COUNTRY EXPOSURE MODEL

Review main statistic of a exposure model and create summaries for a given Country.

```python
# Parameters
country = "Guadeloupe"
```

```
Exposure files:
   Exposure_Com_Guadeloupe.csv
   Exposure_Ind_Guadeloupe.csv
   Exposure_Res_Guadeloupe.csv
```

Sanity checks and formats

```
Guadeloupe
   Exposure/Exposure/Exposure_Com_Guadeloupe.csv
   Exposure/Exposure/Exposure_Ind_Guadeloupe.csv
   Exposure/Exposure/Exposure_Res_Guadeloupe.csv
   Occupants / Dwellings = 2.8
   Reference avg household size (2019) = 2.3
   Population (exposure / UN_2021) = 1.01
   Exposure models  OK
```

Exposure at National level

Summary by occupancy type

OCCUPANCY	OCCUPANTS	BUILDINGS	COST_USD	BUILDINGS_%	COST_USD_%
Res	404.8K	138,585	$9,619.6M	96.04%	85.62%
Ind	0.0K	2,131	$400.2M	1.48%	3.56%
Com	0.0K	3,589	$1,215.7M	2.49%	10.82%

Other metrics to consider

OCCUPANCY	AREA_SQM	COST_BUILDING_USD	AVG_BUILDING_AREA_SQM	AVG_COST_PER_AREA_USD
Total	38,196.3K	$7,731.2M	265	$294
Res	35,998.1K	$6,796.4M	260	$267
Ind	985.3K	$200.4M	462	$406
Com	1,212.9K	$734.3M	338	$1,002

Exposure summary at Admin level 1

NAME_1	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
Pointe-à-Pitre	$5.6B	72.5K	202.5K	50.23%	50.23%	50.01%
Basse-Terre	$5.6B	71.8K	202.4K	49.77%	49.77%	49.99%

Exposure by simplified taxonomy

```
Adding `MACRO_TAXO` column
```

MACRO_TAXO	COST_USD	BUILDINGS	OCCUPANTS	COST_USD_%	BUILDINGS_%	OCCUPANTS_%
MR	$5,706.4M	88,895	204.5K	50.79%	61.60%	50.50%
RC	$3,909.9M	37,817	115.8K	34.80%	26.21%	28.60%
W	$1,128.5M	14,879	84.6K	10.04%	10.31%	20.89%
S	$430.7M	2,075	0.0K	3.83%	1.44%	0.00%
MCF	$60.0M	639	0.0K	0.53%	0.44%	0.00%

Exposure by taxonomy

```
Showing only taxonomies that represent 90% of the total `COST_USD`
```

MACRO_TAXO	TAXONOMY	COST_USD	BUILDINGS	COST_USD_%	BUILDINGS_%
MR	MR/LWAL+CDL+DUL/HEX:1/RES	$5,706.4M	88.9K	60.11%	64.68%
RC	CR/LFINF+CDL+DUL/HEX:2/RES	$2,904.1M	34.8K	30.59%	25.32%
W	W+WLI/LWAL+CDM+DUM/HEX:1/RES	$882.3M	13.7K	9.29%	10.00%