ChoosEV

the people behind

testenelbil.dk

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ChoosEV?

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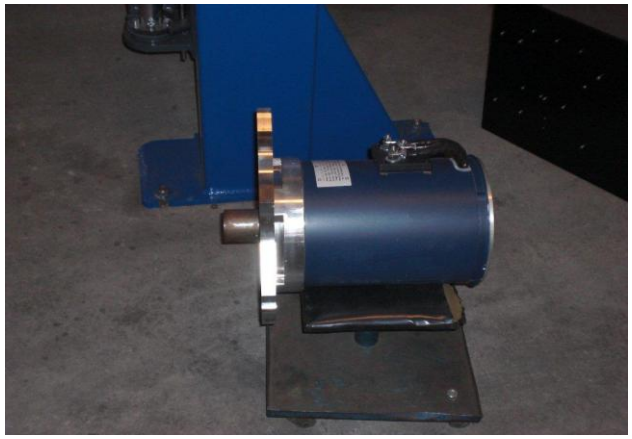
If you can’t buy one, then make one



The potential buyers have many questions

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Should I wait?

How do I charge an electric vehicle?

What are the financial conditions?

Will the battery last?

Who – where and not least how?

Will it work for me in my everyday life?

How do I get started?

What do I need to consider?

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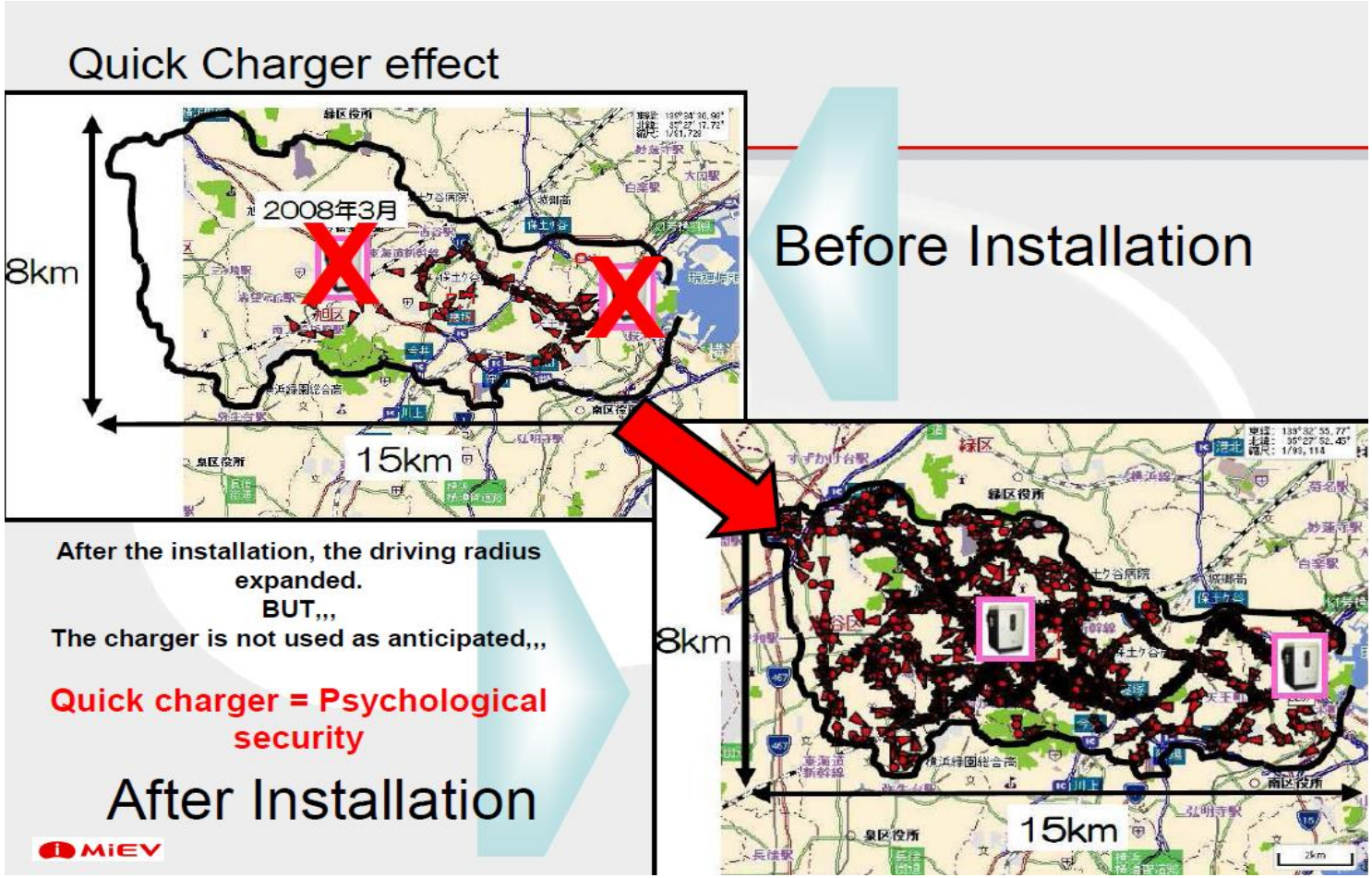
Range anxiety

Quick Charge

But will it be used?



”TestEnElbil.dk” – a Danish nationwide project

- Test period of 2 years
- 30 municipalities
- 300 electric vehicles national wide
- 2400 test users and their families

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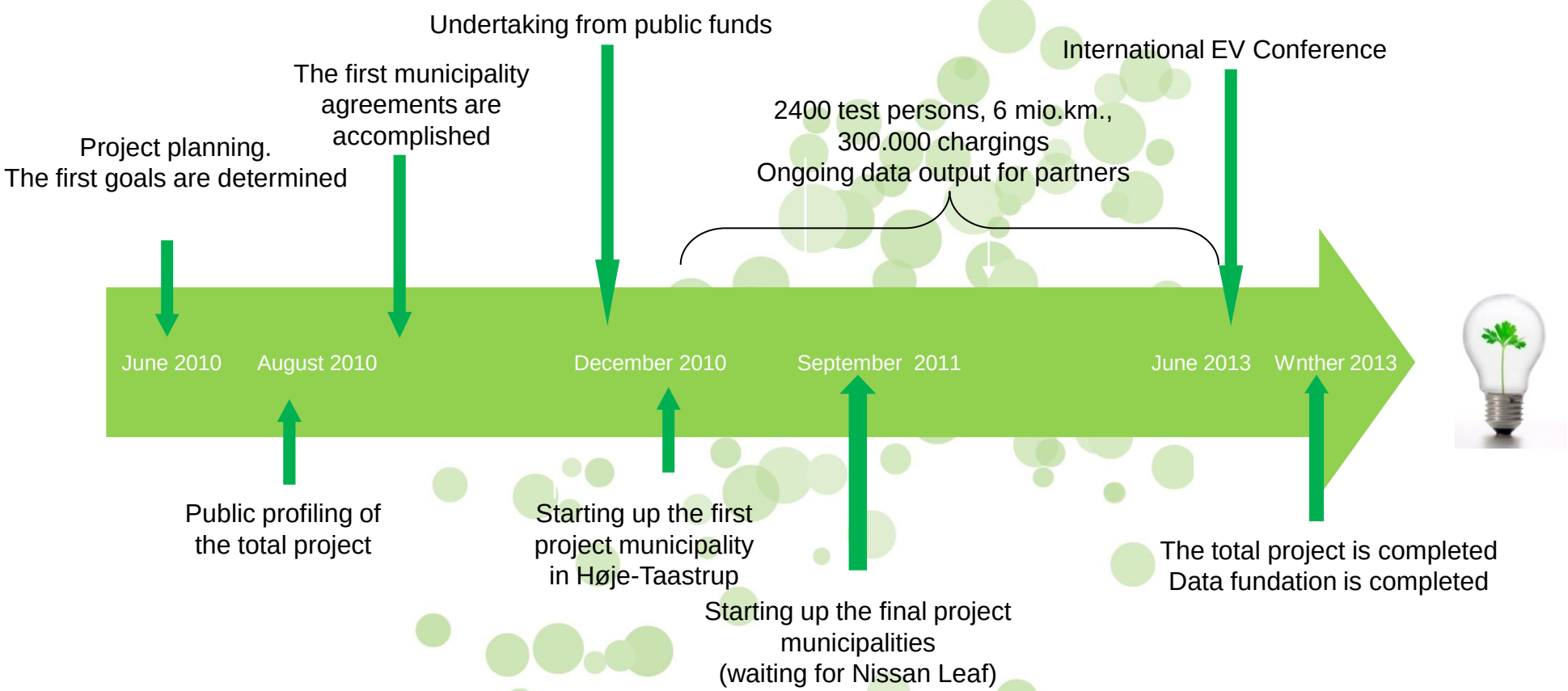
What are the objectives with testenelbil.dk?

- To get 300 electric vehicles on the road in 30 municipalities around the country and gain insight into 6 millions driving kilometers and approx. **300,000 charges and approx. 200.000 days of use**.
- Have 2,400 Danish families testing an electric vehicle and learn and understand the advantages and disadvantages through ”Real Life”-experiences

Time schedule



The electric vehicles

The electric vehicles used during this project will primarily come from OEMs an primarily from Nissan, Renault, Peugeot, Citroen, and Mitsubishi

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Home charger

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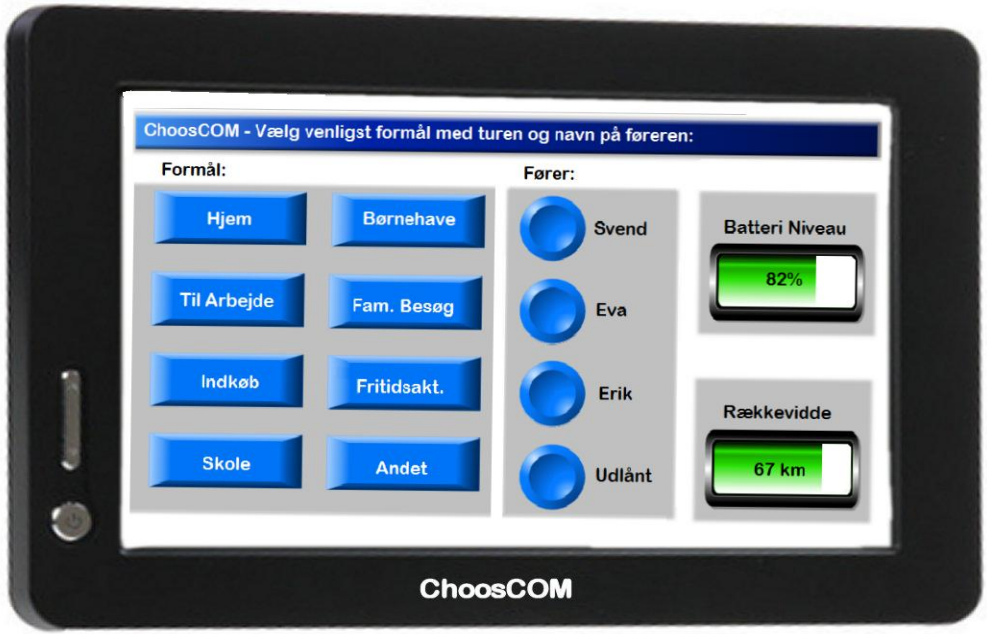
Events

Data collection

Each test driver will regularly be asked evaluation questions during the period where the electric vehicle is available. (Electronic evaluation form - before, during and after the experience with the electric vehicle)



Using ChoosCOM and/or the electric vehicle manufactur telematic systemet, data related to the electric vehicle will be collected. GSM modules in combination with various measurement devices in the charging systemet modules will collect data related to charging.

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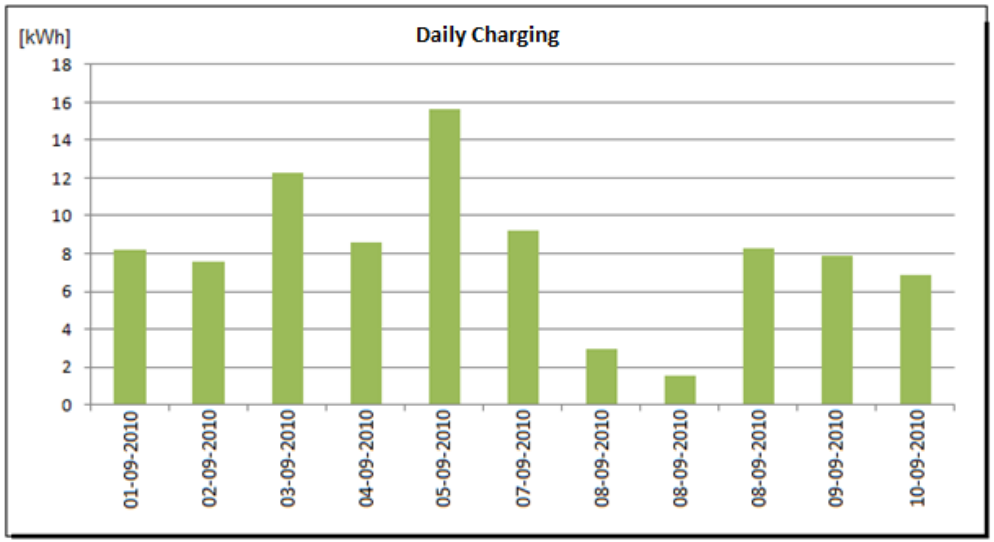
Not only questionnaires

Data collection: Daily charging

Example!

Date	Start	Stop	Length of Charging	GPS Pos.	GPS pos.	Energy Consumed	Energy Added	Charging Level	Full
			[hours]	Long.	Lat.	[kWh]	[Ah]	BDI %	
01-09	18:30	07:30	13:00	55,675709	12,559969	8,23	85,4	100	Y
02-09	18:33	08:30	13:57	55,675310	12,559969	7,56	75,3	100	Y
03-09	16:45	08:45	16:00	55,675310	12,559969	12,3	100,2	100	Y
04-09	18:30	07:30	13:00	55,675310	12,559969	8,56	86,5	100	Y
05-09	17:56	07:30	13:34	55,675310	12,559969	15,6	120,3	100	Y
07-09	18:30	07:30	13:00	55,675310	12,559969	9,25	95,4	100	Y
08-09	12:05	14:34	02:29	55,675709	12,571449	2,93	22,5	35	N
								45	N
								100	J
								100	J
								100	J



Data collection: Energy consumption during driving

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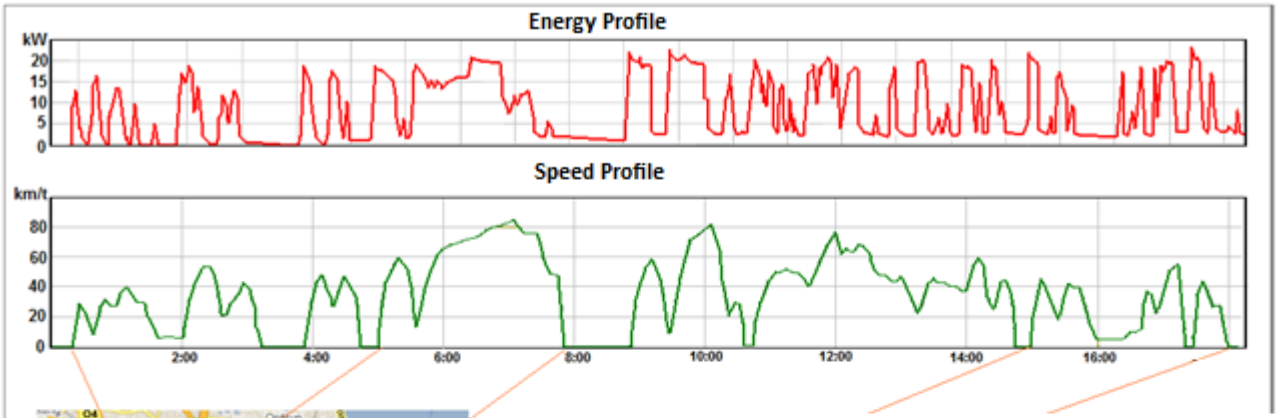
Example!



Time	GPS Pos.	GPS pos.	Discharge	Distance	Charge Level
	Long.	Lat.	[Ah]	[km]	BDI %
09:30	55,675709	12,559969	0	0	100
09:32	55,675310	12,559969	4,7	3,3	97
09:34	55,675310	12,559969	9,6	5,2	95
09:36	55,675310	12,559969	10,0	6,5	94
09:38	55,675310	12,559969	14,9	7,9	91
09:40	55,675310	12,559969	15,1	8,1	90
09:42	55,675709	12,571449	15,5	22,5	89
09:44	55,675709	12,571449	17,3	10,0	87
09:46	55,675310	12,559969	19,3	10,6	86
09:48	55,675310	12,559969	20,3	11,2	85

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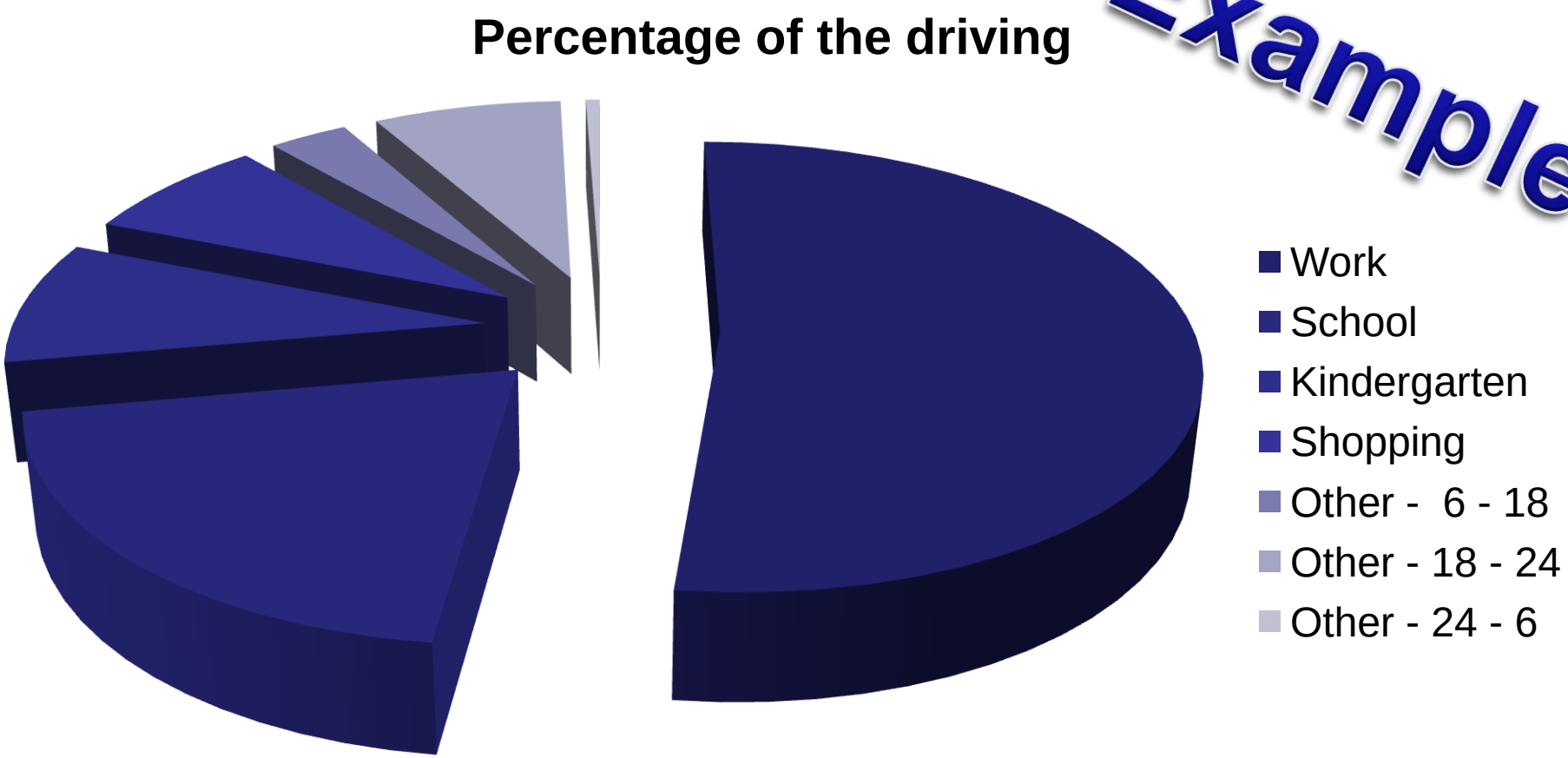
The use of the car?

Example!



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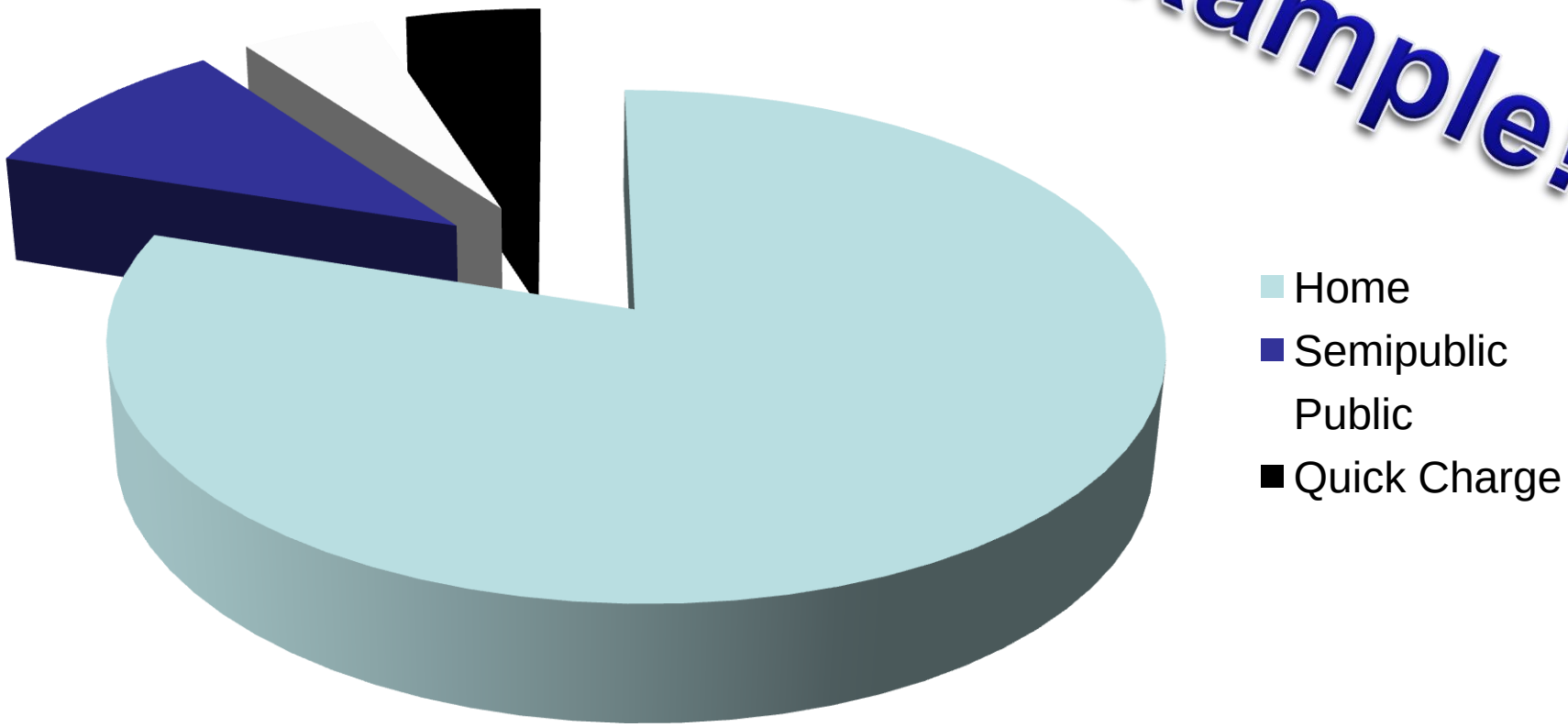
Charging places?

Example!



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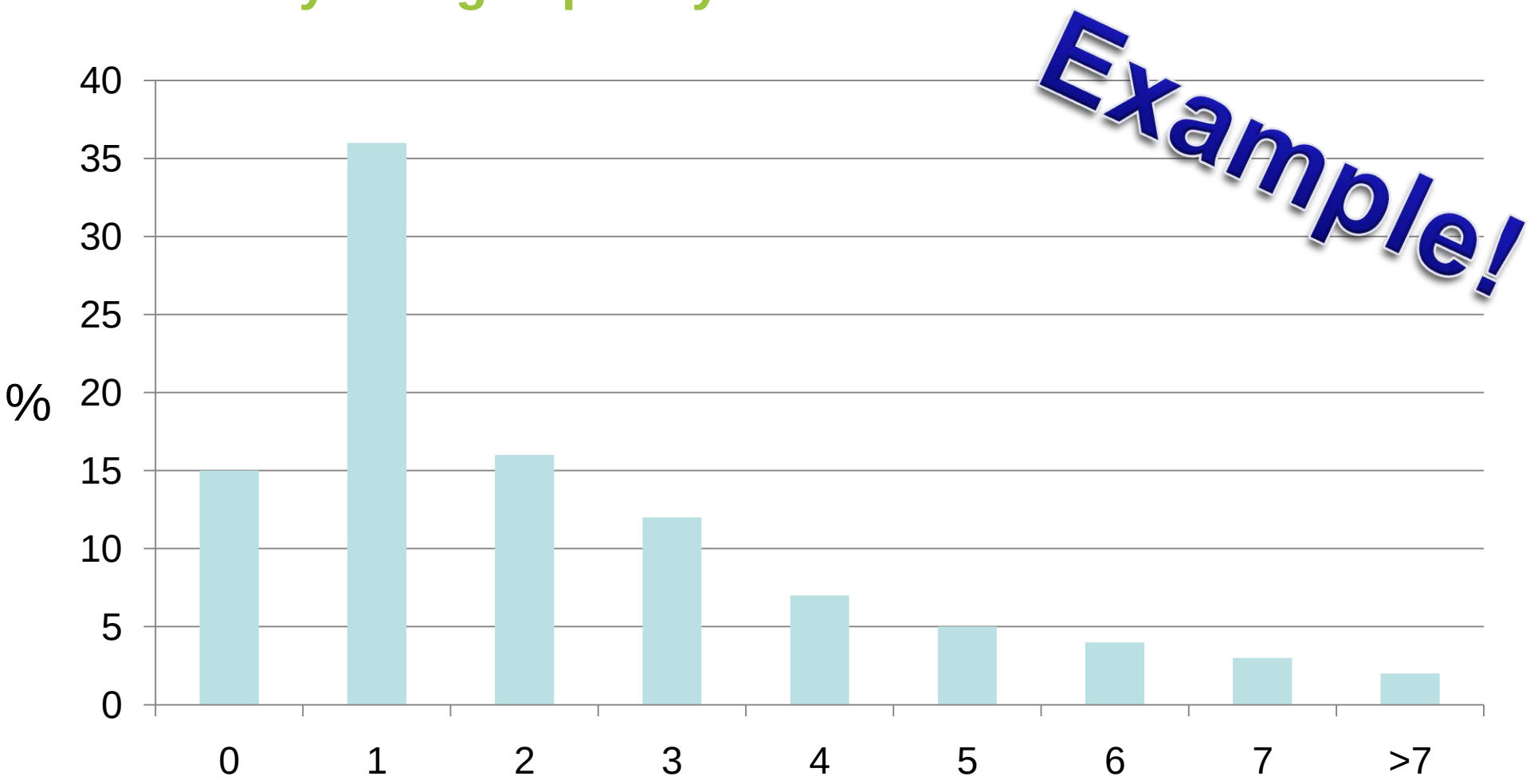
How many charges pr day?



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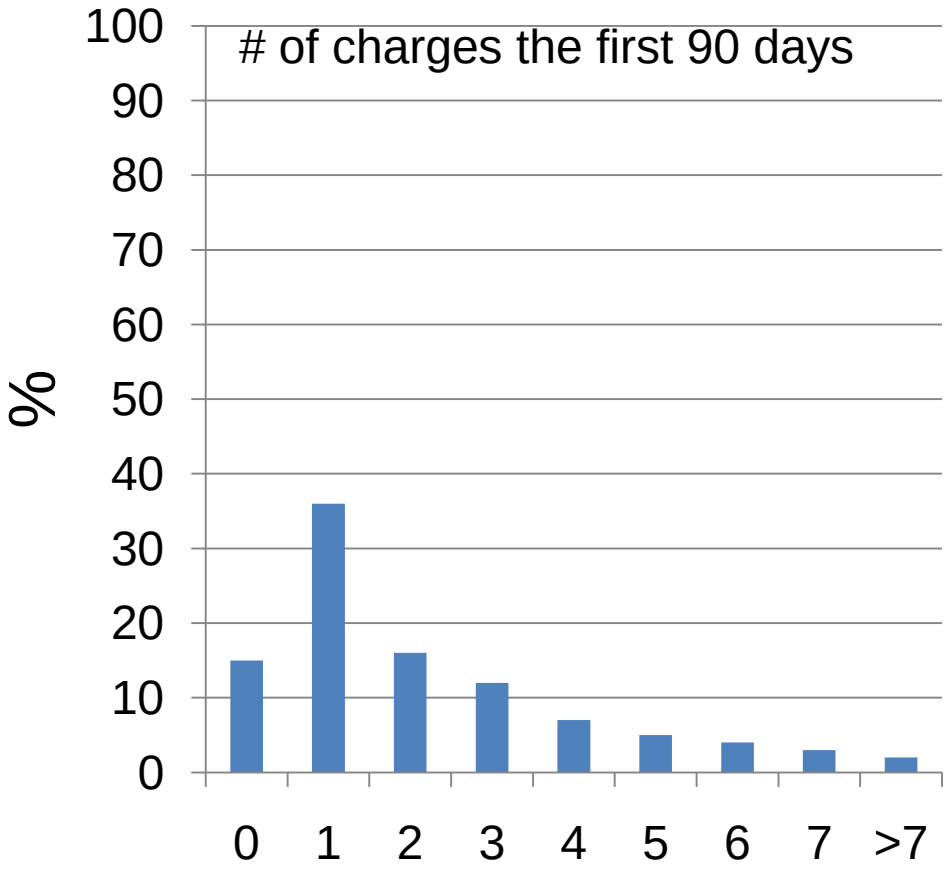
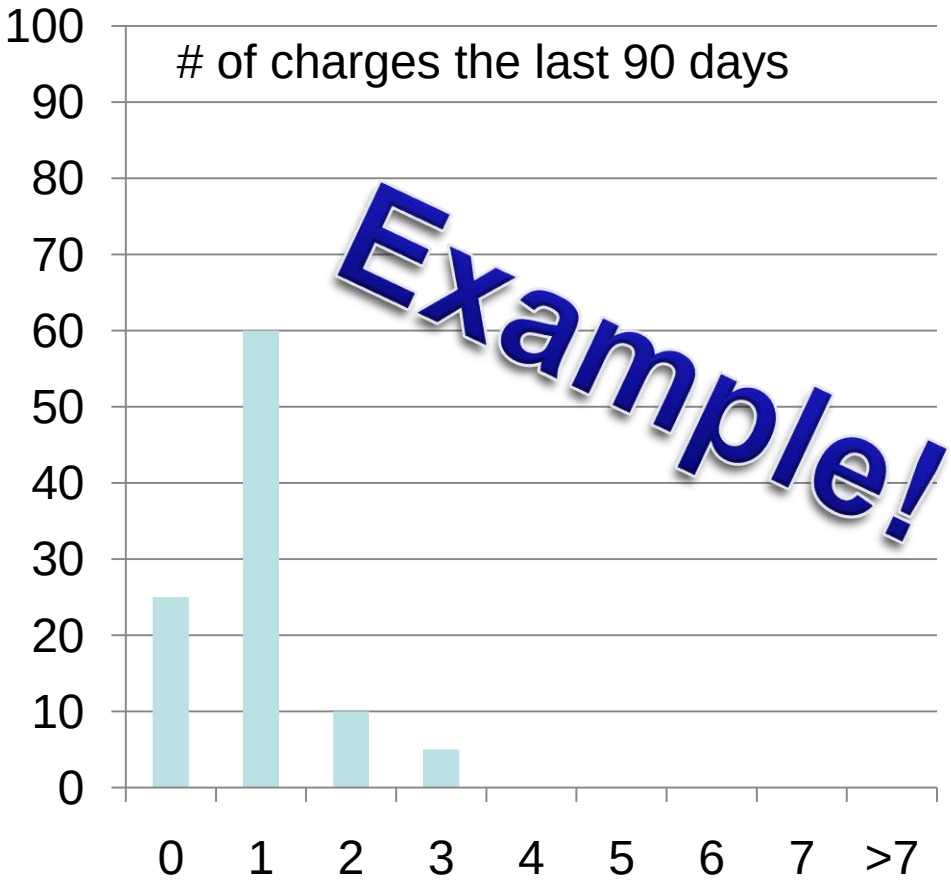
Do people get used to the car?





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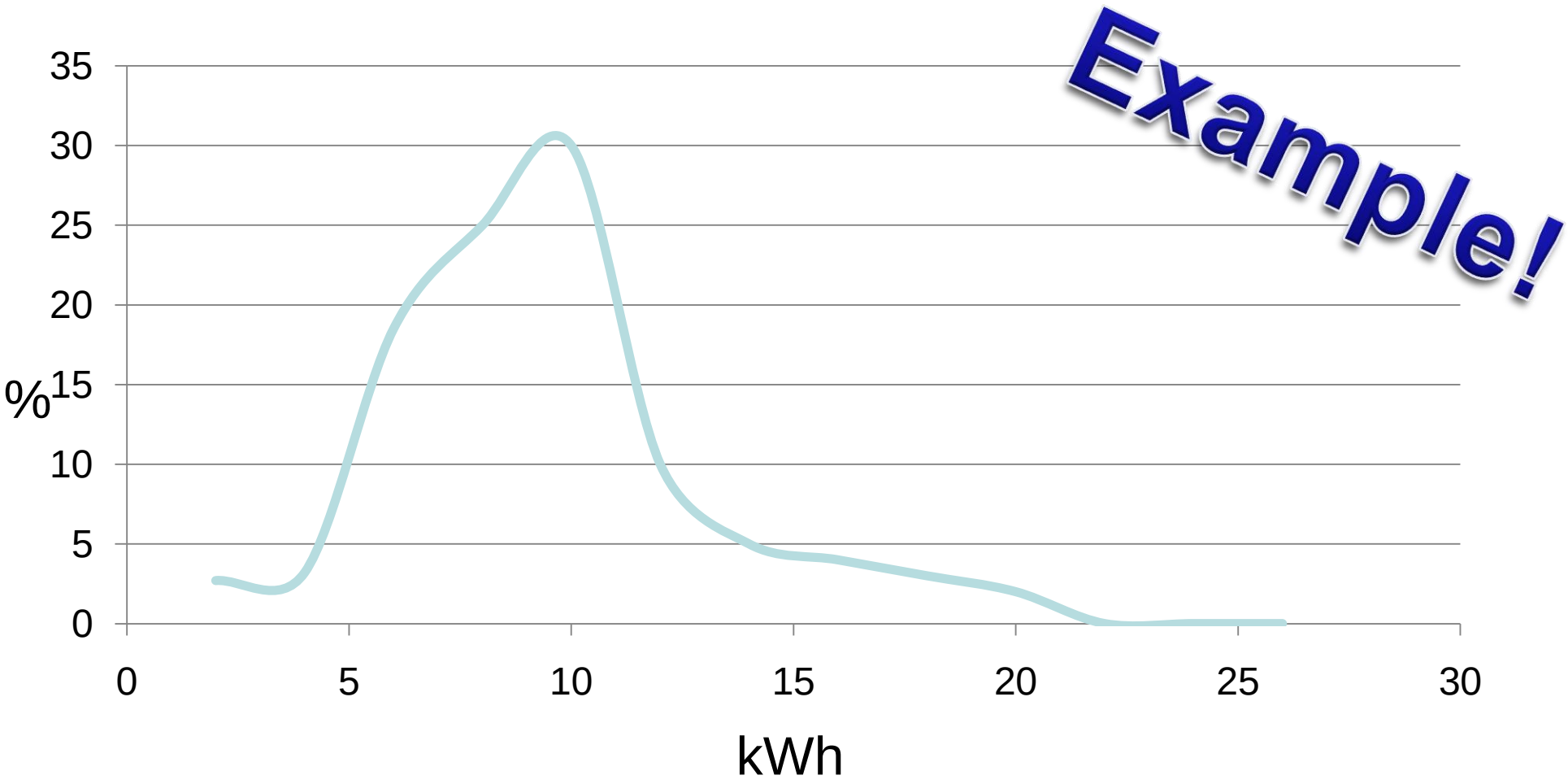
How many kWh?



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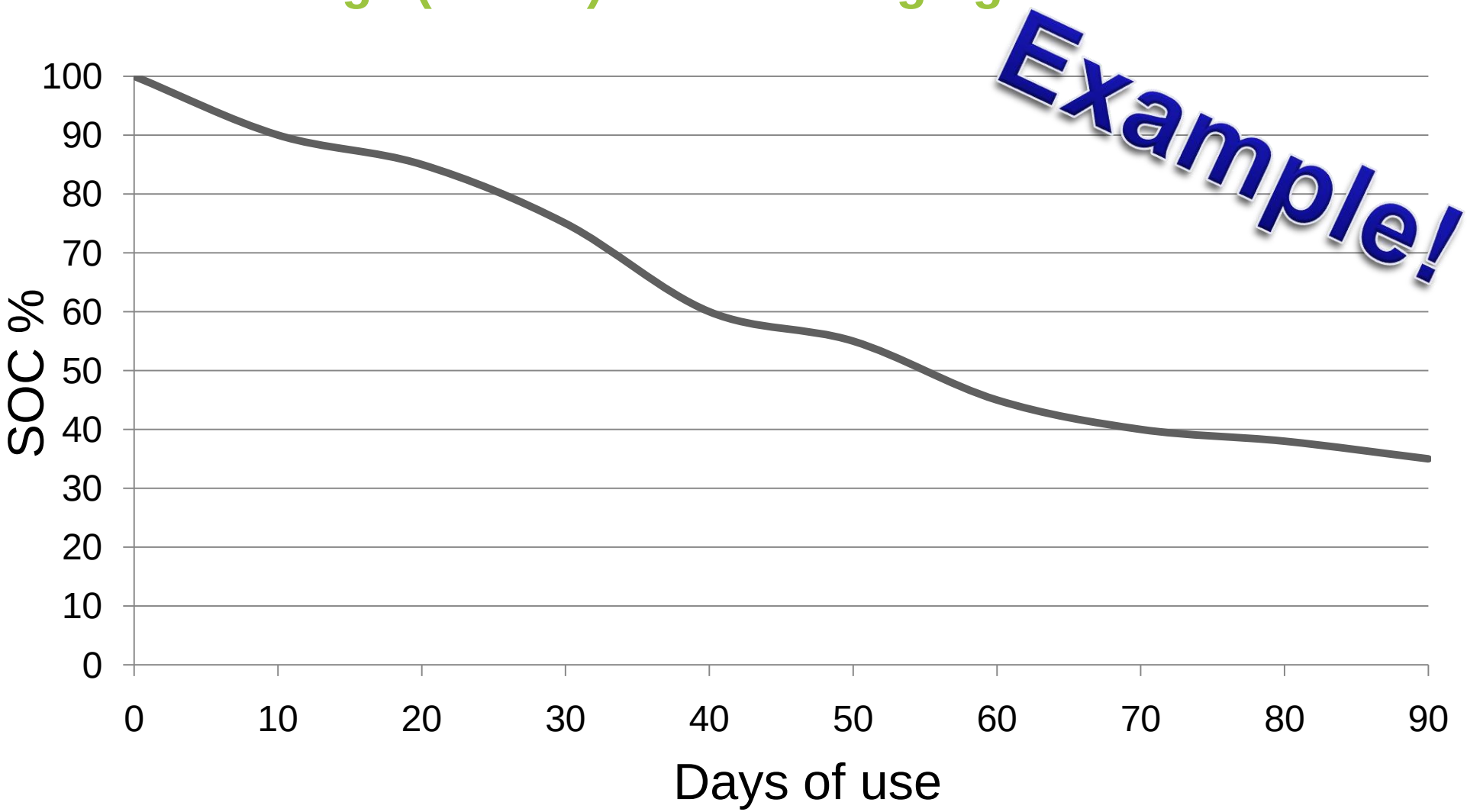
State of Charge (SOC%) before charging



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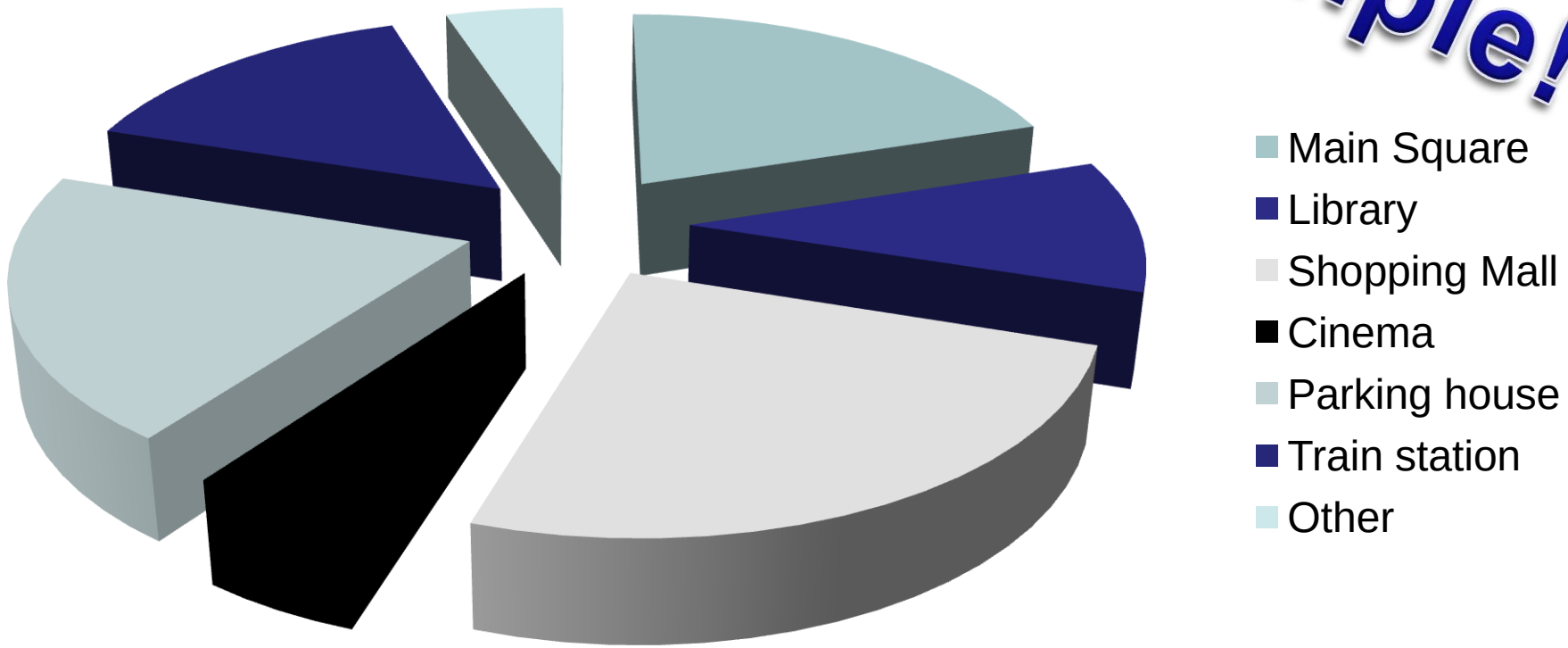
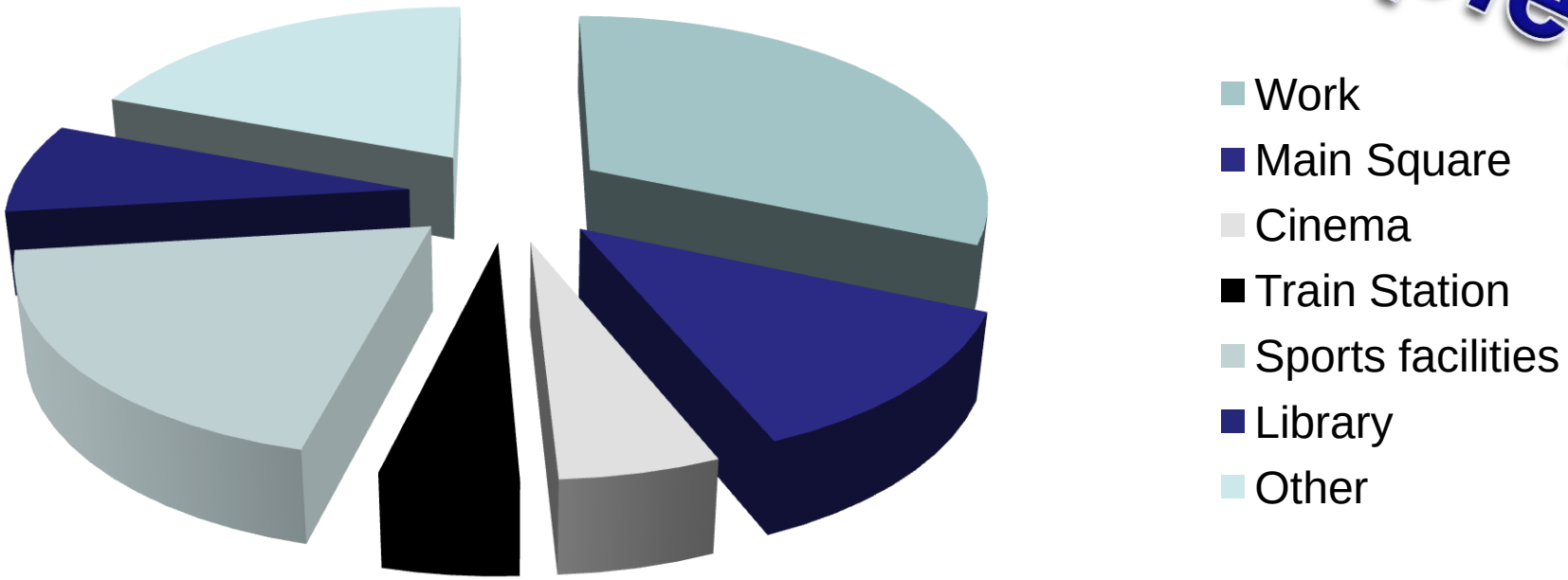
Example!

Parking?



Any wishes?

Example!



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Other results

Charging time of the day

Impact on the power grid

Battery size

Quick charge vs slow charge

Differences between car types

The influence of temperature

Driving behaviour

Etc…

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Results so far

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ANY GOOD IDEAS?

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THANK YOU!