

Survey code: 021010

ANNUAL REPORT FOR DEVELOPMENT AND RESEARCH FOR BUSINESS SUBJECTS AND CENTRES OF EXCELLENCE, FACULTIES AND NON-PROFIT ORGANISATIONS IN 2021

The obligation to provide data is stipulated in Article 26, and and penalty provisions in case of non-response or provision of incomplete and erroneous data in Article 52 of the Law on Official Statistics ("Official Gazette of the RS", number 104/2009).
Data shall be used for statistical purposes only and shall not be published as individual data.
All data shall be considered as confidential.

Dear Madams/Sirs, an electronic questionnaire is also foreseen for this survey and is available at the following web addresses:
<https://pod2.stat.gov.rs/unos> or www.stat.gov.rs (in the section "Surveys").

This report is to be filled in by business subjects (enterprises), centres of excellence, technology transfer centres, innovation centres, business incubators and science parks; all faculties, scientific institutes and R&D institutes; all non-profit organisations/associations which, according to the Law on Science and Research ("Official Gazette of the RS", number 49/2019), carried out R&D activities in 2021.
 Before filling in the report, please read carefully the explanations accompanying every table as well as the Manual. **All financial indicators are to be indicated in thousands of dinars.** The report is due to be completed and sent not later than **April 20, 2022** at the following address: Statistical Office of the Republic of Serbia, Department of Education, Science and Culture Statistics, 11050 Belgrade Milana Rakica number 5.

I FULL NAME OF THE REPORTING UNIT

Please write down the title of the organisation as stated in the court register, i.e. registration application.

The research unit of the business subject shall write down the full title of the business subject in which it is incorporated in, as well as its title; it shall enter in the tables data **that refer only to this unit**, but not to the entire subject/institution.

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Registration number

II ADDRESS – MUNICIPALITY

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Street and number _____ Telephone number _____

The R&D units shall write down **their address**, not the one of the institution in which it is incorporated in and operate.

III ACTIVITY

_____ Write down the name and code according to the Classification of Activities, 2010

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IV FORM OF OWNERSHIP (circle the corresponding number)

- public 1
- private 2
- mixed 3
- other 4

V SCIENTIFIC FIELD

_____ Write down the name and code according to the Classification of scientific fields (annexed)

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1. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED IN R&D ACTIVITIES, EXPRESSED IN THE NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, 2021

		Total number of employees engaged in R&D				Number of full-time employees engaged in R&D activities		Part-time employees engaged in R&D activities			
		Number of employees		Full-time equivalent		All	Women	Number of employees		Full-time equivalent	
		All (5+7)	Women (6+8)	All (5+9)	Women (6+10)			All	Women	All	Women
a		1	2	3	4	5	6	7	8	9	10
01	Total (02 до 05)										
02	Researchers										
03	Assistant-researchers										
04	Technicians										
05	Other personnel										

The table should not contain the employees engaged in the service of protection and security, restaurants, maintenance and related activities (property guardians, gatekeepers, cleaning staff, baristas, etc.), even though their salaries are included in other current costs when expressing expenditure for R&D.

Columns 5 and 6 should contain full-time employees, i.e. persons who worked the whole year 90% and more of the working time in R&D.

Columns 7, 8, 9 and 10 should contain part-time employees (more than 10%, and less than 90% of the working time).

Data in columns 3, 4, 9 and 10 should be expressed with **one decimal**.

The manual for filling in data in columns 3, 4, 9 and 10 **about the full-time equivalent** (FTE)

Example: FTE

Part-time employees engaged in R&D (more than 10% and less than 90%)	Number of employees	Full-time equivalent (FTE)
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Total number of employees		8	= 2.7
3 persons working the whole year only part-time	(3 x 0.5)	3	= 1.5
2 persons working the whole year less than 20% of the working time	(2 x 0.2)	2	= 0.4
1 persons employed full-time for one half of the year	(1 x 0.5)	1	= 0.5
2 persons employed for eight months for only 25% of the working time	(2 x 0.67 x 0.25)	2	= 0.3

Comment: Employees engaged full-time in R&D activities correspond to the one unit of full-time equivalent (= 1 FTE).

2. EMPLOYEES ENGAGED IN R&D ACTIVITIES ON SERVICE CONTRACT (SC) OR AUTHOR CONTRACT (AC), EXPRESSED IN PHYSICAL NUMBER OF PERSONS AND FULL-TIME EQUIVALENT, 2021

		Engaged on SC or AC in R&D activities			
		Number of employees		Full-time equivalent	
		All	Women	All	Women
a		1	2	3	4
01	All (02 to 05)				
02	Researchers				
03	Assistant-researchers				
04	Technicians				
05	Other personnel				

FTE is to be expressed the same way as in Table 1.

IMPORTANT: all the persons engaged in R&D activities in their reporting unit are to be included, whether they are employed in another institutions (e.g. faculty, institute and other).

3. EMPLOYEES ENGAGED IN R&D ACTIVITIES, BY EDUCATIONAL ATTAINMENT, EXPRESSED IN NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, 2021

		Total number of employees		Educational attainment							
				Doctor's degree		Master's degree/specialisation		University education		Secondary and other education	
		All	Women	All	Women	All	Women	All	Women	All	Women
a		1	2	3	4	5	6	7	8	9	10
Employees engaged in R&D activities (number of physical number)											
01	Total (02 to 05)										
02	Researchers									X	X
03	Assistant-researchers										
04	Technicians										
05	Other personnel										
Employees engaged in R&D activities (full-time equivalent)											
06	Total (07 to 10)										
07	Researchers									X	X
08	Assistant-researchers										
09	Technicians										
10	Other personnel										

Data in columns 1 and 2 (rows 01 to 05) in Table 3 should be equal to the data in columns 1 and 2 in Table 1.

Data in columns 1 and 2 (rows 06 to 10) in Table 3 should be equal to the data in columns 3 and 4 in Table 1.

Column 1 is equal to the sum of columns 3, 5, 7 and 9, also, column 2 is equal to the sum of columns 4, 6, 8 and 10.

4. EMPLOYEES ENGAGED IN R&d ACTIVITIES ON SERVICE CONTRACT (SC) OR AUTHOR CONTRACT (AC), BY EDUCATIONAL ATTAINMENT, EXPRESSED IN NUMBER OF PHYSICAL PERSONS AND FULL-TIME EQUIVALENT, 2021

	Total number of employees	Educational attainment									
		Doctorate's degree		Master's degree/specialisation		University education		Secondary and other education			
		All	Women	All	Women	All	Women	All	Women		
a	1	2	3	4	5	6	7	8	9	10	
Employees engaged in R&D activities on service contract or author contract (number of physical persons)											
01	Total (02 to 05)										
02	Researchers									X	X
03	Assistant-researchers										
04	Technicians										
05	Other personnel										
Employees engaged in R&D activities on service contract or author contract (full-time equivalent)											
06	Total (07 to 10)										
07	Researchers									X	X
08	Assistant-researchers										
09	Technicians										
10	Other personnel										

Data in columns 1 and 2 (rows 01 to 05) in Table 4 should be equal to the data in columns 1 and 2 in Table 2.

Data in columns 1 and 2 (rows 06 to 10) in Table 4 should be equal to the data in columns 3 and 4 in Table 2.

Column 1 should be equal to the sum of columns 3, 5, 7 and 9, also, column 2 should be equal to the sum of columns 4, 6, 8 and 10.

5. FULL-TIME AND PART-TIME EMPLOYEES ENGAGED IN R&D ACTIVITIES, BY AGE AND SEX, EXPRESSED IN NUMBER OF PHYSICAL PERSONS, 2021

		Researchers				Assistant-researchers				Technicians			
		Full-time employees		Part-time employees		Full-time employees		Part-time employees		Full-time employees		Part-time employees	
		All	Women	All	Women	All	Women	All	Women	All	Women	All	Women
a	1	2	3	4	5	6	7	8	9	10	11	12	
01	Total (02 to 07)												
02	Aged under 25												
03	25–34												
04	35–44												
05	45–54												
06	55–64												
07	65 and more												

In table 5, employees employed full-time and part-time in R&D activities, shown in Table 1, are to be classified by age groups.

Data on researchers, assistant-researchers and technicians in row 01 of this table should correspond to the data in Table 1.

6. FULL-TIME AND PART-TIME RESEARCHERS, BY CITIZENSHIP AND SEX, EXPRESSED IN NUMBER OF PHYSICAL PERSONS

Citizenship (by geographical position of the country)		Total number of researchers in 2021		Researchers who came to Serbia in 2021		Researchers who went abroad in 2021		Planned number of researchers for 2022
		All	Women	All	Women	All	Women	
a		1	2	3	4	5	6	7
01	All (02 to 09)							
02	Serbia							
03	EU member countries							
04	Other European countries							
05	North America							
06	Central and South America							
07	Asia							
08	Africa							
09	Other							

In Table 6, **researchers** employed full-time and part-time are to be classified by citizenship (geographical position of the country).

In columns 3 and 4 all the researchers who came from abroad between 01/01/2021 and 31/12/2021, and worked in R&D more than 3 months are to be indicated.

In columns 5 and 6 all the researchers who left Serbia between 01/01/2021 and 31/12/2021 are to be indicated.

Data in row 01 in columns 1 and 2 of this table should **correspond to the data in Table 1 in columns 1 and 2:**

Researchers – All

Researchers – women

7. EXPENDITURE FOR R&D ACTIVITIES, 2021 (in thousands RSD)

Expenditure for R&D			Spent in 2021	Planned for 2022
a			1	2
01	Total expenditure for R&D (02+08+13)			
02	Current costs	All (03+05+06+07)		
03		Gross salaries and wages for all employees in R&D activities		
04		of which gross salaries and wages of researchers		
05		Social contributions borne by the employer (indirect and direct)		
06		Educational costs		
07		Other labour costs		
08		All (09+10+11+12)		
09		For payments based on service contracts and author contracts		
10		Purchase of services connected with R&D		
11		For material costs for R&D work (raw materials, equipment, energy)		
12		Other operating costs and expenses (administration costs and other)		
13		Investment costs	All (14+15+19+20)	
14	For land and buildings			
15	For machinery and equipment:			
16	Information and communication equipment			
17	Transport equipment			
18	Other machinery and equipment			
19	Investments into computer software			
20	Other intellectual property products (patents, licenses, studies, projects and other)			

Comment: The data in row 01 in Table 7 must be equal to the data in row 01 in Table 8.

8. SOURCES OF FUNDS SPENT ON R&D ACTIVITIES, 2021

Sources of funds			Amount in thousands of RSD	
01	Funds spent for R&D by sources – total (02 to 20)			
02	Sources of funding from Serbia	Own funds of the reporting unit		
03		Budgetary funds dedicated for R&D	From the Ministry of Education, Science and Technological Development	
04			From other ministries	
05			General funds of the university/faculty	
06		Funds for R&D from government funds, agencies and foundations		
07		Funds for R&D from local authorities' bodies		
08		Funds for R&D for business subjects	From other enterprises in the same group	
09			From other enterprises outside the group	
10		Funds from tertiary education institutions		
11		Funds for R&D from non-profit organisations		
12		Other funds for R&D from domestic sources		
13		Funds from abroad	Funds from enterprises in the same group	
14	Funds from other enterprises outside the group			
15	Funds for R&D from foreign governments			
16	Funds for R&D from universities and other tertiary education institutions			
17	Funds for R&D from non-profit organisations			
18	Funds for R&D from the European Commission			
19	Funds for R&D from international organisations			
20	Other foreign funds			

9. NUMBER AND VALUE OF R&D WORKS (PROJECTS AND STUDIES), BY SCIENTIFIC FIELDS AND TYPES OF RESEARCH (include also projects financed by own funds), 2021

Scientific fields	Total		Types of research					
			Basic		Applied		Development	
	Number of works	Value	Number of works	Value	Number of works	Value	Number of works	Value
a	1	2	3	4	5	6	7	8
01 All (02 to 08)								
02 Natural sciences, mathematics								
03 Engineering and technology								
04 Social sciences								
05 Humanities								
06 Medical sciences								
07 Agricultural sciences								
08 Multidisciplinary sciences								

The data on spent funds "Value" in column 2 in row 01 should match the data in Table 7 in row 01 "Total expenditure for R&D", i.e. Table 8 in row 01 "Total".

For ongoing projects (not completed) indicate the value of finishing stages of works until the end of 2021.

To determine to which scientific field a research belongs, use the annexed classification.

The data for the value are to be shown in thousands of dinars.

10. FUNDS FOR THE PURCHASE OF R&D SERVICES, 2021 (in thousands of RSD)

a		1
01	Total expenditure for the purchase of R&D services from (02+08):	
02	Subjects in the country (03 to 07)	
03	Business subjects	
04	Government sector (public research institutions)	
05	Private research institutes/laboratories	
06	Universities and other tertiary education institutions	
07	Private non-profit organisations	
08	Subjects abroad (09 to 14)	
09	Business subjects	
10	Government sector (public research institutions)	
11	Private research institutes/laboratories	
12	Universities and other tertiary education institutions	
13	Private non-profit organisations	
14	International organisations	

Expenditure for the purchase of R&D services (extramural expenditure) are expenses for R&D performed on your behalf by third persons. Those expenses are the compensation for specific R&D work carried out separately by an enterprise/institution outside the reporting unit. The financing or expenses for external R&D works (i.e. R&D outside the statistical unit) are not to be included in the amount for intramural research - total, shown in Table 7.

The data are to be indicated in thousands of dinars.

on _____ 2022

Filled in by:

Responsible person:

_____ (name and surname)

_____ (name and surname)

Contact telephone:

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(exchange number is compulsory)

E-mail: _____

GENERAL DEFINITIONS AND EXPLANATIONS FOR FILLING IN THE FOR IR (R&D)

COVERAGE

This form serves to collect data on R&D activities carried out in Serbia in 2021: in business subjects (enterprises), technology transfer centres, innovation centres, business incubators and science parks; at faculties, universities, scientific institutes, as well as R&D institutions; in non-profit organisations/associations.

The status of of centre of excellence can be acquired by an institute, i.e. tertiary education institution or their organisational part, i.e. their organisational parts if they have achieved in a five-year period the highest and internationally recognised results in a specific scientific discipline based on which they have a developed international scientific, technical and technological cooperation.

An institute is a R&D organisation that carries out a R&D activity of general interest, under conditions stipulated by the law. An institute can be founded as an institution or as an enterprise. Depending on the type of research and activity, form of organisation and financing modality of its activity, an institute can perform the R&D activity as: scientific institute and R&D institute. As to the ownership structure, an institute can be: State-owned and private.

A scientific institute is an institution which principal activity is composed of basic researches and applied researches that serve to valorise the results of basic researches.

A R&D institute is an organisation which principal activity is composed of applied and development researches dedicated to meet the needs of direct users of research results.

All tertiary education institutions (faculties, academies of arts, universities), whether State-owned, private or mixed in terms of ownership.

R&D organisations that can be accredited for this activity are: institutes, faculties, integrated universities, centres of excellence and R&D organisations in the field of defense and Army of Serbia.

DEFINITIONS OF THE R&D ACTIVITY

The R&D activity is a systematic creative work performed in view of acquiring new knowledge, in order to raise the general civilisation level of society and to use this knowledge in all areas of social development.

The scientific activity is carried out through basic research, applied and development research and by training the personnel for R&D work.

- **BASIC RESEARCH** is a creative, systematic activity focused on acquiring new knowledge on the origin and causes of phenomena and facts, without any particular application or use in view. The results of a basic research are often formulated as general principles, theories or rules.
- **APPLIED RESEARCH** is undertaken whether to establish a possibility to use the results of a research, having in mind its practical application, or to find new methods or ways that facilitate the achievement of a particular objective section in advance. This survey starts from existing knowledge and examine it thoroughly in view of solving specific issues.
- **DEVELOPMENT RESEARCH** is a creative systematic activity based on the results of the basis and applied research, and practical knowledge directed towards introducing new materials, products, devices, processes and methods.

METHODOLOGICAL BASIS

Methodological basis for this survey are international standards set by OECD and published in the FRASCATI Manual, 2015. All international classifications that are in the Annex for filling in the Annual report about R&D activity are applied. Detailed explanations are available in the Manual for filling in the form.

Additional explanations and instructions can be found in the Statistical Office of the Republic of Serbia, Milana Rakica No 5, Belgrade, Department for the statistics of education, science and culture, telephone number: +381 11 2412922, extension 425.