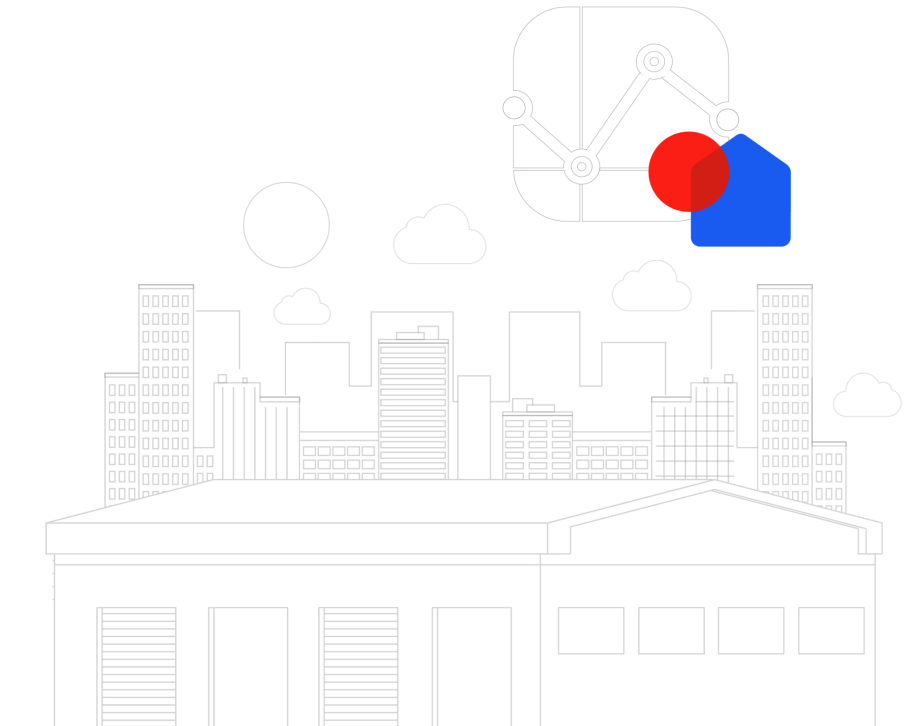




SMART INDEXES Geoanalytics of Dubai, UAE

ABCD Warehouse Classification in Dubai based on Open Data

Prepared by [Smart Indexes](#)





Objective

To develop an operational classification method for warehouses in Dubai based on the ABCD model and subtype differentiation, using open datasets from Dubai Pulse. The goal is to support strategic analysis of commercial warehouse infrastructure and support investment decisions.

Background

The investment attractiveness of warehouses is influenced not only by price, but also by infrastructure quality and functional characteristics. In a fast-growing logistics and trade market like Dubai, access to reliable data on warehouses is essential for risk assessment and real estate strategy. This research consists of adapting the European ABCD model to the real commercial and industrial warehouse real estate of Dubai.



Method Summary

Key points of the market research

- Core Datasets:
 - **Dubai Pulse Open Building Pulse Data.**
Source: [dm_building_summary_information-open](#)
 - **Makani.ae DB.**
Source: <http://makani.ae/>
- Geo-referencing: parcel ID review with data [Makani.ae](#).
- A total of 26,564 warehouses are registered according to DLD data.
- Precise geo-referencing has been established for 21,554 warehouses (81% of the market).
- Total 5,010 warehouses (19%) were not uniquely identified by parcel_id, next excluded from further analysis.



ABCD classification for warehouses of Dubai, UAE

Classification model	Levels of classification					
	A+	A	B+	B	C	D
Building						
Ceiling height	more than 12 m	from 10 m	from 8 m	from 6 m	from 4 m	any
Heating	Yes	Yes	Yes	Yes	No	No
Building status	New	New	not New, not Expired	not New, not Expired	No requirements	No requirements
Building Age	Not older 1 year	Not older 1 year	Not older 10 years	Not older 10 years	Older 10 years, not older 20 years	Older 20 years
Ecostandard Green building	Yes	Yes	No / Null	No / Null	No requirements	No requirements
Office and utility space						
Located offices	Yes	Yes/No	Yes	No requirements	No requirements	No requirements
Located outdoor services	Yes	Yes/No	Yes/No	No requirements	No requirements	No requirements
Located workshop	Yes/No	Yes/No	Yes	Yes/No	No requirements	No requirements
Parking						
Indoor car parking	Yes	Yes/No	Yes/No	Yes/No	No requirements	No requirements
Outdoor car parking	Yes	Yes/No	Yes/No	Yes/No	No requirements	No requirements
Logistics						
Location	Nearby railways, main roads, airport	Nearby railways, main roads, airport	Nearby railways, main roads, airport	Nearby railways, main roads, airport	No	No
Options of comfort						
Lifts	Yes	Yes	Yes/No	Yes/No	No	No
Number of lifts	Lifts ≥ 2	Lifts = 2	Lift = 1	Lift = 1	No requirements	No requirements



ABCD classification for warehouses of Dubai, UAE

Loads						
Soil bearing class (SBC)	$SBC \geq 250$	$200 \leq SBC \leq 250$	$150 \leq SBC \leq 200$	$150 \leq SBC \leq 200$	$100 \leq SBC \leq 150$	$SBC < 100$
Temperature control						
Air conditioner						
Air conditioned area (ACA)	$ACA > 20\%$	$15\% < ACA < 20\%$	$5\% < ACA < 15\%$	$ACA < 5\%$	No requirements	No requirements
Thermal load for AC (TLAC)	$TLAC \geq 500$	$TLAC \geq 500$	$150 \leq TLAC < 500$	$150 \leq TLAC < 500$	$50 \leq TLAC < 150$	$TLAC \leq 50$

Subtype Segmentation

Warehouses were categorized into types:

- Single Warehouse
- Urban Logistics Warehouse
- Last Mile Warehouse
- Big Box Light Industrial
- Big Box Industrial
- Complex Logistic Center
- Single Large Warehouse
- Also added modified subtype "Single Warehouse with Workshop"

Note: added based on Dubai-specific patterns.



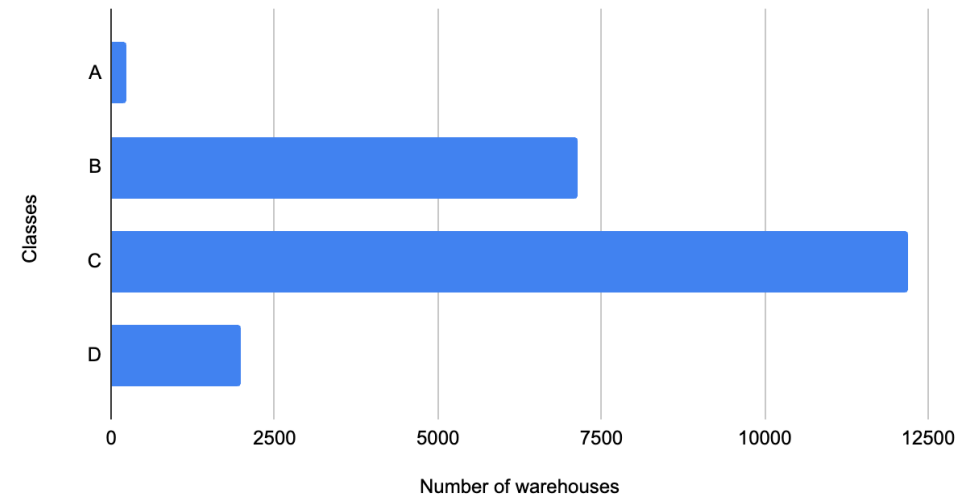
Research results

Segmentation of warehouses by classes A, B, C, D

Table 1. Warehouse segmentation by adopting ABCD classification.

Warehouse classes	Number	Percent
A+	149	1%
A	10	0%
A-	80	0%
B+	467	2%
B	2,195	10%
B-	4,483	21%
C+	3,102	14%
C	9,095	42%
D	1,973	9%
Total classified warehouses	21,554	100%

Warehouses by segmentation based on classes





Logistics based on Makani Search by Number of building entrance in Dubai, UAE

The unique feature of the Emirate of Dubai is the use of a unified system of numbering entry points to buildings with geo-referencing of coordinates for convenient logistics routing.

Table 2. Warehouse segmentation by usage of Makani Number.

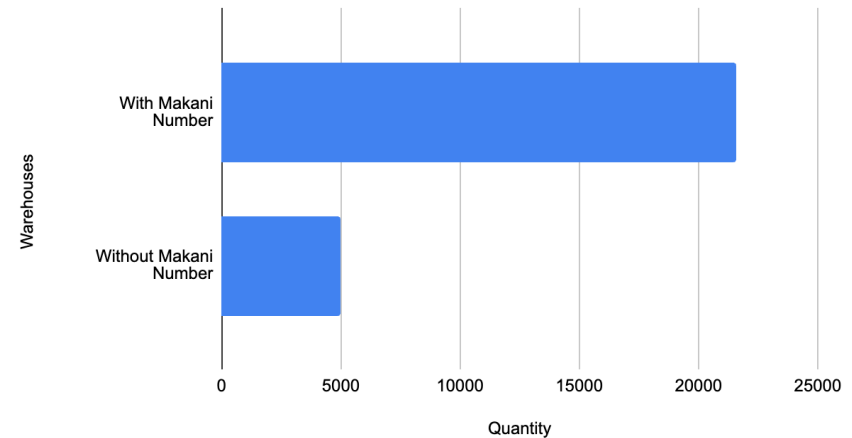
Warehouses	Quantity	Percent
With Makani Number	21,554	81%
Without Makani Number	5,010	19%
Buildings Summary (DLD)*	26,564	100%

Notice: total registered warehouses in Dubai Land Department (DLD).

Summary:

- Total warehouses (according to Dubai Land Department - Buildings Summary Open Data): 26,564.
- Linked by parcel_id + Makani and included in the analysis: 21,554 (81% of 26,564).

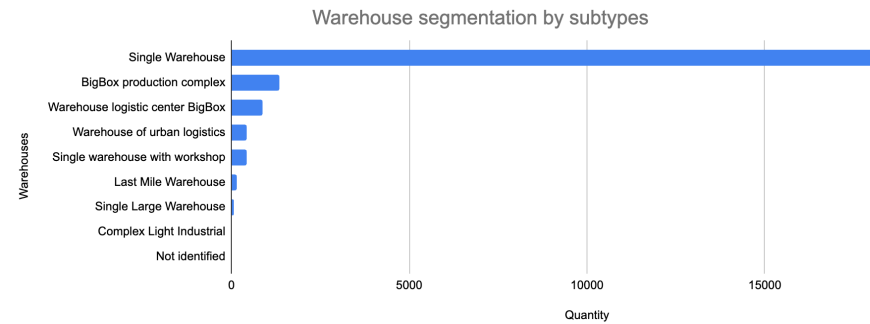
Warehouses by segmentation based on Makani Number



Warehouse segmentation by subtypes

Table 3. Warehouse segmentation by subtypes adopting to Emirate Dubai, UAE.

Warehouse	Quantity	Percent
Single Warehouse	18,213	84%
BigBox production complex	1,359	6%
Warehouse logistic center BigBox	867	4%
Warehouse of urban logistics	441	2%
Single warehouse with workshop	434	2%
Last Mile Warehouse	153	1%
Single Large Warehouse	58	0%
Complex Light Industrial	23	0%
Not identified	6	0%
Total warehouses	21,554	100%



Histogram of warehouse segmentation by subtypes.

GeoAnalytics of Dubai, UAE

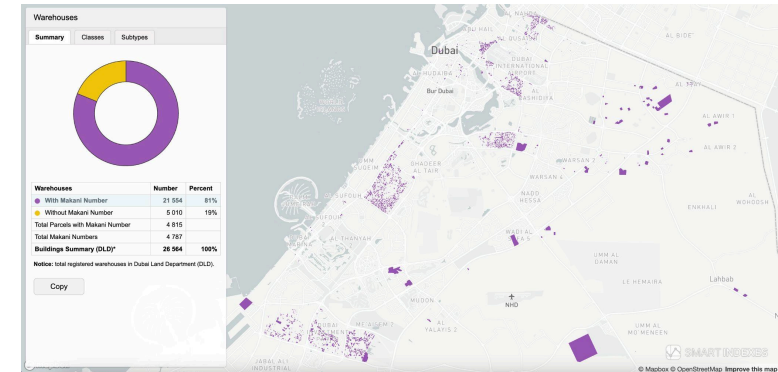
The study of the ABCD classification and segmentation by subtypes of commercial and industrial warehouse areas on the scale of the entire Emirate of Dubai is the task of geoanalytics.

Localization of industry and warehouse storage areas for retail and other sectors of the economy is reflected on the city scale on the map of Dubai with SmartIndex geoanalytics for assessing logistics routes and the level of infrastructure for business.

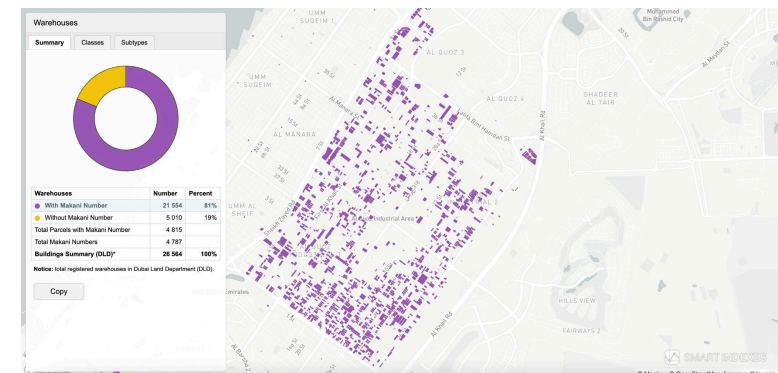
The obtained geoanalytical data contains the necessary and sufficient amount of information to assess the investment attractiveness of the warehouses of interest in Dubai.



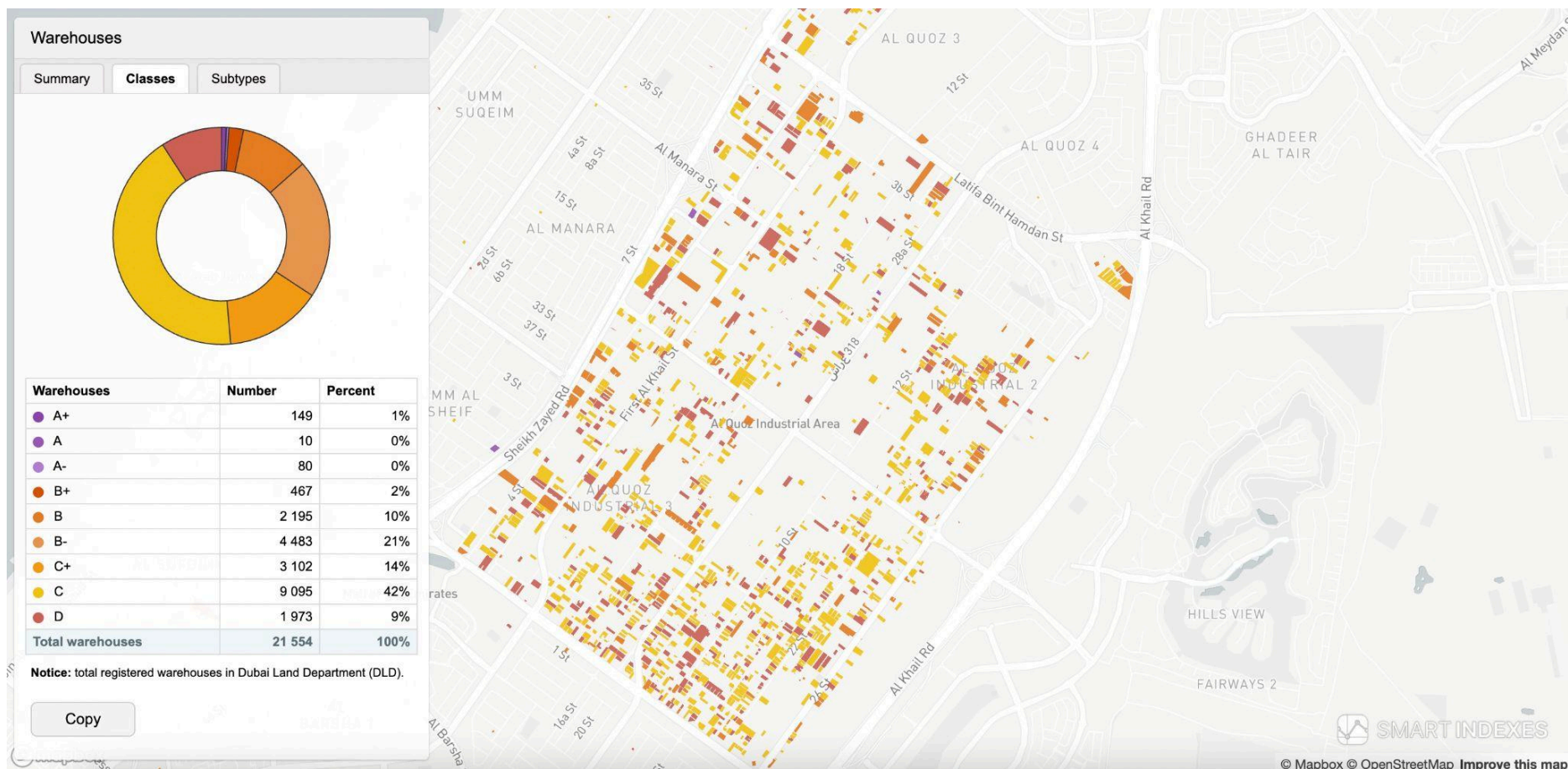
Segmentation by Makani Number to on the scale of the city.



Segmentation by Makani Number to on the scale in community Al Quoz Industrial Area.



ABCD classification of warehouses in Dubai, UAE on map



Segmentation of warehouses by ABCD classification on map of Emirate Dubai, UAE.



1. Distribution by ABCD Class

For the 21,554 warehouses included in the geo-analysis (81 % of the 26,564 registered in Dubai):

- **A+**: 149 (1 %)
- **B+**: 467 (2 %)
- **C+**: 3,102 (14,4 %)
- **D**: 1,973 (9 %)
- **A**: 10 (0 %)
- **B**: 2,195 (10 %)
- **C**: 9,095 (42,2 %)
- **A-**: 80 (0 %)
- **B-**: 4,483 (21 %)

Total A: 1%

Total B: 33%

Total C: 57%

Total D: 9%

Visualization

Histogram chart showing each class's share, accompanied by a table of counts and percentages.



2. Distribution by Warehouse Subtype

Breakdown of the same 21,554 warehouses by functional subtype:

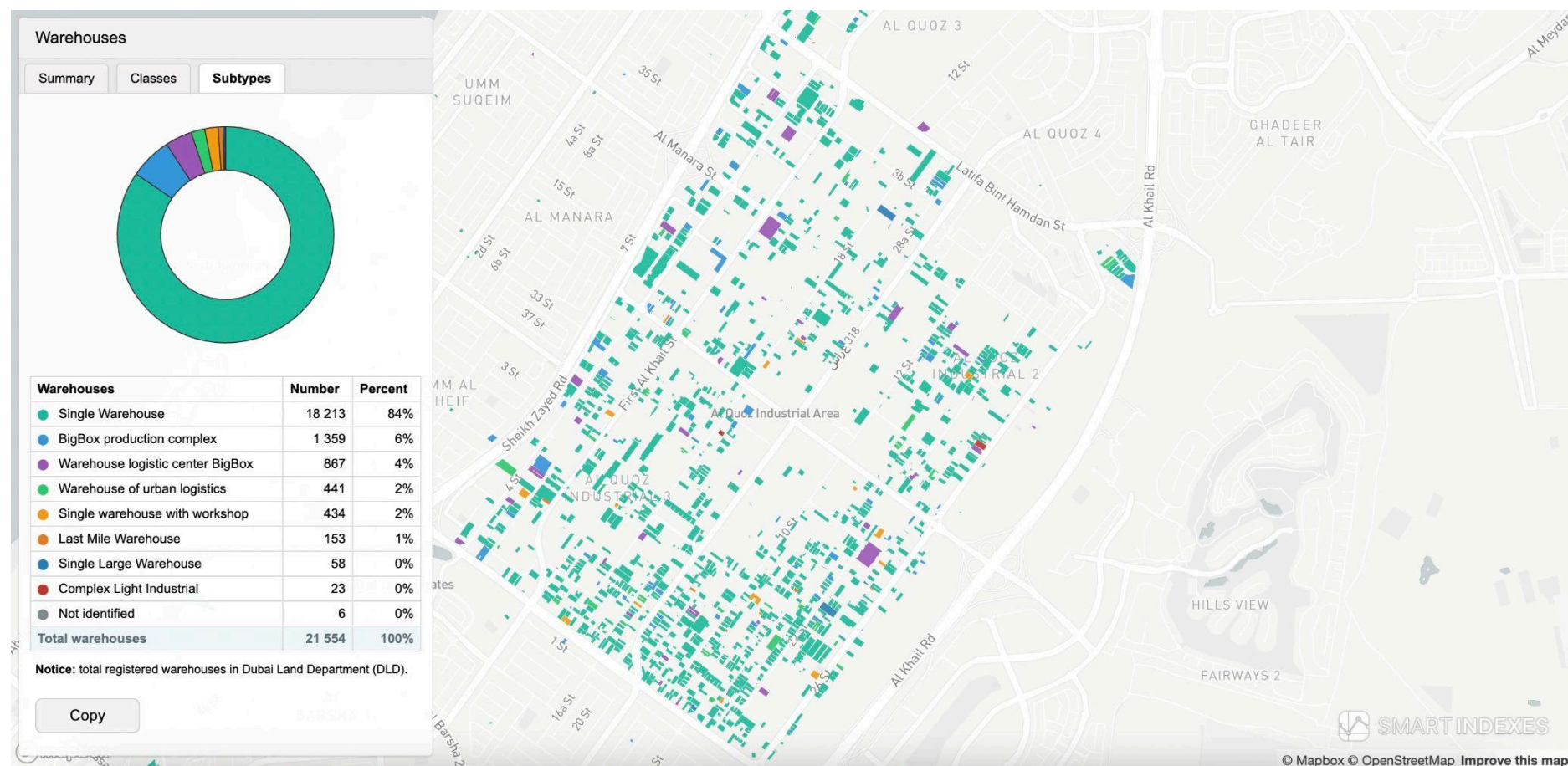
- **Single Warehouse:** 18,213 (84 %)
- **BigBox Production Complex:** 1,359 (6 %)
- **Warehouse Logistic Center (BigBox):** 867 (4 %)
- **Warehouse of Urban Logistics:** 441 (2 %)
- **Single Warehouse with Workshop:** 434 (2 %)
- **Last Mile Warehouse:** 153 (1 %)
- **Single Large Warehouse:** 58 (0 %)
- **Complex Light Industrial:** 23 (0 %)
- **Not Identified:** 6 (0 %)

Visualization:

- Color segmentation on map
- Ring chart of subtypes
- Corresponding table



Multi colored segmentation of warehouse subtypes



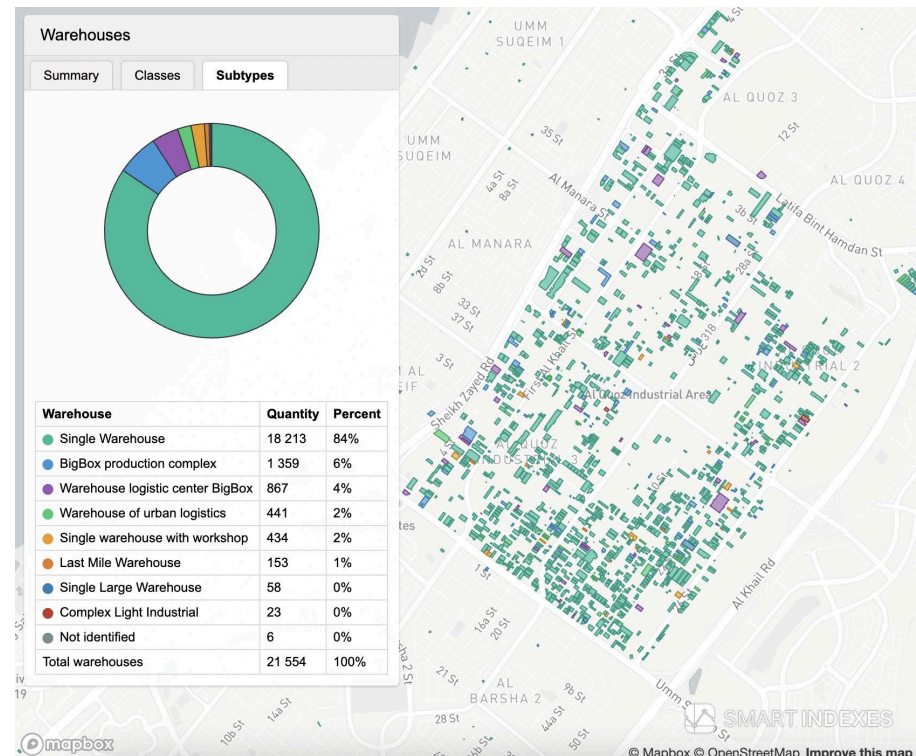
Segmentation of warehouses by subtypes on map of Emirate Dubai, UAE.

Map Excerpt Showing Warehouse Segmentation

Color coding allows you to identify each warehouse subtype on the Dubai map, with an accompanying legend that displays the full set of subtypes.

The subtype ranking table further facilitates analysis of each subtype's market share across Dubai's commercial and industrial warehouse sector.

All geo-analytical warehouse data is available upon request from the Smart Indexes team: <http://smartindexes.com/contacts>.



View on community Al Quoz Industrial Area with warehouse subtype segmentation.



3. Location by Dubai Community

Top 10 communities ranked by number of warehouses.

Rank	Community	Warehouse Number	Percent
1	RAS AL KHOR IND. SECOND	2,208	10.2%
2	AL QOUZE IND.THIRD	1,714	8.0%
3	AL QOUZE IND.FOURTH	1,672	7.8%
4	UMM RAMOOL	1,604	7.4%
5	AL QOUZE IND.FIRST	1,551	7.2%
6	DUBAI INVESTMENT PARK SECOND	1,224	5.7%
7	JABAL ALI INDUSTRIAL FIRST	1,144	5.3%
8	DUBAI INVESTMENT PARK FIRST	928	4.3%
9	AL QOUZE IND.SECOND	771	3.6%
10	AL QUSAIS IND. FIRST	748	3.5%
In other communities		7,990	36.9%





Conclusion

- **81 %** of all Dubai warehouses (21,554 of 26,564) were successfully linked to Makani and included in the ABCD analysis.
- The highest-grade segment (A+ to A-) comprises **239** warehouses (1 %).
- The largest class is **C** (42 %), followed by **B-** (21 %).
- **Single Warehouse** dominates as a subtype (84 %), reflecting the predominance of standalone logistics sites.
- The newly introduced **Single warehouse with workshop** subtype accounts for **2 %**, highlighting mixed-use facilities.
- Community hotspots are **Ras Al Khor Industrial Second**, **Jabal Ali Industrial First**, and **AI Quoz Third**.





Perspective on Use of Results

- **Market-Pricing Analysis**

The presented data can be leveraged for deeper analysis of warehouse rental and sale price trends in relation to key transport hubs: Port of Mina Rashid, Dubai International (DXB) and Al Maktoum airports, and major highways enabling stakeholders to understand how proximity and accessibility impact logistics real estate values.

- **Real-Time Geoanalytics Platform**

By integrating our classified warehouse layers (with building classes, subtypes, and technical attributes), land-parcel layers (ownership types, parcel characteristics), highway networks, and other infrastructure datasets into a live mapping environment, users can perform on-the-fly spatial analyses and visualizations for planning, monitoring, and decision-making.

