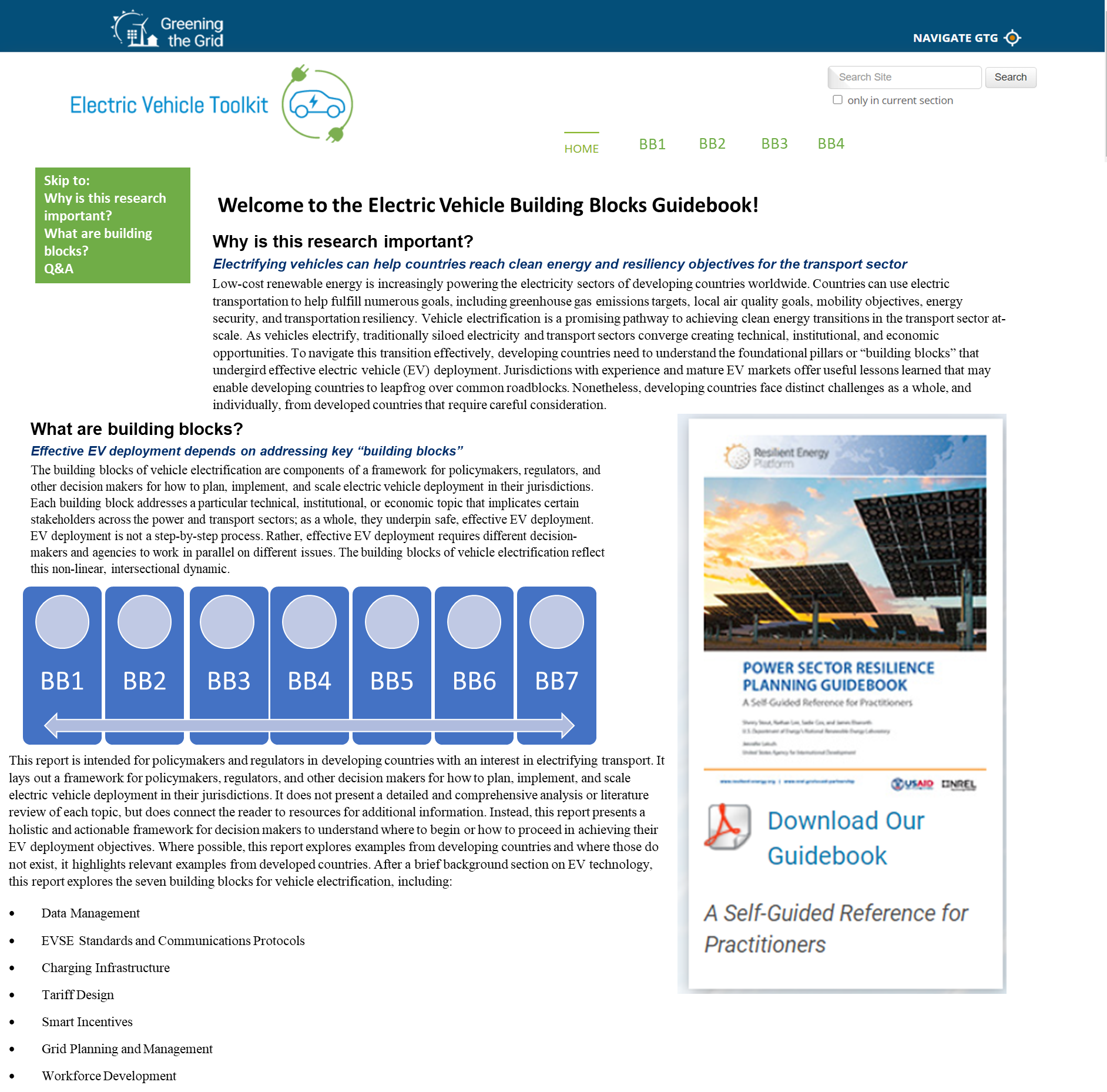
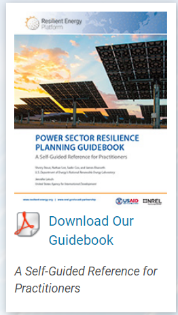
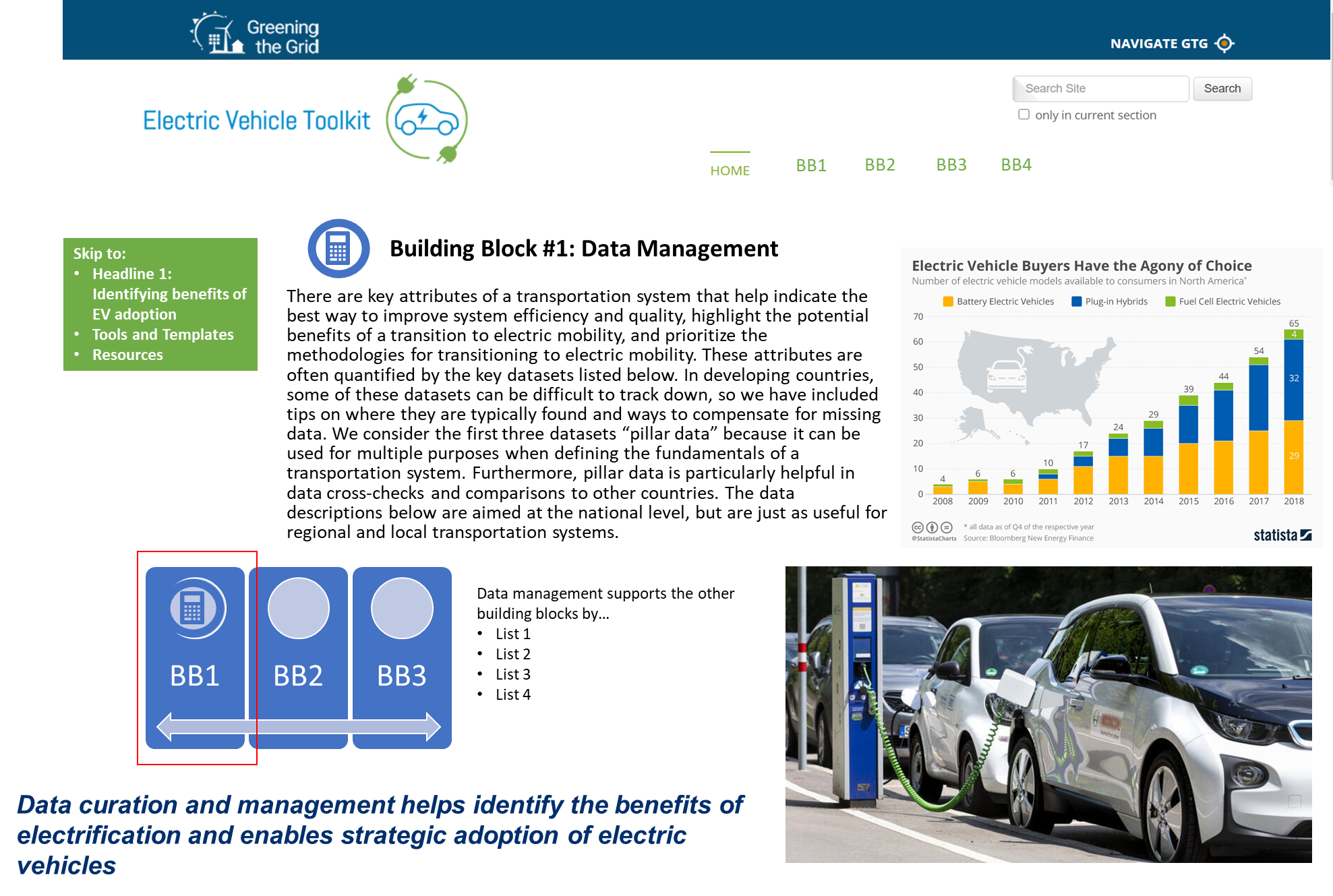
# Site Mockup

Contents

1. Home page mockup
2. BB #1 Mockup: Version 1
   1. A portlet navigates you to key headlines (the blue, bolded, and italicized sentences in the guidebook)
3. BB #2 Mockup: Version 2
   1. An expandable accordion shows you the subheadings
4. Options to add visual interest to the page

Homepage

Option 1—with portlet



**Transportation Fuel use** is pillar data that can be used for multiple purposes. When divided by population, it becomes a basic metric for how energy efficient a transportation system is. It can also be input to numerous models to help estimate the emissions coming from the transport sector, and therefore the air quality impacts of vehicle electrification. Fuel is often imported, making the quantity of fuel used important in macroeconomic, security, and resilience calculations. It can be converted to energy equivalents in order to estimate the increased load (after taking into account the improved efficiency of EVs[[1]](#footnote-1)) that electrifying transportation would add to the grid under various vehicle electrification scenarios.

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**Filling missing pillar data.** The data sources and format for the three pillar data sets can be more difficult to obtain in developing countries. Fortunately, there are methods to fill in missing data in such instances. Data gaps can be interpolated through simple algebra if one knows vehicle efficiency (VKT/fuel used), annual km travelled per vehicle (VKT/vehicle stock), fuel use per vehicle, and other metrics involving two of the pillar datasets in an equation. An example of this is estimating fuel use based on VMT and average fuel economy based on the equation Fuel Economy=VKT/Fuel Consumption. Furthermore, missing data can be estimated by using proxy data from other countries with economic, cultural, and geographic similarities. For example, one can estimate the per capita transport energy based on population density by aligning them on the line of best fit shown in Figure 3. Another example is using a country’s per-capita GDP in order to estimate its per-capita VMT, based upon the historic relationship between the two explored in Ecola et al. 2014[[7]](#footnote-7). For detailed case studies that involved filling data gaps, see Jamaica[[8]](#footnote-8), Tonga[[9]](#footnote-9), Guam[[10]](#footnote-10), and US Virgin Islands[[11]](#footnote-11). It should be noted that there is currently no central database of pillar data for developing countries; such a database would greatly improve the ease and reliability of using proxy data.

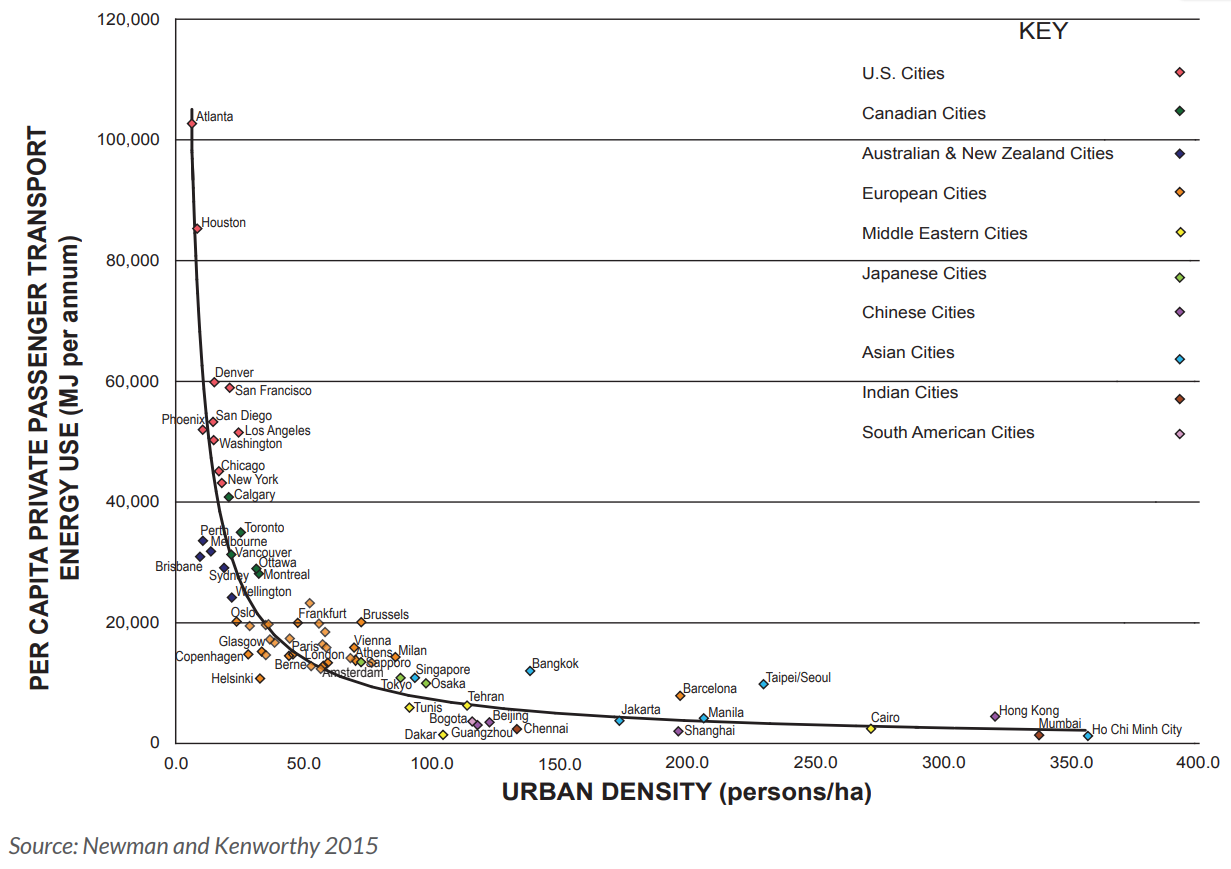


Figure 3. Correlation between energy use per capita in private passenger travel and urban density in global cities (R2=0.86).

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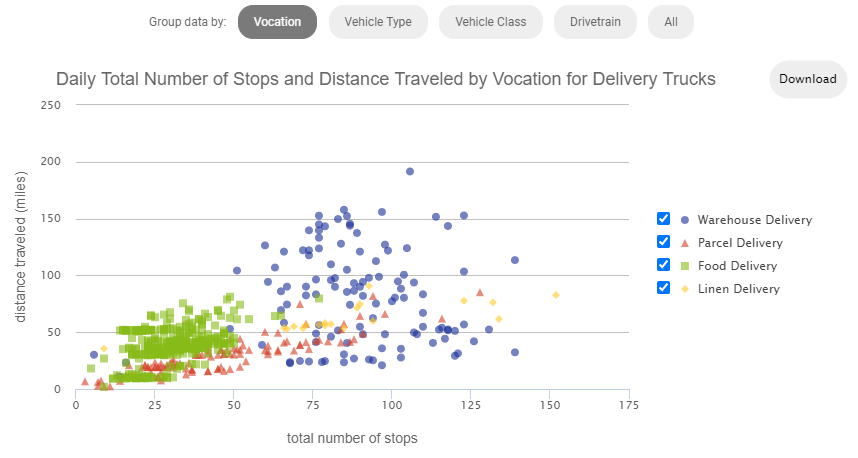


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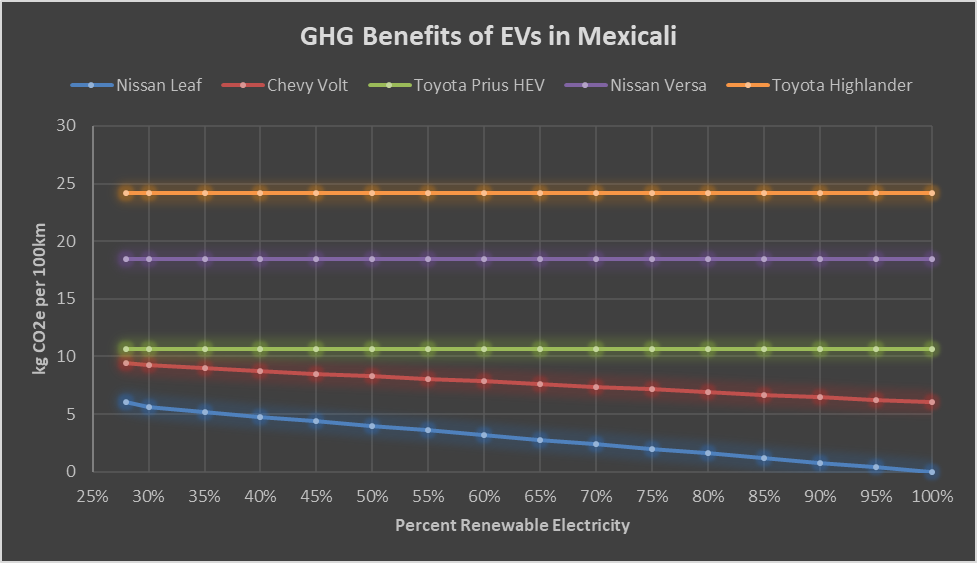


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**Data Summary**

There is a variety of data that can assess the benefits of and facilitate the strategic adoption of electric vehicles. The most useful and most likely to be found or derived in developing countries is listed in Table 2 below:

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| **Dataset** | **Purpose/Use** | **Source** | **Probable Keeper\*** | **Alternatives** |
| Transport-ation Fuel use | Defines potential economic & environmental benefits of EVs | Fuel Taxes | Ministry of Energy | Calculate from VKT and fuel economy |
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Option 2—With accordions





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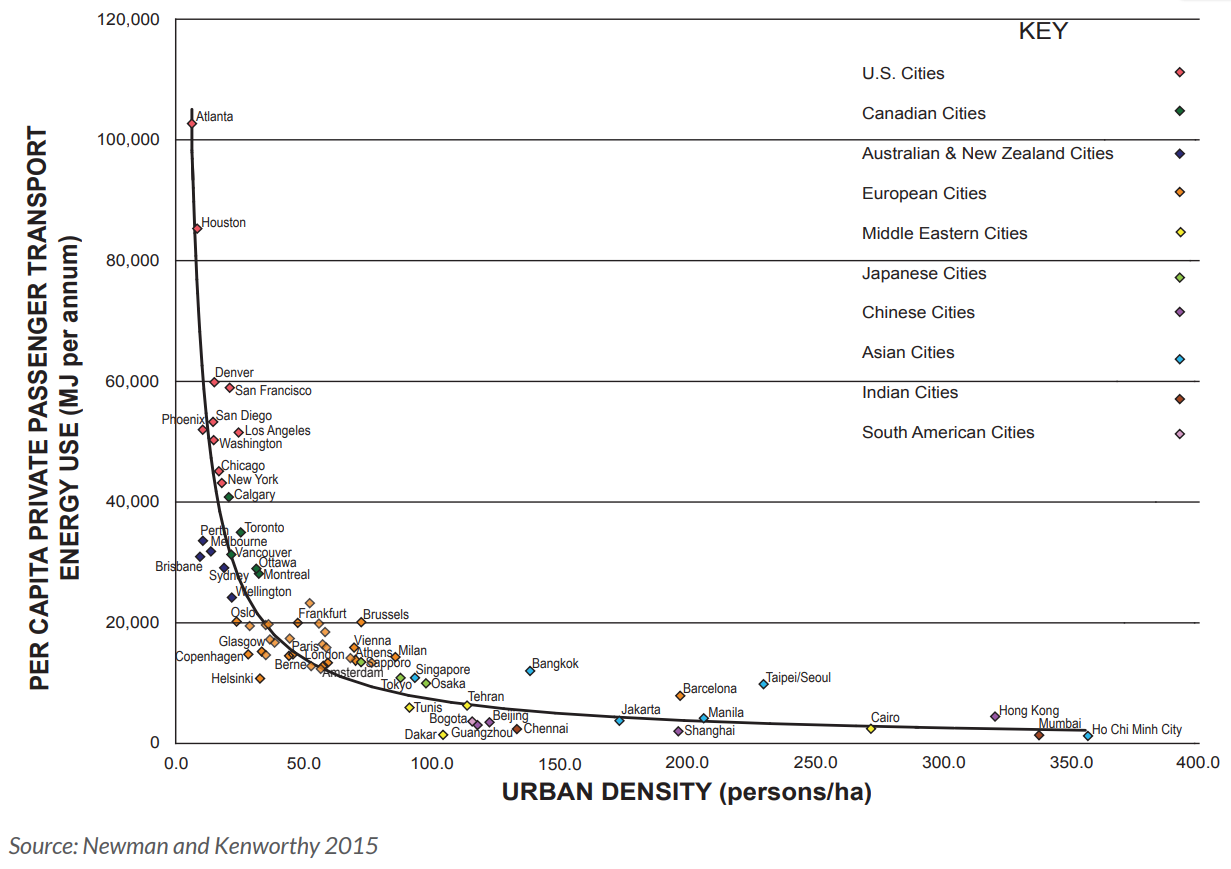


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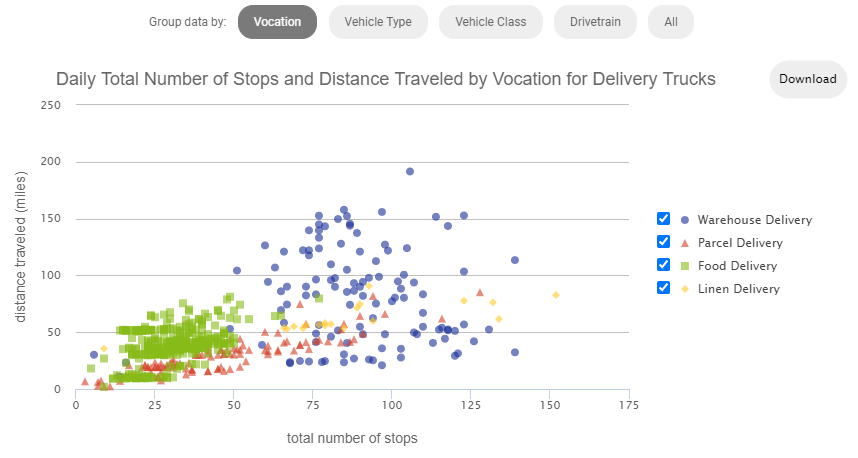


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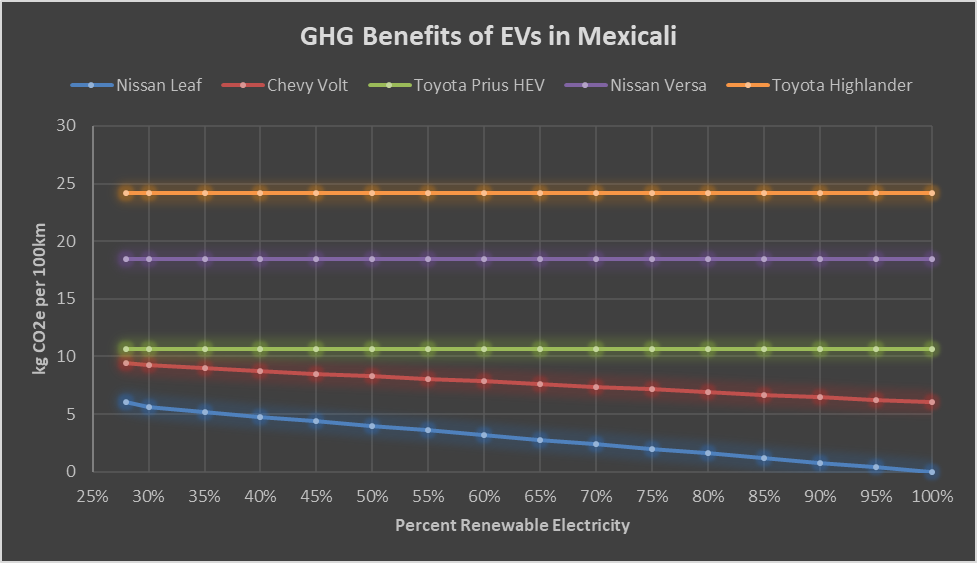


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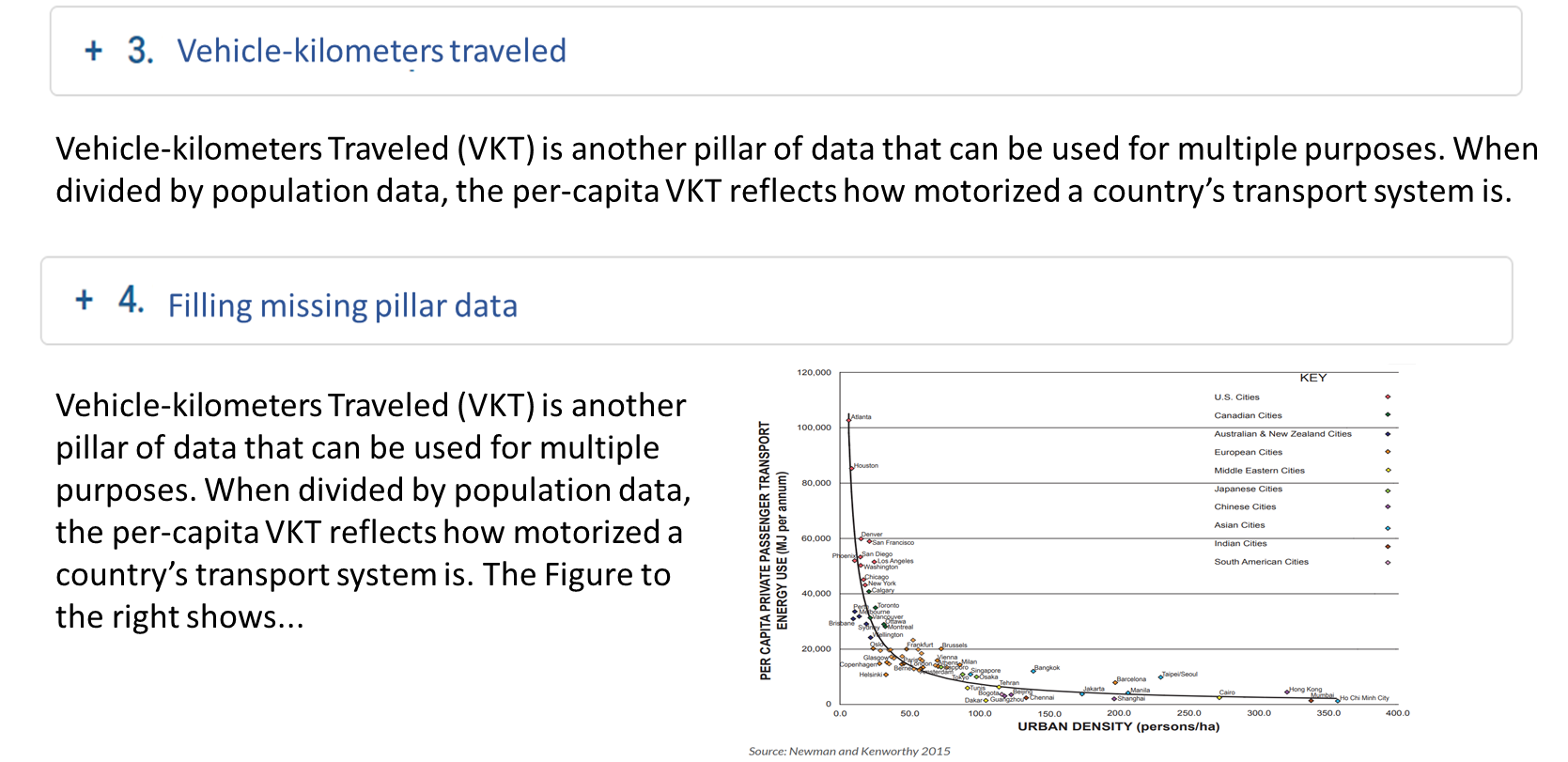
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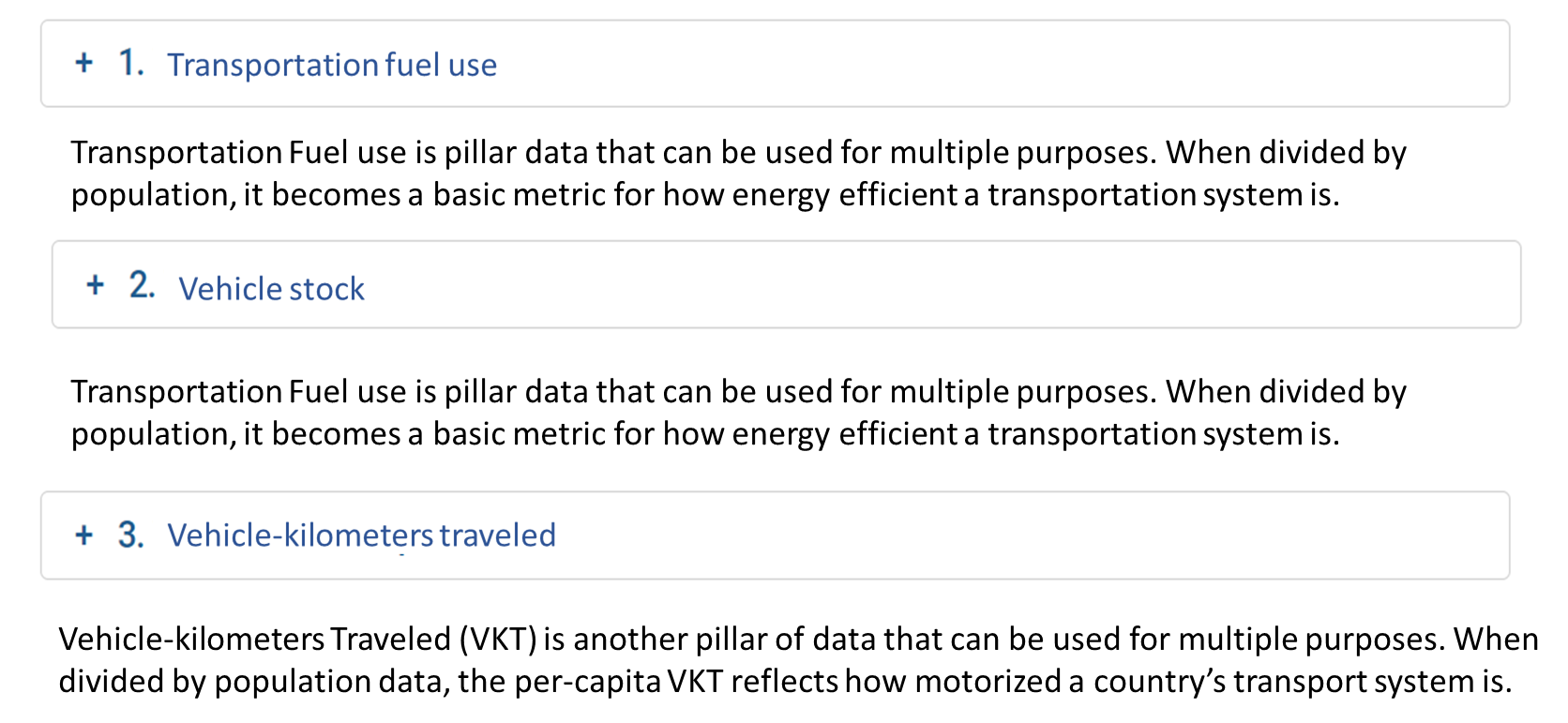
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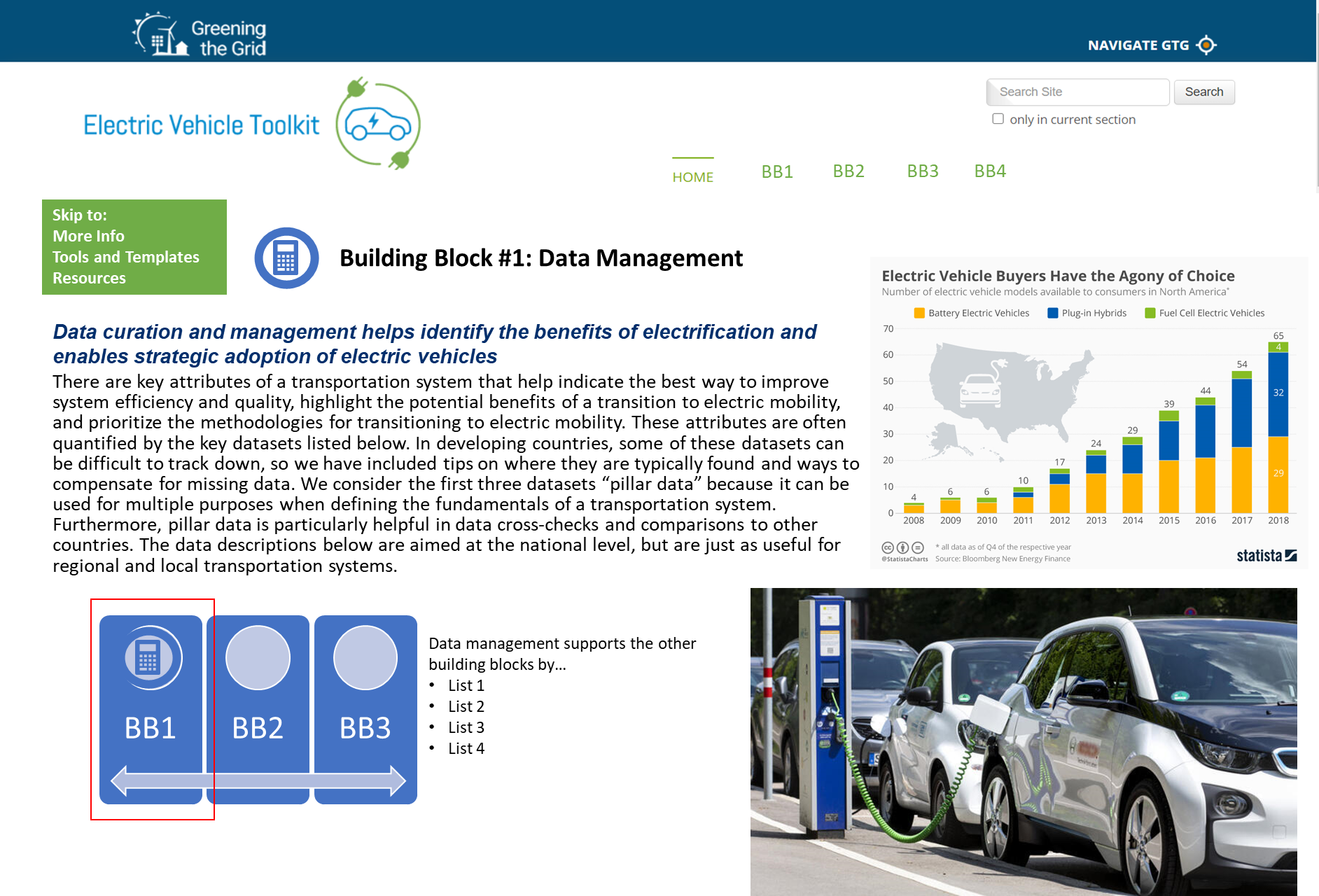
Suggestions for visual interest:

* Have the building blocks scroll down to reduce the effect of a small page <https://www.eere.energy.gov/islandsplaybook/#phase2>
* Have a few lines of text and/or an image that is open already before the item is expanded





* Image and/or chart at the top of each BB before the expanding list



1. <https://www.fueleconomy.gov/feg/evtech.shtml> [↑](#footnote-ref-1)
2. Throughout this report, we will refer to given government agencies as “Ministry of X” when in fact the name of these agencies varies widely across countries. [↑](#footnote-ref-2)
3. <https://www.nrel.gov/docs/fy19osti/73380.pdf> [↑](#footnote-ref-3)
4. <https://www.rand.org/pubs/research_reports/RR636.html> [↑](#footnote-ref-4)
5. <https://www.nrel.gov/docs/fy19osti/73380.pdf> [↑](#footnote-ref-5)
6. <https://www.ctc-n.org/system/files/dossier/3b/deliverable_3.3._final_teemp.pdf> [↑](#footnote-ref-6)
7. Significant similarities include GDP, spatial dispersion, car infrastructure, fuel price, pro-car policies, driving alternatives, activity levels, petroleum resources, domestic car industry, and car culture (<https://www.rand.org/pubs/research_reports/RR636.html>) [↑](#footnote-ref-7)
8. <https://www.nrel.gov/docs/fy19osti/73380.pdf> [↑](#footnote-ref-8)
9. <https://www.ctc-n.org/system/files/dossier/3b/deliverable_3.3._final_teemp.pdf> [↑](#footnote-ref-9)
10. <https://www.nrel.gov/docs/fy13osti/57191.pdf> [↑](#footnote-ref-10)
11. <https://www.nrel.gov/docs/fy11osti/52565.pdf> [↑](#footnote-ref-11)
12. <https://islandpress.org/books/end-automobile-dependence> [↑](#footnote-ref-12)
13. <https://www.censusindia.gov.in/2011census/hlo/Data_sheet/India/Transportation.pdf> [↑](#footnote-ref-13)
14. <https://www.transport.govt.nz/mot-resources/household-travel-survey/> [↑](#footnote-ref-14)
15. [www.statista.com/statistics/909952/chile-most-used-transport-mode/](http://www.statista.com/statistics/909952/chile-most-used-transport-mode/) [↑](#footnote-ref-15)
16. <https://www.statista.com/statistics/1116074/distribution-of-transportation-used-to-get-to-work-in-south-africa/> [↑](#footnote-ref-16)
17. 2011 Census of Population and Housing. Table 1.11: Total Population 3 Years Old and Over by Usual Mode of Transportation by Parish. Statistical Institute of Jamaica. [↑](#footnote-ref-17)
18. www.statista.com [↑](#footnote-ref-18)
19. <https://www.sciencedirect.com/science/article/pii/S1361920918301330> [↑](#footnote-ref-19)
20. <https://reader.elsevier.com/reader/sd/pii/S136192091930896X?token=2E23EE314B57AB65D87822D733F6CFE7291F4408CB81F8CA0F870AA71185C7F9D40B08E694BFD5AF98036BC94CEA1AF4> [↑](#footnote-ref-20)
21. <https://www.census.gov/programs-surveys/ahs.html> [↑](#footnote-ref-21)
22. <https://reader.elsevier.com/reader/sd/pii/S136192091930896X?token=2E23EE314B57AB65D87822D733F6CFE7291F4408CB81F8CA0F870AA71185C7F9D40B08E694BFD5AF98036BC94CEA1AF4> [↑](#footnote-ref-22)
23. <https://iopscience.iop.org/article/10.1088/1748-9326/aad0f8/meta> [↑](#footnote-ref-23)
24. <https://afdc.energy.gov/data/10327> [↑](#footnote-ref-24)
25. A. Brooker, J. Gonder, L. Wang, E. Wood, S. Lopp, and L. Ramroth, “FASTSim: A Model to Estimate Vehicle Efficiency, Cost and Performance,” SAE Tech. Pap. 2015-01-0973, 2015. [↑](#footnote-ref-25)
26. <https://sawatchgroup.com/ezev.html> [↑](#footnote-ref-26)
27. Hodge, C. and A. Kotz. Forthcoming. Assessing Candidates for Bus Electrification. [↑](#footnote-ref-27)
28. <https://www.nrel.gov/transportation/fleettest-fleet-dna.html> [↑](#footnote-ref-28)
29. <https://afdc.energy.gov/files/u/publication/electric_mobility_strategy_mexicali.pdf> [↑](#footnote-ref-29)
30. <https://www.fueleconomy.gov/feg/evtech.shtml> [↑](#footnote-ref-30)
31. Throughout this report, we will refer to given government agencies as “Ministry of X” when in fact the name of these agencies varies widely across countries. [↑](#footnote-ref-31)
32. <https://www.nrel.gov/docs/fy19osti/73380.pdf> [↑](#footnote-ref-32)
33. <https://www.rand.org/pubs/research_reports/RR636.html> [↑](#footnote-ref-33)
34. <https://www.nrel.gov/docs/fy19osti/73380.pdf> [↑](#footnote-ref-34)
35. <https://www.ctc-n.org/system/files/dossier/3b/deliverable_3.3._final_teemp.pdf> [↑](#footnote-ref-35)
36. Significant similarities include GDP, spatial dispersion, car infrastructure, fuel price, pro-car policies, driving alternatives, activity levels, petroleum resources, domestic car industry, and car culture (<https://www.rand.org/pubs/research_reports/RR636.html>) [↑](#footnote-ref-36)
37. <https://www.nrel.gov/docs/fy19osti/73380.pdf> [↑](#footnote-ref-37)
38. <https://www.ctc-n.org/system/files/dossier/3b/deliverable_3.3._final_teemp.pdf> [↑](#footnote-ref-38)
39. <https://www.nrel.gov/docs/fy13osti/57191.pdf> [↑](#footnote-ref-39)
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44. [www.statista.com/statistics/909952/chile-most-used-transport-mode/](http://www.statista.com/statistics/909952/chile-most-used-transport-mode/) [↑](#footnote-ref-44)
45. <https://www.statista.com/statistics/1116074/distribution-of-transportation-used-to-get-to-work-in-south-africa/> [↑](#footnote-ref-45)
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47. www.statista.com [↑](#footnote-ref-47)
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