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Industry Report Scientific research and development 2018 BULGARIA

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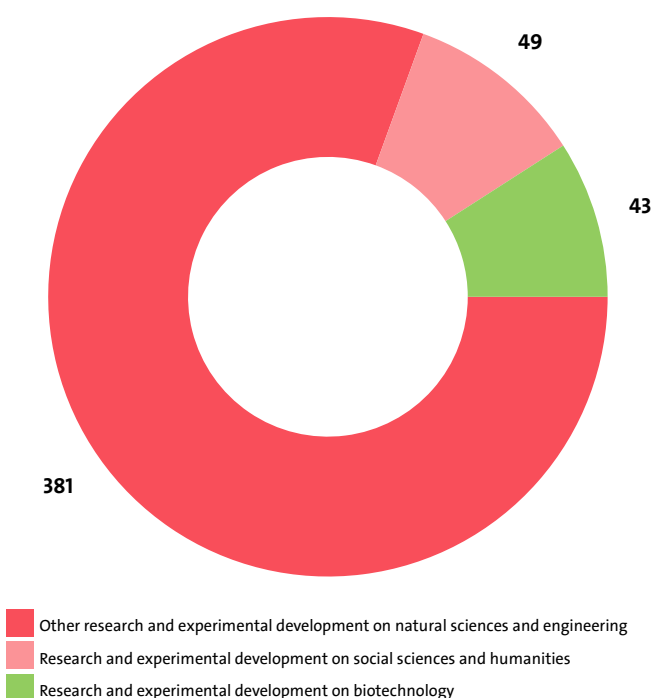
I. KEY INDICATORS

- The Scientific research and development industry in Bulgaria was represented by 473 companies at the end of 2018, compared to 455 in the previous year and 456 in 2016.
- The industry's net profit amounted to BGN 31,612,000 in 2018.
- The industry's total revenue was BGN 321,016,000 in 2018, up by 7.56% compared to the previous year.
- The combined costs of the companies in the Scientific research and development industry reached BGN 284,878,000 in 2018, up by 6.71% year-on-year.
- The industry's total revenue makes up 0.32% to the country's Gross domestic product (GDP) in 2018, compared to 0.31% for 2017 and 0.34% in 2016.
- A total of 3,318 people were employed in the Scientific research and development industry in 2018, compared to 3,039 in 2017 and 2,819 in 2016.
- Most of the companies in the industry are based in Sofia, followed by Plovdiv and Varna.

II. INTRODUCTION

In 2018 the companies in the Scientific research and development industry numbered 473, distributed in 3 sectors.

INDUSTRY STRUCTURE BY SECTORS AND NUMBER OF COMPANIES



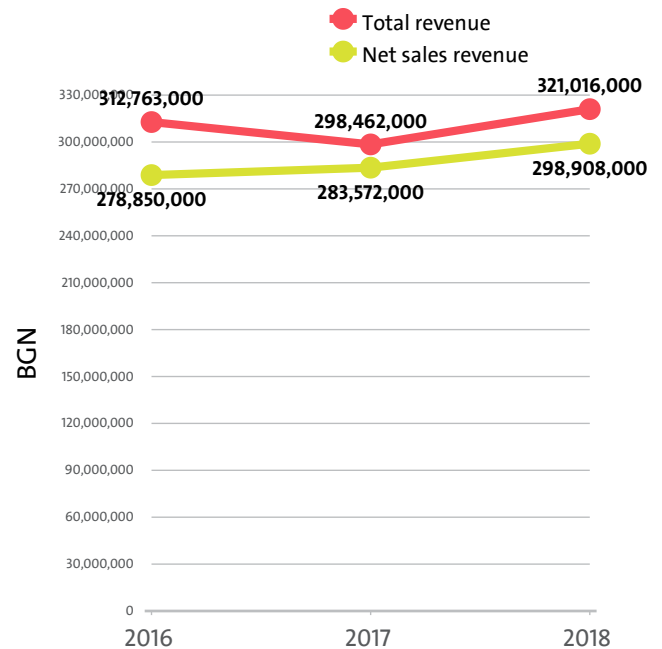
In 2017 there were a total of 455 companies operating in the industry. In 2016 their number totalled 456.

NUMBER OF COMPANIES IN SCIENTIFIC RESEARCH AND DEVELOPMENT INDUSTRY BY SECTORS

SECTOR	2018	2017	2016
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	381	363	358
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	49	40	43
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	43	52	55

III. REVENUES

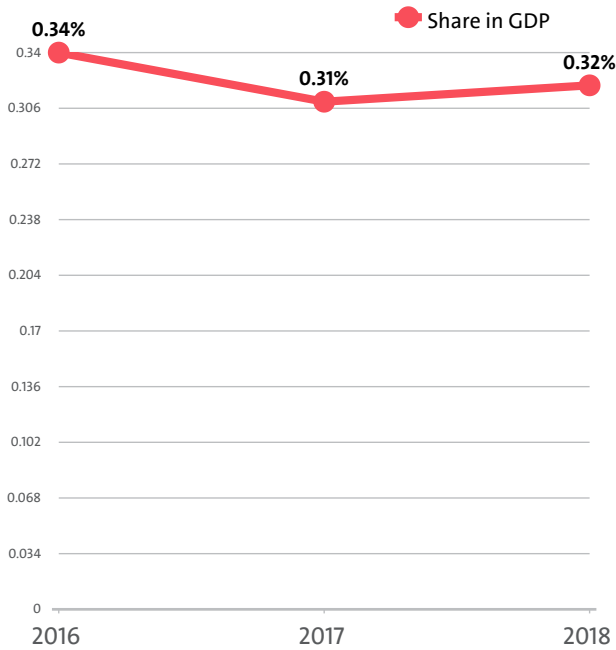
The total revenue in the industry was BGN 321,016,000 in 2018, BGN 298,462,000 in 2017 and 312,763,000 in 2016.



The companies in the Scientific research and development market of Bulgaria earned combined net sales revenues of BGN 298,908,000 in 2018.

In annual terms, sales marked a rise of 5.41% compared to 2017. In comparison to 2016 they grew by 7.19%. In 2017 sales went up by 1.69% year-on-year.

The Scientific research and development industry total revenue make up 0.32% to the country's GDP in 2018, compared to 0.31% for 2017 and 0.34% in 2016.



In 2018 the Scientific research and development industry contributed to GDP BGN 290,985,000 in Gross value added (GVA) accounting for 0.16% of the total for the country's economy.

In the previous year, the industry's GVA amounted BGN 274,055,000, accounting for 0.16% of the total for the country in 2017. In 2016 the GVA of the Scientific research and development was BGN 291,022,000, or 0.19% of the GVA for the country's economy.

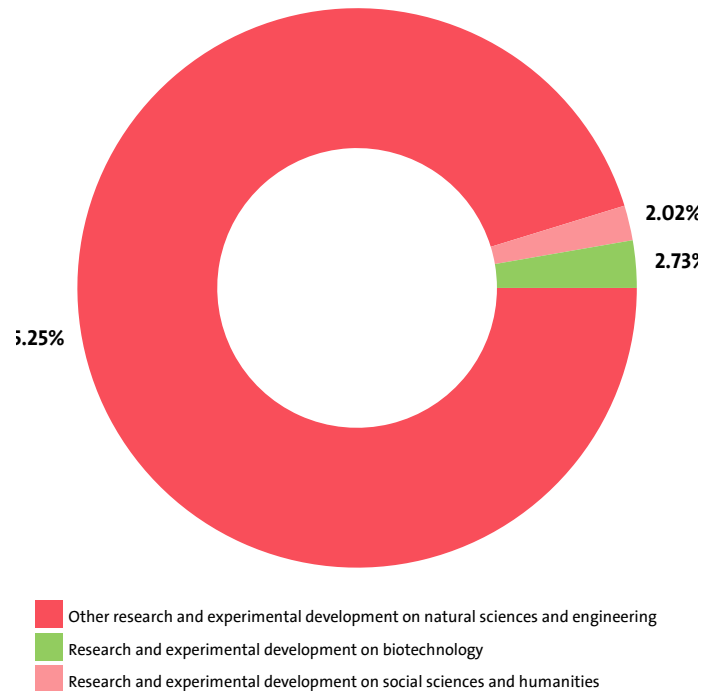
GVA BY SECTORS

RANK	SECTOR	BGN	SHARE OF THE COUNTRY'S GVA (%)
1	OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	276,400,000	0.15
2	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	8,503,000	0.01
3	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	6,082,000	0.00

We expect, based on the trend in the last three years, the total revenue of the Scientific research and development industry to change at a compound annual growth rate (CAGR) of 1.31% in 2019.

Other research and experimental development on natural sciences and engineering contributed net sales revenue of BGN 284,707,000 or 95.25% of the total net sales in the industry, sector Research and experimental development on biotechnology - BGN 8,151,000 (2.73%), and sector Research and experimental development on social sciences and humanities - BGN 6,050,000 (2.02%).

INDUSTRY'S NET SALES REVENUE STRUCTURE BY SECTORS



The highest growth, of 52.01%, was recorded by Research and experimental development on biotechnology. There was no industry's sector to report a drop in net sales revenues.

TOP COMPANIES' REVENUE BY SECTORS

SEGMENT	COMPANY	TOTAL REVENUE (BGN)	NET SALES REVENUE (BGN)
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING			
	PPD BULGARIA EOOD	62,869,000	61,745,000
	IQVIA RDS BULGARIA EOOD	47,092,000	46,415,000
	LB BULGARICUM EAD	21,632,000	20,641,000
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES			
	WORLDWIDE CLINICAL TRIALS BUL EOOD	1,231,000	1,227,000
	OGRA EOOD	715,000	703,000
	PROJECT 1 EOOD	709,000	709,000
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY			
	FIDELIS RESEARCH AD	2,206,000	2,186,000
	ROMB OOD	1,475,000	1,463,000
	TISSUE BANK BIOREGENERATION EOOD	1,255,000	1,242,000

The top 10 companies in terms of total revenue in Scientific research and development accounted for 60.69% of the industry's total in 2018, 64.76% in 2017 and 67.75% in 2016.

TOP 10 COMPANIES BY TOTAL AND NET SALES REVENUE IN THE INDUSTRY

RANK	COMPANY	TOTAL REVENUE (BGN)	NET SALE REVENUE (BGN)
1	PPD BULGARIA EOOD	62,869,000	61,745,000
2	IQVIA RDS BULGARIA EOOD	47,092,000	46,415,000
3	LB BULGARICUM EAD	21,632,000	20,641,000
4	COMAC MEDICAL EOOD	16,479,000	15,698,000
5	PHARMACEUTICAL RESEARCH ASSOCIATES BULGARIA EOOD	16,395,000	16,299,000
6	IVO PETROW - ARCHITECTS OOD	9,298,000	9,017,000
7	R & D SERVICES OOD	5,904,000	5,855,000

8	CLOUDSIGMA RESEARCH EOOD	5,315,000	5,315,000
9	THETA CONSULT OOD	4,983,000	3,228,000
10	RF AMPLIFIER BG EOOD	4,855,000	4,696,000

The total revenues of the top 10 companies in the Scientific research and development were 0.2% of GDP in 2018, compared to 0.20% for 2017 and 0.23% in 2016.

The top 10 by assets in the Scientific research and development market made up BGN 169,077,000, or 56.56% of the total net sales revenue.

TOP 10 BY TOTAL ASSETS IN THE INDUSTRY

RANK	COMPANY	BGN
1	PHARMACEUTICAL RESEARCH ASSOCIATES BULGARIA EOOD	38,161,000
2	LB BULGARICUM EAD	32,690,000
3	PPD BULGARIA EOOD	30,065,000
4	TECHNOPHOS EAD	21,494,000
5	RESBIOMED OOD	16,955,000
6	COMAC MEDICAL EOOD	13,679,000
7	IQVIA RDS BULGARIA EOOD	12,135,000
8	S D DIZAYN OOD	9,400,000
9	BMM AD	8,944,000
10	ECOSTAR - S EOOD	8,851,000

TOP 10 COMPANIES WITH HIGHEST ANNUAL GROWTH IN OPERATING REVENUE IN SCIENTIFIC RESEARCH AND DEVELOPMENT

RANK	COMPANY	Y/Y GROWTH
1	INDASTRI GRIYNTEH OOD	5325.00%
2	MEDCONSULT 2017 EOOD	4600.00%
3	DICS INTERTRADE OOD	4315.63%
4	SARON EOOD	4250.00%
5	NANOBIOREM OOD	3850.00%
6	ZELENO UPRAVLENIE OOD	2390.00%
7	NEW ENERGY GROUP EOOD	2327.91%
8	VI SI INZHENERING EOOD	1550.00%
9	AQUARIUS ND OOD	1283.72%
10	INTERNATIONAL RESEARCH NETWORK EOOD	1266.67%

TOP 10 COMPANIES BY TOTAL REVENUE IN THE MARKET OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING WERE:

COMPANY	BGN
PPD BULGARIA EOOD	62,869,000
IQVIA RDS BULGARIA EOOD	47,092,000
LB BULGARICUM EAD	21,632,000
COMAC MEDICAL EOOD	16,479,000
PHARMACEUTICAL RESEARCH ASSOCIATES BULGARIA EOOD	16,395,000
IVO PETROW - ARCHITECTS OOD	9,298,000
R & D SERVICES OOD	5,904,000
CLOUDSIGMA RESEARCH EOOD	5,315,000
THETA CONSULT OOD	4,983,000
RF AMPLIFIER BG EOOD	4,855,000

The 10 largest companies in terms of total revenue in sector Other research and experimental development on natural sciences and engineering earned total revenue of BGN 194,822,000 and accounted for 60.69% of the industry's total revenue.

TOP 10 COMPANIES BY TOTAL REVENUE IN THE FIELD RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES WERE:

COMPANY	BGN
WORLDWIDE CLINICAL TRIALS BUL EOOD	1,231,000
OGRA EOOD	715,000
PROJECT 1 EOOD	709,000
SOLERY OOD	551,000
NINETY NINE OOD	502,000
VITOSHA RESEARCH EOOD	447,000
ARC CONSULTING EOOD	349,000
RESEARCH CENTER TREND OOD	288,000
SCHILLER ENGINEERING-SOFIA EOOD	264,000
ZGURA - M EOOD	230,000

The 10 largest companies in terms of total revenue in sector Research and experimental development on social sciences and humanities earned total revenue of BGN 5,286,000 and accounted for 1.65% of the industry's total revenue.

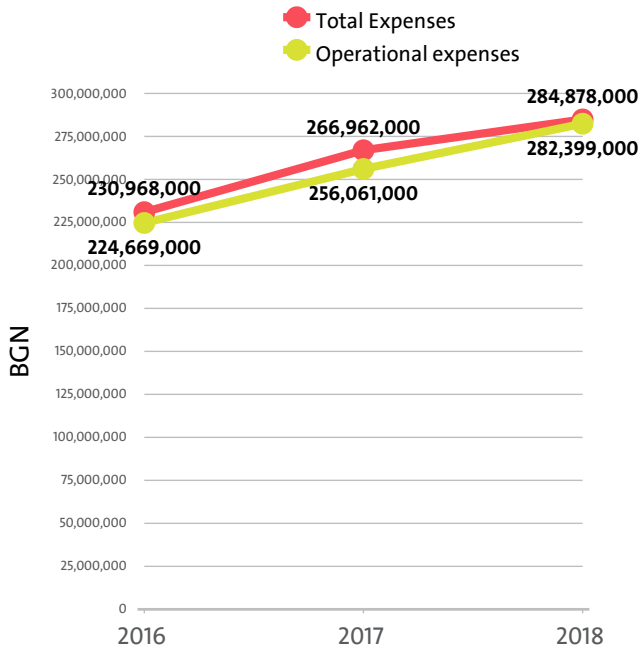
TOP 10 COMPANIES BY TOTAL REVENUE IN THE FIELD RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY WERE:

COMPANY	BGN
FIDELIS RESEARCH AD	2,206,000
ROMB OOD	1,475,000
TISSUE BANK BIOREGENERATION EOOD	1,255,000
MEGAKORN - T EOOD	772,000
HT RESEARCH BG EOOD	589,000
BIO TREE OOD	361,000
SYMBIOTECH OOD	347,000
GRADIENT BULGARIA EOOD	318,000
E P S EKO POLIMERNI SISTEMI EOOD	270,000
PROTEY M EOOD	224,000

The 10 largest companies in terms of total revenue in sector Research and experimental development on biotechnology earned total revenue of BGN 7,817,000 and accounted for 2.44% of the industry's total revenue.

IV. EXPENSES

The combined costs of the companies in the Scientific research and development industry reached BGN 284,878,000 in 2018.



In annual terms, total expenses rose by 6.71% compared to 2017 and rose by 23.34% in comparison to 2016.

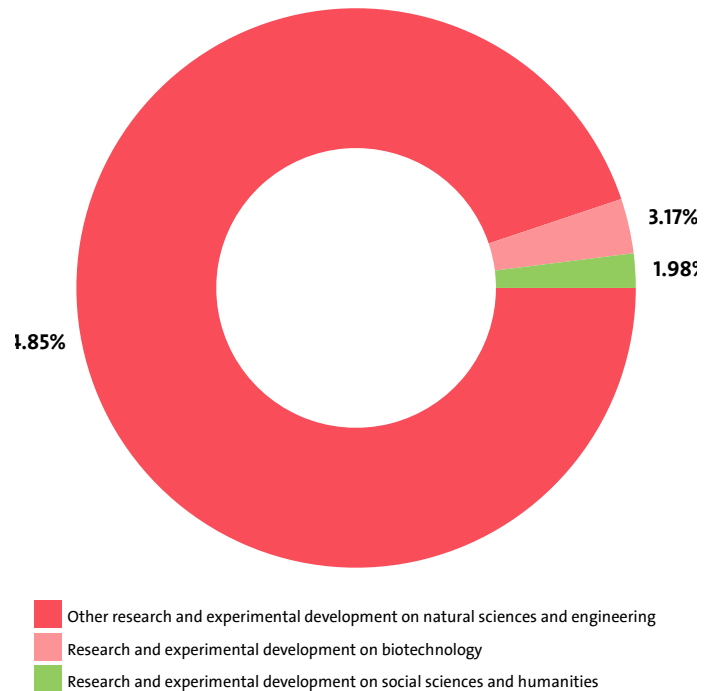
The total operating expenses of the companies in the Scientific research and development industry were BGN 282,399,000 in 2018.

Operating costs went up by 10.29% compared with the previous year and went up by 25.70% when compared to 2016.

We expect, based on the trend in the last three years, the total costs of the Scientific research and development industry to change at a compound annual growth rate (CAGR) of 11.06% in 2019.

Other research and experimental development on natural sciences and engineering reported the highest total costs, of BGN 270,207,000, followed by Research and experimental development on biotechnology with BGN 9,043,000 and Research and experimental development on social sciences and humanities with total costs of BGN 5,628,000.

INDUSTRY'S TOTAL COSTS STRUCTURE BY SECTORS

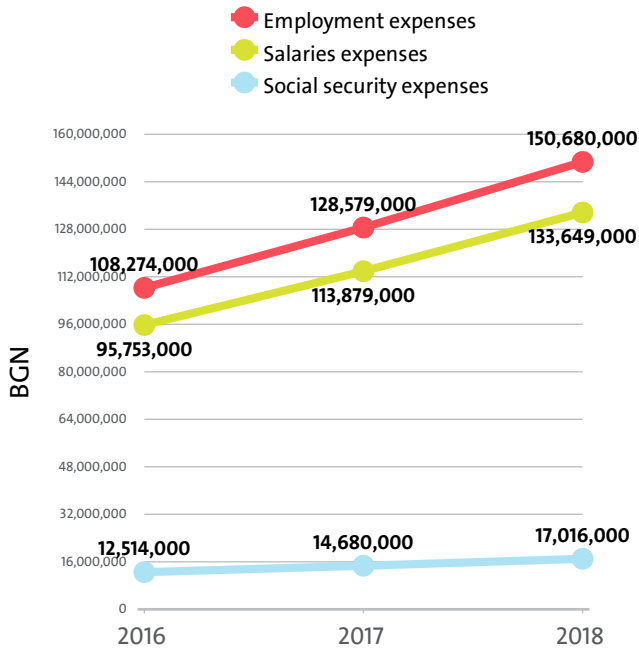


Research and experimental development on biotechnology marked the highest annual increase in total expenses, of 54.90%.

In terms of operating expenses, the highest growth, of 56.78%, was recorded by the Research and experimental development on biotechnology sector.

The biggest spenders in the industry, with costs of over 10% of industry's costs, numbered 6, including IQVIA RDS BULGARIA EOOD, IVO PETROW - ARCHITECTS OOD, PPD BULGARIA EOOD, COMAC MEDICAL EOOD, LB BULGARICUM EAD. The medium spenders, or those in the 5% and 10% range count 5 and include TECHNOPHOS EAD, CLOUDSIGMA RESEARCH EOOD, R & D SERVICES OOD, THETA CONSULT OOD, ARC METROLOGIA OOD. Below 5% threshold are 462 companies, including SMART SOLAR SYSTEMS OOD, AR END DI BULGARIA EOOD, OPITNA STANTSIYA PO POLIVNO ZEMEDELIE - PAZARDZHIK, INSTITUT PO HIDRAVLIKA EOOD, KLAUD BEYSIK BULGARIA EOOD.

Employment expenses in the Scientific research and development industry went up by 17.19% on the year to BGN 150,680,000 in 2018.



The highest growth in labour costs, of 49.71%, was registered by Research and experimental development on biotechnology.

The monthly costs per employee in the Scientific research and development industry averaged BGN 3,784 in 2018, BGN 3,526 in 2017 and BGN 3,201 in 2016.

The monthly social security costs per employee in the industry averaged BGN 427 in 2018, versus BGN 403 in 2017 and BGN 370 in 2016.

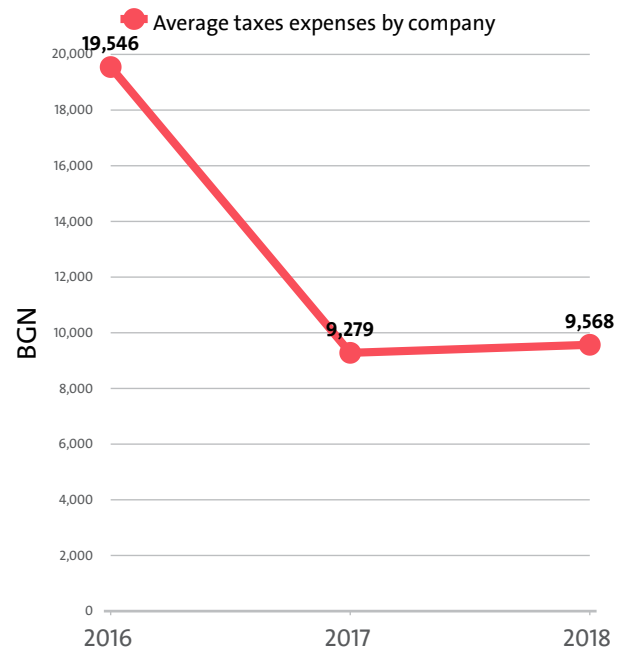
EMPLOYMENT EXPENSES IN SCIENTIFIC RESEARCH AND DEVELOPMENT BY SECTORS IN 2018

RANK	SECTOR	EMPLOYMENT EXPENSES (BGN)	AVERAGE EXPENSES PER EMPLOYEE (BGN)
1	OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	144,457,000	46,079
2	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	3,831,000	30,895
3	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	2,392,000	40,542

THE TOP 10 COMPANIES BY AVERAGE MONTHLY COSTS PER EMPLOYEE IN THE INDUSTRY

RANK	COMPANY	BGN
1	BIO LABS LLC. EOOD	17,833
2	RESEARCH CENTER TREND OOD	16,917
3	SECURITY-TG OOD	13,500
4	ADEX ENERGY EOOD	13,167
5	KREATIVNI TEHNOLOGII OOD	12,250
6	WORLDWIDE CLINICAL TRIALS BUL EOOD	12,119
7	ENERDJI MAKS EOOD	11,667
8	CT CLINICAL SERVICES EOOD	9,750
9	AQUARIUS ND OOD	9,625
10	ELEKTROTECHNOLOGY OOD	8,917

The industry's tax expenses stood at BGN 4,526,000 in 2018. In 2017 it paid taxes of BGN 4,222,000. In 2016 the industry paid BGN 8,913,000 in taxes.

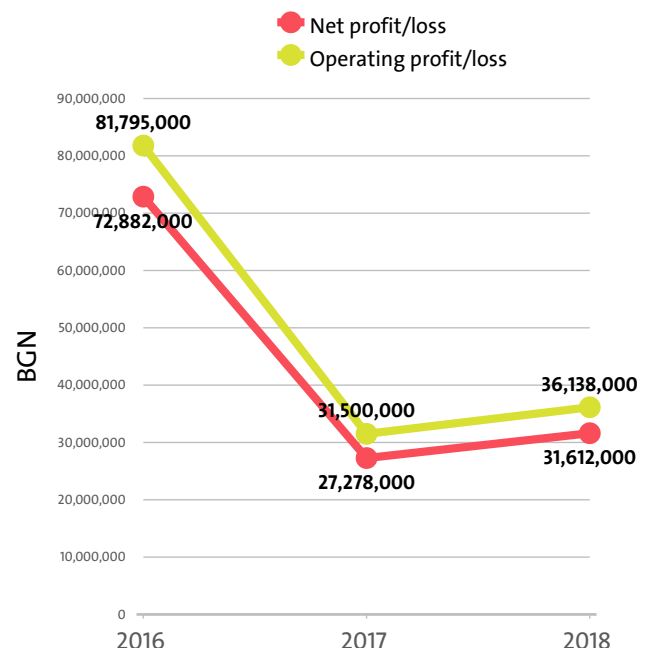


EXPENSES ON TAXES BY SECTORS

RANK	SECTOR	BGN	V/Y CHANGE
1	OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	4,329,000	8.25%
2	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	105,000	-34.38%
3	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	92,000	46.03%

V. PROFITABILITY

The industry's net profit amounted to BGN 31,612,000 in 2018, compared to a net profit of BGN 27,278,000 in 2017 and a net profit of BGN 72,882,000 in 2016.



TOP 10 COMPANIES BY HIGHEST NET PROFIT IN SCIENTIFIC RESEARCH AND DEVELOPMENT

RANK	COMPANY	BGN
1	LB BULGARICUM EAD	6,537,000
2	PPD BULGARIA EOOD	4,194,000
3	IQVIA RDS BULGARIA EOOD	2,883,000
4	DICS INTERTRADE OOD	2,439,000
5	RF AMPLIFIER BG EOOD	2,335,000
6	RESBIOMED OOD	1,702,000
7	CLINIC DESIGN EOOD	1,351,000
8	COMAC MEDICAL EOOD	1,183,000
9	ELECTRON CONSORTIUM AD	1,013,000
10	PHARMACEUTICAL RESEARCH ASSOCIATES BULGARIA EOOD	768,000

TOP COMPANIES BY HIGHEST NET LOSS IN SCIENTIFIC RESEARCH AND DEVELOPMENT

RANK	COMPANY	BGN
1	TISSUE BANK BIOREGENERATION EOOD	1,070,000
2	TECHNOPHOS EAD	886,000
3	S D DIZAYN OOD	867,000
4	NATSIONALEN INSTITUT ZA IZSLEDVANE NA VINO SPIRTNI NAPITKI I ETERICHNI MASLA EOOD	557,000
5	POBELCH GLE OOD	375,000

The combined operating earnings of the companies in the Scientific research and development industry grew by 14.72% y/y to BGN 36,138,000 in 2018.

OPERATING PROFIT/LOSS BY SECTORS (BGN)

SECTOR	2018	2017	2016
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	35,315,000	30,722,000	77,352,000
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	771,000	617,000	-471,000
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	52,000	161,000	4,914,000

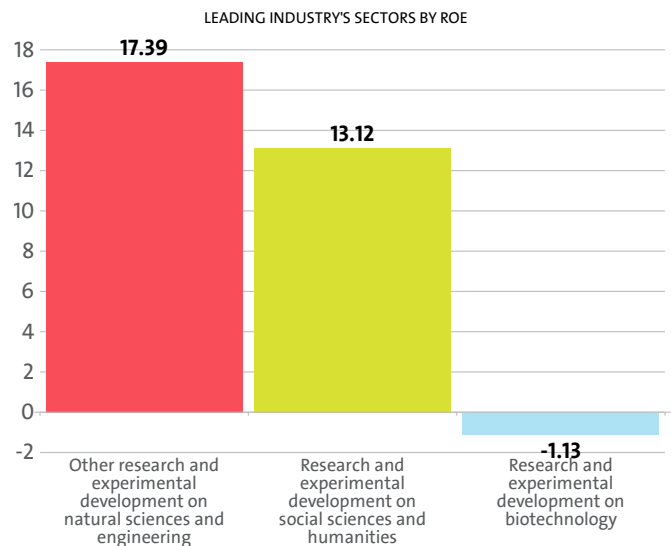
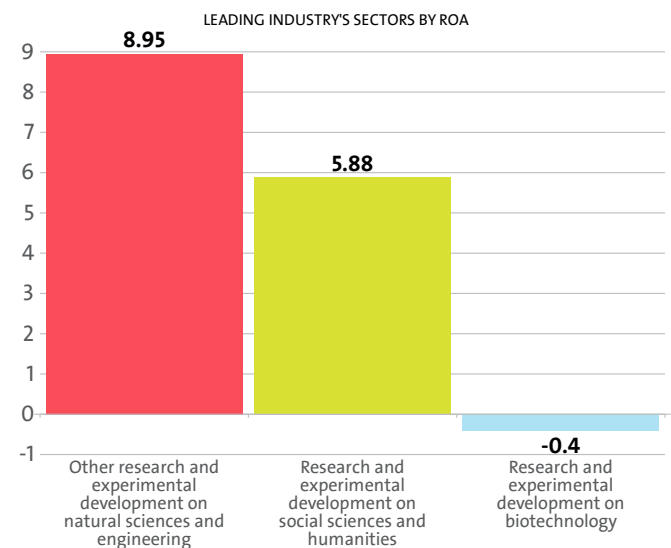
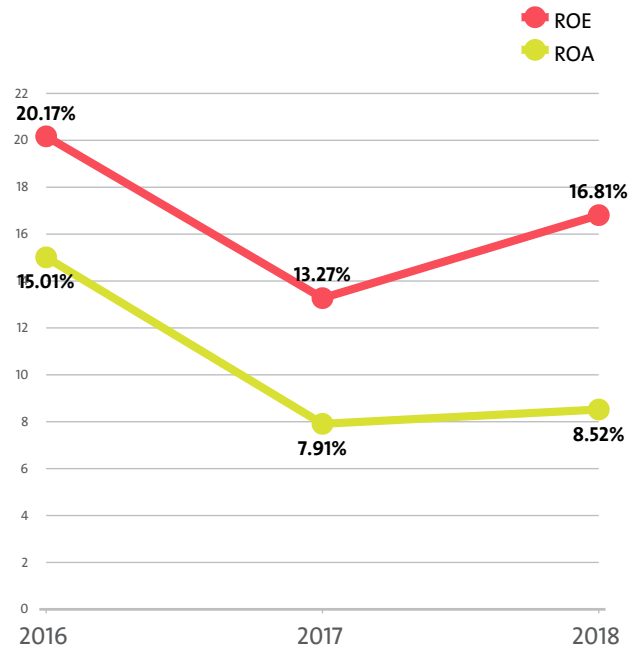
The profit margin for the Scientific research and development industry stood at 11.36% in 2018, while in 2017 it amounted to 10.64% and 27.22% in 2016.

PROFIT MARGIN BY SECTORS

RANK	SECTOR	PROFIT MARGIN
1	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	12.08%
2	OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	11.67%
3	RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	0.57%

The Scientific research and development industry's return on equity (ROE) is 16.81% compared to 13.27% in 2017 and 20.17% in 2016.

The Scientific research and development's return on assets (ROA) was 8.52%, while in 2017 it amounted to 7.91% and 15.01% in 2016.



TOP 10 COMPANIES BY HIGHEST AVERAGE NET PROFIT PER EMPLOYEE IN SCIENTIFIC RESEARCH AND DEVELOPMENT

RANK	COMPANY	BGN	COMPANY HEADQUARTERS (CITY)
1	RF AMPLIFIER BG EOOD	259,444	SHUMEN
2	INNOVATO CLINICAL EOOD	180,000	SOFIA
3	RESBIOMED OOD	154,727	SOFIA
4	BEST PARTNERS EOOD	124,500	SOFIA
5	GRAPHENE INNOVATIONS LLC OOD	103,000	SOFIA
6	ECOSTAR - S EOOD	93,000	SOFIA
7	PAVEL PENCHEV KONYLTING ET	91,000	SOFIA
8	RAND MINERALS OOD	84,000	BURGAS
9	DANIEL STANDARD EOOD	83,500	VELIKO TARNOVO
10	LIAN GEOKONSULT OOD	76,000	SOFIA

About 70.00% of the 10 leading companies in terms of net profit per employee are located in SOFIA, while 10.00% are SHUMEN-based and 10.00% are headquartered in BURGAS.

The average net sales revenue per employee in the Scientific research and development industry amounted to BGN 90,087 in 2018, down by 3.46% compared to 2017 and down by 8.93% compared to 2016.

The industry's average operating revenue per employee dropped by 1.60% year-on-year in 2018 to BGN 95,860. It fell by 10.07% compared to 2016.

The Scientific research and development sector generated an average BGN 96,750 in total revenue per employee. In 2017 and 2016 the figure was BGN 98,211 and BGN 110,948, respectively.

The average total revenue per company in the Scientific research and development industry grew to BGN 678,681 in 2018 from BGN 655,960 in 2017. The 2016 value was BGN 685,884.

A company in the Scientific research and development field made on average a net sales revenue of BGN 631,941 in 2018, compared to BGN 623,235 in 2017 and BGN 611,513 in 2016.

The Scientific research and development industry made 0.10% of the overall sales country-wide.

Operating profit per employee for the industry as a whole was BGN 10,892 in 2018. For comparison in 2017 it amounted to BGN 10,365 and BGN 10,365 in 2016.

THE TOP BY OPERATIONAL PROFIT PER EMPLOYEE IN SCIENTIFIC RESEARCH AND DEVELOPMENT

RANK	COMPANY	BGN
1	RF AMPLIFIER BG EOOD	288,333
2	INNOVATO CLINICAL EOOD	200,000
3	RESBIOMED OOD	172,364
4	BEST PARTNERS EOOD	138,500
5	GRAPHENE INNOVATIONS LLC OOD	114,000

TOP 10 COMPANIES WITH HIGHEST CORRELATION OPERATING REVENUE - NUMBER OF EMPLOYEES - EMPLOYMENT EXPENSES*

RANK	COMPANY NAME	CORRELATION (BGN)
1	BREC OOD	1,807,000
2	SCIENCE RESEARCH ENTERPRISE EFFECTIVE ENGINEERING SOLUTIONS EOOD	1,695,000
3	ECOSTAR - S EOOD	494,000
4	AQUARIUS ND OOD	479,500
5	RF AMPLIFIER BG EOOD	469,000
6	TELECHIM OOD	449,000
7	BEST PARTNERS EOOD	418,000
8	AGRIMETRICS EOOD	372,000
9	DEX LAB EOOD	362,667
10	ECOPRAXIS EOOD	339,000

*The correlation is calculated by subtracting the quotient of the operating profit, and the employment expenses to the number of employees.

AVERAGE REVENUES PER EMPLOYEE IN SCIENTIFIC RESEARCH AND DEVELOPMENT IN 2018

SECTOR	AVERAGE NET SALES REVENUE (BGN)	AVERAGE OPERATING REVENUE (BGN)	AVERAGE TOTAL REVENUE (BGN)	NUMBER OF EMPLOYEES
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	90,816	96,533	97,455	3,135
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	102,542	108,153	108,458	59
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	65,734	72,992	73,347	124

AVERAGE REVENUE PER COMPANY IN SCIENTIFIC RESEARCH AND DEVELOPMENT IN 2018

SECTOR	AVERAGE NET SALES REVENUE (BGN)	AVERAGE OPERATING REVENUE (BGN)	AVERAGE TOTAL REVENUE (BGN)	NUMBER OF COMPANIES
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	747,262	794,307	801,895	381
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	189,558	210,488	211,512	43
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	123,469	130,224	130,592	49

The total indebtedness of the companies in the Scientific research and development industry was BGN 154,735,000 versus BGN 117,970,000 a year ago. In 2016 the industry's indebtedness totalled BGN 109,105,000.

INDUSTRY'S INDEBTEDNESS BY SECTORS (BGN)

SECTOR	2018	2017	2016
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	144,750,000	109,657,000	95,594,000
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	5,759,000	4,627,000	5,813,000
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	4,226,000	3,686,000	7,698,000

Debt-to-assets ratio of the companies in the industry is 0.42 in 2018. It was 0.34 in 2017 and 0.22 in 2016.

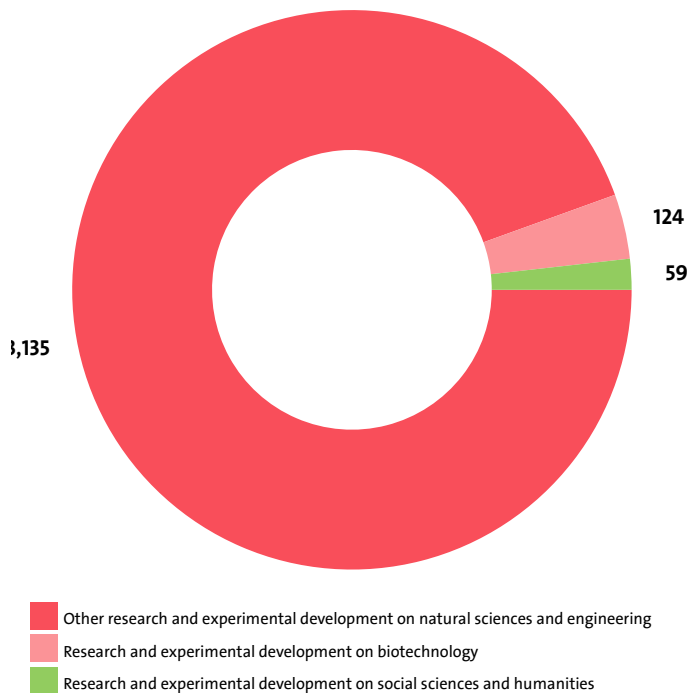
VI. EMPLOYMENT

A total of 3,318 people were employed in the Scientific research and development sector at the end of 2018, compared to 3,039 in 2017 and 2,819 in 2016.

NUMBER OF EMPLOYEES BY INDUSTRY SECTORS

SECTOR	NUMBER	SHARE OF INDUSTRY TOTAL
OTHER RESEARCH AND EXPERIMENTAL DEVELOPMENT ON NATURAL SCIENCES AND ENGINEERING	3,135	94.48%
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON BIOTECHNOLOGY	124	3.74%
RESEARCH AND EXPERIMENTAL DEVELOPMENT ON SOCIAL SCIENCES AND HUMANITIES	59	1.78%

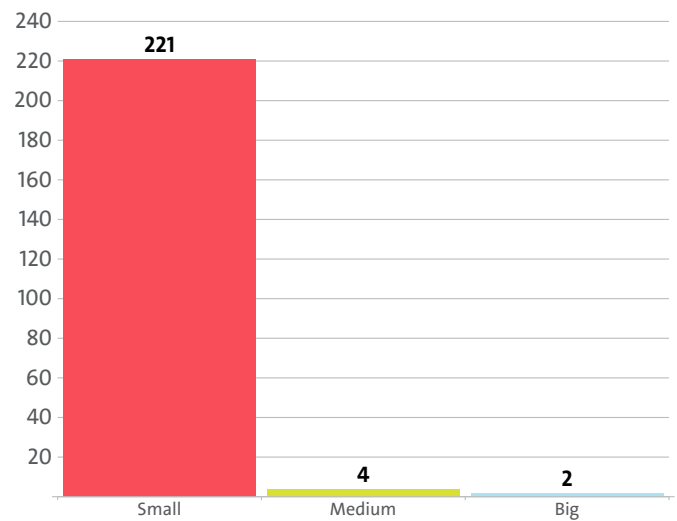
ALLOCATION OF EMPLOYEES BY INDUSTRY'S SECTORS



The analysis on companies' sizes by the number of employees, shows that 221 firms have less than 50 employees*, 4 have between 50 and 250 employees* and 2 companies employ more than 250*.

* Companies without data in the number of employees at end of the year are not taken into consideration.

COMPANIES IN THE INDUSTRY BY SIZE IN TERMS OF NUMBER OF EMPLOYEES



The employees of the leading 10 companies when it comes to numbers make up 60.85% of the workforce in the industry in 2018.

TOP 10 COMPANIES BY SHARE IN INDUSTRY'S TOTAL NUMBER OF EMPLOYEES

RANK	COMPANY	NUMBER OF EMPLOYEES	SHARE
1	PPD BULGARIA EOOD	879	26.49%
2	IQVIA RDS BULGARIA EOOD	557	16.79%
3	LB BULGARICUM EAD	129	3.89%
4	COMAC MEDICAL EOOD	115	3.47%
5	PHARMACEUTICAL RESEARCH ASSOCIATES BULGARIA EOOD	114	3.44%
6	R & D SERVICES OOD	50	1.51%
7	INSTITUT PO HIDRAVLIKA EOOD	46	1.39%
8	CENTER FOR TESTING AND EUROPEAN CERTIFICATION EOOD	43	1.30%
9	IVO PETROW - ARCHITECTS OOD	43	1.30%
10	MEDICAL CENTER COMAC MEDICAL EOOD	43	1.30%

The Scientific research and development industry is the 65th largest employer in the country with 3,318 employees with the largest employer being Retail trade, except of motor vehicles and motorcycles with 222,070 and Extraction of crude petroleum and natural gas at the bottom with 28 employees.

The Scientific research and development's share in the country's total employment was 0.14% in 2018, 0.17% in 2017 and 0.15% in 2016.

We expect, based on the trend in the last three years, the number of employees of the Scientific research and development industry to change at a compound annual growth rate (CAGR) of 8.49% in 2019.

The industry is represented by the following companies

 SMART SOLAR SISTEMS OOD

AR END DI BULGARIA EOOD

OPITNA STANTSIIYA PO POLIVNO ZEMEDIE - PAZARDZHIK

INSTITUT PO HIDRAVLIKA EOOD

KLAUD BEYSIK BULGARIA EOOD

BIOTECHFARM OOD

INO SMART KLINIKAL OOD

LIGHT SMART OOD

RF AMPLIFIER BG EOOD

INOVATSII OOD

MEDICAL CARE OOD

UPASS OOD

IKOKONSULT 94 OOD

CENTER FOR TESTING AND EUROPEAN CERTIFICATION EOOD

ZELENI TEHNOLOGII INDASTRI EOOD

IGNAT IGNATOV ET

ALPHA ENTERPRISE EOOD

GRADIENT BULGARIA EOOD

LIYD BIOTERAPYUTIKS EOOD

REDRAYV OOD

TIFABORD OOD

BIOMEDIKAL INTERNESHANAL SARVISIZ EOOD

ENERDZHI HARVESTING OOD

ALIENO OOD

PLAM ENERDZHI AD

PRO - VAL EOOD

SYMBIOTECH OOD

TECHNOPHOS EAD

PIN CONSULT OOD

INNOFHARMA INTERNATIONAL BG EOOD

RIM-SISTEMI OOD

BOREALIS GLOBAL DESIGNS EOOD

EWRON EOOD

SALUS INTERNESHANAL EOOD

RABOTESHTI IDEI EOOD

INNOVA BM OOD

SOFTERA OOD

SMALL FOOT OOD

INDASTRI GRIYNTEH OOD

ELTOMS OOD

LOGISOFT EOOD

PRO BIO TEH AD

FARMARIKS EOOD

EKIP 2000-KOTOV& CO PARTNERSHIP SD

ECOMOTO ENGINEERING LLC OOD

CLOUDSIGMA RESEARCH EOOD

AFTA OOD

MEDITRIAL INTERNATIONALS EOOD

ROTRIAL KLINIKAL RISARCH BULGARIA OOD

FIDELIS RESEARCH AD

INOVATSIIYEN I IZSLEDOVATELSKI TSENTAR ZA BIOMEDITSINA BIOTEHNOLOGII I FITOTERAPIA OOD

EXPERTISE & CONSULTATION CENTER - RUSE EOOD

SMO BULGARIA OOD

MASTERHERB EOOD

BIOM EOOD

 PRO NATURA OOD

INTERNATIONAL RESEARCH NETWORK EOOD

YUSED PARTS EOOD

MARKET PRINTSIPAL OOD

TELECHIM OOD

AQUARIUS ND OOD

ARC CONSULTING EOOD

EKOLOGICHEN POTENTIAL DZZD

NEW ENERGY GROUP EOOD

JLSOUNDS OOD

BIO TREE OOD

KLIARKOUD EOOD

THERMOINVENT EOOD

INOVATIKS OOD

ET OBTEH-EMIL KOLEV

BUILDING RESEARCH INSTITUTE NISI EOOD

MINGEOUNIVERS INZHENERING NIS MGU EOOD

SECURITY-TG OOD

INSTITUT ZA CHISTI TEHNOLOGII EAD

PIPAL EYDZHANSI EOOD

VITOSHA RESEARCH EOOD

TECHNIK PARTNER BG AD

TONEVI 21 OOD

ENDECTOVET EOOD

EUROPEN INSTITUTE FOR INNOVATIONS AND STRATEGIC ANALYSIS OOD

SEDPORAL EOOD

INNOVATO CLINICAL EOOD

WATER AND SLUDGE RESEARCH INSTITUTE EOOD

SATIXFY BULGARIA EOOD

GENUINE NATURAL SOLUTION OOD

INSTITUT PO TSELULOZA I HARTIA AD

ET SOFIYA KOENOVA

ET MEDRISARCH - PETYA MANOVA

IOMTEX EOOD

IQVIA RDS BULGARIA EOOD

SMO OOD

TM ROBOTICS EOOD

STROICONTROL-SP OOD

BALKAN RESEARCH OOD

AYVARI EOOD

DEMAYSYS OOD

R & D SERVICES OOD

IVO PETROW - ARCHITECTS OOD

RESEARCH CENTER TREND OOD

TDS 2016 OOD

VGD ENGINEERING OOD

TELELINK LABS EOOD

LUMYCOMP DESIGN EOOD

OPITNA STANTSIIYA PO KAYSIIYATA I ZEMEDIEIETO-SILISTRA

ELEKTROTECHNOLOGY OOD

PRO 50 EOOD

SOLVENTER OOD

INSPECTUS EOOD

LABORATORIYA - MEDITSINSKI RESHENIYA EOOD

SMART END GRIYN PRODZHEKTS EOOD

MIKROSISTEMI OOD

DE FOTONIKS OOD

 AN ENERGY EOOD

BIOFARMEKSPERT OOD

PL PRODZHEKT OOD

STERIL OOD

MOS ROBOTICS EOOD

LUMINOS TRAYLS OOD

PAKLAB OOD

ECOSTAR - S EOOD

TECHNICAL UNIVERSITY-SOFIA-TECHNOLOGY EOOD

SOLERY OOD

NS MEDIKAL OOD

EURO-PRO OOD

TECHROOM EOOD

SV-GROUP 1 OOD

LIFE SCIENCE PROJECTS AD

UNIGENETIC EOOD

CENTRE FOR DISRUPTIVE INNOVATION EOOD

BINOVAION EOOD

APPLICATION SOFTWARE SYSTEMS OOD

TUTUNOCHKO EOOD

BIO EKZAKT EOOD

DZZD AKVA - ENV

INNOSLAB OOD

ENI LEK LYUDMILA LYUBENOVA EOOD

3VM EOOD

PAVEL PENCHEV KONYLTING ET

SOLFUTURE EOOD

SUNGINMASHRUM EOOD

MEDIKEY OOD

NEOX CLINICAL RESEARCH EOOD

AURORA STAR OOD

OPITNA STANTSIIYA PO ZEMEDIEIE - SREDETS

ET FOI-KOMERS - KRASIMIR KOSTADINOV MARKOV

ERIVIST EOOD

TSENTAR ZA BIOLOGICHNO-AKTIVNI VESHTESTVA EOOD

MIKON K EOOD

MEDITSINSKI TSENTAR SADOV KARDIO TSENTAR OOD

PROVITI EAD

ZGURA - M EOOD

ET ADZHAROV-TODOR ADZHAROV

IO - DZHES KONSULT EOOD

METAL FOAMS EOOD

NANOBIOREM OOD

LABORA EKSPERT OOD

RESBIOMED TEHNOLODZHIS OOD

PDS EOOD

KOMPANIA ZA ENERGIYNO OBSLEDVANE ZENIT OOD

AKVA AVTOMATIKA OOD

ENVISKO EOOD

OPITNA STANTSIIYA PO ZEMEDIEIE - KARDZHALI

IMUNOLAB EOOD

MONOV CONSULT EOOD

PPD BULGARIA EOOD

AKUMULATOREN CENTAR EUROPE EOOD

HERBITOUR EOOD

 ARMACO ENGINEERING AD

RASHO RASHKOV-54 ET

MEGA PRO DESIGN EOOD

INDUSTRIAL ENGINEERING INNOVATIONS & SOLUTIONS OOD

14TH ELEMENT EOOD

WORLDWIDE CLINICAL TRIALS BUL EOOD

NTTS LAB EOOD

EKAYA EOOD

ET GERA-STEFAN GERASIMOV

ENERKON EOOD

BIOMYC OOD

PRIRODEN DIZAYN OOD

SAVMESTEN GENOMEN TSENTAR OOD

SCIENCE RESEARCH ENTERPRISE EFFECTIVE ENGINEERING SOLUTIONS EOOD

TECHNICAL INNOVATIONS EOOD

DZHENERAL TREYD KORPOREYSHAN EOOD

HYUMAN KONTAKT EOOD

BIOPRINT EOOD

INNOVTEH EOOD

GLOBAL PHARMA SOLUTIONS EOOD

SCHILLER ENGINEERING-SOFIA EOOD

OPITNA STANTSIIYA PO SOYATA-PAVLIKENI

E ES KONSULTING EOOD

E P S EKO POLIMERNI SISTEMI EOOD

BIBLIOTEKA ZEMEDELSKO OBRAZOVANIE EOOD

INFRAPRO PLC AD

NRG TECH EOOD

SIVIKO OOD

SEQUIPE OOD

EXON EOOD

VIZHAN PROTEKT EOOD

ECOPRAXIS EOOD

HYDROKOM OOD

SPACELAB OOD

BIAVIN EOOD

TODU EOOD

IAQSENSE EOOD

DZHILAB EOOD

CT CLINICAL SERVICES EOOD

EUROCONSULT MIG OOD

ET LAROSSA REYKI - LILYANA ORESHAROVA

ANALYTICAL SYSTEMS AND ELECTRONIC TECHNOLOGIES OOD

BIO TS EOOD

ET METROKAD - LACHEZAR BRASTINKOV

EQUINOX GLOBAL SOLUTIONS EOOD

STUDIO PREVYU EOOD

ADELANDA EOOD

NINETY NINE OOD

DZZD KONSORTSIUM OPTIKOMERS

ET SHINGO - ANGEL TERZIYSKI

DZHI AR TI INTERNESHANAL OOD

ENVIROTECH OOD

BCT-GLOBAL EOOD

TAU - ORIONIS EOOD

NEW ENERGY CORPORATION OOD

SOFIEN RIAHI AMBULATORIA ZA INDIVIDUALNA PRAKTIKA ZA PARVICHNA DENTALNA POMOSH T EOOD

ADJAROV TECHNOLOGY EOOD

BMM AD

LB LAKT OOD

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