

Controls and autosums in questionnaire: Research and development (R&D) (in companies)

Code of the questionnaire: 11342022
Periodicity: Annual

Is submitted: 05.08.2022, data about 2021

p. 1/8

Statistics Estonia guarantees the full protection of data submitted.

A field with a grey background has been automatically filled online. The data in this field cannot be changed, they are visible after saving.
If the data you entered are inconsistent internally or with the prefilled data, an error message appears upon checking. If errors (warnings) appear, check the data carefully and make corrections.
In the case of warnings (if you are sure that the data you entered are correct), click on "Confirm warnings" button and confirm the questionnaire.

Mandatory fields in the questionnaire are marked with a red asterisk.

CONTROLS

Controls in table 1.1. EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT BY EDUCATION AND SEX AND WORKING TIME SPENT ON RESEARCH AND DEVELOPMENT

Control ID	Control formula	Clarification	Type of error
21078	$KUI\{RD_RESM_DOC\}+RD_RESM_MAG\}+RD_RESM_ACE\}+RD_RESM_PRE\}+RD_RESF_DOC\}+RD_RESF_MAG\}+RD_RESF_ACE\}+RD_RESF_PRE\}>0\}$, SIIS $\{RD_RESMF_FTE_ENT\}>0\}$	Inconsistent data. Check that if the total number of male scientists and engineers by level of education (Table 1.1 column 7 row 01) and the number of female scientists and engineers by level of education (Table 1.1 column 7 row 02) is larger than 0, then the total number of male and female scientists and male and female engineers engaged in R&D, which is in full-time equivalents (Table 1.1 column 8 row 02), must also be larger than 0.	Error
21079	$KUI\{RD_TECM_DOC\}+RD_TECM_MAG\}+RD_TECM_ACE\}+RD_TECM_PRE\}+RD_TECM_PSC\}+RD_TECM_NOS\}+RD_TECF_DOC\}+RD_TECF_MAG\}+RD_TECF_ACE\}+RD_TECF_PRE\}+RD_TECF_PSC\}+RD_TECF_NOS\}>0\}$, SIIS $\{RD_TECMF_FTE_ENT\}>0\}$	Inconsistent data. Check that if the total number of male technicians by level of education (Table 1.1 column 7 row 03) and the number of female technicians by level of education (Table 1.1 column 7 row 04) is larger than 0, then the total number of male and female technicians engaged in R&D, which is in full-time equivalents (Table 1.1 column 8 row 04), must also be larger than 0.	Error
21080	$KUI\{RD_SUPM_DOC\}+RD_SUPM_MAG\}+RD_SUPM_ACE\}+RD_SUPM_PRE\}+RD_SUPM_PSC\}+RD_SUPM_NOS\}+RD_SUPF_DOC\}+RD_SUPF_MAG\}+RD_SUPF_ACE\}+RD_SUPF_PRE\}+RD_SUPF_PSC\}+RD_SUPF_NOS\}>0\}$, SIIS $\{RD_SUPMF_FTE_ENT\}>0\}$	Inconsistent data. Check that if the total number of male assistant personnel by level of education (Table 1.1 column 7 row 05) and the number of female assistant personnel by level of education (Table 1.1 column 7 row 06) is larger than 0, then the total number of male and female assistant personnel engaged in R&D, which is in full-time equivalents (Table 1.1 column 8 row 06), must also be larger than 0.	Error
22298	$\{RD_TECMF_FTE_ENT\}\leq\{RD_TECM_DOC\}+RD_TECM_MAG\}+RD_TECM_ACE\}+RD_TECM_PRE\}+RD_TECM_PSC\}+RD_TECM_NOS\}+RD_TECF_DOC\}+RD_TECF_MAG\}+RD_TECF_ACE\}+RD_TECF_PRE\}+RD_TECF_PSC\}+RD_TECF_NOS\}$	Inconsistent data. Check that the total number of male and female technicians engaged in R&D, which is in full-time equivalents (Table 1.1 column 8 row 04), would not be larger than the total number of male technicians by level of education (Table 1.1 column 7 row 03) and the number of female technicians by level of education (Table 1.1 column 7 row 04).	Error
22299	$\{RD_RESMF_FTE_ENT\}\leq\{RD_RESM_DOC\}+RD_RESM_MAG\}+RD_RESM_ACE\}+RD_RESM_PRE\}+RD_RESF_DOC\}+RD_RESF_MAG\}+RD_RESF_ACE\}+RD_RESF_PRE\}$	Inconsistent data. Check that the total number of male and female scientists and male and female engineers engaged in R&D, which is in full-time equivalents (Table 1.1 column 8 row 02), would not be larger than the total number of male scientists and engineers by level of education (Table 1.1 column 7 row 01) and the number of female scientists and engineers by level of education (Table 1.1 column 7 row 02).	Error

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

p. 2/8

22300	{RD_SUPMF_FTE_ENT}<={RD_SUPM_DOC}+{RD_SUPM_MAG}+{RD_SUPM_ACE}+{RD_SUPM_PRE}+{RD_SUPM_PSC}+{RD_SUPM_NOS}+{RD_SUPF_DOC}+{RD_SUPF_MAG}+{RD_SUPF_ACE}+{RD_SUPF_PRE}+{RD_SUPF_PSC}+{RD_SUPF_NOS}	Inconsistent data. Check that the total number of male and female assistant personnel engaged in R&D, which is in full-time equivalents (Table 1.1 column 8 row 06), would not be larger than the total number of male assistant personnel by level of education (Table 1.1 column 7 row 05) and the number of female assistant personnel by level of education (Table 1.1 column 7 row 06).	Error
-------	---	--	-------

Controls in table 2.1. COSTS ON INTERNAL RESEARCH AND DEVELOPMENT

Control ID	Control formula	Clarification	Type of error
21085	{RD_EXP_ITH}<={RD_EXP_EQU_ENT}	Inconsistent data. Check that the costs on the acquisition of computers and computer systems only for the purposes related to R&D (Table 2.1 row 13A) would not be larger than the costs on the acquisition of equipment, apparatus, machinery, inventory and means of transport intended for R&D activities (Table 2.1 row 13).	Error
21086	{RD_EXP_ITS}<={RD_EXP_INV2}	Inconsistent data. Check that the costs on the acquisition of computer software only for the purpose of R&D activities (Table 2.1 row 15A) would not be larger than the costs on the acquisition of intangible fixed assets for the acquisition of special software, licences, patents, etc. intended for R&D activities (Table 2.1 row 15).	Error

Controls in table 3.1. SHARES OF COSTS ON TYPES OF INTERNAL RESEARCH AND DEVELOPMENT

Control ID	Control formula	Clarification	Type of error
21073	KUI({RD_EXP_BASZ}+{RD_EXP_APPZ}+{RD_EXP_EX1Z}+{RD_EXP_EX2Z}+{RD_EXP_EX3Z}>0), SIIS({RD_EXP_BASZ}+{RD_EXP_APPZ}+{RD_EXP_EX1Z}+{RD_EXP_EX2Z}+{RD_EXP_EX3Z}=100)	Calculation error. The share costs in internal R&D costs must be 100%.	Error

Controls in table 3.2. SHARE OF INTERNAL BIOTECHNOLOGICAL RESEARCH AND DEVELOPMENT

Control ID	Control formula	Clarification	Type of error
21087	{RD_EXP_BIOZ}<=100	Calculation error. The share of biotechnological R&D (Table 3.2 row 33_1) cannot be larger than 100%.	Error

Controls in table 5. FUNDING OF RESEARCH AND DEVELOPMENT COSTS

Control ID	Control formula	Clarification	Type of error
20028	{RD_EXP_FIN}={RD_EXP_BES1}+{RD_EXP_BES2}+{RD_EXP_BES3}+{RD_EXP_BES4}+{RD_EXP_BES5}+{RD_EXP_GOV1}+{RD_EXP_GOV2}+{RD_EXP_GOV3}+{RD_EXP_GOV4}+{RD_EXP_GOV5}+{RD_EXP_HES}+{RD_EXP_PNP}+{RD_EXP_BES6}+{RD_EXP_FOR1}+{RD_EXP_FOR2}+{RD_EXP_FOR3}+{RD_EXP_FOR4}+{RD_EXP_BES7}	Table 5 row 58 column 2 must be equal to row K_58 in column 2.	Error

Controls in table 7. TIME SPENT ON FILLING OUT THE QUESTIONNAIRE

Control ID	Control formula	Clarification	Type of error
------------	-----------------	---------------	---------------

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

20299	{TAITMISEAEGMINUTIT}<=59	Maximum permitted value is 59 minutes. Time exceeding 60 minutes shall be indicated in hours and minutes.	Error
20300	{TAITMISEAEGTUNDI}+{TAITMISEAEGMINUTIT}>0	The time spent on filling in the questionnaire must be recorded and the sum of hours and minutes must be more than 0. The time spent means time spent by all employees to read questionnaire instructions, collect and prepare data and fill in the questionnaire.	Error
20301	{TAITMISEAEGTUNDI}<=999	Maximum permitted value is 999 hours.	Error

Controls across tables

Control ID	Control formula	Clarification	Type of error
3696	KUI({RD_ENT_YES}=1), SIIS({RD_EXP_COS_ENT}>0 VÕI {RD_EXTRD_TOT}>0)	If your answer about the existence of internal R&D costs was "YES" (Table 1.0 row 0_2), the total current internal R&D costs and investments into non-current assets (Table 2.1 row 17) or the total external R&D costs (Table 2.2 row 27) must be larger than 0.	Warning
3729	KUI(((RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_BUI_ENT)+(RD_EXP_EQU_ENT)+(RD_EXP_INV1)+(RD_EXP_INV2)+(RD_EXP_INV3))>0), SIIS(((RD_EXP_BASZ)+(RD_EXP_APPZ)+(RD_EXP_EX1Z)+(RD_EXP_EX2Z)+(RD_EXP_EX3Z))=100)	Inconsistent data. Check that if the current costs of the internal R&D and investments into non-current assets (Table 2.1 row 17) are larger than 0, the total costs of internal R&D (Table 3.1 row 33) must equal to 100.	Error
3730	{RD_EXP_COS_ENT}={RD_EXP_FIN}	The total sum does not match. Check that the current costs of the internal R&D and investments into non-current assets (Table 2.1 row 17) would equal to the total funding of internal R&D activities (Table 5 column 1 row K_58).	Error
3823	KUI({RD_ENT_YES}=2), SIIS({RD_EXP_COS_ENT}=0)	If your answer about the existence of internal R&D costs was "NO" (Table 1.0 row 0_2), Table 2.1 COSTS ON INTERNAL RESEARCH AND DEVELOPMENT remains empty.	Error
3824	KUI({RD_ENT_YES}=2), SIIS({RD_EXTRD_TOT}=0)	If your answer about the existence of internal R&D costs was "NO" (Table 1.0 row 0_2), Table 2.2 COSTS ON INTERNAL RESEARCH AND DEVELOPMENT remains empty.	Error
3835	{RD_RESM_AGE1}+{RD_RESM_AGE2}+{RD_RESM_AGE3}+{RD_RESM_AGE4}+{RD_RESM_AGE5}+{RD_RESM_AGE6}={RD_RESM_DOC}+{RD_RESM_MAG}+{RD_RESM_ACE}+{RD_RESM_PRE}	The total sum does not match. Check that the total number of male scientists and engineers by age (Table 1.2 column 1 row 1) would equal to the total number of male scientists and engineers by level of education (Table 1.1 column 7 row 01).	Error
3836	{RD_RESF_AGE1}+{RD_RESF_AGE2}+{RD_RESF_AGE3}+{RD_RESF_AGE4}+{RD_RESF_AGE5}+{RD_RESF_AGE6}={RD_RESF_DOC}+{RD_RESF_MAG}+{RD_RESF_ACE}+{RD_RESF_PRE}	The total sum does not match. Check that the number of female scientists and engineers by age (Table 1.2 column 1 row 2) would equal to the total number of female scientists and engineers by level of education (Table 1.1 column 7 row 02).	Error
3842	{RD_EXP_FIN}={RD_EXP_COS_ENT}	The total sum does not match. Check that the total sum of funding of internal R&D costs (Table 5 column 1 row K_58) would equal to the total sum of current internal R&D costs and investments into non-current assets (Table 2.1 row 17).	Error
17934	{RD_EXP_LAB_ENT}+{RD_EXP_CUR1}+{RD_EXP_CUR2}+{RD_EXP_CUR3}+{RD_EXP_CUR4}+{RD_EXP_BUI_ENT}+{RD_EXP_EQU_ENT}+{RD_EXP_INV1}+{RD_EXP_INV2}+{RD_EXP_INV3}={RD_EXP_BES1}+{RD_EXP_BES2}+{RD_EXP_BES3}+{RD_EXP_BES4}+{RD_EXP_BES5}+{RD_EXP_GOV1}+{RD_EXP_GOV2}+{RD_EXP_GOV3}+{RD_EXP_GOV4}+{RD_EXP_GOV5}+{RD_EXP_HE_S}+{RD_EXP_PNP}+{RD_EXP_BES6}+{RD_EXP_FOR1}+{RD_EXP_FOR2}+{RD_EXP_FOR3}+{RD_EXP_FOR4}+{RD_EXP_BES7}	Row 58 of Table 5 (TOTAL COSTS) in column 1 is equal to row 17 of Table 2.1 (Internal R&D costs: total current costs and investments into non-current assets) in column 1.	Error
18761	KUI(((RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_CUR5)+(RD_EXP_CUR6)+(RD_EXP_CUR7)+(RD_EXP_CUR8)+(RD_EXP_CUR9)+(RD_EXP_CUR10)+(RD_EXP_CUR11)+(RD_EXP_CUR12)+(RD_EXP_CUR13)+(RD_EXP_CUR14)+(RD_EXP_CUR15)+(RD_EXP_CUR16)+(RD_EXP_CUR17)+(RD_EXP_CUR18)+(RD_EXP_CUR19)+(RD_EXP_CUR20)+(RD_EXP_CUR21)+(RD_EXP_CUR22)+(RD_EXP_CUR23)+(RD_EXP_CUR24)+(RD_EXP_CUR25)+(RD_EXP_CUR26)+(RD_EXP_CUR27)+(RD_EXP_CUR28)+(RD_EXP_CUR29)+(RD_EXP_CUR30)+(RD_EXP_CUR31)+(RD_EXP_CUR32)+(RD_EXP_CUR33)+(RD_EXP_CUR34)+(RD_EXP_CUR35)+(RD_EXP_CUR36)+(RD_EXP_CUR37)+(RD_EXP_CUR38)+(RD_EXP_CUR39)+(RD_EXP_CUR40)+(RD_EXP_CUR41)+(RD_EXP_CUR42)+(RD_EXP_CUR43)+(RD_EXP_CUR44)+(RD_EXP_CUR45)+(RD_EXP_CUR46)+(RD_EXP_CUR47)+(RD_EXP_CUR48)+(RD_EXP_CUR49)+(RD_EXP_CUR50)+(RD_EXP_CUR51)+(RD_EXP_CUR52)+(RD_EXP_CUR53)+(RD_EXP_CUR54)+(RD_EXP_CUR55)+(RD_EXP_CUR56)+(RD_EXP_CUR57)+(RD_EXP_CUR58)+(RD_EXP_CUR59)+(RD_EXP_CUR60)+(RD_EXP_CUR61)+(RD_EXP_CUR62)+(RD_EXP_CUR63)+(RD_EXP_CUR64)+(RD_EXP_CUR65)+(RD_EXP_CUR66)+(RD_EXP_CUR67)+(RD_EXP_CUR68)+(RD_EXP_CUR69)+(RD_EXP_CUR70)+(RD_EXP_CUR71)+(RD_EXP_CUR72)+(RD_EXP_CUR73)+(RD_EXP_CUR74)+(RD_EXP_CUR75)+(RD_EXP_CUR76)+(RD_EXP_CUR77)+(RD_EXP_CUR78)+(RD_EXP_CUR79)+(RD_EXP_CUR80)+(RD_EXP_CUR81)+(RD_EXP_CUR82)+(RD_EXP_CUR83)+(RD_EXP_CUR84)+(RD_EXP_CUR85)+(RD_EXP_CUR86)+(RD_EXP_CUR87)+(RD_EXP_CUR88)+(RD_EXP_CUR89)+(RD_EXP_CUR90)+(RD_EXP_CUR91)+(RD_EXP_CUR92)+(RD_EXP_CUR93)+(RD_EXP_CUR94)+(RD_EXP_CUR95)+(RD_EXP_CUR96)+(RD_EXP_CUR97)+(RD_EXP_CUR98)+(RD_EXP_CUR99)+(RD_EXP_CUR100))>0)	Inconsistent data. Check that if the current costs of the internal R&D and investments into non-current assets (Table 2.1 row 17) are larger than 0, the share of costs in internal R&D: total types of costs (Table 3.1	Error

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

	BUI_ENT)+(RD_EXP_EQU_ENT)+(RD_EXP_INV1)+(RD_EXP_INV2)+(RD_EXP_INV3)>0), SIIS((RD_EXP_BASZ)+(RD_EXP_APPZ)+(RD_EXP_EX1Z)+(RD_EXP_EX2Z)+(RD_EXP_EX3Z)=100)	row 33) must be 100.	
21075	KUI{(RD_ENT_YES)=2}, SIIS((RD_RESM_AGE1)+(RD_RESM_AGE2)+(RD_RESM_AGE3)+(RD_RESM_AGE4)+(RD_RESM_AGE5)+(RD_RESM_AGE6)+(RD_RESF_AGE1)+(RD_RESF_AGE2)+(RD_RESF_AGE3)+(RD_RESF_AGE4)+(RD_RESF_AGE5)+(RD_RESF_AGE6)=0)	If your answer about the existence of internal R&D costs was "NO" (Table 1.0 row 0_2), Table 1.2 NUMBER OF SCIENTISTS AND ENGINEERS AT THE END OF THE REFERENCE YEAR remains empty.	Error
21076	KUI{(RD_ENT_YES)=2}, SIIS{(RD_EXP_BIOZ)=0)	If your answer about the existence of internal R&D costs was "NO" (Table 1.0 row 0_2), Table 3.2 SHARE OF INTERNAL BIOTECHNOLOGICAL RESEARCH AND DEVELOPMENT remains empty.	Error
21081	KUI{(RD_RESMF_FTE_ENT)+(RD_TECMF_FTE_ENT)+(RD_SUPMF_FTE_ENT)>0}, SIIS{(RD_EXP_LAB_ENT)>0)	Inconsistent data. Check that if the total number of male and female scientists and male and female engineers (Table 1.1 column 8 row 02) and the number of male and female technicians (Table 1.1 column 08 row 04) and the number of male and female assistant personnel (Table 1.1 column 8 row 06) engaged in R&D, which is in full-time equivalents, is larger than 0, then labour costs (Table 2.1 row 07) must also be larger than 0.	Warning
21082	KUI{(RD_RESMF_FTE_ENT)+(RD_TECMF_FTE_ENT)+(RD_SUPMF_FTE_ENT)>0}, SIIS((RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_BUI_ENT)+(RD_EXP_INV3)+(RD_EXP_INV2)+(RD_EXP_INV1)+(RD_EXP_EQU_ENT)>0)	Inconsistent data. Check that if the total number of male and female scientists and male and female engineers (Table 1.1 column 8 row 02) and the number of male and female technicians (Table 1.1 column 8 row 04) and the number of male and female assistant personnel (Table 1.1 column 8 row 06) engaged in R&D, which is in full-time equivalents, is larger than 0, then the total current internal R&D costs and investments into non-current assets (Table 2.1 row 17) must also be larger than 0.	Error
21084	KUI{(RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_BUI_ENT)+(RD_EXP_INV3)+(RD_EXP_INV2)+(RD_EXP_INV1)+(RD_EXP_INV3)+(RD_EXP_INV2)+(RD_EXP_INV1)+(RD_EXP_ITH)+(RD_EXP_EQU_ENT)>0}, SIIS((RD_EXP_BASZ)+(RD_EXP_APPZ)+(RD_EXP_EX1Z)+(RD_EXP_EX2Z)+(RD_EXP_EX3Z)=100)	Inconsistent data. Check that if the current costs of the internal R&D and investments into non-current assets (Table 2.1 row 17) are indicated, then, the share of costs in internal R&D (Table 3.1 row 33) must be 100%.	Error
21088	{RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_BUI_ENT)+(RD_EXP_INV3)+(RD_EXP_INV2)+(RD_EXP_INV1)+(RD_EXP_EQU_ENT)=(RD_EXP_BES1)+(RD_EXP_BES2)+(RD_EXP_BES3)+(RD_EXP_BES4)+(RD_EXP_BES5)+(RD_EXP_GOV1)+(RD_EXP_GOV2)+(RD_EXP_GOV3)+(RD_EXP_GOV4)+(RD_EXP_GOV5)+(RD_EXP_HE S)+(RD_EXP_PNP)+(RD_EXP_BES6)+(RD_EXP_FOR1)+(RD_EXP_FOR2)+(RD_EXP_FOR3)+(RD_EXP_FOR4)+(RD_EXP_BES7)	Row 58 of Table 5 (TOTAL COSTS) in column 1 is equal to row 17 of Table 2.1 (Internal R&D costs: total current costs and investments into non-current assets) in column 1.	Error
27839	KUI{(INFO_KONTR)=1}, SIIS((RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_BUI_ENT)+(RD_EXP_INV3)+(RD_EXP_INV2)+(RD_EXP_INV1)+(RD_EXP_EQU_ENT)>0)	Your enterprise has received funding from Structural Funds or from Horizon Framework Programme for Research and Innovation, or your enterprise is a partner in technology development centres, or you answered "Yes" to the question "Does your enterprise employ research and development personnel?" in EKOMAR questionnaire.	Warning
29115	KUI{(RD_EXP_LAB_ENT)+(RD_EXP_CUR1)+(RD_EXP_CUR2)+(RD_EXP_CUR3)+(RD_EXP_CUR4)+(RD_EXP_BUI_ENT)+(RD_EXP_INV3)+(RD_EXP_INV2)+(RD_EXP_INV1)+(RD_EXP_EQU_ENT)>0}, SIIS((RD_RESMF_FTE_ENT)+(RD_TECMF_FTE_ENT)+(RD_SUPMF_FTE_ENT)>0)	If in Table 2.1 expenditure was filled in, then normally Table 1.1 column 8 should have the number of full-time equivalent employees filled in.	Warning

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

AUTOSUMS

Autosums in table 1.1. EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT BY EDUCATION AND SEX AND WORKING TIME SPENT ON RESEARCH AND DEVELOPMENT

Row name	Column name	Formula	Clarification
Scientists and engineers, M	Total number of employees related to R&D activities at the end of the reference year	{RD_RESM_DOC}+{RD_RESM_MAG}+{RD_RESM_ACE}+{RD_RESM_PRE}	
Scientists and engineers, F	Total number of employees related to R&D activities at the end of the reference year	{RD_RESF_DOC}+{RD_RESF_MAG}+{RD_RESF_ACE}+{RD_RESF_PRE}	
Technicians, M	Total number of employees related to R&D activities at the end of the reference year	{RD_TECM_DOC}+{RD_TECM_MAG}+{RD_TECM_ACE}+{RD_TECM_PRE}+{RD_TECM_PSC}+{RD_TECM_NOS}	
Technicians, F	Total number of employees related to R&D activities at the end of the reference year	{RD_TECF_DOC}+{RD_TECF_MAG}+{RD_TECF_ACE}+{RD_TECF_PRE}+{RD_TECF_PSC}+{RD_TECF_NOS}	
Assistant personnel, M	Total number of employees related to R&D activities at the end of the reference year	{RD_SUPM_DOC}+{RD_SUPM_MAG}+{RD_SUPM_ACE}+{RD_SUPM_PRE}+{RD_SUPM_PSC}+{RD_SUPM_NOS}	
Assistant personnel, F	Total number of employees related to R&D activities at the end of the reference year	{RD_SUPF_DOC}+{RD_SUPF_MAG}+{RD_SUPF_ACE}+{RD_SUPF_PRE}+{RD_SUPF_PSC}+{RD_SUPF_NOS}	

Autosums in table 1.2. NUMBER OF SCIENTISTS AND ENGINEERS AT THE END OF THE REFERENCE YEAR

Row name	Column name	Formula	Clarification
Men	Total scientists and engineers	{RD_RESM_AGE1}+{RD_RESM_AGE2}+{RD_RESM_AGE3}+{RD_RESM_AGE4}+{RD_RESM_AGE5}+{RD_RESM_AGE6}	Total scientists and engineers (men) is equal to the sum of columns 2, 3, 4, 5, 6 and 7.

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

Women	Total scientists and engineers	{RD_RESF_AGE1}+{RD_RESF_AGE2}+{RD_RESF_AGE3}+{RD_RESF_AGE4}+{RD_RESF_AGE5}+{RD_RESF_AGE6}	Total scientists and engineers (women) is equal to the sum of columns 2, 3, 4, 5, 6 and 7.
-------	--------------------------------	---	--

Autosums in table 1.3. EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT IN THE COMPANY BY LEVEL OF EDUCATION AT THE END OF THE REFERENCE YEAR

Row name	Column name	Formula	Clarification
Doctor	Women	{RD_RESF_DOC}+{RD_TECF_DOC}+{RD_SUPF_DOC}	Number of female scientists (doctoral degree) in Table 1.3 must be equal to the sum of rows 2, 4 and 6 in column 1 in Table 1.1.
Doctor	Men	{RD_RESM_DOC}+{RD_TECM_DOC}+{RD_SUPM_DOC}	Number of male scientists (doctoral degree) in Table 1.3 must be equal to the sum of rows 1, 3 and 5 in column 1 in Table 1.1.
Doctor	Total	{RD_RESF_DOC}+{RD_TECF_DOC}+{RD_SUPF_DOC}+{RD_RESM_DOC}+{RD_TECM_DOC}+{RD_SUPM_DOC}	
Master	Women	{RD_RESF_MAG}+{RD_TECF_MAG}+{RD_SUPF_MAG}	Number of female scientists (master's degree) in Table 1.3 must be equal to the sum of rows 2, 4 and 6 in column 2 in Table 1.1.
Master	Men	{RD_RESM_MAG}+{RD_TECM_MAG}+{RD_SUPM_MAG}	Number of male scientists (master's degree) in Table 1.3 must be equal to the sum of rows 1, 3 and 5 in column 2 in Table 1.1.
Master	Total	{RD_RESF_MAG}+{RD_TECF_MAG}+{RD_SUPF_MAG}+{RD_RESM_MAG}+{RD_TECM_MAG}+{RD_SUPM_MAG}	
Academic higher education	Women	{RD_RESF_ACE}+{RD_TECF_ACE}+{RD_SUPF_ACE}	Number of female scientists with academic higher education in Table 1.3 must be equal to the sum of rows 2, 4 and 6 in column 3 in Table 1.1.
Academic higher education	Men	{RD_RESM_ACE}+{RD_TECM_ACE}+{RD_SUPM_ACE}	Number of male scientists with academic higher education in Table 1.3 must be equal to the sum of rows 1, 3 and 5 in column 3 in Table 1.1.
Academic higher education	Total	{RD_RESM_ACE}+{RD_TECM_ACE}+{RD_SUPM_ACE}+{RD_RESF_ACE}+{RD_TECF_ACE}+{RD_SUPF_ACE}	
Professional higher education	Women	{RD_RESF_PRE}+{RD_TECF_PRE}+{RD_SUPF_PRE}	Number of female scientists with professional higher education in Table 1.3 must be equal to the sum of rows 2, 4 and 6 in column 4 in Table 1.1.
Professional higher education	Men	{RD_RESM_PRE}+{RD_TECM_PRE}+{RD_SUPM_PRE}	Number of male scientists with professional higher education in Table 1.3 must be equal to the

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

			Table 1.3 must be equal to the sum of rows 1, 3 and 5 in column 4 in Table 1.1.
Professional higher education	Total	{RD_RESM_PRE}+{RD_TECM_PRE}+{RD_SUPM_PRE}+{RD_RESF_PRE}+{RD_TECF_PRE}+{RD_SUPF_PRE}	
Vocational secondary and secondary education	Women	{RD_TECF_PSC}+{RD_SUPF_PSC}	Number of female scientists with vocational secondary or secondary education in Table 1.3 must be equal to the sum of rows 4 and 6 in column 5 in Table 1.1.
Vocational secondary and secondary education	Men	{RD_TECM_PSC}+{RD_SUPM_PSC}	Number of male scientists with vocational secondary or secondary education in Table 1.3 must be equal to the sum of rows 3 and 5 in column 5 in Table 1.1.
Vocational secondary and secondary education	Total	{RD_TECM_PSC}+{RD_SUPM_PSC}+{RD_TECF_PSC}+{RD_SUPF_PSC}	
Without vocational secondary education	Women	{RD_TECF_NOS}+{RD_SUPF_NOS}	Number of female scientists without vocational secondary education in Table 1.3 must be equal to the sum of rows 4 and 6 in column 6 in Table 1.1.
Without vocational secondary education	Men	{RD_TECM_NOS}+{RD_SUPM_NOS}	Number of male scientists without vocational secondary education in Table 1.3 must be equal to the sum of rows 3 and 5 in column 6 in Table 1.1.
Without vocational secondary education	Total	{RD_TECF_NOS}+{RD_SUPF_NOS}+{RD_TECM_NOS}+{RD_SUPM_NOS}	
Total	Women	{RD_RESF_DOC}+{RD_TECF_DOC}+{RD_SUPF_DOC}+{RD_RESF_MAG}+{RD_TECF_MAG}+{RD_SUPF_MAG}+{RD_RESF_ACE}+{RD_TECF_ACE}+{RD_SUPF_ACE}+{RD_RESF_PRE}+{RD_TECF_PRE}+{RD_SUPF_PRE}+{RD_TECF_PSC}+{RD_SUPF_PSC}+{RD_TECF_NOS}+{RD_SUPF_NOS}	
Total	Men	{RD_RESM_DOC}+{RD_TECM_DOC}+{RD_SUPM_DOC}+{RD_RESM_MAG}+{RD_TECM_MAG}+{RD_SUPM_MAG}+{RD_RESM_ACE}+{RD_TECM_ACE}+{RD_SUPM_ACE}+{RD_RESM_PRE}+{RD_TECM_PRE}+{RD_SUPM_PRE}+{RD_TECM_PSC}+{RD_SUPM_PSC}+{RD_TECM_NOS}+{RD_SUPM_NOS}	
Total	Total	{RD_RESF_DOC}+{RD_TECF_DOC}+{RD_SUPF_DOC}+{RD_RESF_MAG}+{RD_TECF_MAG}+{RD_SUPF_MAG}+{RD_RESF_ACE}+{RD_TECF_ACE}+{RD_SUPF_ACE}+{RD_RESF_PRE}+{RD_TECF_PRE}+{RD_SUPF_PRE}+{RD_TECF_PSC}+{RD_SUPF_PSC}+{RD_TECF_NOS}+{RD_SUPF_NOS}+{RD_RESM_DOC}+{RD_TECM_DOC}+{RD_SUPM_DOC}+{RD_RESM_MAG}+{RD_TECM_MAG}+{RD_SUPM_MAG}+{RD_RESM_ACE}+{RD_TECM_ACE}+{RD_SUPM_ACE}+{RD_RESM_PRE}+{RD_TECM_PRE}+{RD_SUPM_PRE}+{RD_TECM_PSC}+{RD_SUPM_PSC}+{RD_TECM_NOS}+{RD_SUPM_NOS}	

Autosums in table 2.1. COSTS ON INTERNAL RESEARCH AND DEVELOPMENT

Row name	Column name	Formula	Clarification
Internal R&D costs: total current costs and investments into non-current assets	Costs, euros	{RD_EXP_LAB_ENT}+{RD_EXP_CUR1}+{RD_EXP_CUR2}+{RD_EXP_CUR3}+{RD_EXP_CUR4}+{RD_EXP_BUI_ENT}+{RD_EXP_INV3}+{RD_EXP_INV2}+{RD_EXP_INV1}+{RD_EXP_EQU_ENT}	

Research and development (R&D) (in companies)

Code of the questionnaire: 11342022

Is submitted: 05.08.2022, data about 2021

Autosums in table 2.2. COSTS ON EXTERNAL RESEARCH AND DEVELOPMENT (except activities indicated on row 09)

Row name	Column name	Formula	Clarification
Total	Costs, euros	{RD_EXTRD_BES}+{RD_EXTRD_HES}+{RD_EXTRD_GOV}+{RD_EXTRD_PNP}+{RD_EXTRD_BESF}+{RD_EXTRD_HESF}+{RD_EXTRD_GOVF}+{RD_EXTRD_PNPF}+{RD_EXTRD_OTH}	The total cost of external R&D is equal to the costs of R&D works ordered from Estonia, R&D works ordered from foreign countries and other external R&D costs (sponsorship, support for research units, etc.).

Autosums in table 3.1. SHARES OF COSTS ON TYPES OF INTERNAL RESEARCH AND DEVELOPMENT

Row name	Column name	Formula	Clarification
Total (the sum of the shares of costs must be 100)	Share of costs in internal R&D, % (write number without percent sig)	{RD_EXP_BASZ}+{RD_EXP_APPZ}+{RD_EXP_EX1Z}+{RD_EXP_EX2Z}+{RD_EXP_EX3Z}	

Autosums in table 5. FUNDING OF RESEARCH AND DEVELOPMENT COSTS

Row name	Column name	Formula	Clarification
	Internal R&D (from Table 2.1), euros	{RD_EXP_BES1}+{RD_EXP_BES2}+{RD_EXP_BES3}+{RD_EXP_BES4}+{RD_EXP_BES5}+{RD_EXP_GOV1}+{RD_EXP_GOV2}+{RD_EXP_GOV3}+{RD_EXP_GOV4}+{RD_EXP_GOV5}+{RD_EXP_HES}+{RD_EXP_PNP}+{RD_EXP_BES6}+{RD_EXP_FOR1}+{RD_EXP_FOR2}+{RD_EXP_FOR3}+{RD_EXP_FOR4}+{RD_EXP_BES7}	Sum of rows 40 up to 57_1.
To column 1, the value is displayed from Table 2.1 row 17	Internal R&D (from Table 2.1), euros	{RD_EXP_LAB_ENT}+{RD_EXP_CUR1}+{RD_EXP_CUR2}+{RD_EXP_CUR3}+{RD_EXP_CUR4}+{RD_EXP_P_BUI_ENT}+{RD_EXP_INV3}+{RD_EXP_INV2}+{RD_EXP_INV1}+{RD_EXP_EQU_ENT}	Value in column 1 is displayed from Table 2.1 row 17.