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and Engineering**

Obstacle 1: Capturing the experiences of Swedish electric vehicle users

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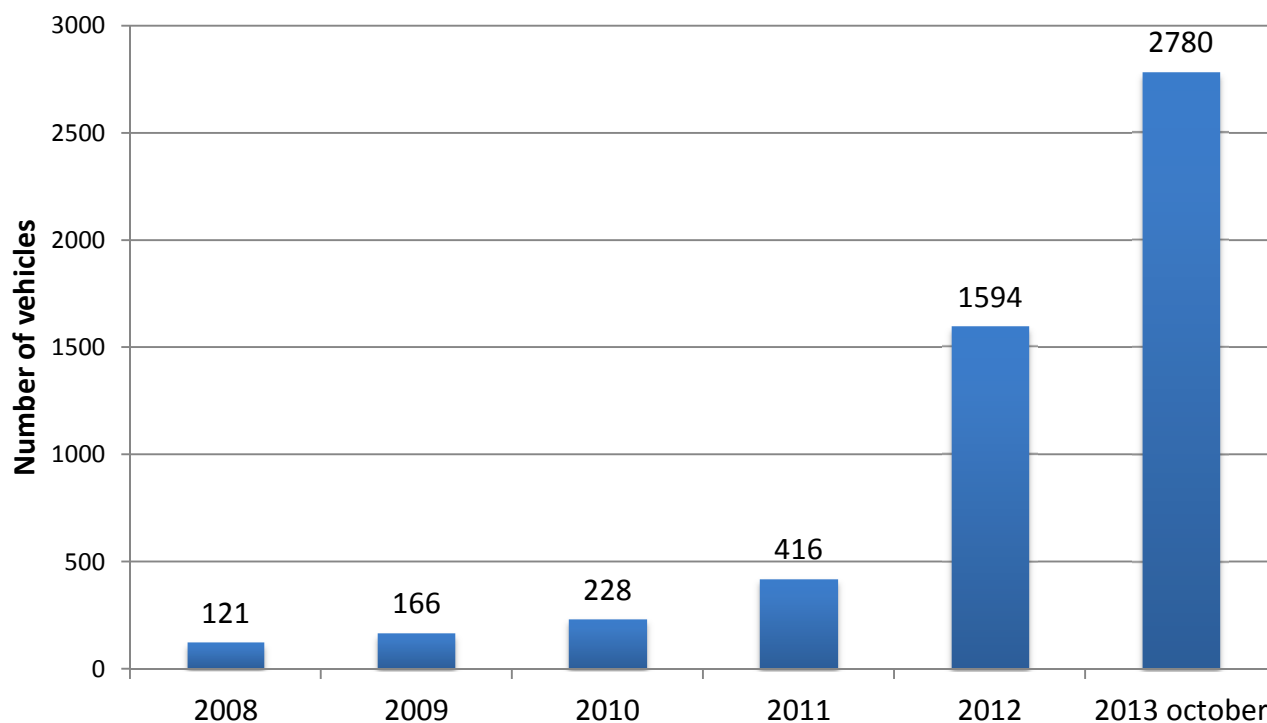
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The Swedish PEV market



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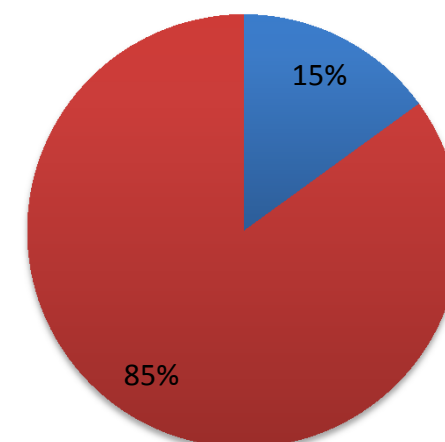
Swedish PEV market



- Share new car sales: 0,4 %

Ownership october 2013

■ Private ■ Commercial



Source: BILSweden, Power Circle, 2013

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- PEV's are operating in commercial fleets (both public and private) as of a national technology procurement scheme
 - Demonstration phase (August-December 2011)
 - Procurement phase (January 2012 –)
- Evaluation of a large number of vehicles and users
- Today: Lessons from the method development process
 - Socio-technincal methods
 - Socio-technincal results
 - Improvement measures
 - Summary

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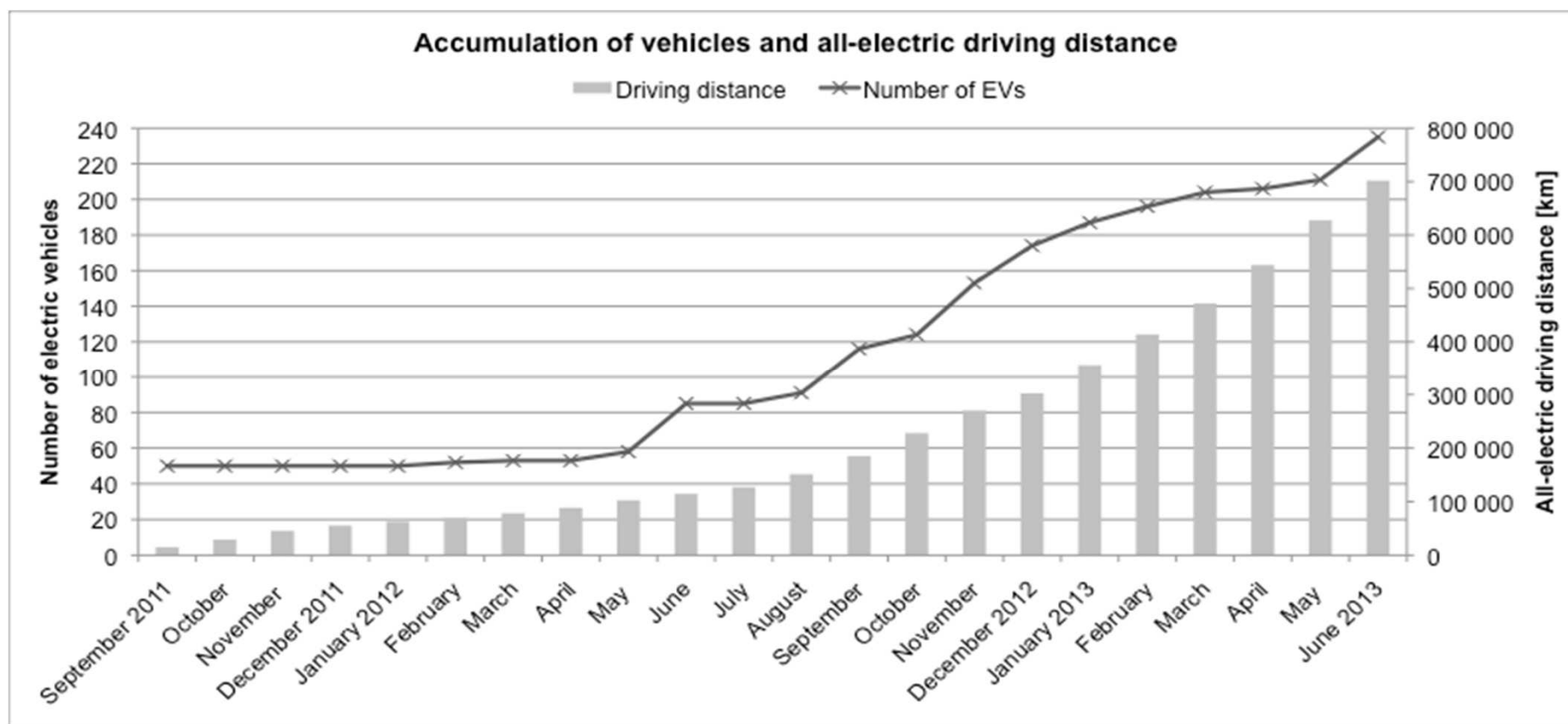


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Examples data collection



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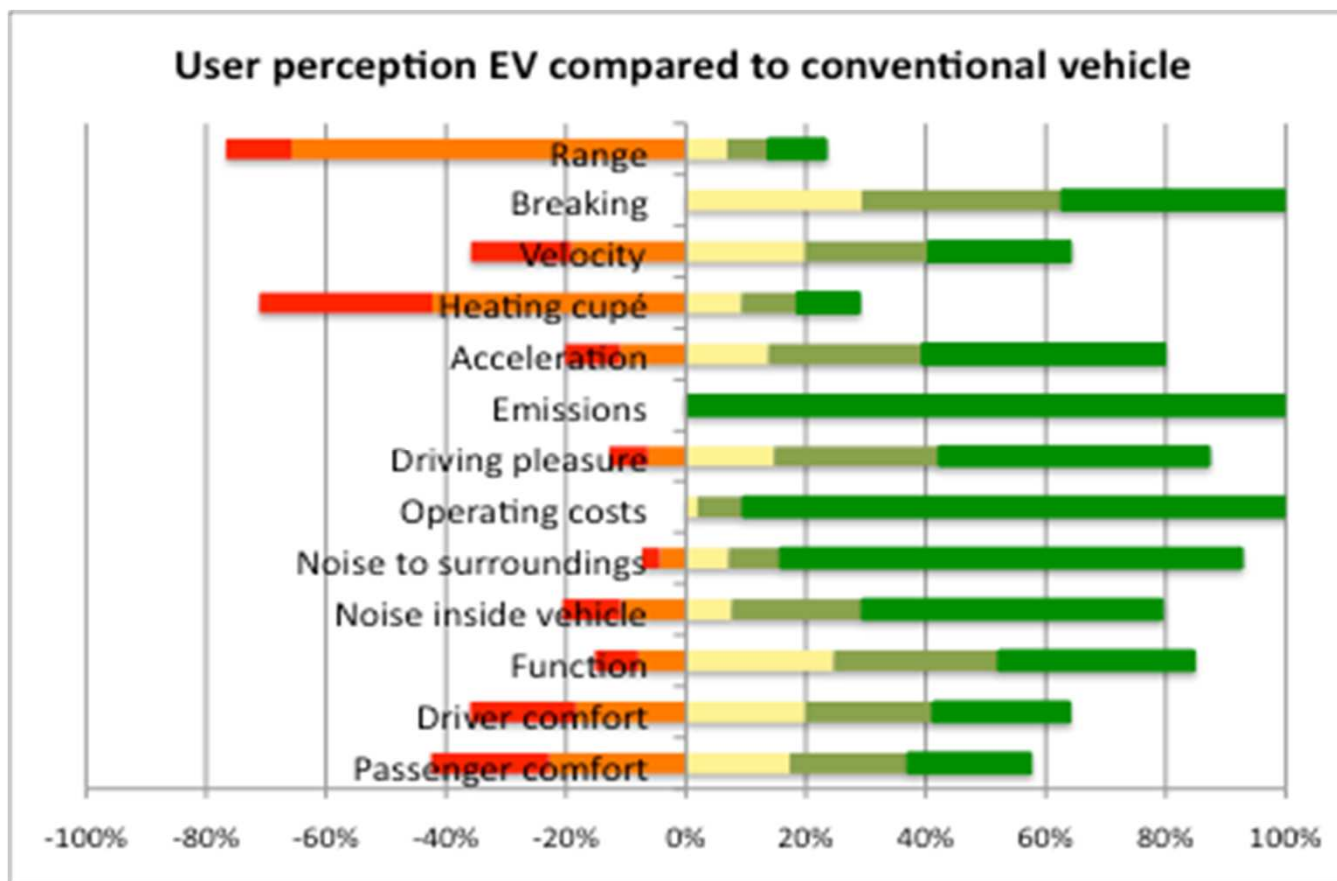


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Examples data collection



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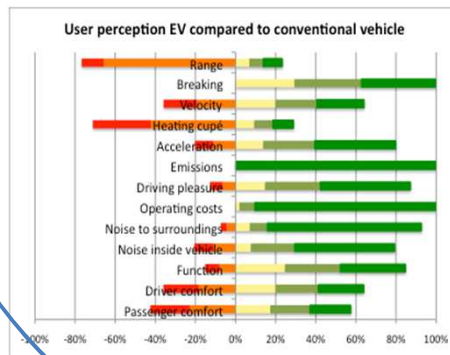
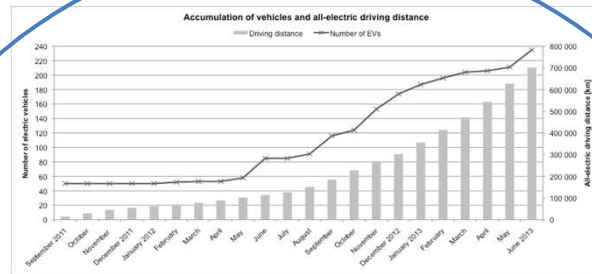


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Socio-technical analysis



- Large substitution potential
- EV utilisation varies
 - Different user groups
 - Strategic placement
- Favourable to initially electrify

Method development process



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- Time-saving measures
- Data quality measures
 - User engagement measures
 - Avoiding misunderstandings

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- To reduce manual handling
 - further development data-base
- To reduce blur
 - development of information material

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


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- Further develop database features

Namn	
	2011-10-05-0835-Elbil_september.xls
	2011-10-07-1646-Logg_elbil.xls
	2011-10-10-0834-Loggbok_Elbilen.xls
	2011-10-10-1058-Loggbok_Elbilen.xls
	2011-10-10-1443-log_template.xls
	2011-10-20-0907-log_template_200909.xlsx
	2011-10-21-0754-Kopia_av_log_template.xls
	2011-11-01-0721-Krjournal_elbil_oktober_2011.xls
	2011-11-01-1031-log_template_okotober.xls
	2011-11-02-0801-Loggbok_Elbilen_1.xls
	2011-11-02-1448-log_template.xls
	2011-11-03-1029-Kopia_av_log_template_okt.xls
	2011-11-07-1550-okt_log_template.xlsx
	2011-11-08-1523-log_template_201110.xlsx
	2011-11-09-1022-log_template.xls

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- Standardise log book submission



Follow steps below to submit your log:

1. Download  this excel template.

2. Fill in your log data in the template and save as an .xlsx or .xls file.

3. Submit the saved file below.

Find vehicles from users.

Fill in the fields below with the registration number, year and month for the reported period.

Specify which log file to be uploaded.

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Time-saving measures



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Before:

Namn
2011-10-05-0835-Elbil_september.xls
2011-10-07-1646-Logg_elbil.xls
2011-10-10-0834-Loggbok_Elbilen.xls
2011-10-10-1058-Loggbok_Elbilen.xls
2011-10-10-1443-log_template.xls
2011-10-20-0907-log_template_200909.xlsx
2011-10-21-0754-Kopia_av_log_template.xls
2011-11-01-0721-Krjournal_elbil_oktober_2011.xls
2011-11-01-1031-log_template_okotober.xls
2011-11-02-0801-Loggbok_Elbilen_1.xls
2011-11-02-1448-log_template.xls
2011-11-03-1029-Kopia_av_log_template_okt.xls
2011-11-07-1550-okt_log_template.xlsx
2011-11-08-1523-log_template_201110.xlsx
2011-11-09-1022-log_template.xls

After:

Namn
AED338jan2012.xls
AJP264jan2012.xls
CEE781jan2012.xls
CFN527jan2012.xls
DRY243jan2012.xls
DRY772jan2012.xls
DRY857jan2012.xls
FDS087jan2012.xls
FNK355jan2012.xls
HWX775jan2012.xls
JYN422jan2012.xls
KWF586jan2012.xls
LOF482jan2012.xls

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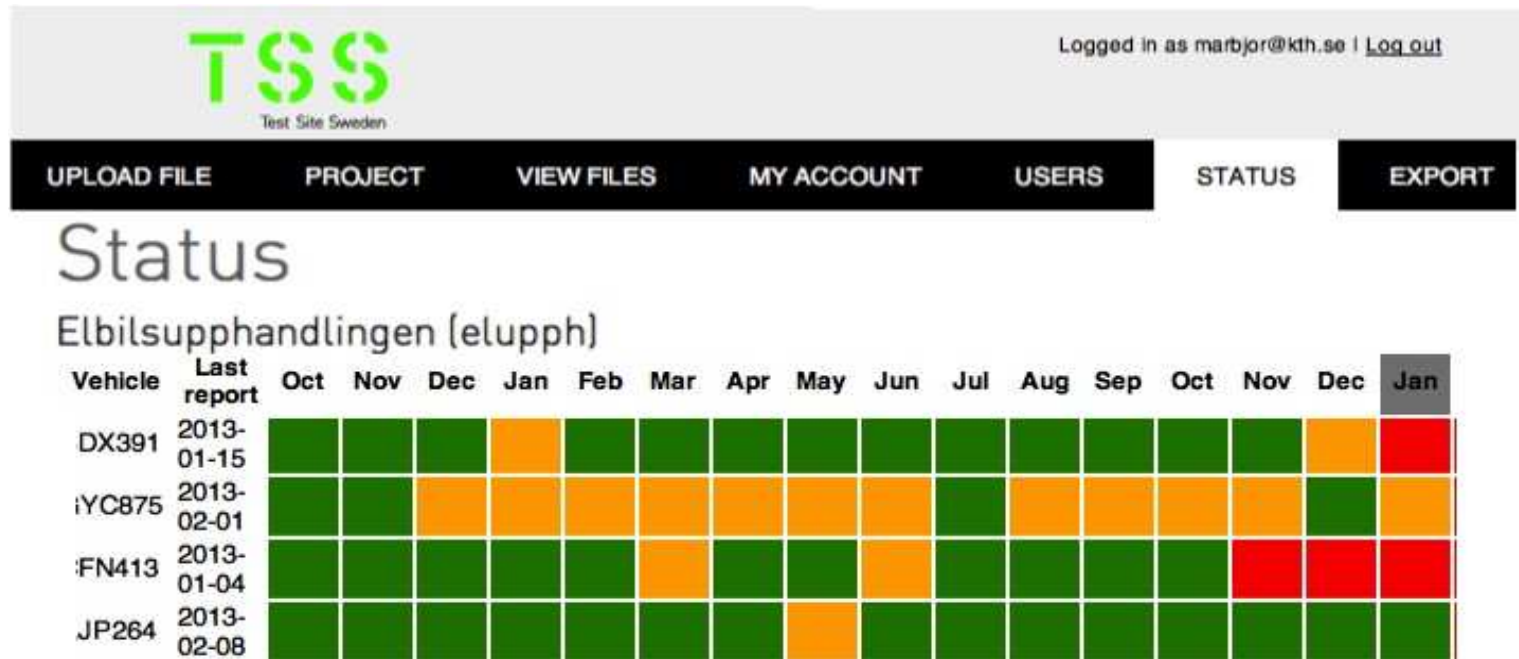
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- Enables more automatical handling
- Visual evaluation tool

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- Information material

Att ladda elbilen

Det finns flera typer av laddning. Olika elfordon har olika tekniska förutsättningar så samtliga kanske inte är möjliga just för ditt fordon.

Snabbladdning

Avser laddning vid en specifik snabbladdningsstation. Denna infrastruktur är under uppbyggnad och därför ber vi dig att ange vilken snabbladdningsplats du använder.

Det är viktigt i det fortsatta arbetet att förstå behovet av snabbladdning.

Behöver du hjälp att hitta en laddplats, använd gärna:

- www.kuppladdning.se
- Smartphone- applikationer:
 - Charge and Drive
 - Ladda elbilen (under utveckling)



- Explanation of plugs
- Untangling some concepts
- Assistance to find public charging

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Quality improvement measures

- Development of information material



- Unstructruing the interviews

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Quality improvement measures



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Avoiding misunderstandings

- #1: Not all people are engineers (!)
- #2: Create a common concept consensus
- #3: Understand individual EV environments
- #4: A small chance = certain misinterpretation

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- Assume limited or no knowledge about electric vehicles
- Extremely valuable to get the user perspective
- Engaged users provide good quality data
- Use your time wisely

Thank you for your attention!

For more results and/or questions, get in touch!

marbjor@kth.se

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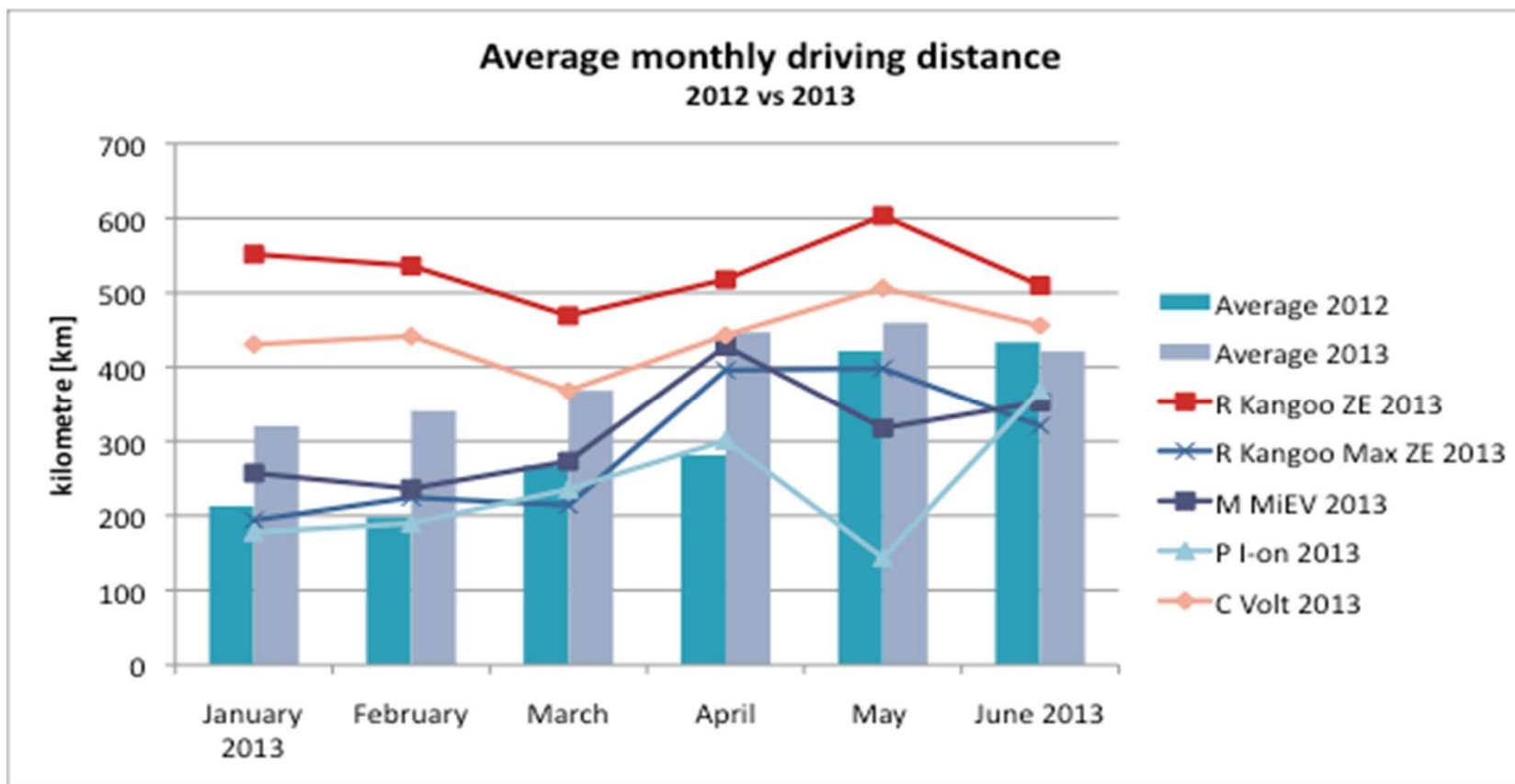


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With the time saved....



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