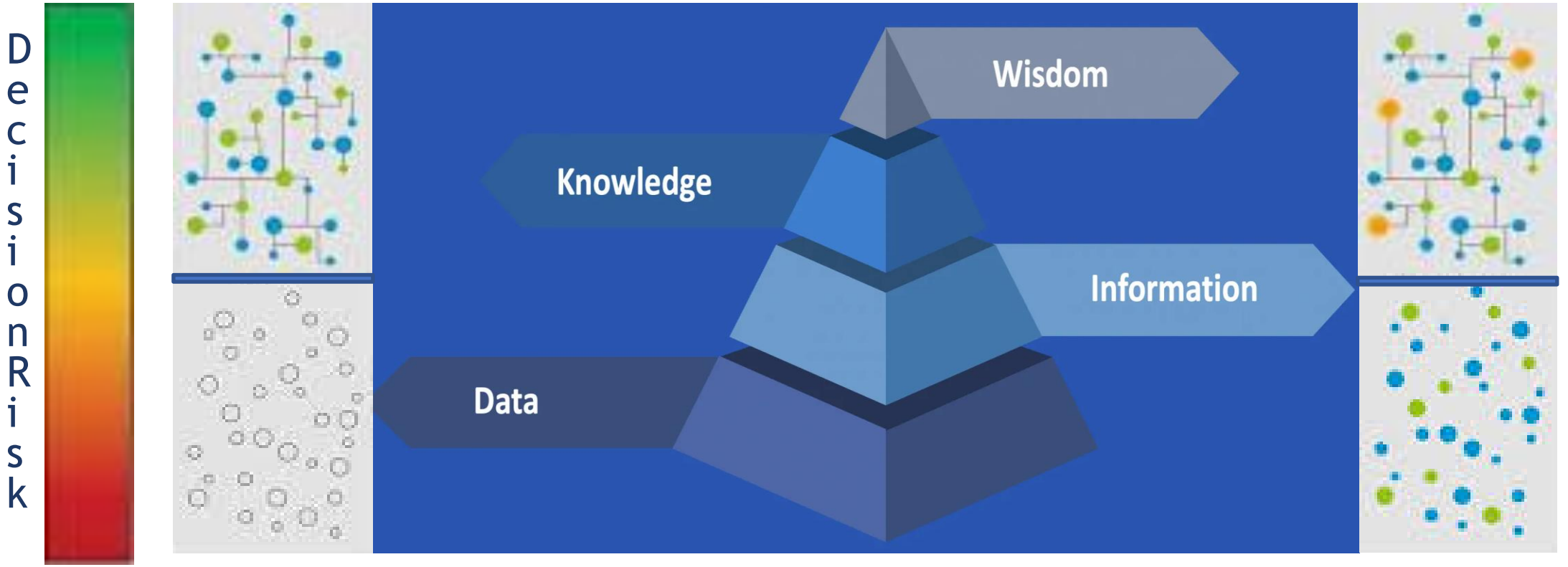
INSTITUTE OF TOURIST RESEARCH AND FORECASTS
RESEARCH INSTITUTE FOR TOURISM

Analysis and Visualization of tourism data

George Petrakos
Professor, Panteion University
Director General, Research Institute for Tourism

From Data to Knowledge …



Data Collection	Data Quality	Data Descriptives	Statistical Inference	Modeling & Forecasting	**Data Mining**	**Data Visualization**

Research Need

The possibility of a more analytical, qualitative and targeted approach to research issues.

Databases

Pros: The total amount of hotels

Cons: Limited Information

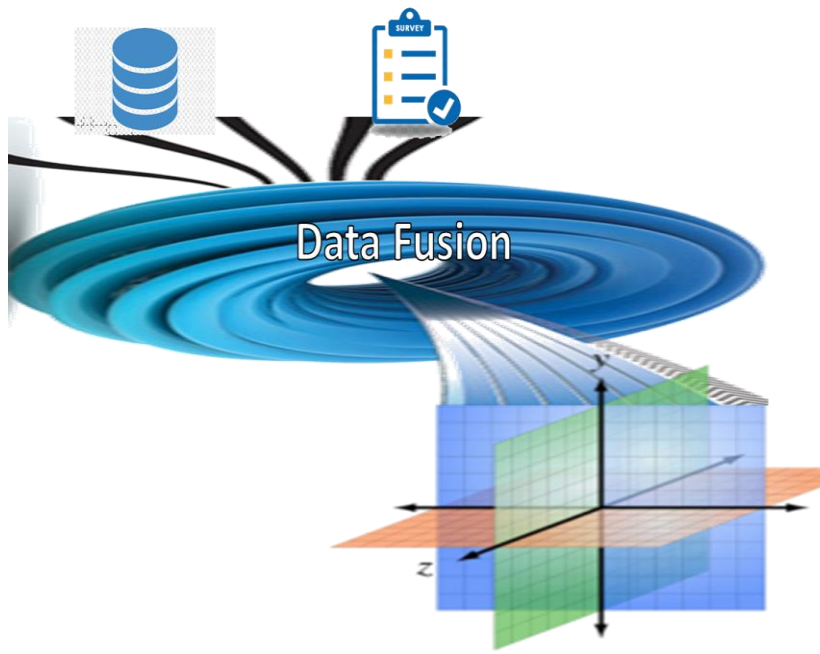
Surveys

Pros: Rich Information

Cons: Hotel Sample

(Possibility for a High Level analysis only, ex. On a level of Regions, not islands or municipalities ext..)

Enrichment of the Registry with dynamic and qualitative data from sample surveys

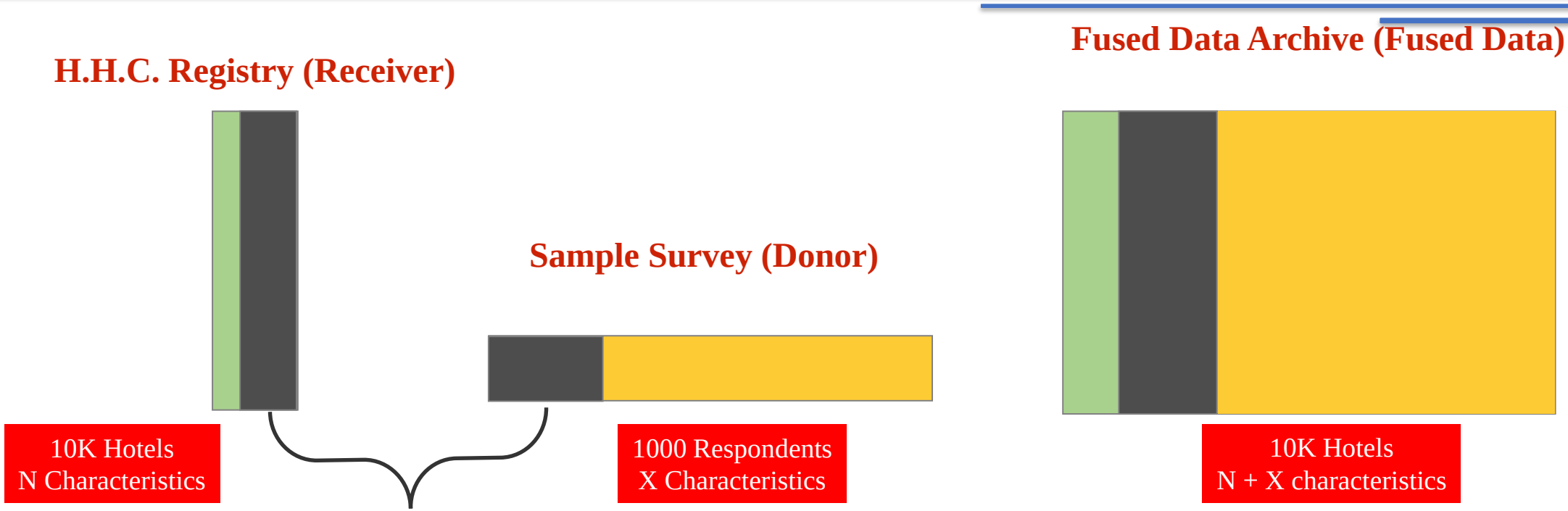


Data Fusion

CASE STUDY: *The enrichment of the H.C.H. Registry (10k Hotels) with dynamic indicators from the data of the Annual Survey of RIT.*

OBJECTIVE: *The estimation of the main characteristics of the Greek Hotel Sector based on specific sub-populations that cannot be determined by the sample survey.*

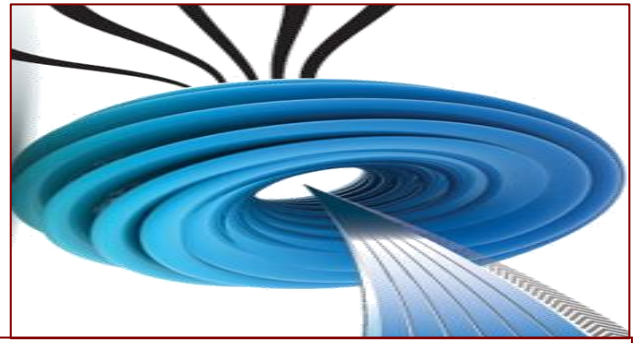
Data Fusion



- Category
- Type of Operation
- Legal Type
- Altitude
- Region
- Municipality
- # of Rooms
- # of Beds
- Chain
- Type of Hotel
- Facilities (restaurant)

Annual Sample Survey
Sample: 691 hotels

A	Turnover
A1	% by Overnight Stays
A2	% F&B
A3	% Conferences- Events
A4	% Other
A5	Turnover/ Room
A6	Employment Expenditure / Turnover
B	# Employees
B1	May
B2	August
B3	# Employees/ Room
B4	Demand/ Job Position
B5	# Tourist Graduates
C	Employment Expenditure
C1	Total
C2	Direct
C3	Indirect
C4	Employment Expenditure/ Room
D	Investments & Sustainability
D1	Annual Investment Expenditure
D2	Investment Expenditure/ Turnover
D3	% Sustainability Expenditure
E	Booking Channels
E1	% OTAs
E2	% Hotel Website
E3	% Tour Operator
F	Avarage Room Rate
F1	May
F2	August
F3	October
G	Occupancy Rate
G1	May
G2	August
G3	October



Common connection characteristics

1. Category (*)
2. Type of Operation
3. # of Rooms
4. Altitude
5. Legal Type
6. Region
7. Tourist Zone
8. Municipality
9. # of Beds
10. Chain
11. Facilities (e.g. swimming pool)

H.C.H. Registry of Hotels
10.000 Hotels

The linked records show an average Similarity Index of 86.2% (+-7%)

Each record from the sample survey was "matched" with approximately 11 records in the registry.

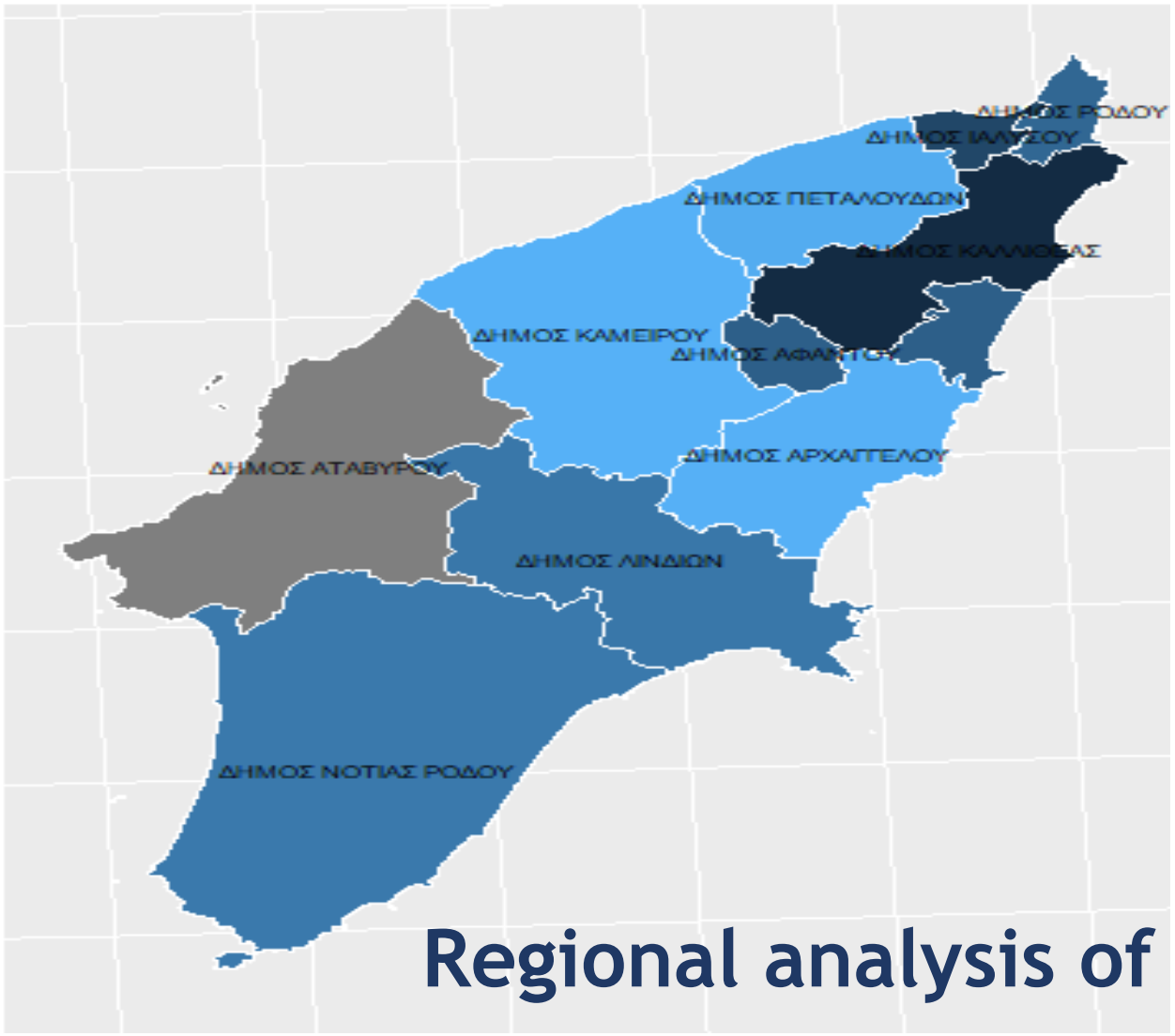
MAP INFOGRAPHICS

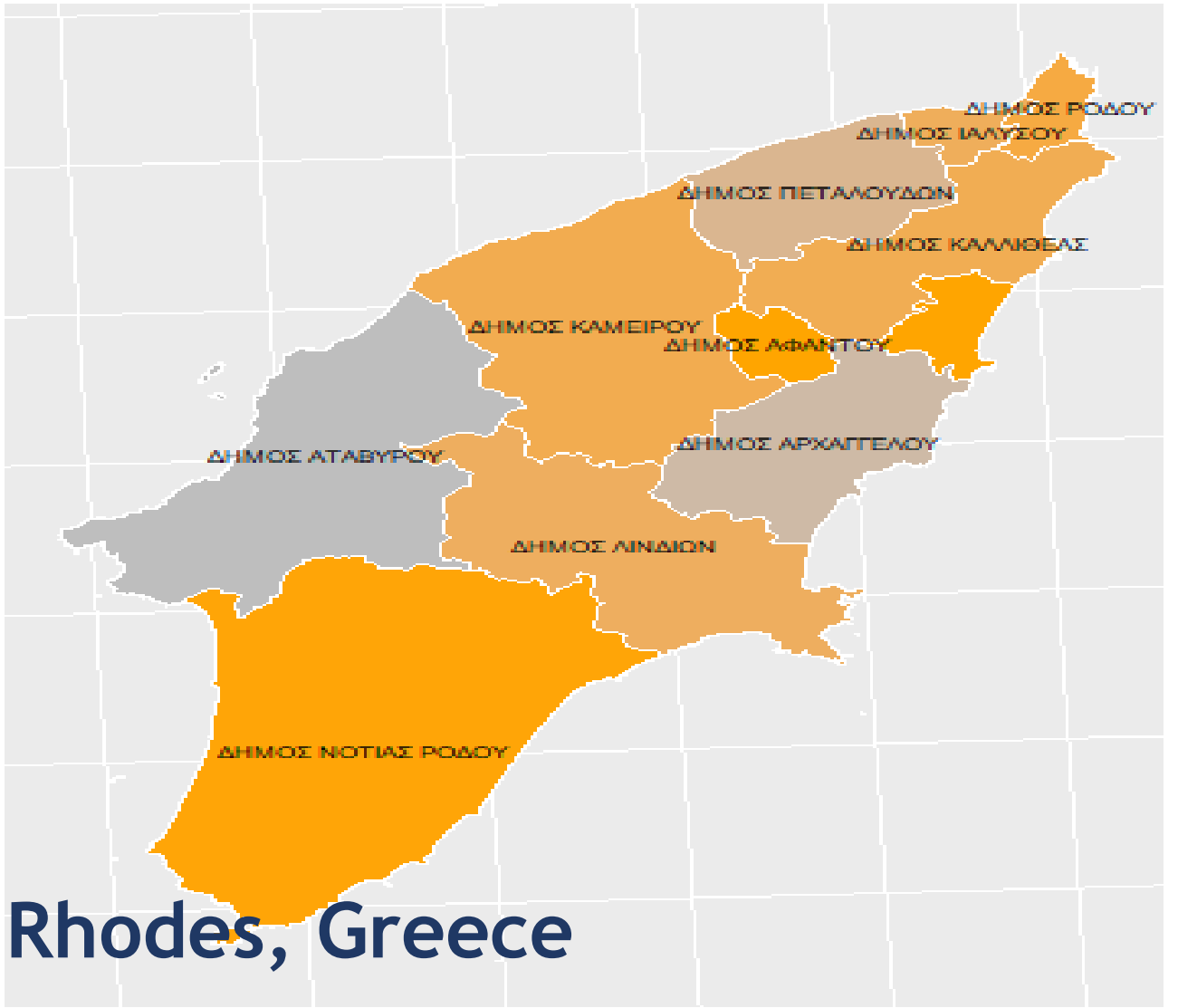
Turnover (estimation)

300 200 100

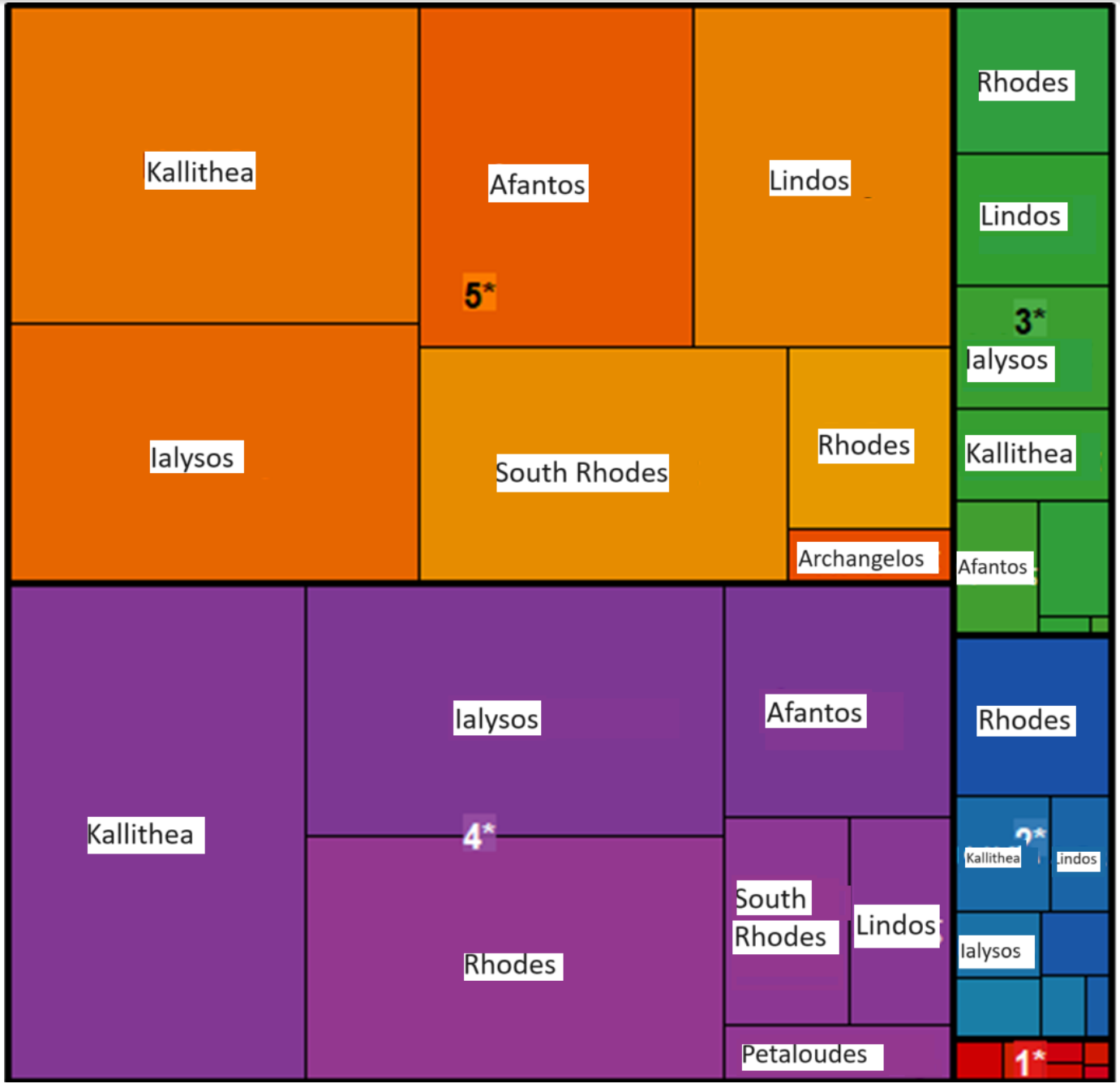
Average Room Rate

100 120 140 160 180



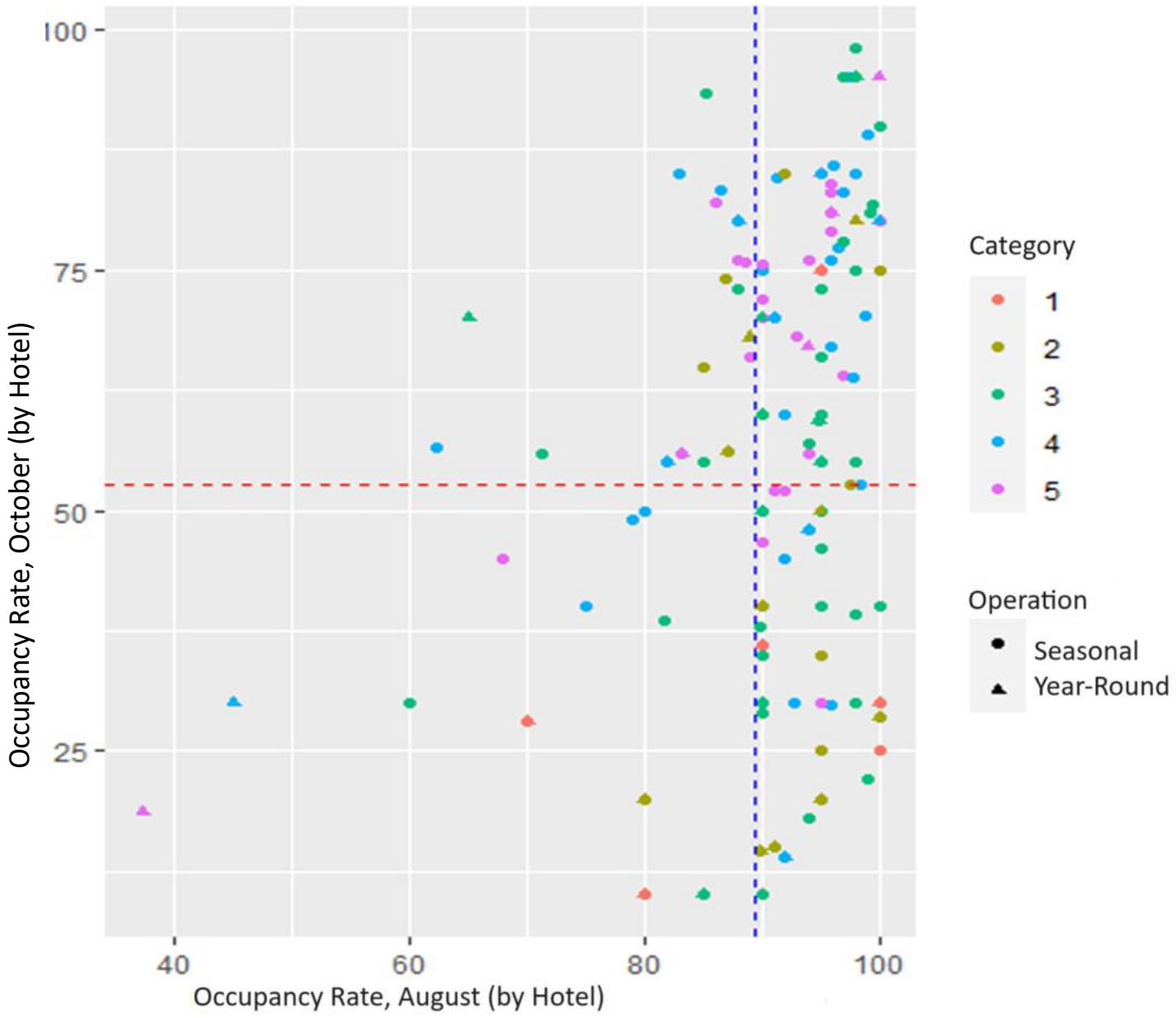


Regional analysis of Rhodes, Greece



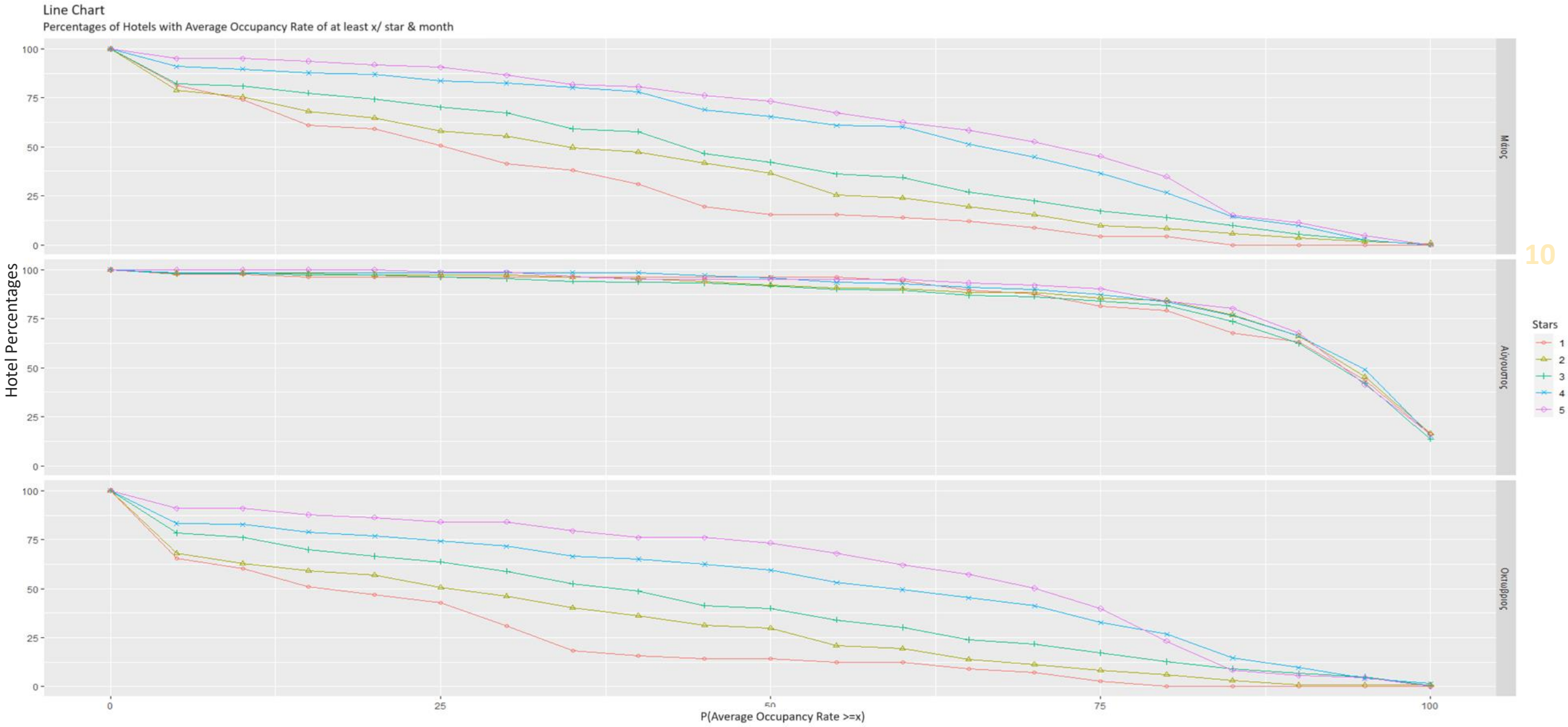
Labour force distribution (category*region)

Apart from the regions, there is the possibility of analyzing & correlating indicators based on qualitative criteria (e.g. category and type of hotel operation)



Occupancy Rate Correlation August - October. (Category*Operation)

Distribution Chart of Hotel Occupancy Rate by category & month



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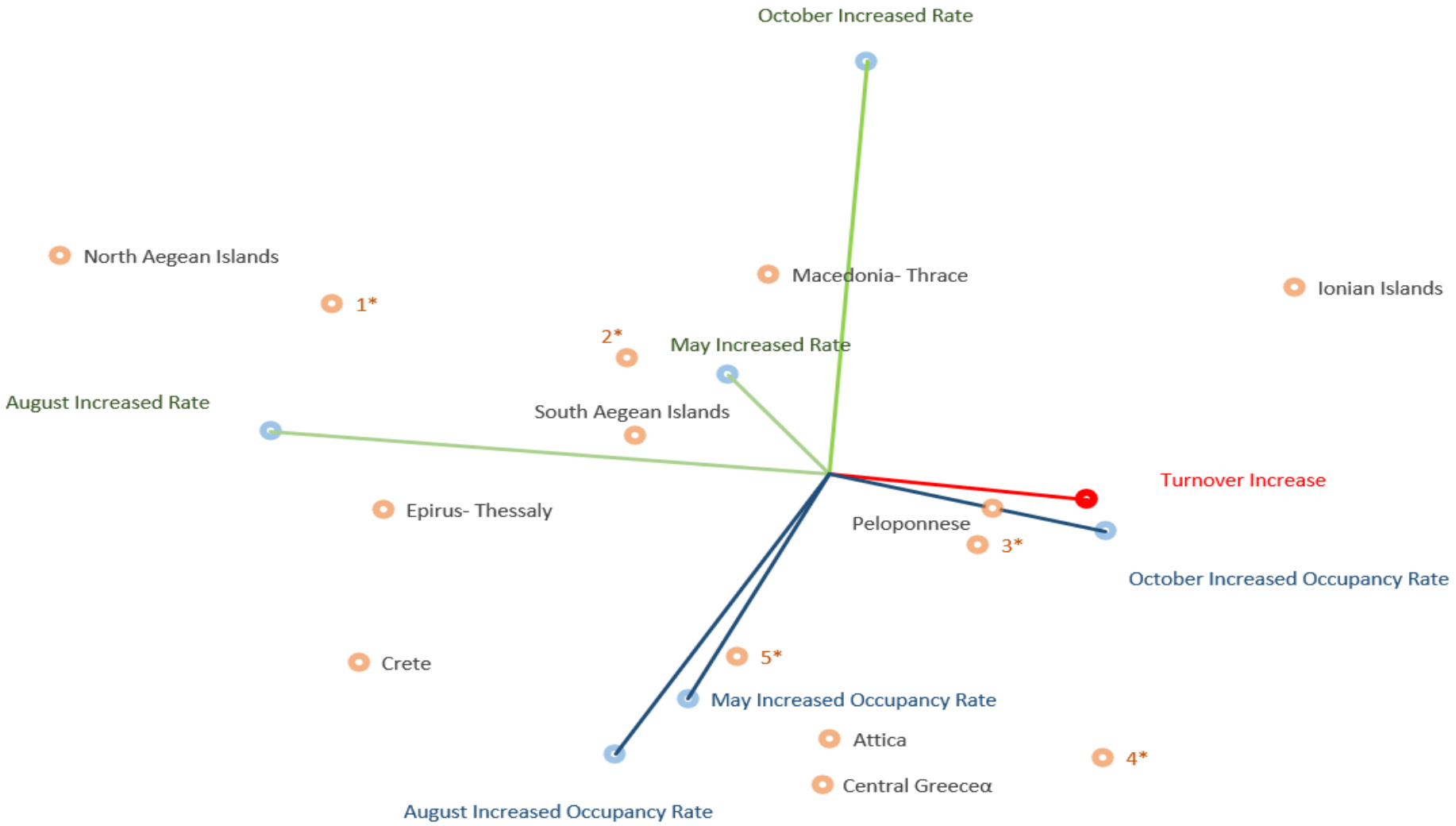
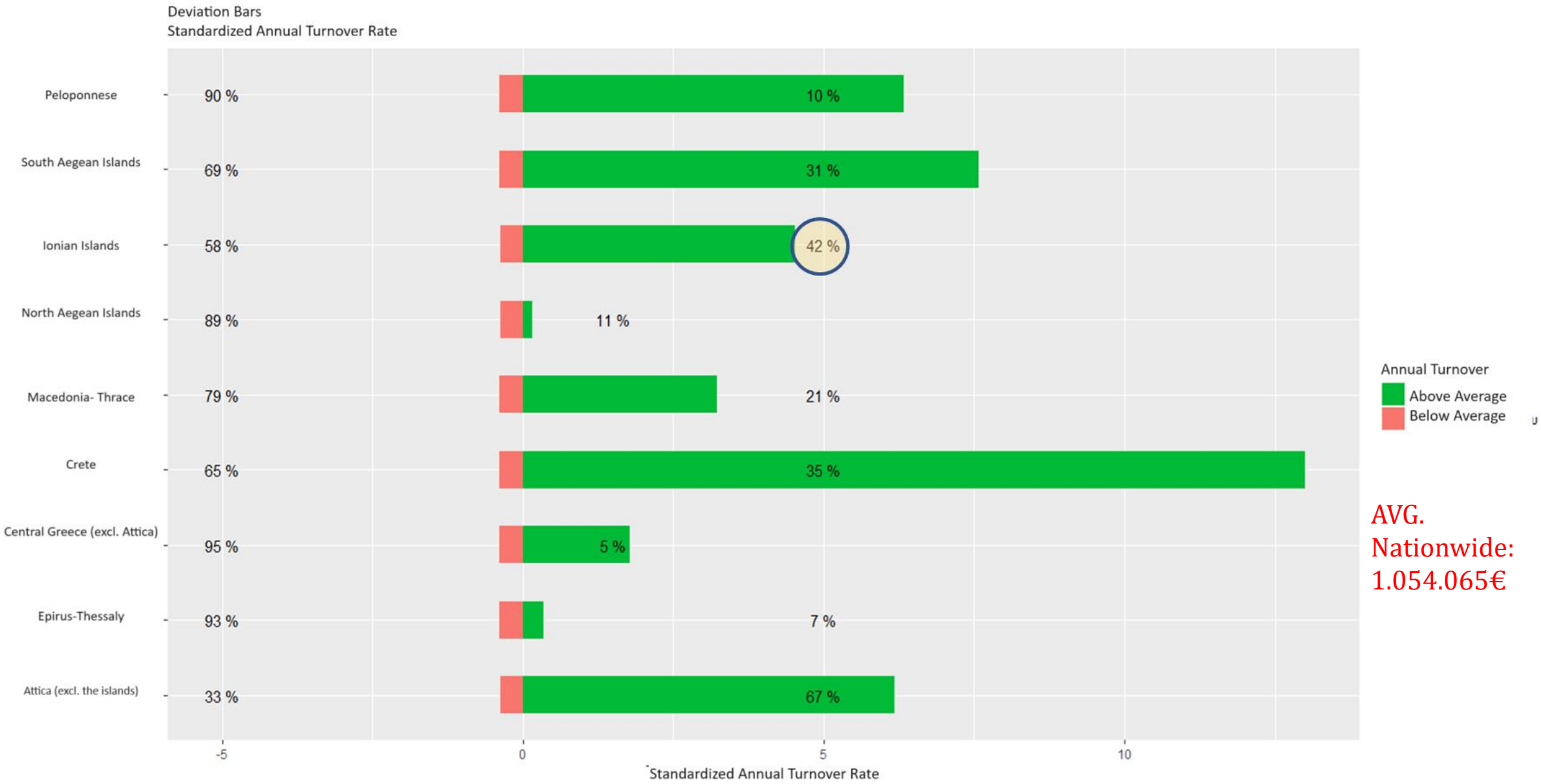
Multivariate Spatial Analysis



Turnover deviation bars for each hotel in relation to the AVG. Nationwide, by region



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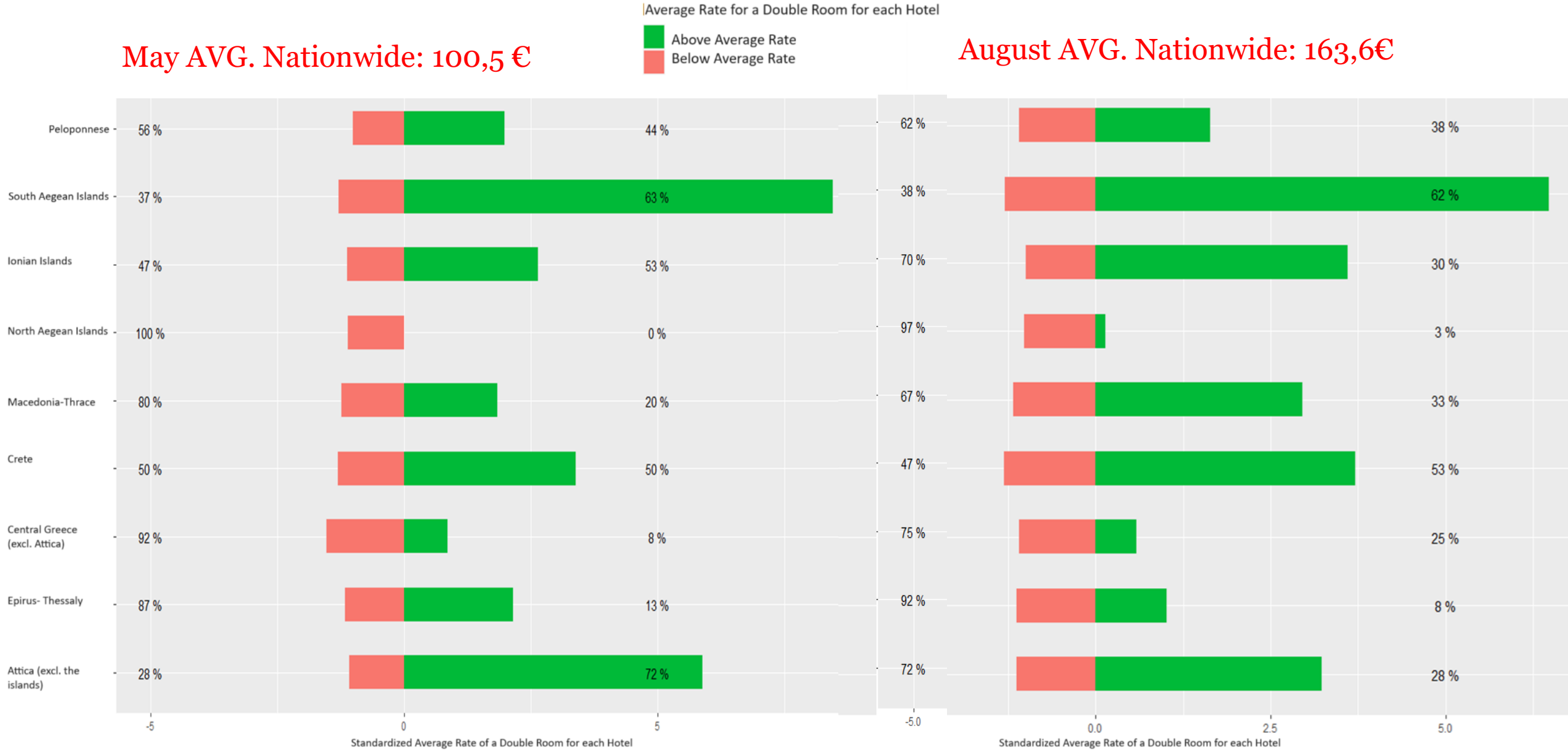
AVG. Nationwide: 1.054.065€

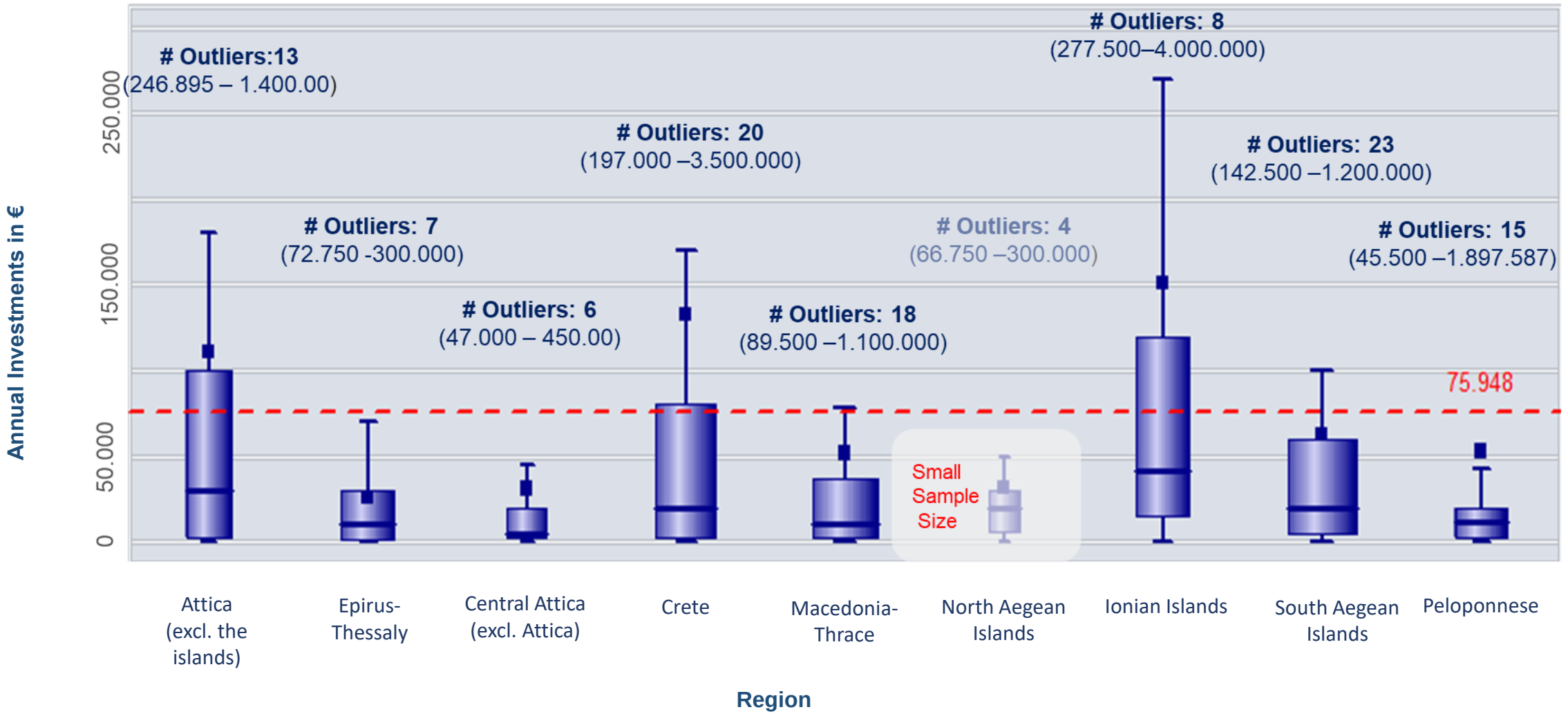
Deviation bars of the Rate of a double room in each hotel in relation to the AVG. Nationwide, by region

May AVG. Nationwide: 100,5 €

August AVG. Nationwide: 163,6€



Characteristics of Investment Distribution by Region, 2023



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Thank You...

RIT