



## THE YEARBOOK OF WORLD ELECTRONICS DATA

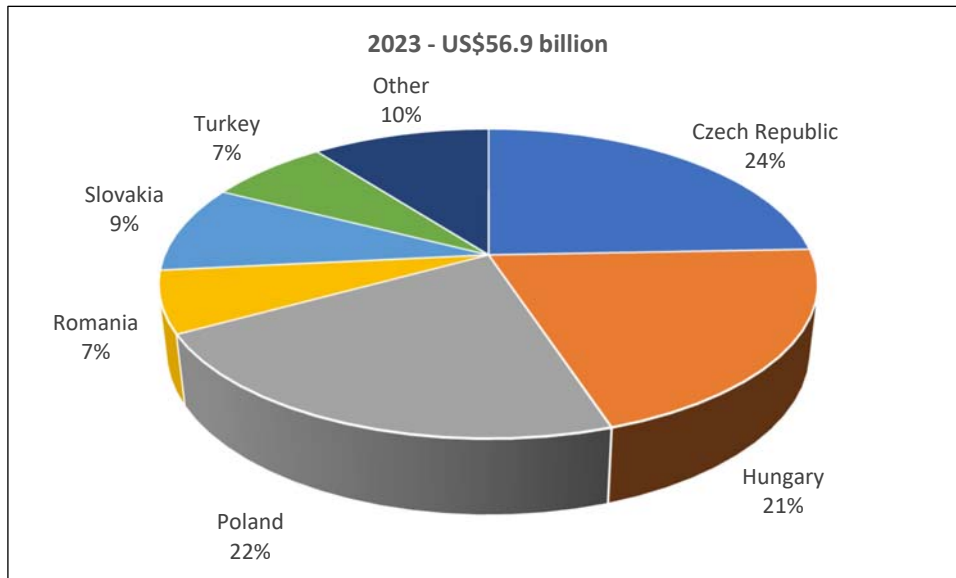
Components  
Computers  
Consumer  
Control and Instrumentation  
Medical and Industrial  
Office Equipment  
Radio Communications  
Telecommunications

# Volume Three EAST EUROPE & WORLD SUMMARY

# 2024

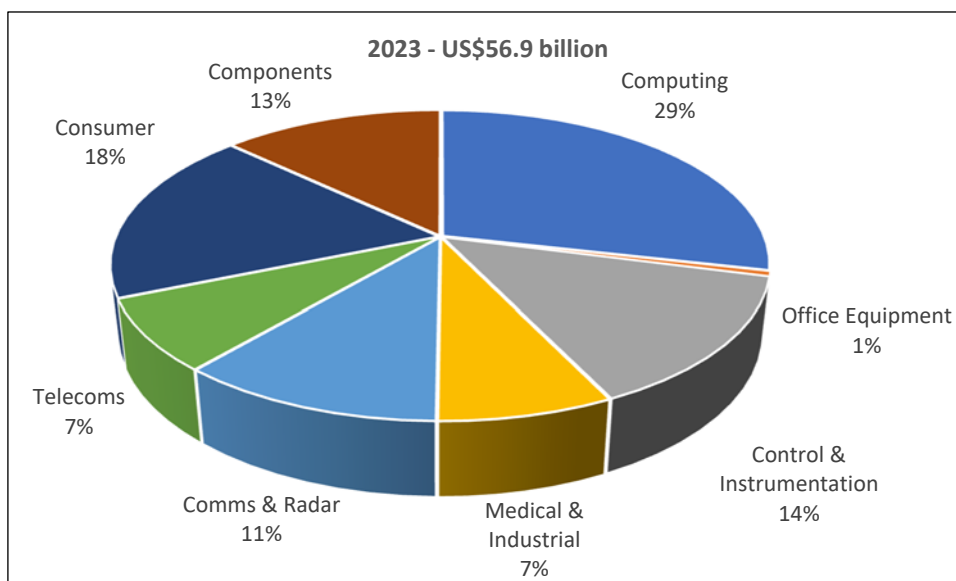
## Yearbook of World Electronics Data Volume 3 2024 – World Summary and Overview of Electronics Production & Markets in CEE

CEE's electronics industry is focused on a small number of major global OEMs and electronic manufacturing services providers with the focus on the 3C segments. In total, the 3C segments amounted to US\$37.3 billion in 2023, 65.5% of electronics equipment output. 3C production is centered on five countries with Poland, Slovakia and Turkey major centres for TV production. Production in the Czech Republic is focused on computing while Hungary is produces a combination of computing and consumer electronics related equipment.



CEE Electronics Production by Country 2023

The focus on 3C has been a key factor in the growth of electronics industry across CEE. However, with volume manufacturing in the hands of a relatively few companies the region continues to be vulnerable to the individual strategies of the company. Companies will need to balance the advantages of producing in close proximity to the European market against the advantages offered through lower costs by utilising manufacturing facilities in China and increasingly other Asian countries.

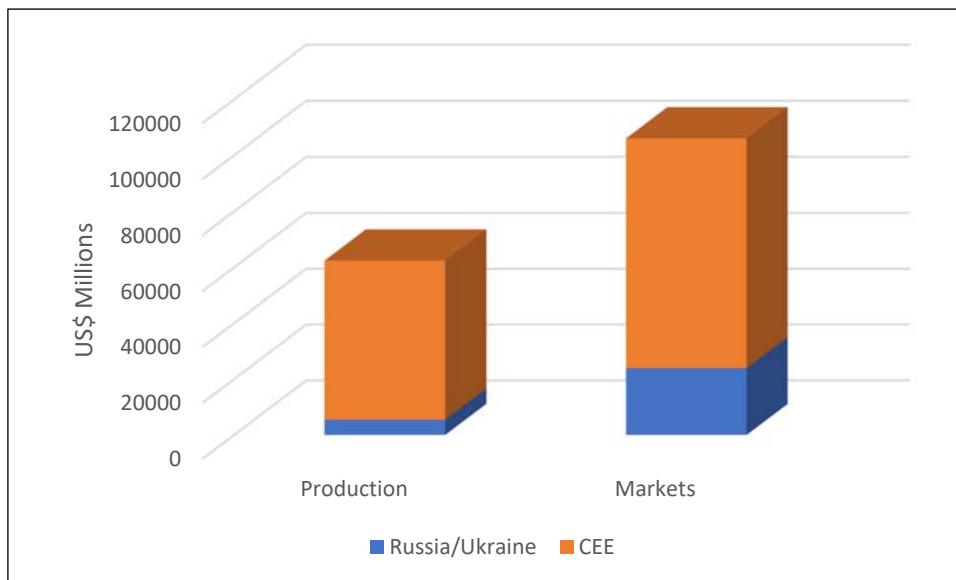


CEE Electronics Production by Product 2023

Industrial and high-end communications equipment production within the region will continue to take an increasing share of production, although in overall percentage terms it will remain low because of the dominant position held by the 3C segment. Although this will be led by foreign investment as companies look to move production from higher cost West European locations or in the case of non-European companies look to establish a low-cost manufacturing base to serve the European market, it is also an area where indigenous companies will compete.

The region is already a production base for many of the leading European Electronic Manufacturing Services (EMS) providers with the proportion of production undertaken in the region forecast to increase over the period to 2027. Although the major players with large volume production plants will continue to dominate in value terms companies over the period there will be significant investment by medium-sized companies looking for a lower-cost European production base.

Within CEE, components account for only 12.8% of electronics output in 2023. There are several indigenous companies although they tend to be small and focused on passive components. Foreign companies have established operations in the country including Infineon Technologies and onsemi, both companies expanding their existing semiconductor facilities in the region with onsemi in June 2024 announcing plans to invest US\$2 billion to expand silicon carbide wafer production at its existing operations in the country.



East European Electronics Production & Market by Region 2023

In 2023, Russia and Ukraine accounted for 8.8% of electronics production in the region and 22.6% of the market. At the end of 2023 electronics production in Russia and Ukraine is forecast at US\$5.5 billion and compared to US\$5.2 billion prior to the start of the conflict in 2021, with growth being driven by developments in Russia. In the same period the electronics market in the two countries has declined 39.8% to US\$23.9 billion (2021: US\$33.5 billion).

### Yearbook of World Electronics Data - Volume 3 East Europe & World Summary

Published since 1991 the Volume 3 of the Yearbook of World Electronics Data provides:

- Unique **World Summary** covering the 53 countries in the Yearbook of World Electronics Data series
- A single source solution allowing you to track the electronics industry in 13 countries in CEE
- 13 major product groups.
- Market and production forecasts.
- CD-option allows you to manipulate the data quickly and easily: produce your own subsets or summaries of the data, create your own forecasts or cut and paste the data into your own in-house reports and presentations.

## **Who will benefit ?**

The Yearbook is essential research providing key data for all areas of the electronics industry including:

- Distributors and manufacturers of electronic components and materials.
- Suppliers of electronic production equipment.
- OEMs.
- EMS Providers.
- Government, including investment organizations.
- Financial and industry analysts.
- Academic institutes & universities tracking developments in the electronics industry.

## **The Yearbook of World Electronics Data**

The Yearbook of World Electronics Data series presents market and production statistics for the GLOBAL electronics industry. Available in three published volumes covering 53 countries and 13 major product groups, the yearbook is used in the formulation of business and market planning, in tracking trends based on a clear understanding of how the industry has developed historically and to provide a basis for medium and long-term forecasting.

### ***53 country coverage, 13 major product groups***

... comparable **country by country** and **product by product**.

### ***Methodology***

The Yearbooks highlight market trends and opportunities and offer corroborative evidence for individual research. Each new edition is fully revised and updated. Trade statistics are analyzed in detail, with over 500 separate categories being employed. Production statistics are collected from Government and Manufacturer's Association sources where these are available. Extensive use is also made of research reports, company reports, news items and work by other consultants to supplement and cross-check the official and semi-official sources.

Markets are forecast in real terms for the next five years, with a production forecast for the next two years, using constant exchange rates and excluding inflation. These are based on our extensive knowledge of the historical performance of each product, the general economic outlook and the major growth influencing factors.

## **2024 Series**

### **Volume 1 2024 West Europe**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2021-2022; Exports 2021-2022; Production Data 2021-2024; Market Data 2021-2027

16 country coverage

Austria; Belgium; Denmark; Finland; France; Germany; Greece; Ireland; Italy; Netherlands; Norway; Portugal; Spain; Sweden; Switzerland; UK

Publication Data: July 2024

### **Volume 2 2024 America, Japan, Asia Pacific**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2021-2022; Exports 2021-2022; Production Data 2021-2024; Market Data 2021-2027

19 country coverage

Australia; Brazil; Canada; China, Hong Kong; India; Indonesia; Israel; Japan; Malaysia; Mexico, Philippines; Singapore; South Africa; South Korea; Taiwan Thailand; Vietnam, USA

Publication Data: August 2024

### **Volume 3 2024 East Europe & World Summary**

Synopsis: Economic Overview; Electronics Market Overview; Imports 2021-2022; Exports 2021-2022; Production Data 2021-2024; Market Data 2021-2027

53 Country World Summary covering production data 2021-2024 and market data for 2021-2027

13 country coverage

Bulgaria; Croatia; Czech Republic; Estonia; Hungary; Lithuania; Poland; Romania; Russia; Slovakia; Slovenia; Turkey, Ukraine

Publication Data: September 2024

For each country production and market data is supplied for the following product groups:

- Computers
- Consumer – Video; Audio; Personal
- Control & Instrumentation
- Medical & Industrial
- Office Equipment
- Radio Communications
- Telecommunications
- Components – Passive Components; Semiconductors; Other Components

### **Related Products & Services**

#### ***European Electronics Production 2000-2027***

As part of its program of research covering developments in the European electronics industry RER has released a new statistical database providing a medium-term outlook for electronics production in Europe. Covering the period 2000-2027, the research allows you to track developments both geographically and by major product group.

The database is provided as an Excel spreadsheet providing production data for 13 product groups and 29 countries split by Western Europe and Central and Eastern Europe.

#### ***Global Electronics Production & Markets***

Launched in 2012, Global Electronics Production & Markets provides top line analysis on the global electronics industry for the period 1995 to 2027 for markets and 1995-2024 for production. Through two Excel databases you can quickly analyze the structure of the global industry and how it has changed both geographically, through RER's unique coverage of 53 countries, and by thirteen major product groups. The new database will be available in October 2024.

#### ***Country Reports***

Drawing on data from its core statistical database RER provides a quick, reliable and cost-effective assessment of the electronics industry for an individual country. For a full listing please visit [www.rer.co.uk](http://www.rer.co.uk)

#### ***Custom Research***

Building on the flexibility of the two databases and the Yearbook series we can quickly search data by product or country/region to provide solutions tailored to your specific needs or budgets. Ideal for input into internal presentations/ documents the data is supplied via email.

#### ***European Electronic Markets Forecast***

Market data is only one part of the equation when analyzing the European electronics industry. Updated monthly, *European Electronic Markets Forecast* (EEMF) enables you to track with minimum time and cost, the key issues and opportunities impacting the European electronics industry. From originally researched articles to the latest company

developments and market analysis EEMF is your virtual "Research Analyst" utilizing over 40 years of industry and market research experience to provide you both in hardcopy and electronic formats not only reliable but objective analysis and news on the European and global electronics industry.

### **Summary of Contents**

**Market Analysis:** Up-to-the-minute analysis of the key sectors of the European and Global electronics industry

**Industry News:** The latest industry and company news split by:

- Finance
- Mergers & Acquisitions
- Automotive
- Battery Technology/Electrification
- Electronic Manufacturing Services/PCB
- Production
- Semiconductors
- Renewable Energy/CleanTech

**Asia Pacific Electronics:** A monthly summary of key company developments within the region.

**Industry Outlook** – Monthly overview of developments in the broader European manufacturing sector focusing on the latest Purchasing Managers' Index (PMI) data. In addition, the section provides regular updates on the European and global economy and developments in the supply chain.

**For additional information on the above publications or Reed Electronics Research's complete range of research products please contact or visit [www.rer.co.uk](http://www.rer.co.uk)**

Andrew Fletcher, Research Manager  
[andrew.fletcher@rer.co.uk](mailto:andrew.fletcher@rer.co.uk)

Reed Electronics Research  
7 Rectory Farm  
West Hanney  
Wantage, Oxon OX12 0LF  
United Kingdom  
Tel: +44 (0) 1235 868620  
website: [www.rer.co.uk](http://www.rer.co.uk)

## SAMPLE DATA

Over the following pages we provide sample data from the **current** edition of the report. This includes the full contents, summary data for both production and markets, and sample data from several countries.

### LIST OF CONTENTS

<b>1 INTRODUCTION</b>	<b>12</b>
<b>2 WORLD SUMMARY DATA</b>	<b>14</b>
2.1 Economic Overview	14
2.2 Electronics Overview	15
2.2.1 Americas	15
2.2.2 Japan	18
2.2.3 Asia	18
2.2.4 Western Europe	20
2.2.5 Eastern Europe	21
2.3 Summary of World Electronics Production 2021	22
2.4 Summary of World Electronics Production 2022	23
2.5 Summary of World Electronics Production 2023	24
2.6 Summary of World Electronics Production 2024	25
2.7 Summary of World Electronics Markets 2021	26
2.8 Summary of World Electronics Markets 2022	27
2.9 Summary of World Electronics Markets 2023	28
2.10 Summary of World Electronics Markets 2024	29
2.11 Summary of World Electronics Markets 2025	30
2.12 Summary of World Electronics Markets 2026	31
2.13 Summary of World Electronics Markets 2027	32
<b>3 CENTRAL &amp; EASTERN EUROPE SUMMARY DATA</b>	<b>33</b>
3.1 Central & Eastern Europe Economic Overview	33
3.2 Central & Eastern Europe Electronics Overview	35
3.3 Imports 2021-2022	38
3.4 Exports 2021-2022	39
3.5 Consolidated Summary of East Europe Production 2021	40
3.6 Consolidated Summary of East Europe Production 2022	40
3.7 Consolidated Summary of East Europe Production 2023	41
3.8 Consolidated Summary of East Europe Production 2024	41
3.9 Summary of East Europe Medical & Industrial Production	42
3.10 Summary of East Europe Consumer Production	43
3.11 Summary of East Europe Components Production	44
3.12 Consolidated East Europe Summary of Markets 2021	45
3.13 Consolidated East Europe Summary of Markets 2022	45
3.14 Consolidated East Europe Summary of Markets 2023	46
3.15 Consolidated East Europe Summary of Markets 2024	46
3.16 Consolidated East Europe Summary of Markets 2025	47
3.17 Consolidated East Europe Summary of Markets 2026	47
3.18 Consolidated East Europe Summary of Markets 2027	48
3.19 Summary of East Europe Medical & Industrial Markets	49
3.20 Summary of East Europe Consumer Markets	50
3.21 Summary of East Europe Components Markets	51
<b>4 COUNTRY DATA</b>	<b>52</b>
<b>4.1 BULGARIA</b>	<b>52</b>
4.1.1 Economic Outlook	52
4.1.2 Electronics Industry Structure	53
4.1.3 Bulgaria Production	56
EDP 2021-2024	56

Office Equipment 2021-2024	56
Control & Instrumentation 2021-2024	56
Medical & Industrial 2021-2024	56
Communications & Radar 2021-2024	56
Telecommunications 2021-2024	56
Consumer 2021-2024	56
Video 2021-2024	56
Audio 2021-2024	57
Personal 2021-2024	57
Components 2021-2024	57
Active 2021-2024	57
Passive 2021-2024	57
Other 2021-2024	57
4.1.4 Bulgaria Markets	58
EDP 2021-2027	58
Office Equipment 2021-2027	58
Control & Instrumentation 2021-2027	58
Medical & Industrial 2021-2027	58
Communications & Radar 2021-2027	58
Telecommunications 2021-2027	58
Consumer 2021-2027	58
Video 2021-2027	58
Audio 2021-2027	59
Personal 2021-2027	59
Components 2021-2027	59
Active 2021-2027	59
Passive 2021-2027	59
Other 2021-2027	59
<b>4.2 CROATIA</b>	<b>60</b>
4.2.1 Economic Outlook	60
4.2.2 Electronics Industry Structure	61
4.2.3 Croatia Production	64
EDP 2021-2024	64
Office Equipment 2021-2024	64
Control & Instrumentation 2021-2024	64
Medical & Industrial 2021-2024	64
Communications & Radar 2021-2024	64
Telecommunications 2021-2024	64
Consumer 2021-2024	64
Video 2021-2024	64
Audio 2021-2024	64
Personal 2021-2024	64
Components 2021-2024	65
Active 2021-2024	65
Passive 2021-2024	65
Other 2021-2024	65
3.2.4 Croatia Markets	66
EDP 2021-2027	66
Office Equipment 2021-2027	66
Control & Instrumentation 2021-2027	66
Medical & Industrial 2021-2027	66
Communications & Radar 2021-2027	66
Telecommunications 2021-2027	66
Consumer 2021-2027	66
Video 2021-2027	66
Audio 2021-2027	67



Personal 2021-2027	67
Components 2021-2027	67
Active 2021-2027	67
Passive 2021-2027	67
Other 2021-2027	67
<b>4.3 Czech Republic</b>	<b>68</b>
4.3.1 Economic Outlook	68
4.3.2 Electronics Industry Structure	69
4.3.3 Czech Republic Production	73
EDP 2021-2024	73
Office Equipment 2021-2024	73
Control & Instrumentation 2021-2024	73
Medical & Industrial 2021-2024	73
Communications & Radar 2021-2024	73
Telecommunications 2021-2024	73
Consumer 2021-2024	73
Video 2021-2024	73
Audio 2021-2024	74
Personal 2021-2024	74
Components 2021-2024	74
Active 2021-2024	74
Passive 2021-2024	74
Other 2021-2024	75
4.3.4 Czech Republic Markets	76
EDP 2021-2027	76
Office Equipment 2021-2027	76
Control & Instrumentation 2021-2027	76
Medical & Industrial 2021-2027	76
Communications & Radar 2021-2027	76
Telecommunications 2021-2027	76
Consumer 2021-2027	76
Video 2021-2027	76
Audio 2021-2027	77
Personal 2021-2027	77
Components 2021-2027	77
Active 2021-2027	77
Passive 2021-2027	77
Other 2021-2027	77
<b>4.4 Estonia</b>	<b>78</b>
4.4.1 Economic Outlook	78
4.4.2 Electronics Industry Structure	79
4.4.3 Estonia Production	82
EDP 2021-2024	82
Office Equipment 2021-2024	82
Control & Instrumentation 2021-2024	82
Medical & Industrial 2021-2024	82
Communications & Radar 2021-2024	82
Telecommunications 2021-2024	82
Consumer 2021-2024	82
Video 2021-2024	82
Audio 2021-2024	82
Personal 2021-2024	82
Components 2021-2024	83
Active 2021-2024	83
Passive 2021-2024	83
Other 2021-2024	83

4.4.4 Estonia Markets	84
EDP 2021-2027	84
Office Equipment 2021-2027	84
Control & Instrumentation 2021-2027	84
Medical & Industrial 2021-2027	84
Communications & Radar 2021-2027	84
Telecommunications 2021-2027	84
Consumer 2021-2027	84
Video 2021-2027	84
Audio 2021-2027	85
Personal 2021-2027	85
Components 2021-2027	85
Active 2021-2027	85
Passive 2021-2027	85
Other 2021-2027	85
<b>4.5 HUNGARY</b>	<b>86</b>
4.5.1 Economic Outlook	86
4.5.2 Electronics Industry Structure	87
4.5.3 Hungary Production	90
EDP 2021-2024	90
Office Equipment 2021-2024	90
Control & Instrumentation 2021-2024	90
Medical & Industrial 2021-2024	90
Communications & Radar 2021-2024	90
Telecommunications 2021-2024	90
Consumer 2021-2024	90
Video 2021-2024	90
Audio 2021-2024	91
Personal 2021-2024	91
Components 2021-2024	91
Active 2021-2024	91
Passive 2021-2024	91
Other 2021-2024	92
4.5.4 Hungary Markets	93
EDP 2021-2027	93
Office Equipment 2021-2027	93
Control & Instrumentation 2021-2027	93
Medical & Industrial 2021-2027	93
Communications & Radar 2021-2027	93
Telecommunications 2021-2027	93
Consumer 2021-2027	93
Video 2021-2027	93
Audio 2021-2027	94
Personal 2021-2027	94
Components 2021-2027	94
Active 2021-2027	94
Passive 2021-2027	94
Other 2021-2027	95
<b>4.6 LITHUANIA</b>	<b>96</b>
4.6.1 Economic Outlook	96
4.6.2 Electronics Industry Structure	97
4.6.3 Lithuania Production	100
EDP 2021-2024	100
Office Equipment 2021-2024	100
Control & Instrumentation 2021-2024	100
Medical & Industrial 2021-2024	100

Communications & Radar 2021-2024	100
Telecommunications 2021-2024	100
Consumer 2021-2024	100
Video 2021-2024	100
Audio 2021-2024	101
Personal 2021-2024	101
Components 2021-2024	101
Active 2021-2024	101
Passive 2021-2024	101
Other 2021-2024	101
4.6.4 Lithuania Markets	102
EDP 2021-2027	102
Office Equipment 2021-2027	102
Control & Instrumentation 2021-2027	102
Medical & Industrial 2021-2027	102
Communications & Radar 2021-2027	102
Telecommunications 2021-2027	102
Consumer 2021-2027	102
Video 2021-2027	102
Audio 2021-2027	103
Personal 2021-2027	103
Components 2021-2027	103
Active 2021-2027	103
Passive 2021-2027	103
Other 2021-2027	103
<b>4.7 POLAND</b>	<b>104</b>
4.7.1 Economic Outlook	104
4.7.2 Electronics Industry Structure	105
4.7.3 Poland Production	108
EDP 2021-2024	108
Office Equipment 2021-2024	108
Control & Instrumentation 2021-2024	108
Medical & Industrial 2021-2024	108
Communications & Radar 2021-2024	108
Telecommunications 2021-2024	108
Consumer 2021-2024	109
Video 2021-2024	109
Audio 2021-2024	109
Personal 2021-2024	109
Components 2021-2024	109
Active 2021-2024	109
Passive 2021-2024	109
Other 2021-2024	110
4.7.4 Poland Markets	111
EDP 2021-2027	111
Office Equipment 2021-2027	111
Control & Instrumentation 2021-2027	111
Medical & Industrial 2021-2027	111
Communications & Radar 2021-2027	111
Telecommunications 2021-2027	111
Consumer 2021-2027	111
Video 2021-2027	112
Audio 2021-2027	112
Personal 2021-2027	112
Components 2021-2027	112
Active 2021-2027	112

Passive 2021-2027	112
Other 2021-2027	112
<b>4.8 ROMANIA</b>	<b>114</b>
4.8.1 Economic Outlook	114
4.8.2 Electronics Industry Structure	115
4.8.3 Romania Production	118
EDP 2021-2024	118
Office Equipment 2021-2024	118
Control & Instrumentation 2021-2024	118
Medical & Industrial 2021-2024	118
Communications & Radar 2021-2024	118
Telecommunications 2021-2024	118
Consumer 2021-2024	118
Video 2021-2024	118
Audio 2021-2024	118
Personal 2021-2024	118
Components 2021-2024	119
Active 2021-2024	119
Passive 2021-2024	119
Other 2021-2024	119
4.8.4 Romania Markets	120
EDP 2021-2027	120
Office Equipment 2021-2027	120
Control & Instrumentation 2021-2027	120
Medical & Industrial 2021-2027	120
Communications & Radar 2021-2027	120
Telecommunications 2021-2027	120
Consumer 2021-2027	120
Video 2021-2027	120
Audio 2021-2027	121
Personal 2006-2012	121
Personal 2021-2027	121
Components 2021-2027	121
Active 2021-2027	121
Passive 2021-2027	121
Other 2021-2027	121
<b>4.9 RUSSIA</b>	<b>122</b>
4.9.1 Economic Outlook	122
4.9.2 Electronics Industry Structure	123
4.9.3 Russia Production	125
EDP 2021-2024	125
Office Equipment 2021-2024	125
Control & Instrumentation 2021-2024	125
Medical & Industrial 2021-2024	125
Communications & Radar 2021-2024	125
Telecommunications 2021-2024	125
Consumer 2021-2024	125
Video 2021-2024	125
Audio 2021-2024	126
Personal 2021-2024	126
Components 2021-2024	126
Active 2021-2024	126
Passive 2021-2024	126
Other 2021-2024	126
4.9.4 Russia Markets	127
EDP 2021-2027	127

Office Equipment 2021-2027	127
Control & Instrumentation 2021-2027	127
Medical & Industrial 2021-2027	127
Communications & Radar 2021-2027	127
Telecommunications 2021-2027	127
Consumer 2021-2027	127
Video 2021-2027	127
Audio 2021-2027	128
Personal 2021-2027	128
Components 2021-2027	128
Active 2021-2027	128
Passive 2021-2027	128
Other 2021-2027	128
<b>4.10 SLOVAKIA</b>	<b>129</b>
4.10.1 Economic Outlook	129
4.10.2 Electronics Industry Structure	130
4.10.3 Slovakia Production	133
EDP 2021-2024	133
Office Equipment 2021-2024	133
Control & Instrumentation 2021-2024	133
Medical & Industrial 2021-2024	133
Communications & Radar 2021-2024	133
Telecommunications 2021-2024	133
Consumer 2021-2024	133
Video 2021-2024	133
Audio 2021-2024	134
Personal 2021-2024	134
Components 2021-2024	134
Active 2021-2024	134
Passive 2021-2024	134
Other 2021-2024	134
4.10.4 Slovakia Markets	135
EDP 2021-2027	135
Office Equipment 2021-2027	135
Control & Instrumentation 2021-2027	135
Medical & Industrial 2021-2027	135
Communications & Radar 2021-2027	135
Telecommunications 2021-2027	135
Consumer 2021-2027	135
Video 2021-2027	135
Audio 2021-2027	136
Personal 2021-2027	136
Components 2021-2027	136
Active 2021-2027	136
Passive 2021-2027	136
Other 2021-2027	136
<b>4.11 SLOVENIA</b>	<b>137</b>
4.11.1 Economic Outlook	137
4.11.2 Electronics Industry Structure	138
4.11.3 Slovenia Production	141
EDP 2021-2024	141
Office Equipment 2021-2024	141
Control & Instrumentation 2021-2024	141
Medical & Industrial 2021-2024	141
Communications & Radar 2021-2024	141
Telecommunications 2021-2024	141

Consumer 2021-2024	141
Video 2021-2024	141
Audio 2021-2024	141
Personal 2021-2024	141
Components 2021-2024	142
Active 2021-2024	142
Passive 2021-2024	142
Other 2021-2024	142
4.11.4 Slovenia Markets	143
EDP 2021-2027	143
Office Equipment 2021-2027	143
Control & Instrumentation 2021-2027	143
Medical & Industrial 2021-2027	143
Communications & Radar 2021-2027	143
Telecommunications 2021-2027	143
Consumer 2021-2027	143
Video 2021-2027	143
Audio 2021-2027	144
Personal 2021-2027	144
Components 2021-2027	144
Active 2021-2027	144
Passive 2021-2027	144
Other 2021-2027	144
<b>4.12 TURKEY</b>	<b>145</b>
4.12.1 Economic Outlook	145
4.12.2 Electronics Industry Structure	146
4.12.3 Turkey Production	149
EDP 2021-2024	149
Office Equipment 2021-2024	149
Control & Instrumentation 2021-2024	149
Medical & Industrial 2021-2024	149
Communications & Radar 2021-2024	149
Telecommunications 2021-2024	149
Consumer 2021-2024	149
Video 2021-2024	149
Audio 2021-2024	150
Personal 2021-2024	150
Components 2021-2024	150
Active 2021-2024	150
Passive 2021-2024	150
Other 2021-2024	151
4.12.4 Turkey Markets	152
EDP 2021-2027	152
Office Equipment 2021-2027	152
Control & Instrumentation 2021-2027	152
Medical & Industrial 2021-2027	152
Communications & Radar 2021-2027	152
Telecommunications 2021-2027	152
Consumer 2021-2027	152
Video 2021-2027	152
Audio 2021-2027	153
Personal 2021-2027	153
Components 2021-2027	153
Active 2021-2027	153
Passive 2021-2027	153
Other 2021-2027	154

<b>4.13 UKRAINE</b>	<b>155</b>
4.13.1 Economic Outlook	155
4.13.2 Electronics Industry Structure	156
4.13.3 Ukraine Production	158
EDP 2021-2024	158
Office Equipment 2021-2024	158
Control & Instrumentation 2021-2024	158
Medical & Industrial 2021-2024	158
Communications & Radar 2021-2024	158
Telecommunications 2021-2024	158
Consumer 2021-2024	158
Video 2021-2024	158
Audio 2021-2024	158
Personal 2021-2024	158
Components 2021-2024	159
Active 2021-2024	159
Passive 2021-2024	159
Other 2021-2024	159
4.13.4 Ukraine Markets	160
EDP 2021-2027	160
Office Equipment 2021-2027	160
Control & Instrumentation 2021-2027	160
Medical & Industrial 2021-2027	160
Communications & Radar 2021-2027	160
Telecommunications 2021-2027	160
Consumer 2021-2027	160
Video 2021-2027	160
Audio 2021-2027	161
Personal 2021-2027	161
Components 2021-2027	161
Active 2021-2027	161
Passive 2021-2027	161
Other 2021-2027	161
<b>5 APPENDICES</b>	<b>162</b>
5.1 World Exchange Rates	162
5.2 Guide to the Interpretation of the Statistics	163
5.3 Guide to International Statistical Classifications	167
5.4 Guide to the Definition of the Electronic Product Headings	169
5.5 List of Sources	176

**SUMMARY OF WORLD PRODUCTION 2023**

Table 2.3.3

Country	\$M Computing	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecommunications	\$M Consumer	\$M Compo-nents	\$M TOTAL
Australia	563	4	927	235	1079	695	20	396	3920
Austria	163	2	1516	1033	440	359	4	2554	6072
Belgium	473	-	918	1000	555	183	5	990	4125
Brazil	7379	169	1751	377	5000	880	1777	2007	19340
Bulgaria	240	32	335	157	125	70	11	461	1431
Canada	533	5	3259	978	3444	246	7	741	9214
China	262000	3450	21200	13300	176000	54000	36670	235245	801865
Croatia	25	5	105	61	42	40	-	199	477
Czech	7860	8	1400	390	1450	425	387	1966	13886
Denmark	220	-	1444	947	417	113	30	452	3623
Egypt	27	1	10	14	98	18	658	39	866
Estonia	60	1	300	103	320	415	-	215	1414
Finland	38	-	1168	511	577	321	-	446	3061
France	793	49	4062	2343	11370	1425	122	8208	28372
Germany	2462	52	24863	8985	3103	1603	1030	20001	62100
Greece	191	7	75	21	191	83	2	76	646
Hong Kong	111	8	46	125	104	89	234	368	1085
Hungary	3060	160	2400	350	740	770	2539	1684	11703
India	3995	105	2427	766	23547	1695	3823	1892	38251
Indonesia	1750	39	310	414	2250	1600	2511	3896	12770
Ireland	1190	4	902	2370	266	133	10	6253	11128
Israel	1290	9	3180	1775	1400	1580	18	4892	14144
Italy	647	33	4299	1890	2707	1013	25	6155	16768
Japan	13132	441	9765	6826	7929	1537	1779	47722	89132
Lithuania	13	8	230	180	280	150	1	116	978
Malaysia	11320	55	6404	1124	1316	3070	2142	50636	76066
Mexico	31800	127	3700	2254	3000	3500	12880	5785	63046
Netherlands	793	0	3327	3541	462	283	29	1400	9836
N Zealand	164	2	208	78	169	91	2	146	861
Norway	91	-	583	202	375	82	-	103	1435
Philippines	3500	91	800	275	800	700	194	9474	15834
Poland	2210	30	1060	1920	1940	1300	3256	814	12530
Portugal	82	-	207	102	397	130	878	545	2340
Puerto Rico	424	2	139	234	88	72	6	316	1281
Romania	710	14	1350	295	450	590	24	235	3668
Russia	1600	35	650	400	500	220	979	705	5089
Saudi Arabia	174	1	192	154	102	102	3	83	811
Singapore	8284	114	5821	1222	2985	434	172	68720	87752
Slovakia	560	10	260	249	225	240	2733	935	5212
Slovenia	145	3	290	69	200	95	457	362	1621
South Africa	293	1	114	71	173	192	149	99	1093
South Korea	9840	127	2950	2550	13630	1092	1057	100872	132118
Spain	298	5	533	587	934	533	11	1138	4038
Sweden	56	-	1582	214	1694	994	72	605	5218
Switzerland	472	7	6050	2818	473	391	3946	2316	16472
Taiwan	21923	9	577	3667	6731	1635	414	94824	129780
Thailand	11748	199	802	378	745	2536	1419	11694	29521
Turkey	1380	6	120	381	550	150	1042	383	4012
UK	1588	100	6261	3493	6136	331	268	3034	21210
Ukraine	70	2	45	95	100	60	5	53	430
USA	29454	820	48805	35580	88440	8303	701	69145	281248
Venezuela	38	2	9	17	65	17	6	17	172
Vietnam	17250	134	1004	1049	36761	12359	3851	9815	82223
<b>TOTAL</b>	<b>464481</b>	<b>6489</b>	<b>180737</b>	<b>108169</b>	<b>412876</b>	<b>108946</b>	<b>88361</b>	<b>781229</b>	<b>2151288</b>

Notes: 2023 is an estimate at current exchange rates. West Europe figures are taken from Volume 1 of the 2024 edition of the Yearbook. US, Japan & Asia Pacific figures are taken from Volume 2 of the 2024 edition of the Yearbook. \* includes mobile phones



### SUMMARY OF EAST EUROPE PRODUCTION 2023

Table 3.4.3

Country	\$M EDP	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecomm- unications	\$M Consumer	\$M Compo- nents	\$M TOTAL
Bulgaria	240	32	335	157	125	70	11	461	1431
Croatia	25	5	105	61	42	40	-	199	477
Czech	7860	8	1400	390	1450	425	387	1966	13886
Estonia	60	1	300	103	320	415	-	215	1414
Hungary	3060	160	2400	350	740	770	2539	1684	11703
Lithuania	13	8	230	180	280	150	1	116	978
Poland	2210	30	1060	1920	1940	1300	3256	814	12530
Romania	710	14	1350	295	450	590	24	235	3668
Russia	1600	35	650	400	500	220	979	705	5089
Slovakia	560	10	260	249	225	240	2733	935	5212
Slovenia	145	3	290	69	200	95	457	362	1621
Turkey	1380	6	120	381	550	150	1042	383	4012
Ukraine	70	2	45	95	100	60	5	53	430
<b>TOTAL</b>	<b>17933</b>	<b>314</b>	<b>8545</b>	<b>4650</b>	<b>6922</b>	<b>4525</b>	<b>11434</b>	<b>8128</b>	<b>62451</b>

### SUMMARY OF EAST EUROPE MARKETS 2023

Table 3.5.3

Country	\$M EDP	\$M Office Equip	\$M Control & Instr	\$M Medical & Industrial	\$M Radio Comms & Radar*	\$M Telecomm- unications	\$M Consumer	\$M Compo- nents	\$M TOTAL
Bulgaria	550	13	188	173	599	245	217	1046	3031
Croatia	400	12	170	151	409	171	144	430	1887
Czech	2734	34	1576	541	1372	322	562	5949	13090
Estonia	259	3	161	107	131	55	61	615	1392
Hungary	2032	35	487	459	757	319	369	5770	10228
Lithuania	248	9	184	117	264	108	113	645	1688
Poland	4045	82	1746	616	2888	1392	956	6164	17889
Romania	1354	29	894	466	1848	753	317	3946	9607
Russia	6871	124	2249	1472	4823	1227	1437	2214	20417
Slovakia	1019	8	693	319	739	274	246	2247	5545
Slovenia	344	7	215	122	430	182	112	632	2044
Turkey	5223	147	2328	1467	2651	425	351	3168	15760
Ukraine	961	22	283	243	822	289	115	775	3510
<b>TOTAL</b>	<b>26040</b>	<b>525</b>	<b>11174</b>	<b>6253</b>	<b>17733</b>	<b>5762</b>	<b>5000</b>	<b>33601</b>	<b>106088</b>

## 4.7 Poland

### 4.7.1 Economic Overview

#### GDP

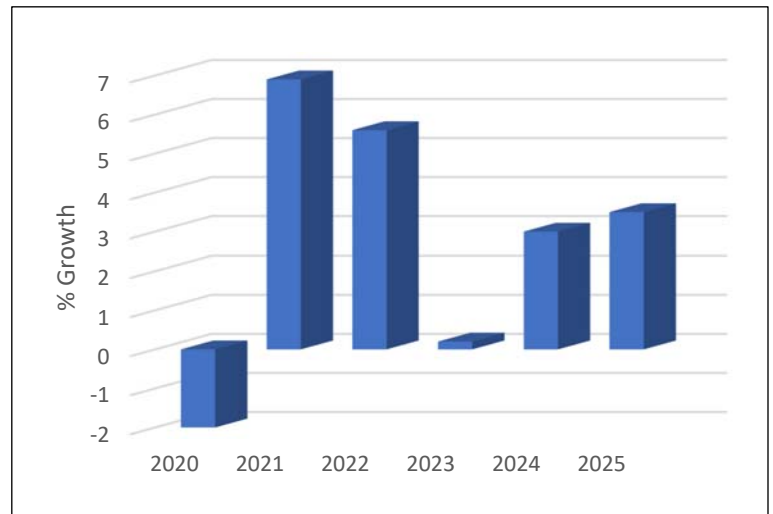
After a sharp slowdown in 2023, economic growth rebounded in 2024. Private consumption is expected to be the main growth driver, supported by rapidly rising wages, additional government social support boosting disposable income, improved consumer sentiment, and receding inflationary pressures. The positive contribution of public consumption is set to increase in 2024. Investment is forecast to support growth, but less than in 2023, the final year when EU funding from the 2014-20 programming period could be spent. In 2025, real GDP is forecast to increase by 3.4%. Private consumption is set to remain the key driver of growth amid accelerating EU-funded investment while growth of public consumption slows.

#### Inflation

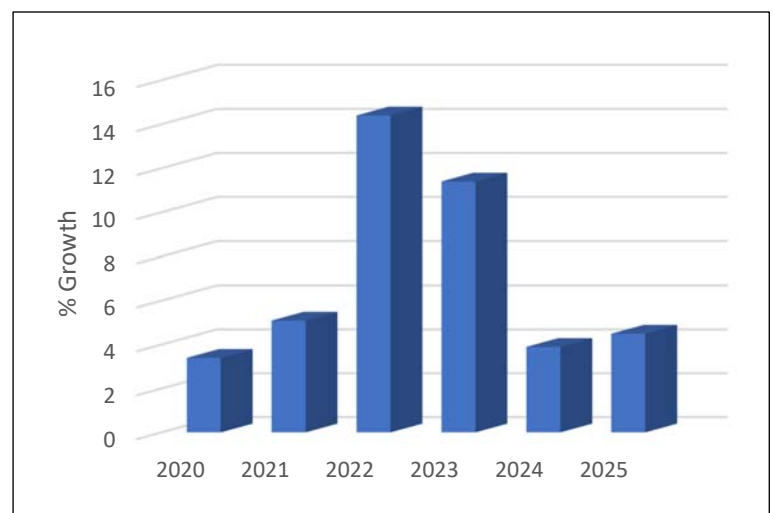
After reaching 10.9% in 2023, headline inflation is forecast to significantly ease in 2024. In September 2024 consumer prices increased by 4.9% YoY (services +6.8% and goods + 4,2%) and are forecast to fall to 3.9% for the year.

#### Employment

Unemployment was broadly unchanged in 2023 as employers reduced working hours but were mostly reluctant to lay-off workers. The unemployment rate is set to rise marginally in 2024, but remain at a historical low of close to 3%. Employment is projected to stagnate in 2024 and 2025. Wages are expected to continue growing at a fast pace, fuelled by a 20% minimum wage increase in 2024, a large salary increase in the public sector, and a historically-low unemployment rate. Real wages are set to increase significantly in both 2024 and 2025.



GDP 2020-2025



Consumer Prices 2020-2025

#### Poland Leading Economic Indicators

% Increase	Actual			Forecast		
	2020	2021	2022	2023	2024	2025
Real GDP Growth	-2.0	6.9	5.6	0.2	3.0	3.5
Consumer Prices	3.4	5.1	14.4	11.4	3.9	4.5

Source: IMF October 2024, EU Economic Forecast

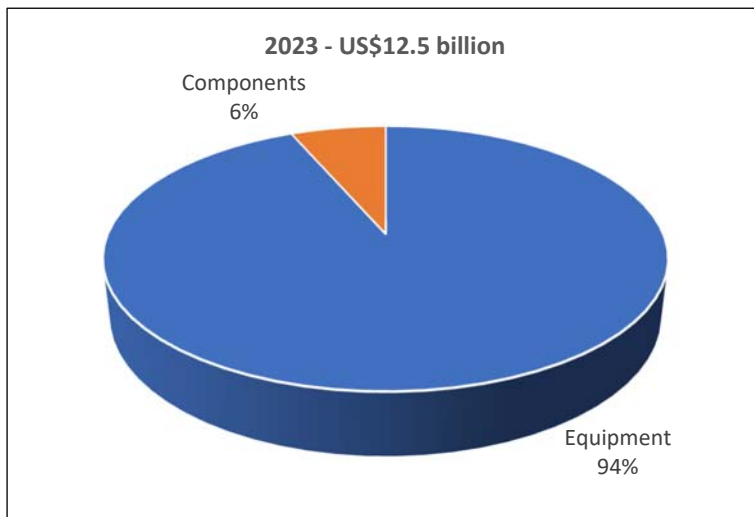
## 4.7.2 Electronics Industry Overview

### Overview

#### Summary of Polish Electronics Production 2019-2024

US\$ Millions	2019	2020	2021	2022	2023	2024
Computing	2976	2588	2800	2560	2240	2305
Industrial	1800	1765	2310	2470	2980	2892
Communications	1865	1970	2445	2885	3240	3285
Consumer	4076	4139	4557	3841	3256	3408
Components	601	613	697	805	814	795
Total	11318	11075	12809	12561	12530	12686

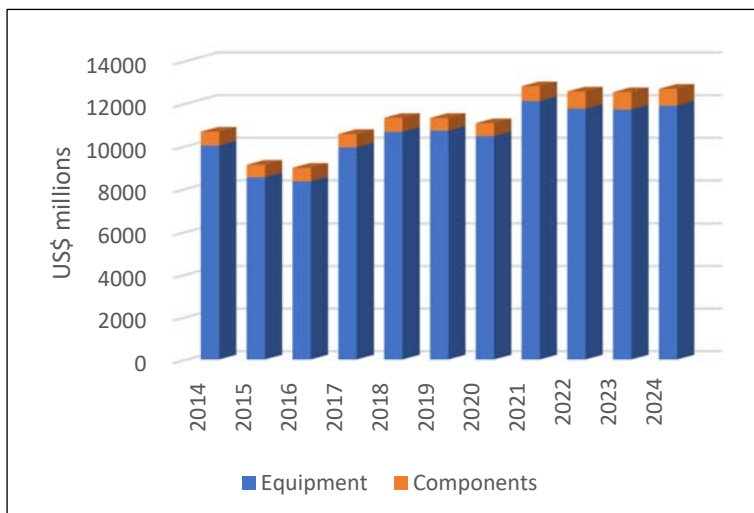
Notes: Computing includes office equipment; Industrial combines control and instrumentation and medical and industrial; and communications combines fixed and wireless communications (inc. defence). Due to computer rounding the summary figures above may differ slightly from the figures presented in the main tables.



Electronics production in Poland reached US\$12.5 billion in 2023, a decline of 0.2% (-6.1% in local currency). Growth in the industrial and communications and radar segments offset by declining output in computing, consumer video and telecommunications.

The industry is centred on the production of LCD TVs and monitors with LCD TVs accounting for 26.5% of overall production in 2023 and computing with a 19.1% share.

Polish Electronics Production 2023



Polish Electronics Production 2014-2024

**Electronics Equipment**

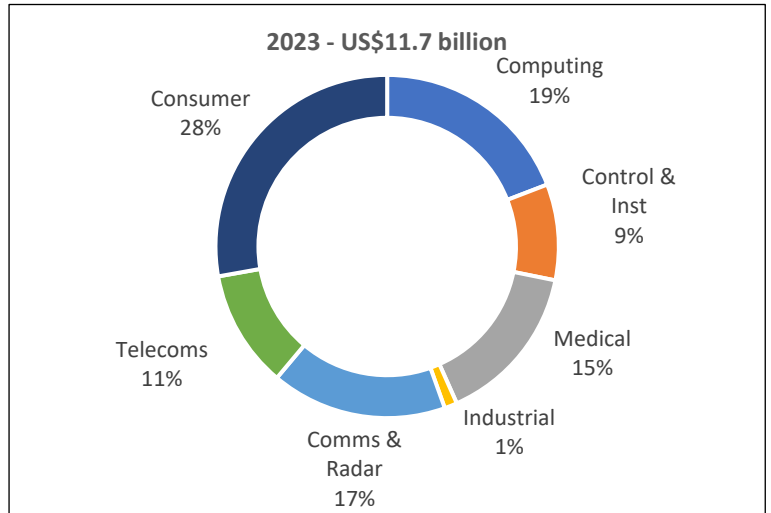
As highlighted Poland's electronics industry is heavily dependent on the production of TVs the country home to several of the world's leading manufacturers including South Korea's LG Electronics, Hong-headquartered TPV Technology, the Chinese company TCL and the Turkish electronics and appliances manufacturer Vestel.

According to official government figures in 2023 14.4 million TVs and monitors were produced in the country, down from 17.2 million in the prior year, and the peak of 26.3 million in 2010. In the first eight months of 2023 output amounted to 9.5 million, 9.4% higher than the same period in the prior year. It is estimated that around 65-70% of production in 2023 were LCD TVs.

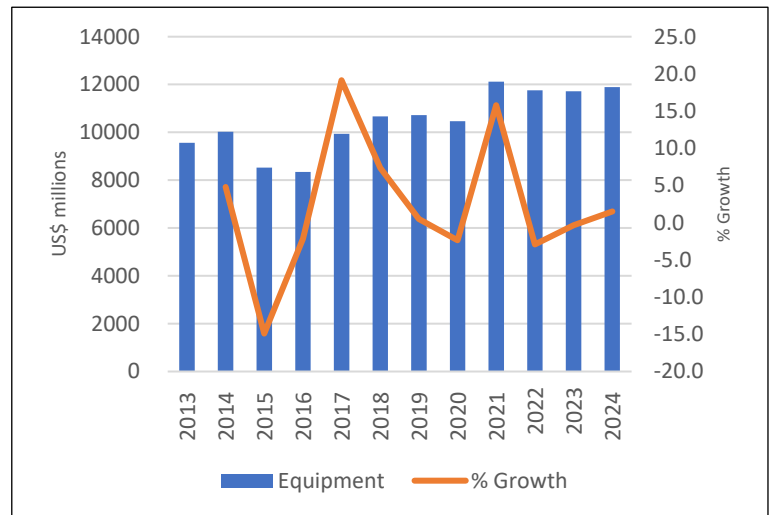
The production of PCs amounted to 2.65 million units in 2023, down from 3.32 million in the prior year and the peak of 6.36 million in 2010. In value terms the production of computer and related equipment declined by 17.7% in local currency in 2023 (down 12.6% in US dollars) but is forecast to increase by 3.0% in 2024.

The production of communications equipment accounted for an estimated 27.7% of total electronics equipment output in 2023. The production of radio communications and radar increased by 27.6% in 2022 (10.4% in US dollars) and compared to the prior year's increase of 23.0% (30.6% in US dollars). Output is forecast increase by a further 5.0% in 2023. The surge in output has been driven by strong growth in the production of radar and navigation aids. The production of telecommunications equipment after increasing by 47.1% in 2022 (27.3% in US dollars), declined by 12.6% (-7.1% in US dollars) and is forecast to fall by a further 4.0% in 2023.

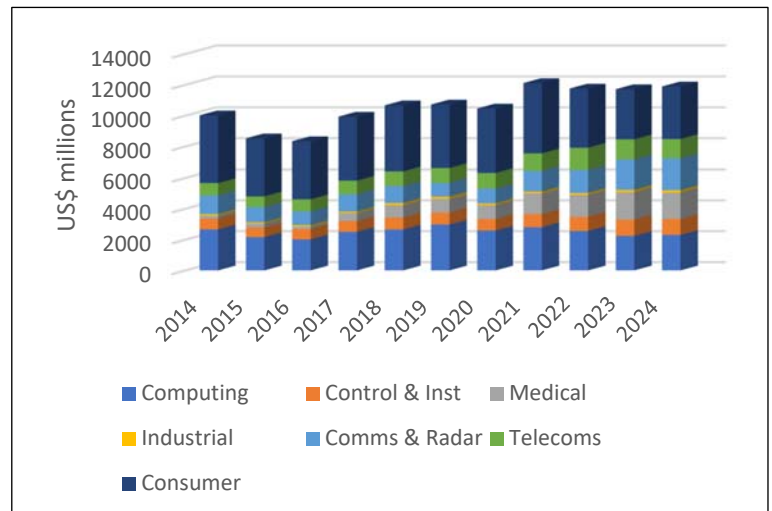
Focused on the production of hearing aids the medical segment posted growth of 23.3% in 2022 and 17.2% in 2023 (6.7% and 24.5% in US dollars) on the back of strong demand in key export markets.



*Polish Electronics Equipment Production by Sector 2023*



*Polish Electronics Equipment Production 2014-2024*



*Polish Electronics Equipment Production by Sector 2014-2024*

Poland is a leading manufacturer of household appliances with several of the leading manufacturers establishing manufacturing facilities in the country. According to official government figures 5.7 million washing machines were produced in 2023 (2022: 6.3 million/2021: 7.0 million), 4.8 million dishwashers (2022: 5.6 million/2021: 5.9 million), 3.0 million dryers (2022: 2.5 million/2021: 3.9 million) and 3.4 million refrigerators and freezers (2022: 3.5 million/2021: 3.95 million).

The country is also a leading producer of utility meters with 6.1 million electricity meters produced in 2023 (2022: 5.3 million/2021: 6.9 million), 2.0 million gas meters (2022: 2.6 million/2021: 3.5 million) and 5.6 million water meters (2022: 5.7 million/2021: 5.1 million).

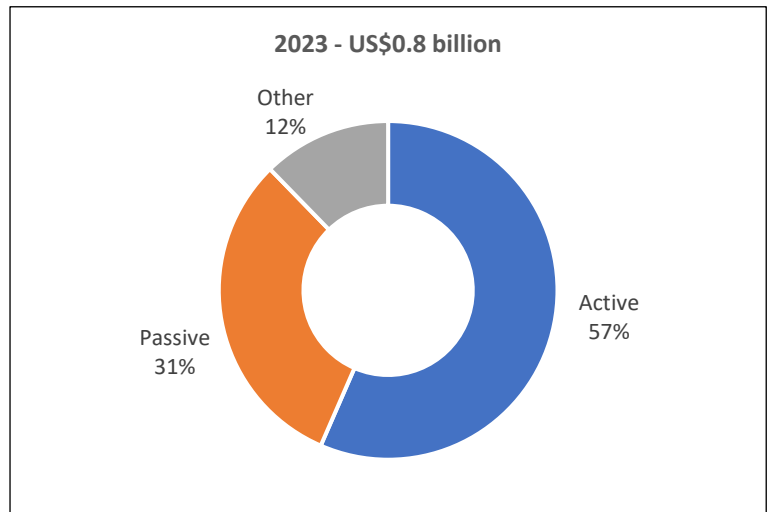
### Components

As with other countries in CEE the production of electronic components is relatively small at US\$814 million in 2023. After growth of 33.4% in 2022 output declined by 4.8% in 2023 (15.1% and 1.1% in US dollars) and is forecast to fall by a further 2.3% in 2024. Lower prices for photovoltaic modules the major contributing for the decline in output in 2023/2024.

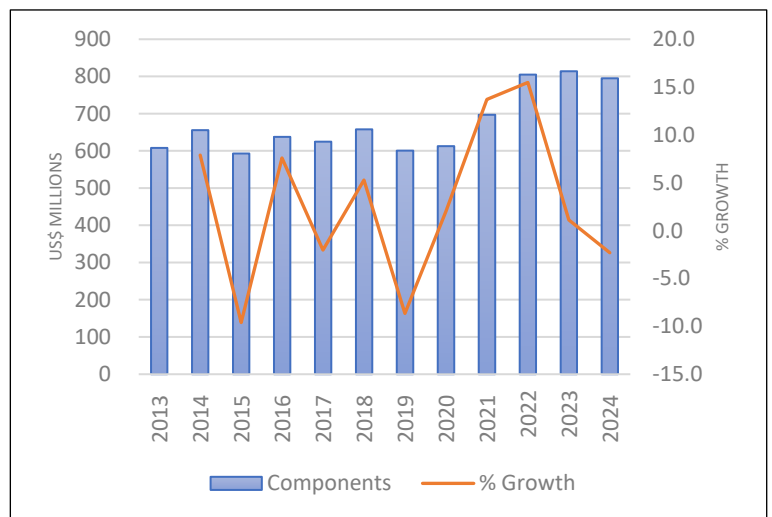
### Outlook

Poland's electronics industry is heavily dependent on foreign companies primarily in the TV and computer sectors and will remain vulnerable to the strategic plans of individual companies. For the TV sector production is set to mirror the trends in the overall market with relatively modest unit growth and the move to more advanced models. The production of PCs will face competition as manufacturers look at lower cost alternatives in Asia and potentially CEE.

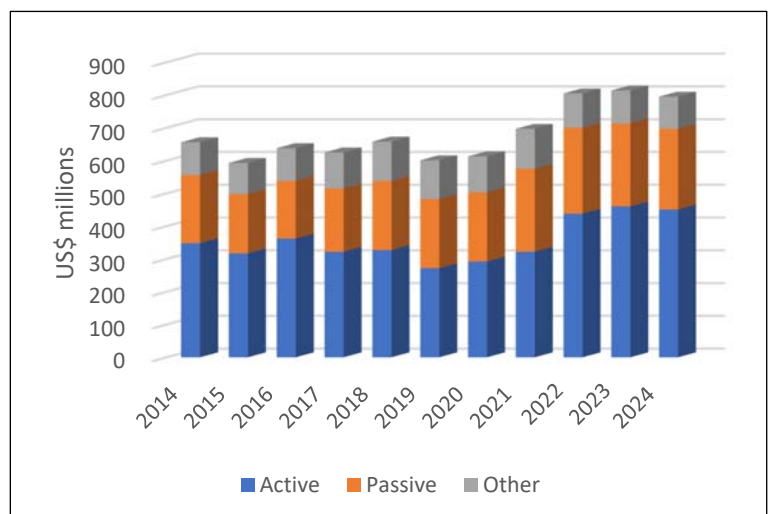
The industry will benefit from increased output in the industrial and communication equipment sectors. Poland's established infrastructure, broad network of suppliers and skilled workforce will continue to make it an attractive location despite rising costs.



Polish Electronics Component Production 2023



Polish Electronics Component Production 2014-2024



Polish Electronics Component Production by Sector 2014-2024

### 4.8.3 ROMANIA PRODUCTION

<b>COMPUTING</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Computing Total	LeuB	3203	3002	3245	3310
	<b>\$M</b>	<b>770</b>	<b>640</b>	<b>710</b>	<b>724</b>
<b>OFFICE EQUIPMENT</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Office Equipment Total	LeuB	62	56	64	62
	<b>\$M</b>	<b>15</b>	<b>12</b>	<b>14</b>	<b>14</b>
<b>CONTROL &amp; INSTRUMENTATION</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Control & Instrumentation Total	LeuB	4992	5628	6170	6046
	<b>\$M</b>	<b>1200</b>	<b>1200</b>	<b>1350</b>	<b>1323</b>
<b>MEDICAL &amp; INDUSTRIAL</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
X-Ray & Medical Equipment Total	LeuB	624	727	914	868
	<b>\$M</b>	<b>150</b>	<b>155</b>	<b>200</b>	<b>190</b>
Industrial Equipment Total	LeuB	395	352	434	431
	<b>\$M</b>	<b>95</b>	<b>75</b>	<b>95</b>	<b>94</b>
Medical & Industrial Total	LeuB	1019	1079	1348	1299
	<b>\$M</b>	<b>245</b>	<b>230</b>	<b>295</b>	<b>284</b>
<b>COMMUNICATIONS &amp; RADAR</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Communications & Radar Total	LeuB	1622	1876	2057	2036
	<b>\$M</b>	<b>390</b>	<b>400</b>	<b>450</b>	<b>446</b>
<b>TELECOMMUNICATIONS</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Telecommunications Total	LeuB	2205	2580	2696	2561
	<b>\$M</b>	<b>530</b>	<b>550</b>	<b>590</b>	<b>561</b>
<b>CONSUMER</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Video Equipment Total	LeuB	-	-	-	-
	<b>\$M</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Audio Equipment Total	LeuB	100	103	91	87
	<b>\$M</b>	<b>24</b>	<b>22</b>	<b>20</b>	<b>19</b>
Personal Equipment Total	LeuB	21	19	18	18
	<b>\$M</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>
Consumer Total	LeuB	121	122	110	105
	<b>\$M</b>	<b>29</b>	<b>26</b>	<b>24</b>	<b>23</b>

## ROMANIA PRODUCTION (Cont)

COMPONENTS		2021	2022	2023	2024
<b>Active Components Total</b>	LeuB	208	258	274	268
	<b>\$M</b>	<b>50</b>	<b>55</b>	<b>60</b>	<b>59</b>
<b>Passive Components Total</b>	LeuB	478	563	571	555
	<b>\$M</b>	<b>115</b>	<b>120</b>	<b>125</b>	<b>121</b>
<b>Other Components Total</b>	LeuB	216	225	229	222
	<b>\$M</b>	<b>52</b>	<b>48</b>	<b>50</b>	<b>49</b>
<b>Components Total</b>	LeuB	903	1046	1074	1044
	<b>\$M</b>	<b>217</b>	<b>223</b>	<b>235</b>	<b>229</b>
		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>TOTAL PRODUCTION</b>	LeuB	14127	15388	16763	16463
	<b>\$M</b>	<b>3396</b>	<b>3281</b>	<b>3668</b>	<b>3602</b>

Notes: 2021 and 2022 are current figures at current exchange rates. 2023 is an estimate and 2024 a forecast in 2023 constant values and exchange rates (i.e. inflation is not included). Base year 2023

Estimates and forecast are made in US\$ with local values shown for guidance only.

#### 4.5.4 HUNGARY MARKETS

<b>COMPUTING</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Computers & Peripherals	FrM	156451	183045	172264	180030	187796	195209	204740
	<b>\$M</b>	<b>516</b>	<b>491</b>	<b>488</b>	<b>510</b>	<b>532</b>	<b>553</b>	<b>580</b>
Peripherals	FrM	106423	131226	123903	126727	130610	135199	139435
	<b>\$M</b>	<b>351</b>	<b>352</b>	<b>351</b>	<b>359</b>	<b>370</b>	<b>383</b>	<b>395</b>
Accessories & Parts	FrM	384458	446987	421129	432072	441250	449722	455370
	<b>\$M</b>	<b>1268</b>	<b>1199</b>	<b>1193</b>	<b>1224</b>	<b>1250</b>	<b>1274</b>	<b>1290</b>
<b>Computing Total</b>	FrM	647332	761258	717296	738829	759656	780130	799545
	<b>\$M</b>	<b>2135</b>	<b>2042</b>	<b>2032</b>	<b>2093</b>	<b>2152</b>	<b>2210</b>	<b>2265</b>

<b>OFFICE EQUIPMENT</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Office Equipment Total</b>	FrM	13038	12675	12355	12849	13106	12844	12587
	<b>\$M</b>	<b>43</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>36</b>	<b>36</b>

<b>CONTROL &amp; INSTRUMENTATION</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Control &amp; Instrumentation Total</b>	FrM	141291	166642	171911	165894	174023	183594	193141
	<b>\$M</b>	<b>466</b>	<b>447</b>	<b>487</b>	<b>470</b>	<b>493</b>	<b>520</b>	<b>547</b>

<b>MEDICAL &amp; INDUSTRIAL</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>X-Ray &amp; Medical Equipment Total</b>	FrM	88231	103266	100958	101463	105623	110798	115784
	<b>\$M</b>	<b>291</b>	<b>277</b>	<b>286</b>	<b>287</b>	<b>299</b>	<b>314</b>	<b>328</b>
<b>Industrial Equipment Total</b>	FrM	50634	58902	61069	58321	60887	63810	66809
	<b>\$M</b>	<b>167</b>	<b>158</b>	<b>173</b>	<b>165</b>	<b>172</b>	<b>181</b>	<b>189</b>
<b>Medical &amp; Industrial Total</b>	FrM	138866	162168	162027	159784	166510	174608	182593
	<b>\$M</b>	<b>458</b>	<b>435</b>	<b>459</b>	<b>453</b>	<b>472</b>	<b>495</b>	<b>517</b>

<b>COMMUNICATIONS &amp; RADAR</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Communications &amp; Radar Total</b>	FrM	225278	260960	267221	263213	274268	286884	299507
	<b>\$M</b>	<b>743</b>	<b>700</b>	<b>757</b>	<b>746</b>	<b>777</b>	<b>813</b>	<b>848</b>

<b>TELECOMMUNICATIONS</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Telecommunications Total</b>	FrM	93689	108858	112607	108666	113012	117985	122940
	<b>\$M</b>	<b>309</b>	<b>292</b>	<b>319</b>	<b>308</b>	<b>320</b>	<b>334</b>	<b>348</b>

<b>CONSUMER</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Video Equipment</b>								
Colour Television	FrM	91566	89472	83308	84720	86485	88250	89662
	<b>\$M</b>	<b>302</b>	<b>240</b>	<b>236</b>	<b>240</b>	<b>245</b>	<b>250</b>	<b>254</b>
DVD Players & Recorders	FrM	2729	2610	2118	2118	1765	1765	1765
	<b>\$M</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>



## HUNGARY MARKETS (cont)

<b>CONSUMER</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Video Equipment (Cont)</b>								
Digital Cameras	FrM	16070	15658	14120	13414	12708	12002	11296
	<b>\$M</b>	<b>53</b>	<b>42</b>	<b>40</b>	<b>38</b>	<b>36</b>	<b>34</b>	<b>32</b>
<b>Video Equipment Total</b>	FrM	110365	107739	99546	100252	100958	102017	102723
	<b>\$M</b>	<b>364</b>	<b>289</b>	<b>282</b>	<b>284</b>	<b>286</b>	<b>289</b>	<b>291</b>
<b>Audio Equipment Total</b>	FrM	23953	23114	21180	20333	19763	19111	18500
	<b>\$M</b>	<b>79</b>	<b>62</b>	<b>60</b>	<b>58</b>	<b>56</b>	<b>54</b>	<b>52</b>
<b>Personal Consumer Equip Total</b>	FrM	9399	10438	9531	9340	9527	9775	10009
	<b>\$M</b>	<b>31</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>28</b>
<b>Consumer Total</b>	FrM	143717	141291	130257	129925	130249	130903	131232
	<b>\$M</b>	<b>474</b>	<b>379</b>	<b>369</b>	<b>368</b>	<b>369</b>	<b>371</b>	<b>372</b>

<b>COMPONENTS</b>		<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Active Components</b>								
Valves & Tubes	FrM	606	1118	706	706	706	706	706
	<b>\$M</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
Discrete Semiconductors	FrM	291678	521920	437014	451134	472667	495965	519616
	<b>\$M</b>	<b>962</b>	<b>1400</b>	<b>1238</b>	<b>1278</b>	<b>1339</b>	<b>1405</b>	<b>1472</b>
Integrated Circuits	FrM	761335	946166	894855	928743	972515	1025112	1078415
	<b>\$M</b>	<b>2511</b>	<b>2538</b>	<b>2535</b>	<b>2631</b>	<b>2755</b>	<b>2904</b>	<b>3055</b>
<b>Active Components Total</b>	FrM	1053620	1469205	1332575	1380583	1445888	1521783	1598737
	<b>\$M</b>	<b>3475</b>	<b>3941</b>	<b>3775</b>	<b>3911</b>	<b>4096</b>	<b>4311</b>	<b>4529</b>
<b>Passive Components</b>								
Capacitors	FrM	61246	67850	68835	70664	74176	78384	82749
	<b>\$M</b>	<b>202</b>	<b>182</b>	<b>195</b>	<b>200</b>	<b>210</b>	<b>222</b>	<b>234</b>
Resistors	FrM	23346	27214	27887	28350	29470	30840	32241
	<b>\$M</b>	<b>77</b>	<b>73</b>	<b>79</b>	<b>80</b>	<b>83</b>	<b>87</b>	<b>91</b>
Connectors, Switches, Relays & Inductors	FrM	67614	79406	80484	82623	86729	91649	96753
	<b>\$M</b>	<b>223</b>	<b>213</b>	<b>228</b>	<b>234</b>	<b>246</b>	<b>260</b>	<b>274</b>
Printed Circuit Boards	FrM	213150	256486	261573	265917	276424	289267	302413
	<b>\$M</b>	<b>703</b>	<b>688</b>	<b>741</b>	<b>753</b>	<b>783</b>	<b>819</b>	<b>857</b>
<b>Passive Components Total</b>	FrM	365356	430957	438779	447555	466799	490139	514156
	<b>\$M</b>	<b>1205</b>	<b>1156</b>	<b>1243</b>	<b>1268</b>	<b>1322</b>	<b>1388</b>	<b>1457</b>
<b>Other Components Total</b>	FrM	313206	294139	265456	269438	274827	281422	287895
	<b>\$M</b>	<b>1033</b>	<b>789</b>	<b>752</b>	<b>763</b>	<b>779</b>	<b>797</b>	<b>816</b>
<b>Components Total</b>	FrM	1732182	2194301	2036810	2097575	2187514	2293345	2400788
	<b>\$M</b>	<b>5713</b>	<b>5886</b>	<b>5770</b>	<b>5942</b>	<b>6197</b>	<b>6497</b>	<b>6801</b>

## HUNGARY MARKETS (Cont)

		2021	2022	2023	2024	2025	2026	2027
<b>TOTAL MARKET</b>	FrM	3135391	3808152	3610484	3676735	3818338	3980293	4142334
	<b>\$M</b>	<b>10341</b>	<b>10215</b>	<b>10228</b>	<b>10416</b>	<b>10817</b>	<b>11276</b>	<b>11735</b>

Notes: 2021 and 2022 are current figures at current exchange rates

2023 is an estimate and 2024 to 2027 are forecasts in 2023 constant values & exchange rates (i.e. Inflation is not included)

Base year 2023

Estimates and forecast are made in US\$ with local values shown for guidance only.

# YEARBOOK 2024 ORDER FORM



Title	Report Only	CD Rom (plus report)	Corporate Licence**	VAT UK Customers* only, European customers see below	Total £/US\$/€
Volume 1 West Europe 2024: ISBN 1 905429 975 (Pub Date 05/24)	£995/\$1245 €1145	£1295/\$1620 €1490	£1990/\$2490 €2290		
Volume 2 America, Japan, Asia Pacific 2024: ISBN 1 905429 983 (Pub Date 8/24)	£1295/\$1620 €1490	£1595/\$1995 €1835	£2590/\$3240 €2980		
Volume 3 East Europe & World Summary 2024: ISBN 1 905429 991 (Pub Date 9/24)	£995/\$1245 €1145	£1295/\$1620 €1490	£1990/\$2490 €2290		
2 Volume Set (Volumes 1 & 2)	£1995/\$2495 €2295	£2595/\$3245 €2985	£3990/\$4990 €4590		
3 Volume Set	£2556/\$3195 €2940	£3522/\$4400 €4050	£5112/\$6390 €5880		
				<b>TOTAL</b>	

\*UK customers: to calculate VAT amount (applicable to CD-ROM and Corporate Licence only) deduct the 'REPORT ONLY' price from the CD-ROM or 'Corporate Licence' price (as applicable) to arrive at the taxable amount. VAT is currently 20%.

European customers please enter your VAT No. here (to avoid addition of VAT): \_\_\_\_\_

\*\* The Corporate License allows electronic distribution (excluding distribution to third parties) of the report throughout your organisation, making it a cost effective and essential tool for your business.

## DELIVERY ADDRESS

Name (Mr/Ms): \_\_\_\_\_  
 Position: \_\_\_\_\_  
 Organisation: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 City: \_\_\_\_\_  
 Postcode/Zip: \_\_\_\_\_  
 Country: \_\_\_\_\_  
 Tel: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email Address\*: \_\_\_\_\_

## RETURN TO: ORDERS DEPARTMENT

**Tel:** +44 (0) 1235 868620  
**Post:** Reed Electronics Research,  
 7 Rectory Farm  
 West Hanney, Oxon OX12 0LR  
 United Kingdom  
 Email: orders@rer.co.uk

\* We would like to keep you informed about our products and services. Please tick here if you do not wish to be contacted about this information. We do not pass email addresses on to third parties

## PAYMENT

Payment enclosed - cheques payable to Reed Electronics Research (postage free of charge)

Please charge my MasterCard/Visa/American Express (postage free of charge)

Cardholder Name: \_\_\_\_\_

Cardholder Address: \_\_\_\_\_  
 \_\_\_\_\_

Card Number: \_\_\_\_\_

Security Number: \_\_\_\_\_ Expiry Date: \_\_\_\_\_

Please invoice me: Company Purchase Order No: \_\_\_\_\_  
 (postage and packing at cost)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_