



# Data-Driven Sustainable Urban Mobility

Case Studies from the Portfolio of Transport for Cairo

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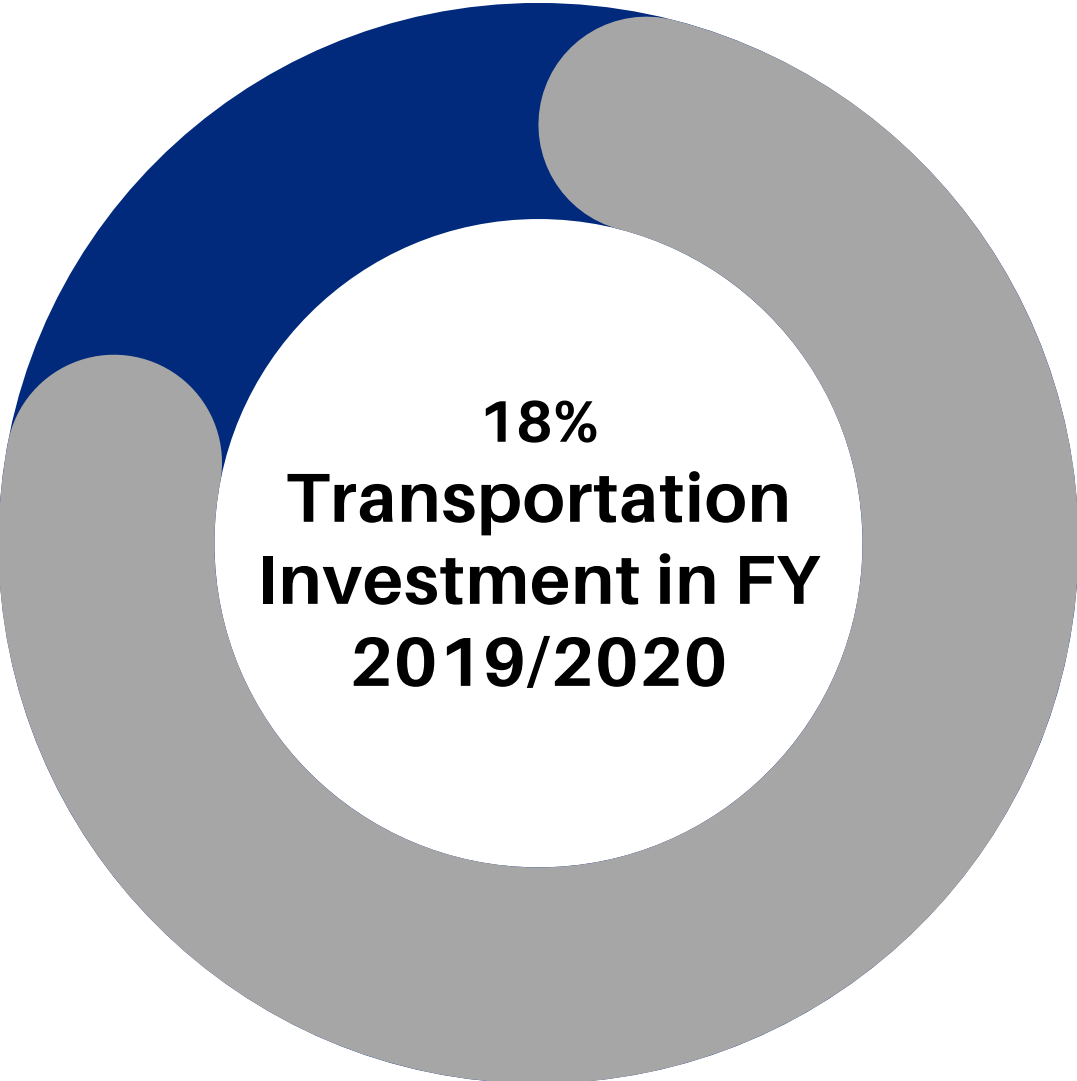


# Ecosystem & Context

## Local Public Transport Industry in Cairo

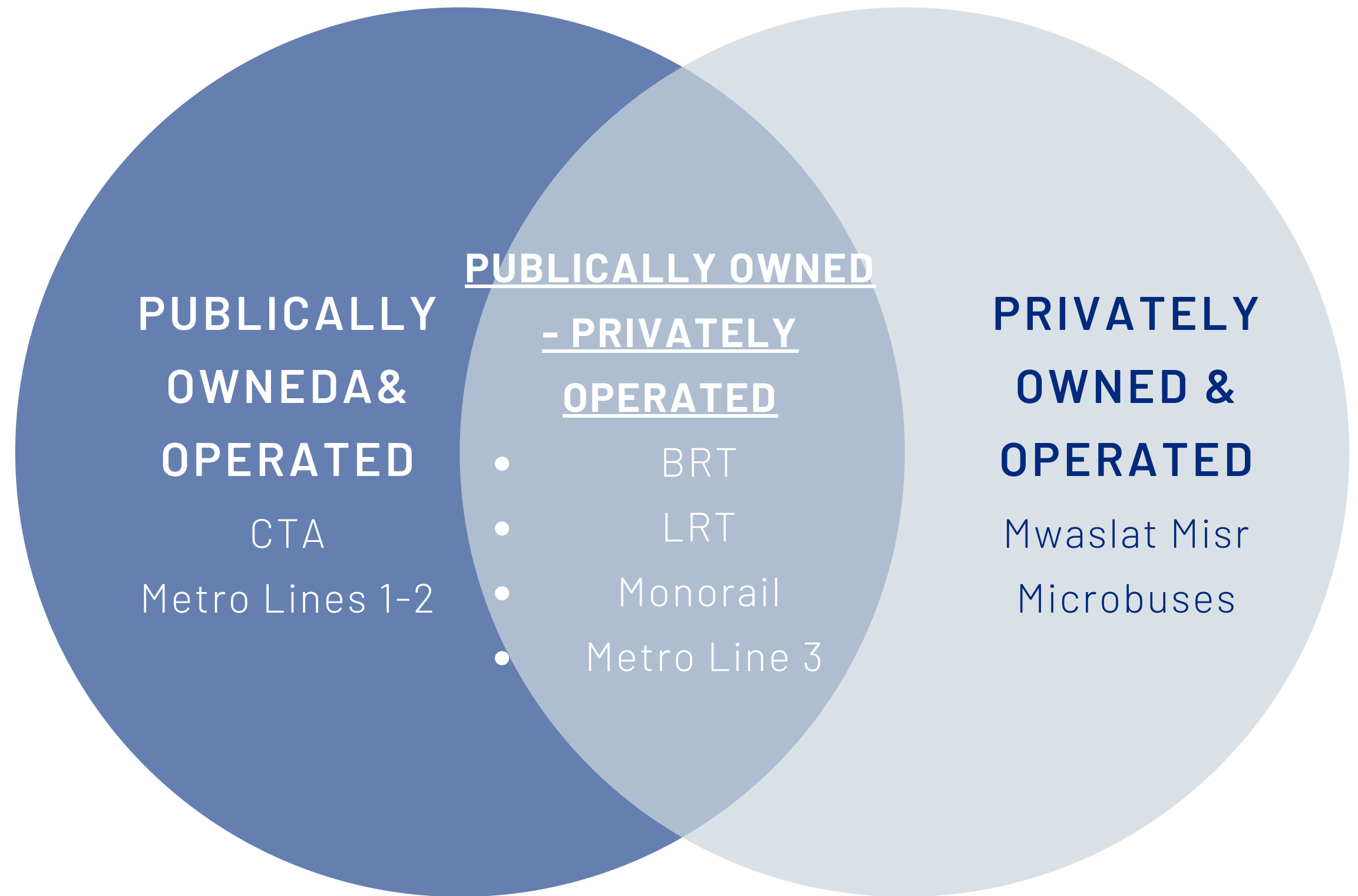
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Mass transit is mostly owned by a variety of governmental entities  
Sector is booming with investments targeted at 340.7 bn EGP in 2023.



**18%**  
**Transportation  
Investment in FY  
2019/2020**

# Trend in New Public Transport Projects is privatization of operation



# Cairo's public transport system is often tendered out to private consultancies for design and operation

Mobility consultancies such as ourselves often help design the system and then assist the government in tendering out operation and maintenance



**1 - Political Decision  
to begin a project**

**2 - Project Design is  
tendered out**

**3 - Consultant  
conducts research &  
designs project**

That's where we (TfC) fit  
in!

**4 - Project design is  
implemented**

**5 - Project is  
tendered out for  
operation**



**Mobility Consultancies often  
conduct the research to kickstart  
projects**



**TfC is a research centre disguised as a  
private company**

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TfC specifically uses data to strengthen the research and in order to accomplish that we combine people from tech and people with transportation and policy backgrounds to solve mobility issues



# Case Study

## **Greater Cairo Climate Change and Air Pollution Management Project**

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Electric bus Demonstration project

**The project is a pilot study for the implementation of E-Buses in Cairo's public transport sector**



**FUNDING:**

World Bank Loan



**PROJECT OWNER:**

Ministry of Environment – specifically the Greater Cairo Climate Change and Air Pollution Project Unit



**BENEFICIARY:**

Cairo Transport Authority

# **Governance is still a challenge in today's transportation sector in Cairo**

## **Research community influence is relatively niche**

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Because current governance in Cairo surrounding the transport sector has a. very centralized decision making and is b. regulated and operated by too many entities, influencing decision making as a research or private entity is quite difficult





# Consultant: SST Consortium



## SETEC ITS

Mobility consultancy in France with experience working on e-bus transitions in Morocco



## TRANSPORT FOR CAIRO

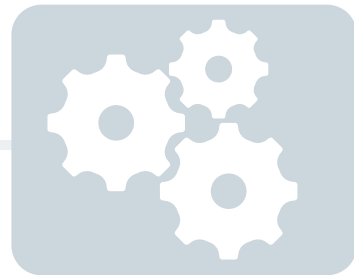
Egyptian consultancy focused on the intersection of data and mobility



## SHAKER

Reputable consultancy specializing in Electricity and other MEP work in Egypt with Integral as a subcontractor focused on social & environmental elements in the project

# Transport for Cairo collected a wide variety of data



## OPERATIONAL

e.g. Number of kilometers travelled by buses



## ENVIRONMENTAL AND SOCIAL

e.g. Air Quality and passenger demographic



## FINANCIAL

e.g Cost of depot renovation



## POLITICAL

e.g Political direction for locating depot



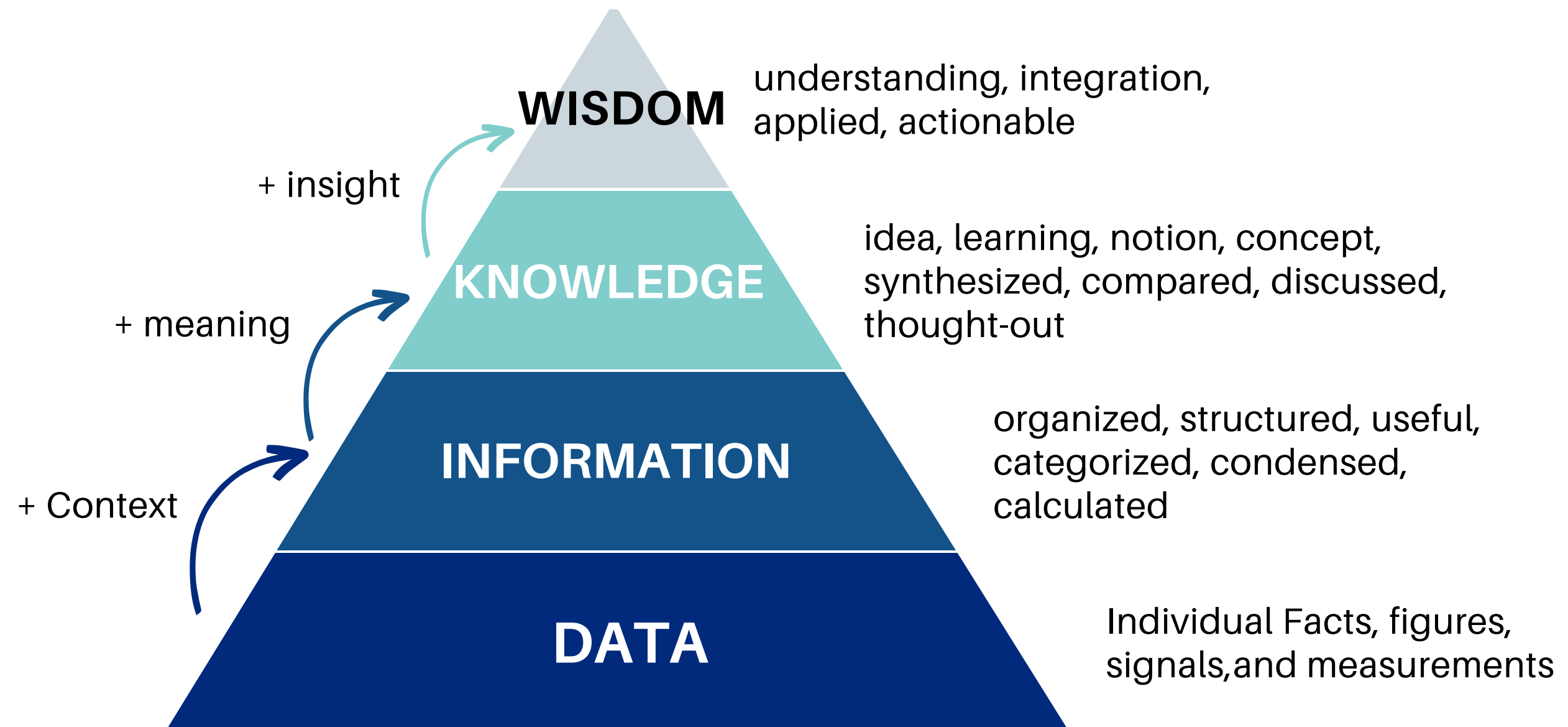
# Example of Data Collected

Routes	Route length (km)	Daily trips	Dead Mileage per direction (km)	Number of buses in Diesel Technology	Number of buses in scenario 1	Number of buses in scenario 2
354	40,00	57	33	10	15	10
505	43,65	64	26	10	12	10
1016	65,18	49	22	7	16	9
1023	56,99	49	8	8	12	8
1056	56,66	32	22	11	11	11
1057	59,00	34	8	6	9	7
1062	39,70	68	40	15	19	15
1124	41,11	77	40	11	19	11

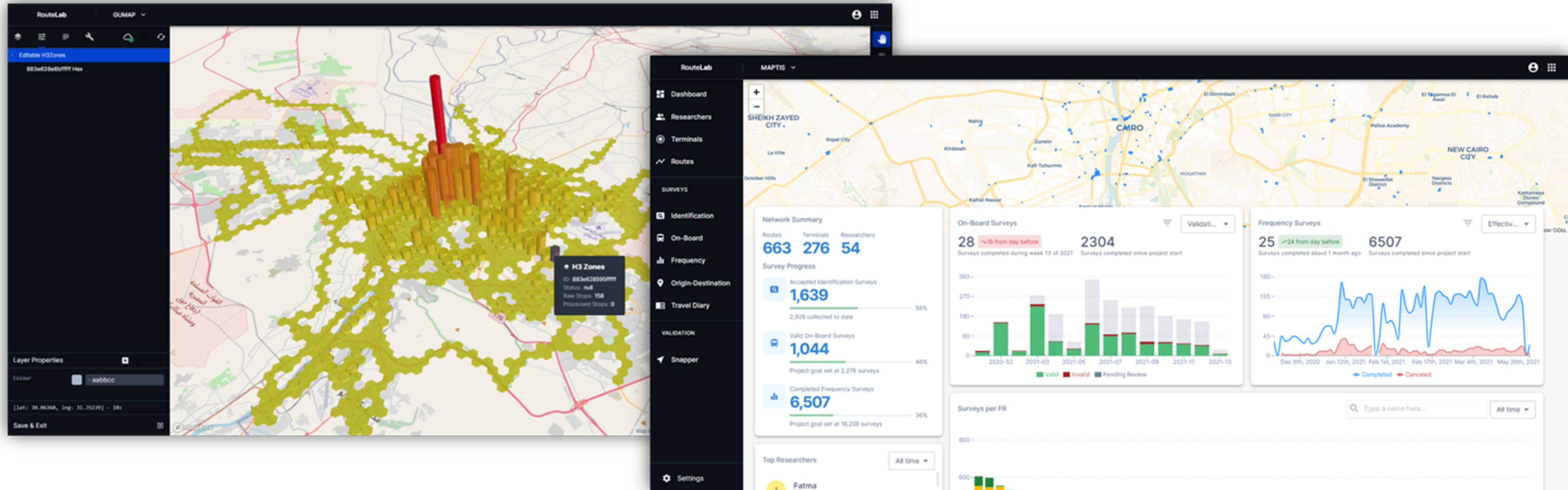
# Numbers alone do not work magic

How to use and communicate the data plays a large role in how data is perceived

Presenting data clearly and in a way that is relatable is key

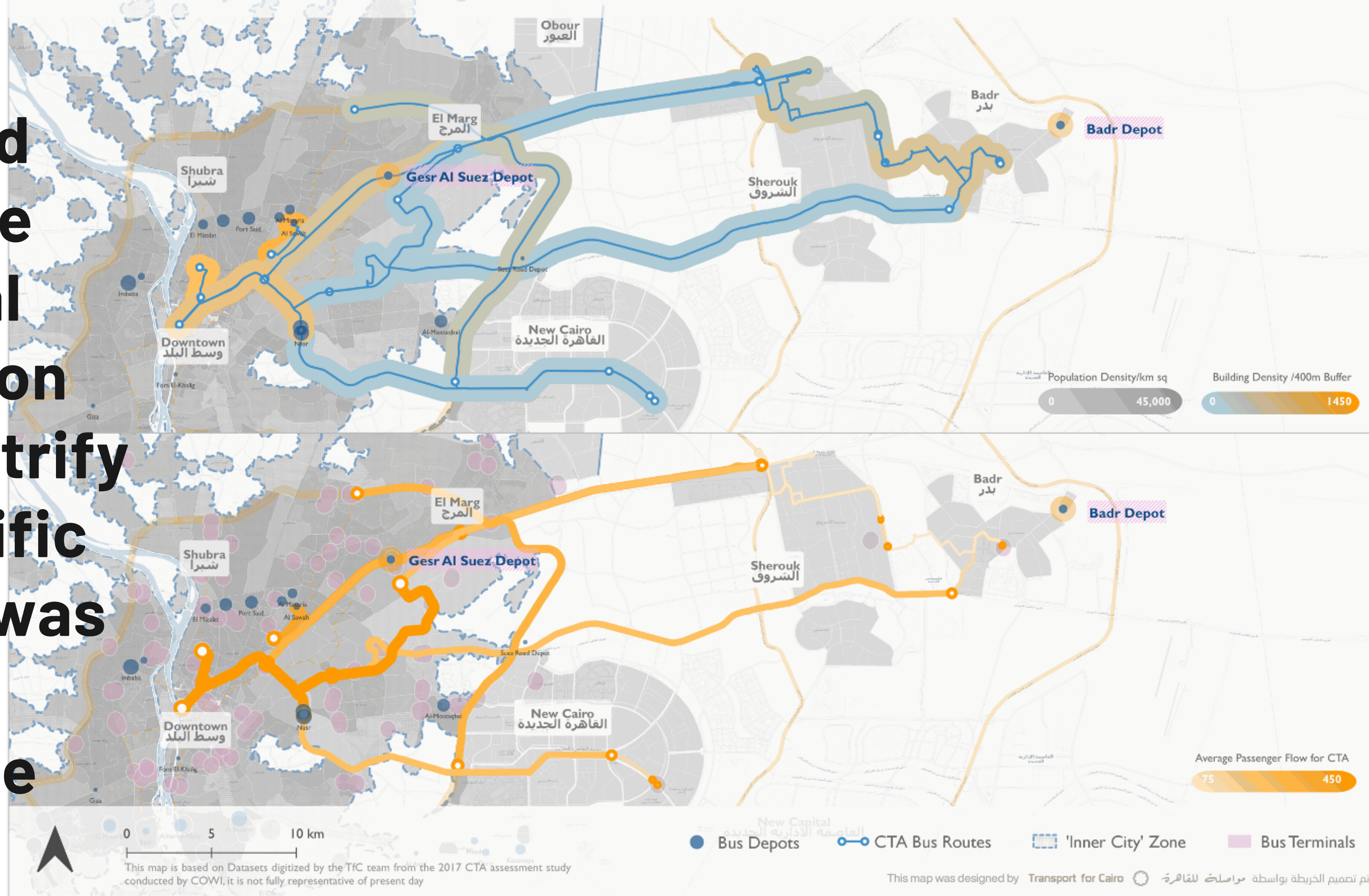


# TfC developed an in-house software suite for streamlined data collection and analysis





Data showed that the original direction to electrify a specific depot was not feasible





# Analysis supported electrifying the inner-city depot

	Inner City Depot	Badr Depot
<b>Air Quality</b>	+++	+
<b>Climate Change</b>	=	=
<b>Usage/Occupancy</b>	+++	+/-
<b>Capacity Building</b>	+++	++
<b>Lessons learnt</b>	+++	++
<b>Social Improvement (CTA)</b>	+	++
<b>Social Improvement (General Public)</b>	+++	+

**CREATING GREAT  
VISUALS  
TO PRODUCE  
*EASILY DIGESTABLE  
DATA*  
AND CREATE  
*ACTIONABLE INSIGHTS*  
FOR DECISION MAKERS**





**THANK YOU :)**