Questionnaire manual: Research and development (R&D)

Questionnaire code: 11332025 Submitted in: 1.03.2025, data about 2024

Periodicity: Annual

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After correcting the data, save changes and check the questionnaire again. If there are no more mistakes, confirm and submit the data by clicking “Confirm” on the last page of the questionnaire. You will be displayed a message that the data have been submitted successfully.
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DATA COLLECTED WITH THE QUESTIONNAIRE

Table 0.1. GENERAL DATA

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Existence of internal R&D costs *	RD_ENT_YES	Existence of internal R&D costs in the reference period. If the company only outsourced R&D services, the answer to this question is 'No'. The main criterion of R&D is innovativeness and the absence of a solution for a scientific or a technological problem in the early stage of the work. R&D is the research and development work carried out in the company. A broader definition of R&D: if the main goal is to technically improve a product or process, the work performed is classified as R&D. If a product, process or an approach has basically been developed and the main goal of the work is market expansion, pre-production planning or the smooth performance of a control system, the activity is not classified as R&D.	valik_jah_ei_1v	

Table 1. NUMBER OF PERSONS EMPLOYED AT THE END OF THE REFERENCE YEAR

At the end of the reference year does not necessarily mean as at the last working day of the year, but a day in the second half of December, when the necessary data is available.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Number of persons employed at the end of the reference period: total – men and women	RD_EMPL_MF	Number of persons employed at the end of the reference year.	Positive integer	
1 / 2	Number of R&D personnel at the end of the reference period	RD_PER_MF	Number of employees engaged in R&D.	Positive integer	

Table 1.1. EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT BY SCIENTIFIC AREAS AT THE END OF THE REFERENCE YEAR

List all persons who worked for the organisation at the end of the reference year and were engaged in R&D in the extent of at least 10% of their working time.Only indicate data about those people in the table, who were indicated in column 2 of Table 1. Doctoral and master's students are reflected in the report together with scientists and engineers, provided that they get remuneration for R&D.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in natural sciences – total	RD_RESMF_NAT	Number of researchers and engineers in the field of natural sciences at the end of the reference period.	Positive integer	
1 / 2	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in engineering and technology sciences – total	RD_RESMF_ENG	Number of researchers and engineers in the field of engineering and technology sciences at the end of the reference period.	Positive integer	
1 / 3	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in medical and health sciences – total	RD_RESMF_MED	Number of researchers and engineers in the field of medical and health sciences at the end of the reference period.	Positive integer	
1 / 4	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in agricultural and veterinary sciences – total	RD_RESMF_AGR	Number of researchers and engineers in the field of agricultural and veterinary sciences at the end of the reference period.	Positive integer	
1 / 5	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in social sciences – total	RD_RESMF_SOC	Number of researchers and engineers in the field of social sciences at the end of the reference period.	Positive integer	
1 / 6	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in humanities and the arts – total	RD_RESMF_HUM	Number of researchers and engineers in the field of humanities and the arts at the end of the reference period.	Positive integer	
2 / 1	Number of employees engaged in R&D at the end of the	RD_RESF_NAT	Number of female researchers and engineers in the area of natural sciences at the end of the reference year.	Positive integer	

	reference period: researchers and engineers in natural sciences – women				
2 / 2	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in engineering and technology sciences – women	RD_RESF_ENG	Number of female researchers and engineers in the field of engineering and technology sciences at the end of the reference period.	Positive integer	
2 / 3	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in medical and health sciences – women	RD_RESF_MED	Number of female researchers and engineers in the field of medical and health sciences at the end of the reference period.	Positive integer	
2 / 4	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in agricultural and veterinary sciences – women	RD_RESF_AGR	Number of female researchers and engineers in the field of agricultural and veterinary sciences at the end of the reference period.	Positive integer	
2 / 5	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in social sciences – women	RD_RESF_SOC	Number of female researchers and engineers in the area of social sciences at the end of the reference year.	Positive integer	
2 / 6	Number of employees engaged in R&D at the end of the reference period: researchers and engineers in humanities and the arts – women	RD_RESF_HUM	Number of female researchers and engineers in the field of humanities and the arts at the end of the reference period.	Positive integer	
3 / 1	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in natural sciences – total	RD_OTHMF_NAT	Number of technicians and support staff engaged in R&D in the field of natural sciences at the end of the reference period.	Positive integer	
3 / 2	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in engineering and technology sciences – total	RD_OTHMF_ENG	Number of technicians and support staff engaged in R&D in the field of engineering and technology sciences at the end of the reference period.	Positive integer	
3 / 3	Number of employees engaged in R&D at the end of the reference period: other R&D	RD_OTHMF_MED	Number of technicians and support staff engaged in R&D in the field of medical and health sciences at the end of the reference period.	Positive integer	

	personnel in medical and health sciences – total				
3 / 4	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in agricultural and veterinary sciences – total	RD_OTHMF_AGR	Number of technicians and support staff engaged in R&D in the field of agricultural and veterinary sciences at the end of the reference period.	Positive integer	
3 / 5	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in social sciences – total	RD_OTHMF_SOC	Number of technicians and support staff engaged in R&D in the field of social sciences at the end of the reference period.	Positive integer	
3 / 6	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in humanities and the arts – total	RD_OTHMF_HUM	Number of technicians and support staff engaged in R&D in the field of humanities and the arts at the end of the reference period.	Positive integer	
4 / 1	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in natural sciences – women	RD_OTHF_NAT	Number of female technicians and support staff engaged in R&D in the field of natural sciences at the end of the reference period.	Positive integer	
4 / 2	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in engineering and technology sciences – women	RD_OTHF_ENG	Number of female technicians and support staff engaged in R&D in the field of engineering and technology sciences at the end of the reference period.	Positive integer	
4 / 3	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in medical and health sciences – women	RD_OTHF_MED	Number of female technicians and support staff engaged in R&D in the field of medical and health sciences at the end of the reference period.	Positive integer	
4 / 4	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in agricultural and veterinary sciences – women	RD_OTHF_AGR	Number of female technicians and support staff engaged in R&D in the field of agricultural and veterinary sciences at the end of the reference period.	Positive integer	
4 / 5	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in social sciences – women	RD_OTHF_SOC	Number of female technicians and support staff engaged in R&D in the field of social sciences at the end of the reference period.	Positive integer	

4 / 6	Number of employees engaged in R&D at the end of the reference period: other R&D personnel in humanities and the arts – women	RD_OTHF_HUM	Number of female technicians and support staff engaged in R&D in the field of humanities and the arts at the end of the reference period.	Positive integer	

Table 1.2. NUMBER OF EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT IN THE REFERENCE YEAR IN FULL-TIME EQUIVALETNS

Unlike in Table 1.1, Table 1.2 also lists the working time spent on R&D by those employees who do not work any more at the end of the year or for whom the share of R&D in their work was below 10%. In other words – indicate all working time spent on R&D in the reference year. Working time spent on R&D by one employee can be divided by areas for Table 1.2. The data about the employee may be estimated.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in natural sciences – total	RD_RESMF_FTE_NAT	Full-time equivalent (FTE) hours spent on R&D by researchers and engineers in natural sciences during the reference period.	Positive real number (0,2)	
1 / 2	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in engineering and technology sciences – total	RD_RESMF_FTE_ENG	Full-time equivalent (FTE) hours spent on R&D by researchers and engineers in engineering and technology sciences during the reference period.	Positive real number (0,2)	
1 / 3	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in medical and health sciences – total	RD_RESMF_FTE_MED	Full-time equivalent (FTE) hours spent on R&D by researchers and engineers in medical and health sciences during the reference period.	Positive real number (0,2)	
1 / 4	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in agricultural and veterinary sciences – total	RD_RESMF_FTE_AGR	Full-time equivalent (FTE) hours spent on R&D by researchers and engineers in agricultural and veterinary sciences during the reference period.	Positive real number (0,2)	
1 / 5	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in social sciences – total	RD_RESMF_FTE_SOC	Full-time equivalent (FTE) hours spent on R&D by researchers and engineers in social sciences during the reference period.	Positive real number (0,2)	
1 / 6	Full-time equivalent (FTE)	RD_RESMF_FTE	Full-time equivalent (FTE) hours spent on R&D by researchers and engineers in humanities and the arts during	Positive real number	

	hours spent on R&D in the reference period: researchers and engineers in humanities and the arts – total	_HUM	the reference period.	(0,2)	
2 / 1	Working time spent on R&D in full-time years in the reference period: researchers and engineers in natural sciences – women	RD_RESF_FTE_NAT	Working time of female researchers and engineers spent on R&D in the area of natural sciences in the reference year.	Positive real number (0,2)	
2 / 2	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in engineering and technology sciences – women	RD_RESF_FTE_ENG	Working time of female researchers and engineers spent on R&D in the field of engineering and technology sciences in the reference year.	Positive real number (0,2)	
2 / 3	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in medical and health sciences – women	RD_RESF_FTE_MED	Working time of female researchers and engineers spent on R&D in the field of medical and health sciences in the reference year.	Positive real number (0,2)	
2 / 4	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in agricultural and veterinary sciences – women	RD_RESF_FTE_AGR	Working time of female researchers and engineers spent on R&D in the field of agricultural and veterinary sciences in the reference year.	Positive real number (0,2)	
2 / 5	Working time spent on R&D in full-time years in the reference period: scientists and engineers in social sciences – women	RD_RESF_FTE_SOC	Working time of female scientists and engineers spent on R&D in the area of social sciences in the reference year.	Positive real number (0,2)	
2 / 6	Full-time equivalent (FTE) hours spent on R&D in the reference period: researchers and engineers in humanities and the arts – women	RD_RESF_FTE_HUM	Working time of female researchers and engineers spent on R&D in the field of humanities and the arts in the reference year.	Positive real number (0,2)	
3 / 1	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in natural sciences – total	RD_OTHMF_FTE_NAT	Full-time equivalent (FTE) hours spent on R&D by technicians and support staff in the field of natural sciences during the reference period.	Positive real number (0,2)	
3 / 2	Full-time equivalent (FTE) hours spent on R&D in the reference period:	RD_OTHMF_FTE_ENG	Full-time equivalent (FTE) hours spent on R&D by technicians and support staff in engineering and technology sciences during the reference period.	Positive real number (0,2)	

	other R&D personnel in engineering and technology sciences – total				
3 / 3	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in medical and health sciences – total	RD_OTHMF_FTE_MED	Full-time equivalent (FTE) hours spent on R&D by technicians and support staff in the field of medical and health sciences during the reference period.	Positive real number (0,2)	
3 / 4	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in agricultural and veterinary sciences – total	RD_OTHMF_FTE_AGR	Full-time equivalent (FTE) hours spent on R&D by technicians and support staff in agricultural and veterinary sciences during the reference period.	Positive real number (0,2)	
3 / 5	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in social sciences – total	RD_OTHMF_FTE_SOC	Full-time equivalent (FTE) hours spent on R&D by technicians and support staff in social sciences during the reference period.	Positive real number (0,2)	
3 / 6	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in humanities and the arts – total	RD_OTHMF_FTE_HUM	Full-time equivalent (FTE) hours spent on R&D by technicians and support staff in humanities and the arts during the reference period.	Positive real number (0,2)	
4 / 1	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in natural sciences – women	RD_OTHF_FTE_NAT	Full-time equivalent (FTE) hours spent on R&D by female technicians and support staff in the field of natural sciences during the reference period.	Positive real number (0,2)	
4 / 2	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in engineering and technology sciences – women	RD_OTHF_FTE_ENG	Full-time equivalent (FTE) hours spent on R&D by female technicians and support staff in the field of engineering and technology sciences during the reference period.	Positive real number (0,2)	
4 / 3	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in medical and health sciences – women	RD_OTHF_FTE_MED	Full-time equivalent (FTE) hours spent on R&D by female technicians and support staff in the field of medical and health sciences during the reference period.	Positive real number (0,2)	
4 / 4	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in	RD_OTHF_FTE_AGR	Full-time equivalent (FTE) hours spent on R&D by female technicians and support staff in agricultural and veterinary sciences during the reference period.	Positive real number (0,2)	

	agricultural and veterinary sciences – women				
4 / 5	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in social sciences – women	RD_OTHF_FTE_SOC	Full-time equivalent (FTE) hours spent on R&D by female technicians and support staff in social sciences during the reference period.	Positive real number (0,2)	
4 / 6	Full-time equivalent (FTE) hours spent on R&D in the reference period: other R&D personnel in humanities and the arts – women	RD_OTHF_FTE_HUM	Full-time equivalent (FTE) hours spent on R&D by female technicians and support staff in humanities and the arts during the reference period.	Positive real number (0,2)	

Table 2. EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT BY POST AND LEVEL OF EDUCATION AT THE END OF THE REFERENCE YEAR

Data about the level of education of employees based on the document indicating the highest level of education. On row 8, the sums in columns 1–6 must correspond to the data indicated in Table 1.1 column 7.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Number of employees engaged in R&D at the end of the reference period: researchers and engineers with doctoral degree – women and men	RD_RESMF_DOC	Total number of researchers and engineers with a doctoral degree by scientific area at the end of the reference year.	Positive integer	
1 / 2	Number of employees engaged in R&D at the end of the reference period: researchers and engineers with doctoral degree – women	RD_RESF_DOC	Number of female researchers and engineers with doctoral degree at the end of the reference year.	Positive integer	
1 / 3	Number of employees engaged in R&D at the end of the reference period: other R&D personnel with doctoral degree – total	RD_OTHMF_DOC	Number of technicians and support staff with a doctoral degree at the end of the reference period.	Positive integer	
1 / 4	Number of employees engaged in R&D at the end of the reference period: other R&D personnel with doctoral degree – women	RD_OTHF_DOC	Number of female technicians and support staff with a doctoral degree at the end of the reference period.	Positive integer	
2 / 1	Number of employees engaged in R&D	RD_RESMF_HIGH	Number of researchers and engineers with a master's degree, academic higher education or professional higher education at the end of the reference period.	Positive integer	

	at the end of the reference period: researchers and engineers with a master's degree, academic higher education or professional higher education – total				
2 / 2	Number of employees engaged in R&D at the end of the reference period: researchers and engineers with a master's degree, academic higher education or a professional higher education – women	RD_RESF_HIGH	Number of female researchers and engineers with a master's degree, academic higher education or professional higher education at the end of the reference period.	Positive integer	
2 / 3	Number of employees engaged in R&D at the end of the reference period: other R&D personnel with a master's degree, academic higher education or professional higher education – total	RD_OTHMF_HIGH	Number of technicians and support staff with a master's degree, academic higher education or professional higher education at the end of the reference period.	Positive integer	
2 / 4	Number of employees engaged in R&D at the end of the reference period: other R&D personnel with a master's degree, academic higher education or professional higher education – women	RD_OTHF_HIGH	Number of female technicians and support staff with a master's degree, academic higher education or professional higher education at the end of the reference period.	Positive integer	
3 / 3	Number of employees engaged in R&D at the end of the reference period: other R&D personnel with secondary or professional secondary education or without secondary education – total	RD_OTHMF_SECN	Number of technicians and support staff with secondary or professional secondary education or without secondary education at the end of the reference period.	Positive integer	
3 / 4	Number of employees engaged in R&D at the end of the reference period: other R&D personnel with secondary or professional secondary education or without secondary education – women	RD_OTHF_SECN	Number of female R&D personnel with secondary or professional secondary education or without secondary education at the end of the reference period.	Positive integer	

Table 3. RESEARCHERS AND ENGINEERS BY AGE AT THE END OF THE REFERENCE YEAR (The table does not include data on other R&D personnel (technicians, support staff))

Distribution of scientists and engineers by age. Total numbers of female and male scientists must correspond to the data indicated in previous tables. The table does not include data about technicians or assistant personnel. Total number of (fe)male scientists and engineers by age in column 1 must correspond to the data indicated in Table 1.1 column 7 row 1 (2).

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 2	Number of researchers and engineers at the end of the reference period: up to 25-year-olds – men and women	RD_RESMF_AGE1	Number of researchers and engineers aged under 25 at the end of the reference period.	Positive integer	
1 / 3	Number of researchers and engineers at the end of the reference period: 25–34-year-olds – men and women	RD_RESMF_AGE2	Number of researchers and engineers aged 25–34 at the end of the reference period.	Positive integer	
1 / 4	Number of researchers and engineers at the end of the reference period: 35–44-year-olds – men and women	RD_RESMF_AGE3	Number of researchers and engineers aged 35–44 at the end of the reference period.	Positive integer	
1 / 5	Number of researchers and engineers at the end of the reference period: 45–54-year-olds – men and women	RD_RESMF_AGE4	Number of researchers and engineers aged 45–54 at the end of the reference period.	Positive integer	
1 / 6	Number of researchers and engineers at the end of the reference period: 55–64-year-olds – men and women	RD_RESMF_AGE5	Number of researchers and engineers aged 55–64 at the end of the reference period.	Positive integer	
1 / 7	Number of researchers and engineers at the end of the reference period: at least 65-year-olds – men and women	RD_RESMF_AGE6	Number of researchers and engineers aged 65 and over at the end of the reference period.	Positive integer	
2 / 2	Number of researchers and engineers at the end of the reference period: up to 25-year-olds – women	RD_RESF_AGE1	Number of under 25-year-old female researchers and engineers at the end of the reference year.	Positive integer	
2 / 3	Number of researchers and engineers at the end of the reference period: 25–34-year-olds – women	RD_RESF_AGE2	Number of 25–34-year-old female researchers and engineers at the end of the reference year.	Positive integer	
2 / 4	Number of researchers and	RD_RESF_AGE3	Number of 35–44-year-old female researchers and engineers at the end of the reference year.	Positive integer	

	engineers at the end of the reference period: 35–44-year-olds – women				
2 / 5	Number of researchers and engineers at the end of the reference period: 45–54-year-olds – women	RD_RESF_AGE4	Number of 45–54-year-old female researchers and engineers at the end of the reference year.	Positive integer	
2 / 6	Number of researchers and engineers at the end of the reference period: 55–64-year-olds – women	RD_RESF_AGE5	Number of 55–64-year-old female researchers and engineers at the end of the reference year.	Positive integer	
2 / 7	Number of researchers and engineers at the end of the reference period: at least 65-year-olds – women	RD_RESF_AGE6	Number of at least 65-year-old female researchers and engineers at the end of the reference year.	Positive integer	

Table 4. RESEARCHERS AND ENGINEERS BY FIELD OF SCIENCE AT THE END OF THE REFERENCE YEAR (The table does not include data on other R&D personnel (technicians, support staff))

Division of scientists and engineers by scientific degree, scientific areas are determined by the main activities of the employee like in Table 1.1, not by the specialty of the scientific degree or diploma. The table does not include data about technicians or assistant personnel. Column 1 and 2 are prefilled with data from Table 1.1. On row 7, the sums in columns 1–6 must correspond to the data indicated in Table 2 columns 1–2.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Number of researchers and engineers at the end of the reference period: natural sciences – women and men with doctoral degree	RD_RESMF_NAT_DOC	Number of researchers and engineers in the field of natural sciences with a doctoral degree at the end of the reference period.	Positive integer	
1 / 2	Number of researchers and engineers at the end of the reference period: natural sciences – women with doctoral degree	RD_RESF_NAT_DOC	Number of female researchers and engineers the area of natural sciences with doctoral degree at the end of the reference year.	Positive integer	
2 / 1	Number of researchers and engineers at the end of the reference period: engineering and technology sciences – women and men with doctoral degree	RD_RESMF_ENG_DOC	Number of researchers and engineers in the field of engineering and technology sciences with a doctoral degree at the end of the reference period.	Positive integer	
2 / 2	Number of researchers and engineers at the end of the	RD_RESF_ENG_DOC	Number of female researchers and engineers in the field of engineering and technology sciences with a doctoral degree at the end of the reference period.	Positive integer	

	reference period: engineering and technology sciences – women with doctoral degree				
3 / 1	Number of researchers and engineers at the end of the reference period: medical and health sciences – women and men with doctoral degree	RD_RESMF_MED_DOC	Number of researchers and engineers in the field of medical and health sciences with a doctoral degree at the end of the reference period.	Positive integer	
3 / 2	Number of researchers and engineers at the end of the reference period: medical and health sciences – women with doctoral degree	RD_RESF_MED_DOC	Number of female researchers and engineers in the field of medical and health sciences with a doctoral degree at the end of the reference period.	Positive integer	
4 / 1	Number of researchers and engineers at the end of the reference period: agricultural and veterinary sciences – women and men with doctoral degree	RD_RESMF_AGR_DOC	Number of researchers and engineers in the field of agricultural and veterinary sciences with a doctoral degree at the end of the reference period.	Positive integer	
4 / 2	Number of researchers and engineers at the end of the reference period: agricultural and veterinary sciences – women with doctoral degree	RD_RESF_AGR_DOC	Number of female researchers and engineers in the field of agricultural and veterinary sciences with a doctoral degree at the end of the reference period.	Positive integer	
5 / 1	Number of researchers and engineers at the end of the reference period: social sciences – women and men with doctoral degree	RD_RESMF_SOC_DOC	Number of researchers and engineers in the field of social sciences with a doctoral degree at the end of the reference period.	Positive integer	
5 / 2	Number of researchers and engineers at the end of the reference period: social sciences – women with doctoral degree	RD_RESF_SOC_DOC	Number of female researchers and engineers the area of social sciences with doctoral degree at the end of the reference year.	Positive integer	
6 / 1	Number of researchers and engineers at the end of the reference period: humanities and the arts – women and men with doctoral degree	RD_RESMF_HUM_DOC	Number of researchers and engineers in the field of humanities and the arts with a doctoral degree at the end of the reference period.	Positive integer	
6 / 2	Number of researchers and engineers at the end of the reference period: humanities and	RD_RESF_HUM_DOC	Number of female researchers and engineers in the field of humanities and the arts with a doctoral degree at the end of the reference period.	Positive integer	

	the arts – women with doctoral degree				

Table 5. SCIENTISTS AND ENGINEERS WITH FOREIGN CITIZENSHIP BY SEX

Please note that foreign researchers indicated in Table 5 must also be included in tables 1, 1.1, 1.2, 2, 3 and 4.
Data about scientists and engineers with foreign citizenship by countries and sex. If filled in online, choose the name of the country from the list of countries.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Researchers and engineers with foreign citizenship – code and name of the country	RD_ISO_FOR	Official name and code of the country of citizenship of researchers and engineers with foreign citizenship.	Riikide ja territooriumide klassifikaator 2T 2022v1	
1 / 2	Number of researchers and engineers with foreign citizenship – men and women	RD_RESMF_FOR	Number of researchers and engineers with the citizenship of the respective country.	Positive integer	
1 / 3	Number of researchers and engineers with foreign citizenship – women	RD_RESF_FOR	Number of female researchers and engineers with the citizenship of the respective country.	Positive integer	

Table 6. COSTS ON RESEARCH AND DEVELOPMENT BY SOURCES OF FUNDING AND SCIENTIFIC AREAS, EUROS

R&D costs by sources of funding and scientific areas. Five main sources of R&D funding are distinguished: state, companies, non-profit private sector, universities and higher education institutions and foreign sources. Financial data is indicated in euros without decimals.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 2	Funding of R&D costs: natural sciences – from state funds	RD_EXP_NAT_GOV	Funding of natural sciences from state funds.	Positive integer	
1 / 3	Funding of R&D costs: natural sciences – from companies	RD_EXP_NAT_BES	Funding of natural sciences from companies.	Positive integer	
1 / 4	Funding of R&D costs: natural sciences – from non-profit private sector	RD_EXP_NAT_PNP	Funding of natural sciences from non-profit private sector.	Positive integer	
1 / 5	Funding of R&D costs: natural sciences – from universities and higher education institutions	RD_EXP_NAT_HES	Funding of natural sciences from universities and higher education institutions.	Positive integer	
1 / 6	Funding of R&D costs: natural sciences – from foreign sources	RD_EXP_NAT_FOR	Funding of natural sciences from foreign sources.	Positive integer	
2 / 2	Funding of R&D costs: engineering	RD_EXP_ENG_G	Funding of engineering and technology sciences from state funds.	Positive integer	

	and technology sciences – from state funds	OV			
2 / 3	Funding of R&D costs: engineering and technology sciences – from companies	RD_EXP_ENG_BES	Funding of engineering and technology sciences from companies.	Positive integer	
2 / 4	Funding of R&D costs: engineering and technology sciences – from non-profit private sector	RD_EXP_ENG_PNP	Funding of engineering and technology sciences from the non-profit private sector.	Positive integer	
2 / 5	Funding of R&D costs: engineering and technology sciences – from universities and higher education institutions	RD_EXP_ENG_HES	Funding of engineering and technology sciences from universities and higher education institutions.	Positive integer	
2 / 6	Funding of R&D costs: engineering and technology sciences – from foreign sources	RD_EXP_ENG_FOR	Funding of engineering and technology sciences from foreign sources.	Positive integer	
3 / 2	Funding of R&D costs: medical and health sciences – from state funds	RD_EXP_MED_GOV	Funding of medical and health sciences from state funds.	Positive integer	
3 / 3	Funding of R&D costs: medical and health sciences – from companies	RD_EXP_MED_BES	Funding of medical and health sciences from companies.	Positive integer	
3 / 4	Funding of R&D costs: medical and health sciences – from non-profit private sector	RD_EXP_MED_PNP	Funding of medical and health sciences from the non-profit private sector.	Positive integer	
3 / 5	Funding of R&D costs: medical and health sciences – from universities and higher education institutions	RD_EXP_MED_HES	Funding of medical and health sciences from universities and higher education institutions.	Positive integer	
3 / 6	Funding of R&D costs: medical and health sciences – from foreign sources	RD_EXP_MED_FOR	Funding of medical and health sciences from foreign sources.	Positive integer	
4 / 2	Funding of R&D costs: agricultural and veterinary sciences – from state funds	RD_EXP_AGR_GOV	Funding of agricultural and veterinary sciences from state funds.	Positive integer	
4 / 3	Funding of R&D costs: agricultural and veterinary sciences – from companies	RD_EXP_AGR_BES	Funding of agricultural and veterinary sciences from companies.	Positive integer	
4 / 4	Funding of R&D costs: agricultural and veterinary sciences – from non-profit private sector	RD_EXP_AGR_PNP	Funding of agricultural and veterinary sciences from the non-profit private sector.	Positive integer	
4 / 5	Funding of R&D costs: agricultural and veterinary sciences – from universities and higher education institutions	RD_EXP_AGR_HES	Funding of agricultural and veterinary sciences from universities and higher education institutions.	Positive integer	
4 / 6	Funding of R&D costs: agricultural	RD_EXP_AGR_F	Funding of agricultural and veterinary sciences from foreign sources.	Positive integer	

	and veterinary sciences – from foreign sources	OR			
5 / 2	Funding of R&D costs: social sciences – from state funds	RD_EXP_SOC_GOV	Funding of social sciences from state funds.	Positive integer	
5 / 3	Funding of R&D costs: social sciences – from companies	RD_EXP_SOC_BES	Funding of social sciences from companies.	Positive integer	
5 / 4	Funding of R&D costs: social sciences – from non-profit private sector	RD_EXP_SOC_PNP	Funding of social sciences from non-profit private sector.	Positive integer	
5 / 5	Funding of R&D costs: social sciences – from universities and higher education institutions	RD_EXP_SOC_HES	Funding of social sciences from universities and higher education institutions.	Positive integer	
5 / 6	Funding of R&D costs: social sciences – from foreign sources	RD_EXP_SOC_FOR	Funding of social sciences from foreign sources.	Positive integer	
6 / 2	Funding of R&D costs: humanities and the arts – from state funds	RD_EXP_HUM_GOV	Funding of humanities and the arts from state funds.	Positive integer	
6 / 3	Funding of R&D costs: humanities and the arts – from companies	RD_EXP_HUM_BES	Funding of humanities and the arts from companies.	Positive integer	
6 / 4	Funding of R&D costs: humanities and the arts – from non-profit private sector	RD_EXP_HUM_PNP	Funding of humanities and the arts from the non-profit private sector.	Positive integer	
6 / 5	Funding of R&D costs: humanities and the arts – from universities and higher education institutions	RD_EXP_HUM_HES	Funding of humanities and the arts from universities and higher education institutions.	Positive integer	
6 / 6	Funding of R&D costs: humanities and the arts – from foreign sources	RD_EXP_HUM_FOR	Funding of humanities and the arts from foreign sources.	Positive integer	

Table 7. COSTS ON RESEARCH AND DEVELOPMENT BY NATIONAL AND FOREIGN SOURCES OF FUNDING

In detail, indicate the R&D costs funded from national or foreign sources. The total sums must correspond to those indicated in Table 6. Support from the EU, international organisations, foreign countries and non-governmental organisations of foreign countries granted through the state budget is considered support from the state, not from foreign sources.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	Funding of R&D costs: state funds – from the budget of Ministry of Education and Research	RD_EXP_GOVI7	R&D expenditure financed from the budget of the Ministry of Education and Research, incl. core funding, operating grants, investments, ETAG grants, wage subsidies for junior researchers.	Positive integer	
2 / 1	Funding of R&D costs: state funds – ministries (except Ministry of	RD_EXP_GOVI8	R&D expenditure financed from the budgets of ministries (except the Ministry of Education and Research), publicly financed funds and foundations (except ETAG).	Positive integer	

	(except Ministry of Education and Research), publicly financed funds, foundations				
3 / 1	Funding of R&D costs: state funds – from local government institutions	RD_EXP_GOVI5	Rural municipalities/cities, municipality authorities – R&D costs funded by municipality authorities and their divisions.	Positive integer	
4 / 1	Funding of R&D costs: state funds – from own funds (public sector institutions)	RD_EXP_GOVI6	R&D costs funded from the own funds of a public sector institution. Public sector institutions include state or local government institutions and units, the main activities of which do not include the production of goods or provision of services for sale, and which do not provide higher education service.	Positive integer	
7 / 1	Funding of R&D costs: foreign sources – from European Union research grants	RD_EXP_FORI1	R&D costs funded by research grants from the European Union.	Positive integer	
8 / 1	Funding of R&D costs: foreign sources – from companies	RD_EXP_FORI2	R&D costs which are funded by companies outside Estonia (incl. foreign parent or affiliate companies).	Positive integer	
9 / 1	Funding of R&D costs: foreign sources – from foreign funds and foundations	RD_EXP_FORI3	R&D costs funded by foreign funds and endowments.	Positive integer	
10 / 1	Funding of R&D costs: foreign sources – other	RD_EXP_FORI4	R&D costs funded from foreign sources not listed under variables RD_EXP_FORI1, RD_EXP_FORI2. RD_EXP_FORI3.	Positive integer	

Table 8. COSTS ON RESEARCH AND DEVELOPMENT BY TYPE OF COSTS, EUROS

R&D costs by main cost items and types of investment regardless of the source of funding.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
2 / 1	R&D costs in organisation – labour costs	RD_EXP_LAB_INS	Labour costs – wages and salaries, holiday pay, scholarships, social fund payments. NB! Indicate the labour costs of employees directly related to R&D, incl. labour costs of master's and doctoral students engaged in R&D. Labour costs of employees not directly engaged in R&D (security service, cleaning and maintenance personnel, etc.) are indicated among other current costs.	Positive integer	
3 / 1	R&D costs in organisation – other current costs	RD_EXP_CUR_OTH	Other current costs – lease and rent of buildings and/or premises, fees for electricity, water and heating, expenditure on the purchase of smaller equipment, instruments, materials and other current assets, business travels, repairs, communication services, etc. Depreciation costs are not included in the R&D costs. Also indicate the labour costs of persons not directly involved in R&D (security service, cleaning and maintenance personnel, etc.), if their activities were related to the premises or equipment used for R&D.	Positive integer	
4 / 1	R&D costs in organisation – acquisition, construction and capital repairs of buildings and facilities	RD_EXP_BUI_INS	R&D costs (investments) for the acquisition, building and capital repairs of buildings and facilities (incl. for reconstruction or extension), also for the acquisition of land.	Positive integer	
5 / 1	R&D costs in organisation – equipment, apparatus, machinery,	RD_EXP_EQU_INS	R&D costs (investments) for the acquisition of equipment, apparatus, machinery, inventory and means of transport (capitalised costs in acquisition cost, incl. reconstruction expenses), also for the creation of basic libraries or information banks.	Positive integer	

	inventory and means of transport				
6 / 1	R&D costs in organisation – other investments	RD_EXP_INV_INS	Other investments, incl. investments in intangible fixed assets (patents, licences, obtained and created special software, etc.).	Positive integer	

Table 9. COSTS ON RESEARCH AND DEVELOPMENT BY TYPE OF ACTIVITY BASED ON FIELDS OF APPLICATION, EUROS

R&D costs by the nature of research and scientific areas. See examples from the guide “Determining the type of research and development”

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 2	R&D costs by type of R&D: natural sciences – basic research	RD_EXP_NAT_BAS	R&D costs on basic research in the area of natural sciences.	Positive integer	
1 / 3	R&D costs by type of R&D: natural sciences – applied research	RD_EXP_NAT_APP	R&D costs on applied research in the area of natural sciences.	Positive integer	
1 / 4	R&D costs by type of R&D: natural sciences – experimental development works	RD_EXP_NAT_EXW	R&D costs on experimental development works in the area of natural sciences.	Positive integer	
2 / 2	R&D costs by type of R&D: engineering and technology sciences – basic research	RD_EXP_ENG_BAS	R&D expenditures on basic research in the field of engineering and technology sciences.	Positive integer	
2 / 3	R&D costs by type of R&D: engineering and technology sciences – applied research	RD_EXP_ENG_APP	R&D expenditures on applied research in the field of engineering and technology sciences.	Positive integer	
2 / 4	R&D costs by type of R&D: engineering and technology sciences – experimental development	RD_EXP_ENG_EXW	R&D expenditures on experimental development in the field of engineering and technology sciences.	Positive integer	
3 / 2	R&D costs by type of R&D: medical and health sciences – basic research	RD_EXP_MED_BAS	R&D expenditures on basic research in the field of medical and health sciences.	Positive integer	
3 / 3	R&D costs by type of R&D: medical and health sciences – applied research	RD_EXP_MED_APP	R&D expenditures on applied research in the field of medical and health sciences.	Positive integer	
3 / 4	R&D costs by type of R&D: medical and health sciences – experimental development	RD_EXP_MED_EXW	R&D expenditures on experimental development in the field of medical and health sciences.	Positive integer	
4 / 2	R&D costs by type of R&D: agricultural and veterinary sciences – basic research	RD_EXP_AGR_BAS	R&D expenditures on basic research in the field of agricultural and veterinary sciences.	Positive integer	

4 / 3	R&D costs by type of R&D: agricultural and veterinary sciences – applied research	RD_EXP_AGR_APP	R&D expenditures on applied research in the field of agricultural and veterinary sciences.	Positive integer	
4 / 4	R&D costs by type of R&D: agricultural and veterinary sciences – experimental development	RD_EXP_AGR_EXW	R&D expenditures on experimental development in the field of agricultural and veterinary sciences.	Positive integer	
5 / 2	R&D costs by type of R&D: social sciences – basic research	RD_EXP_SOC_BAS	R&D costs on basic research in the area of social sciences.	Positive integer	
5 / 3	R&D costs by type of R&D: social sciences – applied research	RD_EXP_SOC_APP	R&D costs on applied research in the area of social sciences.	Positive integer	
5 / 4	R&D costs by type of R&D: social sciences – experimental development works	RD_EXP_SOC_EXW	R&D costs on experimental development works in the area of social sciences.	Positive integer	
6 / 2	R&D costs by type of R&D: humanities and the arts – basic research	RD_EXP_HUM_BAS	R&D expenditures on basic research in the field of humanities and the arts.	Positive integer	
6 / 3	R&D costs by type of R&D: humanities and the arts – applied research	RD_EXP_HUM_APP	R&D expenditures on applied research in the field of humanities and the arts.	Positive integer	
6 / 4	R&D costs by type of R&D: humanities and the arts – experimental development	RD_EXP_HUM_EXW	R&D expenditures on experimental development in the field of humanities and the arts.	Positive integer	

Table 10. COSTS ON RESEARCH AND DEVELOPMENT BY FIELDS OF APPLICATION, EUROS

R&D costs are divided by fields of application, separating the activities funded by state resources, and keeping in mind the purpose of the funding of the survey. Field of application is not determined (row 13) for surveys which are conducted for increasing knowledge, but which cannot be connected with a specific application, and for which the field of application was also not determined when funds were allocated.

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
1 / 1	R&D costs by fields of application: total – agriculture, forestry, fishing	RD_NABS08	R&D costs in the field of agriculture, forestry and fishing.	Positive integer	
1 / 2	R&D costs by fields of application: from state funds – agriculture, forestry, fishing	RD_NABS08_GOV	R&D costs funded by state funds in the field of agriculture, forestry and fishing.	Positive integer	
2 / 1	R&D costs by fields of application: total – industrial production and	RD_NABS06	R&D costs in the field of industrial production and technology.	Positive integer	

	technology				
2 / 2	R&D costs by fields of application: from state funds – industrial production and technology	RD_NABS06_GOV	R&D costs funded by state funds in the field of industrial production and technology.	Positive integer	
3 / 1	R&D costs by fields of application: total – generation, distribution and rational use of energy	RD_NABS05	R&D costs in the field of generation, distribution and rational use of energy.	Positive integer	
3 / 2	R&D costs by fields of application: from state funds – generation, distribution and rational use of energy	RD_NABS05_GOV	R&D costs funded by state funds in the field of generation, distribution and rational use of energy.	Positive integer	
4 / 1	R&D costs by fields of application: total – transport, telecommunication and other infrastructures	RD_NABS04	R&D costs in the field of transport, telecommunication and other infrastructures.	Positive integer	
4 / 2	R&D costs by fields of application: from state funds – transport, telecommunication and other infrastructures	RD_NABS04_GOV	R&D costs funded by state funds in the field of transport, telecommunication and other infrastructures.	Positive integer	
5 / 1	R&D costs by fields of application: total – protection of the environment	RD_NABS02	R&D costs in the field of the protection of the environment.	Positive integer	
5 / 2	R&D costs by fields of application: from state funds – protection of the environment	RD_NABS02_GOV	Total R&D costs funded by state funds in the field of the protection of the environment.	Positive integer	
6 / 1	R&D costs by fields of application: total – health sciences	RD_NABS07	R&D costs in the field of health sciences.	Positive integer	
6 / 2	R&D costs by fields of application: from state funds – health sciences	RD_NABS07_GOV	R&D costs funded by state funds in the field of health sciences.	Positive integer	
7 / 1	R&D costs by fields of application: total – culture, spare time, religion and media	RD_NABS10	R&D costs in the field of culture, spare time, religion and media.	Positive integer	
7 / 2	R&D costs by fields of application: from state funds – culture, spare time, religion and media	RD_NABS10_GOV	R&D costs funded by state funds in the field of culture, spare time, religion and media.	Positive integer	
8 / 1	R&D costs by fields of application: total – education	RD_NABS09	R&D costs in the field of education.	Positive integer	
8 / 2	R&D costs by	RD_NAB	R&D costs funded by state funds in the field of education.	Positive	

	fields of application: from state funds – education	S09_GOV		integer	
9 / 1	R&D costs by fields of application: total – political and social systems, structures and processes	RD_NABS11	R&D costs in the field of political and social systems, structures and processes.	Positive integer	
9 / 2	R&D costs by fields of application: from state funds – political and social systems, structures and processes	RD_NABS11_GOV	R&D costs funded by state funds in the field of political and social systems, structures and processes.	Positive integer	
10 / 1	R&D costs by fields of application: total – studies and use of earth's crust, hydrosphere and atmosphere	RD_NABS01	R&D costs in the field of the studies and use of earth's crust, hydrosphere and atmosphere.	Positive integer	
10 / 2	R&D costs by fields of application: from state funds – studies and use of earth's crust, hydrosphere and atmosphere	RD_NABS01_GOV	R&D costs funded by state funds in the field of the studies and use of earth's crust, hydrosphere and atmosphere.	Positive integer	
11 / 1	R&D costs by fields of application: total – space exploration and capture	RD_NABS03	R&D costs in the field of space exploration and capture.	Positive integer	
11 / 2	R&D costs by fields of application: from state funds – space exploration and capture	RD_NABS03_GOV	R&D costs funded by state funds in the field of space exploration and capture.	Positive integer	
12 / 1	R&D costs by fields of application: total – national defence	RD_NABS14	R&D costs in the field of national defence.	Positive integer	
12 / 2	R&D costs by fields of application: from state funds – national defence	RD_NABS14_GOV	R&D costs funded by state funds in the field of national defence.	Positive integer	
13 / 1	R&D costs by fields of application: total – application not specified	RD_NABS13	R&D costs in the field of application not specified.	Positive integer	
13 / 2	R&D costs by fields of application: from state funds – application not specified	RD_NABS13_GOV	R&D costs funded by state funds in the field of application not specified.	Positive integer	

Table 11. TIME SPENT ON FILLING OUT THE QUESTIONNAIRE (incl. for preparing the data)

Please estimate how much time you spent on filling out the questionnaire (incl. time spent on reading the instructions, collecting and preparing data).Record the total time spent by all employees.

Row code/	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of	You neet not fill in

code/ column code	* - mandatory	variable		(number of decimals) or list/ classification name	not fill in the value: period, economic activity
/	Number of hours spent on completing the questionnaire and collecting and preparing the necessary data	TAITMISEAEGTUNDI	Number of hours spent by all employees on completing the questionnaire. The time spent on completing the questionnaire includes the time spent on reviewing instructions, collecting and preparing the necessary data.	Positive integer	
/	Number of minutes spent on completing the questionnaire and collecting and preparing the necessary data	TAITMISEAEGMINUTIT	Number of minutes spent by all employees on completing the questionnaire. The time spent on completing the questionnaire includes the time spent on reviewing instructions, collecting and preparing data. Permitted value range 0–59.	Positive integer	

Table Y2. Overall assessment on the questionnaire

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
/	Overall assessment on the ease of completing the questionnaire	TAGASISY_1		rahulolu_vaga_lihtne_vaga_keeruline_5L	

Table Y3. Suggestions and comments

Row code/ column code	Name of variable * - mandatory	Code of variable	Explanation	Type of data (number of decimals) or list/ classification name	You neet not fill in the value: period, economic activity
/	Suggestions and comments	TAGASIS_TESST		Text	