

2023 GLOBAL MANUFACTURING & MARKETS

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Industry: Computer and peripheral manufacturing

Equipment Code: 334111D100

© Barnes Reports



2023

- *Market Reports*
- *Industry Trends*
- *Demographic Data*

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Algeria	DZA	Cuba	CUB
Angola	AGO	Cyprus	CYP
Argentina	ARG	Czech Republic	CZE
Armenia	ARM	Denmark	DNK
Australia	AUS	Dominican Republic	DOM
Austria	AUT	Ecuador	ECU
Azerbaijan	AZE	Egypt, Arab Rep.	EGY
Bahamas, The	BHS	El Salvador	SLV
Bahrain	BHR	Equatorial Guinea	GNQ
Bangladesh	BGD	Estonia	EST
Belarus	BLR	Ethiopia	ETH
Belgium	BEL	Finland	FIN
Bolivia	BOL	France	FRA
Bosnia and Herzegovina	BIH	Gabon	GAB
Botswana	BWA	Georgia	GEO
Brazil	BRA	Germany	DEU
Brunei Darussalam	BRN	Ghana	GHA
Bulgaria	BGR	Greece	GRC
Burkina Faso	BFA	Guam	GUM
Burundi	BDI	Guatemala	GTM
Cambodia	KHM	Guinea	GIN
Cameroon	CMR	Haiti	HTI
Canada	CAN	Honduras	HND
Chad	TCD	Hong Kong SAR, China	HKG
Chile	CHL	Hungary	HUN
China	CHN	Iceland	ISL
Colombia	COL	India	IND
Congo, Dem. Rep.	COD	Indonesia	IDN
Congo, Rep.	COG	Iran, Islamic Rep.	IRN
Costa Rica	CRI	Iraq	IRQ

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Industry: Computer and peripheral manufacturing

Country Name	Country Code	Country Name	Country Code
Ireland	IRL	New Zealand	NZL
Israel	ISR	Nicaragua	NIC
Italy	ITA	Nigeria	NGA
Jamaica	JAM	Norway	NOR
Japan	JPN	Oman	OMN
Jordan	JOR	Pakistan	PAK
Kazakhstan	KAZ	Panama	PAN
Kenya	KEN	Papua New Guinea	PNG
Korea, Rep.	KOR	Paraguay	PRY
Kosovo	XKX	Peru	PER
Kuwait	KWT	Philippines	PHL
Kyrgyz Republic	KGZ	Poland	POL
Lao PDR	LAO	Portugal	PRT
Latvia	LVA	Puerto Rico	PRI
Lebanon	LBN	Qatar	QAT
Lithuania	LTU	Romania	ROU
Luxembourg	LUX	Russian Federation	RUS
Macao SAR, China	MAC	Saudi Arabia	SAU
Macedonia, FYR	MKD	Senegal	SEN
Madagascar	MDG	Serbia	SRB
Malaysia	MYS	Singapore	SGP
Mali	MLI	Slovak Republic	SVK
Malta	MLT	Slovenia	SVN
Mauritius	MUS	South Africa	ZAF
Mexico	MEX	South Sudan	SSD
Moldova	MDA	Spain	ESP
Mongolia	MNG	Sri Lanka	LKA
Morocco	MAR	Sudan	SDN
Mozambique	MOZ	Sweden	SWE
Myanmar	MMR	Switzerland	CHE
Namibia	NAM	Tanzania	TZA
Nepal	NPL	Thailand	THA
Netherlands	NLD	Trinidad and Tobago	TTO

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Country Name	Country Code		
Tunisia	TUN	Uruguay	URY
Turkey	TUR	Uzbekistan	UZB
Turkmenistan	TKM	Venezuela, RB	VEN
Uganda	UGA	Vietnam	VNM
Ukraine	UKR	West Bank and Gaza	PSE
United Arab Emirates	ARE	Yemen, Rep.	YEM
United Kingdom	GBR	Zambia	ZMB
United States	USA	Zimbabwe	ZWE

Users' Guide

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Industry: Computer and peripheral manufacturing

About this Report

This report covers the global forecast for other computers (array, analog, hybrid, and special-use computers) produced in the disk drives (all sizes) industry.

More than 140 countries are featured in this report as well as global and regional summaries. Estimates on equipment or material sales (product shipments value) are published for six historical years and two forecast years. Product shipments include the total value of all products produced and shipped by all producers. For selected products, this can represent value of receipts, value of production, or value of work done.

These estimates product shipment values are also considered "market potentials" because the calculations assume efficient, free markets. Estimates can vary in countries with inefficient, closed markets with such issues as oppressive regulations and tariffs, black markets, and political problems impacted a regular business cycle.

Published annually, this report provides a unique and accurate estimate on market sizing for this equipment/material using a proprietary economic model that integrates historical trends (horizontal analysis) and longitudinal analysis of incorporated industries (vertical analysis).

Product shipments value are presented in US Dollars and local currency units for historical and forecast years.

Regional summaries include North America, Europe, Asia-Pacific, Latin America, Africa, and Middle East. Percent shares are presented for each region as a share of the global market.

Product shipments values are also broken down by related costs, such as cost of materials, cost of fuels/electricity and value added, as well as capital expenditures, such as expenditures on buildings, machinery, vehicles and computers.

This report does not list key players/companies in the market but focuses on a top-down and outlook view of the market despite the existing and entering of market companies.

Users' Guide

Users' Guide

Barnes Reports is a leading publisher of industry studies on U.S. and global industries and forecasts sales and employment demographics. As a way of making the most of this information, we have included a few suggestions and tips to aid users in processing and using this information.

Managers, planners, and market researchers use this information for a variety of activities:

- Sizing markets and segments – You can estimate the size of the regional markets you sell in and your company's market penetration into that market. You can do the same with the market segments in which you participate.
- Sales territory potential – You can estimate your market penetration and also the market potential in any regional area or market segment.
- Sales forecasting – With the estimates on the size of the industry, market researchers supporting a sales force can then estimate and forecast the future size of the industry.
- Advertising strategies – You can use this information for forecasting and estimating sales potential and target advertising campaigns.
- Competitive analysis – You will use the information to locate your possible competitors (if it is not already known), to estimate their size, growth and strengths and weaknesses and to see what market segments in which they participate.

We recognize that many managers today are asked to provide detailed analysis of their markets, sales territories, distribution channels, and product placements. We have organized these reports in a logical format making your market analysis and research tasks easy to accomplish.

Definitions & Methodology

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Industry: Computer and peripheral manufacturing

Definitions

The equipment described in this report are primarily defined by its title since the title is generally long and includes most of the criteria used to differentiate the equipment from other similar equipment. The equipment descriptions are sourced from the U.S. Census. Additionally descriptions can be collected from the manufacturing industry descriptions that each equipment is categorized. The U.S. Census manufacturing industry descriptions for equipment are listed below:

NAICS 33411: Computer & Peripheral Equipment Mfg. Industry

This industry comprises establishments primarily engaged in manufacturing and/or assembling electronic computers, such as mainframes, personal computers, workstations, laptops, and computer servers; and computer peripheral equipment, such as storage devices, printers, monitors, and input/output devices.

NAICS 33421: Telephone Apparatus Manufacturing

This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment. These products may be standalone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless telephones (except cellular), PBX equipment, telephones, telephone answering machines, and data communications equipment, such as bridges, routers, and gateways.

NAICS 33422: Radio/TV Broadcast Equipment.

Establishments primarily engaged in manufacturing radio and television broadcasting and communications equipment. Includes closed-circuit and cable television equipment; studio equipment; light communications equipment; transmitters, transceivers and receivers (except household and automotive); cellular radio telephones; communication antennas; receivers; RF power amplifiers; and fixed and mobile radio systems.

NAICS 33431: Audio & Video Equipment Manufacturing Industry.

This industry comprises establishments primarily engaged in manufacturing

Definitions & Methodology

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications. Examples of products made by these establishments are video cassette recorders, televisions, stereo equipment, speaker systems, household-type video cameras, jukeboxes, and amplifiers for musical instruments and public address systems.

NAICS 33441: Semiconductor and Other Electronic Component Manufacturing

This industry comprises establishments primarily engaged in manufacturing semiconductors and other components for electronic applications. Examples of products made by these establishments are capacitors, resistors, microprocessors, bare and loaded printed circuit boards, electron tubes, electronic connectors, and computer modems.

NAICS 334413: Semiconductor and Solar Cells Manufacturing

This U.S. industry comprises establishments primarily engaged in manufacturing semiconductors and related solid state devices. Examples of products made by these establishments are integrated circuits, memory chips, microprocessors, diodes, transistors, solar cells and other optoelectronic devices.

NAICS 33451 Navigational, Measuring, Medical, and Control Instruments Mfg.

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

NAICS 33461: Manufacturing & Reproducing Magnetic & Optical Media

This industry comprises establishments primarily engaged in one or more of the following manufacturing activities: optical and magnetic media, such as blank audio tape, blank video tape, and blank diskettes and/or; mass duplicating (i.e., making copies) audio, video, software, and other data.

NAICS 334611 Software Reproducing

Definitions & Methodology

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

This industry comprises establishments primarily engaged in mass reproducing computer software. These establishments do not generally develop any software, they mass reproduce data and programs on magnetic media, such as diskettes, tapes, or cartridges. Establishments in this industry mass reproduce products, such as CD-ROMs and game cartridges.

Methodology

Barnes Reports' Global Manufacturing & Markets report series provide estimates of the size and characteristics of the largest equipment, materials and consumables by manufacturing industries in the largest 140 global countries. These estimates are produced by a proprietary economic model that is based on a number of sources and factors:

1. The size of U.S. manufacturing equipment, materials and consumables from the U.S. Economic Census over the last twenty years.
2. Estimate current and forecast size of U.S. equipment, materials and consumables using regression analysis.
3. Adjust estimates and forecasts using the most current U.S. manufacturing industry data and trends. This adjustment adds vertical (industry) analysis to the forementioned horizontal (trend) analysis.
4. Global estimates use trend GDP data and the ratio of manufacturing industries to GDP by country from World Bank databases to compare U.S. versus global countries size and trends.

Global Markets

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Market Size by Year (US\$ Millions)

Country Name	2017	2018	2019	2020	2021	2022	2023	2024
Argentina	13.7	9.1	7.3	7.0	5.6	4.9	4.4	3.8
Australia	12.8	11.4	10.0	8.7	7.7	6.9	6.2	5.5
Austria	11.7	10.6	9.4	8.2	7.7	7.2	6.7	6.2
Bangladesh	7.2	6.8	7.3	9.0	9.2	9.8	10.3	10.9
Belgium	10.4	9.2	8.2	7.5	6.8	6.3	5.9	5.4
Brazil	36.1	25.4	24.2	16.3	14.5	12.5	10.8	9.1
Canada	33.7	29.1	27.2	23.6	22.3	20.9	19.7	18.3
Chile	4.8	4.3	3.6	2.6	2.5	2.2	1.9	1.6
China	598.5	532.4	485.1	449.9	430.8	417.8	404.2	386.9
Czech Republic	8.6	7.8	7.2	6.3	6.0	5.7	5.4	5.1
Denmark	7.0	6.4	6.0	5.8	5.2	5.0	4.8	4.5
Egypt, Arab Rep.	6.4	5.6	6.1	7.0	6.1	5.9	5.7	5.4
Finland	6.4	5.6	4.9	4.5	4.0	3.8	3.5	3.2
France	43.0	38.0	34.7	28.8	26.2	23.9	21.8	19.6
Germany	125.1	110.9	95.7	81.5	74.0	67.2	61.2	54.9
Hungary	4.6	4.1	3.7	3.2	2.9	2.7	2.5	2.3
India	65.4	54.5	48.5	42.5	40.0	37.8	35.6	33.1
Indonesia	34.0	28.5	28.0	24.5	23.7	23.0	22.2	21.2
Ireland	17.6	17.1	16.2	17.1	16.5	16.8	16.9	16.9
Israel	7.1	6.1	5.4	5.4	4.9	4.8	4.6	4.3
Italy	48.7	43.1	37.9	32.7	29.8	27.2	24.9	22.4
Japan	167.4	141.5	132.7	116.0	109.3	103.2	97.7	91.1
Korea, Rep.	74.3	63.1	52.9	47.4	43.5	40.3	37.3	34.1
Malaysia	11.6	10.6	9.9	8.8	8.5	8.2	7.9	7.6
Mexico	33.2	29.1	27.9	21.8	20.2	18.2	16.5	14.7
Netherlands	15.3	14.0	12.4	11.5	10.6	10.1	9.6	9.1
Nigeria	5.4	5.3	6.6	6.4	6.3	6.4	6.5	6.6
Norway	4.2	3.5	3.2	2.7	2.4	2.1	1.8	1.6
Pakistan	6.1	5.3	4.4	4.0	3.7	3.4	3.1	2.8
Philippines	10.6	9.1	8.9	7.4	7.3	7.0	6.7	6.4
Poland	15.4	13.6	12.6	11.1	10.1	9.5	8.9	8.3
Puerto Rico	8.3	6.6	6.3	5.8	5.3	4.9	4.5	4.2
Romania	7.0	6.2	5.4	4.7	4.5	4.2	4.0	3.7
Russian Federation	31.9	29.9	27.8	23.3	22.9	21.7	20.7	19.4
Saudi Arabia	14.7	13.9	12.6	9.9	10.0	9.4	8.8	8.2
Singapore	10.7	10.7	9.2	8.0	8.1	7.9	7.7	7.5
South Africa	7.0	6.0	5.3	4.6	4.1	3.8	3.4	3.1
Spain	24.9	21.9	19.4	16.5	14.4	12.9	11.6	10.2
Sweden	11.8	10.0	8.7	7.7	6.7	6.0	5.4	4.8

Global Markets

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Market Size by Year (US\$ Millions)

Country Name	2017	2018	2019	2020	2021	2022	2023	2024
Switzerland	20.6	17.7	16.9	15.9	14.7	13.9	13.3	12.4
Thailand	20.7	18.6	17.7	14.8	14.9	14.5	14.1	13.5
Turkey	24.9	20.2	17.7	16.0	14.5	13.1	11.9	10.7
United Arab Emirates	5.8	5.1	4.7	4.1	3.8	3.5	3.3	3.1
United Kingdom	39.7	34.8	31.2	27.9	24.2	21.5	19.2	16.8
United States	360.6	315.2	297.1	272.4	259.0	250.0	241.7	230.3
Venezuela, RB	6.9	5.4	4.7	4.1	3.8	3.4	3.0	2.7
Vietnam	5.7	5.4	5.5	6.6	6.4	6.6	6.8	7.0
GLOBAL	2,047.3	1,788.2	1,638.3	1,471.7	1,385.7	1,317.6	1,254.7	1,180.0

Source: Barnes Reports

*2022-2024 Forecasts

Regional Markets

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in North America is estimated to be \$0.3 billion dollars in 2023 and is expected to change by -3.9 percent from 2022 to 2023. The market in the Asia-Pacific region for this equipment is estimated to be \$0.7 billion in 2023 and is forecast to change by -4.1 percent from 2023 to 2024. The European market is \$0.2 billion in 2023.

Market Size by Year (US\$ Millions)

	2017	2018	2019	2020	2021	2022	2023	2024
North America	427.4	373.3	352.2	317.8	301.4	289.1	277.8	263.3
Latin America	49.8	34.5	31.5	23.3	20.1	17.4	15.1	12.9
Europe	365.0	324.2	289.3	254.5	231.9	214.0	198.1	180.9
Asia-Pacific	1,043.9	915.7	835.1	755.5	720.5	691.7	663.5	628.9
Middle East	45.4	39.2	34.9	30.0	28.2	26.0	24.1	21.9
Africa	12.4	11.3	11.8	11.0	10.5	10.2	10.0	9.6
GLOBAL	1,931.5	1,686.8	1,543.2	1,381.2	1,302.2	1,238.2	1,178.6	1,107.9

Regional Distribution

	2017	2018	2019	2020	2021	2022	2023	2024
North America	22.1%	22.1%	22.8%	23.0%	23.1%	23.4%	23.6%	23.8%
Latin America	2.6%	2.0%	2.0%	1.7%	1.5%	1.4%	1.3%	1.2%
Europe	18.9%	19.2%	18.8%	18.4%	17.8%	17.3%	16.8%	16.3%
Asia-Pacific	54.0%	54.3%	54.1%	54.7%	55.3%	55.9%	56.3%	56.8%
Middle East	2.4%	2.3%	2.3%	2.2%	2.2%	2.1%	2.0%	2.0%
Africa	0.6%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%
GLOBAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Year-to-Year Change

		2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
North America		-12.7%	-5.6%	-9.8%	-5.2%	-4.1%	-3.9%	-5.2%
Latin America		-30.8%	-8.6%	-26.1%	-13.7%	-13.6%	-12.8%	-14.6%
Europe		-11.2%	-10.7%	-12.0%	-8.9%	-7.7%	-7.4%	-8.7%
Asia-Pacific		-12.3%	-8.8%	-9.5%	-4.6%	-4.0%	-4.1%	-5.2%
Middle East		-13.8%	-10.8%	-14.0%	-5.9%	-8.0%	-7.4%	-9.1%
Africa		-9.4%	5.0%	-7.0%	-4.7%	-2.8%	-1.9%	-3.4%
GLOBAL		-12.7%	-8.5%	-10.5%	-5.7%	-4.9%	-4.8%	-6.0%

Source: Barnes Reports

*2022-2024 Forecasts

Argentina

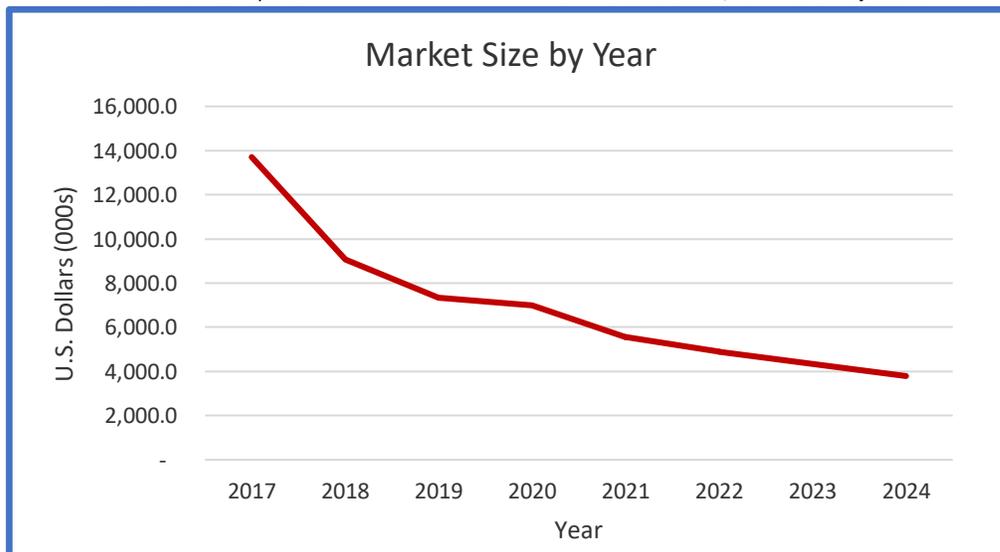
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Argentina is estimated to be \$4.4 million dollars in 2023 and is expected to change by -12.9 percent from 2023 to 2024. The market will be 738.1 million Pesos in 2023 and is forecast to change by 17.6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Pesos
2017	13,704.9	226,990.6
2018	9,080.8	255,126.1
2019	7,349.2	353,848.3
2020	6,978.1	492,232.0
2021	5,558.3	533,682.7
2022	4,896.9	627,640.0
2023	4,354.4	738,112.3
2024	3,791.1	861,309.7
2029	2,230.4	1,980,774.4
Y-to-Y Change	US Dollars	Pesos
2017-2018	-33.7%	12.4%
2018-2019	-19.1%	38.7%
2019-2020	-5.0%	39.1%
2020-2021	-20.3%	8.4%
2021-2022	-11.9%	17.6%
2022-2023	-11.1%	17.6%
2023-2024	-12.9%	16.7%
CAGR 2024-2029	-8.2%	130.0%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Argentina

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Argentina will be \$1.58 million dollars in 2023 and the value added amount for the market will be \$2.53 million dollars. The cost of resales for this equipment is expected to reach \$0.11 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,581.50
Cost of resales (\$1,000)	109.77
Cost of purchased fuels consumed (\$1,000)	4.47
Cost of purchased electricity (\$1,000)	45.96
Cost of contract work (\$1,000)	58.75
Value of resales (\$1,000)	156.16
Value added (\$1,000)	2,530.31

Capital Expenses Estimates

The total capital expenses for this market in Argentina will be \$0.18 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.15 million dollars. The expenditures for buildings for this equipment expected to reach \$0.03 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	176.16
Capital expenditures for buildings and other structures (\$1,000)	30.23
Capital expenditures for machinery and equipment (\$1,000)	145.93
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.80
Capital expenditures for computers and peripheral equip. (\$1,000)	11.92
Capital expenditures for all other machinery and equip. (\$1,000)	132.21

*2022-2023 Forecasts

Source: Barnes Reports

Australia

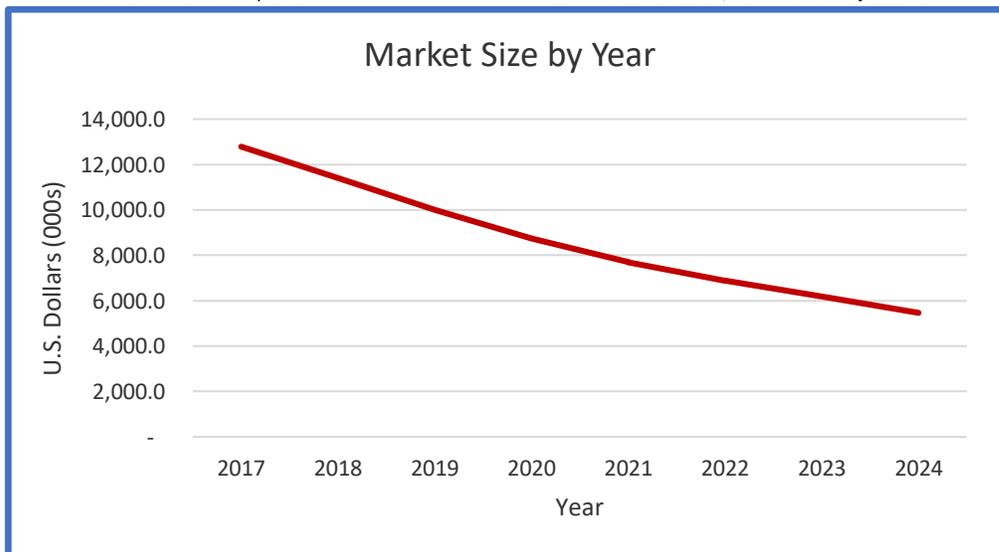
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Australia is estimated to be \$6.2 million dollars in 2023 and is expected to change by -11.7 percent from 2023 to 2024. The market will be 10.7 million Dollars in 2023 and is forecast to change by -5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dollars
2017	12,787.3	16,954.7
2018	11,399.3	14,706.2
2019	10,001.9	13,984.6
2020	8,745.0	13,045.7
2021	7,690.3	11,845.3
2022	6,878.4	11,244.5
2023	6,186.4	10,685.3
2024	5,465.6	10,013.8
2029	3,245.3	7,362.4
Y-to-Y Change	US Dollars	Dollars
2017-2018	-10.9%	-13.3%
2018-2019	-12.3%	-4.9%
2019-2020	-12.6%	-6.7%
2020-2021	-12.1%	-9.2%
2021-2022	-10.6%	-5.1%
2022-2023	-10.1%	-5.0%
2023-2024	-11.7%	-6.3%
CAGR 2024-2029	-8.1%	-26.5%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Australia

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Australia will be \$2.25 million dollars in 2023 and the value added amount for the market will be \$3.59 million dollars. The cost of resales for this equipment is expected to reach \$0.16 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,246.87
Cost of resales (\$1,000)	155.96
Cost of purchased fuels consumed (\$1,000)	6.35
Cost of purchased electricity (\$1,000)	65.29
Cost of contract work (\$1,000)	83.46
Value of resales (\$1,000)	221.85
Value added (\$1,000)	3,594.86

Capital Expenses Estimates

The total capital expenses for this market in Australia will be \$0.25 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.21 million dollars. The expenditures for buildings for this equipment expected to reach \$0.04 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	250.27
Capital expenditures for buildings and other structures (\$1,000)	42.95
Capital expenditures for machinery and equipment (\$1,000)	207.32
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.56
Capital expenditures for computers and peripheral equip. (\$1,000)	16.93
Capital expenditures for all other machinery and equip. (\$1,000)	187.84

*2022-2023 Forecasts

Source: Barnes Reports

Austria

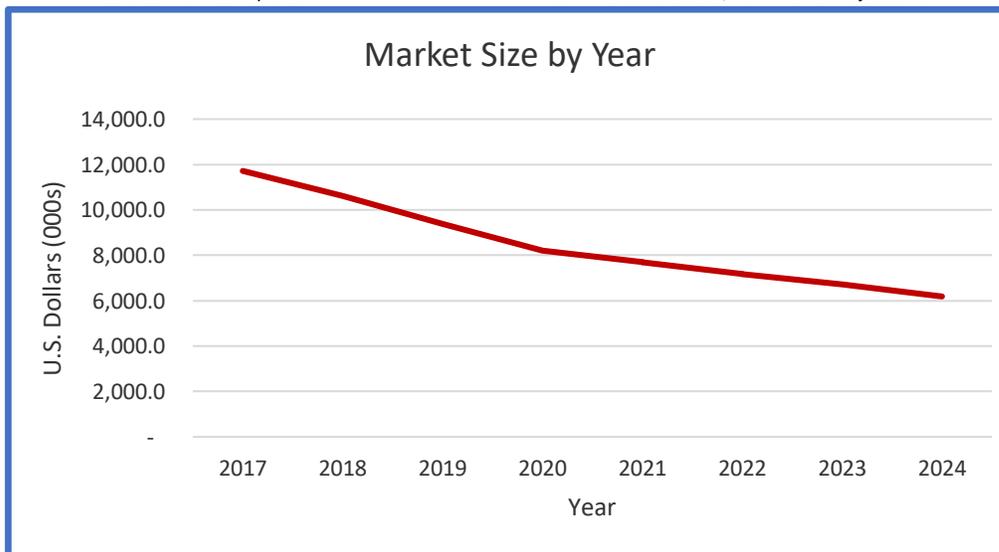
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Austria is estimated to be \$6.7 million dollars in 2023 and is expected to change by -7.9 percent from 2023 to 2024. The market will be 5.7 million Euros in 2023 and is forecast to change by -7 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	11,717.5	10,372.4
2018	10,613.4	8,987.2
2019	9,383.8	8,382.3
2020	8,212.2	7,189.8
2021	7,692.0	6,618.8
2022	7,178.3	6,150.9
2023	6,713.2	5,722.1
2024	6,185.7	5,249.7
2029	4,269.0	3,470.6
Y-to-Y Change	US Dollars	Euros
2017-2018	-9.4%	-13.4%
2018-2019	-11.6%	-6.7%
2019-2020	-12.5%	-14.2%
2020-2021	-6.3%	-7.9%
2021-2022	-6.7%	-7.1%
2022-2023	-6.5%	-7.0%
2023-2024	-7.9%	-8.3%
CAGR 2024-2029	-6.2%	-33.9%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Austria

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Austria will be \$2.44 million dollars in 2023 and the value added amount for the market will be \$3.90 million dollars. The cost of resales for this equipment is expected to reach \$0.17 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,438.18
Cost of resales (\$1,000)	169.24
Cost of purchased fuels consumed (\$1,000)	6.89
Cost of purchased electricity (\$1,000)	70.85
Cost of contract work (\$1,000)	90.57
Value of resales (\$1,000)	240.74
Value added (\$1,000)	3,900.94

Capital Expenses Estimates

The total capital expenses for this market in Austria will be \$0.27 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.22 million dollars. The expenditures for buildings for this equipment expected to reach \$0.05 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	271.58
Capital expenditures for buildings and other structures (\$1,000)	46.60
Capital expenditures for machinery and equipment (\$1,000)	224.98
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.77
Capital expenditures for computers and peripheral equip. (\$1,000)	18.37
Capital expenditures for all other machinery and equip. (\$1,000)	203.83

*2022-2023 Forecasts

Source: Barnes Reports

Bangladesh

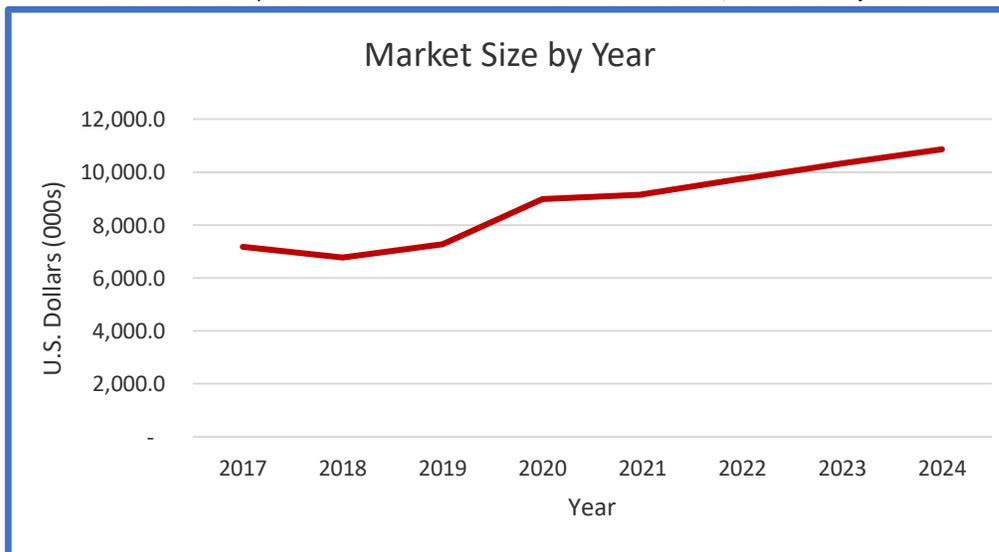
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Bangladesh is estimated to be \$10.3 million dollars in 2023 and is expected to change by 5.1 percent from 2023 to 2024. The market will be 821.1 million Takas in 2023 and is forecast to change by 4.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Takas
2017	7,167.7	567,135.3
2018	6,773.4	556,250.8
2019	7,268.3	610,761.3
2020	8,975.7	761,087.4
2021	9,159.7	754,339.6
2022	9,754.1	787,027.1
2023	10,337.4	821,101.3
2024	10,860.0	850,019.5
2029	12,899.9	1,074,189.6
Y-to-Y Change	US Dollars	Takas
2017-2018	-5.5%	-1.9%
2018-2019	7.3%	9.8%
2019-2020	23.5%	24.6%
2020-2021	2.0%	-0.9%
2021-2022	6.5%	4.3%
2022-2023	6.0%	4.3%
2023-2024	5.1%	3.5%
CAGR 2024-2029	3.8%	26.4%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Bangladesh

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Bangladesh will be \$3.75 million dollars in 2023 and the value added amount for the market will be \$6.01 million dollars. The cost of resales for this equipment is expected to reach \$0.26 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	3,754.49
Cost of resales (\$1,000)	260.60
Cost of purchased fuels consumed (\$1,000)	10.61
Cost of purchased electricity (\$1,000)	109.10
Cost of contract work (\$1,000)	139.47
Value of resales (\$1,000)	370.71
Value added (\$1,000)	6,006.95

Capital Expenses Estimates

The total capital expenses for this market in Bangladesh will be \$0.42 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.35 million dollars. The expenditures for buildings for this equipment expected to reach \$0.07 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	418.20
Capital expenditures for buildings and other structures (\$1,000)	71.76
Capital expenditures for machinery and equipment (\$1,000)	346.44
Capital expenditures for automobiles, trucks, etc. (\$1,000)	4.27
Capital expenditures for computers and peripheral equip. (\$1,000)	28.29
Capital expenditures for all other machinery and equip. (\$1,000)	313.87

*2022-2023 Forecasts

Source: Barnes Reports

Belgium

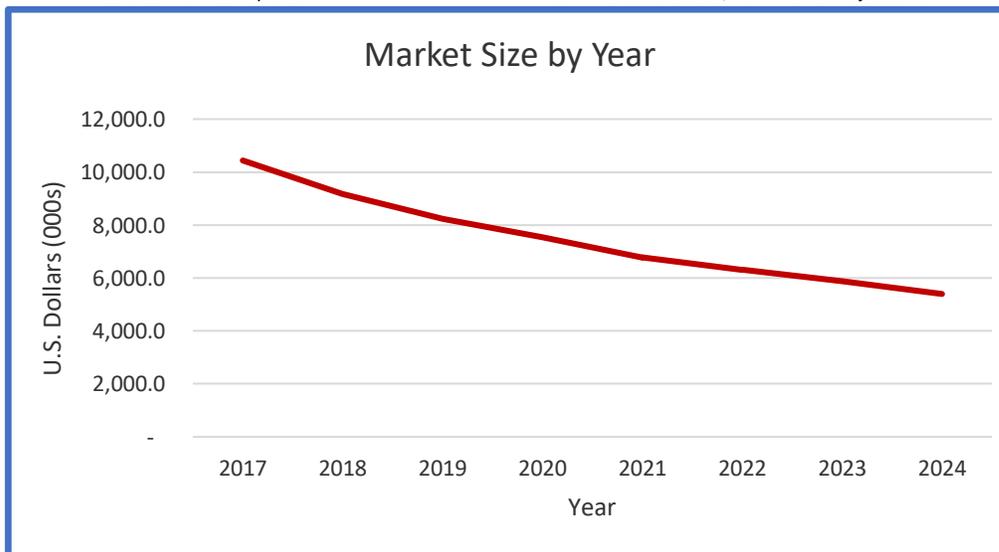
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Belgium is estimated to be \$5.9 million dollars in 2023 and is expected to change by -8.2 percent from 2023 to 2024. The market will be 5 million Euros in 2023 and is forecast to change by -7.6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	10,438.4	9,248.6
2018	9,183.0	7,775.9
2019	8,228.1	7,350.0
2020	7,529.0	6,591.7
2021	6,778.8	5,824.3
2022	6,306.2	5,376.7
2023	5,876.8	4,968.8
2024	5,397.7	4,528.4
2029	3,691.9	2,895.9
Y-to-Y Change	US Dollars	Euros
2017-2018	-12.0%	-15.9%
2018-2019	-10.4%	-5.5%
2019-2020	-8.5%	-10.3%
2020-2021	-10.0%	-11.6%
2021-2022	-7.0%	-7.7%
2022-2023	-6.8%	-7.6%
2023-2024	-8.2%	-8.9%
CAGR 2024-2029	-6.3%	-36.1%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Belgium

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Belgium will be \$2.13 million dollars in 2023 and the value added amount for the market will be \$3.41 million dollars. The cost of resales for this equipment is expected to reach \$0.15 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,134.40
Cost of resales (\$1,000)	148.15
Cost of purchased fuels consumed (\$1,000)	6.03
Cost of purchased electricity (\$1,000)	62.03
Cost of contract work (\$1,000)	79.29
Value of resales (\$1,000)	210.75
Value added (\$1,000)	3,414.92

Capital Expenses Estimates

The total capital expenses for this market in Belgium will be \$0.24 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.20 million dollars. The expenditures for buildings for this equipment expected to reach \$0.04 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	237.74
Capital expenditures for buildings and other structures (\$1,000)	40.80
Capital expenditures for machinery and equipment (\$1,000)	196.95
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.43
Capital expenditures for computers and peripheral equip. (\$1,000)	16.08
Capital expenditures for all other machinery and equip. (\$1,000)	178.43

*2022-2023 Forecasts

Source: Barnes Reports

Brazil

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Brazil is estimated to be \$10.8 million dollars in 2023 and is expected to change by -15.3 percent from 2023 to 2024. The market will be 69.1 million Reals in 2023 and is forecast to change by -5.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Reals
2017	36,070.8	114,600.8
2018	25,386.6	92,757.6
2019	24,162.1	95,307.5
2020	16,313.5	84,099.2
2021	14,531.7	77,145.7
2022	12,460.0	72,983.4
2023	10,780.0	69,117.5
2024	9,133.9	64,553.4
2029	4,666.0	46,658.0
Y-to-Y Change	US Dollars	Reals
2017-2018	-29.6%	-19.1%
2018-2019	-4.8%	2.7%
2019-2020	-32.5%	-11.8%
2020-2021	-10.9%	-8.3%
2021-2022	-14.3%	-5.4%
2022-2023	-13.5%	-5.3%
2023-2024	-15.3%	-6.6%
CAGR 2024-2029	-9.8%	-27.7%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Brazil

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Brazil will be \$3.92 million dollars in 2023 and the value added amount for the market will be \$6.26 million dollars. The cost of resales for this equipment is expected to reach \$0.27 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	3,915.21
Cost of resales (\$1,000)	271.76
Cost of purchased fuels consumed (\$1,000)	11.06
Cost of purchased electricity (\$1,000)	113.78
Cost of contract work (\$1,000)	145.44
Value of resales (\$1,000)	386.58
Value added (\$1,000)	6,264.10

Capital Expenses Estimates

The total capital expenses for this market in Brazil will be \$0.44 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.36 million dollars. The expenditures for buildings for this equipment expected to reach \$0.07 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	436.10
Capital expenditures for buildings and other structures (\$1,000)	74.84
Capital expenditures for machinery and equipment (\$1,000)	361.27
Capital expenditures for automobiles, trucks, etc. (\$1,000)	4.45
Capital expenditures for computers and peripheral equip. (\$1,000)	29.51
Capital expenditures for all other machinery and equip. (\$1,000)	327.31

*2022-2023 Forecasts

Source: Barnes Reports

Canada

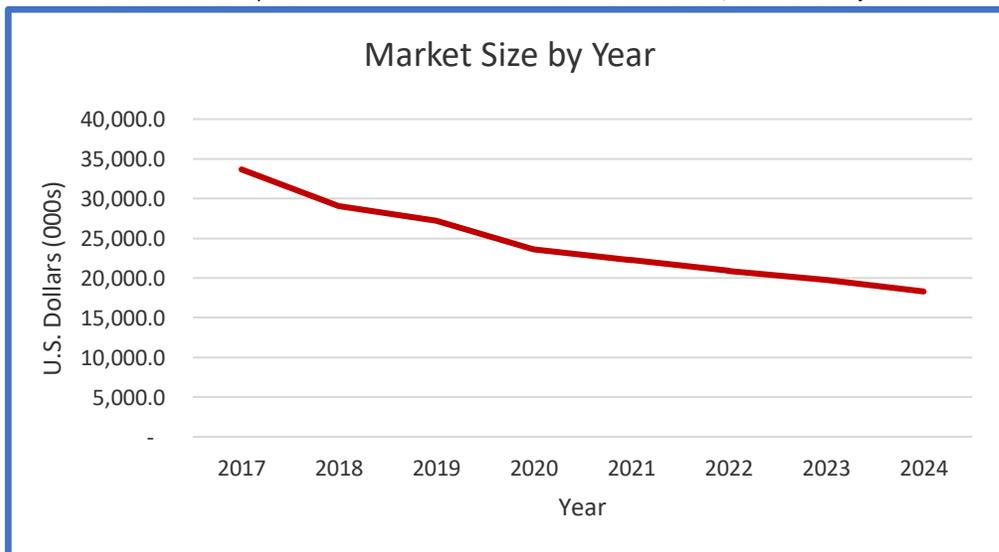
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Canada is estimated to be \$19.7 million dollars in 2023 and is expected to change by -7.2 percent from 2023 to 2024. The market will be 27.5 million Dollars in 2023 and is forecast to change by -4.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dollars
2017	33,667.5	43,618.5
2018	29,053.5	37,646.2
2019	27,178.5	36,060.3
2020	23,585.1	31,631.2
2021	22,270.2	30,104.8
2022	20,921.4	28,747.5
2023	19,730.5	27,479.9
2024	18,305.1	25,905.8
2029	13,514.0	19,618.2
Y-to-Y Change	US Dollars	Dollars
2017-2018	-13.7%	-13.7%
2018-2019	-6.5%	-4.2%
2019-2020	-13.2%	-12.3%
2020-2021	-5.6%	-4.8%
2021-2022	-6.1%	-4.5%
2022-2023	-5.7%	-4.4%
2023-2024	-7.2%	-5.7%
CAGR 2024-2029	-5.2%	-24.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Canada

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Canada will be \$7.17 million dollars in 2023 and the value added amount for the market will be \$11.47 million dollars. The cost of resales for this equipment is expected to reach \$0.50 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	7,165.99
Cost of resales (\$1,000)	497.40
Cost of purchased fuels consumed (\$1,000)	20.24
Cost of purchased electricity (\$1,000)	208.24
Cost of contract work (\$1,000)	266.20
Value of resales (\$1,000)	707.56
Value added (\$1,000)	11,465.16

Capital Expenses Estimates

The total capital expenses for this market in Canada will be \$0.80 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.66 million dollars. The expenditures for buildings for this equipment expected to reach \$0.14 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	798.20
Capital expenditures for buildings and other structures (\$1,000)	136.97
Capital expenditures for machinery and equipment (\$1,000)	661.22
Capital expenditures for automobiles, trucks, etc. (\$1,000)	8.15
Capital expenditures for computers and peripheral equip. (\$1,000)	54.00
Capital expenditures for all other machinery and equip. (\$1,000)	599.07

*2022-2023 Forecasts

Source: Barnes Reports

Chile

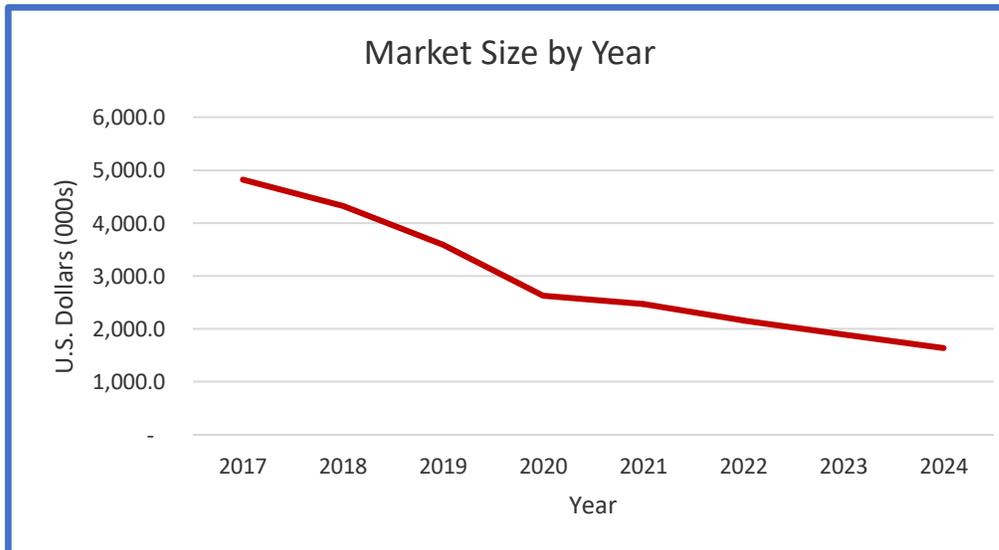
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Chile is estimated to be \$1.9 million dollars in 2023 and is expected to change by -13.7 percent from 2023 to 2024. The market will be 1606.5 million Pesos in 2023 and is forecast to change by -8.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Pesos
2017	4,819.4	3,134,920.4
2018	4,321.9	2,771,534.0
2019	3,594.4	2,526,526.6
2020	2,623.5	2,079,758.2
2021	2,471.6	1,914,254.7
2022	2,160.6	1,752,725.3
2023	1,897.8	1,606,492.9
2024	1,638.6	1,452,149.5
2029	858.0	891,303.0
Y-to-Y Change	US Dollars	Pesos
2017-2018	-10.3%	-11.6%
2018-2019	-16.8%	-8.8%
2019-2020	-27.0%	-17.7%
2020-2021	-5.8%	-8.0%
2021-2022	-12.6%	-8.4%
2022-2023	-12.2%	-8.3%
2023-2024	-13.7%	-9.6%
CAGR 2024-2029	-9.5%	-38.6%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Chile

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Chile will be \$0.69 million dollars in 2023 and the value added amount for the market will be \$1.10 million dollars. The cost of resales for this equipment is expected to reach \$0.05 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	689.27
Cost of resales (\$1,000)	47.84
Cost of purchased fuels consumed (\$1,000)	1.95
Cost of purchased electricity (\$1,000)	20.03
Cost of contract work (\$1,000)	25.60
Value of resales (\$1,000)	68.06
Value added (\$1,000)	1,102.79

Capital Expenses Estimates

The total capital expenses for this market in Chile will be \$0.08 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.06 million dollars. The expenditures for buildings for this equipment expected to reach \$0.01 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	76.78
Capital expenditures for buildings and other structures (\$1,000)	13.17
Capital expenditures for machinery and equipment (\$1,000)	63.60
Capital expenditures for automobiles, trucks, etc. (\$1,000)	0.78
Capital expenditures for computers and peripheral equip. (\$1,000)	5.19
Capital expenditures for all other machinery and equip. (\$1,000)	57.62

*2022-2023 Forecasts

Source: Barnes Reports

China

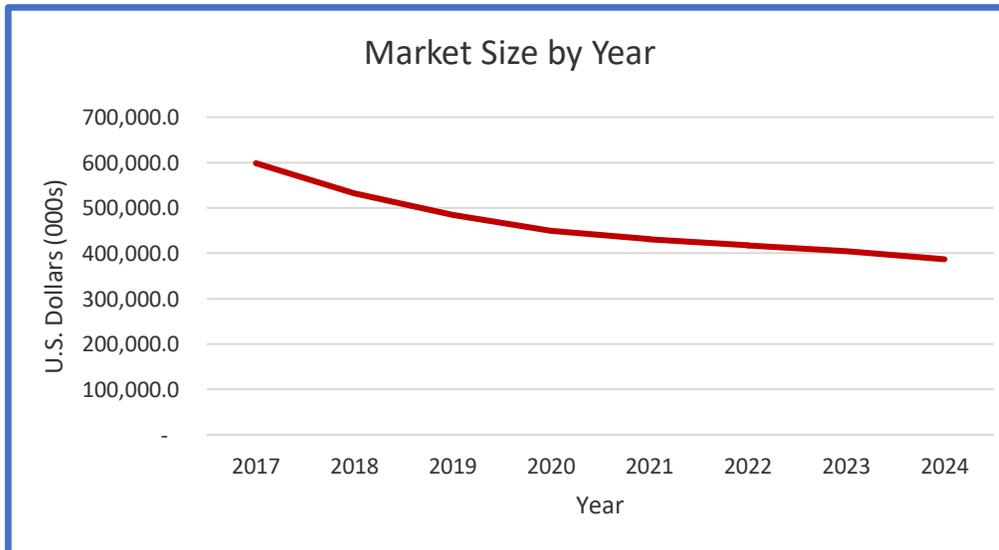
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in China is estimated to be \$404.2 million dollars in 2023 and is expected to change by -4.3 percent from 2023 to 2024. The market will be 2983.1 million Yuans in 2023 and is forecast to change by -0.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Yuans
2017	598,497.4	3,990,276.3
2018	532,441.8	3,522,634.7
2019	485,125.1	3,351,438.5
2020	449,928.0	3,104,863.1
2021	430,776.4	3,042,495.9
2022	417,780.7	2,993,240.9
2023	404,234.6	2,983,123.8
2024	386,874.8	2,770,979.7
2029	303,522.0	2,230,953.9
Y-to-Y Change	US Dollars	Yuans
2017-2018	-11.0%	-11.7%
2018-2019	-8.9%	-4.9%
2019-2020	-7.3%	-7.4%
2020-2021	-4.3%	-2.0%
2021-2022	-3.0%	-1.6%
2022-2023	-3.2%	-0.3%
2023-2024	-4.3%	-7.1%
CAGR 2024-2029	-4.3%	-19.5%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



China

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in China will be \$146.82 million dollars in 2023 and the value added amount for the market will be \$234.90 million dollars. The cost of resales for this equipment is expected to reach \$10.19 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	146,815.36
Cost of resales (\$1,000)	10,190.60
Cost of purchased fuels consumed (\$1,000)	414.74
Cost of purchased electricity (\$1,000)	4,266.42
Cost of contract work (\$1,000)	5,453.76
Value of resales (\$1,000)	14,496.39
Value added (\$1,000)	234,895.83

Capital Expenses Estimates

The total capital expenses for this market in China will be \$16.35 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$13.55 million dollars. The expenditures for buildings for this equipment expected to reach \$2.81 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	16,353.29
Capital expenditures for buildings and other structures (\$1,000)	2,806.29
Capital expenditures for machinery and equipment (\$1,000)	13,547.00
Capital expenditures for automobiles, trucks, etc. (\$1,000)	166.95
Capital expenditures for computers and peripheral equip. (\$1,000)	1,106.41
Capital expenditures for all other machinery and equip. (\$1,000)	12,273.64

*2022-2023 Forecasts

Source: Barnes Reports

Czech Republic

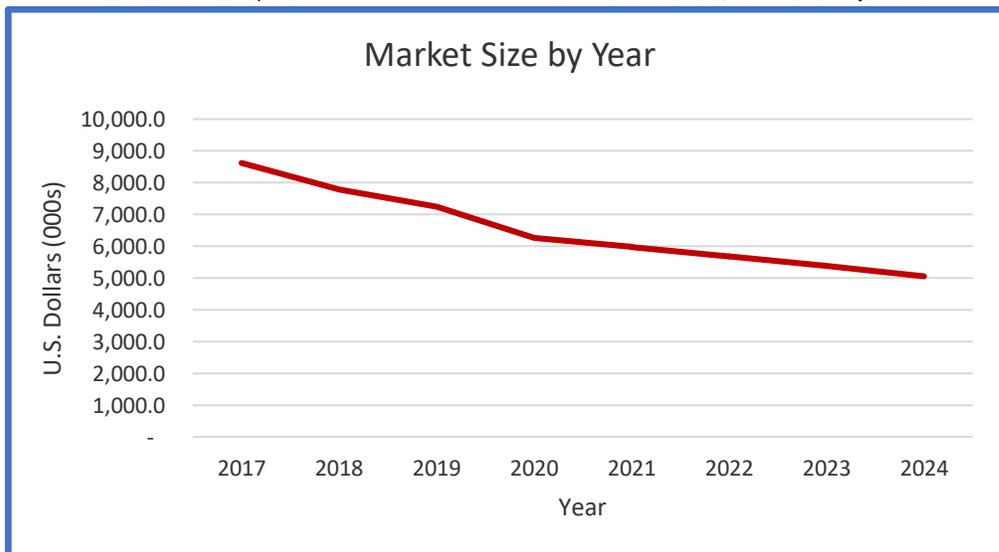
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Czech Republic is estimated to be \$5.4 million dollars in 2023 and is expected to change by -6.2 percent from 2023 to 2024. The market will be 117.4 million Korunas in 2023 and is forecast to change by -6.1 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Korunas
2017	8,619.6	201,493.8
2018	7,783.0	169,122.9
2019	7,247.4	166,199.6
2020	6,263.8	145,383.9
2021	5,972.5	133,213.1
2022	5,678.0	125,016.8
2023	5,386.5	117,446.5
2024	5,053.5	108,812.8
2029	3,602.4	75,549.1
Y-to-Y Change	US Dollars	Korunas
2017-2018	-9.7%	-16.1%
2018-2019	-6.9%	-1.7%
2019-2020	-13.6%	-12.5%
2020-2021	-4.6%	-8.4%
2021-2022	-4.9%	-6.2%
2022-2023	-5.1%	-6.1%
2023-2024	-6.2%	-7.4%
CAGR 2024-2029	-5.7%	-30.6%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Czech Republic

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Czech Republic will be \$1.96 million dollars in 2023 and the value added amount for the market will be \$3.13 million dollars. The cost of resales for this equipment is expected to reach \$0.14 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,956.35
Cost of resales (\$1,000)	135.79
Cost of purchased fuels consumed (\$1,000)	5.53
Cost of purchased electricity (\$1,000)	56.85
Cost of contract work (\$1,000)	72.67
Value of resales (\$1,000)	193.17
Value added (\$1,000)	3,130.04

Capital Expenses Estimates

The total capital expenses for this market in Czech Republic will be \$0.22 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.18 million dollars. The expenditures for buildings for this equipment expected to reach \$0.04 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	217.91
Capital expenditures for buildings and other structures (\$1,000)	37.39
Capital expenditures for machinery and equipment (\$1,000)	180.52
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.22
Capital expenditures for computers and peripheral equip. (\$1,000)	14.74
Capital expenditures for all other machinery and equip. (\$1,000)	163.55

*2022-2023 Forecasts

Source: Barnes Reports

Denmark

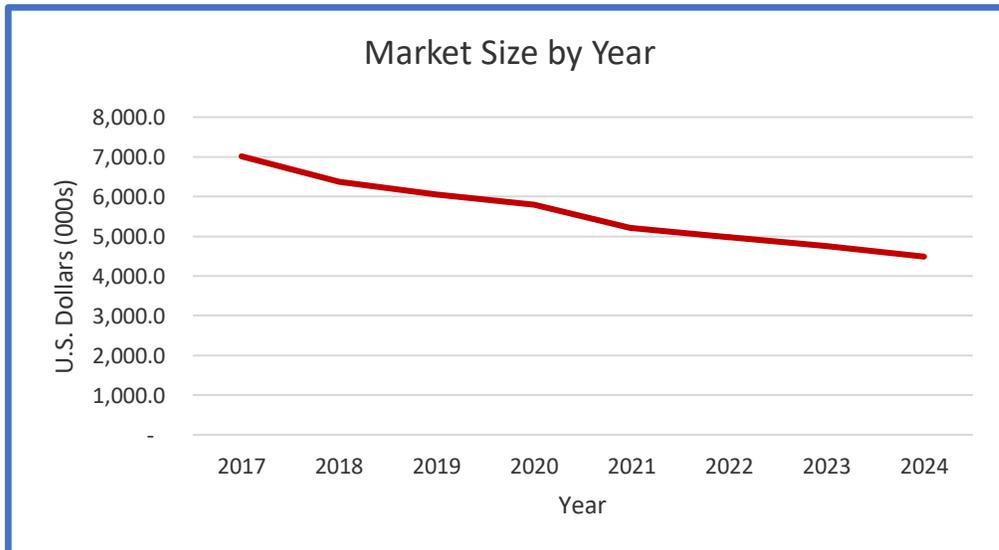
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Denmark is estimated to be \$4.8 million dollars in 2023 and is expected to change by -5.7 percent from 2023 to 2024. The market will be 30.9 million Kroner in 2023 and is forecast to change by -4.6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Kroner
2017	7,013.1	46,306.5
2018	6,366.3	40,200.9
2019	6,045.5	40,319.9
2020	5,791.7	37,890.5
2021	5,208.0	33,991.5
2022	4,975.8	32,403.7
2023	4,758.6	30,922.1
2024	4,488.4	29,101.3
2029	3,458.1	21,851.3
Y-to-Y Change	US Dollars	Kroner
2017-2018	-9.2%	-13.2%
2018-2019	-5.0%	0.3%
2019-2020	-4.2%	-6.0%
2020-2021	-10.1%	-10.3%
2021-2022	-4.5%	-4.7%
2022-2023	-4.4%	-4.6%
2023-2024	-5.7%	-5.9%
CAGR 2024-2029	-4.6%	-24.9%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Denmark

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Denmark will be \$1.73 million dollars in 2023 and the value added amount for the market will be \$2.77 million dollars. The cost of resales for this equipment is expected to reach \$0.12 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,728.31
Cost of resales (\$1,000)	119.96
Cost of purchased fuels consumed (\$1,000)	4.88
Cost of purchased electricity (\$1,000)	50.22
Cost of contract work (\$1,000)	64.20
Value of resales (\$1,000)	170.65
Value added (\$1,000)	2,765.19

Capital Expenses Estimates

The total capital expenses for this market in Denmark will be \$0.19 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.16 million dollars. The expenditures for buildings for this equipment expected to reach \$0.03 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	192.51
Capital expenditures for buildings and other structures (\$1,000)	33.04
Capital expenditures for machinery and equipment (\$1,000)	159.47
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.97
Capital expenditures for computers and peripheral equip. (\$1,000)	13.02
Capital expenditures for all other machinery and equip. (\$1,000)	144.48

*2022-2023 Forecasts

Source: Barnes Reports

Egypt

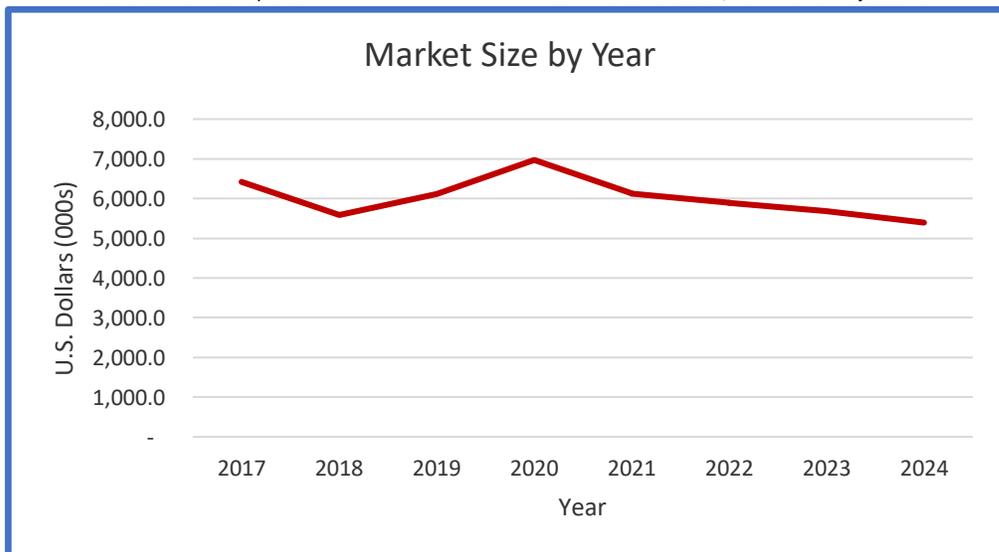
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Egypt is estimated to be \$5.7 million dollars in 2023 and is expected to change by -5 percent from 2023 to 2024. The market will be 120 million Pounds in 2023 and is forecast to change by 1.5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Pounds
2017	6,421.3	94,667.8
2018	5,592.0	98,901.6
2019	6,119.3	107,455.7
2020	6,971.4	111,752.1
2021	6,124.5	116,497.8
2022	5,895.7	118,257.6
2023	5,677.0	120,039.6
2024	5,394.7	120,905.2
2029	4,203.8	133,210.7
Y-to-Y Change	US Dollars	Pounds
2017-2018	-12.9%	4.5%
2018-2019	9.4%	8.6%
2019-2020	13.9%	4.0%
2020-2021	-12.1%	4.2%
2021-2022	-3.7%	1.5%
2022-2023	-3.7%	1.5%
2023-2024	-5.0%	0.7%
CAGR 2024-2029	-4.4%	10.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Egypt

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Egypt will be \$2.06 million dollars in 2023 and the value added amount for the market will be \$3.30 million dollars. The cost of resales for this equipment is expected to reach \$0.14 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,061.86
Cost of resales (\$1,000)	143.12
Cost of purchased fuels consumed (\$1,000)	5.82
Cost of purchased electricity (\$1,000)	59.92
Cost of contract work (\$1,000)	76.59
Value of resales (\$1,000)	203.59
Value added (\$1,000)	3,298.86

Capital Expenses Estimates

The total capital expenses for this market in Egypt will be \$0.23 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.19 million dollars. The expenditures for buildings for this equipment expected to reach \$0.04 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	229.66
Capital expenditures for buildings and other structures (\$1,000)	39.41
Capital expenditures for machinery and equipment (\$1,000)	190.25
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.34
Capital expenditures for computers and peripheral equip. (\$1,000)	15.54
Capital expenditures for all other machinery and equip. (\$1,000)	172.37

*2022-2023 Forecasts

Source: Barnes Reports

Finland

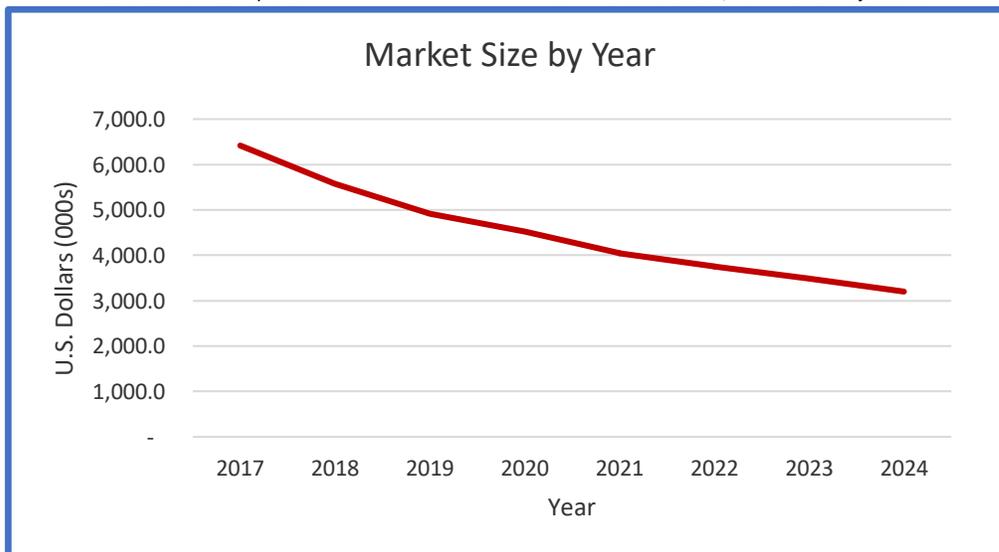
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Finland is estimated to be \$3.5 million dollars in 2023 and is expected to change by -8.3 percent from 2023 to 2024. The market will be 3 million Euros in 2023 and is forecast to change by -7.6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	6,417.8	5,679.8
2018	5,576.7	4,722.2
2019	4,918.3	4,393.4
2020	4,516.9	3,954.6
2021	4,044.0	3,507.1
2022	3,755.6	3,237.6
2023	3,491.7	2,991.9
2024	3,201.4	2,726.8
2029	2,122.1	1,743.8
Y-to-Y Change	US Dollars	Euros
2017-2018	-13.1%	-16.9%
2018-2019	-11.8%	-7.0%
2019-2020	-8.2%	-10.0%
2020-2021	-10.5%	-11.3%
2021-2022	-7.1%	-7.7%
2022-2023	-7.0%	-7.6%
2023-2024	-8.3%	-8.9%
CAGR 2024-2029	-6.7%	-36.1%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Finland

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Finland will be \$1.27 million dollars in 2023 and the value added amount for the market will be \$2.03 million dollars. The cost of resales for this equipment is expected to reach \$0.09 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,268.18
Cost of resales (\$1,000)	88.03
Cost of purchased fuels consumed (\$1,000)	3.58
Cost of purchased electricity (\$1,000)	36.85
Cost of contract work (\$1,000)	47.11
Value of resales (\$1,000)	125.22
Value added (\$1,000)	2,029.01

Capital Expenses Estimates

The total capital expenses for this market in Finland will be \$0.14 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.12 million dollars. The expenditures for buildings for this equipment expected to reach \$0.02 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	141.26
Capital expenditures for buildings and other structures (\$1,000)	24.24
Capital expenditures for machinery and equipment (\$1,000)	117.02
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.44
Capital expenditures for computers and peripheral equip. (\$1,000)	9.56
Capital expenditures for all other machinery and equip. (\$1,000)	106.02

*2022-2023 Forecasts

Source: Barnes Reports

France

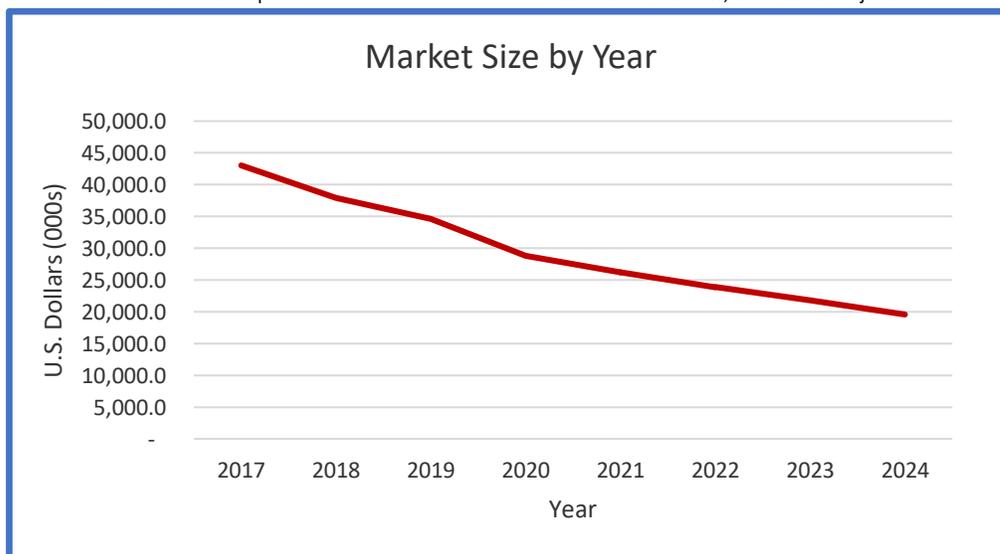
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in France is estimated to be \$21.8 million dollars in 2023 and is expected to change by -10.1 percent from 2023 to 2024. The market will be 18.9 million Euros in 2023 and is forecast to change by -8.8 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	43,030.4	38,054.6
2018	37,954.2	32,138.6
2019	34,651.7	30,953.5
2020	28,788.6	25,204.6
2021	26,212.6	22,824.8
2022	23,854.3	20,785.7
2023	21,778.1	18,948.4
2024	19,570.9	17,035.2
2029	12,178.9	10,176.0
Y-to-Y Change	US Dollars	Euros
2017-2018	-11.8%	-15.5%
2018-2019	-8.7%	-3.7%
2019-2020	-16.9%	-18.6%
2020-2021	-8.9%	-9.4%
2021-2022	-9.0%	-8.9%
2022-2023	-8.7%	-8.8%
2023-2024	-10.1%	-10.1%
CAGR 2024-2029	-7.6%	-40.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



France

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in France will be \$7.91 million dollars in 2023 and the value added amount for the market will be \$12.66 million dollars. The cost of resales for this equipment is expected to reach \$0.55 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	7,909.67
Cost of resales (\$1,000)	549.02
Cost of purchased fuels consumed (\$1,000)	22.34
Cost of purchased electricity (\$1,000)	229.85
Cost of contract work (\$1,000)	293.82
Value of resales (\$1,000)	780.99
Value added (\$1,000)	12,655.01

Capital Expenses Estimates

The total capital expenses for this market in France will be \$0.88 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.73 million dollars. The expenditures for buildings for this equipment expected to reach \$0.15 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	881.03
Capital expenditures for buildings and other structures (\$1,000)	151.19
Capital expenditures for machinery and equipment (\$1,000)	729.84
Capital expenditures for automobiles, trucks, etc. (\$1,000)	8.99
Capital expenditures for computers and peripheral equip. (\$1,000)	59.61
Capital expenditures for all other machinery and equip. (\$1,000)	661.24

*2022-2023 Forecasts

Source: Barnes Reports

Germany

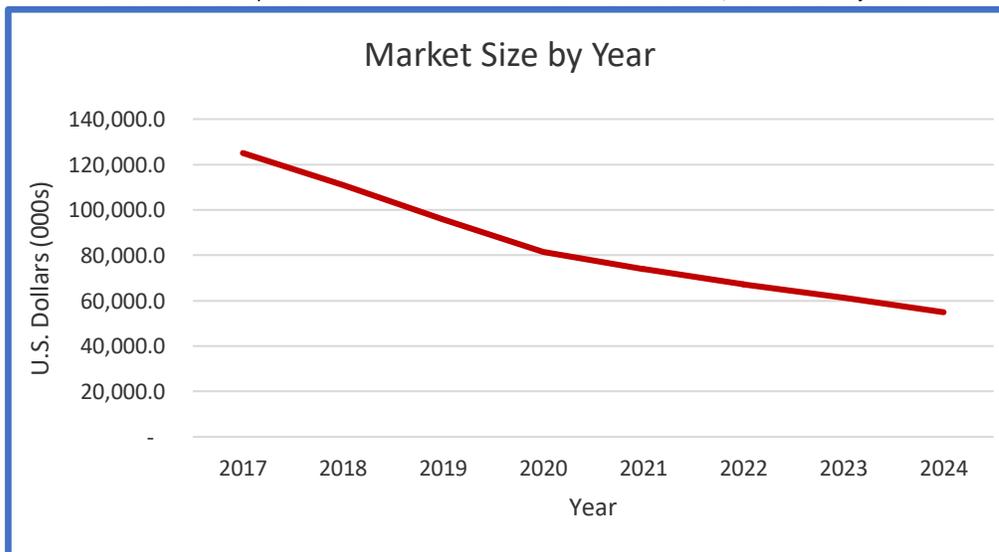
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Germany is estimated to be \$61.2 million dollars in 2023 and is expected to change by -10.3 percent from 2023 to 2024. The market will be 53 million Euros in 2023 and is forecast to change by -9.1 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	125,059.2	110,703.1
2018	110,914.7	93,919.6
2019	95,694.5	85,481.7
2020	81,450.1	71,310.1
2021	73,992.7	64,289.4
2022	67,234.0	58,357.0
2023	61,212.9	53,027.0
2024	54,917.5	47,519.2
2029	33,000.0	27,930.6
Y-to-Y Change	US Dollars	Euros
2017-2018	-11.3%	-15.2%
2018-2019	-13.7%	-9.0%
2019-2020	-14.9%	-16.6%
2020-2021	-9.2%	-9.8%
2021-2022	-9.1%	-9.2%
2022-2023	-9.0%	-9.1%
2023-2024	-10.3%	-10.4%
CAGR 2024-2029	-8.0%	-41.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Germany

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Germany will be \$22.23 million dollars in 2023 and the value added amount for the market will be \$35.57 million dollars. The cost of resales for this equipment is expected to reach \$1.54 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	22,232.14
Cost of resales (\$1,000)	1,543.15
Cost of purchased fuels consumed (\$1,000)	62.80
Cost of purchased electricity (\$1,000)	646.06
Cost of contract work (\$1,000)	825.86
Value of resales (\$1,000)	2,195.18
Value added (\$1,000)	35,570.10

Capital Expenses Estimates

The total capital expenses for this market in Germany will be \$2.48 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$2.05 million dollars. The expenditures for buildings for this equipment expected to reach \$0.42 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	2,476.37
Capital expenditures for buildings and other structures (\$1,000)	424.95
Capital expenditures for machinery and equipment (\$1,000)	2,051.41
Capital expenditures for automobiles, trucks, etc. (\$1,000)	25.28
Capital expenditures for computers and peripheral equip. (\$1,000)	167.54
Capital expenditures for all other machinery and equip. (\$1,000)	1,858.59

*2022-2023 Forecasts

Source: Barnes Reports

Hungary

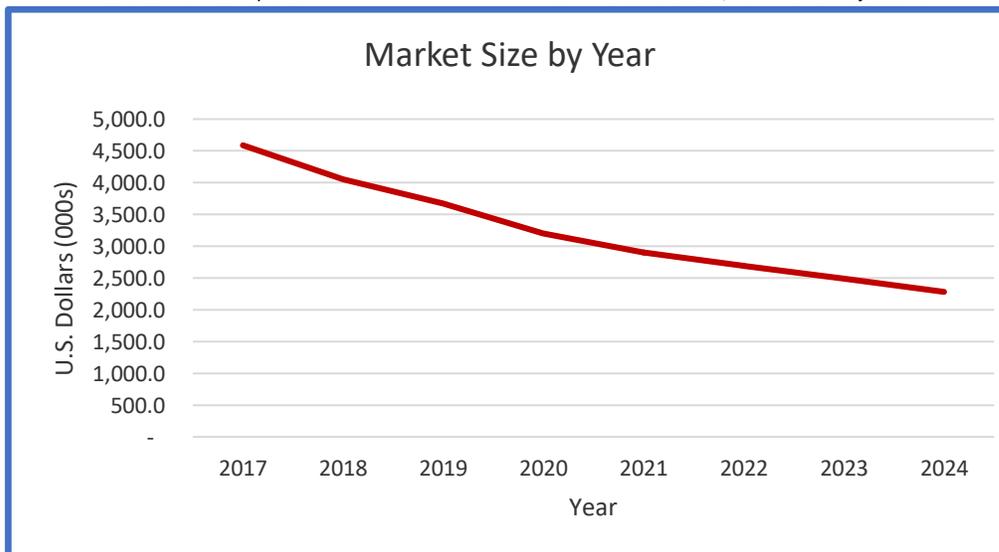
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Hungary is estimated to be \$2.5 million dollars in 2023 and is expected to change by -8.5 percent from 2023 to 2024. The market will be 828.2 million Forints in 2023 and is forecast to change by -3.5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Forints
2017	4,588.3	1,259,188.4
2018	4,050.7	1,094,559.8
2019	3,667.9	1,066,105.0
2020	3,202.6	986,395.4
2021	2,901.8	901,465.3
2022	2,691.8	858,502.6
2023	2,492.6	828,232.2
2024	2,281.9	744,723.6
2029	1,446.2	509,632.2
Y-to-Y Change	US Dollars	Forints
2017-2018	-11.7%	-13.1%
2018-2019	-9.5%	-2.6%
2019-2020	-12.7%	-7.5%
2020-2021	-9.4%	-8.6%
2021-2022	-7.2%	-4.8%
2022-2023	-7.4%	-3.5%
2023-2024	-8.5%	-10.1%
CAGR 2024-2029	-7.3%	-31.6%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Hungary

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Hungary will be \$0.91 million dollars in 2023 and the value added amount for the market will be \$1.45 million dollars. The cost of resales for this equipment is expected to reach \$0.06 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	905.31
Cost of resales (\$1,000)	62.84
Cost of purchased fuels consumed (\$1,000)	2.56
Cost of purchased electricity (\$1,000)	26.31
Cost of contract work (\$1,000)	33.63
Value of resales (\$1,000)	89.39
Value added (\$1,000)	1,448.44

Capital Expenses Estimates

The total capital expenses for this market in Hungary will be \$0.10 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.08 million dollars. The expenditures for buildings for this equipment expected to reach \$0.02 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	100.84
Capital expenditures for buildings and other structures (\$1,000)	17.30
Capital expenditures for machinery and equipment (\$1,000)	83.53
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.03
Capital expenditures for computers and peripheral equip. (\$1,000)	6.82
Capital expenditures for all other machinery and equip. (\$1,000)	75.68

*2022-2023 Forecasts

Source: Barnes Reports

India

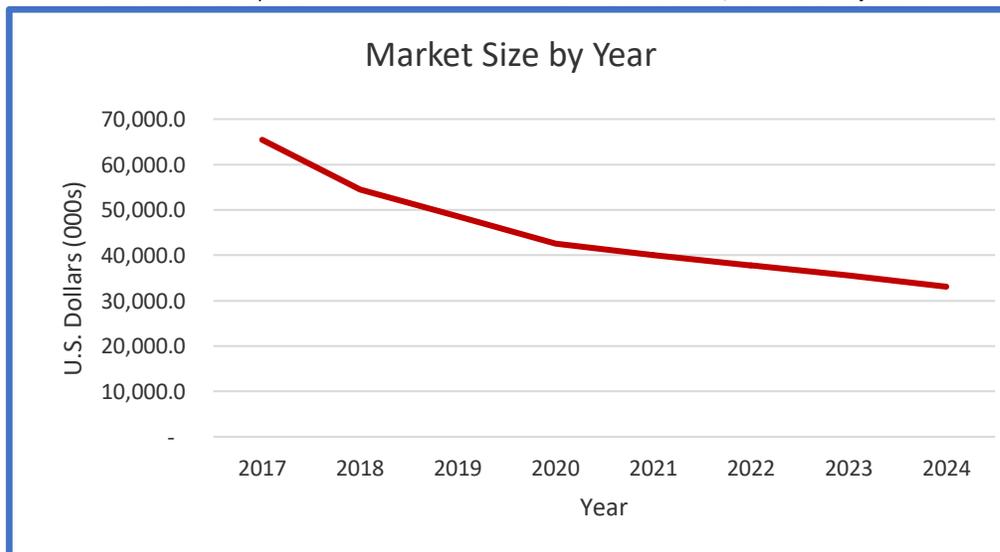
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in India is estimated to be \$35.6 million dollars in 2023 and is expected to change by -6.9 percent from 2023 to 2024. The market will be 2590.1 million Rupees in 2023 and is forecast to change by -5.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Rupees
2017	65,448.1	4,217,633.8
2018	54,461.2	3,808,086.2
2019	48,540.9	3,441,401.5
2020	42,541.0	3,157,604.1
2021	40,047.3	2,899,743.9
2022	37,758.2	2,739,127.7
2023	35,553.0	2,590,095.2
2024	33,083.2	2,415,386.9
2029	22,770.7	1,732,579.9
Y-to-Y Change	US Dollars	Rupees
2017-2018	-16.8%	-9.7%
2018-2019	-10.9%	-9.6%
2019-2020	-12.4%	-8.2%
2020-2021	-5.9%	-8.2%
2021-2022	-5.7%	-5.5%
2022-2023	-5.8%	-5.4%
2023-2024	-6.9%	-6.7%
CAGR 2024-2029	-6.2%	-28.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



India

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in India will be \$12.91 million dollars in 2023 and the value added amount for the market will be \$20.66 million dollars. The cost of resales for this equipment is expected to reach \$0.90 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	12,912.61
Cost of resales (\$1,000)	896.28
Cost of purchased fuels consumed (\$1,000)	36.48
Cost of purchased electricity (\$1,000)	375.24
Cost of contract work (\$1,000)	479.67
Value of resales (\$1,000)	1,274.98
Value added (\$1,000)	20,659.40

Capital Expenses Estimates

The total capital expenses for this market in India will be \$1.44 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$1.19 million dollars. The expenditures for buildings for this equipment expected to reach \$0.25 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	1,438.29
Capital expenditures for buildings and other structures (\$1,000)	246.82
Capital expenditures for machinery and equipment (\$1,000)	1,191.48
Capital expenditures for automobiles, trucks, etc. (\$1,000)	14.68
Capital expenditures for computers and peripheral equip. (\$1,000)	97.31
Capital expenditures for all other machinery and equip. (\$1,000)	1,079.48

*2022-2023 Forecasts

Source: Barnes Reports

Indonesia

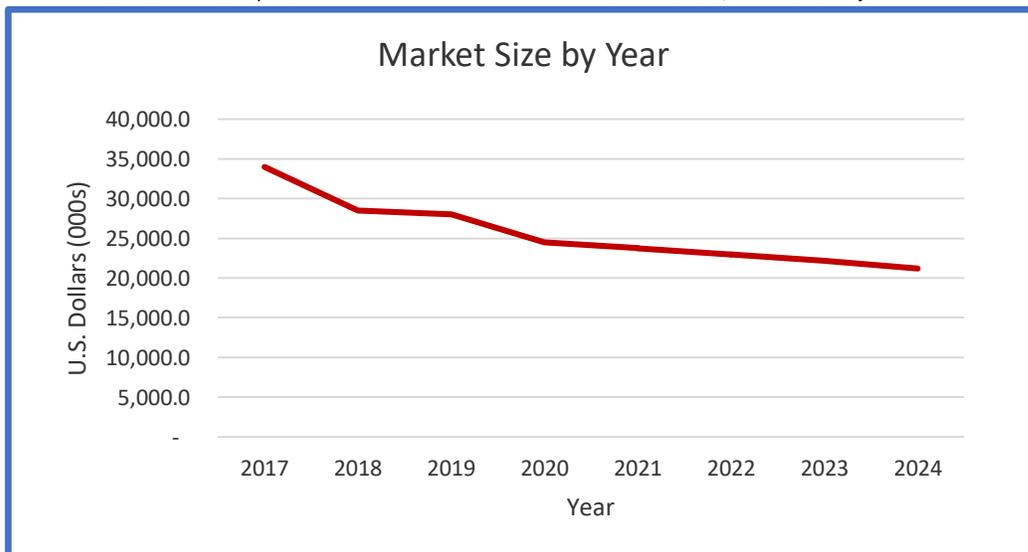
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Indonesia is estimated to be \$22.2 million dollars in 2023 and is expected to change by -4.5 percent from 2023 to 2024. The market will be 321875.1 million Rupiahs in 2023 and is forecast to change by -2.9 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Rupiahs
2017	33,976.9	454,551,468.4
2018	28,494.7	405,677,344.0
2019	27,977.9	395,822,575.7
2020	24,519.8	357,552,773.8
2021	23,729.1	341,845,498.6
2022	22,956.5	331,537,936.8
2023	22,194.6	321,875,121.3
2024	21,193.4	308,183,322.4
2029	16,941.1	252,214,080.9
Y-to-Y Change	US Dollars	Rupiahs
2017-2018	-16.1%	-10.8%
2018-2019	-1.8%	-2.4%
2019-2020	-12.4%	-9.7%
2020-2021	-3.2%	-4.4%
2021-2022	-3.3%	-3.0%
2022-2023	-3.3%	-2.9%
2023-2024	-4.5%	-4.3%
CAGR 2024-2029	-4.0%	-18.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Indonesia

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Indonesia will be \$8.06 million dollars in 2023 and the value added amount for the market will be \$12.90 million dollars. The cost of resales for this equipment is expected to reach \$0.56 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	8,060.95
Cost of resales (\$1,000)	559.52
Cost of purchased fuels consumed (\$1,000)	22.77
Cost of purchased electricity (\$1,000)	234.25
Cost of contract work (\$1,000)	299.44
Value of resales (\$1,000)	795.93
Value added (\$1,000)	12,897.04

Capital Expenses Estimates

The total capital expenses for this market in Indonesia will be \$0.90 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.74 million dollars. The expenditures for buildings for this equipment expected to reach \$0.15 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	897.88
Capital expenditures for buildings and other structures (\$1,000)	154.08
Capital expenditures for machinery and equipment (\$1,000)	743.80
Capital expenditures for automobiles, trucks, etc. (\$1,000)	9.17
Capital expenditures for computers and peripheral equip. (\$1,000)	60.75
Capital expenditures for all other machinery and equip. (\$1,000)	673.89

*2022-2023 Forecasts

Source: Barnes Reports

Ireland

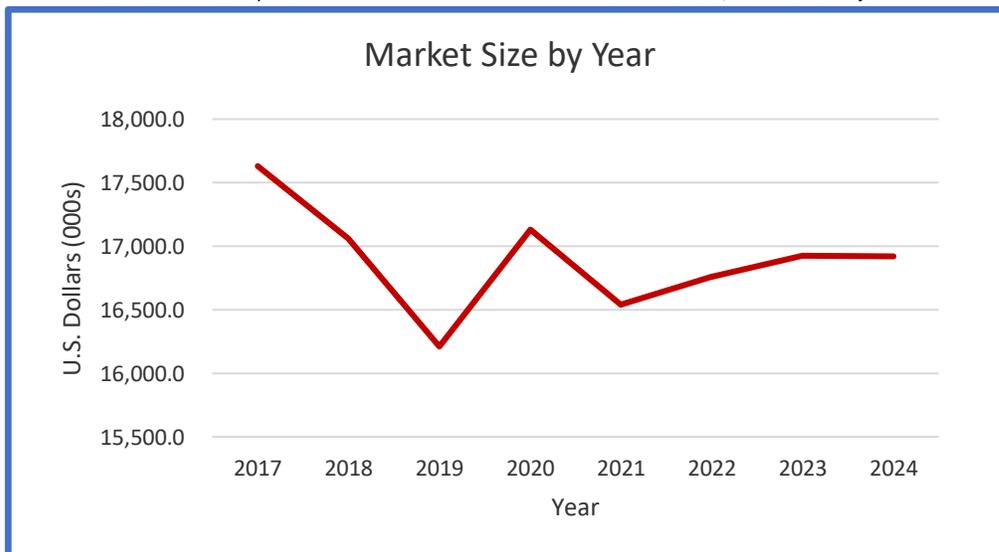
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Ireland is estimated to be \$16.9 million dollars in 2023 and is expected to change by 0 percent from 2023 to 2024. The market will be 14.9 million Euros in 2023 and is forecast to change by 1.9 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	17,630.3	15,606.4
2018	17,060.1	14,446.0
2019	16,210.7	14,480.6
2020	17,131.7	14,998.9
2021	16,541.0	14,394.9
2022	16,760.8	14,659.5
2023	16,922.8	14,944.5
2024	16,919.1	15,024.9
2029	15,969.6	15,697.0
Y-to-Y Change	US Dollars	Euros
2017-2018	-3.2%	-7.4%
2018-2019	-5.0%	0.2%
2019-2020	5.7%	3.6%
2020-2021	-3.4%	-4.0%
2021-2022	1.3%	1.8%
2022-2023	1.0%	1.9%
2023-2024	0.0%	0.5%
CAGR 2024-2029	-1.1%	4.5%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Ireland

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Ireland will be \$6.15 million dollars in 2023 and the value added amount for the market will be \$9.83 million dollars. The cost of resales for this equipment is expected to reach \$0.43 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	6,146.26
Cost of resales (\$1,000)	426.62
Cost of purchased fuels consumed (\$1,000)	17.36
Cost of purchased electricity (\$1,000)	178.61
Cost of contract work (\$1,000)	228.32
Value of resales (\$1,000)	606.87
Value added (\$1,000)	9,833.64

Capital Expenses Estimates

The total capital expenses for this market in Ireland will be \$0.68 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.57 million dollars. The expenditures for buildings for this equipment expected to reach \$0.12 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	684.61
Capital expenditures for buildings and other structures (\$1,000)	117.48
Capital expenditures for machinery and equipment (\$1,000)	567.13
Capital expenditures for automobiles, trucks, etc. (\$1,000)	6.99
Capital expenditures for computers and peripheral equip. (\$1,000)	46.32
Capital expenditures for all other machinery and equip. (\$1,000)	513.82

*2022-2023 Forecasts

Source: Barnes Reports

Israel

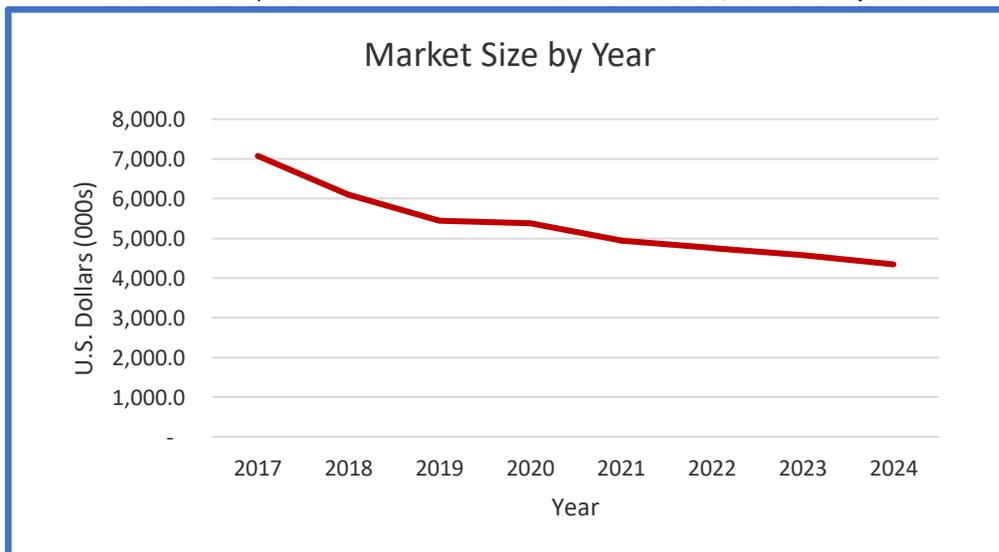
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Israel is estimated to be \$4.6 million dollars in 2023 and is expected to change by -5 percent from 2023 to 2024. The market will be 14.6 million New Shekels in 2023 and is forecast to change by -6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	New Shekels
2017	7,074.4	25,464.8
2018	6,099.3	21,900.0
2019	5,444.1	19,405.5
2020	5,372.4	18,494.1
2021	4,941.8	16,566.6
2022	4,758.6	15,548.7
2023	4,571.2	14,608.4
2024	4,343.7	13,535.7
2029	3,289.9	9,402.0
Y-to-Y Change	US Dollars	New Shekels
2017-2018	-13.8%	-14.0%
2018-2019	-10.7%	-11.4%
2019-2020	-1.3%	-4.7%
2020-2021	-8.0%	-10.4%
2021-2022	-3.7%	-6.1%
2022-2023	-3.9%	-6.0%
2023-2024	-5.0%	-7.3%
CAGR 2024-2029	-4.9%	-30.5%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Israel

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Israel will be \$1.66 million dollars in 2023 and the value added amount for the market will be \$2.66 million dollars. The cost of resales for this equipment is expected to reach \$0.12 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,660.22
Cost of resales (\$1,000)	115.24
Cost of purchased fuels consumed (\$1,000)	4.69
Cost of purchased electricity (\$1,000)	48.25
Cost of contract work (\$1,000)	61.67
Value of resales (\$1,000)	163.93
Value added (\$1,000)	2,656.26

Capital Expenses Estimates

The total capital expenses for this market in Israel will be \$0.18 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.15 million dollars. The expenditures for buildings for this equipment expected to reach \$0.03 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	184.93
Capital expenditures for buildings and other structures (\$1,000)	31.73
Capital expenditures for machinery and equipment (\$1,000)	153.19
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.89
Capital expenditures for computers and peripheral equip. (\$1,000)	12.51
Capital expenditures for all other machinery and equip. (\$1,000)	138.79

*2022-2023 Forecasts

Source: Barnes Reports

Italy

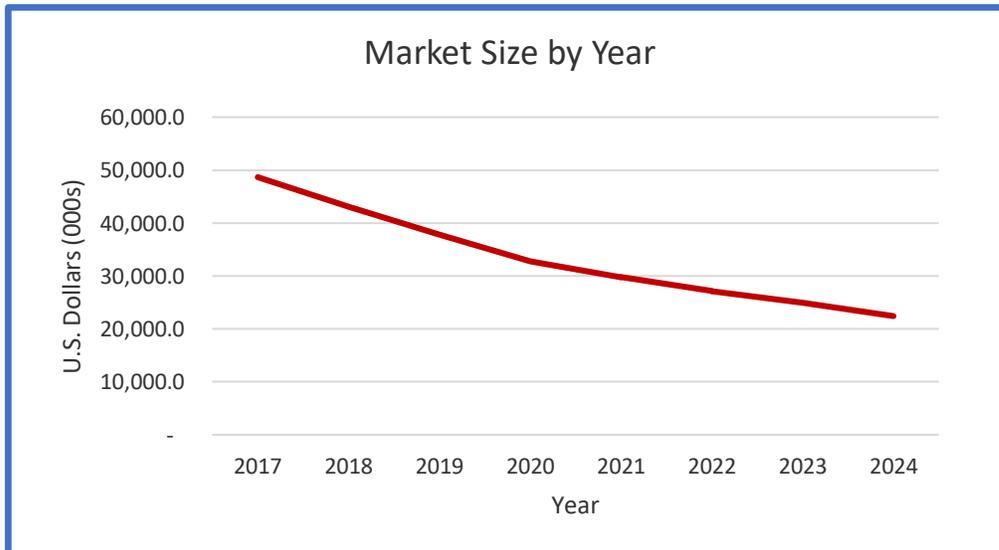
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Italy is estimated to be \$24.9 million dollars in 2023 and is expected to change by -9.9 percent from 2023 to 2024. The market will be 21.4 million Euros in 2023 and is forecast to change by -8.7 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	48,661.1	43,075.3
2018	43,059.5	36,461.6
2019	37,865.2	33,824.1
2020	32,729.3	28,654.7
2021	29,808.0	25,712.2
2022	27,177.0	23,456.8
2023	24,900.8	21,421.5
2024	22,423.7	19,292.9
2029	14,493.2	11,627.6
Y-to-Y Change	US Dollars	Euros
2017-2018	-11.5%	-15.4%
2018-2019	-12.1%	-7.2%
2019-2020	-13.6%	-15.3%
2020-2021	-8.9%	-10.3%
2021-2022	-8.8%	-8.8%
2022-2023	-8.4%	-8.7%
2023-2024	-9.9%	-9.9%
CAGR 2024-2029	-7.1%	-39.7%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Italy

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Italy will be \$9.04 million dollars in 2023 and the value added amount for the market will be \$14.47 million dollars. The cost of resales for this equipment is expected to reach \$0.63 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	9,043.80
Cost of resales (\$1,000)	627.74
Cost of purchased fuels consumed (\$1,000)	25.55
Cost of purchased electricity (\$1,000)	262.81
Cost of contract work (\$1,000)	335.95
Value of resales (\$1,000)	892.98
Value added (\$1,000)	14,469.55

Capital Expenses Estimates

The total capital expenses for this market in Italy will be \$1.01 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.83 million dollars. The expenditures for buildings for this equipment expected to reach \$0.17 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	1,007.36
Capital expenditures for buildings and other structures (\$1,000)	172.87
Capital expenditures for machinery and equipment (\$1,000)	834.49
Capital expenditures for automobiles, trucks, etc. (\$1,000)	10.28
Capital expenditures for computers and peripheral equip. (\$1,000)	68.15
Capital expenditures for all other machinery and equip. (\$1,000)	756.05

*2022-2023 Forecasts

Source: Barnes Reports

Japan

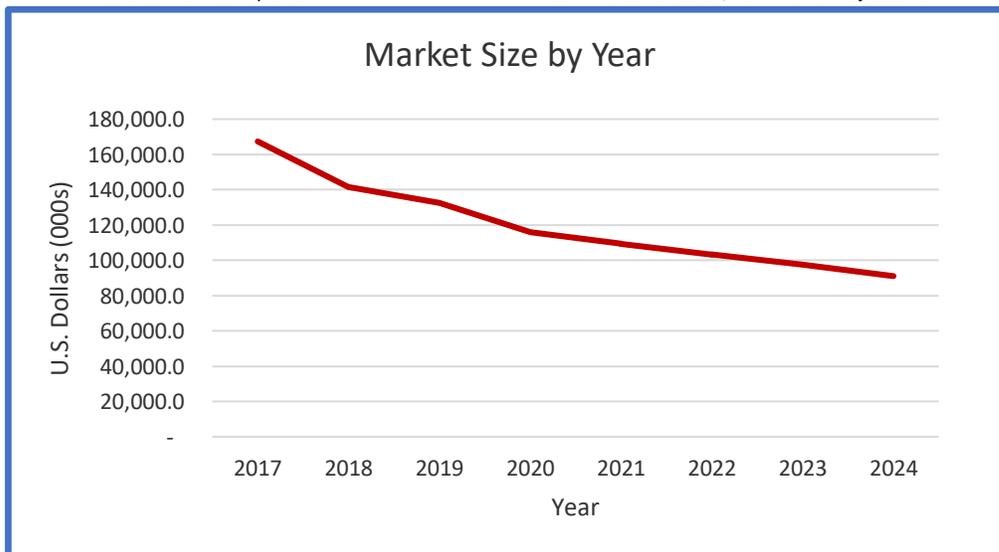
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Japan is estimated to be \$97.7 million dollars in 2023 and is expected to change by -6.8 percent from 2023 to 2024. The market will be 9773.7 million Yens in 2023 and is forecast to change by -7.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Yens
2017	167,366.1	18,746,146.6
2018	141,486.0	15,623,332.3
2019	132,661.9	14,461,433.7
2020	115,994.3	12,385,247.6
2021	109,308.5	11,393,611.1
2022	103,237.9	10,547,153.1
2023	97,668.9	9,773,720.8
2024	91,074.0	8,932,070.6
2029	67,116.6	5,791,150.1
Y-to-Y Change	US Dollars	Yens
2017-2018	-15.5%	-16.7%
2018-2019	-6.2%	-7.4%
2019-2020	-12.6%	-14.4%
2020-2021	-5.8%	-8.0%
2021-2022	-5.6%	-7.4%
2022-2023	-5.4%	-7.3%
2023-2024	-6.8%	-8.6%
CAGR 2024-2029	-5.3%	-35.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Japan

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Japan will be \$35.47 million dollars in 2023 and the value added amount for the market will be \$56.75 million dollars. The cost of resales for this equipment is expected to reach \$2.46 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	35,472.70
Cost of resales (\$1,000)	2,462.19
Cost of purchased fuels consumed (\$1,000)	100.21
Cost of purchased electricity (\$1,000)	1,030.83
Cost of contract work (\$1,000)	1,317.71
Value of resales (\$1,000)	3,502.54
Value added (\$1,000)	56,754.21

Capital Expenses Estimates

The total capital expenses for this market in Japan will be \$3.95 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$3.27 million dollars. The expenditures for buildings for this equipment expected to reach \$0.68 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	3,951.19
Capital expenditures for buildings and other structures (\$1,000)	678.04
Capital expenditures for machinery and equipment (\$1,000)	3,273.15
Capital expenditures for automobiles, trucks, etc. (\$1,000)	40.34
Capital expenditures for computers and peripheral equip. (\$1,000)	267.32
Capital expenditures for all other machinery and equip. (\$1,000)	2,965.49

*2022-2023 Forecasts

Source: Barnes Reports

South Korea

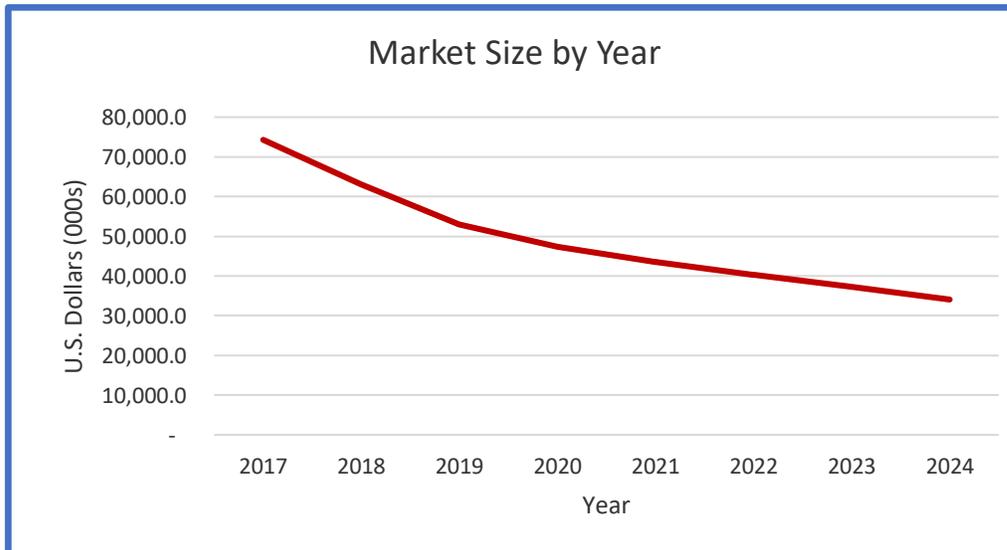
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in South Korea is estimated to be \$37.3 million dollars in 2023 and is expected to change by -8.7 percent from 2023 to 2024. The market will be 44736.8 million Wons in 2023 and is forecast to change by -6.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Wons
2017	74,286.9	79,158,680.2
2018	63,109.9	69,452,432.4
2019	52,909.2	61,658,104.0
2020	47,359.2	55,896,404.7
2021	43,533.6	51,097,191.3
2022	40,275.4	47,786,513.4
2023	37,305.2	44,736,754.6
2024	34,073.0	41,303,908.4
2029	22,136.5	28,182,278.4
Y-to-Y Change	US Dollars	Wons
2017-2018	-15.0%	-12.3%
2018-2019	-16.2%	-11.2%
2019-2020	-10.5%	-9.3%
2020-2021	-8.1%	-8.6%
2021-2022	-7.5%	-6.5%
2022-2023	-7.4%	-6.4%
2023-2024	-8.7%	-7.7%
CAGR 2024-2029	-7.0%	-31.8%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



South Korea

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in South Korea will be \$13.55 million dollars in 2023 and the value added amount for the market will be \$21.68 million dollars. The cost of resales for this equipment is expected to reach \$0.94 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	13,548.99
Cost of resales (\$1,000)	940.45
Cost of purchased fuels consumed (\$1,000)	38.27
Cost of purchased electricity (\$1,000)	393.73
Cost of contract work (\$1,000)	503.31
Value of resales (\$1,000)	1,337.81
Value added (\$1,000)	21,677.58

Capital Expenses Estimates

The total capital expenses for this market in South Korea will be \$1.51 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$1.25 million dollars. The expenditures for buildings for this equipment expected to reach \$0.26 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	1,509.18
Capital expenditures for buildings and other structures (\$1,000)	258.98
Capital expenditures for machinery and equipment (\$1,000)	1,250.20
Capital expenditures for automobiles, trucks, etc. (\$1,000)	15.41
Capital expenditures for computers and peripheral equip. (\$1,000)	102.11
Capital expenditures for all other machinery and equip. (\$1,000)	1,132.68

*2022-2023 Forecasts

Source: Barnes Reports

Malaysia

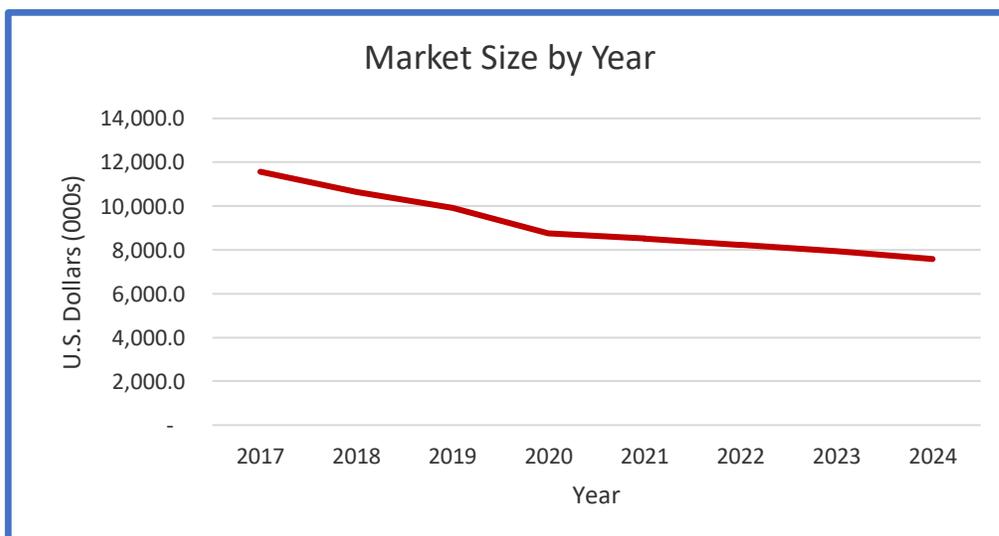
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Malaysia is estimated to be \$7.9 million dollars in 2023 and is expected to change by -4.6 percent from 2023 to 2024. The market will be 31.4 million Ringgits in 2023 and is forecast to change by -4.5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Ringgits
2017	11,566.2	49,739.1
2018	10,642.7	42,944.3
2019	9,921.9	41,101.7
2020	8,750.2	36,781.3
2021	8,512.0	34,513.4
2022	8,222.5	32,917.8
2023	7,949.9	31,428.6
2024	7,581.2	29,592.8
2029	6,162.7	22,276.4
Y-to-Y Change	US Dollars	Ringgits
2017-2018	-8.0%	-13.7%
2018-2019	-6.8%	-4.3%
2019-2020	-11.8%	-10.5%
2020-2021	-2.7%	-6.2%
2021-2022	-3.4%	-4.6%
2022-2023	-3.3%	-4.5%
2023-2024	-4.6%	-5.8%
CAGR 2024-2029	-3.7%	-24.7%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Malaysia

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Malaysia will be \$2.89 million dollars in 2023 and the value added amount for the market will be \$4.62 million dollars. The cost of resales for this equipment is expected to reach \$0.20 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,887.34
Cost of resales (\$1,000)	200.41
Cost of purchased fuels consumed (\$1,000)	8.16
Cost of purchased electricity (\$1,000)	83.91
Cost of contract work (\$1,000)	107.26
Value of resales (\$1,000)	285.09
Value added (\$1,000)	4,619.57

Capital Expenses Estimates

The total capital expenses for this market in Malaysia will be \$0.32 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.27 million dollars. The expenditures for buildings for this equipment expected to reach \$0.06 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	321.61
Capital expenditures for buildings and other structures (\$1,000)	55.19
Capital expenditures for machinery and equipment (\$1,000)	266.42
Capital expenditures for automobiles, trucks, etc. (\$1,000)	3.28
Capital expenditures for computers and peripheral equip. (\$1,000)	21.76
Capital expenditures for all other machinery and equip. (\$1,000)	241.38

*2022-2023 Forecasts

Source: Barnes Reports

Mexico

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Mexico is estimated to be \$16.5 million dollars in 2023 and is expected to change by -11 percent from 2023 to 2024. The market will be 390.6 million Pesos in 2023 and is forecast to change by -5.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Pesos
2017	33,151.1	627,434.5
2018	29,103.8	560,082.8
2019	27,899.0	537,435.2
2020	21,844.9	469,349.9
2021	20,150.6	436,938.7
2022	18,156.5	412,912.1
2023	16,459.6	390,611.9
2024	14,650.4	364,418.9
2029	9,113.4	261,956.9
Y-to-Y Change	US Dollars	Pesos
2017-2018	-12.2%	-10.7%
2018-2019	-4.1%	-4.0%
2019-2020	-21.7%	-12.7%
2020-2021	-7.8%	-6.9%
2021-2022	-9.9%	-5.5%
2022-2023	-9.3%	-5.4%
2023-2024	-11.0%	-6.7%
CAGR 2024-2029	-7.6%	-28.1%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Mexico

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Mexico will be \$5.98 million dollars in 2023 and the value added amount for the market will be \$9.56 million dollars. The cost of resales for this equipment is expected to reach \$0.41 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	5,978.03
Cost of resales (\$1,000)	414.94
Cost of purchased fuels consumed (\$1,000)	16.89
Cost of purchased electricity (\$1,000)	173.72
Cost of contract work (\$1,000)	222.07
Value of resales (\$1,000)	590.26
Value added (\$1,000)	9,564.50

Capital Expenses Estimates

The total capital expenses for this market in Mexico will be \$0.67 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.55 million dollars. The expenditures for buildings for this equipment expected to reach \$0.11 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	665.87
Capital expenditures for buildings and other structures (\$1,000)	114.27
Capital expenditures for machinery and equipment (\$1,000)	551.61
Capital expenditures for automobiles, trucks, etc. (\$1,000)	6.80
Capital expenditures for computers and peripheral equip. (\$1,000)	45.05
Capital expenditures for all other machinery and equip. (\$1,000)	499.76

*2022-2023 Forecasts

Source: Barnes Reports

Netherlands

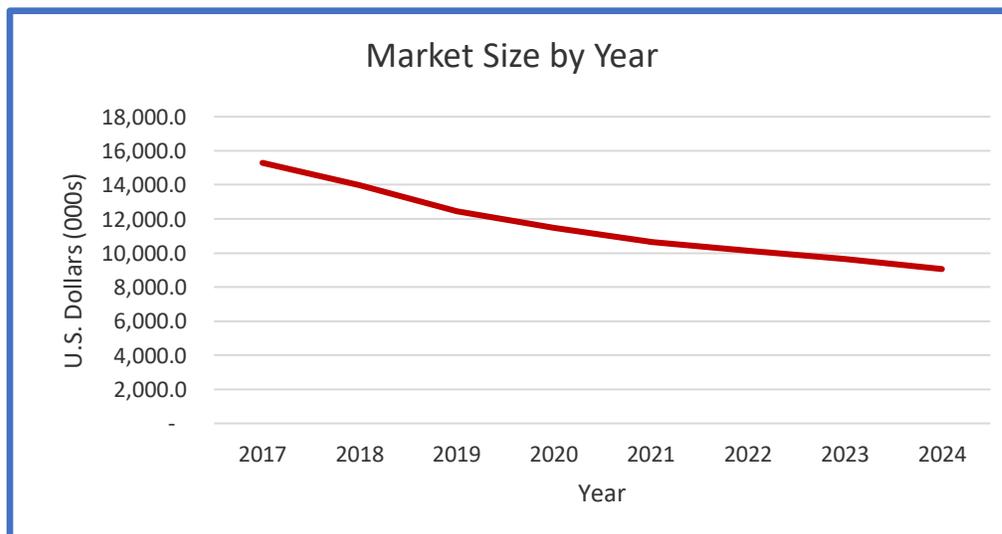
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Netherlands is estimated to be \$9.6 million dollars in 2023 and is expected to change by -6.1 percent from 2023 to 2024. The market will be 8.2 million Euros in 2023 and is forecast to change by -5.5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	15,290.9	13,535.6
2018	13,974.0	11,832.8
2019	12,443.2	11,115.2
2020	11,465.9	10,038.5
2021	10,649.5	9,226.6
2022	10,134.6	8,714.4
2023	9,643.8	8,239.2
2024	9,059.1	7,682.4
2029	6,695.3	5,507.0
Y-to-Y Change	US Dollars	Euros
2017-2018	-8.6%	-12.6%
2018-2019	-11.0%	-6.1%
2019-2020	-7.9%	-9.7%
2020-2021	-7.1%	-8.1%
2021-2022	-4.8%	-5.6%
2022-2023	-4.8%	-5.5%
2023-2024	-6.1%	-6.8%
CAGR 2024-2029	-5.2%	-28.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Netherlands

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Netherlands will be \$3.50 million dollars in 2023 and the value added amount for the market will be \$5.60 million dollars. The cost of resales for this equipment is expected to reach \$0.24 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	3,502.57
Cost of resales (\$1,000)	243.12
Cost of purchased fuels consumed (\$1,000)	9.89
Cost of purchased electricity (\$1,000)	101.78
Cost of contract work (\$1,000)	130.11
Value of resales (\$1,000)	345.84
Value added (\$1,000)	5,603.90

Capital Expenses Estimates

The total capital expenses for this market in Netherlands will be \$0.39 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.32 million dollars. The expenditures for buildings for this equipment expected to reach \$0.07 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	390.14
Capital expenditures for buildings and other structures (\$1,000)	66.95
Capital expenditures for machinery and equipment (\$1,000)	323.19
Capital expenditures for automobiles, trucks, etc. (\$1,000)	3.98
Capital expenditures for computers and peripheral equip. (\$1,000)	26.40
Capital expenditures for all other machinery and equip. (\$1,000)	292.81

*2022-2023 Forecasts

Source: Barnes Reports

Nigeria

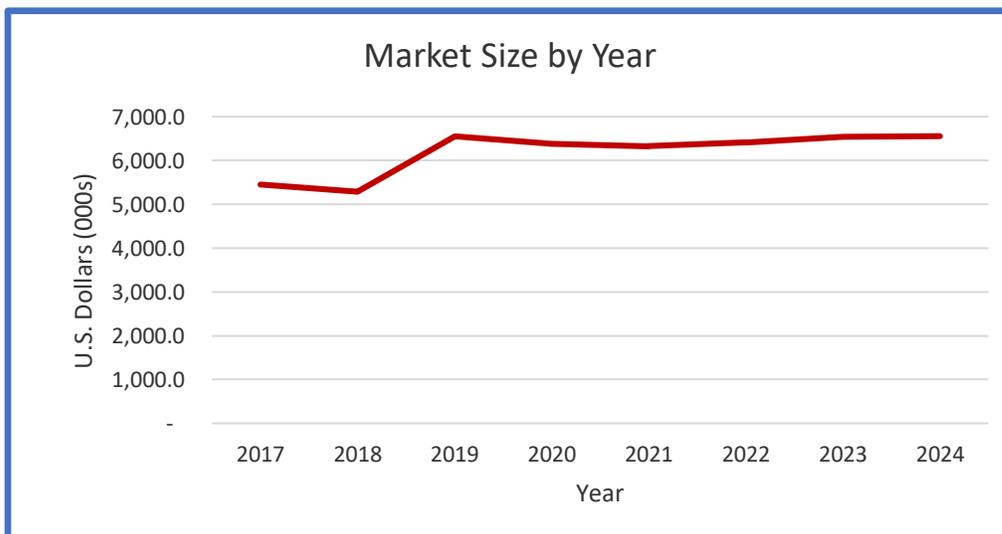
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Nigeria is estimated to be \$6.5 million dollars in 2023 and is expected to change by 0.1 percent from 2023 to 2024. The market will be 3487.5 million Nairas in 2023 and is forecast to change by 17.2 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Nairas
2017	5,449.8	1,666,501.9
2018	5,287.8	1,714,337.5
2019	6,551.5	2,129,227.2
2020	6,381.8	2,277,159.5
2021	6,329.8	2,572,959.9
2022	6,414.7	2,976,215.6
2023	6,543.1	3,487,495.7
2024	6,550.6	3,808,863.7
2029	7,402.8	6,890,505.9
Y-to-Y Change	US Dollars	Nairas
2017-2018	-3.0%	2.9%
2018-2019	23.9%	24.2%
2019-2020	-2.6%	6.9%
2020-2021	-0.8%	13.0%
2021-2022	1.3%	15.7%
2022-2023	2.0%	17.2%
2023-2024	0.1%	9.2%
CAGR 2024-2029	2.6%	80.9%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Nigeria

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Nigeria will be \$2.38 million dollars in 2023 and the value added amount for the market will be \$3.80 million dollars. The cost of resales for this equipment is expected to reach \$0.16 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,376.40
Cost of resales (\$1,000)	164.95
Cost of purchased fuels consumed (\$1,000)	6.71
Cost of purchased electricity (\$1,000)	69.06
Cost of contract work (\$1,000)	88.28
Value of resales (\$1,000)	234.64
Value added (\$1,000)	3,802.10

Capital Expenses Estimates

The total capital expenses for this market in Nigeria will be \$0.26 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.22 million dollars. The expenditures for buildings for this equipment expected to reach \$0.05 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	264.70
Capital expenditures for buildings and other structures (\$1,000)	45.42
Capital expenditures for machinery and equipment (\$1,000)	219.28
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.70
Capital expenditures for computers and peripheral equip. (\$1,000)	17.91
Capital expenditures for all other machinery and equip. (\$1,000)	198.67

*2022-2023 Forecasts

Source: Barnes Reports

Norway

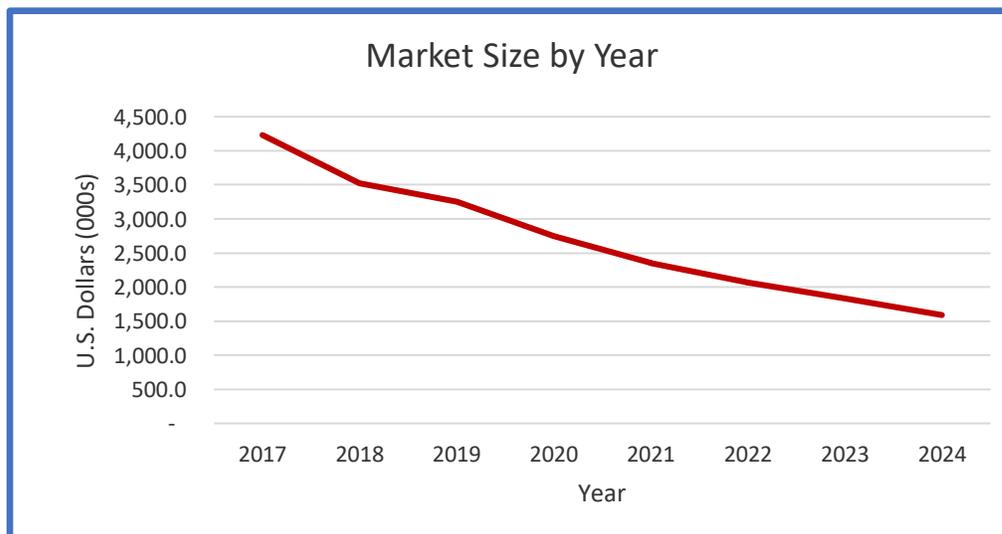
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Norway is estimated to be \$1.8 million dollars in 2023 and is expected to change by -13.2 percent from 2023 to 2024. The market will be 19.1 million Kroner in 2023 and is forecast to change by -7.7 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Krones
2017	4,230.5	34,993.7
2018	3,525.1	28,667.5
2019	3,248.5	28,586.8
2020	2,747.6	25,871.4
2021	2,351.7	22,387.1
2022	2,067.2	20,646.6
2023	1,830.6	19,061.2
2024	1,589.8	17,354.8
2029	896.1	11,043.7
Y-to-Y Change	US Dollars	Krones
2017-2018	-16.7%	-18.1%
2018-2019	-7.8%	-0.3%
2019-2020	-15.4%	-9.5%
2020-2021	-14.4%	-13.5%
2021-2022	-12.1%	-7.8%
2022-2023	-11.4%	-7.7%
2023-2024	-13.2%	-9.0%
CAGR 2024-2029	-8.7%	-36.4%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Norway

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Norway will be \$0.66 million dollars in 2023 and the value added amount for the market will be \$1.06 million dollars. The cost of resales for this equipment is expected to reach \$0.05 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	664.85
Cost of resales (\$1,000)	46.15
Cost of purchased fuels consumed (\$1,000)	1.88
Cost of purchased electricity (\$1,000)	19.32
Cost of contract work (\$1,000)	24.70
Value of resales (\$1,000)	65.65
Value added (\$1,000)	1,063.73

Capital Expenses Estimates

The total capital expenses for this market in Norway will be \$0.07 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.06 million dollars. The expenditures for buildings for this equipment expected to reach \$0.01 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	74.06
Capital expenditures for buildings and other structures (\$1,000)	12.71
Capital expenditures for machinery and equipment (\$1,000)	61.35
Capital expenditures for automobiles, trucks, etc. (\$1,000)	0.76
Capital expenditures for computers and peripheral equip. (\$1,000)	5.01
Capital expenditures for all other machinery and equip. (\$1,000)	55.58

*2022-2023 Forecasts

Source: Barnes Reports

Pakistan

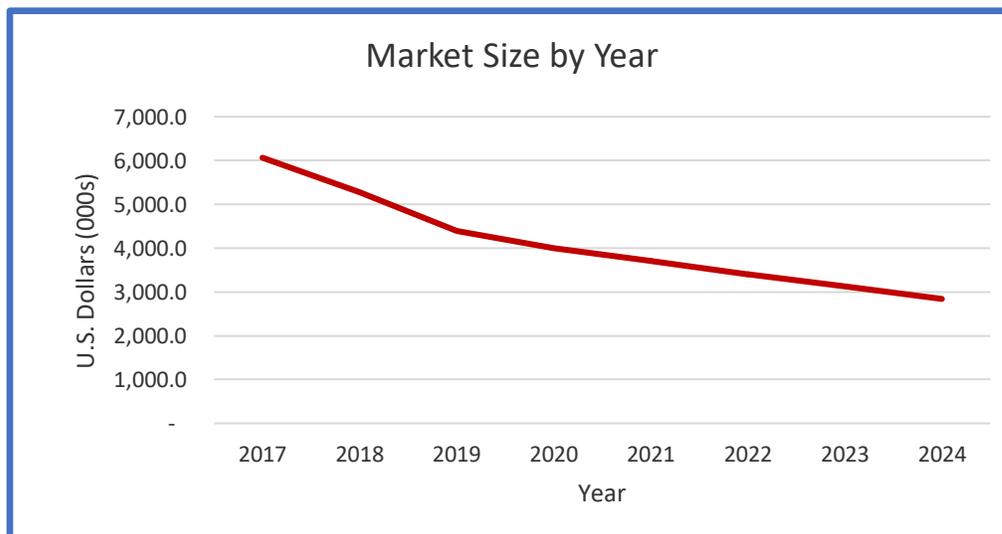
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Pakistan is estimated to be \$3.1 million dollars in 2023 and is expected to change by -9.4 percent from 2023 to 2024. The market will be 723.2 million Rupees in 2023 and is forecast to change by 6.9 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Rupees
2017	6,063.0	635,478.4
2018	5,275.2	580,508.2
2019	4,397.5	600,185.0
2020	3,996.9	632,485.9
2021	3,706.9	641,328.4
2022	3,401.5	676,641.6
2023	3,134.8	723,194.0
2024	2,841.0	720,416.1
2029	1,875.6	822,760.2
Y-to-Y Change	US Dollars	Rupees
2017-2018	-13.0%	-8.7%
2018-2019	-16.6%	3.4%
2019-2020	-9.1%	5.4%
2020-2021	-7.3%	1.4%
2021-2022	-8.2%	5.5%
2022-2023	-7.8%	6.9%
2023-2024	-9.4%	-0.4%
CAGR 2024-2029	-6.8%	14.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Pakistan

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Pakistan will be \$1.14 million dollars in 2023 and the value added amount for the market will be \$1.82 million dollars. The cost of resales for this equipment is expected to reach \$0.08 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,138.55
Cost of resales (\$1,000)	79.03
Cost of purchased fuels consumed (\$1,000)	3.22
Cost of purchased electricity (\$1,000)	33.09
Cost of contract work (\$1,000)	42.29
Value of resales (\$1,000)	112.42
Value added (\$1,000)	1,821.61

Capital Expenses Estimates

The total capital expenses for this market in Pakistan will be \$0.13 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.11 million dollars. The expenditures for buildings for this equipment expected to reach \$0.02 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	126.82
Capital expenditures for buildings and other structures (\$1,000)	21.76
Capital expenditures for machinery and equipment (\$1,000)	105.06
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.29
Capital expenditures for computers and peripheral equip. (\$1,000)	8.58
Capital expenditures for all other machinery and equip. (\$1,000)	95.18

*2022-2023 Forecasts

Source: Barnes Reports

Philippines

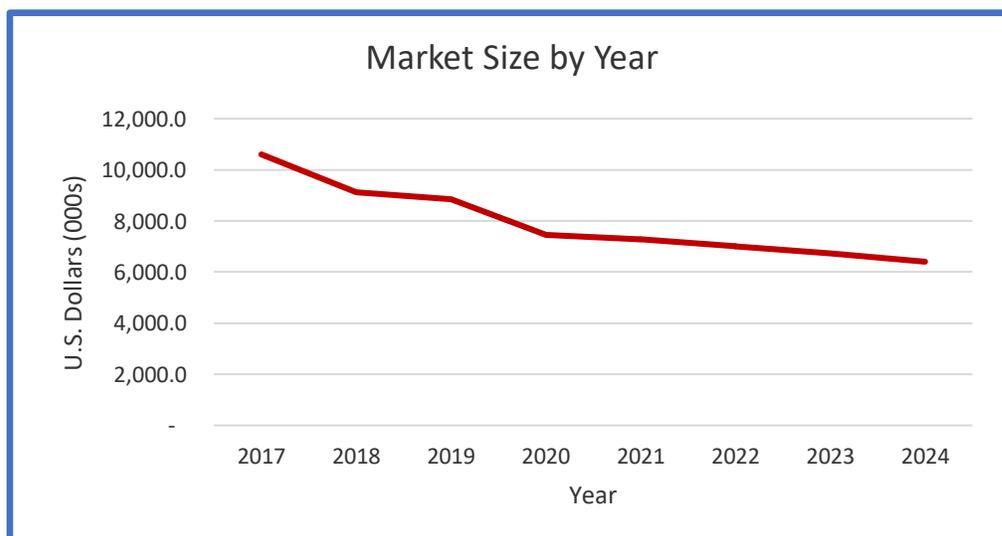
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Philippines is estimated to be \$6.7 million dollars in 2023 and is expected to change by -5 percent from 2023 to 2024. The market will be 342.1 million Pesos in 2023 and is forecast to change by -3.9 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Pesos
2017	10,602.8	510,241.9
2018	9,117.2	480,122.3
2019	8,853.2	458,556.2
2020	7,444.5	369,425.9
2021	7,281.8	370,925.9
2022	7,010.1	356,017.3
2023	6,740.6	342,062.8
2024	6,404.6	324,121.8
2029	4,905.0	251,809.1
Y-to-Y Change	US Dollars	Pesos
2017-2018	-14.0%	-5.9%
2018-2019	-2.9%	-4.5%
2019-2020	-15.9%	-19.4%
2020-2021	-2.2%	0.4%
2021-2022	-3.7%	-4.0%
2022-2023	-3.8%	-3.9%
2023-2024	-5.0%	-5.2%
CAGR 2024-2029	-4.7%	-22.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Philippines

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Philippines will be \$2.45 million dollars in 2023 and the value added amount for the market will be \$3.92 million dollars. The cost of resales for this equipment is expected to reach \$0.17 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,448.15
Cost of resales (\$1,000)	169.93
Cost of purchased fuels consumed (\$1,000)	6.92
Cost of purchased electricity (\$1,000)	71.14
Cost of contract work (\$1,000)	90.94
Value of resales (\$1,000)	241.73
Value added (\$1,000)	3,916.90

Capital Expenses Estimates

The total capital expenses for this market in Philippines will be \$0.27 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.23 million dollars. The expenditures for buildings for this equipment expected to reach \$0.05 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	272.69
Capital expenditures for buildings and other structures (\$1,000)	46.80
Capital expenditures for machinery and equipment (\$1,000)	225.90
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.78
Capital expenditures for computers and peripheral equip. (\$1,000)	18.45
Capital expenditures for all other machinery and equip. (\$1,000)	204.66

*2022-2023 Forecasts

Source: Barnes Reports

Poland

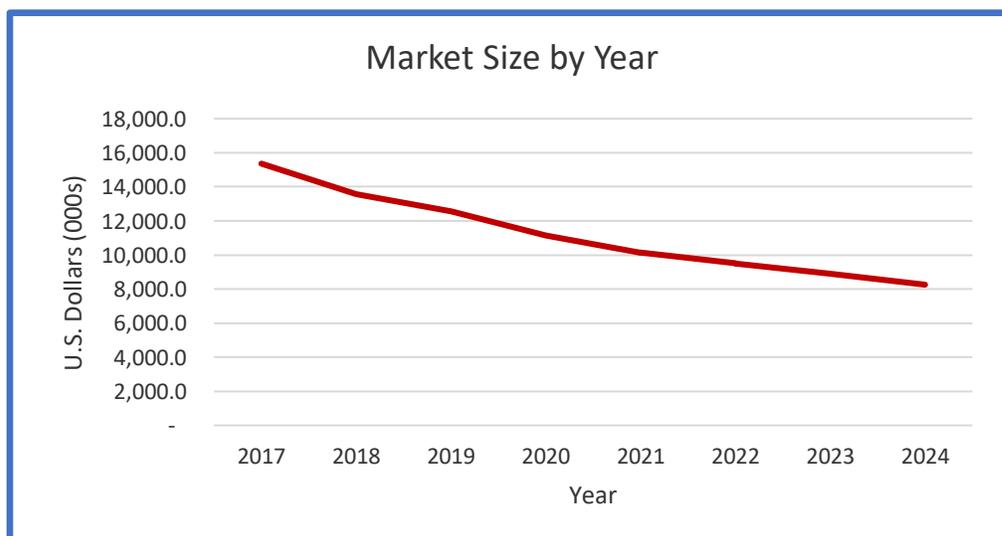
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Poland is estimated to be \$8.9 million dollars in 2023 and is expected to change by -7.4 percent from 2023 to 2024. The market will be 35.1 million Zlotys in 2023 and is forecast to change by -5.6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Zlotys
2017	15,361.8	58,038.9
2018	13,563.6	48,987.5
2019	12,579.9	48,298.9
2020	11,142.2	43,451.3
2021	10,142.7	39,448.6
2022	9,517.2	37,191.2
2023	8,917.9	35,099.4
2024	8,258.7	32,668.3
2029	5,552.6	23,206.7
Y-to-Y Change	US Dollars	Zlotys
2017-2018	-11.7%	-15.6%
2018-2019	-7.3%	-1.4%
2019-2020	-11.4%	-10.0%
2020-2021	-9.0%	-9.2%
2021-2022	-6.2%	-5.7%
2022-2023	-6.3%	-5.6%
2023-2024	-7.4%	-6.9%
CAGR 2024-2029	-6.6%	-29.0%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Poland

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Poland will be \$3.24 million dollars in 2023 and the value added amount for the market will be \$5.18 million dollars. The cost of resales for this equipment is expected to reach \$0.22 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	3,238.93
Cost of resales (\$1,000)	224.82
Cost of purchased fuels consumed (\$1,000)	9.15
Cost of purchased electricity (\$1,000)	94.12
Cost of contract work (\$1,000)	120.32
Value of resales (\$1,000)	319.81
Value added (\$1,000)	5,182.09

Capital Expenses Estimates

The total capital expenses for this market in Poland will be \$0.36 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.30 million dollars. The expenditures for buildings for this equipment expected to reach \$0.06 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	360.77
Capital expenditures for buildings and other structures (\$1,000)	61.91
Capital expenditures for machinery and equipment (\$1,000)	298.86
Capital expenditures for automobiles, trucks, etc. (\$1,000)	3.68
Capital expenditures for computers and peripheral equip. (\$1,000)	24.41
Capital expenditures for all other machinery and equip. (\$1,000)	270.77

*2022-2023 Forecasts

Source: Barnes Reports

Puerto Rico

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Puerto Rico is estimated to be \$4.5 million dollars in 2023 and is expected to change by -8.7 percent from 2023 to 2024. The market will be 4.7 million Dollars in 2023 and is forecast to change by -5.5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dollars
2017	8,301.3	8,365.9
2018	6,583.8	6,583.8
2019	6,291.0	6,291.0
2020	5,798.7	5,798.7
2021	5,293.7	5,292.1
2022	4,893.3	4,997.8
2023	4,549.1	4,724.7
2024	4,153.7	4,404.9
2029	2,916.1	3,155.8
Y-to-Y Change	US Dollars	Dollars
2017-2018	-20.7%	-21.3%
2018-2019	-4.4%	-4.4%
2019-2020	-7.8%	-7.8%
2020-2021	-8.7%	-8.7%
2021-2022	-7.6%	-5.6%
2022-2023	-7.0%	-5.5%
2023-2024	-8.7%	-6.8%
CAGR 2024-2029	-6.0%	-28.4%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Puerto Rico

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Puerto Rico will be \$1.65 million dollars in 2023 and the value added amount for the market will be \$2.64 million dollars. The cost of resales for this equipment is expected to reach \$0.11 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,652.20
Cost of resales (\$1,000)	114.68
Cost of purchased fuels consumed (\$1,000)	4.67
Cost of purchased electricity (\$1,000)	48.01
Cost of contract work (\$1,000)	61.37
Value of resales (\$1,000)	163.14
Value added (\$1,000)	2,643.42

Capital Expenses Estimates

The total capital expenses for this market in Puerto Rico will be \$0.18 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.15 million dollars. The expenditures for buildings for this equipment expected to reach \$0.03 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	184.03
Capital expenditures for buildings and other structures (\$1,000)	31.58
Capital expenditures for machinery and equipment (\$1,000)	152.45
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.88
Capital expenditures for computers and peripheral equip. (\$1,000)	12.45
Capital expenditures for all other machinery and equip. (\$1,000)	138.12

*2022-2023 Forecasts

Source: Barnes Reports

Romania

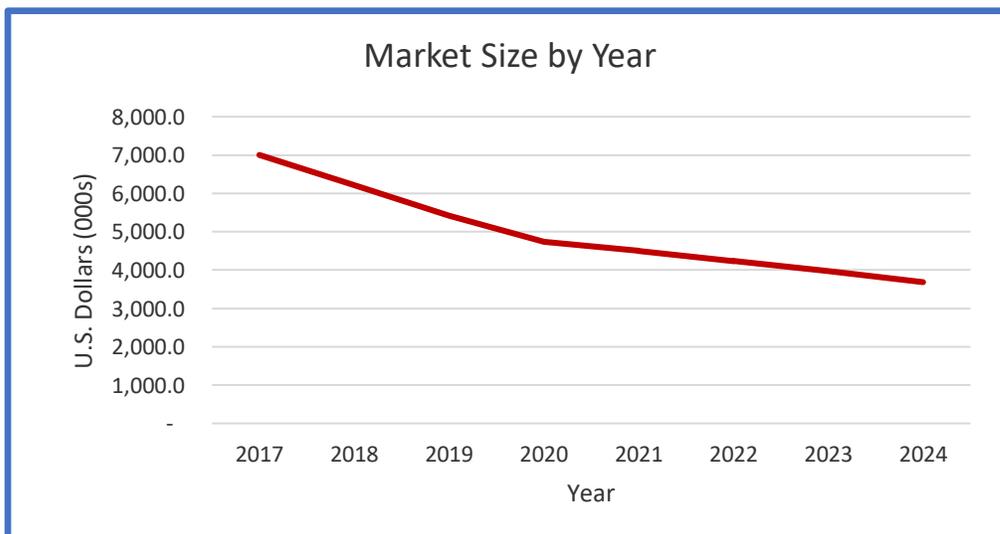
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Romania is estimated to be \$4.0 million dollars in 2023 and is expected to change by -7.2 percent from 2023 to 2024. The market will be 17.4 million Leus in 2023 and is forecast to change by -3.9 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Leus
2017	7,002.3	28,376.8
2018	6,221.7	24,523.5
2019	5,416.6	22,955.0
2020	4,728.7	20,068.8
2021	4,497.3	19,058.8
2022	4,231.5	18,077.0
2023	3,968.6	17,369.1
2024	3,684.5	15,554.6
2029	2,425.3	10,430.8
Y-to-Y Change	US Dollars	Leus
2017-2018	-11.1%	-13.6%
2018-2019	-12.9%	-6.4%
2019-2020	-12.7%	-12.6%
2020-2021	-4.9%	-5.0%
2021-2022	-5.9%	-5.2%
2022-2023	-6.2%	-3.9%
2023-2024	-7.2%	-10.4%
CAGR 2024-2029	-6.8%	-32.9%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Romania

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Romania will be \$1.44 million dollars in 2023 and the value added amount for the market will be \$2.31 million dollars. The cost of resales for this equipment is expected to reach \$0.10 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,441.36
Cost of resales (\$1,000)	100.05
Cost of purchased fuels consumed (\$1,000)	4.07
Cost of purchased electricity (\$1,000)	41.89
Cost of contract work (\$1,000)	53.54
Value of resales (\$1,000)	142.32
Value added (\$1,000)	2,306.09

Capital Expenses Estimates

The total capital expenses for this market in Romania will be \$0.16 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.13 million dollars. The expenditures for buildings for this equipment expected to reach \$0.03 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	160.55
Capital expenditures for buildings and other structures (\$1,000)	27.55
Capital expenditures for machinery and equipment (\$1,000)	133.00
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.64
Capital expenditures for computers and peripheral equip. (\$1,000)	10.86
Capital expenditures for all other machinery and equip. (\$1,000)	120.50

*2022-2023 Forecasts

Source: Barnes Reports

Russia

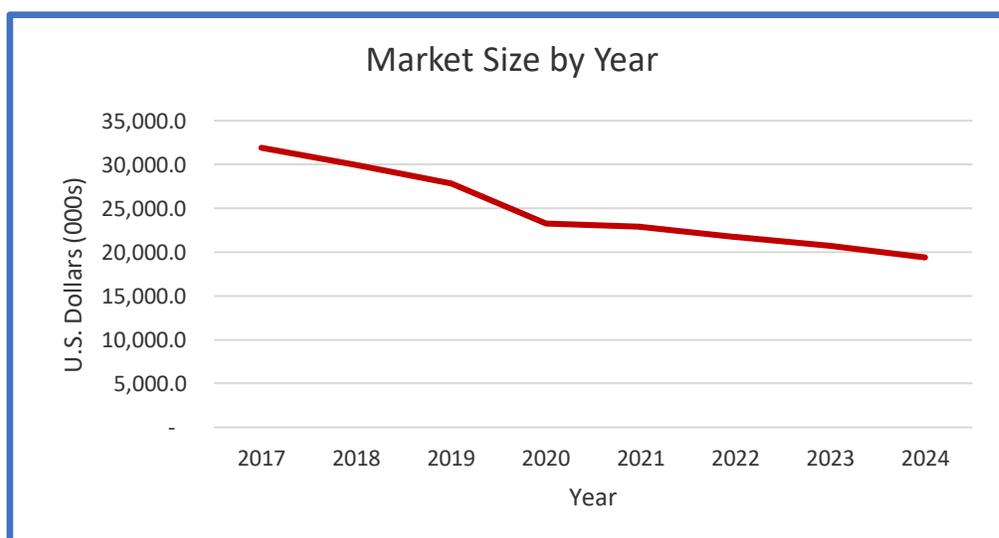
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Russia is estimated to be \$20.7 million dollars in 2023 and is expected to change by -6.2 percent from 2023 to 2024. The market will be 1616 million Rubles in 2023 and is forecast to change by -0.6 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Rubles
2017	31,909.8	1,866,941.7
2018	29,939.2	1,876,233.5
2019	27,815.5	1,800,711.1
2020	23,298.8	1,679,960.4
2021	22,880.6	1,638,595.8
2022	21,724.1	1,626,390.7
2023	20,687.7	1,615,953.1
2024	19,395.9	1,583,434.7
2029	14,824.0	1,454,818.5
Y-to-Y Change	US Dollars	Rubles
2017-2018	-6.2%	0.5%
2018-2019	-7.1%	-4.0%
2019-2020	-16.2%	-6.7%
2020-2021	-1.8%	-2.5%
2021-2022	-5.1%	-0.7%
2022-2023	-4.8%	-0.6%
2023-2024	-6.2%	-2.0%
CAGR 2024-2029	-4.7%	-8.1%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Russia

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Russia will be \$7.51 million dollars in 2023 and the value added amount for the market will be \$12.02 million dollars. The cost of resales for this equipment is expected to reach \$0.52 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	7,513.65
Cost of resales (\$1,000)	521.53
Cost of purchased fuels consumed (\$1,000)	21.23
Cost of purchased electricity (\$1,000)	218.35
Cost of contract work (\$1,000)	279.11
Value of resales (\$1,000)	741.89
Value added (\$1,000)	12,021.40

Capital Expenses Estimates

The total capital expenses for this market in Russia will be \$0.84 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.69 million dollars. The expenditures for buildings for this equipment expected to reach \$0.14 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	836.92
Capital expenditures for buildings and other structures (\$1,000)	143.62
Capital expenditures for machinery and equipment (\$1,000)	693.30
Capital expenditures for automobiles, trucks, etc. (\$1,000)	8.54
Capital expenditures for computers and peripheral equip. (\$1,000)	56.62
Capital expenditures for all other machinery and equip. (\$1,000)	628.13

*2022-2023 Forecasts

Source: Barnes Reports

Saudi Arabia

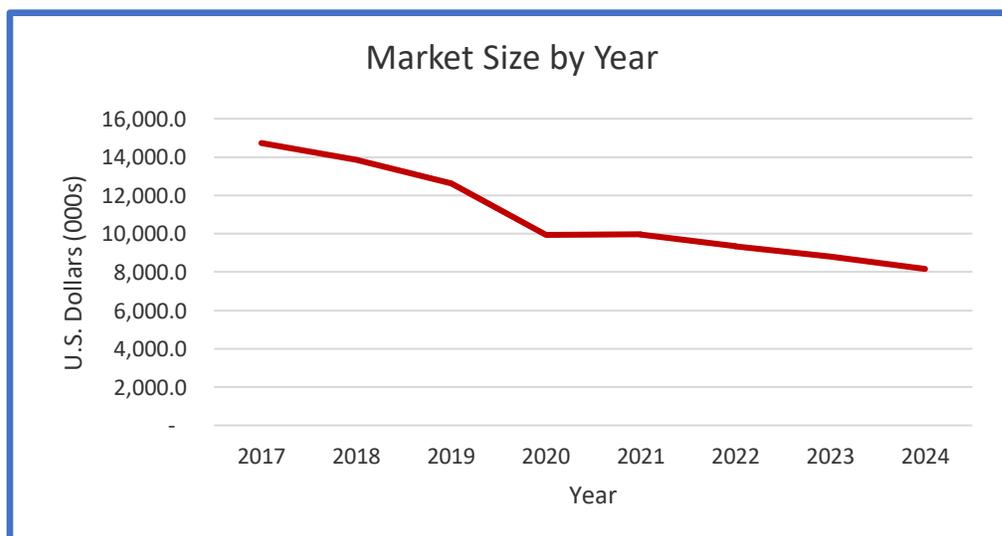
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Saudi Arabia is estimated to be \$8.8 million dollars in 2023 and is expected to change by -7.3 percent from 2023 to 2024. The market will be 32 million Riyals in 2023 and is forecast to change by -6.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Riyals
2017	14,728.6	55,232.4
2018	13,866.7	52,000.0
2019	12,617.0	47,313.7
2020	9,931.0	37,241.3
2021	9,955.8	36,510.4
2022	9,350.3	34,138.2
2023	8,802.7	31,953.3
2024	8,163.1	29,495.7
2029	5,873.6	20,105.9
Y-to-Y Change	US Dollars	Riyals
2017-2018	-5.9%	-5.9%
2018-2019	-9.0%	-9.0%
2019-2020	-21.3%	-21.3%
2020-2021	0.2%	-2.0%
2021-2022	-6.1%	-6.5%
2022-2023	-5.9%	-6.4%
2023-2024	-7.3%	-7.7%
CAGR 2024-2029	-5.6%	-31.8%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Saudi Arabia

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Saudi Arabia will be \$3.20 million dollars in 2023 and the value added amount for the market will be \$5.12 million dollars. The cost of resales for this equipment is expected to reach \$0.22 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	3,197.09
Cost of resales (\$1,000)	221.91
Cost of purchased fuels consumed (\$1,000)	9.03
Cost of purchased electricity (\$1,000)	92.91
Cost of contract work (\$1,000)	118.76
Value of resales (\$1,000)	315.68
Value added (\$1,000)	5,115.16

Capital Expenses Estimates

The total capital expenses for this market in Saudi Arabia will be \$0.36 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.30 million dollars. The expenditures for buildings for this equipment expected to reach \$0.06 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	356.11
Capital expenditures for buildings and other structures (\$1,000)	61.11
Capital expenditures for machinery and equipment (\$1,000)	295.00
Capital expenditures for automobiles, trucks, etc. (\$1,000)	3.64
Capital expenditures for computers and peripheral equip. (\$1,000)	24.09
Capital expenditures for all other machinery and equip. (\$1,000)	267.27

*2022-2023 Forecasts

Source: Barnes Reports

Singapore

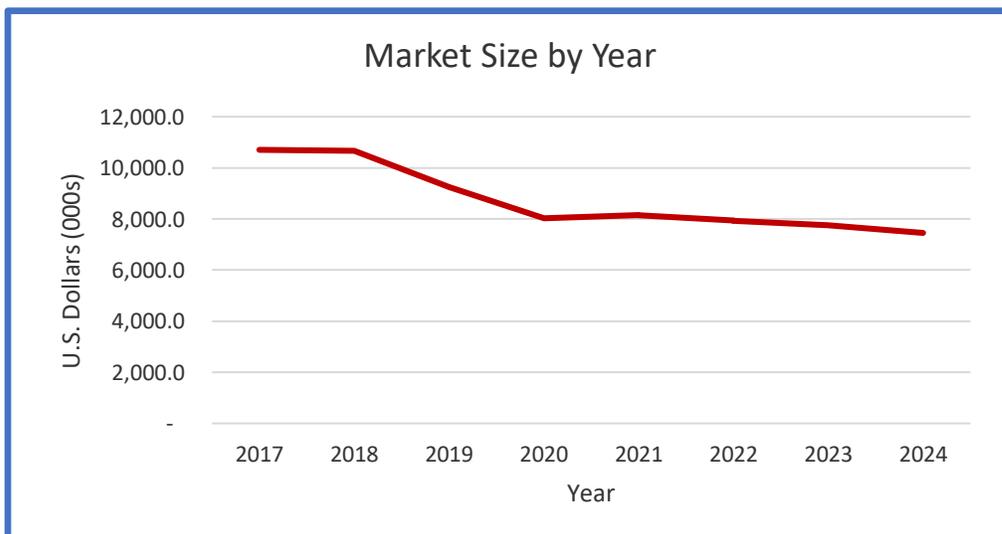
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Singapore is estimated to be \$7.7 million dollars in 2023 and is expected to change by -3.8 percent from 2023 to 2024. The market will be 9.8 million Dollars in 2023 and is forecast to change by -4.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dollars
2017	10,703.5	14,630.9
2018	10,654.5	14,370.8
2019	9,241.4	12,607.2
2020	8,030.1	11,079.1
2021	8,144.4	10,681.8
2022	7,938.4	10,203.3
2023	7,744.0	9,756.4
2024	7,451.6	9,200.3
2029	6,327.3	6,977.9
Y-to-Y Change	US Dollars	Dollars
2017-2018	-0.5%	-1.8%
2018-2019	-13.3%	-12.3%
2019-2020	-13.1%	-12.1%
2020-2021	1.4%	-3.6%
2021-2022	-2.5%	-4.5%
2022-2023	-2.4%	-4.4%
2023-2024	-3.8%	-5.7%
CAGR 2024-2029	-3.0%	-24.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Singapore

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Singapore will be \$2.81 million dollars in 2023 and the value added amount for the market will be \$4.50 million dollars. The cost of resales for this equipment is expected to reach \$0.20 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,812.57
Cost of resales (\$1,000)	195.22
Cost of purchased fuels consumed (\$1,000)	7.95
Cost of purchased electricity (\$1,000)	81.73
Cost of contract work (\$1,000)	104.48
Value of resales (\$1,000)	277.71
Value added (\$1,000)	4,499.95

Capital Expenses Estimates

The total capital expenses for this market in Singapore will be \$0.31 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.26 million dollars. The expenditures for buildings for this equipment expected to reach \$0.05 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	313.28
Capital expenditures for buildings and other structures (\$1,000)	53.76
Capital expenditures for machinery and equipment (\$1,000)	259.52
Capital expenditures for automobiles, trucks, etc. (\$1,000)	3.20
Capital expenditures for computers and peripheral equip. (\$1,000)	21.20
Capital expenditures for all other machinery and equip. (\$1,000)	235.13

*2022-2023 Forecasts

Source: Barnes Reports

South Africa

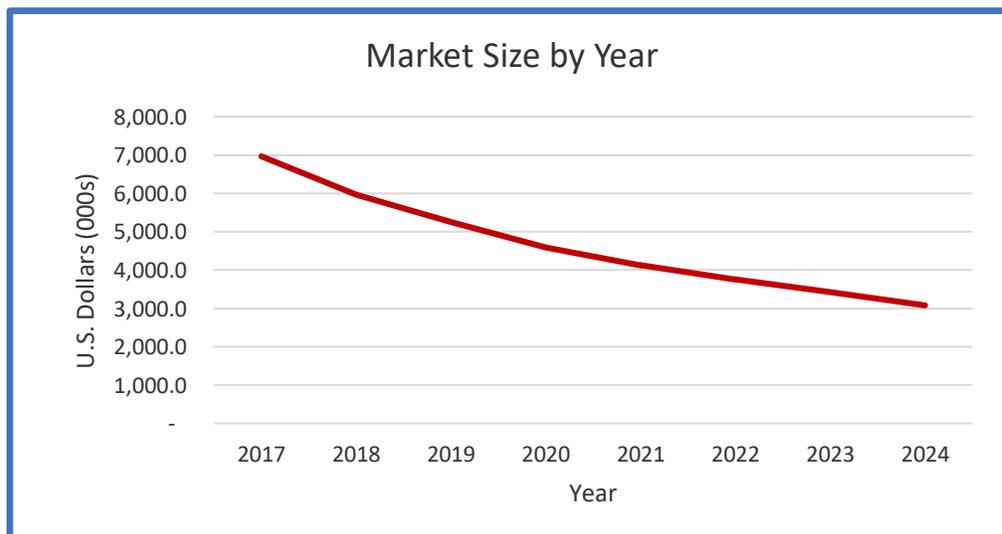
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in South Africa is estimated to be \$3.4 million dollars in 2023 and is expected to change by -10.2 percent from 2023 to 2024. The market will be 64.5 million Rands in 2023 and is forecast to change by -3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Rands
2017	6,966.0	92,737.8
2018	5,958.7	78,856.9
2019	5,253.0	75,897.6
2020	4,590.9	75,561.5
2021	4,126.8	68,621.0
2022	3,752.4	66,485.0
2023	3,427.0	64,482.4
2024	3,077.6	61,677.3
2029	1,943.8	50,222.8
Y-to-Y Change	US Dollars	Rands
2017-2018	-14.5%	-15.0%
2018-2019	-11.8%	-3.8%
2019-2020	-12.6%	-0.4%
2020-2021	-10.1%	-9.2%
2021-2022	-9.1%	-3.1%
2022-2023	-8.7%	-3.0%
2023-2024	-10.2%	-4.4%
CAGR 2024-2029	-7.4%	-18.6%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



South Africa

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in South Africa will be \$1.24 million dollars in 2023 and the value added amount for the market will be \$1.99 million dollars. The cost of resales for this equipment is expected to reach \$0.09 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,244.68
Cost of resales (\$1,000)	86.39
Cost of purchased fuels consumed (\$1,000)	3.52
Cost of purchased electricity (\$1,000)	36.17
Cost of contract work (\$1,000)	46.24
Value of resales (\$1,000)	122.90
Value added (\$1,000)	1,991.41

Capital Expenses Estimates

The total capital expenses for this market in South Africa will be \$0.14 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.11 million dollars. The expenditures for buildings for this equipment expected to reach \$0.02 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	138.64
Capital expenditures for buildings and other structures (\$1,000)	23.79
Capital expenditures for machinery and equipment (\$1,000)	114.85
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.42
Capital expenditures for computers and peripheral equip. (\$1,000)	9.38
Capital expenditures for all other machinery and equip. (\$1,000)	104.05

*2022-2023 Forecasts

Source: Barnes Reports

Spain

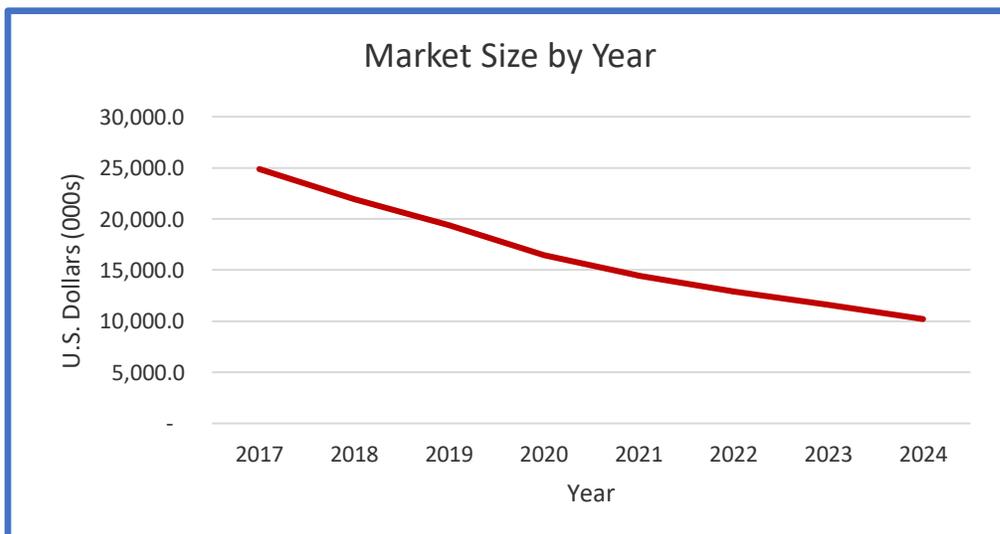
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Spain is estimated to be \$11.6 million dollars in 2023 and is expected to change by -11.8 percent from 2023 to 2024. The market will be 9.7 million Euros in 2023 and is forecast to change by -11.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Euros
2017	24,875.4	22,019.9
2018	21,949.9	18,586.6
2019	19,354.8	17,289.2
2020	16,468.2	14,418.0
2021	14,446.9	12,306.6
2022	12,906.0	10,901.3
2023	11,569.1	9,666.5
2024	10,206.2	8,453.3
2029	5,812.3	4,397.1
Y-to-Y Change	US Dollars	Euros
2017-2018	-11.8%	-15.6%
2018-2019	-11.8%	-7.0%
2019-2020	-14.9%	-16.6%
2020-2021	-12.3%	-14.6%
2021-2022	-10.7%	-11.4%
2022-2023	-10.4%	-11.3%
2023-2024	-11.8%	-12.6%
CAGR 2024-2029	-8.6%	-48.0%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Spain

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Spain will be \$4.20 million dollars in 2023 and the value added amount for the market will be \$6.72 million dollars. The cost of resales for this equipment is expected to reach \$0.29 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	4,201.83
Cost of resales (\$1,000)	291.65
Cost of purchased fuels consumed (\$1,000)	11.87
Cost of purchased electricity (\$1,000)	122.10
Cost of contract work (\$1,000)	156.09
Value of resales (\$1,000)	414.88
Value added (\$1,000)	6,722.67

Capital Expenses Estimates

The total capital expenses for this market in Spain will be \$0.47 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.39 million dollars. The expenditures for buildings for this equipment expected to reach \$0.08 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	468.03
Capital expenditures for buildings and other structures (\$1,000)	80.32
Capital expenditures for machinery and equipment (\$1,000)	387.71
Capital expenditures for automobiles, trucks, etc. (\$1,000)	4.78
Capital expenditures for computers and peripheral equip. (\$1,000)	31.67
Capital expenditures for all other machinery and equip. (\$1,000)	351.27

*2022-2023 Forecasts

Source: Barnes Reports

Sweden

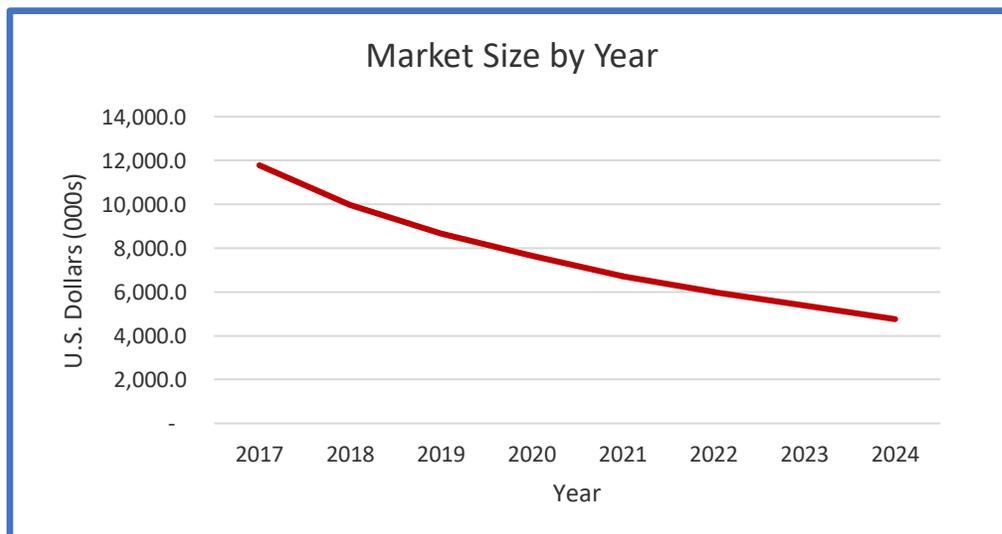
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Sweden is estimated to be \$5.4 million dollars in 2023 and is expected to change by -11.7 percent from 2023 to 2024. The market will be 54.1 million Kronas in 2023 and is forecast to change by -7.7 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Kronas
2017	11,781.6	100,631.2
2018	9,962.7	86,600.7
2019	8,673.7	82,039.1
2020	7,652.7	70,483.6
2021	6,715.2	63,591.6
2022	6,003.9	58,650.2
2023	5,389.2	54,148.9
2024	4,758.6	49,303.4
2029	2,740.4	31,381.0
Y-to-Y Change	US Dollars	Kronas
2017-2018	-15.4%	-13.9%
2018-2019	-12.9%	-5.3%
2019-2020	-11.8%	-14.1%
2020-2021	-12.3%	-9.8%
2021-2022	-10.6%	-7.8%
2022-2023	-10.2%	-7.7%
2023-2024	-11.7%	-8.9%
CAGR 2024-2029	-8.5%	-36.4%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Sweden

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Sweden will be \$1.96 million dollars in 2023 and the value added amount for the market will be \$3.13 million dollars. The cost of resales for this equipment is expected to reach \$0.14 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,957.34
Cost of resales (\$1,000)	135.86
Cost of purchased fuels consumed (\$1,000)	5.53
Cost of purchased electricity (\$1,000)	56.88
Cost of contract work (\$1,000)	72.71
Value of resales (\$1,000)	193.27
Value added (\$1,000)	3,131.62

Capital Expenses Estimates

The total capital expenses for this market in Sweden will be \$0.22 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.18 million dollars. The expenditures for buildings for this equipment expected to reach \$0.04 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	218.02
Capital expenditures for buildings and other structures (\$1,000)	37.41
Capital expenditures for machinery and equipment (\$1,000)	180.61
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.23
Capital expenditures for computers and peripheral equip. (\$1,000)	14.75
Capital expenditures for all other machinery and equip. (\$1,000)	163.63

*2022-2023 Forecasts

Source: Barnes Reports

Switzerland

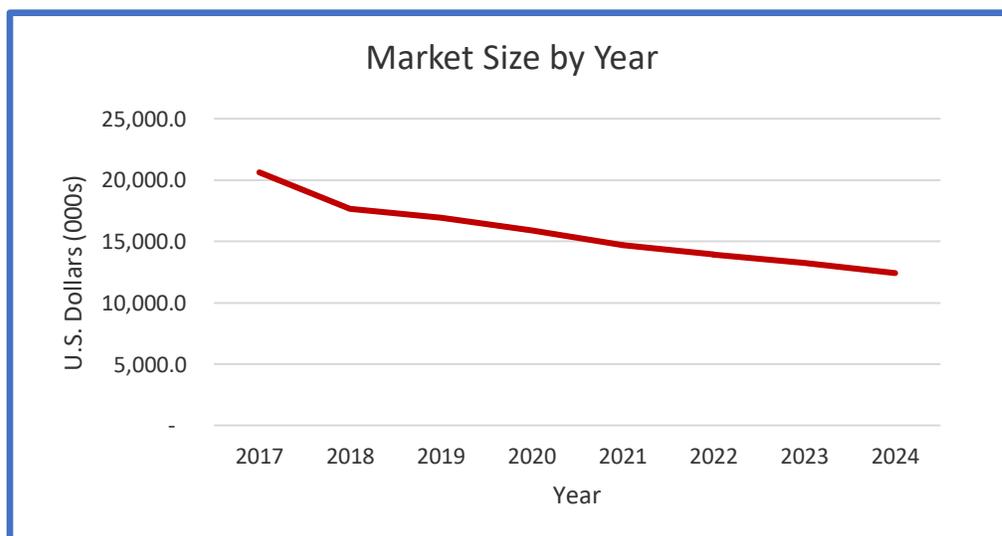
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Switzerland is estimated to be \$13.3 million dollars in 2023 and is expected to change by -6.3 percent from 2023 to 2024. The market will be 13.1 million Francs in 2023 and is forecast to change by -3.9 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Francs
2017	20,625.2	20,309.5
2018	17,661.1	17,270.5
2019	16,921.5	16,816.2
2020	15,902.8	14,930.2
2021	14,694.0	14,206.4
2022	13,937.5	13,636.9
2023	13,254.7	13,103.9
2024	12,414.1	12,418.0
2029	9,401.4	9,653.0
Y-to-Y Change	US Dollars	Francs
2017-2018	-14.4%	-15.0%
2018-2019	-4.2%	-2.6%
2019-2020	-6.0%	-11.2%
2020-2021	-7.6%	-4.8%
2021-2022	-5.1%	-4.0%
2022-2023	-4.9%	-3.9%
2023-2024	-6.3%	-5.2%
CAGR 2024-2029	-4.9%	-22.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Switzerland

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Switzerland will be \$4.81 million dollars in 2023 and the value added amount for the market will be \$7.70 million dollars. The cost of resales for this equipment is expected to reach \$0.33 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	4,814.00
Cost of resales (\$1,000)	334.14
Cost of purchased fuels consumed (\$1,000)	13.60
Cost of purchased electricity (\$1,000)	139.89
Cost of contract work (\$1,000)	178.83
Value of resales (\$1,000)	475.33
Value added (\$1,000)	7,702.12

Capital Expenses Estimates

The total capital expenses for this market in Switzerland will be \$0.54 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.44 million dollars. The expenditures for buildings for this equipment expected to reach \$0.09 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	536.22
Capital expenditures for buildings and other structures (\$1,000)	92.02
Capital expenditures for machinery and equipment (\$1,000)	444.20
Capital expenditures for automobiles, trucks, etc. (\$1,000)	5.47
Capital expenditures for computers and peripheral equip. (\$1,000)	36.28
Capital expenditures for all other machinery and equip. (\$1,000)	402.45

*2022-2023 Forecasts

Source: Barnes Reports

Thailand

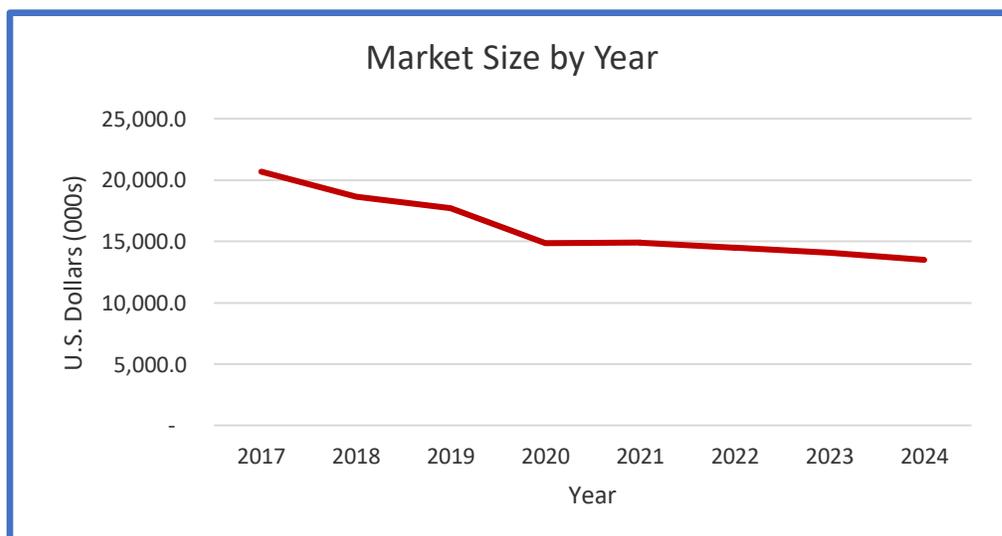
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Thailand is estimated to be \$14.1 million dollars in 2023 and is expected to change by -4 percent from 2023 to 2024. The market will be 375 million Bahts in 2023 and is forecast to change by -7 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Bahts
2017	20,682.8	700,403.8
2018	18,639.8	602,255.2
2019	17,698.3	549,489.0
2020	14,843.7	464,513.9
2021	14,890.5	434,180.8
2022	14,481.6	403,316.2
2023	14,060.7	375,034.7
2024	13,495.6	343,925.8
2029	10,824.0	226,873.2
Y-to-Y Change	US Dollars	Bahts
2017-2018	-9.9%	-14.0%
2018-2019	-5.1%	-8.8%
2019-2020	-16.1%	-15.5%
2020-2021	0.3%	-6.5%
2021-2022	-2.7%	-7.1%
2022-2023	-2.9%	-7.0%
2023-2024	-4.0%	-8.3%
CAGR 2024-2029	-4.0%	-34.0%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Thailand

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Thailand will be \$5.11 million dollars in 2023 and the value added amount for the market will be \$8.17 million dollars. The cost of resales for this equipment is expected to reach \$0.35 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	5,106.75
Cost of resales (\$1,000)	354.46
Cost of purchased fuels consumed (\$1,000)	14.43
Cost of purchased electricity (\$1,000)	148.40
Cost of contract work (\$1,000)	189.70
Value of resales (\$1,000)	504.24
Value added (\$1,000)	8,170.50

Capital Expenses Estimates

The total capital expenses for this market in Thailand will be \$0.57 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.47 million dollars. The expenditures for buildings for this equipment expected to reach \$0.10 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	568.82
Capital expenditures for buildings and other structures (\$1,000)	97.61
Capital expenditures for machinery and equipment (\$1,000)	471.21
Capital expenditures for automobiles, trucks, etc. (\$1,000)	5.81
Capital expenditures for computers and peripheral equip. (\$1,000)	38.48
Capital expenditures for all other machinery and equip. (\$1,000)	426.92

*2022-2023 Forecasts

Source: Barnes Reports

Turkey

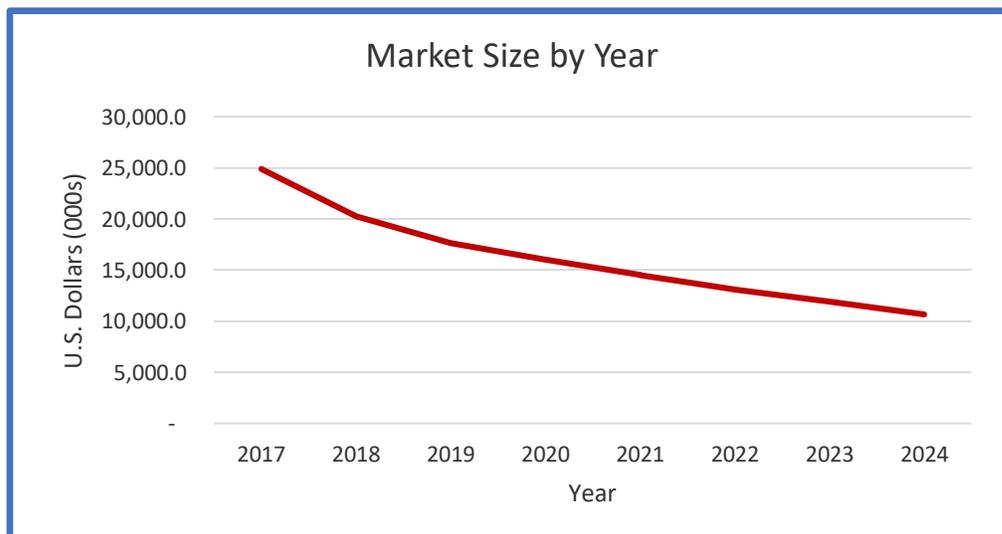
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Turkey is estimated to be \$11.9 million dollars in 2023 and is expected to change by -10.7 percent from 2023 to 2024. The market will be 153.6 million Liras in 2023 and is forecast to change by 13.2 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Liras
2017	24,885.2	90,783.6
2018	20,221.2	97,636.0
2019	17,659.4	100,196.1
2020	16,048.8	112,501.8
2021	14,494.9	121,457.6
2022	13,097.5	135,719.6
2023	11,937.6	153,631.0
2024	10,658.9	162,086.7
2029	7,035.5	246,681.6
Y-to-Y Change	US Dollars	Liras
2017-2018	-18.7%	7.5%
2018-2019	-12.7%	2.6%
2019-2020	-9.1%	12.3%
2020-2021	-9.7%	8.0%
2021-2022	-9.6%	11.7%
2022-2023	-8.9%	13.2%
2023-2024	-10.7%	5.5%
CAGR 2024-2029	-6.8%	52.2%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Turkey

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Turkey will be \$4.34 million dollars in 2023 and the value added amount for the market will be \$6.94 million dollars. The cost of resales for this equipment is expected to reach \$0.30 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	4,335.65
Cost of resales (\$1,000)	300.94
Cost of purchased fuels consumed (\$1,000)	12.25
Cost of purchased electricity (\$1,000)	125.99
Cost of contract work (\$1,000)	161.06
Value of resales (\$1,000)	428.10
Value added (\$1,000)	6,936.78

Capital Expenses Estimates

The total capital expenses for this market in Turkey will be \$0.48 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.40 million dollars. The expenditures for buildings for this equipment expected to reach \$0.08 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	482.93
Capital expenditures for buildings and other structures (\$1,000)	82.87
Capital expenditures for machinery and equipment (\$1,000)	400.06
Capital expenditures for automobiles, trucks, etc. (\$1,000)	4.93
Capital expenditures for computers and peripheral equip. (\$1,000)	32.67
Capital expenditures for all other machinery and equip. (\$1,000)	362.46

*2022-2023 Forecasts

Source: Barnes Reports

United Arab Emirates

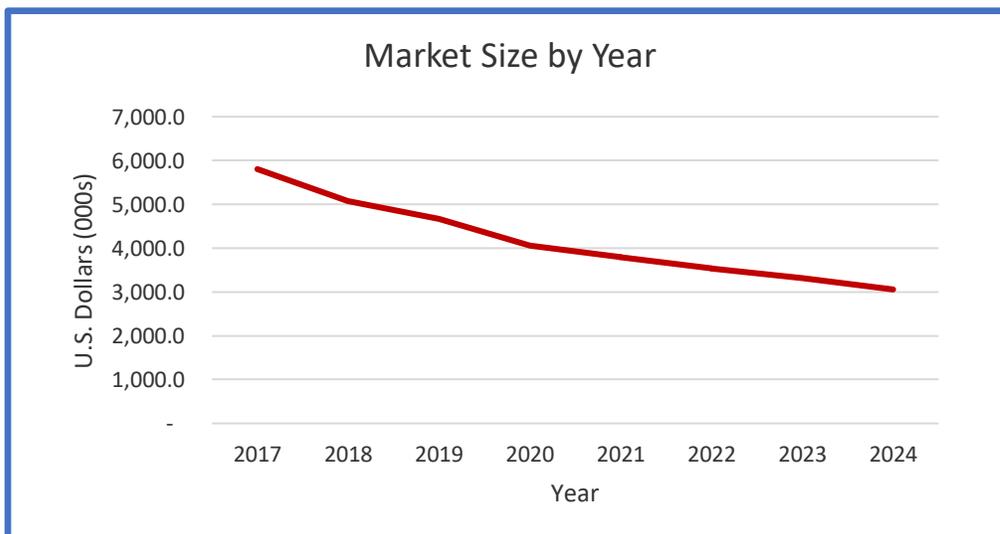
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in United Arab Emirates is estimated to be \$3.3 million dollars in 2023 and is expected to change by -7.8 percent from 2023 to 2024. The market will be 11.7 million Dirhams in 2023 and is forecast to change by -7.1 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dirhams
2017	5,803.5	20,876.3
2018	5,075.2	18,638.8
2019	4,660.0	17,114.0
2020	4,050.0	14,873.8
2021	3,792.4	13,575.6
2022	3,538.5	12,601.1
2023	3,316.9	11,708.6
2024	3,056.7	10,729.3
2029	2,205.9	7,051.0
Y-to-Y Change	US Dollars	Dirhams
2017-2018	-12.5%	-10.7%
2018-2019	-8.2%	-8.2%
2019-2020	-13.1%	-13.1%
2020-2021	-6.4%	-8.7%
2021-2022	-6.7%	-7.2%
2022-2023	-6.3%	-7.1%
2023-2024	-7.8%	-8.4%
CAGR 2024-2029	-5.6%	-34.3%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



United Arab Emirates

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in United Arab Emirates will be \$1.20 million dollars in 2023 and the value added amount for the market will be \$1.93 million dollars. The cost of resales for this equipment is expected to reach \$0.08 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,204.69
Cost of resales (\$1,000)	83.62
Cost of purchased fuels consumed (\$1,000)	3.40
Cost of purchased electricity (\$1,000)	35.01
Cost of contract work (\$1,000)	44.75
Value of resales (\$1,000)	118.95
Value added (\$1,000)	1,927.44

Capital Expenses Estimates

The total capital expenses for this market in United Arab Emirates will be \$0.13 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.11 million dollars. The expenditures for buildings for this equipment expected to reach \$0.02 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	134.19
Capital expenditures for buildings and other structures (\$1,000)	23.03
Capital expenditures for machinery and equipment (\$1,000)	111.16
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.37
Capital expenditures for computers and peripheral equip. (\$1,000)	9.08
Capital expenditures for all other machinery and equip. (\$1,000)	100.71

*2022-2023 Forecasts

Source: Barnes Reports

United Kingdom

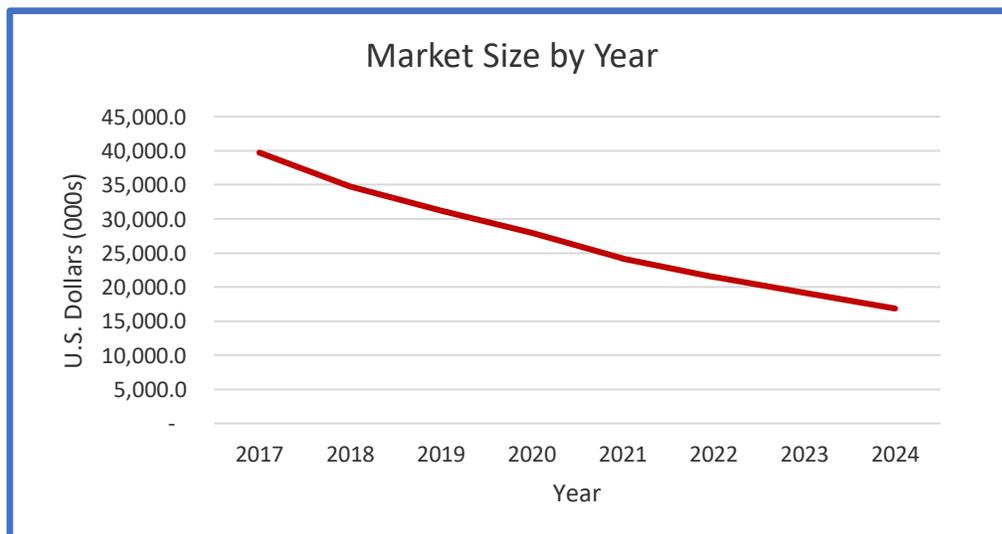
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in United Kingdom is estimated to be \$19.2 million dollars in 2023 and is expected to change by -12.2 percent from 2023 to 2024. The market will be 16.6 million Pounds in 2023 and is forecast to change by -7.5 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Pounds
2017	39,724.8	30,866.3
2018	34,803.7	26,088.2
2019	31,181.8	24,429.2
2020	27,945.5	21,797.5
2021	24,178.6	19,417.5
2022	21,479.1	17,950.7
2023	19,199.1	16,612.0
2024	16,848.3	15,161.0
2029	9,777.3	9,763.8
Y-to-Y Change	US Dollars	Pounds
2017-2018	-12.4%	-15.5%
2018-2019	-10.4%	-6.4%
2019-2020	-10.4%	-10.8%
2020-2021	-13.5%	-10.9%
2021-2022	-11.2%	-7.6%
2022-2023	-10.6%	-7.5%
2023-2024	-12.2%	-8.7%
CAGR 2024-2029	-8.4%	-35.6%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



United Kingdom

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in United Kingdom will be \$6.97 million dollars in 2023 and the value added amount for the market will be \$11.16 million dollars. The cost of resales for this equipment is expected to reach \$0.48 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	6,973.00
Cost of resales (\$1,000)	484.00
Cost of purchased fuels consumed (\$1,000)	19.70
Cost of purchased electricity (\$1,000)	202.63
Cost of contract work (\$1,000)	259.03
Value of resales (\$1,000)	688.51
Value added (\$1,000)	11,156.38

Capital Expenses Estimates

The total capital expenses for this market in United Kingdom will be \$0.78 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.64 million dollars. The expenditures for buildings for this equipment expected to reach \$0.13 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	776.70
Capital expenditures for buildings and other structures (\$1,000)	133.28
Capital expenditures for machinery and equipment (\$1,000)	643.41
Capital expenditures for automobiles, trucks, etc. (\$1,000)	7.93
Capital expenditures for computers and peripheral equip. (\$1,000)	52.55
Capital expenditures for all other machinery and equip. (\$1,000)	582.94

*2022-2023 Forecasts

Source: Barnes Reports

United States

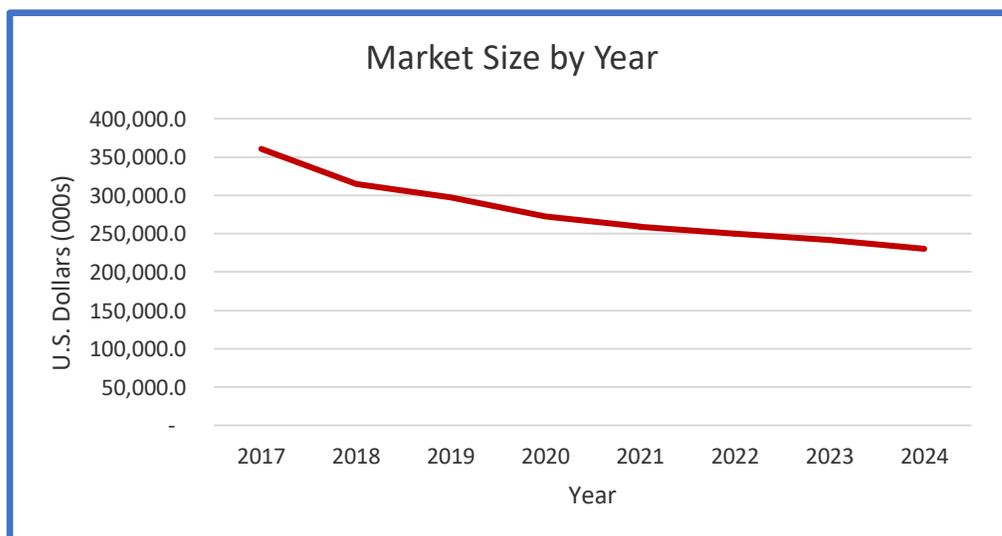
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in United States is estimated to be \$241.7 million dollars in 2023 and is expected to change by -4.7 percent from 2023 to 2024. The market will be 241.7 million Dollars in 2023 and is forecast to change by -3.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dollars
2017	360,580.0	360,580.0
2018	315,150.0	315,150.0
2019	297,140.0	297,140.0
2020	272,420.0	272,420.0
2021	258,990.0	258,990.0
2022	250,040.0	250,040.0
2023	241,650.0	241,650.0
2024	230,320.0	230,320.0
2029	184,250.0	184,250.0
Y-to-Y Change	US Dollars	Dollars
2017-2018	-12.6%	-12.6%
2018-2019	-5.7%	-5.7%
2019-2020	-8.3%	-8.3%
2020-2021	-4.9%	-4.9%
2021-2022	-3.5%	-3.5%
2022-2023	-3.4%	-3.4%
2023-2024	-4.7%	-4.7%
CAGR 2024-2029	-4.0%	-20.0%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



United States

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in United States will be \$87.77 million dollars in 2023 and the value added amount for the market will be \$140.42 million dollars. The cost of resales for this equipment is expected to reach \$6.09 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	87,765.69
Cost of resales (\$1,000)	6,091.90
Cost of purchased fuels consumed (\$1,000)	247.93
Cost of purchased electricity (\$1,000)	2,550.45
Cost of contract work (\$1,000)	3,260.24
Value of resales (\$1,000)	8,665.89
Value added (\$1,000)	140,419.87

Capital Expenses Estimates

The total capital expenses for this market in United States will be \$9.78 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$8.10 million dollars. The expenditures for buildings for this equipment expected to reach \$1.68 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	9,775.94
Capital expenditures for buildings and other structures (\$1,000)	1,677.59
Capital expenditures for machinery and equipment (\$1,000)	8,098.34
Capital expenditures for automobiles, trucks, etc. (\$1,000)	99.80
Capital expenditures for computers and peripheral equip. (\$1,000)	661.41
Capital expenditures for all other machinery and equip. (\$1,000)	7,337.13

*2022-2023 Forecasts

Source: Barnes Reports

Venezuela

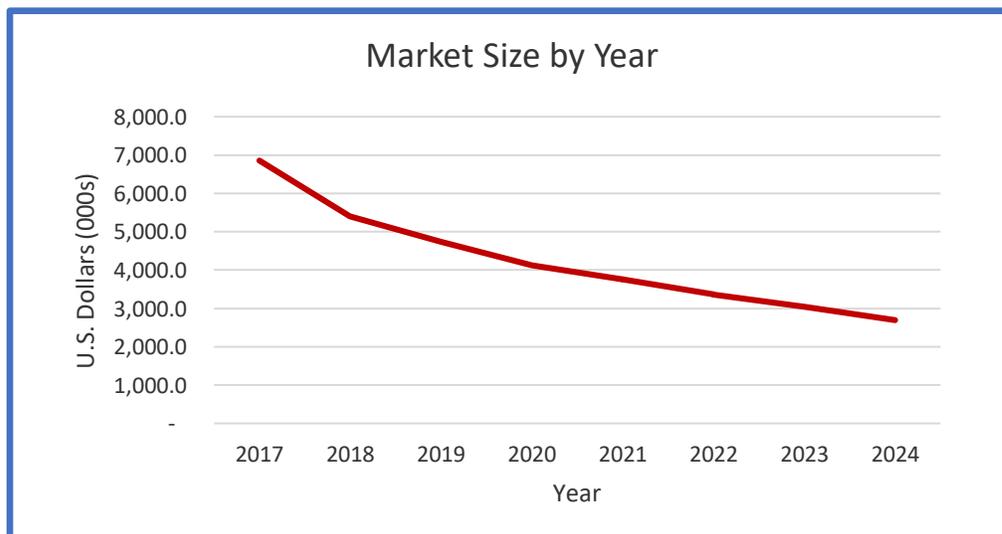
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Venezuela is estimated to be \$3.0 million dollars in 2023 and is expected to change by -11.5 percent from 2023 to 2024. The market will be 21.9 million Bolivars in 2023 and is forecast to change by -3.3 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Bolivars
2017	6,856.4	32,328.6
2018	5,403.5	28,255.5
2019	4,732.2	27,195.1
2020	4,129.2	24,349.8
2021	3,757.0	23,377.0
2022	3,366.0	22,589.1
2023	3,042.4	21,850.4
2024	2,693.6	20,844.4
2029	1,704.6	16,748.9
Y-to-Y Change	US Dollars	Bolivars
2017-2018	-21.2%	-12.6%
2018-2019	-12.4%	-3.8%
2019-2020	-12.7%	-10.5%
2020-2021	-9.0%	-4.0%
2021-2022	-10.4%	-3.4%
2022-2023	-9.6%	-3.3%
2023-2024	-11.5%	-4.6%
CAGR 2024-2029	-7.3%	-19.6%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Venezuela

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Venezuela will be \$1.10 million dollars in 2023 and the value added amount for the market will be \$1.77 million dollars. The cost of resales for this equipment is expected to reach \$0.08 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	1,104.99
Cost of resales (\$1,000)	76.70
Cost of purchased fuels consumed (\$1,000)	3.12
Cost of purchased electricity (\$1,000)	32.11
Cost of contract work (\$1,000)	41.05
Value of resales (\$1,000)	109.11
Value added (\$1,000)	1,767.91

Capital Expenses Estimates

The total capital expenses for this market in Venezuela will be \$0.12 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.10 million dollars. The expenditures for buildings for this equipment expected to reach \$0.02 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	123.08
Capital expenditures for buildings and other structures (\$1,000)	21.12
Capital expenditures for machinery and equipment (\$1,000)	101.96
Capital expenditures for automobiles, trucks, etc. (\$1,000)	1.26
Capital expenditures for computers and peripheral equip. (\$1,000)	8.33
Capital expenditures for all other machinery and equip. (\$1,000)	92.38

*2022-2023 Forecasts

Source: Barnes Reports

Vietnam

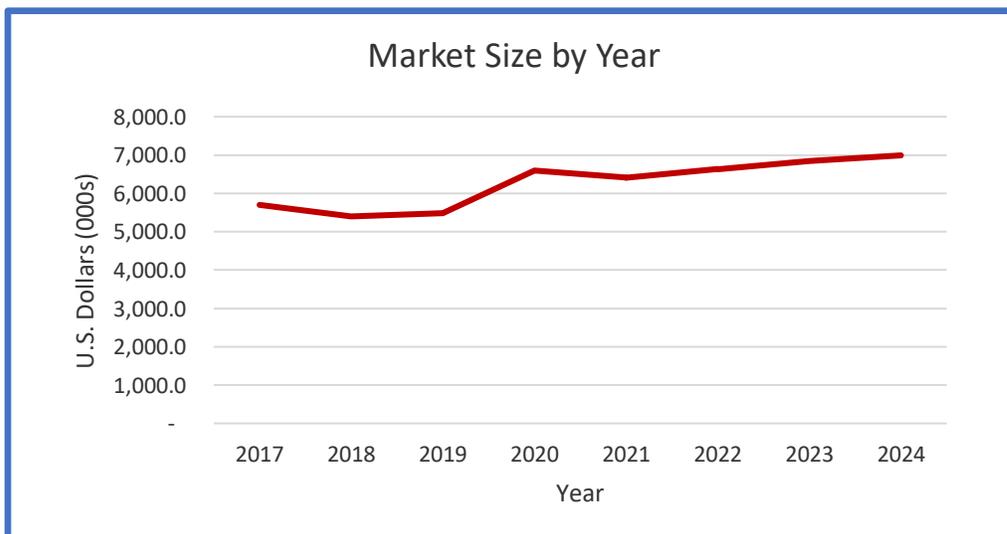
Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

The market for this equipment in Vietnam is estimated to be \$6.8 million dollars in 2023 and is expected to change by 2.2 percent from 2023 to 2024. The market will be 153069.5 million Dongs in 2023 and is forecast to change by 1.4 percent from 2023 to 2024.

Market Sales (000s)		
Year	US Dollars	Dongs
2017	5,692.3	127,336,746.5
2018	5,398.9	122,025,928.2
2019	5,477.8	126,264,302.9
2020	6,593.4	153,022,929.1
2021	6,408.0	148,754,491.8
2022	6,635.9	150,899,271.0
2023	6,842.9	153,069,455.9
2024	6,991.3	154,068,901.5
2029	7,375.0	169,175,939.9
Y-to-Y Change	US Dollars	Dongs
2017-2018	-5.2%	-4.2%
2018-2019	1.5%	3.5%
2019-2020	20.4%	21.2%
2020-2021	-2.8%	-2.8%
2021-2022	3.6%	1.4%
2022-2023	3.1%	1.4%
2023-2024	2.2%	0.7%
CAGR 2024-2029	1.1%	9.8%

Source: Barnes Reports

*2022-2023 Forecasts; 2024-2029 Projections



Vietnam

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Costs and Value Added Estimates

The total cost of materials for this market in Vietnam will be \$2.49 million dollars in 2023 and the value added amount for the market will be \$3.98 million dollars. The cost of resales for this equipment is expected to reach \$0.17 million dollars in 2023.

2023 Costs and Value Added	US Dollars (000s)
Total cost of materials (\$1,000)	2,485.29
Cost of resales (\$1,000)	172.51
Cost of purchased fuels consumed (\$1,000)	7.02
Cost of purchased electricity (\$1,000)	72.22
Cost of contract work (\$1,000)	92.32
Value of resales (\$1,000)	245.40
Value added (\$1,000)	3,976.32

Capital Expenses Estimates

The total capital expenses for this market in Vietnam will be \$0.28 million dollars in 2023 and the expenditures for machinery and equipment for the market will be \$0.23 million dollars. The expenditures for buildings for this equipment expected to reach \$0.05 million dollars in 2023.

2023 Capital Expenses	US Dollars (000s)
Total capital expenditures (\$1,000)	276.83
Capital expenditures for buildings and other structures (\$1,000)	47.50
Capital expenditures for machinery and equipment (\$1,000)	229.32
Capital expenditures for automobiles, trucks, etc. (\$1,000)	2.83
Capital expenditures for computers and peripheral equip. (\$1,000)	18.73
Capital expenditures for all other machinery and equip. (\$1,000)	207.77

*2022-2023 Forecasts

Source: Barnes Reports

Appendix

Equipment Type: Other computers (array, analog, hybrid, and special-use computers)

Number of Establishments

General Definition

An establishment is a single physical location at which business is conducted and/or services are provided. It is not necessarily identical with a company or enterprise, which may consist of one establishment or more. Economic census figures represent a summary of reports for individual establishments rather than companies. For cases where a census report was received, separate information was obtained for each location where business was conducted. When administrative records of other Federal agencies were used instead of a census report, no information was available on the number of locations operated. Each economic census establishment was tabulated according to the physical location at which the business was conducted.

When two activities or more were carried on at a single location under a single ownership, all activities generally were grouped together as a single establishment. The entire establishment was classified on the basis of its major activity and all data for it were included in that classification. However, when distinct and separate economic activities (for which different industry classification codes were appropriate) were conducted at a single location under a single ownership, separate establishment reports for each of the different activities were obtained in the census.

Sector-Specific Information

Construction sector. Establishments are defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. Establishments do not represent each project or construction site. Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included. Establishments are based on a survey which included all large employers and a sample of the smaller ones.

Information; Professional, Scientific, and Technical Services; Administrative and Support and Waste Management and Remediation Services; Educational Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; and Other Services (Except Public Administration) sectors. An establishment is included in the census if it is an employer, the establishment has \$1,000 in payroll, and was in operation at any time during 1997. Leased service departments (separately owned businesses operated as departments or concessions of other service establishments or of retail businesses, such as a separately owned shoeshine parlor in a barber shop, or a beauty shop in a department store) are treated as separate service establishments for census purposes. Leased retail departments located in service establishments (e.g., a gift shop located in a hotel) are considered separate retail establishments.

Manufacturing sector. Includes all manufacturing establishments (plants) with one employee or more and establishments in operation at any time during the year.

Mining sector. Includes all mineral establishments with one employee or more and establishments in operation at any time during the year. Establishments in the crude petroleum and natural gas and support activities for mining represent statewide operations rather than those at a single physical location.

Real Estate and Rental and Leasing sector. Data for individual properties leased or managed by property lessors or property managers are not normally considered separate establishments, but rather the permanent offices from which the properties are leased or managed are considered establishments. Data for separate automotive rental offices or concessions (e.g., airport locations) in the same metropolitan area for which a common fleet of cars is maintained are merged together and not considered as separate establishments.

Retail Trade sector. Leased departments are treated as separate establishments and are classified according to the kind of business they conduct. For example, a leased department selling shoes within a department store would be considered a separate retail establishment under the "shoe stores" classification.

Accommodation and Foodservices sector. Leased departments are treated as separate establishments and are classified according to the kind of business they conduct. For example, a leased department selling gifts/souvenirs within a hotel would be considered a separate retail establishment under the "gift, novelty, and souvenir stores" classification.

Auxiliaries sector. In the Standard Industrial Classification (SIC) system, auxiliary establishments (i.e., those establishments primarily serving other establishments of the same enterprise) were classified in

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Appendix

industry of the establishments served. In the North American Industry Classification System (NAICS), auxiliary establishments are classified according to the services performed rather than the industry served.

Sales, Shipments, Receipts, Revenue, or Business Done

General Definition

Includes the total sales, shipments, receipts, revenue, or business done by establishments within the scope of the economic census. The definition of each of these items is included in the information provided below.

Sector-Specific Information

Construction sector - Includes the value of construction work and other business receipts for work done by establishments during the year. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.

Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in the current year but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; electrical and wiring supplies; and elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment, which are not an integral part of a structure.

Finance and Insurance sector - Includes revenue from all business activities whether or not payment was received in the census year, including commissions and fees from all sources, rents, net investment income, interest, dividends, royalties, and net insurance premiums earned. Revenue from leasing property marketed under operating leases is included, as well as interest earned from property marketed in the census year under capital, finance, or full payout leases. Revenue also includes the total value of service contracts and amounts received for work subcontracted to others.

Revenue does not include sales and other taxes collected from customers and remitted directly by the firm to a local, state, or Federal tax agency.

Information sector - Includes receipts from customers or clients for services rendered, from the use of facilities, and from merchandise sold, whether or not payment was received. Receipts include royalties, license fees, and other payments from the marketing of intangible products (e.g., licensing the use of or granting reproduction rights for software, musical compositions, and other intellectual property). Receipts also include the rental and leasing of vehicles, equipment, instruments, tools, etc.; total value of service contracts; market value of compensation received in lieu of cash; amounts received for work subcontracted to others; dues and assessments for members and affiliates; this establishment's share of receipts from departments, concessions, and vending and amusement machines operated by others. Receipts from services provided to foreign customers from U.S. locations, including services performed for foreign parent firms, subsidiaries, and branches are included. For public broadcast stations and libraries, include receipts from contributions, gifts, grants, and income from interest, rental of real estate, and dividends.

Receipts DO NOT include sales and other taxes collected directly from customers or clients and paid directly to a local, state, or Federal tax agency. Also excluded are gross receipts collected on behalf of others; gross receipts or departments or concessions operated by others; sales of used equipment previously rented or leased to customers; proceeds from the sale of real estate (land and buildings), investments, or other assets (except inventory held for resale); contributions, gifts, grants, and income from interest, rental of real estate, and dividends EXCEPT for public broadcast stations and libraries; domestic intracompany transfers; receipts of foreign subsidiaries; and other nonoperating income.

Management of Companies and Enterprises sector- For holding companies, revenue includes revenue of only the holding company establishment, including net investment income, interest, and dividends.

Manufacturing sector - Covers the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In the case of multiunit companies, the manufacturer was requested to report the value of products

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transferred to other establishments of the same company at full economic or commercial value, including not only the direct cost of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

Mining sector - Includes the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges and excise taxes. Shipments includes all products physically shipped from the establishment during the year, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in the current year. Prepared material or concentrates includes preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits. For all establishments classified in an industry, value of shipments and receipts includes (1) the value of all primary products of the industry; (2) the value of secondary products which are primary to other industries; (3) the receipts for contract work done for others, except custom milling; and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products. Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

Professional, Scientific, and Technical Services; Administrative and Support and Waste Management and Remediation Services; Educational Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; and Other Services (Except Public Administration) sectors - TAXABLE ESTABLISHMENTS: Includes receipts from customers or clients for services rendered, from the use of facilities, and from merchandise sold whether or not payment was received. For advertising agencies, travel industries, and other service establishments operating on a commission basis, receipts include commissions, fees, and other operating income, NOT gross billings and sales. Excise taxes on gasoline, liquor, tobacco, etc., which are paid by the manufacturer or wholesaler and passed on in the cost of goods purchased by the service establishment are also included. The establishments share of receipts from departments, concessions, and vending and amusement machines operated by others are included as part of receipts. Receipts also include the total value of service contracts, market value of compensation received in lieu of cash, amounts received for work subcontracted to others, and dues and assessments from members and affiliates. Receipts from services provided to foreign customers from U.S. locations, including services preformed for foreign parent firms, subsidiaries, and branches are included.

Receipts are net after deductions for refunds and allowances for merchandise returned by customers. Receipts DO NOT include sales, occupancy, admissions, or other taxes collected from customers and remitted directly by the firm to a local, state, or Federal tax agency, nor do they include income from such sources as contributions, gifts, and grants; dividends, interest, and investments; or sale or rental of real estate. Also excluded are receipts (gross) of departments and concessions which are operated by others; sales of used equipment rented or leased to customers; domestic intracompany transfers; receipts of foreign subsidiaries; and other nonoperating income, such as royalties, franchise fees, etc. Receipts DO NOT include service receipts of manufacturers, wholesalers, retail establishments, or other businesses whose primary activity is other than service. They do, however, include receipts other than from services rendered (e.g., sale of merchandise to individuals or other businesses) by establishments primarily engaged in performing services and classified in the service industries.

TAX EXEMPT ESTABLISHMENTS: Includes revenue from customers or clients for services rendered and merchandise, whether or not payment was received, and gross sales of merchandise, minus returns and allowances. Also included are income from interest, dividends, gross rents (including display space rentals and share of receipts from departments operated by other companies), gross contributions, gifts, grants (whether or not restricted for use in operations), royalties, dues and assessments from members and affiliates, commissions earned from the sale of merchandise owned by others (including commissions from vending machine operators), and gross receipts from fundraising activities. Receipts from taxable business activities of firms exempt from Federal income tax (unrelated business income) are also included in revenue. Revenue DOES NOT include sales, admissions, or other taxes collected by the organization from customers or clients and paid directly to a local, state, or Federal tax agency; income from the sale of real estate, investments, or other assets (except inventory held for resale); gross receipts of departments, concessions, etc., that are operated by others; and amounts transferred to operating funds from capital or reserve funds.

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Real Estate and Rental and Leasing sector - Includes revenue from all business activities whether or not payment was received in the census year, including commissions and fees from all sources, rents, net investment income, interest, dividends, and royalties. Revenue from leasing property marketed under operating leases is included. Revenue also includes the total value of service contracts, amounts received for work subcontracted to others, and rents from real property sublet to others.

Revenue does not include sales and other taxes collected from customers and remitted directly by the firm to a local, state, or Federal tax agency.

Retail Trade sector - Includes merchandise sold for cash or credit at retail and wholesale by establishments primarily engaged in retail trade; amounts received from customers for layaway purchases; receipts from rental of vehicles, equipment, instruments, tools, etc.; receipts for delivery, installation, maintenance, repair, alteration, storage, and other services; the total value of service contracts; and gasoline, liquor, tobacco, and other excise taxes which are paid by the manufacturer or wholesaler and passed on to the retailer.

Sales are net after deductions for refunds and allowances for merchandise returned by customers. Trade-in allowances are not deducted from sales. Sales do not include carrying or other credit charges; sales (or other) taxes collected from customers and forwarded to taxing authorities; gross sales and receipts of departments or concessions operated by other companies; and commissions or receipts from the sale of government lottery tickets.

Sales do not include retail sales made by manufacturers, wholesalers, service establishments, or other businesses whose primary activity is other than retail trade. They do include receipts other than from the sale of merchandise at retail, e.g., service receipts, sales to industrial users, and sales to other retailers, by establishments primarily engaged in retail trade.

Transportation and Warehousing sector - Includes revenue from all business activities whether or not payment was received in the census year, including commissions and fees for arranging the transportation of freight.

Revenue does not include sales and other taxes collected from customers and remitted directly by the firm to a local, state, or Federal tax agency.

Utilities sector - Includes revenue from all business activities whether or not payment was received in the census year.

Revenue does not include sales and other taxes collected from customers and remitted directly by the firm to a local, state, or Federal tax agency.

Accommodation and Foodservices sector - Includes sales from customers for services rendered, from the use of facilities, and from merchandise sold. Also includes dues and assessments from members and affiliates.

Sales do not include carrying or other credit charges; sales (or other) taxes collected from customers and forwarded to taxing authorities; gross sales and receipts of departments or concessions operated by other companies; and commissions or receipts from the sale of government lottery tickets.

Excludes sales from civic and social organizations, amusement and recreation parks, theaters, and other recreation or entertainment facilities providing food and beverage services.

Number of Employees

General Definition

Paid employees consists of full-time and part-time employees, including salaried officers and executives of corporations. Included are employees on paid sick leave, paid holidays, and paid vacations; not included are proprietors and partners of unincorporated businesses. The definition of paid employees is the same as that used on IRS Form 941.

Sector-Specific Information

Construction and Manufacturing sectors. Comprises all full-time and part-time employees on the payrolls of establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November, divided by 4.

Finance and Insurance sector. Includes all employees who were on the payroll during the pay period including March 12. Excludes independent (nonemployee) agents.

Information; Professional, Scientific, and Technical Services; Administrative and Support and Waste Management and Remediation Services; Educational Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; and Other Services (Except Public Administration) sectors - Includes all employees who were on the payroll during the pay period including March 12. Includes members of a professional service organization or association which operates under state professional corporation statutes and files a corporate Federal income tax return. Excludes employees of departments or concessions operated by other companies at the establishment.

Management of Companies and Enterprises sector. Includes all employees who were on the payroll during the pay period including March 12.

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Mining sector. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boardinghouses, bunkhouses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Includes all employees who were on the payroll during the pay period including March 12.

Real Estate and Rental and Leasing sector. Includes all employees who were on the payroll during the pay period including March 12. Excludes independent (nonemployee) agents.

Retail Trade and Accommodation and Foodservices sectors. Includes all employees on the payroll during the pay period including March 12. Excludes employees of departments or concessions operated by other companies at the establishment.

Transportation and Warehousing sector. Includes all employees who were on the payroll during the pay period including March 12.

Utilities sector. Includes all employees who were on the payroll during the pay period including March 12.