



European
Commission



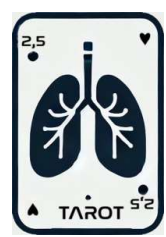
European Big Data Hackathon 2025

Earth Observation: from Space to European Statistics

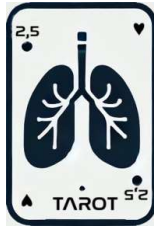
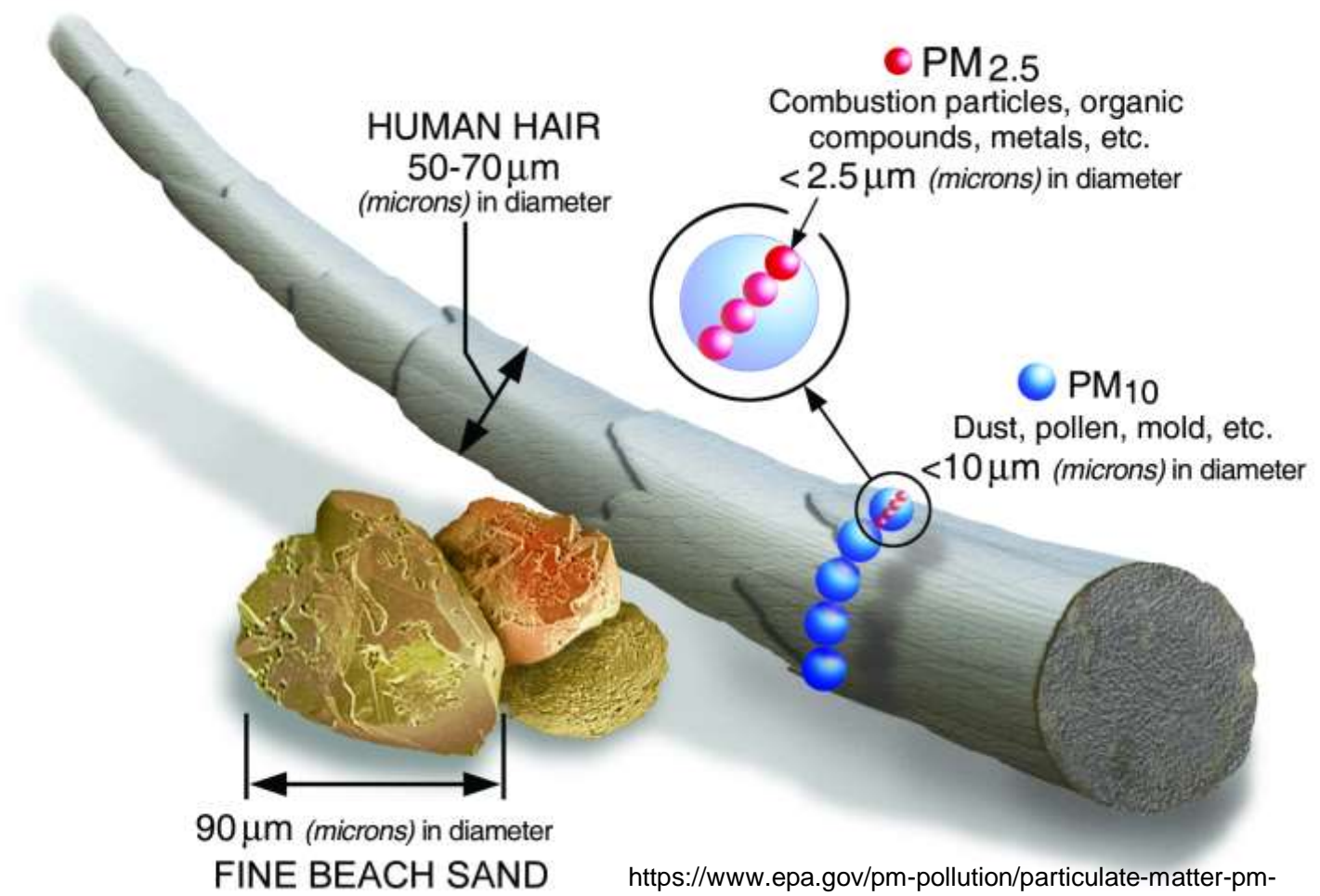
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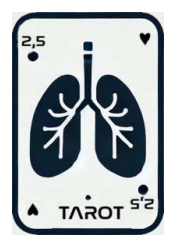


The PM 2,5



<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

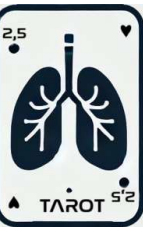




The AiR Out There – T.AR.O.T.

The IDEA:

A Dashboard for visualizing premature deaths due to PM_{2,5} with a higher temporal and spatial resolution



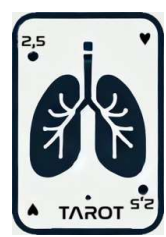
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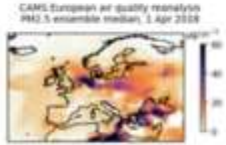
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GEODATA

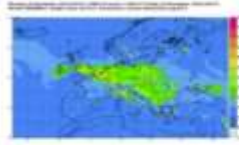


CAMS European air quality reanalyses

Published on 3 September 2021

This dataset provides annual air quality reanalyses for Europe based on both unvalidated and validated observations. CAMS produces annual air quality reanalyses for the European domain at significantly higher spatial resolution (0.1 degrees, approx. 10km) than is available from the global reanalyses...

- Aerosol
- Reactive gas
- Reanalysis
- Europe
- Past
- Atmosphere (composition)

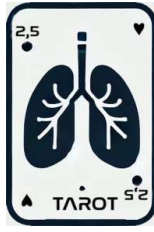
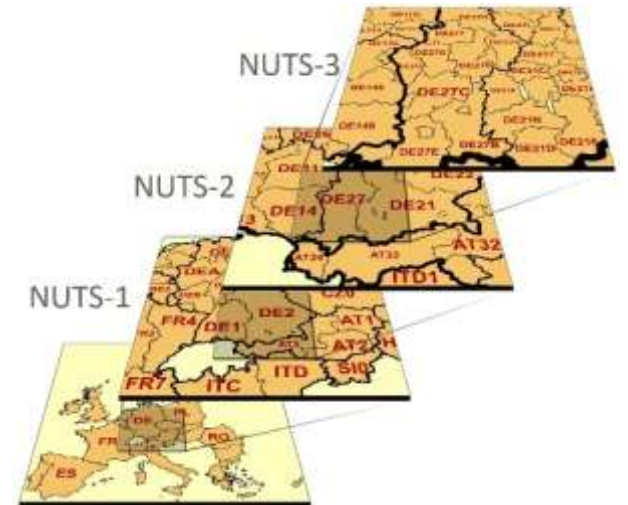


CAMS European air quality forecasts

Published on 6 February 2020

This dataset provides daily air quality analyses and forecasts for Europe. CAMS produces specific daily air quality analyses and forecasts for the European domain at significantly higher spatial resolution (0.1 degrees, approx. 10km) than is available from the global analyses and forecasts. The pro...

- Aerosol
- Reactive gas
- Analysis
- Forecast
- Europe
- Future
- Past
- Present
- Atmosphere (composition)

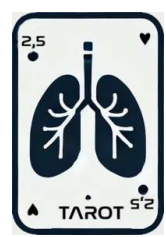


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Premature deaths due to exposure to fine particulate matter (PM2.5)

TIME	2015	2016	2017	2018	2019	2020	2021	2022	
GEO									
European Union - 27 countries (from 2020)	671	322 139	283 847	384 667	291 931	231 973	238 562	254 867	239 886
European Union - 28 countries (2013-2020)	:	:	:	:	:	:	:	:	
Belgium	256	6 214	5 775	5 679	5 917	4 537	3 938	4 469	4 147
Bulgaria	467	15 036	13 748	13 611	12 552	10 413	11 243	11 482	9 003
Czechia	858	9 258	8 638	9 336	10 312	6 947	6 903	8 489	6 884
Denmark	422	1 845	1 652	1 367	2 204	1 720	1 041	1 256	1 195
Germany	069	49 729	44 221	45 212	49 311	34 375	28 926	32 356	32 628
Estonia	401	214	129	72	231	88	59	114	87
Ireland	816	392	466	277	625	597	489	487	527
Greece	651	12 582	12 169	20 695	11 151	9 480	8 813	11 026	10 729
Spain	454	22 199	17 515	20 152	15 124	14 745	16 994	14 088	18 549
France	700	28 192	24 435	22 995	22 902	18 697	16 476	19 704	20 683
Croatia	796	4 714	5 199	4 753	4 804	3 563	4 260	4 369	3 813
Italy	040	61 503	50 044	55 162	47 316	42 679	52 312	44 461	48 606
Cyprus	620	709	541	620	527	583	564	629	693
Latvia	703	1 247	1 241	898	1 434	1 002	836	1 405	822
Lithuania	791	2 006	2 027	1 463	2 079	1 860	1 454	2 138	1 472
Luxembourg	182	201	175	149	149	94	74	77	75
Hungary	763	13 034	11 298	12 620	12 171	8 672	9 504	10 393	8 573
Malta	162	199	150	173	196	190	151	196	173
Netherlands	603	7 682	6 645	6 702	7 563	6 063	4 976	5 700	5 254
Austria	289	4 901	3 961	4 234	5 007	3 682	3 168	3 204	3 321
Poland	153	44 506	41 588	44 862	46 823	35 675	36 562	47 335	34 719
Portugal	620	3 942	2 912	3 041	2 640	2 517	2 641	2 129	3 639
Romania	053	24 011	21 597	23 484	23 168	18 481	21 601	22 006	17 949
Slovenia	306	1 657	1 470	1 556	1 498	1 144	1 236	1 137	1 278
Slovakia	877	5 131	4 473	5 032	4 857	3 465	3 920	5 359	3 710



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Workflow

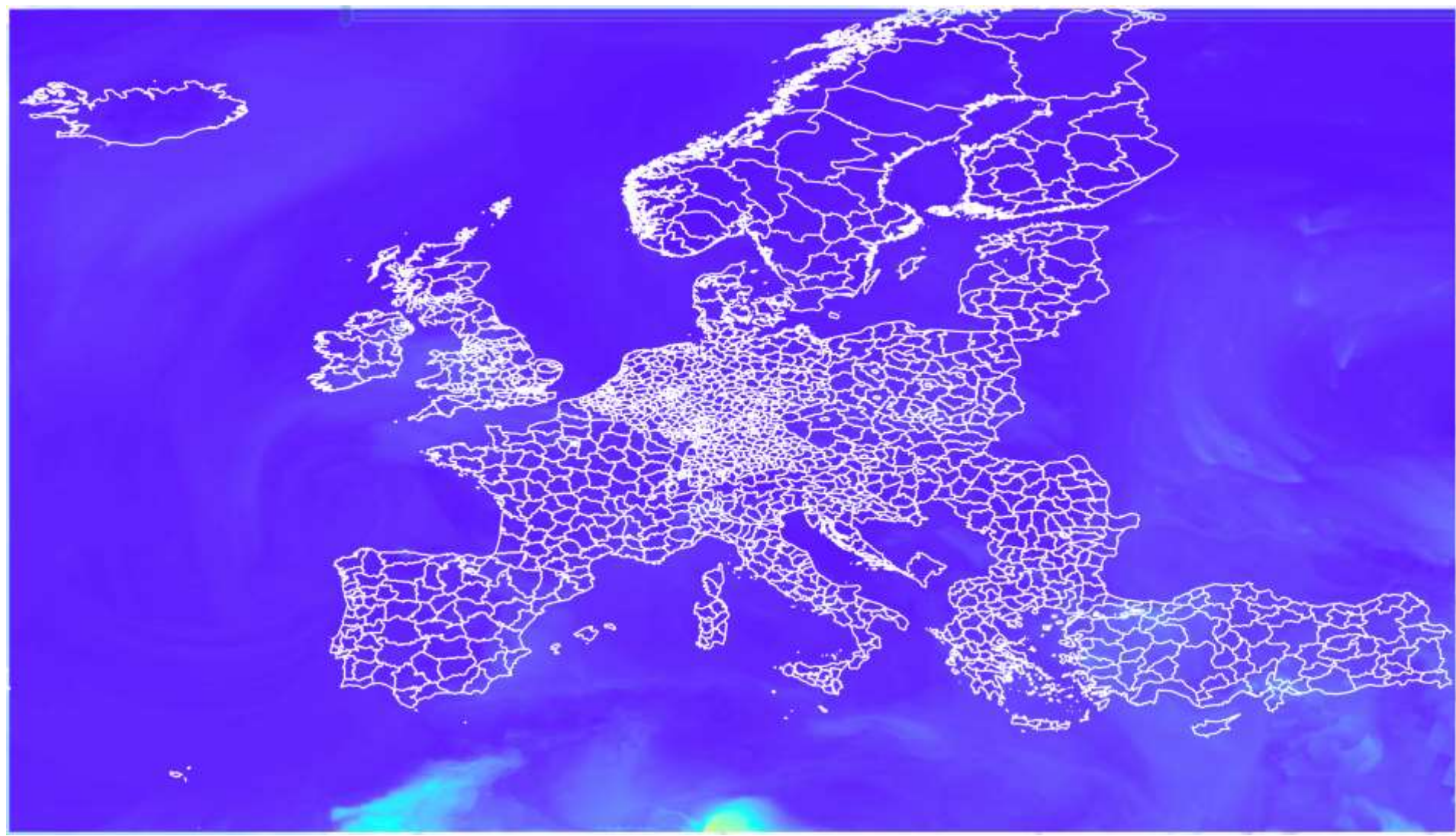
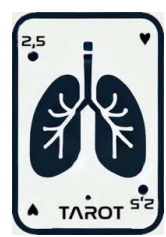


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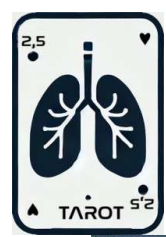
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Number of Dangerous Days per Year



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Workflow

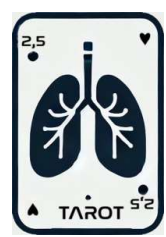


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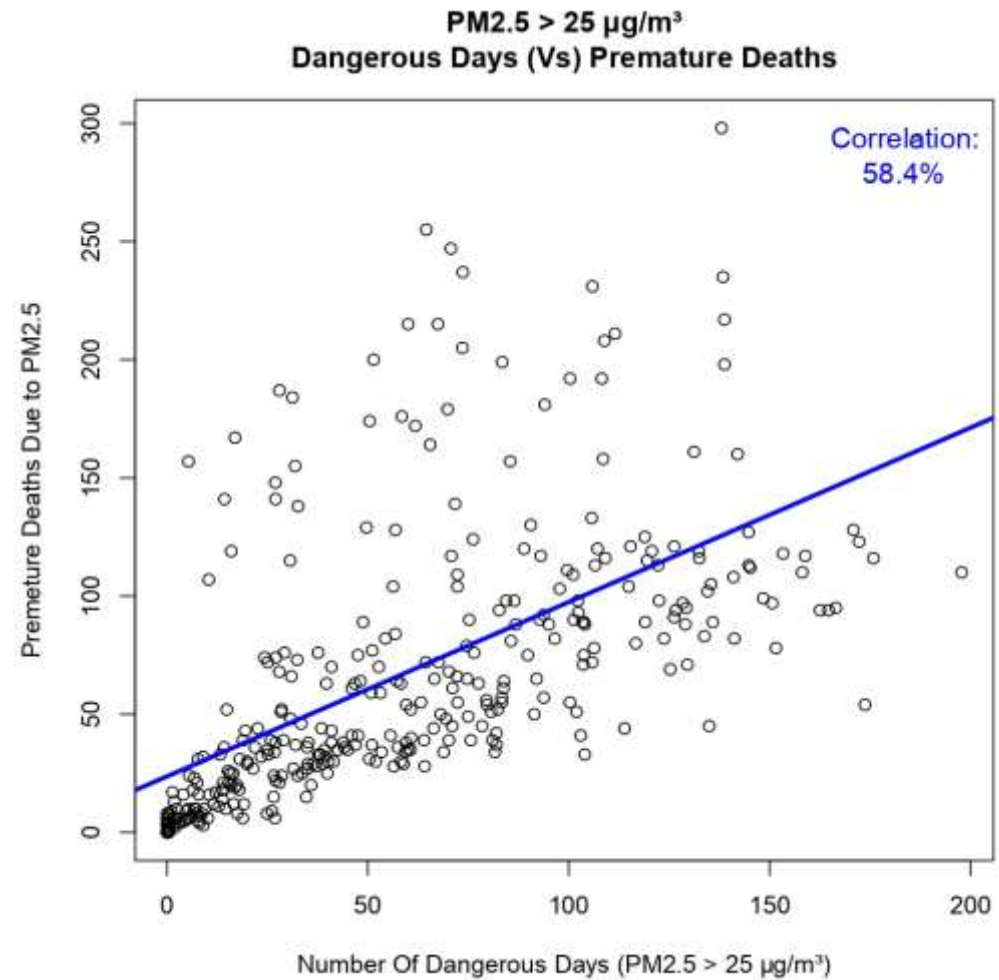
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Correlation Investigation



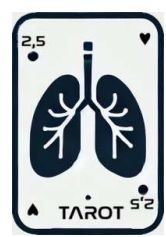
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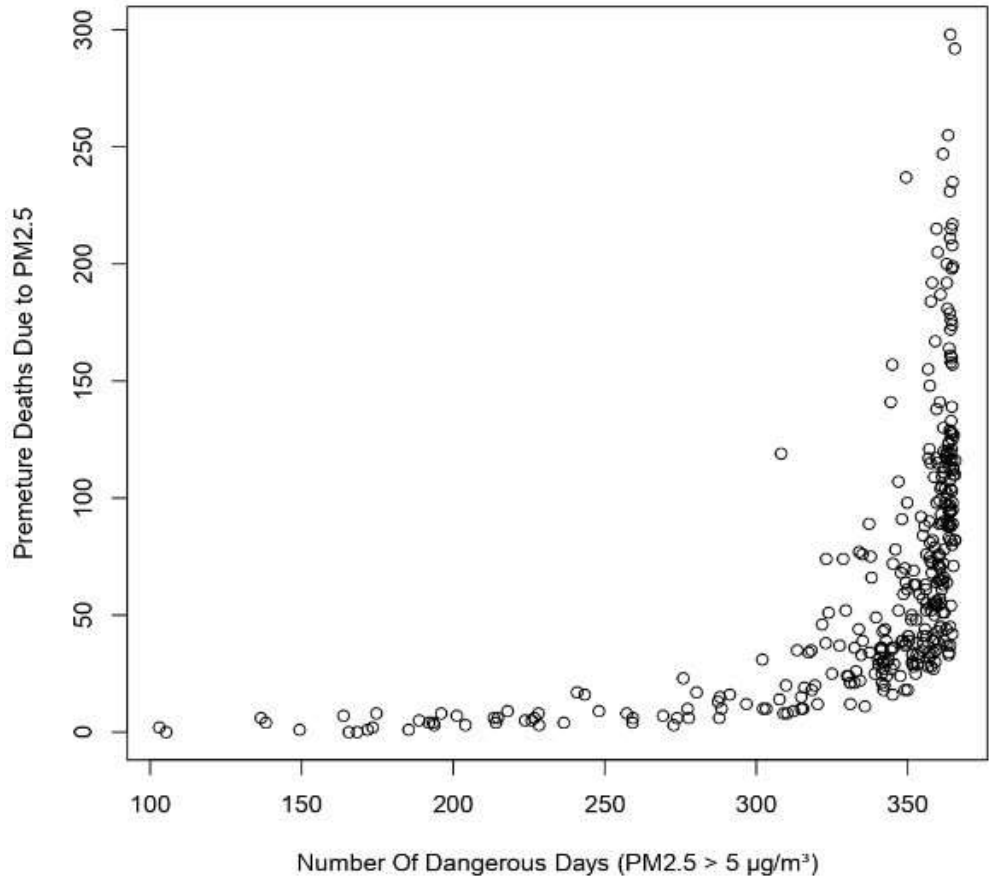


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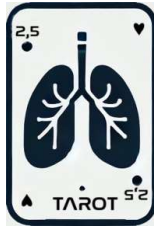
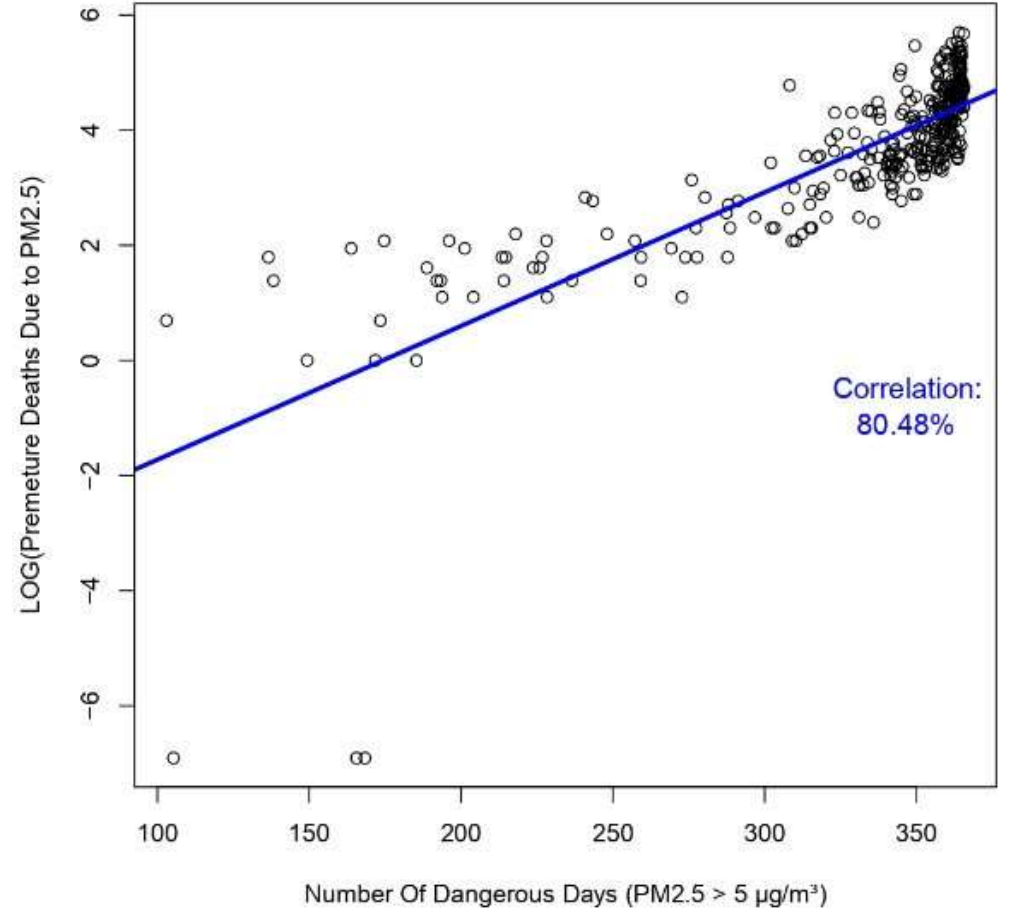


Correlation Investigation

PM2.5 > 5 µg/m³
Dangerous Days (Vs) Premature Deaths



PM2.5 > 5 µg/m³
Dangerous Days (Vs) LOG(Premature Deaths)



Workflow



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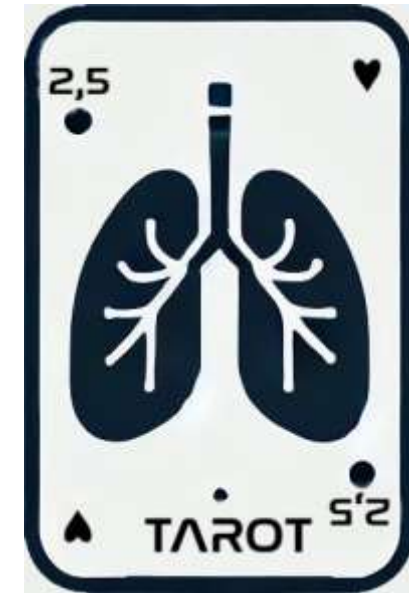
Andreas Hadjittofis



Michael Michaelides



Andreas Sotiriou



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TAROT



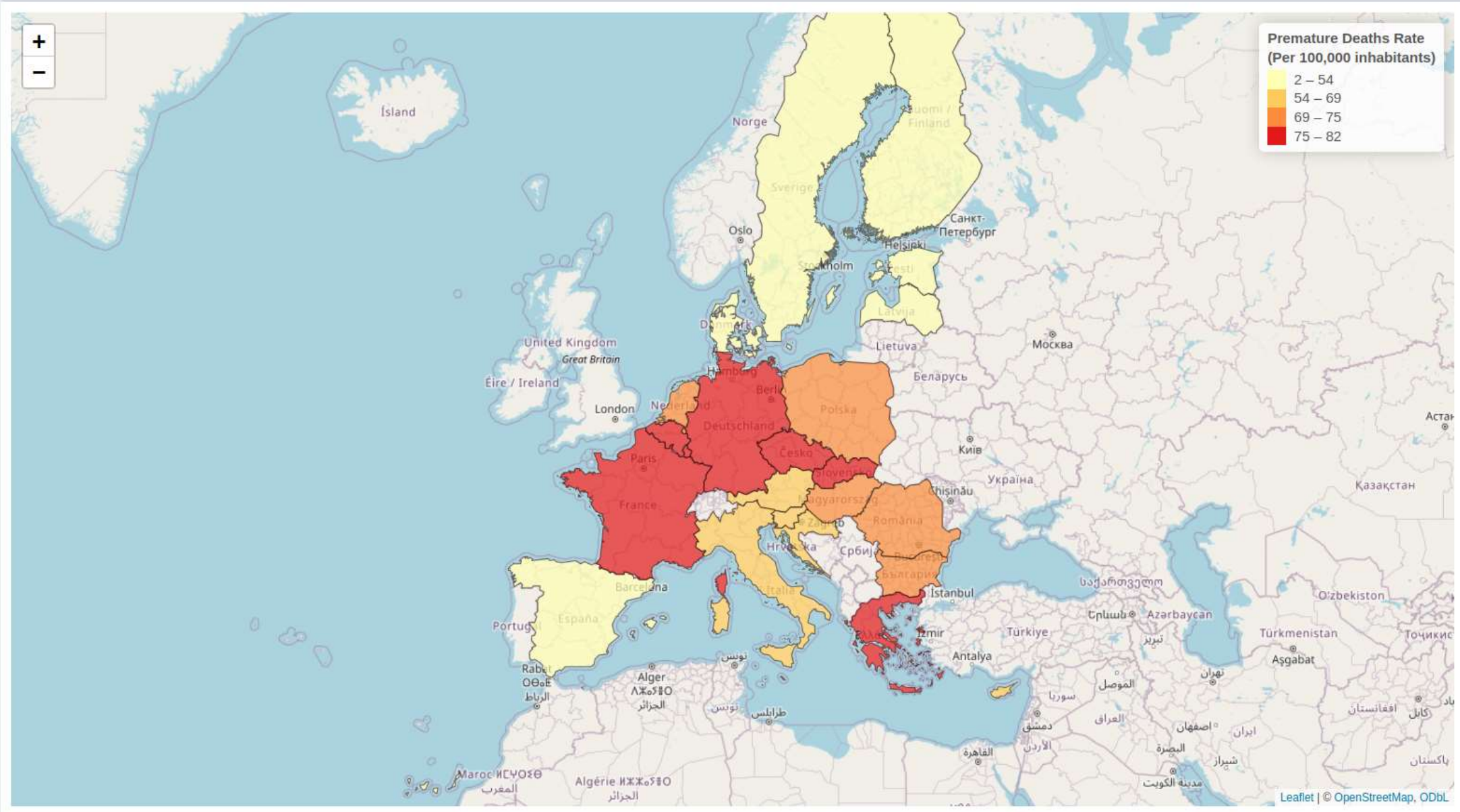
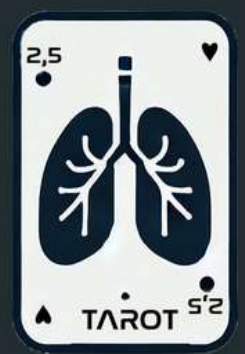
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Leaflet Map

Month: 2014-01

Country: Choose

NUTS Level: NUTS0



The AiR Out There

Leaflet Map

Month:

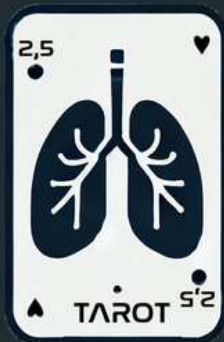
2024-12

Country:

Greece

NUTS Level:

NUTS0



TAROT



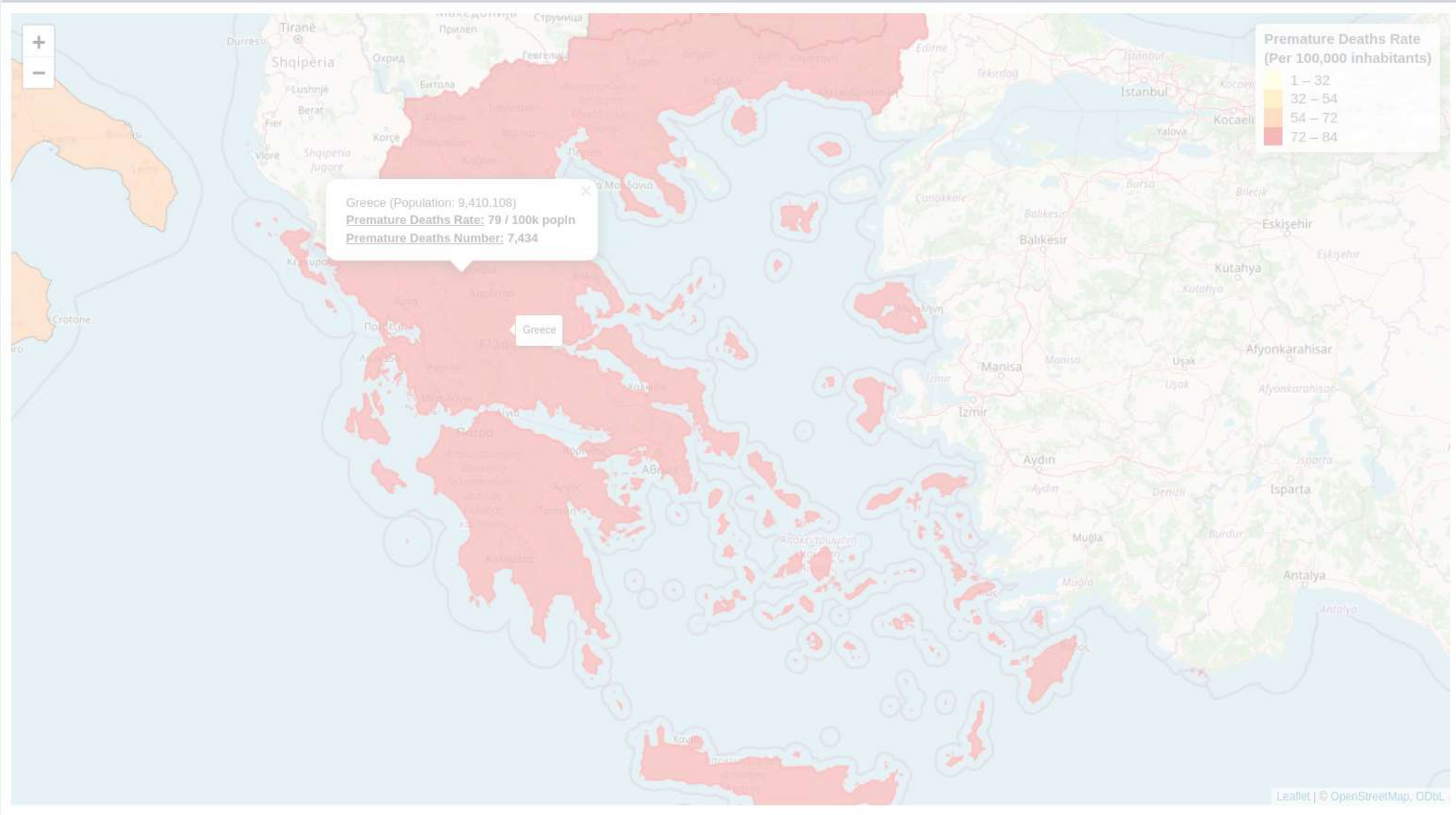
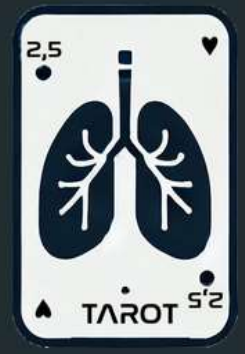
The AiR Out There

Leaflet Map

Month: 2024-12

Country: Greece

NUTS Level: NUTS3





The AiR Out There

Leaflet Map

Month:

2024-12

Country:

Greece

NUTS Level:

NUTS3

