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# ***QGIS for Transport Research: an introduction***

To my son,  
without whom I should have finished this book two years earlier

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## ***Preface***

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This booklet was developed in response to the update from QGIS2 to QGIS3 on the University of Leeds' teaching cluster computers. That may sound like a minor change, but it meant that previous materials, developed by Ian Philips, were no longer up-to-date. More importantly, some of the instructions simply failed on the latest version of QGIS.

Instead of incrementally updating those materials we decided to start from scratch. The aim is to get you up-to-speed with *the most important concepts and techniques* in QGIS for *Transport Planning*. We refer to Transport Planning in the broad sense of providing evidence-based guidance to support sustainable transport behaviours. With air pollution, the obesity crisis, and growing levels of economic inequality in cities worldwide, this inevitably means investment in walking, cycling and public transport. For this reason the data used in this booklet focusses on these modes.

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## **Pre-requisites**

What you need to have...

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## **Structure of the book**

Chapters **1** introduces GIS and the program QGIS...



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## *About the Author*

Frida Gomam is a famous lady. Police will always let her go.



# 1

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## *Introduction*

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### 1.1 What is GIS?

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### 1.2 Why use GIS for transport research?

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### 1.3 What is QGIS?

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### 1.4 Alternatives to QGIS

Now unplug your Internet cable, and start doing some serious work.

More chapters to come in 02-foo.Rmd, 03-bar.Rmd, ...

```
# this is a code block that triggers 'shaded' environment
```



## 2

### *Downloading and loading data*

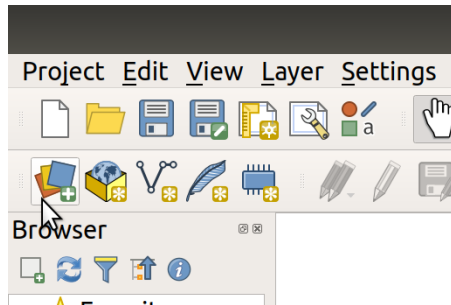
A vital skill for doing using GIS skills to solve real-world problems is finding, downloading and importing data.

Often, the first stage in the data downloading/loading process is to find the data online. In this case we will access data from the following site, which contains data we prepared earlier for the course: [github.com/ITSLeeds/SSPA/releases](https://github.com/ITSLeeds/SSPA/releases)<sup>1</sup>.

Look at the file in your explorer...

To open a file in QGIS first create a QGIS project.

To load a geographic data file, click on the Data Source Manager button in the top left corner of QGIS (see Figure 2.1).



**FIGURE 2.1:** The Data Source Manager icon

<sup>1</sup><https://github.com/ITSLeeds/SSPA/releases/download/v1.1>





# A

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## *More to Say*

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Yeah! I have finished my book, but I have more to say about some topics. Let me explain them in this appendix.

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