

SolvRisk 360 – Risk Report

1. Data Input

Dataset used: policies_1000_high_3zones.csv

Preview (first 3 / last 3 rows):

n_policy	lat	lon	insured_sum	zone
10000	40.4208511002	-3.6807351986	1154714	madrid
10001	40.4360162247	-3.7188834786	1137548	madrid
10002	40.4000057187	-3.703781877	96816	madrid
...				
10997	41.3800316971	2.1111560081	73130	barcelona
10998	41.3715318336	2.1435953906	50567	barcelona
10999	41.4097384087	2.1590230882	4619	barcelona

2. Global KPIs

- Total Policies: 1.000,00
- Minimum (€): 1.092,00
- 1st Quartile (€): 27.297,00
- Median (€): 50.882,00
- 3rd Quartile (€): 79.321,00
- Mean (€): 179.043,17
- Maximum (€): 2.460.169,00
- St.Desv. (€): 426.870,41

3. KPIs by Zone

zone	Total Policies	Minimum (€)	1st Quartile (€)	Median (€)	3rd Quartile (€)	Mean (€)	Maximum (€)	St.Desv. (€)
barcelona	333.00	1,092.00	27,297.00	51,831.00	79,321.00	177,567.47	2,460,169.00	421,689.79
madrid	334.00	1,092.00	27,573.25	50,117.50	79,303.75	181,985.73	2,460,169.00	438,252.70
valencia	333.00	1,092.00	27,297.00	51,831.00	79,321.00	177,567.47	2,460,169.00	421,689.79

4. Policy Map



5. Algorithm Results

Algorithm used: all_fast_with_grid

Parameters used:

- radius: 200
- grid_distance: 25
- top_k: 10
- i_min: 100
- delta0: 400
- delta_min: 25
- metric: haversine

Algorithm	Sum	# policies	Center	Time (s)
grid_search_r	5,665,365.00	6	(39.471977, -0.368880)	0.13804
fast_with_grid	5,665,365.00	6	(39.472241, -0.368908)	0.02160
fast_with_multilocal	5,665,365.00	6	(39.472241, -0.368908)	0.02273

a) Concentration Results

- Policies: 6
- % of total policies: 0.60%
- Total sum (€): 5,665,365.00
- % of insured sum: 3.16%
- Center latitude: 39.472241
- Center longitude: -0.368908
- Total time (s): 0.186534
- Algorithm time (s): 0.021599

- Minimum (€): 43,079.00
- 1st Quartile (€): 75,550.00
- Median (€): 688,724.50
- 3rd Quartile (€): 1,824,951.25
- Mean (€): 944,227.50
- Maximum (€): 2,169,985.00
- St.Desv. (€): 1,005,811.62

