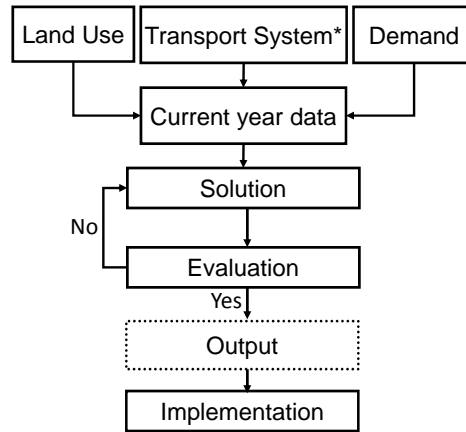


Forecasting Future Demand

Planning Time Span

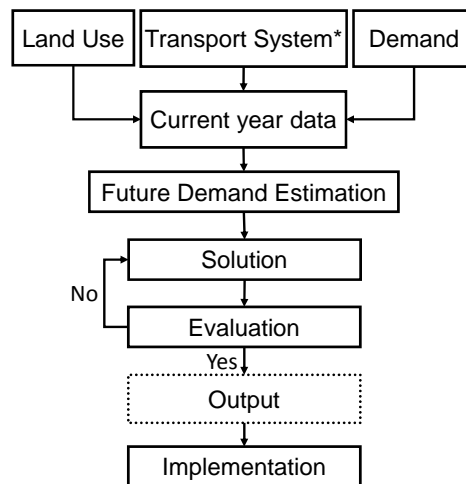
Project Time Span	Years	Solution Type	Forecasting Demand
Immediate	<2	Solution	NA
Short Time	2-5	Solution	Simple (e.g. demand projection)
Long Term (Strategic Planning)	>5 (usually 20)	Plan	Sophisticated

Immediate



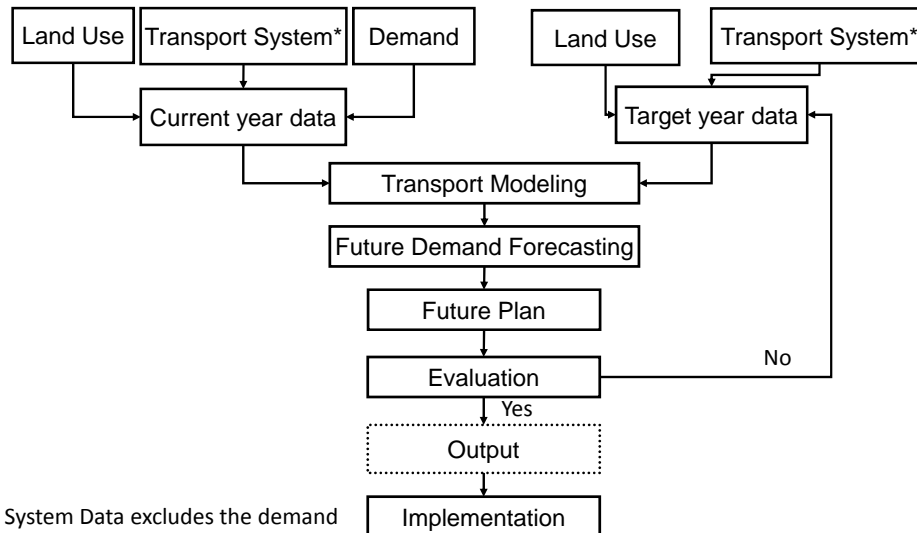
*:Transport System Data excludes the demand

Short Term



*:Transport System Data excludes the demand

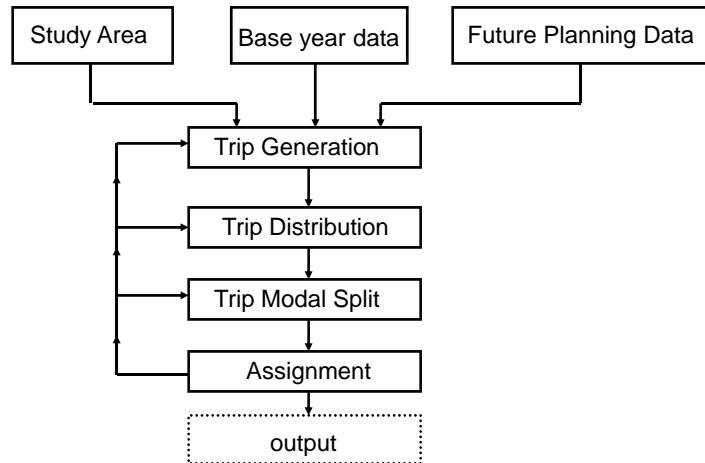
Strategic Planning



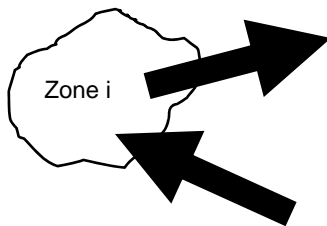
Transport Data

- Planning Data (Socio-economics Data)
- Transport System Data
- Demand Data (Traffic Data, O/D Matrix)
 - Data Collection (Survey)
 - Home Interview
 - Road Side interview
 - Post Cards
 - Questionnaire at work, etc...
 - Vehicle Counts

Transportation Model (4- Step)



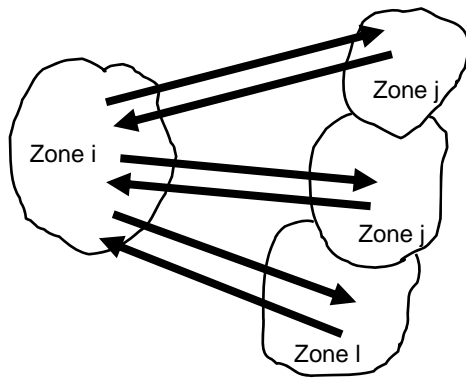
Trip Generation



Trip Production:
Total number of trips
generated from zone
"i" to all other zones

Trip Attraction:
Total number of trips
attracted into zone "i"
from all other zones

Trip Distribution



Trip Production of zone j

	i	j	k	l	
i	300	700	700	500	2200
j	700	400	500	300	1900
k	300	700	600	400	2000
l	300	600	500	700	2100
	1600	2400	2300	1900	

Trip Attraction of zone j

Modal Split

	i	j	k	l	
i	50	50	100	0	
j	0	0	0	25	
k	50	50	0	0	
l	0	25	50	100	

Intermodal Trip

	i	j	k	l	
i	300	700	700	500	2200
j	700	400	500	300	1900
k	300	700	600	400	2000
l	300	600	500	700	2100
	1600	2400	2300	1900	

Pure-Mode Trip

Pure-Mode Trip

	i	j	k	l	
i	200	500	400	400	
j	650	400	400	100	
k	100	500	400	300	
l	300	400	300	400	

	i	j	k	l	
i	50	100	200	50	
j	50	0	50	100	
k	150	100	150	100	
l	0	150	100	100	

	i	j	k	l	
i	0	50	0	50	
j	0	0	50	75	
k	0	50	50	0	
l	0	25	50	100	

Route Assignment

$$x_{ijkm} ??$$

Static Assignment

$$x_{ijkm}^t ??$$

Dynamic Assignment

