

# REGIONAL EXPOSURE SUMMARIES

Review main statistic of regional exposure models and create summaries across countries.

# Parameters	
region = "Europe"	
/tmp/ipykernel_38967/1912813979.py:17: DtypeWarning: Columns (17) have mixed types.Specify dtype option on import or set low_memory=False.	
df = append_files_by_country(exposure_files.File_Path)	
/tmp/ipykernel_38967/1912813979.py:17: DtypeWarning: Columns (29) have mixed types.Specify dtype option on import or set low_memory=False.	
df = append_files_by_country(exposure_files.File_Path)	
1 - Albania	
2 - Andorra	
3 - Austria	
4 - Belarus	
5 - Belgium	
6 - Bosnia_and_Herzegovina	
7 - Bulgaria	
8 - Croatia	
9 - Cyprus	
10 - Czechia	
11 - Denmark	
12 - Estonia	
13 - Finland	
14 - France	
15 - Germany	
16 - Gibraltar	
17 - Greece	
18 - Hungary	
19 - Iceland	
20 - Ireland	
21 - Isle_of_Man	
22 - Italy	
23 - Kosovo	
24 - Latvia	
25 - Liechtenstein	
26 - Lithuania	
27 - Luxembourg	
28 - Malta	
29 - Moldova	
30 - Monaco	
31 - Montenegro	
32 - Netherlands	
33 - North_Macedonia	
34 - Norway	
35 - Poland	
36 - Portugal	
37 - Romania	
38 - Serbia	
39 - Slovakia	
40 - Slovenia	
41 - Spain	
42 - Sweden	
43 - Switzerland	
44 - Turkey	
45 - Ukraine	
46 - United_Kingdom	

```
Index(['COUNTRY', 'ID_1', 'NAME_1', 'TAXONOMY', 'OCCUPANCY', 'DWELLINGS',  
      'BUILDINGS', 'OCCUPANTS', 'COST_USD', 'COST_STRUCTURAL_USD',  
      'COST_NONSTRUCTURAL_USD', 'COST_CONTENTS_USD', 'COST_PER_AREA_USD'],  
      dtype='object')
```

## Exposure at National level by occupancy

BUILDINGS										
	COM	Com	IND	Ind	Res	COM_%	Com_%	IND_%	Ind_%	Res
COUNTRY										
Albania	0.0K	29,425	0.0K	15,926	598,267	0.00%	4.57%	0.00%	2.47%	92.9
Andorra	0.0K	4,252	0.0K	1,206	12,616	0.00%	23.53%	0.00%	6.67%	69.8
Austria	0.0K	94,262	0.0K	30,100	2,191,280	0.00%	4.07%	0.00%	1.30%	94.6
Belarus	0.0K	61,350	0.0K	24,388	1,630,266	0.00%	3.58%	0.00%	1.42%	95.0
Belgium	0.0K	105,620	0.0K	59,200	3,681,643	0.00%	2.75%	0.00%	1.54%	95.7
Bosnia_and_Herzegovina	0.0K	14,209	0.0K	6,587	1,078,156	0.00%	1.29%	0.00%	0.60%	98.1
Bulgaria	0.0K	80,750	0.0K	51,807	2,060,454	0.00%	3.68%	0.00%	2.36%	93.9
Croatia	0.0K	33,961	0.0K	27,000	1,609,079	0.00%	2.03%	0.00%	1.62%	96.3
Cyprus	0.0K	15,470	0.0K	6,828	264,315	0.00%	5.40%	0.00%	2.38%	92.2
Czechia	0.0K	108,910	0.0K	80,000	2,184,310	0.00%	4.59%	0.00%	3.37%	92.0
Denmark	0.0K	81,990	0.0K	68,481	1,536,290	0.00%	4.86%	0.00%	4.06%	91.0
Estonia	0.0K	12,890	0.0K	9,900	212,146	0.00%	5.49%	0.00%	4.21%	90.3
Finland	0.0K	61,620	0.0K	40,000	1,236,900	0.00%	4.60%	0.00%	2.99%	92.4
France	0.0K	596,577	0.0K	300,500	14,449,761	0.00%	3.89%	0.00%	1.96%	94.9
Germany	0.0K	623,809	0.0K	388,400	18,922,618	0.00%	3.13%	0.00%	1.95%	94.8
Gibraltar	0.0K	1,400	0.0K	59	4,045	0.00%	25.43%	0.00%	1.07%	73.4
Greece	0.0K	249,708	0.0K	51,229	3,051,158	0.00%	7.45%	0.00%	1.53%	91.0
Hungary	0.0K	80,678	0.0K	62,100	2,681,291	0.00%	2.86%	0.00%	2.20%	94.9
Iceland	0.0K	8,487	0.0K	5,480	60,103	0.00%	11.46%	0.00%	7.40%	81.7
Ireland	0.0K	46,390	0.0K	28,100	1,854,314	0.00%	2.41%	0.00%	1.46%	96.3
Isle_of_Man	0.0K	3,376	0.0K	908	15,624	0.00%	16.96%	0.00%	4.56%	78.4
Italy	546.3K	0	287.0K	0	11,354,381	4.48%	0.00%	2.36%	0.00%	93.3
Kosovo	0.0K	37,437	0.0K	7,149	247,680	0.00%	12.81%	0.00%	2.45%	84.7
Latvia	0.0K	20,310	0.0K	13,200	349,765	0.00%	5.30%	0.00%	3.44%	91.2
Liechtenstein	0.0K	3,142	0.0K	593	10,439	0.00%	22.16%	0.00%	4.18%	73.6
Lithuania	0.0K	69,890	0.0K	21,800	507,533	0.00%	11.66%	0.00%	3.64%	84.7
Luxembourg	0.0K	9,190	0.0K	2,100	119,597	0.00%	7.02%	0.00%	1.60%	91.3
Malta	0.0K	13,030	0.0K	9,872	94,355	0.00%	11.11%	0.00%	8.42%	80.4
Moldova	0.0K	19,204	0.0K	3,982	789,437	0.00%	2.36%	0.00%	0.42%	97.1
Monaco	0.0K	790	0.0K	167	9,172	0.00%	7.80%	0.00%	1.65%	90.5
Montenegro	0.0K	11,274	0.0K	2,508	151,159	0.00%	6.84%	0.00%	1.52%	91.6
Netherlands	0.0K	248,033	0.0K	125,000	5,125,317	0.00%	4.51%	0.00%	2.27%	93.2
North_Macedonia	0.0K	35,545	0.0K	12,051	446,231	0.00%	7.20%	0.00%	2.44%	90.3
Norway	0.0K	121,237	0.0K	105,235	1,534,880	0.00%	6.88%	0.00%	5.97%	87.1
Poland	0.0K	536,920	0.0K	172,900	6,314,899	0.00%	7.64%	0.00%	2.46%	89.9
Portugal	0.0K	173,608	0.0K	101,820	3,353,762	0.00%	4.78%	0.00%	2.81%	92.4
Romania	0.0K	173,480	0.0K	73,300	5,260,264	0.00%	3.15%	0.00%	1.33%	95.5
Serbia	0.0K	43,862	0.0K	24,004	2,272,982	0.00%	1.87%	0.00%	1.03%	97.1
Slovakia	0.0K	58,532	0.0K	75,600	862,278	0.00%	5.87%	0.00%	7.59%	86.5
Slovenia	0.0K	27,460	0.0K	21,600	463,029	0.00%	5.36%	0.00%	4.22%	90.4
Spain	0.0K	510,052	0.0K	198,822	9,305,735	0.00%	5.09%	0.00%	1.97%	92.9
Sweden	0.0K	158,160	0.0K	99,350	2,021,201	0.00%	10.85%	0.00%	4.18%	84.9
Switzerland	0.0K	218,110	0.0K	25,000	1,730,823	0.00%	6.30%	0.00%	1.33%	92.3
Turkey	0.0K	732,175	0.0K	208,109	8,487,992	0.00%	7.77%	0.00%	2.21%	90.0
Ukraine	0.0K	274,876	0.0K	190,006	12,188,826	0.00%	2.17%	0.00%	1.50%	96.3
United_Kingdom	0.0K	605,575	0.0K	201,200	14,668,221	0.00%	3.91%	0.00%	1.30%	94.7

COST_USD										
	COM	Com	IND	Ind	Res	COM_%	Com_%	IND_%		
COUNTRY										
Albania	0.0B	4,930.7M	0.0B	2,908.8M	26,784.3M	0.00%	14.24%	0.00%		
Andorra	0.0B	4,866.2M	0.0B	1,434.4M	3,198.6M	0.00%	51.23%	0.00%		
Austria	0.0B	306,147.4M	0.0B	119,915.2M	812,987.2M	0.00%	24.71%	0.00%		
Belarus	0.0B	28,478.0M	0.0B	21,049.3M	164,876.7M	0.00%	13.28%	0.00%		
Belgium	0.0B	366,090.3M	0.0B	154,449.3M	759,123.6M	0.00%	24.74%	0.00%		
Bosnia_and_Herzegovina	0.0B	8,642.4M	0.0B	7,737.2M	55,434.0M	0.00%	12.03%	0.00%		
Bulgaria	0.0B	53,473.6M	0.0B	108,573.1M	169,251.3M	0.00%	16.14%	0.00%		
Croatia	0.0B	28,052.9M	0.0B	15,444.0M	73,081.4M	0.00%	15.88%	0.00%		
Cyprus	0.0B	15,308.1M	0.0B	22,400.8M	65,423.6M	0.00%	14.84%	0.00%		
Czechia	0.0B	154,541.5M	0.0B	210,006.0M	338,171.1M	0.00%	21.99%	0.00%		
Denmark	0.0B	247,412.3M	0.0B	162,993.4M	588,944.9M	0.00%	24.76%	0.00%		
Estonia	0.0B	11,741.0M	0.0B	20,447.9M	574,770.2M	0.00%	16.11%	0.00%		
Finland	0.0B	113,083.2M	0.0B	185,242.1M	392,790.8M	0.00%	16.36%	0.00%		
France	0.0B	1,520,855.7M	0.0B	1,365,272.6M	5,606,664.5M	0.00%	17.91%	0.00%		
Germany	0.0B	2,918,885.9M	0.0B	1,044,285.0M	8,182,566.2M	0.00%	24.03%	0.00%		
Gibraltar	0.0B	2,434.7M	0.0B	108.9M	1,429.0M	0.00%	61.29%	0.00%		
Greece	0.0B	110,251.9M	0.0B	72,290.8M	511,824.1M	0.00%	15.88%	0.00%		
Hungary	0.0B	126,084.7M	0.0B	120,302.2M	356,060.0M	0.00%	20.93%	0.00%		
Iceland	0.0B	25,624.9M	0.0B	12,630.9M	32,642.8M	0.00%	36.14%	0.00%		
Ireland	0.0B	191,266.9M	0.0B	52,077.4M	336,556.8M	0.00%	32.98%	0.00%		
Isle_of_Man	0.0B	3,719.0M	0.0B	529.1M	5,151.5M	0.00%	39.57%	0.00%		
Italy	570.9B	0.0M	1,031.6B	0.0M	4,398,584.2M	9.51%	0.00%	17.19%		
Kosovo	0.0B	5,819.0M	0.0B	2,862.1M	14,159.0M	0.00%	25.48%	0.00%		
Latvia	0.0B	20,812.2M	0.0B	23,989.3M	63,771.7M	0.00%	19.17%	0.00%		
Liechtenstein	0.0B	8,295.5M	0.0B	1,027.8M	3,452.8M	0.00%	64.93%	0.00%		
Lithuania	0.0B	48,987.2M	0.0B	57,098.7M	77,320.7M	0.00%	26.71%	0.00%		
Luxembourg	0.0B	30,523.6M	0.0B	10,973.3M	52,036.5M	0.00%	32.63%	0.00%		
Malta	0.0B	6,060.1M	0.0B	8,277.2M	20,151.6M	0.00%	17.57%	0.00%		
Moldova	0.0B	3,986.0M	0.0B	6,828.0M	38,616.8M	0.00%	8.06%	0.00%		
Monaco	0.0B	2,861.4M	0.0B	341.1M	4,616.0M	0.00%	36.60%	0.00%		
Montenegro	0.0B	6,758.2M	0.0B	2,063.9M	8,840.8M	0.00%	38.26%	0.00%		
Netherlands	0.0B	553,325.7M	0.0B	589,911.3M	1,817,768.7M	0.00%	18.69%	0.00%		
North_Macedonia	0.0B	12,542.8M	0.0B	7,565.9M	26,793.9M	0.00%	26.74%	0.00%		
Norway	0.0B	195,263.8M	0.0B	114,571.6M	692,146.2M	0.00%	19.49%	0.00%		
Poland	0.0B	480,581.6M	0.0B	349,809.2M	817,895.7M	0.00%	29.16%	0.00%		
Portugal	0.0B	138,442.2M	0.0B	92,464.2M	574,770.9M	0.00%	17.18%	0.00%		
Romania	0.0B	36,750.2M	0.0B	79,299.6M	268,480.4M	0.00%	9.56%	0.00%		
Serbia	0.0B	57,439.4M	0.0B	43,655.8M	158,672.6M	0.00%	22.11%	0.00%		
Slovakia	0.0B	43,576.3M	0.0B	102,250.5M	182,416.6M	0.00%	13.28%	0.00%		
Slovenia	0.0B	20,654.5M	0.0B	19,061.1M	56,124.5M	0.00%	21.55%	0.00%		
Spain	0.0B	476,479.0M	0.0B	487,637.2M	3,298,325.0M	0.00%	11.18%	0.00%		
Sweden	0.0B	337,626.6M	0.0B	324,135.1M	841,901.9M	0.00%	22.45%	0.00%		
Switzerland	0.0B	232,921.1M	0.0B	132,747.9M	1,109,987.7M	0.00%	15.78%	0.00%		
Turkey	0.0B	216,293.2M	0.0B	130,986.4M	1,047,276.3M	0.00%	15.51%	0.00%		
Ukraine	0.0B	201,132.4M	0.0B	186,438.2M	629,094.0M	0.00%	19.78%	0.00%		
United_Kingdom	0.0B	1,380,766.0M	0.0B	735,188.5M	4,210,391.1M	0.00%	21.83%	0.00%		

## Other metrics to consider

		AVG_BUILDING_AREA_SQM		AVG_COST_PER_AREA_USD	
COUNTRY	OCCUPANCY				
Albania	Com		106		\$792
	Ind		86		\$580
	Res		120		\$446
Andorra	Com		209		\$2,738
	Ind		274		\$1,739
	Res		136		\$1,488
Austria	Com		505		\$3,215