

Introduction to Data Analysis with R

Day 1: Welcome to the workshop

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Who am I?

 Scientific programmer @theoretical ecology group

 PhD in dryland ecology

 Teaching R, Git, good scientific practice, ...

I'm using a lot for ...

... data analysis

... ecological modelling

... writing documents

.... workflow automation

...

Who are you?

Results of questionnaire

Workshop topics

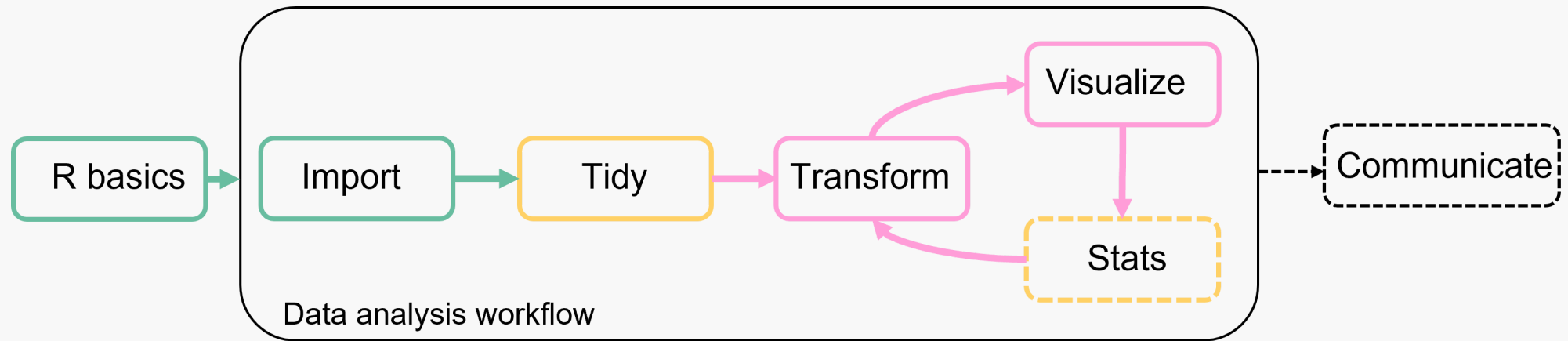


Image adapted from Wickham & Grolemund: [R for Data Science](#)



Day1 Introduction to R and RStudio and data import



Day2 Data transformation and visualization with the tidyverse

Day3 Cleaning data and statistical tests

Day 4 Bring your own data

Schedule and Organization

 09.10.2023 - 10.10.2023 from  9 a.m. - 4 p.m.

 16.10.2023 - 17.10.2023 from  9 a.m. - 4 p.m.

 ~ 12 a.m. - 1 p.m.,  in between

 We will meet in the **General** meeting on Webex

Input sessions

- Presentation and demonstration of a topic
- Some examples

Tasks

- Solve them in small groups

Joint discussion of tasks & questions

Material

- All material can be found on the [workshop's website](#)
 - Presentations, Tasks, Solutions, Additional resources
- You can download slides and R Scripts from there
- Website will stay online after the workshop

Bring your own data

On the last workshop day, you can **work with your own research data**. I will also provide some **real life data sets** from different topics.

Learning by doing

- Get started using R for your own analyses
- Use any of the methods from the course or try new things, ...
- Present/discuss your results, questions and problems at the end of the day

Bring your own data

- Keep the last workshop day in mind during the next days
 - Take a mental note if you learn something that is applicable to your data
 - Think of questions that you would like to answer for your data set
- Add your name and some details on what you plan to do in this [joint table](#)

Before we get started I

- **Help each other** if possible
 - Have an eye on the chat
- All questions and comments are welcome
- Feedback is welcome
 - Evaluation at the end of the workshop

Before we get started II

How to use Webex teams

- `General` channel for our joint meetings and chat
- `Groups 1-4` for group work
 - Group spaces have their own chat and meetings
 - Use the chat in the groups for questions
 - Meet in your groups and solve the tasks jointly
- Please always have a look at the general chat during the tasks

Now you (5 min)

Let's try the Webex groups

- Go into your groups and start a meeting there
- Say hello to your team briefly
 - What do you study and what types of data analysis do you do?
- Come back to the general meeting when I write in the general chat

Before we get started III

Did anyone have problems installing R and RStudio?



Download and install R from <https://cran.r-project.org>



Download and install RStudio from <https://www.posit.co>

