

EUROCAT Data Management Software

Analyse data

Statistical surveillance - Trends

Introduction

- DMS performs the **trends analysis** according to the methodology described in the [Statistical monitoring protocol](#).
- The analysis can run on **one or several centres**. If two or more centres are selected, the program also outputs pan-centre/pan-European results, based on the aggregation of the data from the individual centres selected.
- [Section 1](#) (respectively [section 2](#)) shows how the trends analysis run for 1 registry selected (resp. 2 or more registries selected)
- The trends analysis requires to install the « **R distribution for Eurocat DMS.msi** » and to save the appropriate collection of R libraries. Please, follow instructions in [section 3](#).

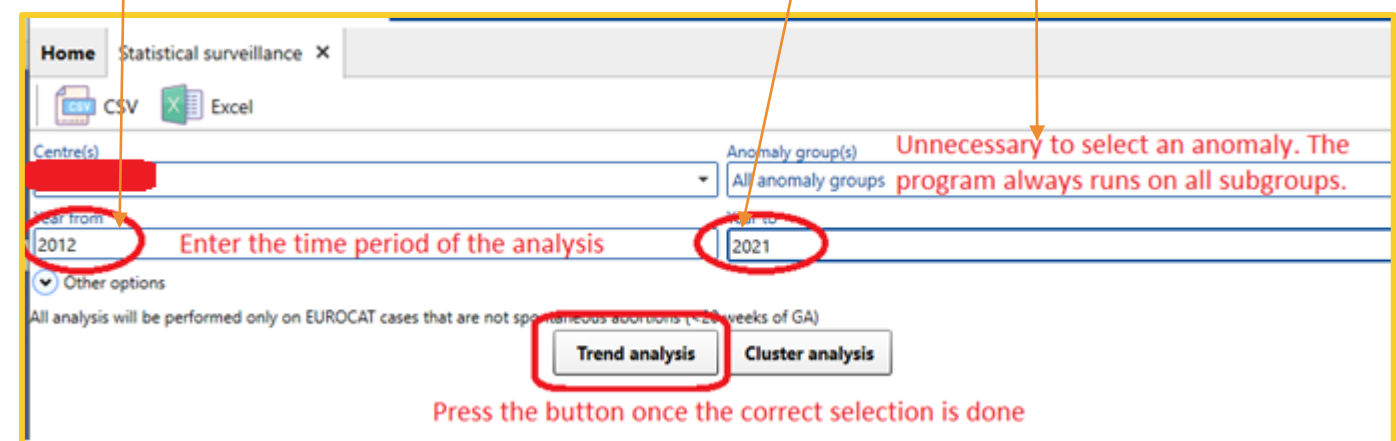
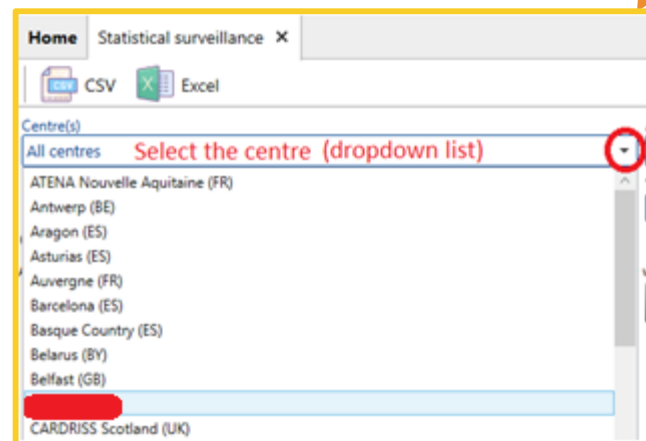
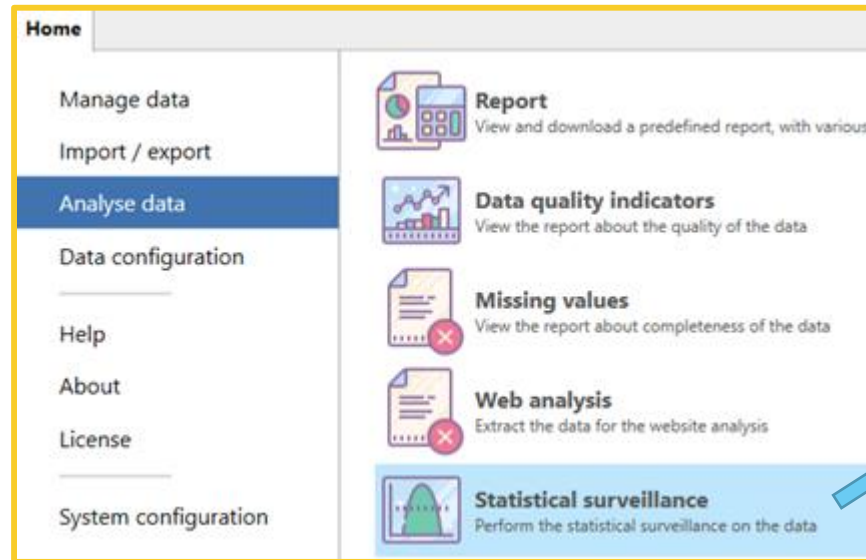
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 - a. [Install the *R* distribution for Eurocat DMS.msi](#)
 - b. [New R libraries for DMS](#)

1. Run trends analysis for 1 registry

Run trends analysis in the DMS

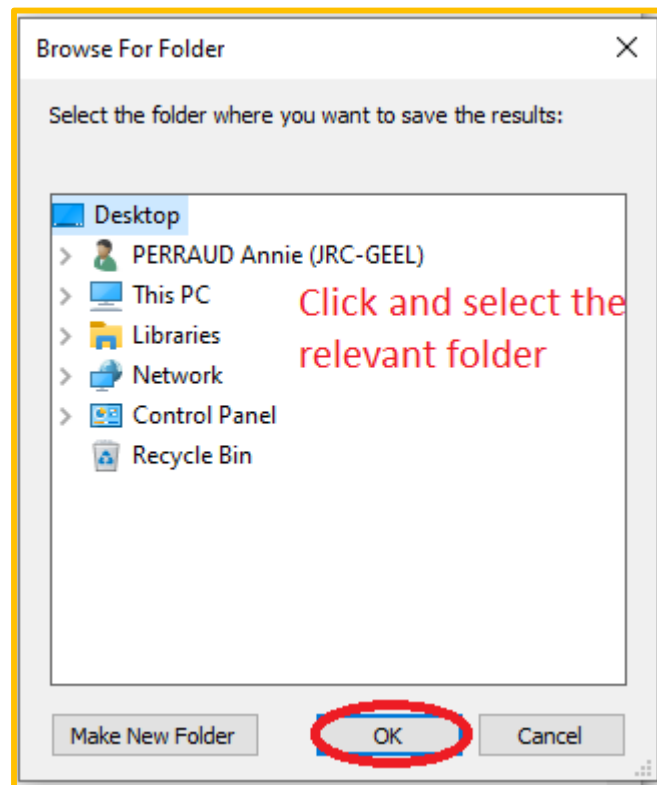
1 local registry selected



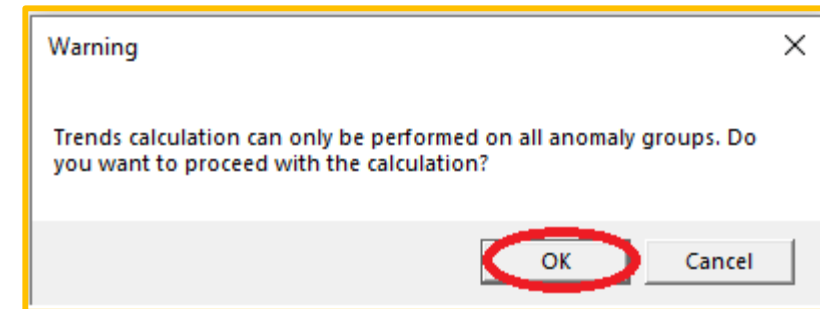
Run trends analysis in the DMS

1 local registry selected

1. A pop-up window asks to locate the folder where you want to save the outputs of the R script (graphs and csv).



2. A pop-up message warns that the analysis will run on all the anomaly subgroups.



Run trends analysis in the DMS

1 local registry selected

Once the analysis has run, DMS displays:

1. a table with the total number of births in the selected registry

Births - [REDACTED]

year	total	
2012	36933	
2013	35899	
2014	35346	
2015	33849	
2016	33026	
2017	32484	
2018	32025	
2019	31734	
2020	31329	
2021	32448	

2. a summary of the detected trends in the selected registry

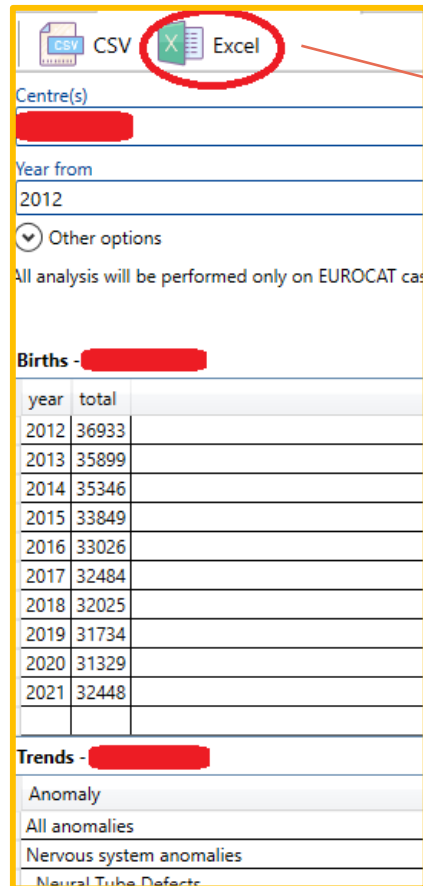
Trends - [REDACTED]

Anomaly	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	SlopeAndPercentageChange
All anomalies	1126	1037	968	1001	955	1014	1036	1067	990	960	10154	Increasing: 1.0% (95% CI 0.4% to 1.7%)
Nervous system anomalies	83	78	87	121	89	118	80	105	95	96	952	Increasing: 3.2% (95% CI 1.0% to 5.5%)
Neural Tube Defects	39	36	42	60	37	49	44	46	41	49	443	
Anencephaly and similar	20	14	13	29	19	24	25	21	18	27	210	Increasing: 5.4% (95% CI 0.6% to 10.4%)
Encephalocele and meningocele	5	6	5	7	5	6	1	6	4	3	48	
Spina Bifida	14	16	24	24	13	19	18	19	19	19	185	
Hydrocephaly	9	14	5	11	7	10	4	7	8	8	83	
Severe microcephaly	4	5	2	5	7	6	1	4	4	4	42	
Arhinencephaly / holoprosencephaly	3	2	8	7	4	8	4	4	4	2	46	
Agenesis of corpus callosum	9	3	15	10	9	11	4	4	10	3	78	
Eye anomalies	11	13	8	11	19	17	24	25	25	22	175	Increasing: 13.1% (95% CI 7.3% to 19.1%)
Anophthalmos / microphthalmos	3	3	2	2	3	2	2	3	5	4	29	
Anophthalmos	1	1	1	1	0	0	0	0	0	1	5	
Congenital cataract	6	5	2	4	8	5	7	12	7	8	64	Increasing: 10.5% (95% CI 1.4% to 20.1%)
Congenital glaucoma	0	2	0	1	0	0	2	0	2	2	9	
Ear, face and neck anomalies	6	7	6	5	4	7	4	11	7	3	60	
Anotia and atresia / stenosis / stricture of external auditory canal	4	5	5	5	3	4	1	5	6	2	40	
Congenital Heart Defects	418	389	353	347	304	332	341	343	326	281	3434	Decreasing: -1.3% (95% CI -2.4% to -0.2%)
Severe congenital heart defects	68	82	68	76	58	79	73	81	81	50	716	
Common arterial truncus	0	2	1	2	0	2	0	1	0	0	8	
Double outlet right ventricle	1	5	1	7	8	4	8	7	8	0	49	

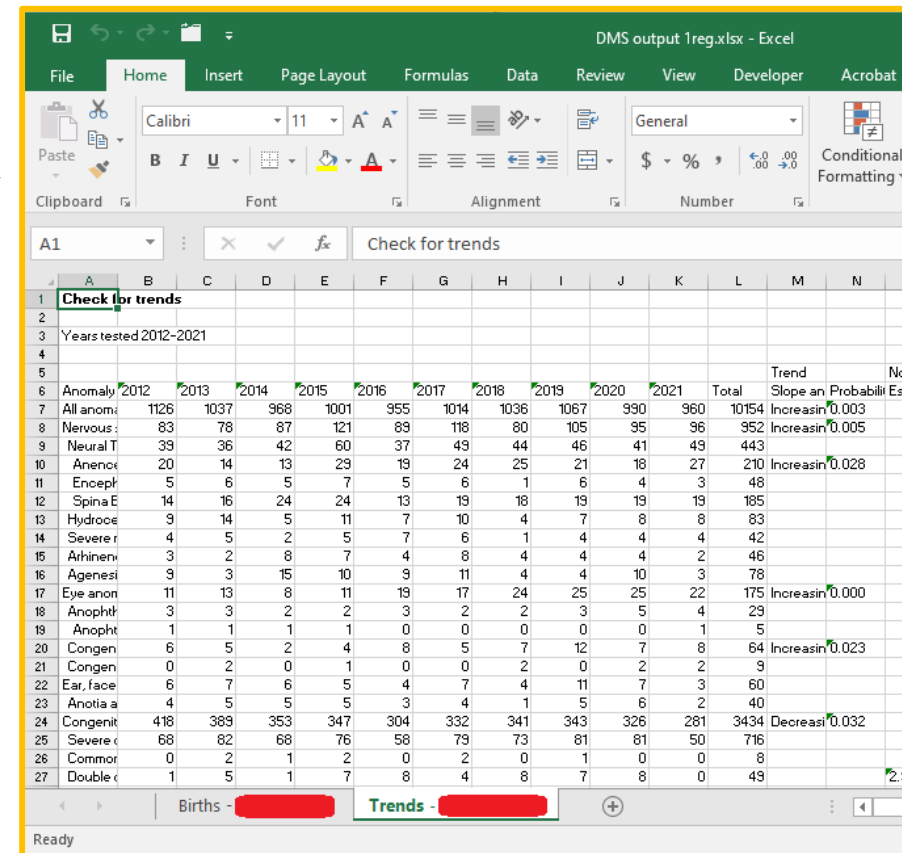
Run trends analysis in the DMS

1 local registry selected

The tables can be exported to Excel → 1 spreadsheet per table



The screenshot shows the DMS interface with the 'Excel' export option selected. The 'CSV' option is also visible. Below the export options, there is a section for 'Centre(s)' and 'Year from' (set to 2012). A red arrow points from the 'Excel' button to the Excel spreadsheet shown in the next block.



The screenshot shows an Excel spreadsheet titled 'DMS output 1reg.xlsx - Excel'. The spreadsheet contains a table with columns for 'year', 'total', and 'Trends'. The table data is as follows:

year	total	Trends
2012	36933	
2013	35899	
2014	35346	
2015	33849	
2016	33026	
2017	32484	
2018	32025	
2019	31734	
2020	31329	
2021	32448	

The spreadsheet also includes a 'Check for trends' section with a table of birth data for various anomalies. The table data is as follows:

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	Trend	Slope an	Probabili	Non
All anom	1126	1037	968	1001	955	1014	1036	1067	990	960	10154	Increase	0.003		
Nervous	83	78	87	121	89	118	80	105	95	96	952	Increase	0.005		
Neural T	39	36	42	60	37	49	44	46	41	49	443				
Anence	20	14	13	29	19	24	25	21	18	27	210	Increase	0.028		
Enceph	5	6	5	7	5	6	1	6	4	3	48				
Spina E	14	16	24	24	13	19	18	19	19	19	185				
Hydroce	9	14	5	11	7	10	4	7	8	8	83				
Severe r	4	5	2	5	7	6	1	4	4	4	42				
Arhinene	3	2	8	7	4	8	4	4	4	2	46				
Agene	9	3	15	10	9	11	4	4	10	3	78				
Eye anon	11	13	8	11	19	17	24	25	25	22	175	Increase	0.000		
Anophth	3	3	2	2	3	2	2	3	5	4	29				
Anophth	1	1	1	1	0	0	0	0	0	1	5				
Congen	6	5	2	4	8	5	7	12	7	8	64	Increase	0.023		
Congen	0	2	0	1	0	0	2	0	2	2	9				
Ear, face	6	7	6	5	4	7	4	11	7	3	60				
Anotia a	4	5	5	5	3	4	1	5	6	2	40				
Congen	418	389	353	347	304	332	341	343	326	281	3434	Decrease	0.032		
Severe c	68	82	68	76	58	73	73	81	81	50	716				
Commor	0	2	1	2	0	2	0	1	0	0	8				
Double c	1	5	1	7	8	4	8	7	8	0	49				

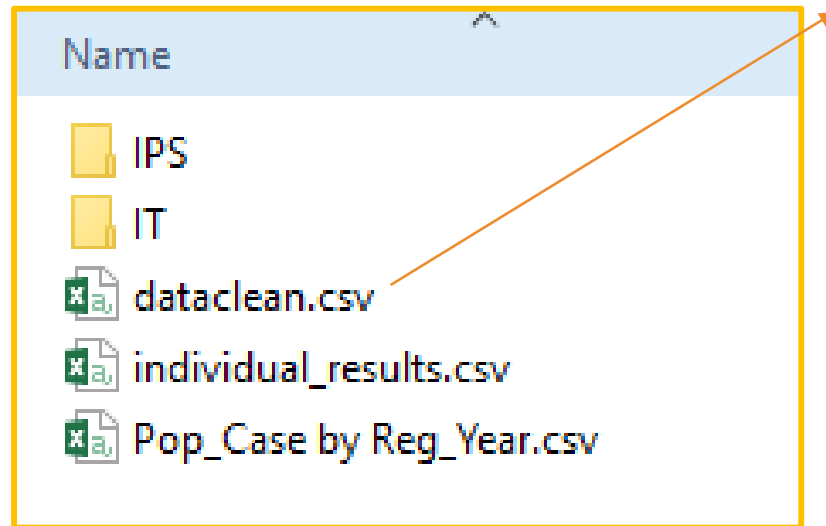
If you choose to export to csv, DMS will create one csv file per table (i.e. one for the total number of births and one for the summary of the trends).

Excel may give an error when opening the .x/sx generated. Please ignore it.

Run trends analysis in the DMS

1 local registry selected

In the folder you selected in step 2 (see [page 6](#)), the program has created 2 folders and 3 csv files.



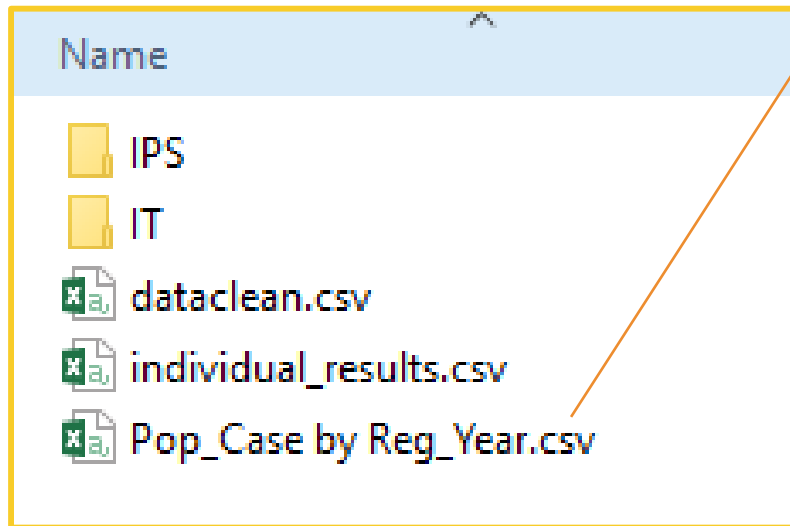
dataclean.csv: input data prepared for analysis

	A	B	C	D	E	F	G	H	I	J
1	reg	anom	year	case	pop	ganom	nyears	minyr	descanom	regna
2		1	2012	1126	36933	0	10	2012	All anoma	
3		1	2013	1037	35899	0	10	2012	All anoma	
4		1	2014	968	35346	0	10	2012	All anoma	
5		1	2015	1001	33849	0	10	2012	All anoma	
6		1	2016	955	33026	0	10	2012	All anoma	
7		1	2017	1014	32484	0	10	2012	All anoma	
8		1	2018	1036	32025	0	10	2012	All anoma	
9		1	2019	1067	31734	0	10	2012	All anoma	
10		1	2020	990	31329	0	10	2012	All anoma	
11		1	2021	960	32448	0	10	2012	All anoma	
12		2	2012	83	36933	1	10	2012	Nervous s	
13		2	2013	78	35899	1	10	2012	Nervous s	

Run trends analysis in the DMS

1 local registry selected

In the folder you selected in step 2 (see [page 6](#)), the program has created 2 folders and 3 csv files.



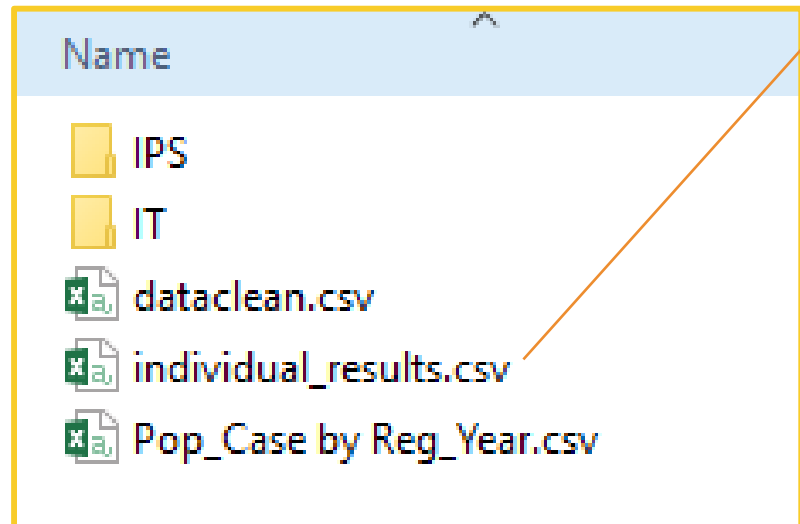
Pop_Case by Reg_year.csv: total number of cases by year and by registry

	A	B	C	D
1	reg	year	pop	case
2		2012	3877965	4012
3		2013	3769395	3781
4		2014	3711330	3599
5		2015	3554145	3675
6		2016	3467730	3562
7		2017	3410820	3684
8		2018	3362625	3725
9		2019	3332070	3847
10		2020	3289545	3554
11		2021	3407040	3498
12				

Run trends analysis in the DMS

1 local registry selected

In the folder you selected in step 2 (see [page 6](#)), the program has created 2 folders and 3 csv files.



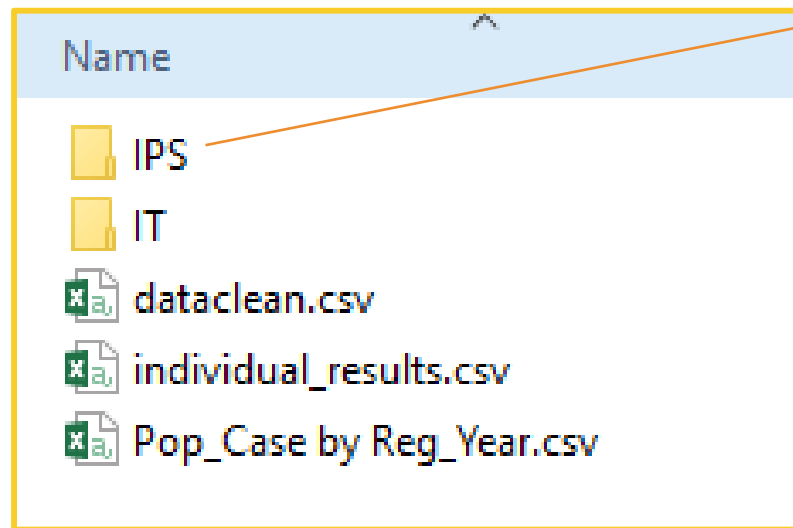
individual_results.csv: detailed results of the linear and spline models, for the local registry selected in each anomaly group

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	reg	regname	ganom	descano	year	case	pop	nyears	minyr	ncase	prevalen	prev.lci	prev.uci	p.log.inte	p.log.inte	p.log.yes	p.log.yes	p.log.yes	p.deviani	p.df	p.chi.squ	p.cor
2			0	All anom	2012	1126	36933	10	2012	10154	0.0305	0.0288	0.0323	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
3			0	All anom	2013	1037	35899	10	2012	10154	0.0289	0.0272	0.0307	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
4			0	All anom	2014	968	35346	10	2012	10154	0.0274	0.0257	0.0291	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
5			0	All anom	2015	1001	33849	10	2012	10154	0.0296	0.0278	0.0314	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
6			0	All anom	2016	955	33026	10	2012	10154	0.0289	0.0272	0.0308	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
7			0	All anom	2017	1014	32484	10	2012	10154	0.0312	0.0294	0.0332	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
8			0	All anom	2018	1036	32025	10	2012	10154	0.0323	0.0305	0.0343	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
9			0	All anom	2019	1067	31734	10	2012	10154	0.0336	0.0317	0.0357	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
10			0	All anom	2020	990	31329	10	2012	10154	0.0316	0.0297	0.0336	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
11			0	All anom	2021	960	32448	10	2012	10154	0.0296	0.0278	0.0315	-3.501	0.01	0.0103	0.0034	0.0026	24.986	8	0.0016	FAL
12			1	Nervous	2012	83	36933	10	2012	952	0.0022	0.0018	0.0028	-5.879	0.0331	0.0317	0.0112	0.0046	21.951	8	0.005	FAL
13			1	Nervous	2013	78	35899	10	2012	952	0.0022	0.0017	0.0027	-5.879	0.0331	0.0317	0.0112	0.0046	21.951	8	0.005	FAL
14			1	Nervous	2014	87	35346	10	2012	952	0.0025	0.002	0.003	-5.879	0.0331	0.0317	0.0112	0.0046	21.951	8	0.005	FAL

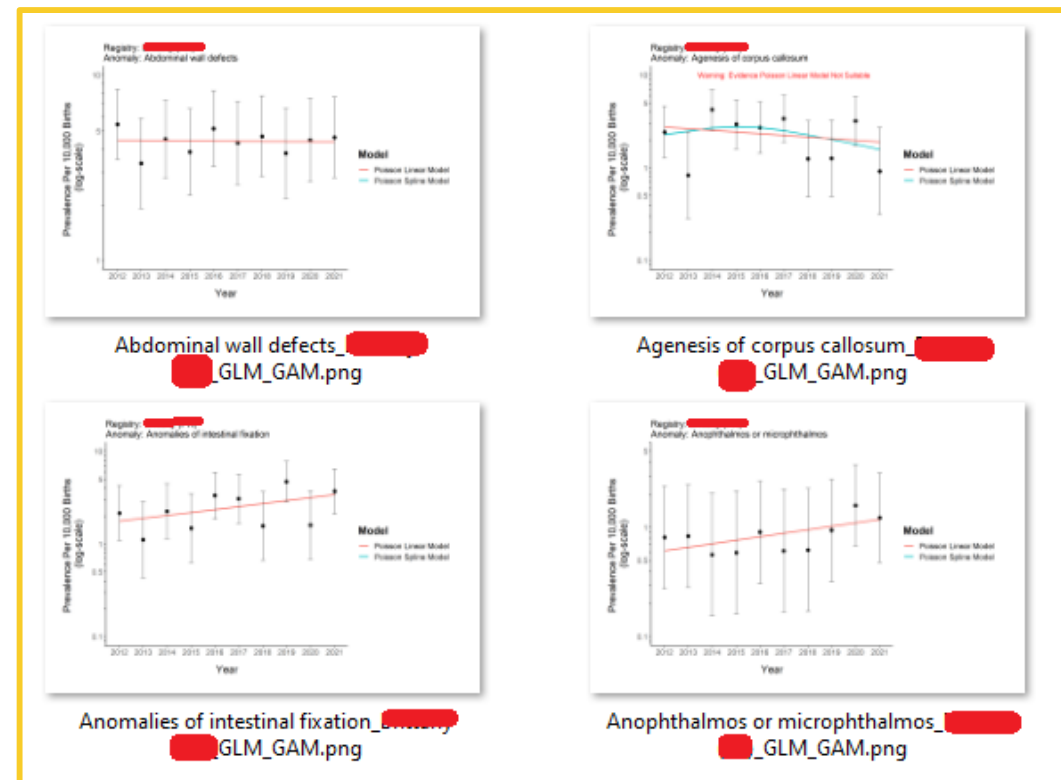
Run trends analysis in the DMS

1 local registry selected

In the folder you selected in step 2 (see [page 6](#)), the program has created 2 folders and 3 csv files.



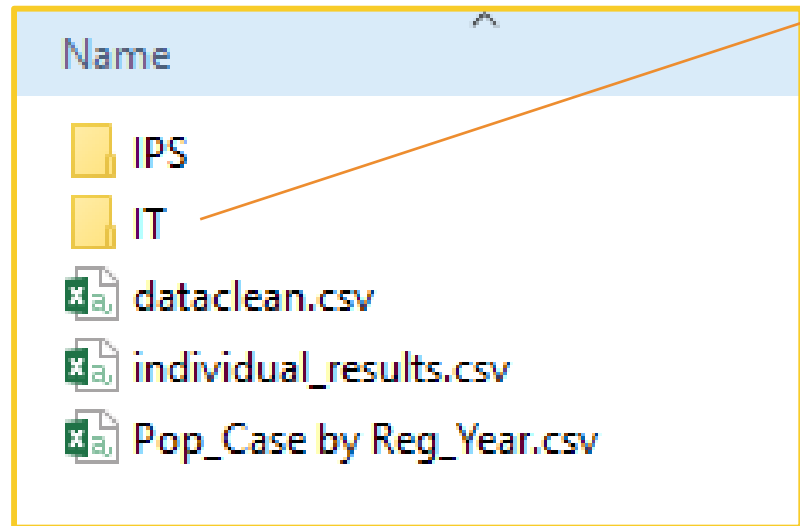
IPS: Fitted prevalence graphs by anomaly group



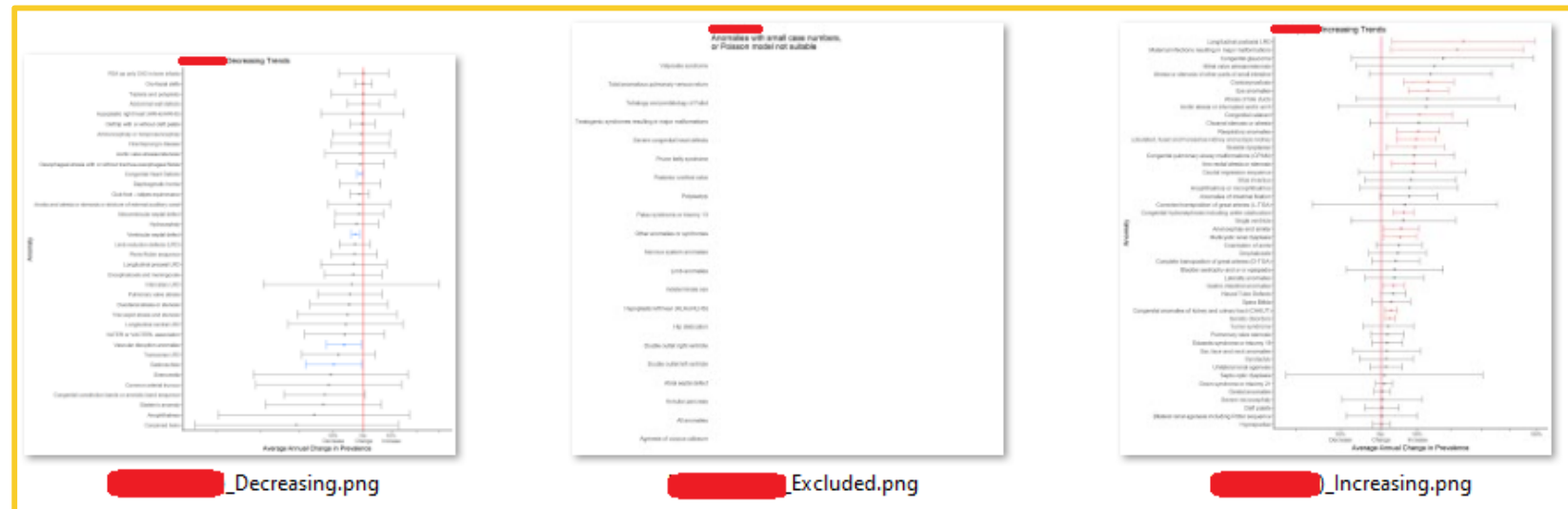
Run trends analysis in the DMS

1 local registry selected

In the folder you selected in step 2 (see [page 6](#)), the program has created 2 folders and 3 csv files.



IT: Forest plot of decreasing/increasing trends + list of anomaly groups excluded (e.g. too few cases)



2. Run trends analysis for 2 or more registries

Run trends analysis in the DMS

2 or more local registries selected

Home

- Manage data
- Import / export
- Analyse data**
- Data configuration
- Help
- About
- License
- System configuration

Report
View and download a predefined report, with various

Data quality indicators
View the report about the quality of the data

Missing values
View the report about completeness of the data

Web analysis
Extract the data for the website analysis

Statistical surveillance
Perform the statistical surveillance on the data

Home Statistical surveillance x

CSV Excel

Centre(s)
All centres

Anomaly group(s)
All anomaly groups

Year from
Year to

Other options
All analysis will be performed only on EUROCAT cases that are not spontaneous abortions (<20 weeks of GA)

Trend analysis **Cluster analysis**

Home Statistical surveillance x

CSV Excel

Centre(s)
2 centres selected *select the centres (dropdown list)*

Scicilia (IT)
Sicily (IT)
Slovakia (SK)
Slovenia (SI)
Sofia (BG)
Spain Hospital Network (ES)
Strasbourg (FR)
Styria (AT)
Sweden (SE)
Trento (IT)

CSV Excel

Centre(s)
2 centres selected

Anomaly group(s)
All anomaly groups

Year from
2012

Year to
2021

Other options
All analysis will be performed only on EUROCAT cases that are not spontaneous abortions (<20 weeks of GA)

Trend analysis **Cluster analysis**

Unnecessary to select an anomaly. The program always run on all the subgroups.

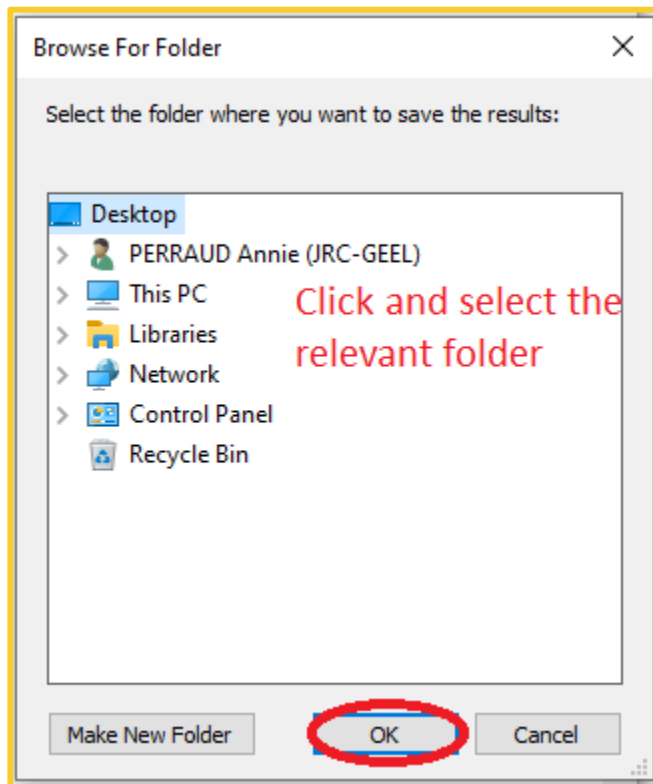
enter the time period of the analysis

When the selection is correct, press the Trend analysis button

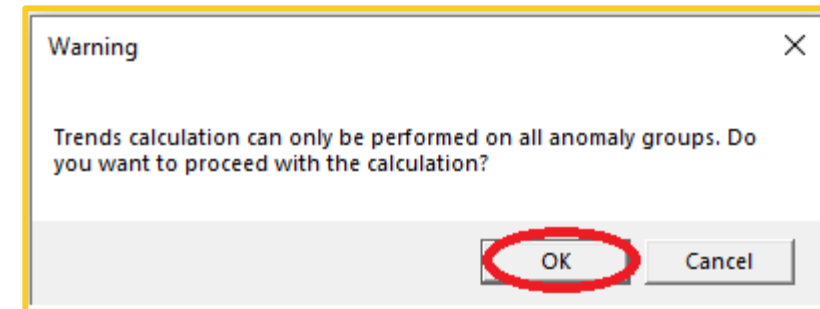
Run trends analysis in the DMS

2 or more local registries selected

1. A pop-up window asks to locate the folder where you want to save the outputs of the R script (graphs and csv).



2. A pop-up message warns that the analysis will run on all the anomaly subgroups.



Run trends analysis in the DMS

2 or more local registries selected

Once the analysis has run, DMS displays:

1 – a table with the total number of births in each of the selected registry

Births - [REDACTED]		
year	total	
2012	31179	
2013	29640	
2014	29573	
2015	29777	
2016	29480	
2017	28398	
2018	27690	
2019	26767	
2020	26135	
Births - [REDACTED]		
year	total	
2012	52246	
2013	49976	
2014	49875	

2 – a summary of the detected trends in each of the selected registry and at « pan-European » level

Trends - [REDACTED]													
Anomaly	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	SlopeAndPercentageChange	
All anomalies	516	572	508	357	492	507	607	508	462		4529	Increasing: 1.8% (95% CI)	
Nervous system anomalies	69	55	59	58	66	72	57	60	46		542		
Neural Tube Defects	30	24	18	27	36	42	36	32	25		270	Increasing: 5.2% (95% CI)	
Anencephaly and similar	12	11	4	14	15	20	14	15	11		116		
Encephalocele and meningocele	2	6	4	2	5	4	6	7	6		42		
Spina Bifida	16	7	10	11	16	18	16	10	8		112		
Hydrocephaly	20	14	17	17	11	19	8	10	8		124	Decreasing: -7.1% (95% CI)	

Trends - [REDACTED]													
Anomaly	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	SlopeAndPercentageChange	
All anomalies	1061	1121	1032	758	782	917	1037	932	773		8413		
Nervous system anomalies	134	147	129	98	102	117	101	116	99		1043		
Neural Tube Defects	64	74	59	56	64	58	60	69	51		555		
Anencephaly and similar	26	24	21	20	29	24	25	35	20		224		
Encephalocele and meningocele	6	8	5	7	2	5	7	9	4		53		
Spina Bifida	32	42	33	29	33	29	28	25	27		278		
Hydrocephaly	29	24	21	24	20	26	9	19	19		191		

Trends - pan-European													
Anomaly	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	SlopeAndPercentageChange	
All anomalies	1577	1693	1540	1115	1274	1424	1644	1440	1235		12942		
Nervous system anomalies	203	202	188	156	168	189	158	176	145		1585		
Neural Tube Defects	94	98	77	83	100	100	96	101	76		825		
Anencephaly and similar	38	35	25	34	44	44	39	50	31		340	Increasing: 4.6%	
Encephalocele and meningocele	8	14	9	9	7	9	13	16	10		95		
Spina Bifida	48	49	43	40	49	47	44	35	35		390		
Hydrocephaly	49	38	38	41	31	45	17	29	27		315	Decreasing: -5.2%	

Run trends analysis in the DMS

2 or more local registries selected

The tables can be exported to Excel → 1 spreadsheet per table

Statistical surveillance

CSV Excel

Centre(s)
2 centres selected

Year from
2012

Other options

All analysis will be performed only on EUROCAT cases that are not spontaneous

Trends - pan-European

Anomaly

All anomalies

Nervous system anomalies

Neural Tube Defects

Anencephaly and similar

DMS output.xlsx (Repaired) - Excel

File Home Insert Page Layout Formulas Data Review View Developer Acrobat Tell me... PERRAUD Annie... Share

Clipboard Font Alignment Number Styles Cells Editing

A1 Check for trends

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	Trend Slope and Probability
Check for trends												
Years tested 2012-2021												
Anomaly												
All anomalies	1577	1693	1540	1115	1274	1424	1644	1440	1235		12942	
Nervous s	203	202	188	156	168	189	158	176	145		1585	
Neural Ti	94	98	77	83	100	100	96	101	76		825	
Anenceph	38	35	25	34	44	44	39	50	31		340	Increasing 0.033
Encephal	8	14	9	9	7	9	13	16	10		95	
Spina Bi	48	49	43	40	49	47	44	35	35		390	
Hydroce	49	38	38	41	31	45	17	29	27		315	Decreasin 0.016
Severe r	7	11	4	2	6	10	5	5	0		50	
Arhinenc	7	10	8	9	6	8	11	13	7		79	
Agensis	9	8	12	10	8	10	15	18	11		101	
Eye anom	20	22	25	12	8	23	24	13	5		152	
Anophth	5	4	4	2	1	4	4	2	1		27	
Anophth	0	1	2	0	0	2	0	0	0		5	
Congenit	8	5	8	2	2	8	11	8	1		53	
Congenit	0	0	1	0	0	0	1	1	0		3	
Ear, face a	15	18	16	20	7	7	2	4	3		92	
Anotia ar	2	1	4	1	2	1	1	0	2		14	
Congenit	404	422	358	314	396	457	440	420	427		3638	Increasing 0.028
Severe c	171	172	136	145	164	187	168	174	169		1486	Increasing 0.002
Common	3	6	2	1	2	4	3	10	8		39	Increasing 0.010
Double o	17	19	19	22	16	17	20	12	13		155	
Double	0	1	0	0	0	0	0	0	1		2	

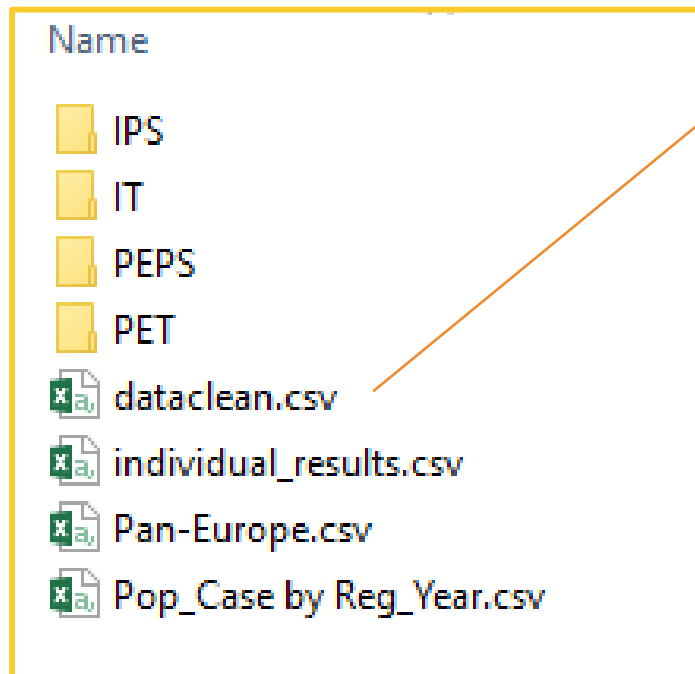
Births - Trends - Trends - Trends - pan

If you choose to export to csv, DMS will create one csv file per table (i.e. one for the total number of births and one for the summary of the trends).

Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



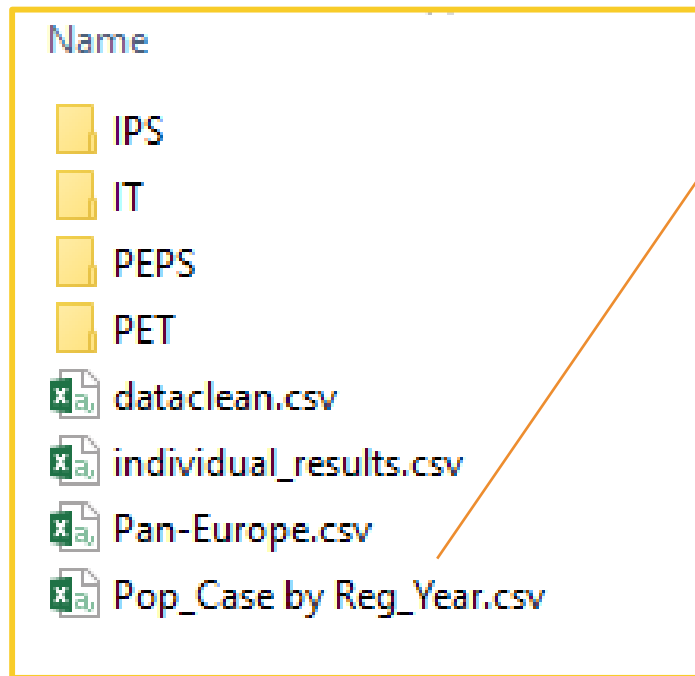
dataclean.csv: input data prepared for analysis

	A	B	C	D	E	F	G	H	I
1	reg	anom	year	case	pop	ganom	nyears	minyr	descanom re
2		1	2012	516	31179	0	9	2012	All anoma
3		1	2013	572	29640	0	9	2012	All anoma
4		1	2014	508	29573	0	9	2012	All anoma
5		1	2015	357	29777	0	9	2012	All anoma
6		1	2016	492	29480	0	9	2012	All anoma
7		1	2017	507	28398	0	9	2012	All anoma
8		1	2018	607	27690	0	9	2012	All anoma
9		1	2019	508	26767	0	9	2012	All anoma
10		1	2020	462	26135	0	9	2012	All anoma
11		2	2012	69	31179	1	9	2012	Nervous s
12		2	2013	55	29640	1	9	2012	Nervous s
13		2	2014	59	29573	1	9	2012	Nervous s

Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



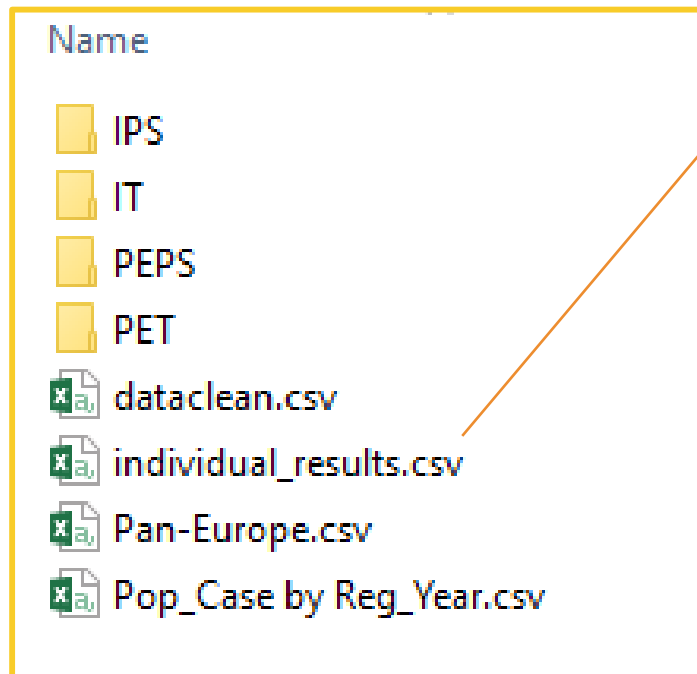
Pop_Case by Reg_Year.csv: total number of cases by year and by registry

	A	B	C	D	E
1	reg	year	pop	case	
2		2012	3273795	2113	
3		2012	5485830	4074	
4		2013	3112200	2258	
5		2013	5247480	4194	
6		2014	3105165	1917	
7		2014	5236875	3838	
8		2015	3126585	1570	
9		2015	5204745	3194	
10		2016	3095400	2061	
11		2016	5145420	3462	
12		2017	2981790	2052	
13		2017	5004825	3737	
14		2018	2907450	2353	
15		2018	4881555	4092	
16		2019	2810535	2027	
17		2019	4747995	3682	
18		2020	2744175	1788	
19		2020	4526130	3116	
20					

Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



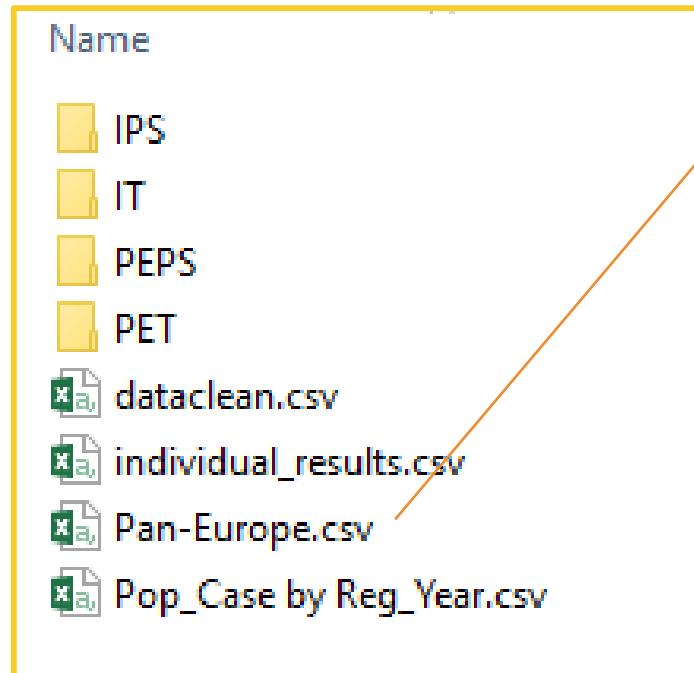
individual_results.csv: detailed results of the linear and spline models, by individual registry for each anomaly group

reg	regname	ganom	descanom	year	case	pop	nyears	minyr	ncase	prevalenc	prev.lci	prev.uci	p.log.inte
		0	All anoma	2012	516	31179	9	2012	4529	0.01655	0.015192	0.018026	-4.04364
		0	All anoma	2013	572	29640	9	2012	4529	0.019298	0.017793	0.020928	-4.04364
		0	All anoma	2014	508	29573	9	2012	4529	0.017178	0.015758	0.018723	-4.04364
		0	All anoma	2015	357	29777	9	2012	4529	0.011989	0.010814	0.01329	-4.04364
		0	All anoma	2016	492	29480	9	2012	4529	0.016689	0.015289	0.018216	-4.04364
		0	All anoma	2017	507	28398	9	2012	4529	0.017853	0.016377	0.01946	-4.04364
		0	All anoma	2018	607	27690	9	2012	4529	0.021921	0.020262	0.023713	-4.04364
		0	All anoma	2019	508	26767	9	2012	4529	0.018979	0.017412	0.020684	-4.04364
		0	All anoma	2020	462	26135	9	2012	4529	0.017677	0.016149	0.019347	-4.04364
1		1	Nervous s	2012	69	31179	9	2012	542	0.002213	0.001749	0.0028	-6.16778
2		1	Nervous s	2013	55	29640	9	2012	542	0.001856	0.001426	0.002414	-6.16778
3		1	Nervous s	2014	59	29573	9	2012	542	0.001995	0.001547	0.002572	-6.16778
4		1	Nervous s	2015	58	29777	9	2012	542	0.001948	0.001507	0.002517	-6.16778

Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



Pan-Europe.csv: detailed results of the linear and spline models, at pan-European level for each anomaly group

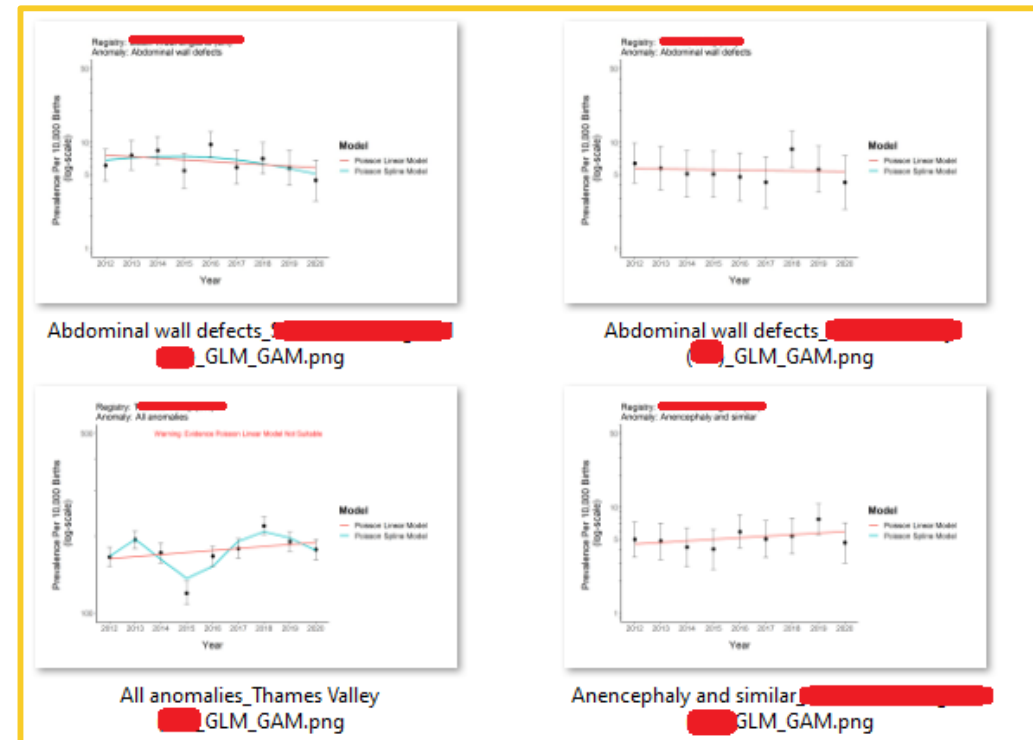
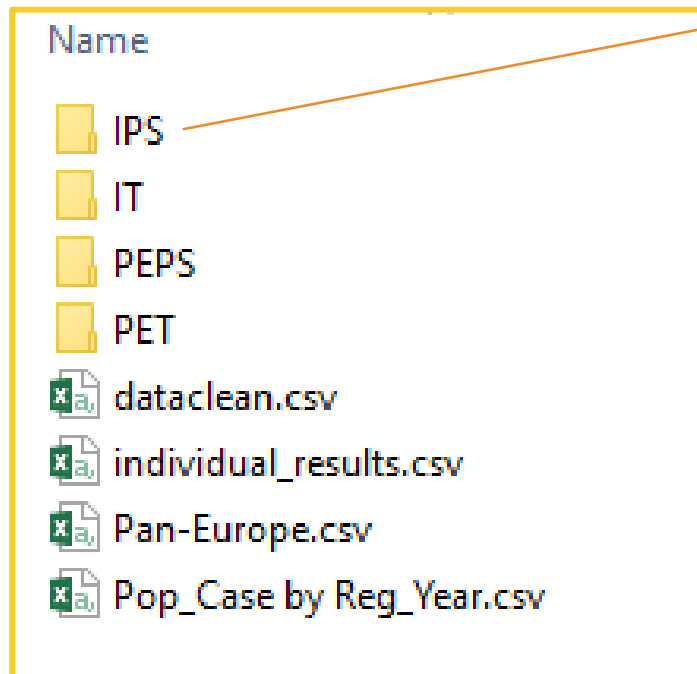
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	year	ganom	descano	case	pop	minyr	nyears	ncase	prevalen	prev.loi	prev.uci	prev.con	p.log.inte	p.log.inte	p.log.yes	p.log.yes	p.log.yes	p.re.inter	p.re.slopi	p.AIC	p.link.fit	p.fit
2	2012	0	All anom	1577	83425	2012	9	12942	184.09	159.72	212.17	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-4.013	0.0
3	2017	0	All anom	1424	76063	2012	9	12942	187.21	177.74	197.2	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-3.987	0.0
4	2014	0	All anom	1540	79448	2012	9	12942	189.41	166.46	215.51	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-4.003	0.0
5	2015	0	All anom	1115	79346	2012	9	12942	136.09	114.94	161.13	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-3.998	0.0
6	2016	0	All anom	1274	78484	2012	9	12942	162.33	153.65	171.49	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-3.992	0.0
7	2019	0	All anom	1440	71986	2012	9	12942	199.92	188.75	211.76	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-3.977	0.0
8	2020	0	All anom	1235	69241	2012	9	12942	178.36	168.69	188.59	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-3.972	0.0
9	2013	0	All anom	1693	79616	2012	9	12942	209.11	188.39	232.1	NA	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-4.008	0.0
10	2018	0	All anom	1644	74181	2012	9	12942	221.62	211.21	232.53	Model fai	-3.992	0.0362	0.0052	0.0093	0.5775	0.0024	0.0001	389.81	-3.982	0.0
11	2017	1	Nervous	189	76063	2012	9	1585	24.847	21.545	28.654	NA	-6.095	0.049	-0.009	0.0118	0.4232	0.0034	7E-05	145.98	-6.105	0.0
12	2014	1	Nervous	188	79448	2012	9	1585	23.431	19.579	28.041	NA	-6.095	0.049	-0.009	0.0118	0.4232	0.0034	7E-05	145.98	-6.076	0.0
13	2013	1	Nervous	202	79616	2012	9	1585	23.803	17.281	32.787	NA	-6.095	0.049	-0.009	0.0118	0.4232	0.0034	7E-05	145.98	-6.067	0.0

Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.

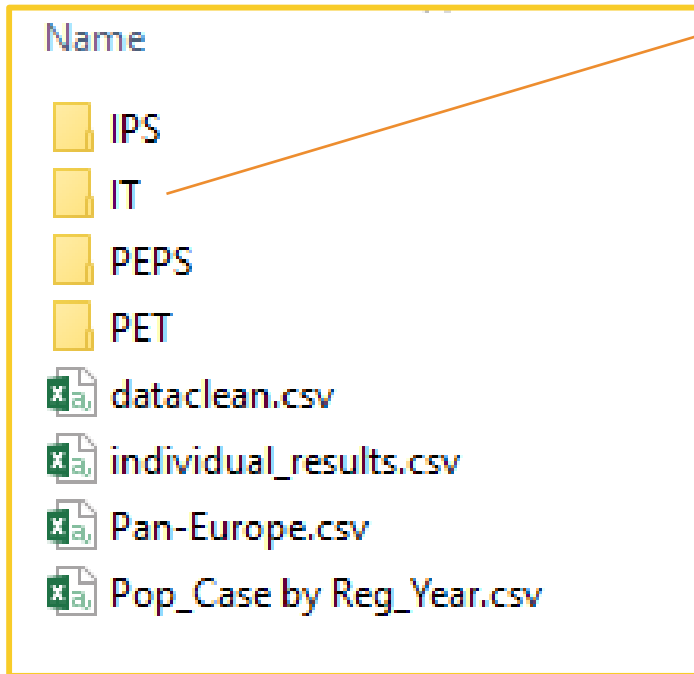
IPS: Fitted prevalence graphs for each individual registry by anomaly group



Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



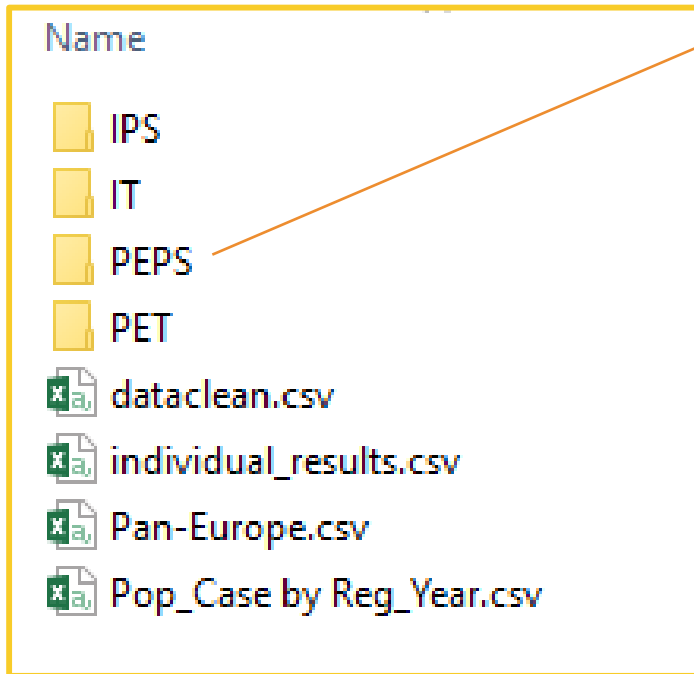
IT: Forest plot of decreasing/increasing trends for each individual registry + list of anomaly group excluded (e.g. too few cases)



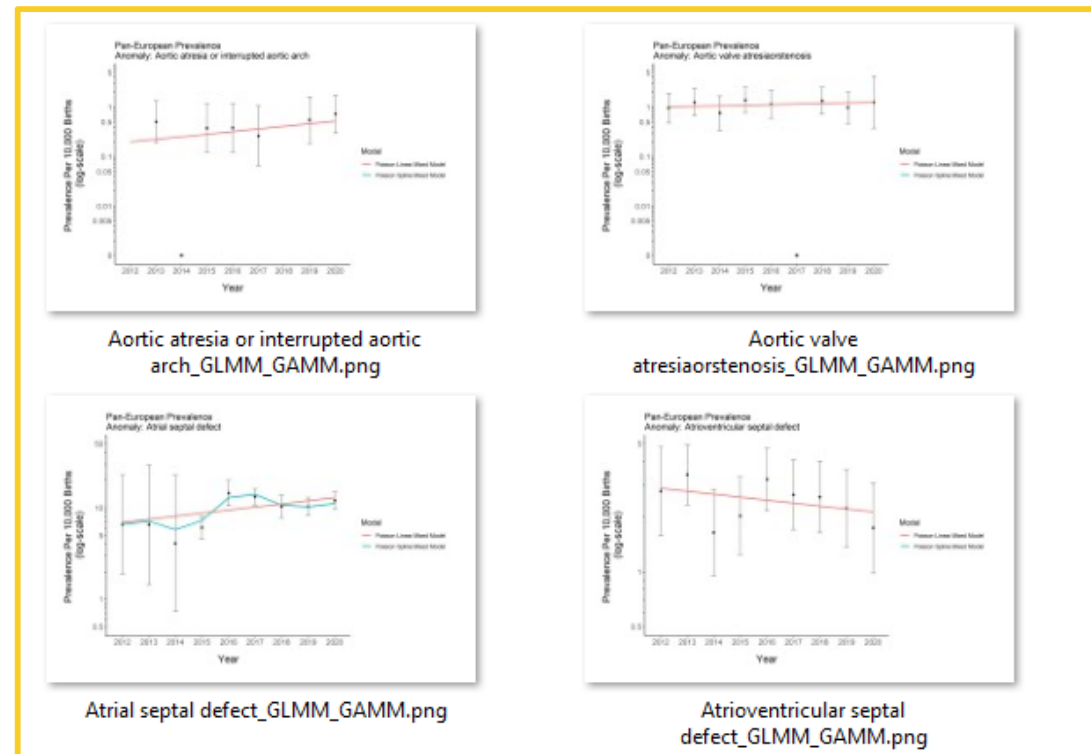
Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



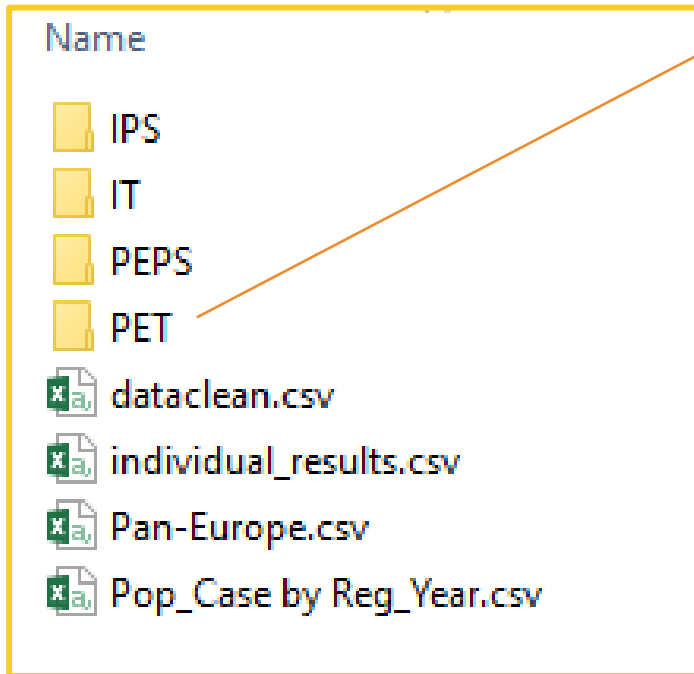
PEPS: Fitted prevalence graphs, at Pan-European level, by anomaly group



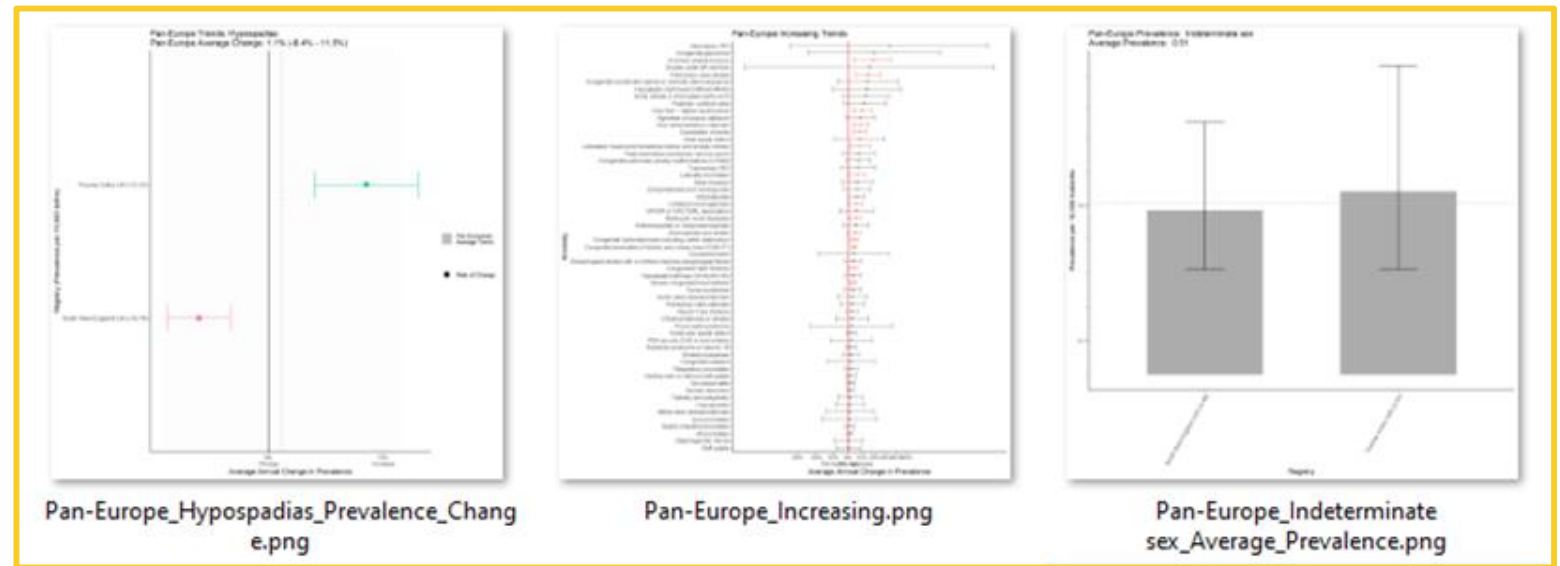
Run trends analysis in the DMS

2 or more local registries selected

In the folder you selected in step 2 (see [page 16](#)), the program has created 4 folders and 4 csv files.



PET: Forest plot of decreasing/increasing trends at Pan-European level + average prevalence by anomaly group + % change by registry

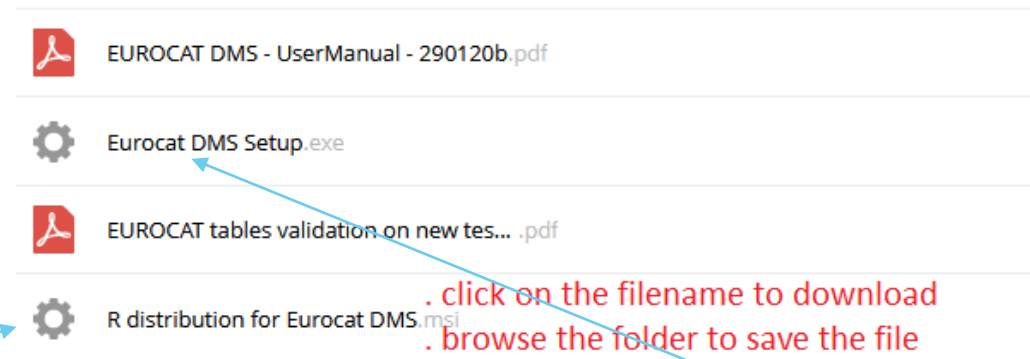


3. R distribution for DMS

Install the *R distribution for Eurocat DMS.msi*

Accessing the statistical monitoring functionalities in the DMS implies to **install a distribution of the free R software** that is recognised by the DMS.

To request the installation files, please contact the [JRC-EUROCAT central registry](#).



The *.msi* must be run on the user Windows profile, after the main structure of the software (*.exe*) has been installed. An IT administrator of your organisation may need to enter his credentials to allow the installation.

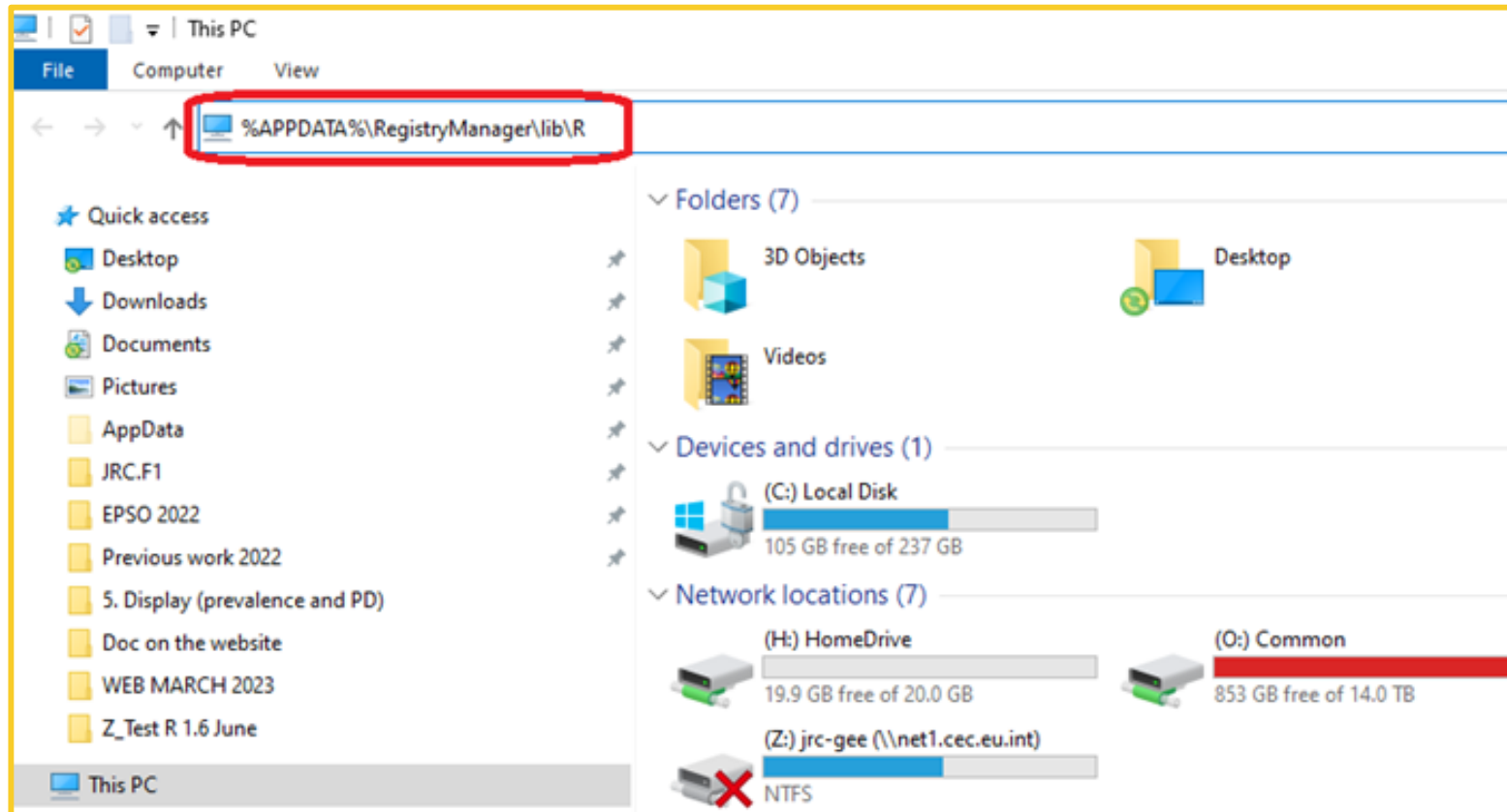
New R libraries for DMS - download

Once the R distribution has been installed (see [page 28](#)), the R libraries need to be updated. Please, proceed as indicated in the following slides.

1. Please contact the [JRC-EUROCAT central registry](#) to get the complete list of libraries.

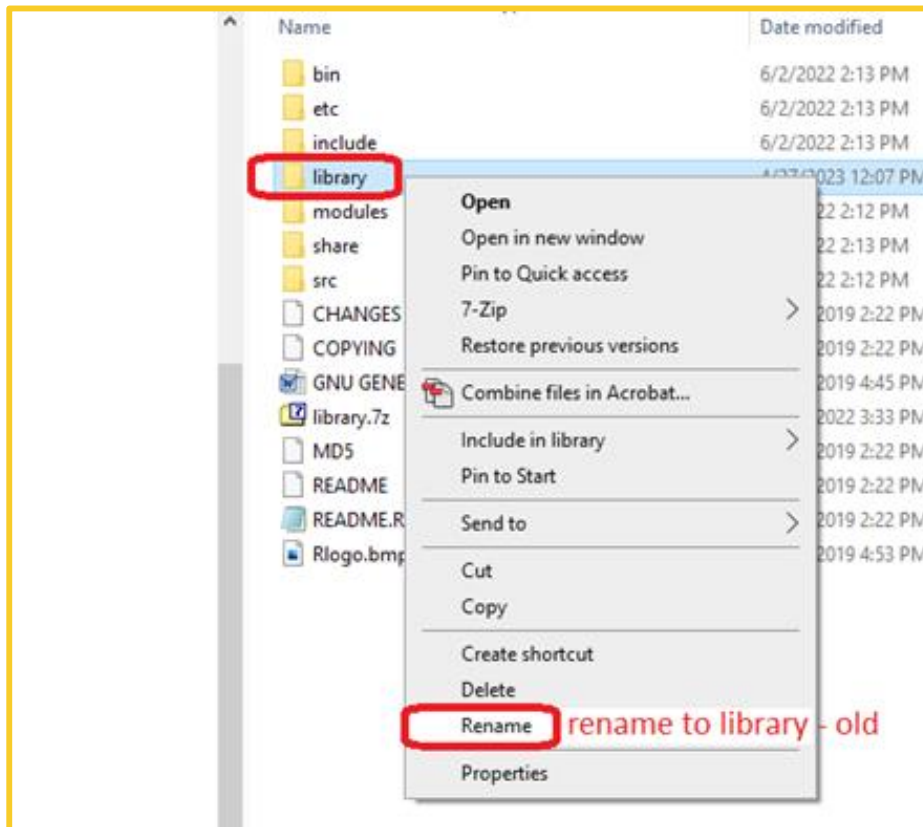
New R libraries for DMS – locate the folder where the libraries will be saved

2. In your File explorer, type `%APPDATA%\RegistryManager\lib\R` in the address bar and press ENTER:



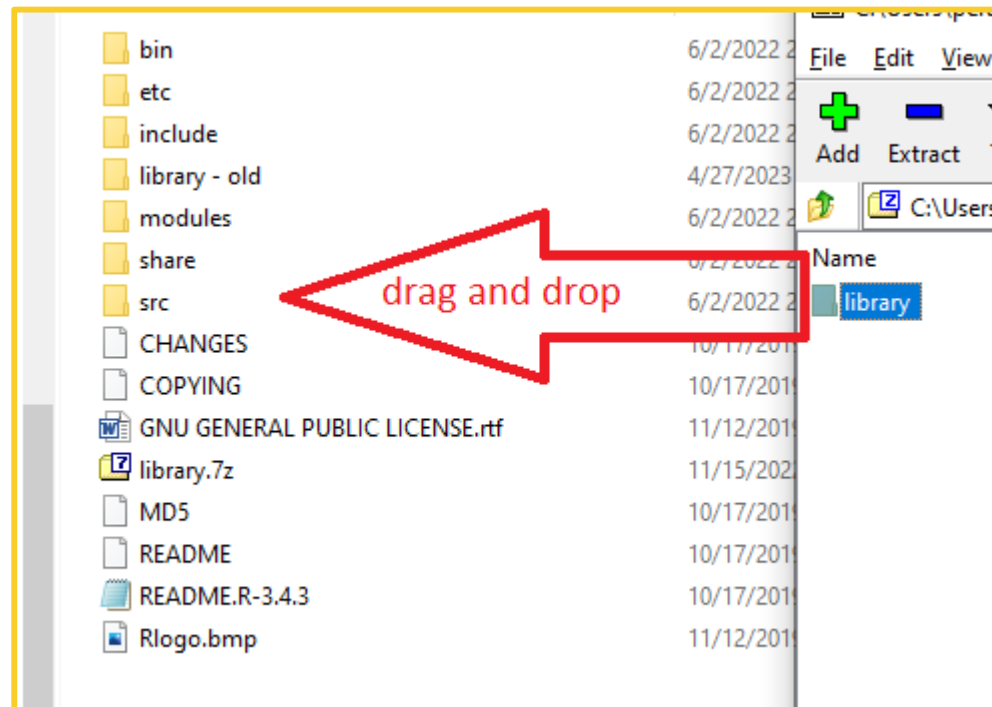
New R libraries for DMS – rename existing folder

3. Rename the folder **library** to **library - old**



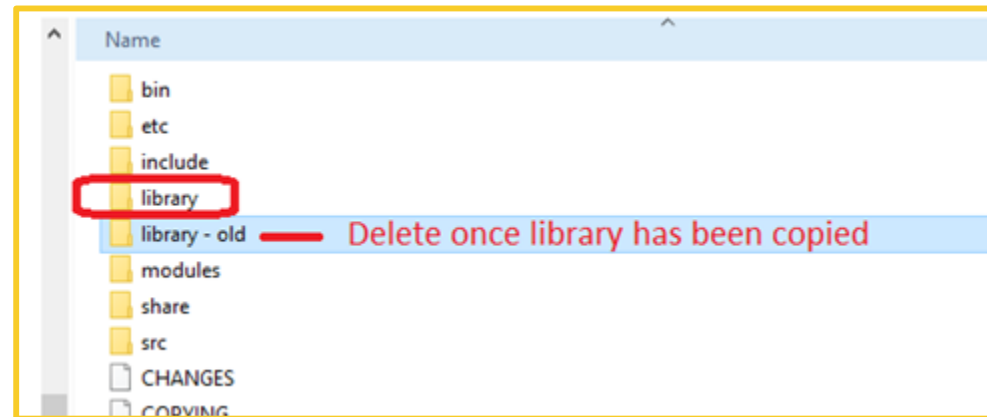
New R libraries for DMS – copy new R libraries

4. Open the `.zip` file you downloaded in step 1 (see [page 29](#))
5. Drag and drop the folder named `library` in this file to the `RegistryManager\lib\R`



New R libraries for DMS – delete old R libraries

6. Wait until the folder is copied, then you can delete the folder **library - old**



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