

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

Code of the questionnaire: 11332023
Periodicity: Annual

Is submitted: 1.03.2023, data about 2022

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

Control ID	Control formula	Clarification	Type of error
33121	{RD_EMPL_MF}>={RD_PER_MF}	The number of persons employed at the end of the reference year must be larger than or equal to the number of employees engaged in R&D at the end of the reference year. (Row 1 column 1 must be bigger or equal than row 1 column 2)	Error

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

Control ID	Control formula	Clarification	Type of error
33161	{RD_RESMF_NAT}>={RD_RESF_NAT}	The number of male and female researchers and engineers in natural sciences at the end of the reference year must be larger than or equal to the number of female researchers in natural sciences at the end of the reference year. (Row 1 column 1>=Row 2 column 1)	Error
33162	{RD_RESMF_ENG}>={RD_RESF_ENG}	The number of male and female researchers and engineers in medical and health sciences at the end of the reference year must be larger than or equal to the number of female researchers in medical and health sciences at the end of the reference year. (Row 1 column 2>=Row 2 column 2)	Error
33163	{RD_RESMF_MED}>={RD_RESF_MED}	The number of male and female researchers and engineers in engineering and technology sciences at the end of the reference year must be larger than or equal to the number of female researchers in engineering and technology sciences at the end of the reference year. (Row 1 column 3>=Row 2 column 3)	Error
33164	{RD_RESMF_AGR}>={RD_RESF_AGR}	The number of male and female researchers and engineers in agricultural and veterinary sciences at the end of the reference year must be larger than or equal to the number of female researchers in agricultural and veterinary sciences at the end of the reference year. (Row 1 column 4>=Row 2 column 4)	Error
33165	{RD_RESMF_SOC}>={RD_RESF_SOC}	The number of male and female researchers and engineers in social sciences at the end of the reference year must be larger than or equal to the number of female researchers in social sciences at the end of the reference year. (Row 1 column 5>=Row 2 column 5)	Error
33166	{RD_RESMF_HUM}>={RD_RESF_HUM}	The number of male and female researchers and engineers in humanities and the arts at the end of the	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

		reference year must be larger than or equal to the number of female researchers in humanities and the arts at the end of the reference year. (Row 1 column 6>=Row 2 column 6)	
33167	{RD_OTHMF_NAT}>={RD_OTHF_NAT}	The number of male and female other R&D personnel in natural sciences at the end of the reference year must be larger than or equal to the number of female other R&D personnel in natural sciences at the end of the reference year. (Row 3 column 1>=Row 4 column 1)	Error
33168	{RD_OTHMF_ENG}>={RD_OTHF_ENG}	The number of male and female other R&D personnel in engineering and technology sciences at the end of the reference year must be larger than or equal to the number of female other R&D personnel in engineering and technology sciences at the end of the reference year. (Row 3 column 2>=Row 4 column 2)	Error
33169	{RD_OTHMF_MED}>={RD_OTHF_MED}	The number of male and female other R&D personnel in medical and health sciences at the end of the reference year must be larger than or equal to the number of female other R&D personnel in medical and health sciences at the end of the reference year. (Row 3 column 3>=Row 4 column 3)	Error
33170	{RD_OTHMF_AGR}>={RD_OTHF_AGR}	The number of male and female other R&D personnel in agricultural and veterinary sciences at the end of the reference year must be larger than or equal to the number of female other R&D personnel in agricultural and veterinary sciences at the end of the reference year. (Row 3 column 4>=Row 4 column 4)	Error
33171	{RD_OTHMF_SOC}>={RD_OTHF_SOC}	The number of male and female other R&D personnel in social sciences at the end of the reference year must be larger than or equal to the number of female other R&D personnel in social sciences at the end of the reference year. (Row 3 column 5>=Row 4 column 5)	Error
33172	{RD_OTHMF_HUM}>={RD_OTHF_HUM}	The number of male and female other R&D personnel in humanities and the arts at the end of the reference year must be larger than or equal to the number of female other R&D personnel in humanities and the arts at the end of the reference year. (Row 3 column 6>=Row 4 column 6)	Error
33303	((RD_RESMF_NAT)+(RD_RESMF_ENG)+(RD_RESMF_MED)+(RD_RESMF_AGR)+(RD_RESMF_SOC)+(RD_RESMF_HUM))=({RD_RESMF_NAT}+{RD_RESMF_ENG}+{RD_RESMF_MED}+{RD_RESMF_AGR}+{RD_RESMF_SOC}+{RD_RESMF_HUM})	The total number of researchers and engineers is equal to the total number of researchers and engineers by field of science. (Table 1.1. row 1 column 7 must equal row 1 column 1-6 total)	Error
33304	((RD_RESF_NAT)+(RD_RESF_ENG)+(RD_RESF_MED)+(RD_RESF_AGR)+(RD_RESF_SOC)+(RD_RESF_HUM))=({RD_RESF_NAT}+{RD_RESF_ENG}+{RD_RESF_MED}+{RD_RESF_AGR}+{RD_RESF_SOC}+{RD_RESF_HUM})	The total number of female researchers and engineers is equal to the total number of female researchers and engineers by field of science. (Table 1.1. row 2 column 7 must equal row 2 column 1-6 total)	Error
33305	((RD_OTHMF_NAT)+(RD_OTHMF_ENG)+(RD_OTHMF_MED)+(RD_OTHMF_AGR)+(RD_OTHMF_SOC)+(RD_OTHMF_HUM))=({RD_OTHMF_NAT}+{RD_OTHMF_ENG}+{RD_OTHMF_MED}+{RD_OTHMF_AGR}+{RD_OTHMF_SOC}+{RD_OTHMF_HUM})	The total number of other R&D personnel (technicians, support staff) is equal to the total number of other R&D personnel by field of science. (Table 1.1. row 3 column 7 must equal row 3 column 1-6 total)	Error
33306	((RD_OTHF_NAT)+(RD_OTHF_ENG)+(RD_OTHF_MED)+(RD_OTHF_AGR)+(RD_OTHF_SOC)+(RD_OTHF_HUM))=({RD_OTHF_NAT}+{RD_OTHF_ENG}+{RD_OTHF_MED}+{RD_OTHF_AGR}+{RD_OTHF_SOC}+{RD_OTHF_HUM})	The total number of female other R&D personnel (technicians, support staff) is equal to the total number of female other R&D personnel by field of science. (Table 1.1. row 4 column 7 must equal row 4 column 1-6 total)	Error
33307	((RD_RESMF_NAT)+(RD_OTHMF_NAT)+(RD_TOTALMF_ENG)+({RD_RESMF_MED}+{RD_OTHMF_MED}))+({RD_RESMF_AGR}+{RD_OTHMF_AGR}))+({RD_RESMF_SOC}+{RD_OTHMF_SOC}))+({RD_RESMF_HUM}+{RD_OTHMF_HUM}))=({RD_RESMF_NAT}+{RD_OTHMF_NAT}+{RD_TOTALMF_ENG}+({RD_RESMF_MED}+{RD_OTHMF_MED}))+({RD_RESMF_AGR}+{RD_OTHMF_AGR}))+({RD_RESMF_SOC}+{RD_OTHMF_SOC}))+({RD_RESMF_HUM}+{RD_OTHMF_HUM}))	The total number of R&D personnel is equal to the total number of R&D personnel by field of science. (Table 1.1. row 5 column 7 must equal row 5 column 1-6 total)	Error
33308	((RD_RESF_NAT)+(RD_OTHF_NAT))+({RD_RESF_ENG	The total number of female R&D personnel is equal to the total number of female R&D personnel by field of	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	$\{RD_OTHF_ENG\} + \{RD_RESF_MED\} + \{RD_OTHF_MED\} + \{RD_RESF_AGR\} + \{RD_OTHF_AGR\} + \{RD_RESF_SOC\} + \{RD_OTHF_SOC\} + \{RD_RESF_HUM\} + \{RD_OTHF_HUM\} = \{RD_RESF_NAT\} + \{RD_OTHF_NAT\} + \{RD_RESF_ENG\} + \{RD_OTHF_ENG\} + \{RD_RESF_MED\} + \{RD_OTHF_MED\} + \{RD_RESF_AGR\} + \{RD_OTHF_AGR\} + \{RD_RESF_SOC\} + \{RD_OTHF_SOC\} + \{RD_RESF_HUM\} + \{RD_OTHF_HUM\}$	science. (Table 1.1. row 6 column 7 must equal row 6 column 1-6 total)	
33309	$\{RD_RESMF_NAT\} + \{RD_OTHMF_NAT\} = \{RD_RESMF_NAT\} + \{RD_OTHMF_NAT\}$	The total number of R&D personnel in natural sciences is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in natural sciences. (Table 1.1. row 5 column 1 must equal row 1 column 1 and row 3 column 1 total)	Error
33310	$\{RD_TOTALMF_ENG\} = \{RD_RESMF_ENG\} + \{RD_OTHMF_ENG\}$	The total number of R&D personnel in engineering and technology sciences is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in engineering and technology sciences. (Table 1.1. row 5 column 2 must equal row 1 column 2 and row 3 column 2 total)	Error
33311	$\{RD_RESMF_MED\} + \{RD_OTHMF_MED\} = \{RD_RESMF_MED\} + \{RD_OTHMF_MED\}$	The total number of R&D personnel in medical and health sciences is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in medical and health sciences. (Table 1.1. row 5 column 3 must equal row 1 column 3 and row 3 column 3 total)	Error
33312	$\{RD_RESMF_AGR\} + \{RD_OTHMF_AGR\} = \{RD_RESMF_AGR\} + \{RD_OTHMF_AGR\}$	The total number of R&D personnel in agricultural and veterinary sciences is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in agricultural and veterinary sciences. (Table 1.1. row 5 column 4 must equal row 1 column 4 and row 3 column 4 total)	Error
33313	$\{RD_RESMF_SOC\} + \{RD_OTHMF_SOC\} = \{RD_RESMF_SOC\} + \{RD_OTHMF_SOC\}$	The total number of R&D personnel in social sciences is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in social sciences. (Table 1.1. row 5 column 5 must equal row 1 column 5 and row 3 column 5 total)	Error
33314	$\{RD_RESMF_HUM\} + \{RD_OTHMF_HUM\} = \{RD_RESMF_HUM\} + \{RD_OTHMF_HUM\}$	The total number of R&D personnel in humanities and the arts is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in humanities and the arts. (Table 1.1. row 5 column 6 must equal row 1 column 6 and row 3 column 6 total)	Error
33315	$\{RD_RESMF_NAT\} + \{RD_OTHMF_NAT\} + \{RD_TOTALMF_ENG\} + \{RD_RESMF_MED\} + \{RD_OTHMF_MED\} + \{RD_RESMF_AGR\} + \{RD_OTHMF_AGR\} + \{RD_RESMF_SOC\} + \{RD_OTHMF_SOC\} + \{RD_RESMF_HUM\} + \{RD_OTHMF_HUM\} = \{RD_RESMF_NAT\} + \{RD_RESMF_ENG\} + \{RD_RESMF_MED\} + \{RD_RESMF_AGR\} + \{RD_RESMF_SOC\} + \{RD_RESMF_HUM\} + \{RD_OTHMF_NAT\} + \{RD_OTHMF_ENG\} + \{RD_OTHMF_MED\} + \{RD_OTHMF_AGR\} + \{RD_OTHMF_SOC\} + \{RD_OTHMF_HUM\}$	The total number of R&D personnel is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff). (Table 1.1. row 5 column 7 must equal row 1 column 7 and row 3 column 7 total)	Error
33316	$\{RD_RESF_NAT\} + \{RD_OTHF_NAT\} = \{RD_RESF_NAT\} + \{RD_OTHF_NAT\}$	The total number of female R&D personnel in natural sciences is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in natural sciences. (Table 1.1. row 6 column 1 must equal row 2 column 1 and row 4 column 1 total)	Error
33317	$\{RD_RESF_ENG\} + \{RD_OTHF_ENG\} = \{RD_RESF_ENG\} + \{RD_OTHF_ENG\}$	The total number of female R&D personnel in engineering and technology sciences is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in engineering and technology sciences. (Table 1.1. row 6 column 2 must equal row 2 column 2 and row 4 column 2 total)	Error
33318	$\{RD_RESF_MED\} + \{RD_OTHF_MED\} = \{RD_RESF_MED\} + \{RD_OTHF_MED\}$	The total number of female R&D personnel in medical and health sciences is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in medical and health sciences. (Table 1.1. row 6 column 3 must equal row 2 column 3 and row 4 column 3 total)	Error
33319	$\{RD_RESF_AGR\} + \{RD_OTHF_AGR\} = \{RD_RESF_AGR\} + \{RD_OTHF_AGR\}$	The total number of female R&D personnel in agricultural and veterinary sciences is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in agricultural and veterinary sciences. (Table 1.1. row 6 column 4 must equal row 2 column 4 and row 4 column 4 total)	Error
33320	$\{RD_RESF_SOC\} + \{RD_OTHF_SOC\} = \{RD_RESF_SOC\}$	The total number of female R&D personnel in social sciences is equal to the total number of female	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	+{RD_OTHF_SOC}	researchers and engineers and other R&D personnel (technicians, support staff) in social sciences. (Table 1.1. row 6 column 5 must equal row 2 column 5 and row 4 column 5 total)	
33321	(({RD_RESF_HUM})+{RD_OTHF_HUM})={RD_RESF_HUM}+{RD_OTHF_HUM}	The total number of female R&D personnel in humanities and the arts is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in humanities and the arts. (Table 1.1. row 6 column 6 must equal row 2 column 6 and row 4 column 6 total)	Error
33322	((({RD_RESF_NAT})+{RD_OTHF_NAT})+({RD_RESF_ENG})+{RD_OTHF_ENG})+({RD_RESF_MED})+{RD_OTHF_MED})+({RD_RESF_AGR})+{RD_OTHF_AGR})+({RD_RESF_SOC})+{RD_OTHF_SOC})+({RD_RESF_HUM})+{RD_OTHF_HUM})={RD_RESF_NAT})+{RD_RESF_ENG})+{RD_RESF_MED})+{RD_RESF_AGR})+{RD_RESF_SOC})+{RD_RESF_HUM})+({RD_OTHF_NAT})+{RD_OTHF_ENG})+{RD_OTHF_MED})+{RD_OTHF_AGR})+{RD_OTHF_SOC})+{RD_OTHF_HUM})	The total number of female R&D personnel is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff). (Table 1.1. row 6 column 7 must equal row 2 column 7 and row 4 column 7 total)	Error

Controls in table 1.2. NUMBER OF EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT IN THE REFERENCE YEAR IN FULL-TIME EQUIVALENTS

Control ID	Control formula	Clarification	Type of error
33173	{RD_RESMF_FTE_NAT}>={RD_RESF_FTE_NAT}	The full-time equivalent (FTE) hours of male and female researchers and engineers in natural sciences must be larger than or equal to the FTE hours of female researchers and engineers in natural sciences. (Row 1 column 1>=Row 2 column 1)	Error
33174	{RD_RESMF_FTE_ENG}>={RD_RESF_FTE_ENG}	The full-time equivalent (FTE) hours of male and female researchers and engineers in engineering and technology sciences must be larger than or equal to the FTE hours of female researchers and engineers in engineering and technology sciences. (Row 1 column 2>=Row 2 column 2)	Error
33175	{RD_RESMF_FTE_MED}>={RD_RESF_FTE_MED}	The full-time equivalent (FTE) hours of male and female researchers and engineers in medical and health sciences must be larger than or equal to the FTE hours of female researchers and engineers in medical and health sciences. (Row 1 column 3>=Row 2 column 3)	Error
33176	{RD_RESMF_FTE_AGR}>={RD_RESF_FTE_AGR}	The full-time equivalent (FTE) hours of male and female researchers and engineers in agricultural and veterinary sciences must be larger than or equal to the FTE hours of female researchers and engineers in agricultural and veterinary sciences. (Row 1 column 4>=Row 2 column 4)	Error
33177	{RD_RESMF_FTE_SOC}>={RD_RESF_FTE_SOC}	The full-time equivalent (FTE) hours of male and female researchers and engineers in social sciences must be larger than or equal to the FTE hours of female researchers and engineers in social sciences. (Row 1 column 5>=Row 2 column 5)	Error
33178	{RD_RESMF_FTE_HUM}>={RD_RESF_FTE_HUM}	The full-time equivalent (FTE) hours of male and female researchers and engineers in humanities and the arts must be larger than or equal to the FTE hours of female researchers and engineers in humanities and the arts. (Row 1 column 6>=Row 2 column 6)	Error
33179	{RD_OTHMF_FTE_NAT}>={RD_OTHF_FTE_NAT}	The full-time equivalent (FTE) hours of male and female other R&D personnel in natural sciences must be larger than or equal to the FTE hours of female other R&D personnel in natural sciences. (Row 3 column 1>=Row 4 column 1)	Error
33180	{RD_OTHMF_FTE_ENG}>={RD_OTHF_FTE_ENG}	The full-time equivalent (FTE) hours of male and female other R&D personnel in engineering and technology sciences must be larger than or equal to the FTE hours of female other R&D personnel in engineering and technology sciences. (Row 3 column 2>=Row 4 column 2)	Error
33181	{RD_OTHMF_FTE_MED}>={RD_OTHF_FTE_MED}	The full-time equivalent (FTE) hours of male and female other R&D personnel in medical and health sciences must be larger than or equal to the FTE hours of female other R&D personnel in medical and health sciences. (Row 3 column 3>=Row 4 column 3)	Error
33182	{RD_OTHMF_FTE_AGR}>={RD_OTHF_FTE_AGR}	The full-time equivalent (FTE) hours of male and female other R&D personnel in agricultural and veterinary sciences must be larger than or equal to the FTE hours of female other R&D personnel in agricultural and veterinary sciences. (Row 3 column 4>=Row 4 column 4)	Error
33183	{RD_OTHMF_FTE_SOC}>={RD_OTHF_FTE_SOC}	The full-time equivalent (FTE) hours of male and female other R&D personnel in social sciences must be	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

		larger than or equal to the FTE hours of female other R&D personnel in social sciences. (Row 3 column 5>=Row 4 column 5)	
33184	{RD_OTHMF_FTE_HUM}>={RD_OTHF_FTE_HUM}	The full-time equivalent (FTE) hours of male and female other R&D personnel in humanities and the arts must be larger than or equal to the FTE hours of female other R&D personnel in humanities and the arts. (Row 3 column 6>=Row 4 column 6)	Error
33323	((RD_RESMF_FTE_NAT)+(RD_RESMF_FTE_ENG)+(RD_RESMF_FTE_MED)+(RD_RESMF_FTE_AGR)+(RD_RESMF_FTE_SOC)+(RD_RESMF_FTE_HUM))={RD_RESMF_FTE_NAT)+(RD_RESMF_FTE_ENG)+(RD_RESMF_FTE_MED)+(RD_RESMF_FTE_AGR)+(RD_RESMF_FTE_SOC)+(RD_RESMF_FTE_HUM)}	The total number of researchers and engineers in full-time equivalents is equal to the total number of researchers and engineers in full-time equivalents by field of science. (Table 1.2. row 1 column 7 must equal row 1 column 1-6 total)	Error
33326	((RD_OTHMF_FTE_NAT)+(RD_OTHMF_FTE_ENG)+(RD_OTHMF_FTE_MED)+(RD_OTHMF_FTE_AGR)+(RD_OTHMF_FTE_SOC)+(RD_OTHMF_FTE_HUM))={RD_OTHMF_FTE_NAT)+(RD_OTHMF_FTE_ENG)+(RD_OTHMF_FTE_MED)+(RD_OTHMF_FTE_AGR)+(RD_OTHMF_FTE_SOC)+(RD_OTHMF_FTE_HUM)}	The total number of other R&D personnel (technicians, support staff) in full-time equivalents is equal to the total number of other R&D personnel in full-time equivalents by field of science. (Table 1.2. row 3 column 7 must equal row 3 column 1-6 total)	Error
33327	((RD_OTHF_FTE_NAT)+(RD_OTHF_FTE_ENG)+(RD_OTHF_FTE_MED)+(RD_OTHF_FTE_AGR)+(RD_OTHF_FTE_SOC)+(RD_OTHF_FTE_HUM))={RD_OTHF_FTE_NAT)+(RD_OTHF_FTE_ENG)+(RD_OTHF_FTE_MED)+(RD_OTHF_FTE_AGR)+(RD_OTHF_FTE_SOC)+(RD_OTHF_FTE_HUM)}	The total number of female other R&D personnel (technicians, support staff) in full-time equivalents is equal to the total number of female other R&D personnel in full-time equivalents by field of science. (Table 1.2. row 4 column 7 must equal row 4 column 1-6 total)	Error
33328	((RD_RESMF_FTE_NAT)+(RD_OTHMF_FTE_NAT))+((RD_RESMF_FTE_ENG)+(RD_OTHMF_FTE_ENG))+((RD_RESMF_FTE_MED)+(RD_OTHMF_FTE_MED))+((RD_RESMF_FTE_AGR)+(RD_OTHMF_FTE_AGR))+((RD_RESMF_FTE_SOC)+(RD_OTHMF_FTE_SOC))+((RD_RESMF_FTE_HUM)+(RD_OTHMF_FTE_HUM))={RD_RESMF_FTE_NAT)+(RD_OTHMF_FTE_NAT))+((RD_RESMF_FTE_ENG)+(RD_OTHMF_FTE_ENG))+((RD_RESMF_FTE_MED)+(RD_OTHMF_FTE_MED))+((RD_RESMF_FTE_AGR)+(RD_OTHMF_FTE_AGR))+((RD_RESMF_FTE_SOC)+(RD_OTHMF_FTE_SOC))+((RD_RESMF_FTE_HUM)+(RD_OTHMF_FTE_HUM)}	The total number of R&D personnel in full-time equivalents is equal to the total number of R&D personnel in full-time equivalents by field of science. (Table 1.2. row 5 column 7 must equal row 5 column 1-6 total)	Error
33329	((RD_RESF_FTE_NAT)+(RD_OTHF_FTE_NAT))+((RD_RESF_FTE_ENG)+(RD_OTHF_FTE_ENG))+((RD_RESF_FTE_MED)+(RD_OTHF_FTE_MED))+((RD_RESF_FTE_AGR)+(RD_OTHF_FTE_AGR))+((RD_RESF_FTE_SOC)+(RD_OTHF_FTE_SOC))+((RD_RESF_FTE_HUM)+(RD_OTHF_FTE_HUM))={RD_RESF_FTE_NAT)+(RD_OTHF_FTE_NAT))+((RD_RESF_FTE_ENG)+(RD_OTHF_FTE_ENG))+((RD_RESF_FTE_MED)+(RD_OTHF_FTE_MED))+((RD_RESF_FTE_AGR)+(RD_OTHF_FTE_AGR))+((RD_RESF_FTE_SOC)+(RD_OTHF_FTE_SOC))+((RD_RESF_FTE_HUM)+(RD_OTHF_FTE_HUM)}	The total number of female R&D personnel in full-time equivalents is equal to the total number of female R&D personnel in full-time equivalents by field of science. (Table 1.2. row 6 column 7 must equal row 6 column 1-6 total)	Error
33330	((RD_RESMF_FTE_NAT)+(RD_OTHMF_FTE_NAT))={RD_RESMF_FTE_NAT)+(RD_OTHMF_FTE_NAT}	The total number of R&D personnel in natural sciences in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in natural sciences in full-time equivalents. (Table 1.2. row 5 column 1 must equal row 1 column 1 and row 3 column 1 total)	Error
33331	((RD_RESMF_FTE_ENG)+(RD_OTHMF_FTE_ENG))={RD_RESMF_FTE_ENG)+(RD_OTHMF_FTE_ENG}	The total number of R&D personnel in engineering and technology sciences in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

		engineering and technology sciences in full-time equivalents. (Table 1.2. row 5 column 2 must equal row 1 column 2 and row 3 column 2 total)	
33332	$\{(RD_RESMF_FTE_MED)\}+\{(RD_OTHMF_FTE_MED)\}=\{RD_RESMF_FTE_MED\}+\{RD_OTHMF_FTE_MED\}$	The total number of R&D personnel in medical and health sciences in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in medical and health sciences in full-time equivalents. (Table 1.2. row 5 column 3 must equal row 1 column 3 and row 3 column 3 total)	Error
33333	$\{(RD_RESMF_FTE_AGR)\}+\{(RD_OTHMF_FTE_AGR)\}=\{RD_RESMF_FTE_AGR\}+\{RD_OTHMF_FTE_AGR\}$	The total number of R&D personnel in agricultural and veterinary sciences in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in agricultural and veterinary sciences in full-time equivalents. (Table 1.2. row 5 column 4 must equal row 1 column 4 and row 3 column 4 total)	Error
33334	$\{(RD_RESMF_FTE_SOC)\}+\{(RD_OTHMF_FTE_SOC)\}=\{RD_RESMF_FTE_SOC\}+\{RD_OTHMF_FTE_SOC\}$	The total number of R&D personnel in social sciences in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in social sciences in full-time equivalents. (Table 1.2. row 5 column 5 must equal row 1 column 5 and row 3 column 5 total)	Error
33335	$\{(RD_RESMF_FTE_HUM)\}+\{(RD_OTHMF_FTE_HUM)\}=\{RD_RESMF_FTE_HUM\}+\{RD_OTHMF_FTE_HUM\}$	The total number of R&D personnel in humanities and the arts in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in humanities and the arts in full-time equivalents. (Table 1.2. row 5 column 6 must equal row 1 column 6 and row 3 column 6 total)	Error
33336	$\{((RD_RESMF_FTE_NAT)\}+\{(RD_OTHMF_FTE_NAT)\})+\{((RD_RESMF_FTE_ENG)\}+\{(RD_OTHMF_FTE_ENG)\})+\{((RD_RESMF_FTE_MED)\}+\{(RD_OTHMF_FTE_MED)\})+\{((RD_RESMF_FTE_AGR)\}+\{(RD_OTHMF_FTE_AGR)\})+\{((RD_RESMF_FTE_SOC)\}+\{(RD_OTHMF_FTE_SOC)\})+\{((RD_RESMF_FTE_HUM)\}+\{(RD_OTHMF_FTE_HUM)\})\}=\{RD_RESMF_FTE_NAT\}+\{RD_RESMF_FTE_ENG\}+\{RD_RESMF_FTE_MED\}+\{RD_RESMF_FTE_AGR\}+\{RD_RESMF_FTE_SOC\}+\{RD_RESMF_FTE_HUM\}+\{RD_OTHMF_FTE_NAT\}+\{RD_OTHMF_FTE_ENG\}+\{RD_OTHMF_FTE_MED\}+\{RD_OTHMF_FTE_AGR\}+\{RD_OTHMF_FTE_SOC\}+\{RD_OTHMF_FTE_HUM\}$	The total number of R&D personnel in full-time equivalents is equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) in full-time equivalents. (Table 1.2. row 5 column 7 must equal row 1 column 7 and row 3 column 7 total)	Error
33337	$\{(RD_RESF_FTE_NAT)\}+\{(RD_OTHF_FTE_NAT)\}=\{RD_RESF_FTE_NAT\}+\{RD_OTHF_FTE_NAT\}$	The total number of female R&D personnel in natural sciences in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in natural sciences in full-time equivalents. (Table 1.2. row 6 column 1 must equal row 2 column 1 and row 4 column 1 total)	Error
33339	$\{(RD_RESF_FTE_MED)\}+\{(RD_OTHF_FTE_MED)\}=\{RD_RESF_FTE_MED\}+\{RD_OTHF_FTE_MED\}$	The total number of female R&D personnel in medical and health sciences in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in medical and health sciences in full-time equivalents. (Table 1.2. row 6 column 3 must equal row 2 column 3 and row 4 column 3 total)	Error
33340	$\{(RD_RESF_FTE_AGR)\}+\{(RD_OTHF_FTE_AGR)\}=\{RD_RESF_FTE_AGR\}+\{RD_OTHF_FTE_AGR\}$	The total number of female R&D personnel in agricultural and veterinary sciences in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in agricultural and veterinary sciences in full-time equivalents. (Table 1.2. row 6 column 4 must equal row 2 column 4 and row 4 column 4 total)	Error
33341	$\{(RD_RESF_FTE_SOC)\}+\{(RD_OTHF_FTE_SOC)\}=\{RD_RESF_FTE_SOC\}+\{RD_OTHF_FTE_SOC\}$	The total number of female R&D personnel in social sciences in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in social sciences in full-time equivalents. (Table 1.2. row 6 column 5 must equal row 2 column 5 and row 4 column 5 total)	Error
33342	$\{(RD_RESF_FTE_HUM)\}+\{(RD_OTHF_FTE_HUM)\}=\{RD_RESF_FTE_HUM\}+\{RD_OTHF_FTE_HUM\}$	The total number of female R&D personnel in humanities and the arts in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in humanities and the arts in full-time equivalents. (Table 1.2. row 6 column 6 must equal row 2 column 6 and row 4 column 6 total)	Error
33343	$\{((RD_RESF_FTE_NAT)\}+\{(RD_OTHF_FTE_NAT)\})+\{((RD_RESF_FTE_ENG)\}+\{(RD_OTHF_FTE_ENG)\})+\{RD_RESF_FTE_HUM\}$	The total number of female R&D personnel in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in full-time equivalents.	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	$\text{RESF_FTE_ENG} + \{\text{RD_OTHF_FTE_ENG}\} + \{\text{RD_RESF_FTE_MED}\} + \{\text{RD_OTHF_FTE_MED}\} + \{\text{RD_RESF_FTE_AGR}\} + \{\text{RD_OTHF_FTE_AGR}\} + \{\text{RD_RESF_FTE_SOC}\} + \{\text{RD_OTHF_FTE_SOC}\} + \{\text{RD_RESF_FTE_HUM}\} + \{\text{RD_OTHF_FTE_HUM}\} = \{\text{RD_RESF_FTE_NAT}\} + \{\text{RD_RESF_FTE_ENG}\} + \{\text{RD_RESF_FTE_MED}\} + \{\text{RD_RESF_FTE_AGR}\} + \{\text{RD_RESF_FTE_SOC}\} + \{\text{RD_RESF_FTE_HUM}\} + \{\text{RD_OTHF_FTE_NAT}\} + \{\text{RD_OTHF_FTE_ENG}\} + \{\text{RD_OTHF_FTE_MED}\} + \{\text{RD_OTHF_FTE_AGR}\} + \{\text{RD_OTHF_FTE_SOC}\} + \{\text{RD_OTHF_FTE_HUM}\}$	researchers and engineers and other R&D personnel (technicians, support staff) in full-time equivalents. (Table 1.2. row 6 column 7 must equal row 2 column 7 and row 4 column 7 total)	
33386	$\{\text{RD_RESF_FTE_NAT}\} + \{\text{RD_RESF_FTE_ENG}\} + \{\text{RD_RESF_FTE_MED}\} + \{\text{RD_RESF_FTE_AGR}\} + \{\text{RD_RESF_FTE_SOC}\} + \{\text{RD_RESF_FTE_HUM}\} = \{\text{RD_RESF_FTE_NAT}\} + \{\text{RD_RESF_FTE_ENG}\} + \{\text{RD_RESF_FTE_MED}\} + \{\text{RD_RESF_FTE_AGR}\} + \{\text{RD_RESF_FTE_SOC}\} + \{\text{RD_RESF_FTE_HUM}\}$	The total number of female researchers and engineers in full-time equivalents is equal to the total number of female researchers and engineers in full-time equivalents by field of science. (Table 1.2. row 2 column 7 must equal row 2 column 1-6 total)	Error
33387	$\{\text{RD_RESF_FTE_ENG}\} + \{\text{RD_OTHF_FTE_ENG}\} = \{\text{RD_RESF_FTE_ENG}\} + \{\text{RD_OTHF_FTE_ENG}\}$	The total number of female R&D personnel in engineering and technology sciences in full-time equivalents is equal to the total number of female researchers and engineers and other R&D personnel (technicians, support staff) in engineering and technology sciences in full-time equivalents. (Table 1.2. row 6 column 2 must equal row 2 column 2 and row 4 column 2 total)	Error

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

Control ID	Control formula	Clarification	Type of error
33193	$\{\text{RD_RESMF_NAT_DOC}\} + \{\text{RD_RESMF_ENG_DOC}\} + \{\text{RD_RESMF_MED_DOC}\} + \{\text{RD_RESMF_AGR_DOC}\} + \{\text{RD_RESMF_SOC_DOC}\} + \{\text{RD_RESMF_HUM_DOC}\} \geq \{\text{RD_RESF_DOC}\}$	The total number of male and female researchers and engineers with a doctoral degree must be larger than or equal to the number of female researchers and engineers with a doctoral degree. (Row 1 column 1 >= Row 1 column 2)	Error
33194	$\{\text{RD_OTHMF_DOC}\} \geq \{\text{RD_OTHF_DOC}\}$	The total number of male and female other R&D personnel with a doctoral degree must be larger than or equal to the number of female other R&D personnel with a doctoral degree. (Row 1 column 3 >= Row 1 column 4)	Error
33195	$\{\text{RD_RESMF_HIGH}\} \geq \{\text{RD_RESF_HIGH}\}$	The total number of male and female researchers and engineers with a master's degree, academic higher education or professional higher education must be larger than or equal to the number of female researchers and engineers with a master's degree, academic higher education or professional higher education. (Row 2 column 1 >= Row 2 column 2)	Error
33196	$\{\text{RD_OTHMF_HIGH}\} \geq \{\text{RD_OTHF_HIGH}\}$	The total number of male and female other R&D personnel with a master's degree, academic higher education or professional higher education must be larger than or equal to the number of female other R&D personnel with a master's degree, academic higher education or professional higher education. (Row 2 column 3 >= Row 2 column 4)	Error
33197	$\{\text{RD_OTHMF_SECN}\} \geq \{\text{RD_OTHF_SECN}\}$	The total number of male and female other R&D personnel with secondary or professional secondary education or without secondary education must be larger than or equal to the number of female other R&D personnel with secondary or professional secondary education or without secondary education. (Row 3 column 3 >= Row 3 column 4)	Error
33344	$\{\{\text{RD_RESMF_NAT_DOC}\} + \{\text{RD_RESMF_ENG_DOC}\} + \{\text{RD_RESMF_MED_DOC}\} + \{\text{RD_RESMF_AGR_DOC}\} + \{\text{RD_RESMF_SOC_DOC}\} + \{\text{RD_RESMF_HUM_DOC}\} + \{\text{RD_OTHMF_DOC}\}\} = \{\text{RD_RESMF_NAT_DOC}\} + \{\text{RD_RESMF_ENG_DOC}\} + \{\text{RD_RESMF_MED_DOC}\} + \{\text{RD_RESMF_AGR_DOC}\} + \{\text{RD_RESMF_SOC_DOC}\} + \{\text{RD_RESMF_HUM_DOC}\}$	The total number of R&D personnel with a doctoral degree is equal to the total number of researchers and engineers with a doctoral degree and other R&D personnel (technicians, support staff) with a doctoral degree. (Table 2. row 1 column 5 must equal row 1 column 1 and 3 total)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	DOC})+(RD_OTHMF_DOC)		
33345	((RD_RESF_DOC)+(RD_OTHF_DOC))=(RD_RESF_DOC)+(RD_OTHF_DOC)	The total number of female R&D personnel with a doctoral degree is equal to the total number of female researchers and engineers with a doctoral degree and female other R&D personnel (technicians, support staff) with a doctoral degree. (Table 2. row 1 column 6 must equal row 1 column 2 and 4 total)	Error
33346	((RD_RESMF_HIGH)+(RD_OTHMF_HIGH))=(RD_RESMF_HIGH)+(RD_OTHMF_HIGH)	The total number of R&D personnel with a master's degree, academic higher education or professional higher education is equal to the total number of researchers and engineers with a master's degree, academic higher education or professional higher education and other R&D personnel (technicians, support staff) with a master's degree, academic higher education or professional higher education. (Table 2. row 2 column 5 must equal row 2 column 1 and 3 total)	Error
33347	((RD_RESF_HIGH)+(RD_OTHF_HIGH))=(RD_RESF_HIGH)+(RD_OTHF_HIGH)	The total number of female R&D personnel with a master's degree, academic higher education or professional higher education is equal to the total number of female researchers and engineers with a master's degree, academic higher education or professional higher education and female other R&D personnel (technicians, support staff) with a master's degree, academic higher education or professional higher education. (Table 2. row 2 column 6 must equal row 2 column 2 and 4 total)	Error
33348	((((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC)+(RD_OTHMF_DOC))+((RD_RESMF_HIGH)+(RD_OTHMF_HIGH)+(RD_OTHMF_SECN))=((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC)+(RD_RESMF_HIGH)+(RD_OTHMF_DOC)+(RD_OTHMF_HIGH)+(RD_OTHMF_SECN))	The total number of R&D personnel by level of education must be equal to the total number of researchers and engineers and other R&D personnel (technicians, support staff) by level of education. (Table 2. row 4 column 5 must equal row 4 column 1 and column 3 total)	Error
33349	((((RD_RESF_DOC)+(RD_OTHF_DOC))+((RD_RESF_HIGH)+(RD_OTHF_HIGH)+(RD_OTHF_SECN))=((RD_RESF_DOC)+(RD_RESF_HIGH)+(RD_OTHF_DOC)+(RD_OTHF_HIGH)+(RD_OTHF_SECN))	The total number of female R&D personnel by level of education must be equal to the total number of female researchers and engineers and female other R&D personnel (technicians, support staff) by level of education. (Table 2. row 4 column 6 must equal row 4 column 2 and column 4 total)	Error
33350	((((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC)+(RD_RESMF_HIGH))=((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC)+(RD_RESMF_HIGH)	The total number of researchers and engineers by level of education must be equal to the total number of researchers and engineers with a doctoral degree and researchers and engineers with a master's degree, academic higher education or professional higher education. (Table 2. row 4 column 1 must equal row 1 column 1 and row 2 column 1 total)	Error
33351	((RD_RESF_DOC)+(RD_RESF_HIGH))=(RD_RESF_DOC)+(RD_RESF_HIGH)	The total number of female researchers and engineers by level of education must be equal to the total number of female researchers and engineers with a doctoral degree and female researchers and engineers with a master's degree, academic higher education or professional higher education. (Table 2. row 4 column 2 must equal row 1 column 2 and row 2 column 2 total)	Error
33352	((RD_OTHMF_DOC)+(RD_OTHMF_HIGH)+(RD_OTHMF_SECN))=(RD_OTHMF_DOC)+(RD_OTHMF_HIGH)+(RD_OTHMF_SECN)	The total number of other R&D personnel (technicians, support staff) by level of education must be equal to the sum of other R&D personnel with a doctoral degree, with a master's degree, with academic higher education, with professional higher education, with secondary education or professional secondary education, and without secondary education. (Table 2. row 4 column 3 must equal row 1 column 3 and row 2 column 3 and row 3 column 3 total)	Error
33353	((RD_OTHF_DOC)+(RD_OTHF_HIGH)+(RD_OTHF_SECN))=(RD_OTHF_DOC)+(RD_OTHF_HIGH)+(RD_OTHF_SECN)	The total number of female other R&D personnel (technicians, support staff) by level of education must be equal to the sum of female other R&D personnel with a doctoral degree, with a master's degree, with academic higher education, with professional higher education, with secondary education or professional secondary education, and without secondary education. (Table 2. row 4 column 4 must equal row 1 column 4 and row 2 column 4 and row 3 column 4 total)	Error
33354	((((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC))+((RD_RESMF_HIGH)+(RD_OTHMF_HIGH)+(RD_OTHMF_SECN))=((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC)+(RD_RESMF_HIGH)+(RD_OTHMF_HIGH)+(RD_OTHMF_SECN))	The total number of R&D personnel by level of education must be equal to the sum of R&D personnel with a doctoral degree, with a master's degree, with academic higher education, with professional higher education, with secondary education or professional secondary education, and without secondary education.	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	$\{OTHMF_DOC\}+\{RD_RESMF_HIGH\}+\{RD_OTHMF_HIGH\}+\{RD_OTHMF_SECN\}=\{RD_RESMF_NAT_DOC\}+\{RD_RESMF_ENG_DOC\}+\{RD_RESMF_MED_DOC\}+\{RD_RESMF_AGR_DOC\}+\{RD_RESMF_SOC_DOC\}+\{RD_RESMF_HUM_DOC\}+\{RD_OTHMF_DOC\}+\{RD_RESMF_HIGH\}+\{RD_OTHMF_HIGH\}+\{RD_OTHMF_SECN\}$	(Table 2. row 4 column 5 must equal row 1 column 5 and row 2 column 5 and row 3 column 5 total)	
33355	$\{RD_RESF_DOC\}+\{RD_OTHF_DOC\}+\{RD_RESF_HIGH\}+\{RD_OTHF_HIGH\}+\{RD_OTHF_SECN\}=\{RD_RESF_DOC\}+\{RD_OTHF_DOC\}+\{RD_RESF_HIGH\}+\{RD_OTHF_HIGH\}+\{RD_OTHF_SECN\}$	The total number of female R&D personnel by level of education must be equal to the sum of female R&D personnel with a doctoral degree, with a master's degree, with academic higher education, with professional higher education, with secondary education or professional secondary education, and without secondary education. (Table 2. row 4 column 6 must equal row 1 column 6 and row 2 column 6 and row 3 column 6 total)	Error

Controls in 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))

Control ID	Control formula	Clarification	Type of error
33198	$\{RD_RESMF_AGE1\}+\{RD_RESMF_AGE2\}+\{RD_RESMF_AGE3\}+\{RD_RESMF_AGE4\}+\{RD_RESMF_AGE5\}+\{RD_RESMF_AGE6\}\geq\{RD_RESF_AGE1\}+\{RD_RESF_AGE2\}+\{RD_RESF_AGE3\}+\{RD_RESF_AGE4\}+\{RD_RESF_AGE5\}+\{RD_RESF_AGE6\}$	The total number of male and female researchers and engineers must be larger than or equal to the number of female researchers and engineers. (Row 1 column 1>=Row 2 column 1)	Error
33199	$\{RD_RESMF_AGE1\}\geq\{RD_RESF_AGE1\}$	The number of researchers and engineers aged under 25 must be larger than or equal to the number of female researchers and engineers aged under 25. (Row 1 column 2>=Row 2 column 2)	Error
33200	$\{RD_RESMF_AGE2\}\geq\{RD_RESF_AGE2\}$	The number of researchers and engineers aged 25–34 must be larger than or equal to the number of female researchers and engineers aged 25–34. (Row 1 column 3>=Row 2 column 3)	Error
33201	$\{RD_RESMF_AGE3\}\geq\{RD_RESF_AGE3\}$	The number of researchers and engineers aged 35–44 must be larger than or equal to the number of female researchers and engineers aged 35–44. (Row 1 column 4>=Row 2 column 4)	Error
33202	$\{RD_RESMF_AGE4\}\geq\{RD_RESF_AGE4\}$	The number of researchers and engineers aged 45–54 must be larger than or equal to the number of female researchers and engineers aged 45–54. (Row 1 column 5>=Row 2 column 5)	Error
33203	$\{RD_RESMF_AGE5\}\geq\{RD_RESF_AGE5\}$	The number of researchers and engineers aged 55–64 must be larger than or equal to the number of female researchers and engineers aged 55–64. (Row 1 column 6>=Row 2 column 6)	Error
33204	$\{RD_RESMF_AGE6\}\geq\{RD_RESF_AGE6\}$	The number of researchers and engineers aged 65 and over must be larger than or equal to the number of female researchers and engineers aged 65 and over. (Row 1 column 7>=Row 2 column 7)	Error
33356	$\{RD_RESMF_AGE1\}+\{RD_RESMF_AGE2\}+\{RD_RESMF_AGE3\}+\{RD_RESMF_AGE4\}+\{RD_RESMF_AGE5\}+\{RD_RESMF_AGE6\}=\{RD_RESMF_AGE1\}+\{RD_RESMF_AGE2\}+\{RD_RESMF_AGE3\}+\{RD_RESMF_AGE4\}+\{RD_RESMF_AGE5\}+\{RD_RESMF_AGE6\}$	The total number of researchers and engineers must be equal to the sum of the following: aged under 25, aged 25–34, aged 35–44, aged 45–54, aged 55–64, aged 65 and over. (Table 1. column row1 must equal row 1 column 2-7 total)	Error
33357	$\{RD_RESF_AGE1\}+\{RD_RESF_AGE2\}+\{RD_RESF_AGE3\}+\{RD_RESF_AGE4\}+\{RD_RESF_AGE5\}+\{RD_RESF_AGE6\}=\{RD_RESF_AGE1\}+\{RD_RESF_AGE2\}+\{RD_RESF_AGE3\}+\{RD_RESF_AGE4\}+\{RD_RESF_AGE5\}+\{RD_RESF_AGE6\}$	The total number of female researchers and engineers must be equal to the sum of the following: aged under 25, aged 25–34, aged 35–44, aged 45–54, aged 55–64, aged 65 and over. (Table 1. row 2 column 1 must equal row 2 column 2-7 total)	Error

Controls in 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))

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

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 10/30

33205	{RD_RESMF_NAT_DOC}>={RD_RESF_NAT_DOC}	The total number of male and female researchers and engineers in natural sciences with a doctoral degree must be larger than or equal to the number of female researchers and engineers in natural sciences with a doctoral degree. (Row 1 column 1>=Row 1 column 2)	error Error
33206	{RD_RESMF_ENG_DOC}>={RD_RESF_ENG_DOC}	The total number of male and female researchers and engineers in engineering and technology sciences with a doctoral degree must be larger than or equal to the number of female researchers and engineers in engineering and technology sciences with a doctoral degree. (Row 2 column 1>=Row 2 column 2)	Error
33207	{RD_RESMF_MED_DOC}>={RD_RESF_MED_DOC}	The total number of male and female researchers and engineers in medical and health sciences with a doctoral degree must be larger than or equal to the number of female researchers and engineers in medical and health sciences with a doctoral degree. (Row 3 column 1>=Row 3 column 2)	Error
33208	{RD_RESMF_AGR_DOC}>={RD_RESF_AGR_DOC}	The total number of male and female researchers and engineers in agricultural and veterinary sciences with a doctoral degree must be larger than or equal to the number of female researchers and engineers in agricultural and veterinary sciences with a doctoral degree. (Row 4 column 1>=Row 4 column 2)	Error
33209	{RD_RESMF_SOC_DOC}>={RD_RESF_SOC_DOC}	The total number of male and female researchers and engineers in social sciences with a doctoral degree must be larger than or equal to the number of female researchers and engineers in social sciences with a doctoral degree. (Row 5 column 1>=Row 5 column 2)	Error
33210	{RD_RESMF_HUM_DOC}>={RD_RESF_HUM_DOC}	The total number of male and female researchers and engineers in humanities and the arts with a doctoral degree must be larger than or equal to the number of female researchers and engineers in humanities and the arts with a doctoral degree. (Row 6 column 1>=Row 6 column 2)	Error
33358	((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC))={RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC)}	The total number of researchers and engineers with a doctoral degree must be equal to the total number of researchers and engineers with a doctoral degree by field of science. (Table 4. row 7 column 1 must equal row1 column 1, row 2 column 1, row 3 column 1, row 4 column 1, row 5 column1 and row 6 column 1 total)	Error
33359	((RD_RESF_NAT_DOC)+(RD_RESF_ENG_DOC)+(RD_RESF_MED_DOC)+(RD_RESF_AGR_DOC)+(RD_RESF_SOC_DOC)+(RD_RESF_HUM_DOC))={RD_RESF_NAT_DOC)+(RD_RESF_ENG_DOC)+(RD_RESF_MED_DOC)+(RD_RESF_AGR_DOC)+(RD_RESF_SOC_DOC)+(RD_RESF_HUM_DOC)}	The total number of female researchers and engineers with a doctoral degree must be equal to the total number of female researchers and engineers with a doctoral degree by field of science. (Table 4. row 7 column 2 must equal row1 column 2, row 2 column 2, row 3 column 2, row 4 column 2, row 5 column 2 and row 6 column 2 total)	Error

Controls in table 5. SCIENTISTS AND ENGINEERS WITH FOREIGN CITIZENSHIP BY SEX

Control ID	Control formula	Clarification	Type of error
33211	((RD_ISO_FOR)!=NULL JA ((RD_RESMF_FOR)>0)) VÕI ((RD_ISO_FOR)=NULL JA ((RD_RESMF_FOR)=0))	Empty field. If you have indicated the official name and code of the country of citizenship of researchers and engineers with foreign citizenship, you must also indicate the total number of male and female researchers and engineers with foreign citizenship and the number of female researchers and engineers with foreign citizenship (Table 5. column 2 and column 3).	Error
33212	{RD_RESMF_FOR}>={RD_RESF_FOR}	The total number of male and female researchers and engineers with foreign citizenship must be larger than or equal to the number of female researchers and engineers with foreign citizenship.	Error

Controls in table 6. COSTS ON RESEARCH AND DEVELOPMENT BY SOURCES OF FUNDING AND SCIENTIFIC AREAS, EUROS

Control ID	Control formula	Clarification	Type of error
33360	((RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR))={RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR)}	Total R&D expenditures in natural sciences must be equal to the sum of funding of R&D costs in natural sciences from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 1 column 1 must equal row 1 column 2-6 total)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	P_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}		
33361	{(RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR})={RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}	Total R&D expenditures in engineering and technology sciences must be equal to the sum of funding of R&D costs in engineering and technology sciences from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 2 column 1 must equal row 2 column 2-6 total)	Error
33362	{RD_EXP_MED_FIN}={RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}	Total R&D expenditures in medical and health sciences must be equal to the sum of funding of R&D costs in medical and health sciences from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 3 column 1 must equal row 3 column 2-6 total)	Error
33363	{(RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR})={RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}	Total R&D expenditures in agricultural and veterinary sciences must be equal to the sum of funding of R&D costs in agricultural and veterinary sciences from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 4 column 1 must equal row 4 column 2-6 total)	Error
33364	{(RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR})={RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}	Total R&D expenditures in social sciences must be equal to the sum of funding of R&D costs in social sciences from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 5 column 1 must equal row 5 column 2-6 total)	Error
33365	{(RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR})={RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR}	Total R&D expenditures in humanities and the arts must be equal to the sum of funding of R&D costs in humanities and the arts from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 6 column 1 must equal row 6 column 2-6 total)	Error
33366	{(RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR})={RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR}	Total R&D expenditures in fields of science must be equal to the sum of funding of R&D costs from the following sources: state, companies, non-profit private sector, universities and higher education institutions, and foreign sources. (Table 6. row 7 column 1 must equal row 7 column 2-6 total)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

33367	$\begin{aligned} & \{RD_EXP_NAT_GOV\} + \{RD_EXP_NAT_BES\} + \{RD_EXP_NAT_PNP\} + \{RD_EXP_NAT_HES\} + \{RD_EXP_NAT_FOR\} \\ & + \{RD_EXP_ENG_GOV\} + \{RD_EXP_ENG_BES\} + \{RD_EXP_ENG_PNP\} + \{RD_EXP_ENG_HES\} + \{RD_EXP_ENG_FOR\} \\ & + \{RD_EXP_MED_GOV\} + \{RD_EXP_MED_BES\} + \{RD_EXP_MED_PNP\} + \{RD_EXP_MED_HES\} + \{RD_EXP_MED_FOR\} \\ & + \{RD_EXP_AGR_GOV\} + \{RD_EXP_AGR_BES\} + \{RD_EXP_AGR_PNP\} + \{RD_EXP_AGR_HES\} + \{RD_EXP_AGR_FOR\} \\ & + \{RD_EXP_SOC_GOV\} + \{RD_EXP_SOC_BES\} + \{RD_EXP_SOC_PNP\} + \{RD_EXP_SOC_HES\} + \{RD_EXP_SOC_FOR\} \\ & + \{RD_EXP_HUM_GOV\} + \{RD_EXP_HUM_BES\} + \{RD_EXP_HUM_PNP\} + \{RD_EXP_HUM_HES\} + \{RD_EXP_HUM_FOR\} \\ & = \{RD_EXP_NAT_GOV\} + \{RD_EXP_NAT_BES\} + \{RD_EXP_NAT_PNP\} + \{RD_EXP_NAT_HES\} \\ & + \{RD_EXP_NAT_FOR\} + \{RD_EXP_ENG_GOV\} + \{RD_EXP_ENG_BES\} + \{RD_EXP_ENG_PNP\} + \{RD_EXP_ENG_HES\} \\ & + \{RD_EXP_ENG_FOR\} + \{RD_EXP_MED_GOV\} + \{RD_EXP_MED_BES\} + \{RD_EXP_MED_PNP\} + \{RD_EXP_MED_HES\} \\ & + \{RD_EXP_MED_FOR\} + \{RD_EXP_AGR_GOV\} + \{RD_EXP_AGR_BES\} + \{RD_EXP_AGR_PNP\} + \{RD_EXP_AGR_HES\} \\ & + \{RD_EXP_AGR_FOR\} + \{RD_EXP_SOC_GOV\} + \{RD_EXP_SOC_BES\} + \{RD_EXP_SOC_PNP\} + \{RD_EXP_SOC_HES\} \\ & + \{RD_EXP_SOC_FOR\} + \{RD_EXP_HUM_GOV\} + \{RD_EXP_HUM_BES\} + \{RD_EXP_HUM_PNP\} + \{RD_EXP_HUM_HES\} \\ & + \{RD_EXP_HUM_FOR\} \end{aligned}$	Total R&D expenditures must be equal to the sum of R&D expenditures by field of science. (Table 6. row 7 column1 must equal row 1-6 column 1 total)	Error
33368	$\begin{aligned} & \{RD_EXP_NAT_GOV\} + \{RD_EXP_ENG_GOV\} + \{RD_EXP_MED_GOV\} + \{RD_EXP_AGR_GOV\} + \{RD_EXP_SOC_GOV\} \\ & + \{RD_EXP_HUM_GOV\} = \{RD_EXP_NAT_GOV\} + \{RD_EXP_ENG_GOV\} + \{RD_EXP_MED_GOV\} \\ & + \{RD_EXP_AGR_GOV\} + \{RD_EXP_SOC_GOV\} + \{RD_EXP_HUM_GOV\} \end{aligned}$	Total R&D expenditures from state funds must be equal to the sum of R&D expenditures from state funds by field of science. (Table 6. row 7 column 2 must equal row 1-6 column 2 total)	Error
33369	$\begin{aligned} & \{RD_EXP_NAT_BES\} + \{RD_EXP_ENG_BES\} + \{RD_EXP_MED_BES\} + \{RD_EXP_AGR_BES\} + \{RD_EXP_SOC_BES\} \\ & + \{RD_EXP_HUM_BES\} = \{RD_EXP_NAT_BES\} + \{RD_EXP_ENG_BES\} + \{RD_EXP_MED_BES\} \\ & + \{RD_EXP_AGR_BES\} + \{RD_EXP_SOC_BES\} + \{RD_EXP_HUM_BES\} \end{aligned}$	Total R&D expenditures financed by companies must be equal to the sum of R&D expenditures financed by companies by field of science. (Table 6. row 7 column 3 must equal row 1-6 column 3 total)	Error
33370	$\begin{aligned} & \{RD_EXP_NAT_PNP\} + \{RD_EXP_ENG_PNP\} + \{RD_EXP_MED_PNP\} + \{RD_EXP_AGR_PNP\} + \{RD_EXP_SOC_PNP\} \\ & + \{RD_EXP_HUM_PNP\} = \{RD_EXP_NAT_PNP\} + \{RD_EXP_ENG_PNP\} + \{RD_EXP_MED_PNP\} \\ & + \{RD_EXP_AGR_PNP\} + \{RD_EXP_SOC_PNP\} + \{RD_EXP_HUM_PNP\} \end{aligned}$	Total R&D expenditures financed by the non-profit private sector must be equal to the sum of R&D expenditures financed by the non-profit private sector by field of science. (Table 6. row 7 column 4 must equal row 1-6 column 4 total)	Error
33371	$\begin{aligned} & \{RD_EXP_NAT_HES\} + \{RD_EXP_ENG_HES\} + \{RD_EXP_MED_HES\} + \{RD_EXP_AGR_HES\} + \{RD_EXP_SOC_HES\} \\ & + \{RD_EXP_HUM_HES\} = \{RD_EXP_NAT_HES\} + \{RD_EXP_ENG_HES\} + \{RD_EXP_MED_HES\} \\ & + \{RD_EXP_AGR_HES\} + \{RD_EXP_SOC_HES\} + \{RD_EXP_HUM_HES\} \end{aligned}$	Total R&D expenditures financed by universities and higher education institutions must be equal to the sum of R&D expenditures financed by universities and higher education institutions by field of science. (Table 6. row 7 column 5 must equal row 1-6 column 5 total)	Error
33372	$\begin{aligned} & \{RD_EXP_NAT_FOR\} + \{RD_EXP_ENG_FOR\} + \{RD_EXP_MED_FOR\} + \{RD_EXP_AGR_FOR\} + \{RD_EXP_SOC_FOR\} \\ & + \{RD_EXP_HUM_FOR\} = \{RD_EXP_NAT_FOR\} + \{RD_EXP_ENG_FOR\} + \{RD_EXP_MED_FOR\} \\ & + \{RD_EXP_AGR_FOR\} + \{RD_EXP_SOC_FOR\} + \{RD_EXP_HUM_FOR\} \end{aligned}$	Total R&D expenditures financed by foreign sources must be equal to the sum of R&D expenditures financed by foreign sources by field of science. (Table 6. row 7 column 6 must equal row 1-6 column 6 total)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 13/30

Controls in table 7. COSTS ON RESEARCH AND DEVELOPMENT BY NATIONAL AND FOREIGN SOURCES OF FUNDING

Control ID	Control formula	Clarification	Type of error
33373	$\{(RD_EXP_GOV17)+(RD_EXP_GOV18)+(RD_EXP_GOV15)+(RD_EXP_GOV16)\}=\{(RD_EXP_GOV17)+(RD_EXP_GOV18)+(RD_EXP_GOV15)+(RD_EXP_GOV16)\}$	Total financing from state funds must be equal to the sum of R&D expenditures financed from the budget of the Ministry of Education and Research, from the budget of other ministries, by publicly financed funds and foundations, by the local authorities of rural municipalities or cities, from own funds. (Table 7. column 1 row 5 must equal column 1 row 1-4 total)	Error
33374	$\{(RD_EXP_FOR11)+(RD_EXP_FOR12)+(RD_EXP_FOR13)+(RD_EXP_FOR14)\}=\{(RD_EXP_FOR11)+(RD_EXP_FOR12)+(RD_EXP_FOR13)+(RD_EXP_FOR14)\}$	Total financing from foreign sources must be equal to the sum of research and development grants from the European Union, financing from foreign companies, foreign funds and foundations, and other foreign financing. (Table 7. row 11 column 1 must equal column 1 row 7-10 total)	Error

Controls in table 8. COSTS ON RESEARCH AND DEVELOPMENT BY TYPE OF COSTS, EUROS

Control ID	Control formula	Clarification	Type of error
33388	$\{RD_EXP_COS_INS\}=\{RD_EXP_LAB_INS\}+\{RD_EXP_CUR_OTH\}+\{RD_EXP_BUI_INS\}+\{RD_EXP_EQU_INS\}+\{RD_EXP_INV_INS\}$	Total costs by type in Table 8. column 1 must be equal to the sum of columns 2, 3, 4, 5 and 6.	Error
33389	$\{(RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR)+(RD_EXP_ENG_GOV)+(RD_EXP_ENG_BES)+(RD_EXP_ENG_PNP)+(RD_EXP_ENG_HES)+(RD_EXP_ENG_FOR)+(RD_EXP_MED_GOV)+(RD_EXP_MED_BES)+(RD_EXP_MED_PNP)+(RD_EXP_MED_HES)+(RD_EXP_MED_FOR)+(RD_EXP_AGR_GOV)+(RD_EXP_AGR_BES)+(RD_EXP_AGR_PNP)+(RD_EXP_AGR_HES)+(RD_EXP_AGR_FOR)+(RD_EXP_SOC_GOV)+(RD_EXP_SOC_BES)+(RD_EXP_SOC_PNP)+(RD_EXP_SOC_HES)+(RD_EXP_SOC_FOR)+(RD_EXP_HUM_GOV)+(RD_EXP_HUM_BES)+(RD_EXP_HUM_PNP)+(RD_EXP_HUM_HES)+(RD_EXP_HUM_FOR)\}=\{RD_EXP_LAB_INS\}+\{RD_EXP_CUR_OTH\}+\{RD_EXP_BUI_INS\}+\{RD_EXP_EQU_INS\}+\{RD_EXP_INV_INS\}$	Total R&D expenditures by type of costs must be equal to the sum of labour costs, other current costs, the acquisition, construction and capital repairs of buildings and facilities, costs related to the acquisition of equipment, apparatus, machinery, inventory and means of transport, and other investments. (Table 8. row 1 column 1 must equal row 1 column 2-6 total)	Error

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

Control ID	Control formula	Clarification	Type of error
33213	$\{(RD_EXP_NAT_BAS)+(RD_EXP_NAT_APP)+(RD_EXP_NAT_EXW)\}=\{(RD_EXP_NAT_BAS)+(RD_EXP_NAT_APP)+(RD_EXP_NAT_EXW)\}$	Total R&D expenditures in natural sciences must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 1 column 1 = row 1 column 2 + column 3 + column 4)	Error
33214	$\{(RD_EXP_ENG_BAS)+(RD_EXP_ENG_APP)+(RD_EXP_ENG_EXW)\}=\{(RD_EXP_ENG_BAS)+(RD_EXP_ENG_APP)+(RD_EXP_ENG_EXW)\}$	Total R&D expenditures in engineering and technology sciences must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 2 column 1 = row 2 column 2 + column 3 + column 4)	Error
33215	$\{(RD_EXP_MED_BAS)+(RD_EXP_MED_APP)+(RD_EXP_MED_EXW)\}=\{(RD_EXP_MED_BAS)+(RD_EXP_MED_APP)+(RD_EXP_MED_EXW)\}$	Total R&D expenditures in medical and health sciences must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 3 column 1 = row 3 column 2 + column 3 + column 4)	Error
33216	$\{(RD_EXP_AGR_BAS)+(RD_EXP_AGR_APP)+(RD_EXP_AGR_EXW)\}=\{(RD_EXP_AGR_BAS)+(RD_EXP_AGR_APP)+(RD_EXP_AGR_EXW)\}$	Total R&D expenditures in agricultural and veterinary sciences must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 4 column 1 = row 4 column 2 +	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	PP)+(RD_EXP_AGR_EXW)	column 3 + column 4)	
33217	((RD_EXP_SOC_BAS)+(RD_EXP_SOC_APP)+(RD_EXP_SOC_EXW))=(RD_EXP_SOC_BAS)+(RD_EXP_SOC_APP)+(RD_EXP_SOC_EXW)	Total R&D expenditures in social sciences must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 5 column 1 = row 5 column 2 + column 3 + column 4)	Error
33218	((RD_EXP_HUM_BAS)+(RD_EXP_HUM_APP)+(RD_EXP_HUM_EXW))=(RD_EXP_HUM_BAS)+(RD_EXP_HUM_APP)+(RD_EXP_HUM_EXW)	Total R&D expenditures in humanities and the arts must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 6 column 1 = row 6 column 2 + column 3 + column 4)	Error
33219	((RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR)+(RD_EXP_ENG_GOV)+(RD_EXP_ENG_BES)+(RD_EXP_ENG_PNP)+(RD_EXP_ENG_HES)+(RD_EXP_ENG_FOR)+(RD_EXP_MED_GOV)+(RD_EXP_MED_BES)+(RD_EXP_MED_PNP)+(RD_EXP_MED_HES)+(RD_EXP_MED_FOR)+(RD_EXP_AGR_GOV)+(RD_EXP_AGR_BES)+(RD_EXP_AGR_PNP)+(RD_EXP_AGR_HES)+(RD_EXP_AGR_FOR)+(RD_EXP_SOC_GOV)+(RD_EXP_SOC_BES)+(RD_EXP_SOC_PNP)+(RD_EXP_SOC_HES)+(RD_EXP_SOC_FOR)+(RD_EXP_HUM_GOV)+(RD_EXP_HUM_BES)+(RD_EXP_HUM_PNP)+(RD_EXP_HUM_HES)+(RD_EXP_HUM_FOR))=(RD_EXP_NAT_BAS)+(RD_EXP_ENG_BAS)+(RD_EXP_MED_BAS)+(RD_EXP_AGR_BAS)+(RD_EXP_SOC_BAS)+(RD_EXP_HUM_BAS))+((RD_EXP_NAT_APP)+(RD_EXP_ENG_APP)+(RD_EXP_MED_APP)+(RD_EXP_AGR_APP)+(RD_EXP_SOC_APP)+(RD_EXP_HUM_APP))+((RD_EXP_NAT_EXW)+(RD_EXP_ENG_EXW)+(RD_EXP_MED_EXW)+(RD_EXP_AGR_EXW)+(RD_EXP_SOC_EXW)+(RD_EXP_HUM_EXW))	Total R&D expenditures in fields of science must be equal to the sum of expenditures on basic research, applied research and experimental development. (Row 7 column 1 = row 7 column 2 + column 3 + column 4)	Error
33376	((RD_EXP_NAT_BAS)+(RD_EXP_NAT_APP)+(RD_EXP_NAT_EXW))=(RD_EXP_NAT_BAS)+(RD_EXP_NAT_APP)+(RD_EXP_NAT_EXW)	Total R&D costs by type of activity in natural sciences must be equal to the sum of basic research, applied research and experimental development in natural sciences. (Table 9. row 1 column 1 must equal row 1 column 2, 3 and 4 total)	Error
33377	((RD_EXP_ENG_BAS)+(RD_EXP_ENG_APP)+(RD_EXP_ENG_EXW))=(RD_EXP_ENG_BAS)+(RD_EXP_ENG_APP)+(RD_EXP_ENG_EXW)	Total R&D costs by type of activity in engineering and technology sciences must be equal to the sum of basic research, applied research and experimental development in engineering and technology sciences. (Table 9. row 2 column 1 must equal row 2 column 2, 3 and 4 total)	Error
33378	((RD_EXP_MED_BAS)+(RD_EXP_MED_APP)+(RD_EXP_MED_EXW))=(RD_EXP_MED_BAS)+(RD_EXP_MED_APP)+(RD_EXP_MED_EXW)	Total R&D costs by type of activity in medical and health sciences must be equal to the sum of basic research, applied research and experimental development in medical and health sciences. (Table 9. row 3 column 1 must equal row 3 column 2, 3 and 4 total)	Error
33379	((RD_EXP_AGR_BAS)+(RD_EXP_AGR_APP)+(RD_EXP_AGR_EXW))=(RD_EXP_AGR_BAS)+(RD_EXP_AGR_APP)+(RD_EXP_AGR_EXW)	Total R&D costs by type of activity in agricultural and veterinary sciences must be equal to the sum of basic research, applied research and experimental development in agricultural and veterinary sciences. (Table 9. row 4 column 1 must equal row 4 column 2, 3 and 4 total)	Error
33380	((RD_EXP_SOC_BAS)+(RD_EXP_SOC_APP)+(RD_EXP_SOC_EXW))=(RD_EXP_SOC_BAS)+(RD_EXP_SOC_APP)+(RD_EXP_SOC_EXW)	Total R&D costs by type of activity in social sciences must be equal to the sum of basic research, applied research and experimental development in social sciences. (Table 9. row 5 column 1 must equal row 5 column 2, 3 and 4 total)	Error
33381	((RD_EXP_HUM_BAS)+(RD_EXP_HUM_APP)+(RD_EXP_HUM_EXW))=(RD_EXP_HUM_BAS)+(RD_EXP_HUM_APP)+(RD_EXP_HUM_EXW)	Total R&D costs by type of activity in humanities and the arts must be equal to the sum of basic research, applied research and experimental development in humanities and the arts. (Table 9. row 6 column 1 must equal row 6 column 2, 3 and 4 total)	Error
33383	((RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR)+(RD_EXP_ENG_GOV)+(RD_EXP_ENG_BES)+(RD_EXP_ENG_PNP)+(RD_EXP_ENG_HES)+(RD_EXP_ENG_FOR)+(RD_EXP_MED_GOV)+(RD_EXP_MED_BES)+(RD_EXP_MED_PNP)+(RD_EXP_MED_HES)+(RD_EXP_MED_FOR))=(RD_EXP_NAT_BAS)+(RD_EXP_ENG_BAS)+(RD_EXP_MED_BAS)+(RD_EXP_AGR_BAS)+(RD_EXP_SOC_BAS)+(RD_EXP_HUM_BAS))+((RD_EXP_NAT_APP)+(RD_EXP_ENG_APP)+(RD_EXP_MED_APP)+(RD_EXP_AGR_APP)+(RD_EXP_SOC_APP)+(RD_EXP_HUM_APP))+((RD_EXP_NAT_EXW)+(RD_EXP_ENG_EXW)+(RD_EXP_MED_EXW)+(RD_EXP_AGR_EXW)+(RD_EXP_SOC_EXW)+(RD_EXP_HUM_EXW))	Total R&D costs by type of activity must be equal to the sum of basic research, applied research and experimental development. (Table 9. row 7 column 1 must equal row 7 column 2, 3 and 4 total)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

$\begin{aligned} & D_FOR\} + \{RD_EXP_AGR_GOV\} + \{RD_EXP_AGR_BES\} + \{ \\ & RD_EXP_AGR_PNP\} + \{RD_EXP_AGR_HES\} + \{RD_EXP_ \\ & AGR_FOR\} + \{RD_EXP_SOC_GOV\} + \{RD_EXP_SOC_BE \\ & S\} + \{RD_EXP_SOC_PNP\} + \{RD_EXP_SOC_HES\} + \{RD_E \\ & XP_SOC_FOR\} + \{RD_EXP_HUM_GOV\} + \{RD_EXP_HUM \\ & BES\} + \{RD_EXP_HUM_PNP\} + \{RD_EXP_HUM_HES\} + \{R \\ & D_EXP_HUM_FOR\} = \{RD_EXP_NAT_BAS\} + \{RD_EXP_ \\ & ENG_BAS\} + \{RD_EXP_MED_BAS\} + \{RD_EXP_AGR_BAS \\ & \} + \{RD_EXP_SOC_BAS\} + \{RD_EXP_HUM_BAS\} + \{RD_E \\ & XP_NAT_APP\} + \{RD_EXP_ENG_APP\} + \{RD_EXP_MED \\ & APP\} + \{RD_EXP_AGR_APP\} + \{RD_EXP_SOC_APP\} + \{RD \\ & EXP_HUM_APP\} + \{RD_EXP_NAT_EXW\} + \{RD_EXP_E \\ & NG_EXW\} + \{RD_EXP_MED_EXW\} + \{RD_EXP_AGR_EXW \\ & \} + \{RD_EXP_SOC_EXW\} + \{RD_EXP_HUM_EXW\} \end{aligned}$	
--	--

Controls in table 10. COSTS ON RESEARCH AND DEVELOPMENT BY FIELDS OF APPLICATION, EUROS

Control ID	Control formula	Clarification	Type of error
18753	$\{RD_NABS99\} = \{RD_NABS08\} + \{RD_NABS06\} + \{RD_NABS05\} + \{RD_NABS04\} + \{RD_NABS02\} + \{RD_NABS07\} + \{RD_NABS10\} + \{RD_NABS09\} + \{RD_NABS11\} + \{RD_NABS01\} + \{RD_NABS03\} + \{RD_NABS14\} + \{RD_NABS13\}$	Table 10. row 14 must be equal to the sum of rows 1–13.	Error
18754	$\{RD_NABS99_GOV\} = \{RD_NABS08_GOV\} + \{RD_NABS06_GOV\} + \{RD_NABS05_GOV\} + \{RD_NABS04_GOV\} + \{RD_NABS02_GOV\} + \{RD_NABS07_GOV\} + \{RD_NABS10_GOV\} + \{RD_NABS09_GOV\} + \{RD_NABS11_GOV\} + \{RD_NABS01_GOV\} + \{RD_NABS03_GOV\} + \{RD_NABS14_GOV\} + \{RD_NABS13_GOV\}$	Table 10. row 14 must be equal to the sum of rows 1–13.	Error
20026	$\{RD_NABS99\} = \{RD_NABS08\} + \{RD_NABS06\} + \{RD_NABS05\} + \{RD_NABS04\} + \{RD_NABS02\} + \{RD_NABS07\} + \{RD_NABS10\} + \{RD_NABS09\} + \{RD_NABS11\} + \{RD_NABS01\} + \{RD_NABS03\} + \{RD_NABS14\} + \{RD_NABS13\}$	Calculation error. Check the validity: total R&D costs in the fields of applications (Table 10. column 1 row 14) = K_14 (Table 10. column 1 row K_14)	Error
20027	$\{RD_NABS99_GOV\} = \{RD_NABS08_GOV\} + \{RD_NABS06_GOV\} + \{RD_NABS05_GOV\} + \{RD_NABS04_GOV\} + \{RD_NABS02_GOV\} + \{RD_NABS07_GOV\} + \{RD_NABS10_GOV\} + \{RD_NABS09_GOV\} + \{RD_NABS11_GOV\} + \{RD_NABS01_GOV\} + \{RD_NABS03_GOV\} + \{RD_NABS14_GOV\} + \{RD_NABS13_GOV\}$	Calculation error. Check the validity: total R&D costs funded by state funds in the fields of applications (Table 10. column 2 row 14) = K_14 (Table 10. column 2 row K_14).	Error
33220	$\{RD_NABS08\} \geq \{RD_NABS08_GOV\}$	Total R&D expenditures in the field of agriculture, forestry, fishing must be larger than or equal to the sum of R&D expenditures in the field of agriculture, forestry, fishing financed from state funds. (Row 1 column 1 >= Row 1 column 2)	Error
33221	$\{RD_NABS06\} \geq \{RD_NABS06_GOV\}$	Total R&D expenditures in the field of industrial production and technology must be larger than or equal to the sum of R&D expenditures in the field of industrial production and technology financed from state funds. (Row 2 column 1 >= Row 2 column 3)	Error
33222	$\{RD_NABS05\} \geq \{RD_NABS05_GOV\}$	Total R&D expenditures in the field of generation, distribution and rational use of energy must be larger than or equal to the sum of R&D expenditures in the field of generation, distribution and rational use of energy financed from state funds. (Row 3 column 1 >= Row 3 column 4)	Error
33223	$\{RD_NABS04\} \geq \{RD_NABS04_GOV\}$	Total R&D expenditures in the field of transport, telecommunication and other infrastructures must be larger than or equal to the sum of R&D expenditures in the field of transport, telecommunication and other	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 16/30

Control ID	Control formula	Clarification	Type of error
33224	{RD_NABS02}>={RD_NABS02_GOV}	infrastructures financed from state funds. (Row 4 column 1>= Row 4 column 4) Total R&D expenditures in the field of protection of the environment must be larger than or equal to the sum of R&D expenditures in the field of protection of the environment financed from state funds. (Row 5 column 1>= Row 5 column 4)	Error
33225	{RD_NABS07}>={RD_NABS07_GOV}	Total R&D expenditures in the field of health sciences must be larger than or equal to the sum of R&D expenditures in the field of health sciences financed from state funds. (Row 6 column 1>= Row 6 column 4)	Error
33232	{RD_NABS10}>={RD_NABS10_GOV}	Total R&D expenditures in the field of culture, spare time, religion and media must be larger than or equal to the sum of R&D expenditures in the field of culture, spare time, religion and media financed from state funds. (Row 7 column 1>= Row 7 column 4)	Error
33233	{RD_NABS09}>={RD_NABS09_GOV}	Total R&D expenditures in the field of education must be larger than or equal to the sum of R&D expenditures in the field of education financed from state funds. (Row 8 column 1>= Row 8 column 4)	Error
33234	{RD_NABS11}>={RD_NABS11_GOV}	Total R&D expenditures in the field of political and social systems, structures and processes must be larger than or equal to the sum of R&D expenditures in the field of political and social systems, structures and processes financed from state funds. (Row 9 column 1>= Row 9 column 4)	Error
33235	{RD_NABS01}>={RD_NABS01_GOV}	Total R&D expenditures in the field of studies and use of earth's crust, hydrosphere and atmosphere must be larger than or equal to the sum of R&D expenditures in the field of studies and use of earth's crust, hydrosphere and atmosphere financed from state funds. (Row 10 column 1>= Row 10 column 4)	Error
33236	{RD_NABS03}>={RD_NABS03_GOV}	Total R&D expenditures in the field of space exploration and capture must be larger than or equal to the sum of R&D expenditures in the field of space exploration and capture financed from state funds. (Row 11 column 1>= Row 11 column 4)	Error
33237	{RD_NABS14}>={RD_NABS14_GOV}	Total R&D expenditures in the field of national defence must be larger than or equal to the sum of R&D expenditures in the field of national defence financed from state funds. (Row 12 column 1>= Row 12 column 4)	Error
33238	{RD_NABS13}>={RD_NABS13_GOV}	Total R&D expenditures on applications not specified must be larger than or equal to the sum of R&D expenditures on applications not specified financed from state funds. (Row 13 column 1>= Row 13 column 4)	Error
33239	{RD_NABS99}>={RD_NABS99_GOV}	Total R&D expenditures in fields of application must be larger than or equal to the sum of R&D expenditures in fields of application financed from state funds. (Row K_14 column 1>= Row K_14 column 2)	Error
33384	{RD_NABS99}={RD_NABS08}+{RD_NABS06}+{RD_NABS05}+{RD_NABS04}+{RD_NABS02}+{RD_NABS07}+{RD_NABS10}+{RD_NABS09}+{RD_NABS11}+{RD_NABS01}+{RD_NABS03}+{RD_NABS14}+{RD_NABS13}	Total R&D expenditures in all fields of application must be equal to the sum of R&D financing distributed by field of application. (Row K_14 column 1=Row 1 column 1+ row 2 column 1+row 3 column 1+ row 4 column 1+ row 5 column 1+ row 6 column 1+ row 7 column 1 + row 7 column 1+ row 8 column 1+ row 9 column 1+ row 10 column 1+ row 11 column 1+ row 12 column 1+ row 13 column 1)	Error
33385	{RD_NABS99_GOV}={RD_NABS08_GOV}+{RD_NABS06_GOV}+{RD_NABS05_GOV}+{RD_NABS04_GOV}+{RD_NABS02_GOV}+{RD_NABS07_GOV}+{RD_NABS10_GOV}+{RD_NABS09_GOV}+{RD_NABS11_GOV}+{RD_NABS01_GOV}+{RD_NABS03_GOV}+{RD_NABS14_GOV}+{RD_NABS13_GOV}	Total R&D expenditures from state funds in all fields of application must be equal to the sum of R&D financing from state funds distributed by field of application. (Row K_14 column 2=Row 1 column 2+ row2 column 2+row 3 column 2+ row 4 column 2+ row 5 column 2+ row 6 column 2+ row 7 column 2 + row 7 column 2+ row 8 column 2+ row 9 column 2+ row 10 column 2+ row 11 column 2+ row 12 column 2+ row 13 column 2)	Error

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

Control ID	Control formula	Clarification	Type of error
20296	{TAITMISEAEGMINUTIT}<=59	Maximum permitted value is 59 minutes. Time exceeding 60 minutes shall be indicated in hours and minutes.	Error
20297	{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
20298	{TAITMISEAEGTUNDI}<=999	Maximum permitted value is 999 hours.	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 17/30

Controls across tables

Control ID	Control formula	Clarification	Type of error
2252	{RD_RESF_AGE1}+{RD_RESF_AGE2}+{RD_RESF_AGE3}+{RD_RESF_AGE4}+{RD_RESF_AGE5}+{RD_RESF_AGE6}={RD_RESF_NAT}+{RD_RESF_ENG}+{RD_RESF_MED}+{RD_RESF_AGR}+{RD_RESF_SOC}+{RD_RESF_HUM}	Calculation error. Check the validity: number of female scientists and engineers by age (Table 3. column 1 row 2) = total number of female scientists and engineers in scientific areas (Table 1.1. column 7 row 2).	Error
2281	{RD_EXP_NAT_BAS}+{RD_EXP_NAT_APP}+{RD_EXP_NAT_EXW}={RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}	Calculation error. Check the validity: total R&D costs by type of R&D in the area of natural sciences (Table 9. column 1 row 1) = total funding of natural sciences (Table 6. column 1 row 1).	Error
2282	{RD_EXP_ENG_BAS}+{RD_EXP_ENG_APP}+{RD_EXP_ENG_EXW}={RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}	Calculation error. Check the validity: total R&D costs by type of R&D in the area of engineering sciences (Table 9. column 1 row 2) = total funding of engineering sciences (Table 6. column 1 row 2).	Error
2283	{RD_EXP_MED_BAS}+{RD_EXP_MED_APP}+{RD_EXP_MED_EXW}={RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}	Calculation error. Check the validity: total R&D costs by type of R&D in the area of medical science (Table 9. column 1 row 3) = total funding of medical science (Table 6. column 1 row 3).	Error
2284	{RD_EXP_AGR_BAS}+{RD_EXP_AGR_APP}+{RD_EXP_AGR_EXW}={RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}	Calculation error. Check the validity: total R&D costs by type of R&D in the area of agricultural sciences (Table 9. column 1 row 4) = total funding of agricultural sciences (Table 6. column 1 row 4).	Error
2285	{RD_EXP_SOC_BAS}+{RD_EXP_SOC_APP}+{RD_EXP_SOC_EXW}={RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}	Calculation error. Check the validity: total R&D costs by type of R&D in the area of social sciences (Table 9. column 1 row 5) = total funding of social sciences (Table 6. column 1 row 5).	Error
2286	{RD_EXP_HUM_BAS}+{RD_EXP_HUM_APP}+{RD_EXP_HUM_EXW}={RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR}	Calculation error. Check the validity: total R&D costs by type of R&D in the area of humanities (Table 9. column 1 row 6) = total funding of humanities (Table 6. column 1 row 6).	Error
18641	{RD_RESF_NAT_DOC}+{RD_RESF_ENG_DOC}+{RD_RESF_MED_DOC}+{RD_RESF_AGR_DOC}+{RD_RESF_SOC_DOC}+{RD_RESF_HUM_DOC}={RD_RESF_DOC}	Calculation error. Check the validity: number of female scientists and engineers with doctoral degree (Table 2. column 2 row 1) = total number of female scientists and engineers with doctoral degree by a scientific area (Table 4. column 2 row 7).	Error
18752	{RD_EXP_SCF_FIN}={RD_EXP_SCI_ACT}	Calculation error. Check the validity: total funding of scientific areas (Table 6. column 1 row 7) = total R&D costs by type of R&D and scientific area (Table 9. column 1 row 7).	Error
20812	{RD_EXP_FORI1}+{RD_EXP_FORI2}+{RD_EXP_FORI3}+{RD_EXP_FORI4}={RD_EXP_NAT_FOR}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_FOR}	Inconsistent data. Check the validity: funding of scientific areas from foreign sources (Table 6. column 6 row 7) must be equal to the total R&D costs funded from foreign sources (Table 7. row 11).	Error
33240	{RD_RESMF_FTE_NAT}<={RD_RESMF_NAT}	The number of researchers and engineers in natural sciences in full-time equivalents must be smaller than or equal to the total number of researchers and engineers in natural sciences. (Table 1.2. row 1 column 1 must be smaller or equal table 1.1. row 1 column 1)	Warning
33241	{RD_RESMF_FTE_ENG}<={RD_RESMF_ENG}	The number of researchers and engineers in engineering and technology sciences in full-time equivalents must be smaller than or equal to the total number of researchers and engineers in engineering and technology sciences. (Table 1.2. row 1 column 2 must be smaller or equal table 1.1. row 1 column 2)	Warning
33242	{RD_RESMF_FTE_MED}<={RD_RESMF_MED}	The number of researchers and engineers in medical and health sciences in full-time equivalents must be	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 18/30

		smaller than or equal to the total number of researchers and engineers in medical and health sciences. (Table 1.2. row 1 column 3 must be smaller or equal table 1.1. row 1 column 3)	
33243	{RD_RESMF_FTE_AGR}<={RD_RESMF_AGR}	The number of researchers and engineers in agricultural and veterinary sciences in full-time equivalents must be smaller than or equal to the total number of researchers and engineers in agricultural and veterinary sciences. (Table 1.2. row 1 column 4 must be smaller or equal table 1.1. row 1 column 4)	Warning
33244	{RD_RESMF_FTE_SOC}<={RD_RESMF_SOC}	The number of researchers and engineers in social sciences in full-time equivalents must be smaller than or equal to the total number of researchers and engineers in social sciences. (Table 1.2. row 1 column 5 must be smaller or equal table 1.1. row 1 column 5)	Warning
33245	{RD_RESMF_FTE_HUM}<={RD_RESMF_HUM}	The number of researchers and engineers in humanities and the arts in full-time equivalents must be smaller than or equal to the total number of researchers and engineers in humanities and the arts. (Table 1.2. row 1 column 6 must be smaller or equal table 1.1. row 1 column 6)	Warning
33246	((RD_RESMF_FTE_NAT)+(RD_RESMF_FTE_ENG)+(RD_RESMF_FTE_MED)+(RD_RESMF_FTE_AGR)+(RD_RESMF_FTE_SOC)+(RD_RESMF_FTE_HUM))<=((RD_RESMF_NAT)+(RD_RESMF_ENG)+(RD_RESMF_MED)+(RD_RESMF_AGR)+(RD_RESMF_SOC)+(RD_RESMF_HUM))	The total number of researchers and engineers in full-time equivalents must be smaller than or equal to the total number of researchers and engineers. (Table 1.2. row 1 column 7 must be smaller or equal table 1.1. row 1 column 7)	Warning
33247	{RD_RESF_FTE_NAT}<={RD_RESF_NAT}	The number of female researchers and engineers in natural sciences in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers in natural sciences. (Table 1.2. row 2 column 1 must be smaller or equal table 1.1. row 2 column 1)	Warning
33248	{RD_RESF_FTE_ENG}<={RD_RESF_ENG}	The number of female researchers and engineers in engineering and technology sciences in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers in engineering and technology sciences. (Table 1.2. row 2 column 2 must be smaller or equal table 1.1. row 2 column 2)	Warning
33249	{RD_RESF_FTE_MED}<={RD_RESF_MED}	The number of female researchers and engineers in medical and health sciences in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers in medical and health sciences. (Table 1.2. row 2 column 3 must be smaller or equal table 1.1. row 2 column 3)	Warning
33250	{RD_RESF_FTE_AGR}<={RD_RESF_AGR}	The number of female researchers and engineers in agricultural and veterinary sciences in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers in agricultural and veterinary sciences. (Table 1.2. row 2 column 4 must be smaller or equal table 1.1. row 2 column 4)	Warning
33251	{RD_RESF_FTE_SOC}<={RD_RESF_SOC}	The number of female researchers and engineers in social sciences in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers in social sciences. (Table 1.2. row 2 column 5 must be smaller or equal table 1.1. row 2 column 5)	Warning
33252	{RD_RESF_FTE_HUM}<={RD_RESF_HUM}	The number of female researchers and engineers in humanities and the arts in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers in humanities and the arts. (Table 1.2. row 2 column 6 must be smaller or equal table 1.1. row 2 column 6)	Error
33253	((RD_RESF_FTE_NAT)+(RD_RESF_FTE_ENG)+(RD_RESF_FTE_MED)+(RD_RESF_FTE_AGR)+(RD_RESF_FTE_SOC)+(RD_RESF_FTE_HUM))<=((RD_RESF_NAT)+(RD_RESF_ENG)+(RD_RESF_MED)+(RD_RESF_AGR)+(RD_RESF_SOC)+(RD_RESF_HUM))	The total number of female researchers and engineers in full-time equivalents must be smaller than or equal to the total number of female researchers and engineers. (Table 1.2. row 2 column 7 must be smaller or equal table 1.1. row 2 column 7)	Error
33254	{RD_OTHMF_FTE_NAT}<={RD_OTHMF_NAT}	The number of other R&D personnel (technicians, support staff) in natural sciences in full-time equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff) in natural sciences. (Table 1.2. row 3 column 1 must be smaller or equal table 1.1. row 3 column 1)	Warning
33255	{RD_OTHMF_FTE_ENG}<={RD_OTHMF_ENG}	The number of other R&D personnel (technicians, support staff) in engineering and technology sciences in full-time equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff) in engineering and technology sciences. (Table 1.2. row 3 column 2 must be smaller or equal table 1.1. row 3 column 2)	Warning
33256	{RD_OTHMF_FTE_MED}<={RD_OTHMF_MED}	The number of other R&D personnel (technicians, support staff) in medical and health sciences in full-time	Warning

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

		equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff) in medical and health sciences. (Table 1.2. row 3 column 3 must be smaller or equal table 1.1. row 3 column 3)	
33257	{RD_OTHMF_FTE_AGR}<={RD_OTHMF_AGR}	The number of other R&D personnel (technicians, support staff) in agricultural and veterinary sciences in full-time equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff) in agricultural and veterinary sciences. (Table 1.2. row 3 column 4 must be smaller or equal table 1.1. row 3 column 4)	Warning
33258	{RD_OTHMF_FTE_SOC}<={RD_OTHMF_SOC}	The number of other R&D personnel (technicians, support staff) in social sciences in full-time equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff) in social sciences. (Table 1.2. row 3 column 5 must be smaller or equal table 1.1. row 3 column 5)	Warning
33259	{RD_OTHMF_FTE_HUM}<={RD_OTHMF_HUM}	The number of other R&D personnel (technicians, support staff) in humanities and the arts in full-time equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff) in humanities and the arts. (Table 1.2. row 3 column 6 must be smaller or equal table 1.1. row 3 column 6)	Warning
33260	((RD_OTHMF_FTE_NAT)+(RD_OTHMF_FTE_ENG)+(RD_OTHMF_FTE_MED)+(RD_OTHMF_FTE_AGR)+(RD_OTHMF_FTE_SOC)+(RD_OTHMF_FTE_HUM))<=((RD_OTHMF_NAT)+(RD_OTHMF_ENG)+(RD_OTHMF_MED)+(RD_OTHMF_AGR)+(RD_OTHMF_SOC)+(RD_OTHMF_HUM))	The total number of other R&D personnel (technicians, support staff) in full-time equivalents must be smaller than or equal to the total number of other R&D personnel (technicians, support staff). (Table 1.2. row 3 column 7 must be smaller or equal table 1.1. row 3 column 7)	Warning
33261	{RD_OTHF_FTE_NAT}<={RD_OTHF_NAT}	The number of female other R&D personnel (technicians, support staff) in natural sciences in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff) in natural sciences. (Table 1.2. row 4 column 1 must be smaller or equal table 1.1. row 4 column 1)	Warning
33262	{RD_OTHF_FTE_ENG}<={RD_OTHF_ENG}	The number of female other R&D personnel (technicians, support staff) in engineering and technology sciences in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff) in engineering and technology sciences. (Table 1.2. row 4 column 2 must be smaller or equal table 1.1. row 4 column 2)	Warning
33263	{RD_OTHF_FTE_MED}<={RD_OTHF_MED}	The number of female other R&D personnel (technicians, support staff) in medical and health sciences in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff) in medical and health sciences. (Table 1.2. row 4 column 3 must be smaller or equal table 1.1. row 4 column 3)	Warning
33264	{RD_OTHF_FTE_AGR}<={RD_OTHF_AGR}	The number of female other R&D personnel (technicians, support staff) in agricultural and veterinary sciences in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff) in agricultural and veterinary sciences. (Table 1.2. row 4 column 4 must be smaller or equal table 1.1. row 4 column 4)	Warning
33265	{RD_OTHF_FTE_SOC}<={RD_OTHF_SOC}	The number of female other R&D personnel (technicians, support staff) in social sciences in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff) in social sciences. (Table 1.2. row 4 column 5 must be smaller or equal table 1.1. row 4 column 5)	Warning
33266	{RD_OTHF_FTE_HUM}<={RD_OTHF_HUM}	The number of female other R&D personnel (technicians, support staff) in humanities and the arts in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff) in humanities and the arts. (Table 1.2. row 4 column 6 must be smaller or equal table 1.1. row 4 column 6)	Warning
33267	((RD_OTHF_FTE_NAT)+(RD_OTHF_FTE_ENG)+(RD_OTHF_FTE_MED)+(RD_OTHF_FTE_AGR)+(RD_OTHF_FTE_SOC)+(RD_OTHF_FTE_HUM))<=((RD_OTHF_NAT)+(RD_OTHF_ENG)+(RD_OTHF_MED)+(RD_OTHF_AGR)+(RD_OTHF_SOC)+(RD_OTHF_HUM))	The total number of female other R&D personnel (technicians, support staff) in full-time equivalents must be smaller than or equal to the total number of female other R&D personnel (technicians, support staff). (Table 1.2. row 4 column 7 must be smaller or equal table 1.1. row 4 column 7)	Warning
33268	((RD_RESMF_FTE_NAT)+(RD_OTHMF_FTE_NAT))<=((RD_OTHMF_FTE_NAT)+(RD_OTHMF_FTE_ENG)+(RD_OTHMF_FTE_MED)+(RD_OTHMF_FTE_AGR)+(RD_OTHMF_FTE_SOC)+(RD_OTHMF_FTE_HUM))	The total number of R&D personnel in natural sciences in full-time equivalents must be smaller than or equal to the total number of R&D personnel in natural sciences, engineering and technology sciences, medical and health sciences, agricultural and veterinary sciences, social sciences, humanities and the arts. (Table 1.2. row 5 column 1 must be smaller or equal table 1.1. row 5 column 1)	Warning

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 20/30

	RD_RESMF_NAT)+(RD_OTHMF_NAT))	to the total number of R&D personnel in natural sciences. (Table 1.2. row 5 column 1 must be smaller or equal table 1.1. row 5 column 1)	
33269	((RD_RESMF_FTE_ENG)+(RD_OTHMF_FTE_ENG))<={RD_TOTALMF_ENG}	The total number of R&D personnel in engineering and technology sciences in full-time equivalents must be smaller than or equal to the total number of R&D personnel in engineering and technology sciences. (Table 1.2. row 5 column 2 must be smaller or equal table 1.1. row 5 column 2)	Warning
33270	((RD_RESMF_FTE_MED)+(RD_OTHMF_FTE_MED))<={RD_RESMF_MED)+(RD_OTHMF_MED}}	The total number of R&D personnel in medical and health sciences in full-time equivalents must be smaller than or equal to the total number of R&D personnel in medical and health sciences. (Table 1.2. row 5 column 3 must be smaller or equal table 1.1. row 5 column 3)	Warning
33271	((RD_RESMF_FTE_AGR)+(RD_OTHMF_FTE_AGR))<={RD_RESMF_AGR)+(RD_OTHMF_AGR}}	The total number of R&D personnel in agricultural and veterinary sciences in full-time equivalents must be smaller than or equal to the total number of R&D personnel in agricultural and veterinary sciences. (Table 1.2. row 5 column 4 must be smaller or equal table 1.1. row 5 column 4)	Warning
33272	((RD_RESMF_FTE_SOC)+(RD_OTHMF_FTE_SOC))<={RD_RESMF_SOC)+(RD_OTHMF_SOC}}	The total number of R&D personnel in social sciences in full-time equivalents must be smaller than or equal to the total number of R&D personnel in social sciences. (Table 1.2. row 5 column 5 must be smaller or equal table 1.1. row 5 column 5)	Warning
33273	((RD_RESMF_FTE_HUM)+(RD_OTHMF_FTE_HUM))<={RD_RESMF_HUM)+(RD_OTHMF_HUM}}	The total number of R&D personnel in humanities and the arts in full-time equivalents must be smaller than or equal to the total number of R&D personnel in humanities and the arts. (Table 1.2. row 5 column 6 must be smaller or equal table 1.1. row 5 column 6)	Warning
33274	((RD_RESMF_FTE_NAT)+(RD_OTHMF_FTE_NAT))+((RD_RESMF_FTE_ENG)+(RD_OTHMF_FTE_ENG))+((RD_RESMF_FTE_MED)+(RD_OTHMF_FTE_MED))+((RD_RESMF_FTE_AGR)+(RD_OTHMF_FTE_AGR))+((RD_RESMF_FTE_SOC)+(RD_OTHMF_FTE_SOC))+((RD_RESMF_FTE_HUM)+(RD_OTHMF_FTE_HUM))<={RD_RESMF_NAT)+(RD_OTHMF_NAT))+RD_TOTALMF_ENG)+(RD_RESMF_MED)+(RD_OTHMF_MED))+((RD_RESMF_AGR)+(RD_OTHMF_AGR))+((RD_RESMF_SOC)+(RD_OTHMF_SOC))+((RD_RESMF_HUM)+(RD_OTHMF_HUM))}	The total number of R&D personnel in full-time equivalents must be smaller than or equal to the total number of R&D personnel. (Table 1.2. row 5 column 7 must be smaller or equal table 1.1. row 5 column 7)	Warning
33275	((RD_RESF_FTE_NAT)+(RD_OTHF_FTE_NAT))<={RD_RESF_NAT)+(RD_OTHF_NAT}}	The number of female R&D personnel in natural sciences in full-time equivalents must be smaller than or equal to the total number of female R&D personnel in natural sciences. (Table 1.2. row 6 column 1 must be smaller or equal table 1.1. row 6 column 1)	Warning
33276	((RD_RESF_FTE_ENG)+(RD_OTHF_FTE_ENG))<={RD_RESF_ENG)+(RD_OTHF_ENG}}	The number of female R&D personnel in engineering and technology sciences in full-time equivalents must be smaller than or equal to the total number of female R&D personnel in engineering and technology sciences. (Table 1.2. row 6 column 2 must be smaller or equal table 1.1. row 6 column 2)	Warning
33277	((RD_RESF_FTE_MED)+(RD_OTHF_FTE_MED))<={RD_RESF_MED)+(RD_OTHF_MED}}	The number of female R&D personnel in medical and health sciences in full-time equivalents must be smaller than or equal to the total number of female R&D personnel in medical and health sciences. (Table 1.2. row 6 column 3 must be smaller or equal table 1.1. row 6 column 3)	Warning
33278	((RD_RESF_FTE_AGR)+(RD_OTHF_FTE_AGR))<={RD_RESF_AGR)+(RD_OTHF_AGR}}	The number of female R&D personnel in agricultural and veterinary sciences in full-time equivalents must be smaller than or equal to the total number of female R&D personnel in agricultural and veterinary sciences. (Table 1.2. row 6 column 4 must be smaller or equal table 1.1. row 6 column 4)	Warning
33279	((RD_RESF_FTE_SOC)+(RD_OTHF_FTE_SOC))<={RD_RESF_SOC)+(RD_OTHF_SOC}}	The number of female R&D personnel in social sciences in full-time equivalents must be smaller than or equal to the total number of female R&D personnel in social sciences. (Table 1.2. row 6 column 5 must be smaller or equal table 1.1. row 6 column 5)	Warning
33280	((RD_RESF_FTE_HUM)+(RD_OTHF_FTE_HUM))<={RD_RESF_HUM)+(RD_OTHF_HUM}}	The number of female R&D personnel in humanities and the arts in full-time equivalents must be smaller than or equal to the total number of female R&D personnel in humanities and the arts. (Table 1.2. row 6 column 6 must be smaller or equal table 1.1. row 6 column 6)	Warning
33281	((RD_RESF_FTE_NAT)+(RD_OTHF_FTE_NAT))+((RD_RESF_FTE_ENG)+(RD_OTHF_FTE_ENG))+((RD_RESF_FTE_MED)+(RD_OTHF_FTE_MED))+((RD_RESF_FTE_AGR)+(RD_OTHF_FTE_AGR))+((RD_RESF_FTE_SOC)+(RD_OTHF_FTE_SOC))+((RD_RESF_FTE_HUM)+(RD_OTHF_FTE_HUM))<={RD_RESF_NAT)+(RD_OTHF_NAT))+RD_RESF_ENG)+(RD_OTHF_ENG))+RD_RESF_MED)+(RD_OTHF_MED))+RD_RESF_AGR)+(RD_OTHF_AGR))+RD_RESF_SOC)+(RD_OTHF_SOC))+RD_RESF_HUM)+(RD_OTHF_HUM}}	The total number of female R&D personnel in full-time equivalents must be smaller than or equal to the total number of female R&D personnel. (Table 1.2. row 6 column 7 must be smaller or equal table 1.1. row 6 column 7)	Warning

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	OTHF_FTE_HUM))<=(((RD_RESF_NAT)+{RD_OTHF_NAT})+{(RD_RESF_ENG)+{RD_OTHF_ENG}}+{(RD_RESF_MED)+{RD_OTHF_MED}}+{(RD_RESF_AGR)+{RD_OTHF_AGR}}+{(RD_RESF_SOC)+{RD_OTHF_SOC}}+{(RD_RESF_HUM)+{RD_OTHF_HUM}}))		
33282	((RD_RESMF_NAT_DOC)+{RD_RESMF_ENG_DOC}+{RD_RESMF_MED_DOC}+{RD_RESMF_AGR_DOC}+{RD_RESMF_SOC_DOC}+{RD_RESMF_HUM_DOC})+{RD_RESMF_HIGH})=({RD_RESMF_NAT}+{RD_RESMF_ENG}+{RD_RESMF_MED}+{RD_RESMF_AGR}+{RD_RESMF_SOC}+{RD_RESMF_HUM})	The total number of researchers and engineers by level of education must be equal to the number of researchers and engineers by field of science. (Table 2. row 4 column 1 must be equal Table 1.1 row 1 column 7)	Error
33283	((RD_RESF_DOC)+{RD_RESF_HIGH})=({RD_RESF_NAT}+{RD_RESF_ENG}+{RD_RESF_MED}+{RD_RESF_AGR}+{RD_RESF_SOC}+{RD_RESF_HUM})	The total number of female researchers and engineers by level of education must be equal to the number of female researchers and engineers by field of science. (Table 2. row 4 column 2 must be equal Table 1.1 row 2 column 7)	Error
33284	((RD_OTHMF_DOC)+{RD_OTHMF_HIGH}+{RD_OTHMF_SECN})=({RD_OTHMF_NAT}+{RD_OTHMF_ENG}+{RD_OTHMF_MED}+{RD_OTHMF_AGR}+{RD_OTHMF_SOC}+{RD_OTHMF_HUM})	The total number of other R&D personnel (technicians, support staff) by level of education must be equal to the number of other R&D personnel (technicians, support staff) by field of science. (Table 2. row 4 column 3 must be equal Table 1.1 row 3 column 7)	Error
33285	((RD_OTHF_DOC)+{RD_OTHF_HIGH}+{RD_OTHF_SECN})=({RD_OTHF_NAT}+{RD_OTHF_ENG}+{RD_OTHF_MED}+{RD_OTHF_AGR}+{RD_OTHF_SOC}+{RD_OTHF_HUM})	The total number of female other R&D personnel (technicians, support staff) by level of education must be equal to the number of female other R&D personnel (technicians, support staff) by field of science. (Table 2. row 4 column 4 must be equal Table 1.1 row 4 column 7)	Error
33286	((RD_RESMF_NAT_DOC)+{RD_RESMF_ENG_DOC}+{RD_RESMF_MED_DOC}+{RD_RESMF_AGR_DOC}+{RD_RESMF_SOC_DOC}+{RD_RESMF_HUM_DOC})+{RD_OTHMF_DOC}+{RD_RESMF_HIGH}+{RD_OTHMF_HIGH}+{RD_OTHMF_SECN})=({RD_RESMF_NAT}+{RD_OTHMF_NAT})+{RD_TOTALMF_ENG}+{RD_RESMF_MED}+{RD_OTHMF_MED}+{RD_RESMF_AGR}+{RD_OTHMF_AGR}+{RD_RESMF_SOC}+{RD_OTHMF_SOC}+{RD_RESMF_HUM}+{RD_OTHMF_HUM})	The total number of R&D personnel by level of education must be equal to the number of R&D personnel by field of science. (Table 2. row 4 column 5 must be equal Table 1.1 row 5 column 7)	Error
33287	((RD_RESF_DOC)+{RD_OTHF_DOC})+{RD_RESF_HIGH}+{RD_OTHF_HIGH}+{RD_OTHF_SECN})=({RD_RESF_NAT}+{RD_OTHF_NAT})+{RD_RESF_ENG}+{RD_OTHF_ENG}+{RD_RESF_MED}+{RD_OTHF_MED}+{RD_RESF_AGR}+{RD_OTHF_AGR}+{RD_RESF_SOC}+{RD_OTHF_SOC}+{RD_RESF_HUM}+{RD_OTHF_HUM})	The total number of female R&D personnel by level of education must be equal to the number of female R&D personnel by field of science. (Table 2. row 4 column 6 must be equal Table 1.1. row 6 column 7)	Error
33288	((RD_RESMF_AGE1)+{RD_RESMF_AGE2}+{RD_RESMF_AGE3}+{RD_RESMF_AGE4}+{RD_RESMF_AGE5}+{RD_RESMF_AGE6})=({RD_RESMF_NAT}+{RD_RESMF_ENG}+{RD_RESMF_MED}+{RD_RESMF_AGR}+{RD_RESMF_SOC}+{RD_RESMF_HUM})	The total number of researchers and engineers by age must be equal to the total number of researchers and engineers by field of science. (Table 3. row 1 column 1 must equal Table 1.1. row 1 column 7)	Error
33289	((RD_RESF_AGE1)+{RD_RESF_AGE2}+{RD_RESF_AGE3}+{RD_RESF_AGE4}+{RD_RESF_AGE5}+{RD_RESF_AGE6})=({RD_RESF_NAT}+{RD_RESF_ENG}+{RD_RESF_MED}+{RD_RESF_AGR}+{RD_RESF_SOC}+{RD_RESF_HUM})	The total number of female researchers and engineers by age must be equal to the total number of female researchers and engineers by field of science. (Table 3. row 2 column 1 must equal Table 1.1. row 2 column 7)	Error
33290	{ESTAT_1}<=({RD_RESMF_NAT}+{RD_RESMF_ENG}+{RD_RESMF_MED}+{RD_RESMF_AGR}+{RD_RESMF_SOC}+{RD_RESMF_HUM})	The number of researchers and engineers with foreign citizenship must be smaller than or equal to the total number of researchers and engineers by field of science. (Table 5. column 2 kokku must be smaller or equal Table 1.1 row 1 column 7)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

33291	{ESTAT_2}<=({RD_RESF_NAT}+{RD_RESF_ENG}+{RD_RESF_MED}+{RD_RESF_AGR}+{RD_RESF_SOC}+{RD_RESF_HUM})	The number of female researchers and engineers with foreign citizenship must be smaller than or equal to the total number of female researchers and engineers by field of science. (Table 5. column 3 kokku must be smaller or equal Table 1.1. row 2 column 7)	Error
33292	((RD_EXP_GOV17)+{RD_EXP_GOV18}+{RD_EXP_GOV15}+{RD_EXP_GOV16})=({RD_EXP_NAT_GOV}+{RD_EXP_ENG_GOV}+{RD_EXP_MED_GOV}+{RD_EXP_AGR_GOV}+{RD_EXP_SOC_GOV}+{RD_EXP_HUM_GOV})	Total R&D expenditures financed from state funds must be equal to the sum of R&D expenditures financed from state funds by field of science. (Table 7. row 5 column 1 must be equal Table 6. row 7 column 2)	Error
33293	((RD_EXP_FOR11)+{RD_EXP_FOR12}+{RD_EXP_FOR13}+{RD_EXP_FOR14})=({RD_EXP_NAT_FOR}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_FOR})	Total R&D expenditures financed from foreign sources must be equal to the sum of R&D expenditures financed from foreign sources by field of science. (Table 7. row 5 column 11 must be equal Table 6. row 7 column 6)	Error
33294	((RD_EXP_NAT_GOV)+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR})=({RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR})	Total R&D expenditures by source of funding must be equal to the distribution of R&D costs by type of cost. (Table 8. row 1 column 1 must be equal Table 6. row 7 column 1)	Error
33295	((RD_EXP_NAT_GOV)+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR})=({RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR})	Total R&D expenditures by type of activity must be equal to total R&D expenditures by source of funding. (Table 9. row 7 column 1 must equal Table 6. row 7 column 1)	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	P_ENG_BES)+(RD_EXP_ENG_PNP)+(RD_EXP_ENG_HES)+(RD_EXP_ENG_FOR)+(RD_EXP_MED_GOV)+(RD_EXP_MED_BES)+(RD_EXP_MED_PNP)+(RD_EXP_MED_HES)+(RD_EXP_MED_FOR)+(RD_EXP_AGR_GOV)+(RD_EXP_AGR_BES)+(RD_EXP_AGR_PNP)+(RD_EXP_AGR_HES)+(RD_EXP_AGR_FOR)+(RD_EXP_SOC_GOV)+(RD_EXP_SOC_BES)+(RD_EXP_SOC_PNP)+(RD_EXP_SOC_HES)+(RD_EXP_SOC_FOR)+(RD_EXP_HUM_GOV)+(RD_EXP_HUM_BES)+(RD_EXP_HUM_PNP)+(RD_EXP_HUM_HES)+(RD_EXP_HUM_FOR))		
33296	((RD_EXP_NAT_BAS)+(RD_EXP_NAT_APP)+(RD_EXP_NAT_EXW))=((RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR))	Total R&D expenditures by type of activity in natural sciences must be equal to total R&D expenditures by source of funding in natural sciences. (Table 9. row 1 column 1 must equal Table 6. row 1 column 1)	Error
33297	((RD_EXP_ENG_BAS)+(RD_EXP_ENG_APP)+(RD_EXP_ENG_EXW))=((RD_EXP_ENG_GOV)+(RD_EXP_ENG_BES)+(RD_EXP_ENG_PNP)+(RD_EXP_ENG_HES)+(RD_EXP_ENG_FOR))	Total R&D expenditures by type of activity in engineering and technology sciences must be equal to total R&D expenditures by source of funding in engineering and technology sciences. (Table 9. row 2 column 1 must equal Table 6. row 2 column 1)	Error
33298	((RD_EXP_MED_BAS)+(RD_EXP_MED_APP)+(RD_EXP_MED_EXW))=(RD_EXP_MED_FIN)	Total R&D expenditures by type of activity in medical and health sciences must be equal to total R&D expenditures by source of funding in medical and health sciences. (Table 9. row 3 column 1 must equal Table 6. row 3 column 1)	Error
33299	((RD_EXP_AGR_BAS)+(RD_EXP_AGR_APP)+(RD_EXP_AGR_EXW))=((RD_EXP_AGR_GOV)+(RD_EXP_AGR_BES)+(RD_EXP_AGR_PNP)+(RD_EXP_AGR_HES)+(RD_EXP_AGR_FOR))	Total R&D expenditures by type of activity in agricultural and veterinary sciences must be equal to total R&D expenditures by source of funding in agricultural and veterinary sciences. (Table 9. row 4 column 1 must equal Table 6. row 4 column 1)	Error
33300	((RD_EXP_SOC_BAS)+(RD_EXP_SOC_APP)+(RD_EXP_SOC_EXW))=((RD_EXP_SOC_GOV)+(RD_EXP_SOC_BES)+(RD_EXP_SOC_PNP)+(RD_EXP_SOC_HES)+(RD_EXP_SOC_FOR))	Total R&D expenditures by type of activity in social sciences must be equal to total R&D expenditures by source of funding in social sciences. (Table 9. row 5 column 1 must equal Table 6. row 5 column 1)	Error
33301	((RD_EXP_HUM_BAS)+(RD_EXP_HUM_APP)+(RD_EXP_HUM_EXW))=((RD_EXP_HUM_GOV)+(RD_EXP_HUM_BES)+(RD_EXP_HUM_PNP)+(RD_EXP_HUM_HES)+(RD_EXP_HUM_FOR))	Total R&D expenditures by type of activity in humanities and the arts must be equal to total R&D expenditures by source of funding in humanities and the arts. (Table 9. row 6 column 1 must equal Table 6. row 6 column 1)	Error
33302	{RD_NABS99}={(RD_EXP_NAT_GOV)+(RD_EXP_NAT_BES)+(RD_EXP_NAT_PNP)+(RD_EXP_NAT_HES)+(RD_EXP_NAT_FOR)+(RD_EXP_ENG_GOV)+(RD_EXP_ENG_BES)+(RD_EXP_ENG_PNP)+(RD_EXP_ENG_HES)+(RD_EXP_ENG_FOR)+(RD_EXP_MED_GOV)+(RD_EXP_MED_BES)+(RD_EXP_MED_PNP)+(RD_EXP_MED_HES)+(RD_EXP_MED_FOR)+(RD_EXP_AGR_GOV)+(RD_EXP_AGR_BES)+(RD_EXP_AGR_PNP)+(RD_EXP_AGR_HES)+(RD_EXP_AGR_FOR)+(RD_EXP_SOC_GOV)+(RD_EXP_SOC_BES)+(RD_EXP_SOC_PNP)+(RD_EXP_SOC_HES)+(RD_EXP_SOC_FOR)+(RD_EXP_HUM_GOV)+(RD_EXP_HUM_BES)+(RD_EXP_HUM_PNP)+(RD_EXP_HUM_HES)+(RD_EXP_HUM_FOR))	Total R&D expenditures by field of application must be equal to the sum of R&D expenditures by source of funding. (Table 10. row K_14 column 1 must be equal Table 6. row 7 column 1 value)	Error
33793	((RD_RESMF_NAT_DOC)+(RD_RESMF_ENG_DOC)+(RD_RESMF_MED_DOC)+(RD_RESMF_AGR_DOC)+(RD_RESMF_SOC_DOC)+(RD_RESMF_HUM_DOC))=(RD_RESMF_DOC)	The number of researchers and engineers with a doctoral degree by field of science must be equal to the number of researchers and engineers with a doctoral degree by occupation and level of education. (Table 4. row7 column1 must equal Table 2 row 1 column 1)	Error
33794	((RD_RESF_NAT_DOC)+(RD_RESF_ENG_DOC)+(RD_RESF_MED_DOC)+(RD_RESF_AGR_DOC)+(RD_RESF_SOC_DOC)+(RD_RESF_HUM_DOC))=(RD_RESF_DOC)	The number of female researchers and engineers with a doctoral degree by field of science must be equal to	Error

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

	ESF_MED_DOC)+{RD_RESF_AGR_DOC)+{RD_RESF_SOC_DOC)+{RD_RESF_HUM_DOC}}={RD_RESF_DOC}	the number of female researchers and engineers with a doctoral degree by occupation and level of education. (Table 4. row 7 column 2 must equal Table 2 row 1 column 2)	
--	---	---	--

AUTOSUMS

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

Row name	Column name	Formula	Clarification
Scientists and engineers	TOTAL	{RD_RESMF_NAT}+{RD_RESMF_ENG}+{RD_RESMF_MED}+{RD_RESMF_AGR}+{RD_RESMF_SOC}+{RD_RESMF_HUM}	
Scientists and engineers	Data from table 5. Displayed after saving.	{RD_RESMF_FOR}	
.. women	TOTAL	{RD_RESF_NAT}+{RD_RESF_ENG}+{RD_RESF_MED}+{RD_RESF_AGR}+{RD_RESF_SOC}+{RD_RESF_HUM}	Sum of columns 1–6. Summed automatically if filled in online.
.. women	Data from table 5. Displayed after saving.	{RD_RESF_FOR}	
Technicians	TOTAL	{RD_OTHMF_NAT}+{RD_OTHMF_ENG}+{RD_OTHMF_MED}+{RD_OTHMF_AGR}+{RD_OTHMF_SOC}+{RD_OTHMF_HUM}	
.. women	TOTAL	{RD_OTHF_NAT}+{RD_OTHF_ENG}+{RD_OTHF_MED}+{RD_OTHF_AGR}+{RD_OTHF_SOC}+{RD_OTHF_HUM}	
TOTAL assistant personnel	Natural sciences	{RD_RESMF_NAT}+{RD_OTHMF_NAT}	
TOTAL assistant personnel	Engineering sciences	{RD_RESMF_ENG}+{RD_OTHMF_ENG}	
TOTAL assistant personnel	Medical science	{RD_RESMF_MED}+{RD_OTHMF_MED}	
TOTAL assistant personnel	Agricultural sciences	{RD_RESMF_AGR}+{RD_OTHMF_AGR}	
TOTAL assistant personnel	Social sciences	{RD_RESMF_SOC}+{RD_OTHMF_SOC}	
TOTAL assistant personnel	Humanities	{RD_RESMF_HUM}+{RD_OTHMF_HUM}	
TOTAL assistant personnel	TOTAL	{RD_TOTALMF_NAT}+{RD_TOTALMF_ENG}+{RD_TOTALMF_MED}+{RD_TOTALMF_AGR}+{RD_TOTALMF_SOC}+{RD_TOTALMF_HUM}	
TOTAL assistant personnel, women	Natural sciences	{RD_RESF_NAT}+{RD_OTHF_NAT}	
TOTAL assistant personnel, women	Engineering sciences	{RD_RESF_ENG}+{RD_OTHF_ENG}	
TOTAL assistant personnel, women	Medical science	{RD_RESF_MED}+{RD_OTHF_MED}	
TOTAL assistant personnel, women	Agricultural sciences	{RD_RESF_AGR}+{RD_OTHF_AGR}	
TOTAL assistant personnel, women	Social sciences	{RD_RESF_SOC}+{RD_OTHF_SOC}	
TOTAL assistant personnel, women	Humanities	{RD_RESF_HUM}+{RD_OTHF_HUM}	
TOTAL assistant personnel, women	TOTAL	{RD_TOTALF_NAT}+{RD_TOTALF_ENG}+{RD_TOTALF_MED}+{RD_TOTALF_AGR}+{RD_TOTALF_SOC}+{RD_TOTALF_HUM}	

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

Autosums in table 1.2. NUMBER OF EMPLOYEES ENGAGED IN RESEARCH AND DEVELOPMENT IN THE REFERENCE YEAR IN FULL-TIME EQUIVALENTS

Row name	Column name	Formula	Clarification
Scientists and engineers	Total	{RD_RESMF_FTE_NAT}+{RD_RESMF_FTE_ENG}+{RD_RESMF_FTE_MED}+{RD_RESMF_FTE_AGR}+{RD_RESMF_FTE_SOC}+{RD_RESMF_FTE_HUM}	
.. women	Total	{RD_RESF_FTE_NAT}+{RD_RESF_FTE_ENG}+{RD_RESF_FTE_MED}+{RD_RESF_FTE_AGR}+{RD_RESF_FTE_SOC}+{RD_RESF_FTE_HUM}	Sum of columns 1–6. Summed automatically if filled in online.
Technicians	Total	{RD_OTHMF_FTE_NAT}+{RD_OTHMF_FTE_ENG}+{RD_OTHMF_FTE_MED}+{RD_OTHMF_FTE_AGR}+{RD_OTHMF_FTE_SOC}+{RD_OTHMF_FTE_HUM}	
.. women	Total	{RD_OTHF_FTE_NAT}+{RD_OTHF_FTE_ENG}+{RD_OTHF_FTE_MED}+{RD_OTHF_FTE_AGR}+{RD_OTHF_FTE_SOC}+{RD_OTHF_FTE_HUM}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Natural sciences	{RD_RESMF_FTE_NAT}+{RD_OTHMF_FTE_NAT}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Engineering sciences	{RD_RESMF_FTE_ENG}+{RD_OTHMF_FTE_ENG}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Medical science	{RD_RESMF_FTE_MED}+{RD_OTHMF_FTE_MED}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Agricultural sciences	{RD_RESMF_FTE_AGR}+{RD_OTHMF_FTE_AGR}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Social sciences	{RD_RESMF_FTE_SOC}+{RD_OTHMF_FTE_SOC}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Humanities	{RD_RESMF_FTE_HUM}+{RD_OTHMF_FTE_HUM}	
TOTAL R&D personnel in full-time equivalents (autosum of rows 1+3)	Total	{RD_TOTALMF_FTE_NAT}+{RD_TOTALMF_FTE_ENG}+{RD_TOTALMF_FTE_MED}+{RD_TOTALMF_FTE_AGR}+{RD_TOTALMF_FTE_SOC}+{RD_TOTALMF_FTE_HUM}	
TOTAL FEMALE R&D personnel in full-time equivalents (autosum of rows 2+4)	Natural sciences	{RD_RESF_FTE_NAT}+{RD_OTHF_FTE_NAT}	
TOTAL FEMALE R&D personnel in full-time equivalents (autosum of rows 2+4)	Engineering sciences	{RD_RESF_FTE_ENG}+{RD_OTHF_FTE_ENG}	
TOTAL FEMALE R&D personnel in full-time equivalents (autosum of rows 2+4)	Medical science	{RD_RESF_FTE_MED}+{RD_OTHF_FTE_MED}	
TOTAL FEMALE R&D personnel in full-time equivalents (autosum of rows 2+4)	Agricultural sciences	{RD_RESF_FTE_AGR}+{RD_OTHF_FTE_AGR}	
TOTAL FEMALE R&D	Social sciences	{RD_RESF_FTE_SOC}+{RD_OTHF_FTE_SOC}	

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

personnel in full-time equivalents (autosum of rows 2+4)			
TOTAL FEMALE R&D personnel in full-time equivalents (autosum of rows 2+4)	Humanities	{RD_RESF_FTE_HUM}+{RD_OTHF_FTE_HUM}	
TOTAL FEMALE R&D personnel in full-time equivalents (autosum of rows 2+4)	Total	{RD_TOTALF_FTE_NAT}+{RD_TOTALF_FTE_ENG}+{RD_TOTALF_FTE_MED}+{RD_TOTALF_FTE_AGR}+{RD_TOTALF_FTE_SOC}+{RD_TOTALF_FTE_HUM}	

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

Row name	Column name	Formula	Clarification
Doctor	TOTAL R&D personnel by level of education (autosum of columns 1+3)	{RD_RESMF_DOC}+{RD_OTHMF_DOC}	
Doctor	TOTAL women	{RD_RESF_DOC}+{RD_OTHF_DOC}	
Master	TOTAL R&D personnel by level of education (autosum of columns 1+3)	{RD_RESMF_HIGH}+{RD_OTHMF_HIGH}	
Master	TOTAL women	{RD_RESF_HIGH}+{RD_OTHF_HIGH}	
Vocational secondary education	TOTAL R&D personnel by level of education (autosum of columns 1+3)	{RD_OTHMF_SECN}	
Vocational secondary education	TOTAL women	{RD_OTHF_SECN}	
TOTAL	Scientists and engineers, men	{RD_RESMF_DOC}+{RD_RESMF_HIGH}	
TOTAL	.. cientists and engineers, women	{RD_RESF_DOC}+{RD_RESF_HIGH}	
TOTAL	Technicians	{RD_OTHMF_DOC}+{RD_OTHMF_HIGH}+{RD_OTHMF_SECN}	
TOTAL	.. technicians, women	{RD_OTHF_DOC}+{RD_OTHF_HIGH}+{RD_OTHF_SECN}	
TOTAL	TOTAL R&D personnel by level of education (autosum of	{RD_PERMF_DOC}+{RD_PERMF_HIGH}+{RD_OTHMF_SECN}	

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

p. 27/30

	columns 1+3)		
TOTAL	TOTAL women	{RD_PERF_DOC}+{RD_PERF_HIGH}+{RD_OTHE_SECN}	

Autosums in 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))

Row name	Column name	Formula	Clarification
TOTAL	Total scientists and engineers	{RD_RESMF_AGE1}+{RD_RESMF_AGE2}+{RD_RESMF_AGE3}+{RD_RESMF_AGE4}+{RD_RESMF_AGE5}+{RD_RESMF_AGE6}	
.. women	Total scientists and engineers	{RD_RESF_AGE1}+{RD_RESF_AGE2}+{RD_RESF_AGE3}+{RD_RESF_AGE4}+{RD_RESF_AGE5}+{RD_RESF_AGE6}	Sum of columns 2–7. Summed automatically if filled in online. Total number of female scientists and engineers by age on row 1 column 1 must correspond to the data indicated in Table 1.1 row 2 column 7.

Autosums in 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))

Row name	Column name	Formula	Clarification
TOTALI	TOTAL Researchers and engineers who have a doctoral degree	{RD_RESMF_NAT_DOC}+{RD_RESMF_ENG_DOC}+{RD_RESMF_MED_DOC}+{RD_RESMF_AGR_DOC}+{RD_RESMF_SOC_DOC}+{RD_RESMF_HUM_DOC}	
TOTALI	.. doctors, women	{RD_RESF_NAT_DOC}+{RD_RESF_ENG_DOC}+{RD_RESF_MED_DOC}+{RD_RESF_AGR_DOC}+{RD_RESF_SOC_DOC}+{RD_RESF_HUM_DOC}	Sum of rows 1..6. Summed automatically if filled in online.

Autosums in table 6. COSTS ON RESEARCH AND DEVELOPMENT BY SOURCES OF FUNDING AND SCIENTIFIC AREAS, EUROS

Row name	Column name	Formula	Clarification
Natural sciences	Total costs	{RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}	Sum of columns 2–6. Summed automatically if filled in online.
Engineering sciences	Total costs	{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}	Sum of columns 2–6. Summed automatically if filled in online.
Medical science	Total costs	{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}	Sum of columns 2–6. Summed automatically if filled in online.
Agricultural sciences	Total costs	{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}	Sum of columns 2–6. Summed automatically if filled in online.
Social sciences	Total costs	{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}	Sum of columns 2–6. Summed automatically if filled in online.
Humanities	Total costs	{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR}	Sum of columns 2–6. Summed automatically if filled in online.
TOTAL	Total costs	{RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}	Sum of rows 1..6. Summed automatically if filled in online.

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

		$C_PNP\}+\{RD_EXP_SOC_HES\}+\{RD_EXP_SOC_FOR\}+\{RD_EXP_HUM_GOV\}+\{RD_EXP_HUM_BES\}+\{RD_EXP_HUM_PNP\}+\{RD_EXP_HUM_HES\}+\{RD_EXP_HUM_FOR\}$	
TOTAL	Country	$\{RD_EXP_NAT_GOV\}+\{RD_EXP_ENG_GOV\}+\{RD_EXP_MED_GOV\}+\{RD_EXP_AGR_GOV\}+\{RD_EXP_SOC_GOV\}+\{RD_EXP_HUM_GOV\}$	Sum of rows 1...6. Summed automatically if filled in online.
TOTAL	Companies	$\{RD_EXP_NAT_BES\}+\{RD_EXP_ENG_BES\}+\{RD_EXP_MED_BES\}+\{RD_EXP_AGR_BES\}+\{RD_EXP_SOC_BES\}+\{RD_EXP_HUM_BES\}$	Sum of rows 1...6. Summed automatically if filled in online.
TOTAL	Non-profit private sector	$\{RD_EXP_NAT_PNP\}+\{RD_EXP_ENG_PNP\}+\{RD_EXP_MED_PNP\}+\{RD_EXP_AGR_PNP\}+\{RD_EXP_SOC_PNP\}+\{RD_EXP_HUM_PNP\}$	Sum of rows 1...6. Summed automatically if filled in online.
TOTAL	Universities and higher education institutions	$\{RD_EXP_NAT_HES\}+\{RD_EXP_ENG_HES\}+\{RD_EXP_MED_HES\}+\{RD_EXP_AGR_HES\}+\{RD_EXP_SOC_HES\}+\{RD_EXP_HUM_HES\}$	Sum of rows 1...6. Summed automatically if filled in online.
TOTAL	Foreign sources	$\{RD_EXP_NAT_FOR\}+\{RD_EXP_ENG_FOR\}+\{RD_EXP_MED_FOR\}+\{RD_EXP_AGR_FOR\}+\{RD_EXP_SOC_FOR\}+\{RD_EXP_HUM_FOR\}$	Sum of rows 1...6. Summed automatically if filled in online.

Autosums in table 7. COSTS ON RESEARCH AND DEVELOPMENT BY NATIONAL AND FOREIGN SOURCES OF FUNDING

Row name	Column name	Formula	Clarification
TOTAL state funds	Total costs, euros	$\{RD_EXP_GOV17\}+\{RD_EXP_GOV18\}+\{RD_EXP_GOV15\}+\{RD_EXP_GOV16\}$	
TOTAL foreign sources (value displayed from rows 7...10)	Total costs, euros	$\{RD_EXP_FOR11\}+\{RD_EXP_FOR12\}+\{RD_EXP_FOR13\}+\{RD_EXP_FOR14\}$	Table 7 row 12 column 1 = Table 6 row 7 column 6

Autosums in table 8. COSTS ON RESEARCH AND DEVELOPMENT BY TYPE OF COSTS, EUROS

Row name	Column name	Formula	Clarification
Total costs (prefilled value will be displayed from Table 6 row 7 column 1 after saving)	TOTAL	$\{RD_EXP_NAT_GOV\}+\{RD_EXP_NAT_BES\}+\{RD_EXP_NAT_PNP\}+\{RD_EXP_NAT_HES\}+\{RD_EXP_NAT_FOR\}+\{RD_EXP_ENG_GOV\}+\{RD_EXP_ENG_BES\}+\{RD_EXP_ENG_PNP\}+\{RD_EXP_ENG_HES\}+\{RD_EXP_ENG_FOR\}+\{RD_EXP_MED_GOV\}+\{RD_EXP_MED_BES\}+\{RD_EXP_MED_PNP\}+\{RD_EXP_MED_HES\}+\{RD_EXP_MED_FOR\}+\{RD_EXP_AGR_GOV\}+\{RD_EXP_AGR_BES\}+\{RD_EXP_AGR_PNP\}+\{RD_EXP_AGR_HES\}+\{RD_EXP_AGR_FOR\}+\{RD_EXP_SOC_GOV\}+\{RD_EXP_SOC_BES\}+\{RD_EXP_SOC_PNP\}+\{RD_EXP_SOC_HES\}+\{RD_EXP_SOC_FOR\}+\{RD_EXP_HUM_GOV\}+\{RD_EXP_HUM_BES\}+\{RD_EXP_HUM_PNP\}+\{RD_EXP_HUM_HES\}+\{RD_EXP_HUM_FOR\}$	

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

Row name	Column name	Formula	Clarification
Natural sciences	Total costs	$\{RD_EXP_NAT_BAS\}+\{RD_EXP_NAT_APP\}+\{RD_EXP_NAT_EXW\}$	Sum of columns 2–4. Summed automatically if filled in online. Must correspond to the data indicated in Table 6 row “Natural sciences” in column 1.
Engineering sciences	Total costs	$\{RD_EXP_ENG_BAS\}+\{RD_EXP_ENG_APP\}+\{RD_EXP_ENG_EXW\}$	Sum of columns 2–4. Summed automatically if filled in online. Must correspond to the data indicated in Table 6 row “Engineering sciences” in column 1.

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

Medical science	Total costs	{RD_EXP_MED_BAS}+{RD_EXP_MED_APP}+{RD_EXP_MED_EXW}	Sum of columns 2–4. Summed automatically if filled in online. Must correspond to the data indicated in Table 6 row “Medical science” in column 1.
Agricultural sciences	Total costs	{RD_EXP_AGR_BAS}+{RD_EXP_AGR_APP}+{RD_EXP_AGR_EXW}	Sum of columns 2–4. Summed automatically if filled in online. Must correspond to the data indicated in Table 6 row “Agricultural sciences” in column 1.
Social sciences	Total costs	{RD_EXP_SOC_BAS}+{RD_EXP_SOC_APP}+{RD_EXP_SOC_EXW}	Sum of columns 2–4. Summed automatically if filled in online. Must correspond to the data indicated in Table 6 row “Social sciences” in column 1.
Humanities	Total costs	{RD_EXP_HUM_BAS}+{RD_EXP_HUM_APP}+{RD_EXP_HUM_EXW}	Sum of columns 2–4. Summed automatically if filled in online. Must correspond to the data indicated in Table 6 row “Humanities” in column 1.
TOTAL	Total costs	{RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR}	Table 9 row 7 column 1 = Table 6 row 7 column 1
TOTAL	.. on basic research	{RD_EXP_NAT_BAS}+{RD_EXP_ENG_BAS}+{RD_EXP_MED_BAS}+{RD_EXP_AGR_BAS}+{RD_EXP_SOC_BAS}+{RD_EXP_HUM_BAS}	Sum of rows 01–06. Summed automatically if filled in online.
TOTAL	.. on applied research	{RD_EXP_NAT_APP}+{RD_EXP_ENG_APP}+{RD_EXP_MED_APP}+{RD_EXP_AGR_APP}+{RD_EXP_SOC_APP}+{RD_EXP_HUM_APP}	Sum of rows 1...6. Summed automatically if filled in online.
TOTAL	.. on experimental development works	{RD_EXP_NAT_EXW}+{RD_EXP_ENG_EXW}+{RD_EXP_MED_EXW}+{RD_EXP_AGR_EXW}+{RD_EXP_SOC_EXW}+{RD_EXP_HUM_EXW}	Sum of rows 1...6. Summed automatically if filled in online.

Autosums in table 10. COSTS ON RESEARCH AND DEVELOPMENT BY FIELDS OF APPLICATION, EUROS

Row name	Column name	Formula	Clarification
	Total costs	{RD_NABS08}+{RD_NABS06}+{RD_NABS05}+{RD_NABS04}+{RD_NABS02}+{RD_NABS07}+{RD_NABS10}+{RD_NABS09}+{RD_NABS11}+{RD_NABS01}+{RD_NABS03}+{RD_NABS14}+{RD_NABS13}	
	.. funded from state funds	{RD_NABS08_GOV}+{RD_NABS06_GOV}+{RD_NABS05_GOV}+{RD_NABS04_GOV}+{RD_NABS02_GOV}+{RD_NABS07_GOV}+{RD_NABS10_GOV}+{RD_NABS09_GOV}+{RD_NABS11_GOV}+{RD_NABS01_GOV}+{RD_NABS03_GOV}+{RD_NABS14_GOV}+{RD_NABS13_GOV}	
TOTAL COSTS (prefilled value will be displayed from Table 6 row 7 after saving)	Total costs	{RD_EXP_NAT_GOV}+{RD_EXP_NAT_BES}+{RD_EXP_NAT_PNP}+{RD_EXP_NAT_HES}+{RD_EXP_NAT_FOR}+{RD_EXP_ENG_GOV}+{RD_EXP_ENG_BES}+{RD_EXP_ENG_PNP}+{RD_EXP_ENG_HES}+{RD_EXP_ENG_FOR}+{RD_EXP_MED_GOV}+{RD_EXP_MED_BES}+{RD_EXP_MED_PNP}+{RD_EXP_MED_HES}+{RD_EXP_MED_FOR}+{RD_EXP_AGR_GOV}+{RD_EXP_AGR_BES}+{RD_EXP_AGR_PNP}+{RD_EXP_AGR_HES}+{RD_EXP_AGR_FOR}+{RD_EXP_SOC_GOV}+{RD_EXP_SOC_BES}+{RD_EXP_SOC_PNP}+{RD_EXP_SOC_HES}+{RD_EXP_SOC_FOR}+{RD_EXP_HUM_GOV}+{RD_EXP_HUM_BES}+{RD_EXP_HUM_PNP}+{RD_EXP_HUM_HES}+{RD_EXP_HUM_FOR}	Table 10 row 14 column 1 = Table 6 row 7 column 1

Research and development (R&D)

Code of the questionnaire: 11332023

Is submitted: 1.03.2023, data about 2022

		$C_PNP\}+\{RD_EXP_SOC_HES\}+\{RD_EXP_SOC_FOR\}+\{RD_EXP_HUM_GOV\}+\{RD_EXP_HUM_BES\}+\{RD_EXP_HUM_PNP\}+\{RD_EXP_HUM_HES\}+\{RD_EXP_HUM_FOR\}$	
TOTAL COSTS (prefilled value will be displayed from Table 6 row 7 after saving)	.. funded from state funds	$\{RD_EXP_NAT_GOV\}+\{RD_EXP_ENG_GOV\}+\{RD_EXP_MED_GOV\}+\{RD_EXP_AGR_GOV\}+\{RD_EXP_SOC_GOV\}+\{RD_EXP_HUM_GOV\}$	Table 6 row 7 column 2 = Table 10 row 14 column 2