARM) solutions, which typically include revenue recognition, help automate the accurate and timely scheduling, allocation, calculation, and presentation of revenue in the appropriate periods and amounts within the accordance of accounting standards and other regulatory mandates. In 2014, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) issued new standards for revenue recognition: ASC 606 (U.S. regulation) and IFRS 15 (outside the U.S.). The deadlines for IFRS 15 and ASC 606 adoption passed in 2018 and 2019, respectively. Businesses understandably focused on investing in revenue recognition in preparation for the regulatory changes, but the demand for modern ARM solutions has continued to grow in the years since the compliance deadlines passed.

AGILE MONETIZATION PLATFORM

MGI Research is credited with having created the concept of an Agile Monetization Platform. This concept is comprised of processes, tools, and human resources and describes the business enablement of monetization. Monetization is defined as how market demand is created and then translated into revenues, profits, and business differentiation. A core process that is supported by the AMP concept is P2D – Prospect to Disclosure. Historically, the Quote to Cash process was viewed as the essential element of monetization. Today, the serial notion of Quote to Cash no longer accurately captures the continuous and multi-faceted nature of how an enterprise monetizes. Within AMP, there are twelve areas that are commonly supported by business applications. ARM is one of these product areas. As packaged solutions mature, it is expected that software vendors will evolve towards offering more comprehensive packages that encompass more than one AMP product discipline, a trend that has already begun.

FASB

Financial Accounting Standards Board

GICS®

Global Industry Classification Standard: an industry taxonomy created by MSCI and S&P; it organizes all major public companies into 11 sectors, 24 industry groups, 69 industries and 158 sub-industries; this is the taxonomy used in this TAM report

ICB

Industry Classification Benchmark: an industry taxonomy developed by Dow Jones and FTSE; it organizes markets into 11 industries, divided into 20 super-sectors, further divided into 45 sectors, which then contain 173 subsectors

IASB

International Accounting Standards Board

NAICS

North American Industry Classification Standard: an industry taxonomy used in the United States, Canada, and Mexico; it organizes businesses by type of economic activity

TRBC

The Refinitiv Business Classification: an industry taxonomy created by Thomson Reuters; it organizes businesses according to their market impact

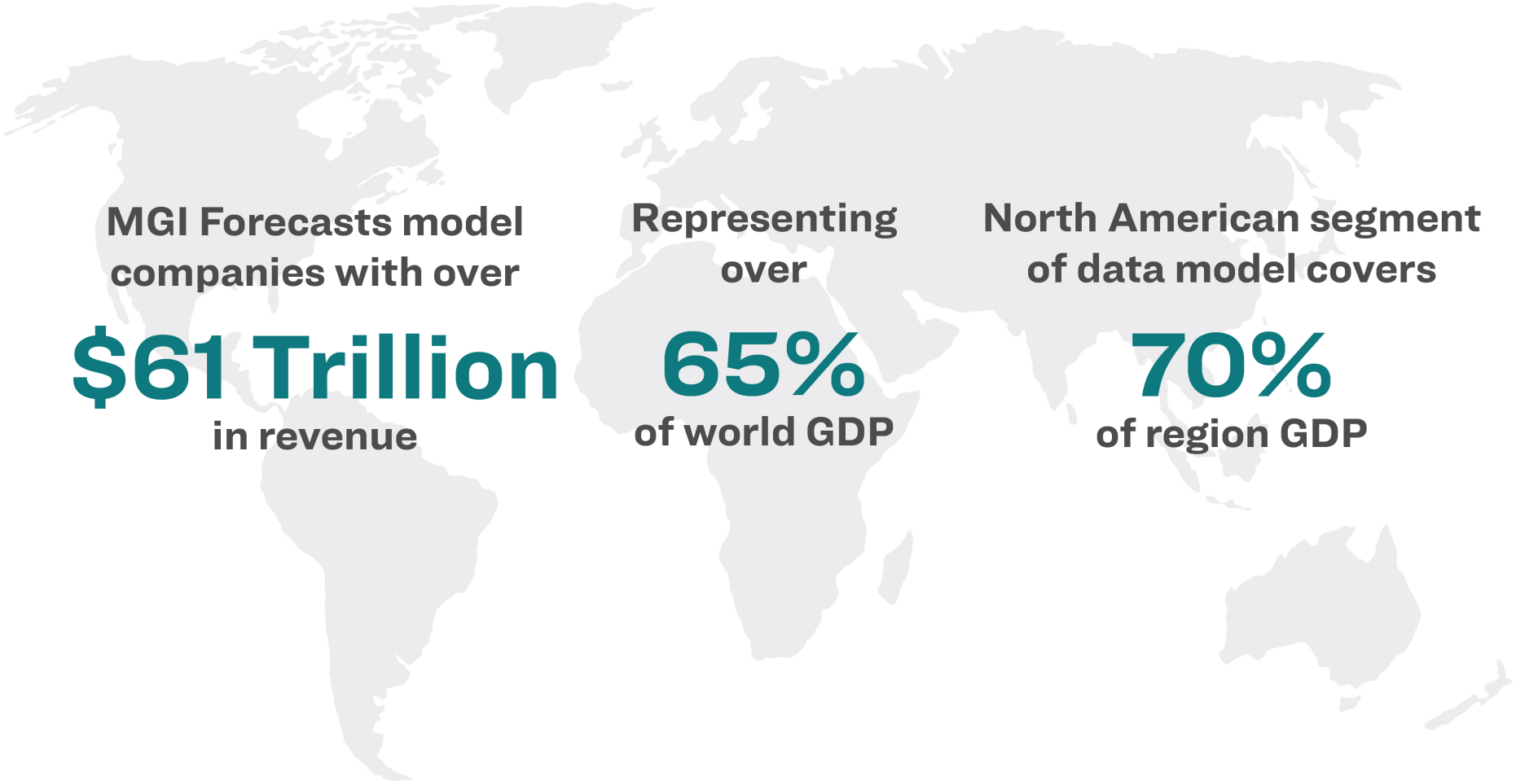
APPENDIX B – REPRESENTATIVE SUPPLIERS OF ARM SOLUTIONS

The market for ARM solutions is split into multiple segments. Unlike some other business application markets, billing solutions tend to focus and be most applicable to specific use cases – not just company size or vertical industry. Billing suppliers have yet to consolidate in a meaningful way, and new billing vendors are coming to market almost every month. This supply side of ARM solutions is vibrant and expanding.

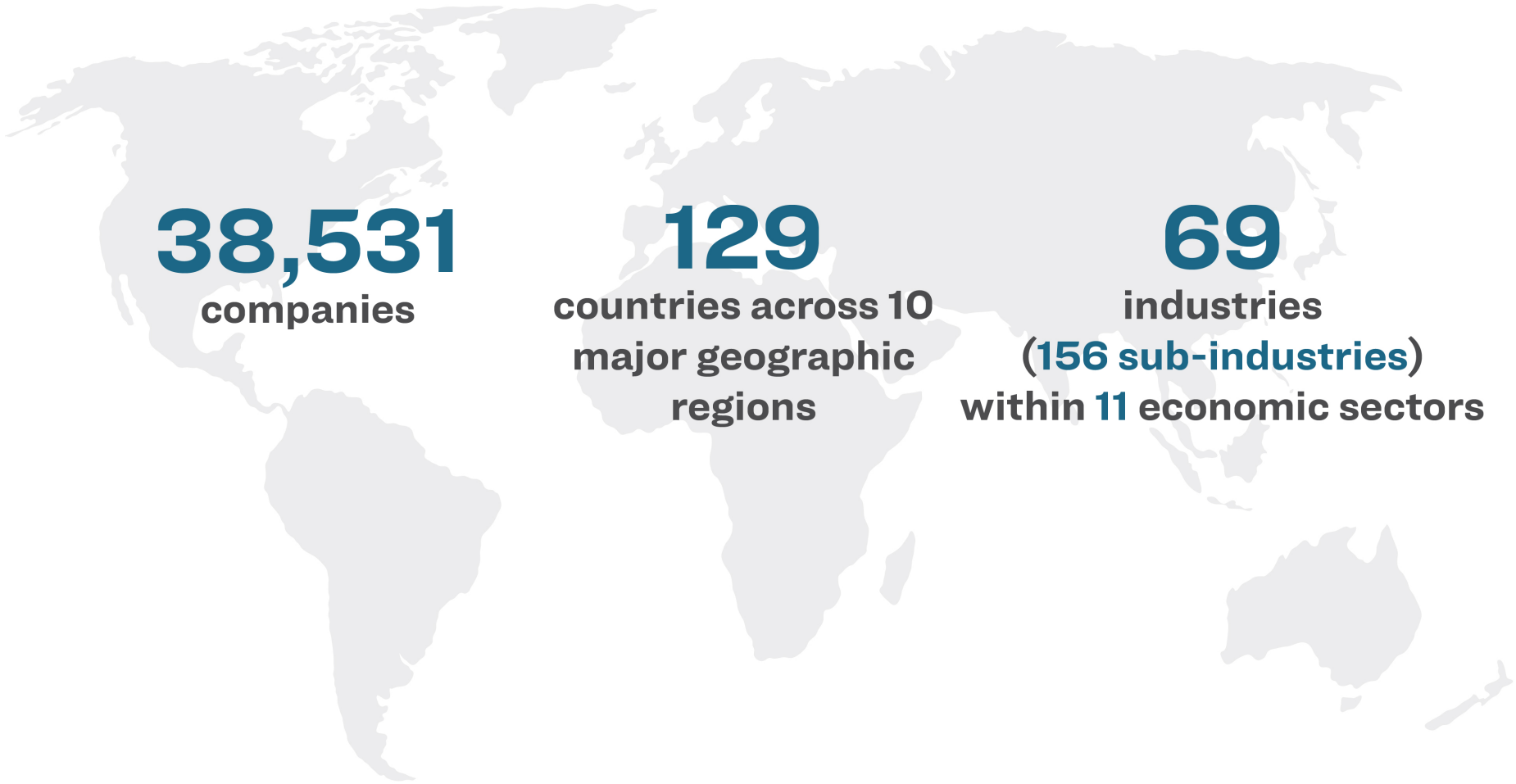
Representative suppliers of ARM solutions: (not a complete list)

- Aptitude Software (acquired RevStream)
- Ayara
- BillingPlatform
- BluLogix
- Chargebee (acquired RevLock)
- Chargify/SaaSOptics
- FinancialForce
- Good Sign Solutions
- Gotransverse
- JustOn
- LogiSense
- Oracle
- Oracle NetSuite
- Recvue
- RightRev
- Sage Intacct
- SAP
- Softrax
- Workday
- Zone & Co
- Zuora

APPENDIX C: ARM SOFTWARE TAM STUDY – SCOPE



The ARM TAM 2022-2026 study models companies with over $61 trillion in combined total revenue. This number represents over 65% of the projected 2021 world GDP. The North American segment covers over 70% of that region's projected 2021 GDP.



The ARM TAM 2022-2026 study is based on data derived from a total of 38,531 publicly listed companies spread across 10 major geographic regions and based in 129 countries. It covers 69 industries grouped within 11 major economic sectors.

Private companies, government entities (other than government-owned publicly listed enterprises), not-for-profit organizations, and educational entities were not included in the data. The inclusion of these entities would increase the overall TAM.

SECTORS AND INDUSTRIES

Sector Name	Industry Name
Communication Services	Diversified Telecommunication Services
	Entertainment
	Interactive Media & Services
	Media
	Wireless Telecommunication Services
Consumer Discretionary	Auto Components
	Automobiles
	Distributors
	Diversified Consumer Services
	Hotels, Restaurants & Leisure
	Household Durables
	Internet & Direct Marketing Retail
	Leisure Products
	Multiline Retail
	Specialty Retail
	Textiles, Apparel & Luxury Goods
Consumer Staples	Beverages
	Food & Staples Retailing
	Food Products
	Household Products
	Personal Products
	Tobacco
Energy	Energy Equipment & Services
	Oil, Gas & Consumable Fuels
Financials	Capital Markets
	Diversified Financial Services
	Insurance
	Thrifts & Mortgage Finance
Health Care	Biotechnology
	Health Care Equipment & Supplies
	Health Care Providers & Supplies
	Health Care Technology
	Life Sciences Tools & Services
	Pharmaceuticals
Industrials	Aerospace & Defense
	Air Freight & Logistics
	Airlines
	Building Products
	Commercial Services & Supplies
	Construction & Engineering
	Electrical Equipment
	Industrial Conglomerates
	Machinery
	Marine
	Professional Services
	Road & Rail
	Trading Companies & Distributors
	Transportation Infrastructure
Information Technology	Communications Equipment
	Electronic Equipment, Instruments & Components
	IT Services
	Semiconductors & Semiconductor Equipment
	Software
	Technology Hardware, Storage & Peripherals
Materials	Chemicals
	Construction Materials
Materials	Containers & Packaging
	Metals & Mining
	Paper & Forest Products
Real Estate	Equity Real Estate Investment Trusts (REITs)
	Real Estate Management & Development
Utilities	Electric Utilities
	Gas Utilities
	Independent Power & Renewable Electricity Producers
	Multi-Utilities
	Water Utilities

REGIONS AND COUNTRIES (Continued on next page)

North America	Europe	East Asia	South Asia	Southeast Asia	Middle East	Latin Amer / Caribbean	Africa	Australia / New Zealand	CIS
Bermuda	Albania	China	Afghanistan	Cambodia	Algeria	Antigua & Barbuda	Angola	Australia	Armenia
Canada	Austria	Hong Kong SAR	Bangladesh	Indonesia	Bahrain	Argentina	Benin	Cook Islands	Belarus
United States of America	Azerbaijan	Japan	Bhutan	Lao P.D.R.	Egypt	Bahamas	Botswana	Fiji	Kazakhstan
	Belgium	Korea; Republic (S. Korea)	Brunei Darussalam	Malaysia	Iraq	Barbados	Burkina Faso	Kiribati	Kyrgyz Republic
	Bosnia & Herzegovina	Macau SAR	India	Myanmar	Israel	Belize	Burundi	Marshall Islands	Russia
	Bulgaria	Mongolia	Iran	Philippines	Jordan	Bolivia	Cabo Verde	Micronesia, Fed. States of	Tajikistan
	Croatia	Taiwan	Nepal	Singapore	Kuwait	Brazil	Cameroon	Nauru	Turkmenistan
	Cyprus		Pakistan	Thailand	Lebanon	Cayman Islands	Central African Republic	New Zealand	
	Czech Republic		Sri Lanka	Vietnam	Libya	Chile	Chad	Palau	
	Denmark		Uzbekistan		Morocco	Colombia	Comoros	Papua New Guinea	
	Estonia				Oman	Costa Rica	Congo, Dem. Rep. of the	Samoa	
	Faroe Islands				Palestinian Territories	Curaçao	Congo, Republic of	Solomon Islands	
	Finland				Qatar	Dominica	Djibouti	Timor-Leste	
	France				Saudi Arabia	Dominican Republic	Equatorial Guinea	Tonga	
	Georgia				Syria	Ecuador	Eritrea	Tuvalu	
	Germany				Tunisia	El Salvador	Ethiopia	Vanuatu	
	Gibraltar				Turkey	Grenada	Gabon		
	Greece				United Arab Emirates	Guatemala	Gambia		
	Guernsey				Yemen	Guyana	Ghana		
	Hungary					Haiti	Guinea		
	Iceland					Honduras	Guinea-Bissau		
	Ireland; Republic of					Jamaica	Ivory Coast		
	Isle of Man					Mexico	Kenya		

North America	Europe	East Asia	South Asia	Southeast Asia	Middle East	Latin Amer / Caribbean	Africa	Australia / New Zealand	CIS
	Italy					Netherlands Antilles	Lesotho		
	Jersey					Nicaragua	Liberia		
	Kosovo					Panama	Madagascar		
	Latvia					Paraguay	Malawi		
	Lithuania					Peru	Maldives		
	Luxembourg					Puerto Rico	Mali		
	Macedonia					Saint Kitts and Nevis	Mauritania		
	Malta					Saint Lucia	Mauritius		
	Moldova					Saint Vincent & the Grenadines	Mozambique		
	Monaco					Suriname	Namibia		
	Montenegro					Trinidad & Tobago	Niger		
	Netherlands					Uruguay	Nigeria		
	Norway					Venezuela	Rwanda		
	Poland					Virgin Islands; British	São Tomé & Príncipe		
	Portugal					Virgin Islands; United States	Senegal		
	Romania						Seychelles		
	San Marino						Sierra Leone		
	Serbia						Somalia		
	Slovak Republic						South Africa		
	Slovenia						South Sudan, Republic of		
	Spain						Sudan		
	Sweden						Swaziland		
	Switzerland						Tanzania		
	Ukraine						Togo		
	United Kingdom						Uganda		
							Zambia		
							Zimbabwe