

→ 8th ADVANCED TRAINING COURSE ON LAND REMOTE SENSING

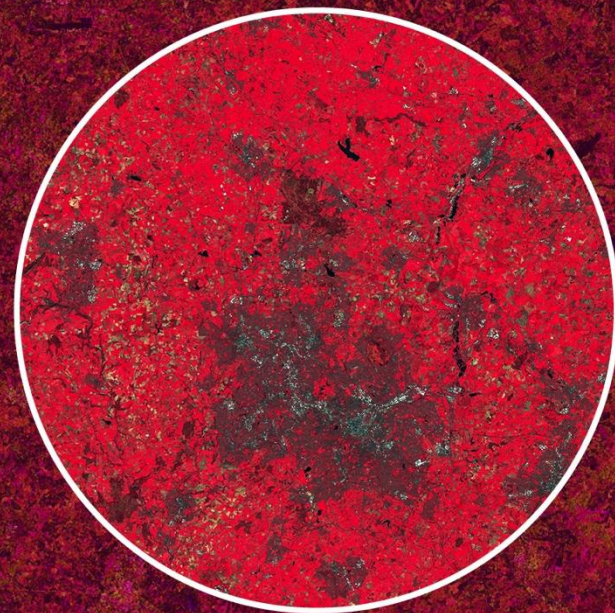
10–14 September 2018

University of Leicester | United Kingdom

Monitoring Vegetation in a Changing Climate

Gregory Duveiller

14/09/2018



European
Commission

**Joint Research
Centre (JRC)**

This practical session



Objective:

Provide one version of how to approach data analysis (focused on RS/Vgt/climate)

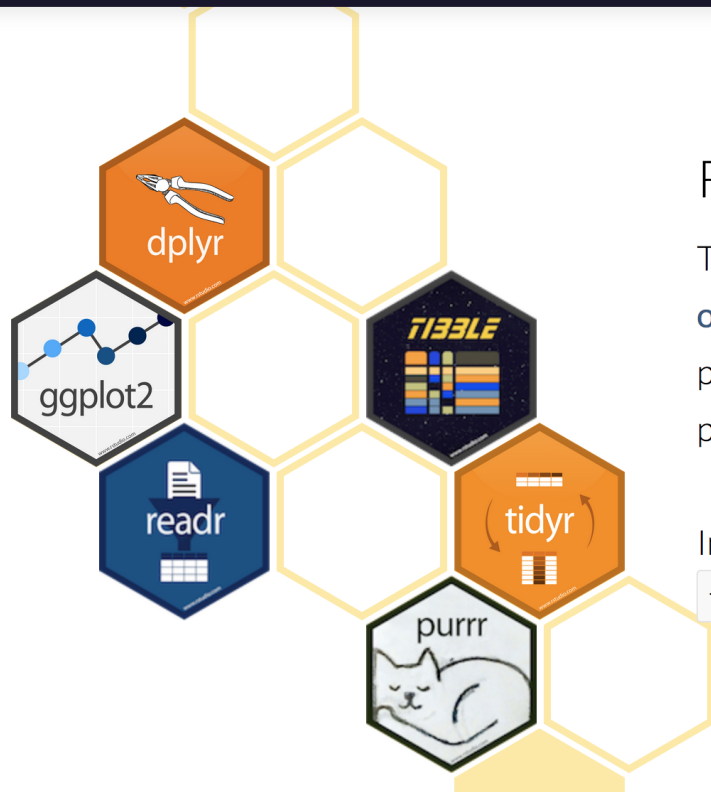
Format:

Live Demo. Which you can follow at your own pace on your computer.

Tools:



- R is massively used in data analysis nowadays
- It is free and open, with plenty of useful tool



R packages for data science

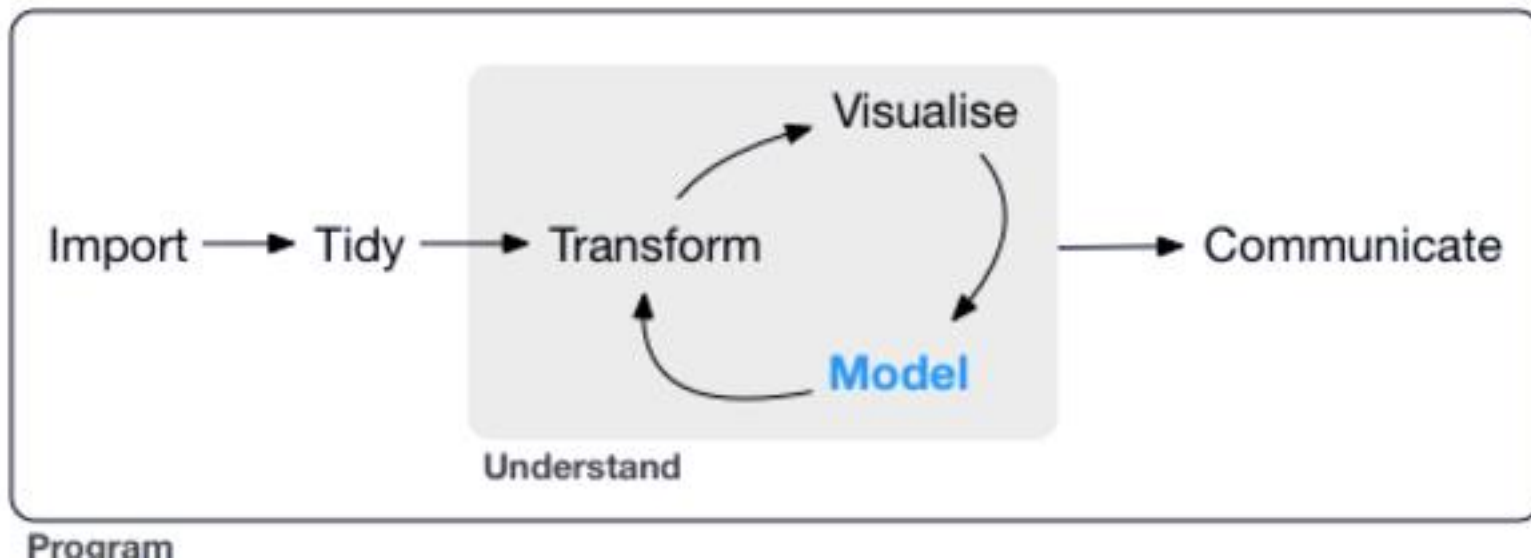
The tidyverse is an opinionated **collection of R packages** designed for data science. All packages share an underlying design philosophy, grammar, and data structures.

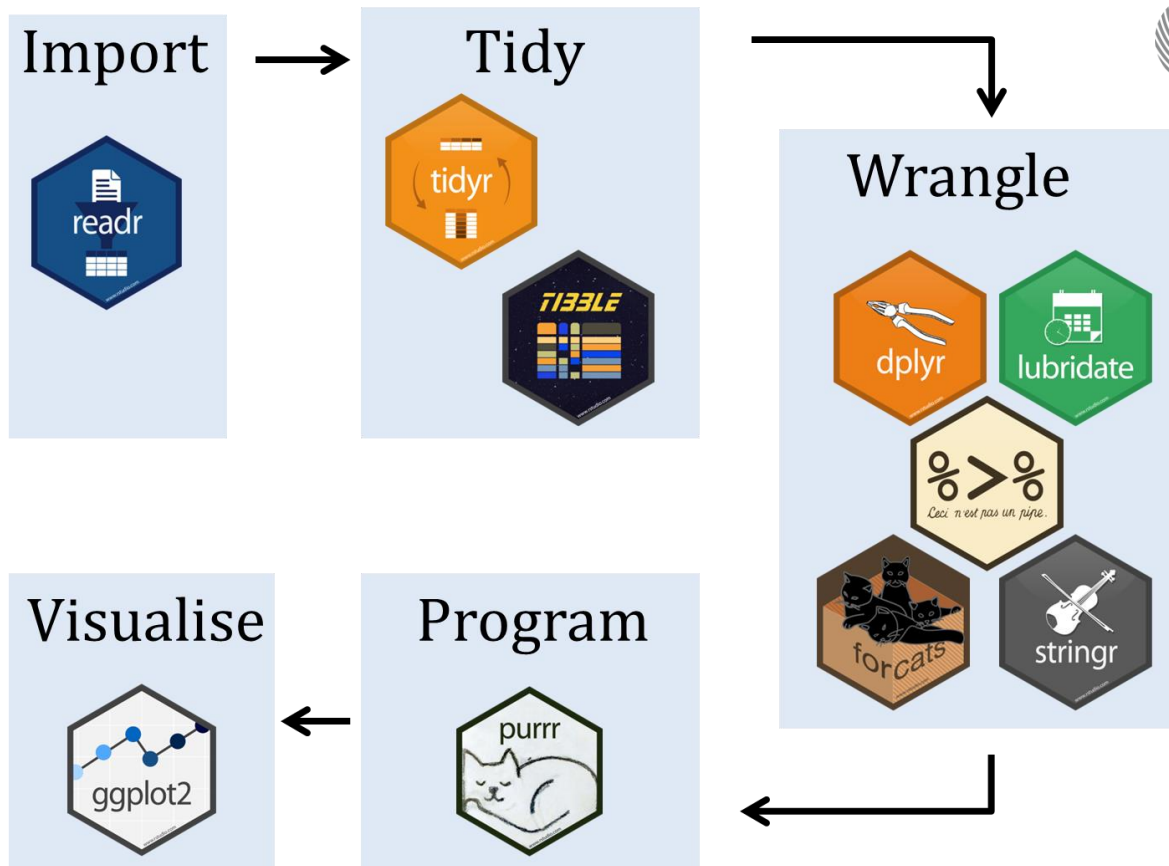
Install the complete tidyverse with:

```
install.packages("tidyverse")
```

Tidyverse: a dialect of R?

Tidyverse diagram/logic





ggplot2 and the grammar of graphics

tidyr and **tibble** to getting data tidy for your plots

dplyr for data wrangling and **piping**

sf and **stars** to extend all to geo-spatial data