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## Analysis of transport data using R

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### THE R-SOFTWARE

R is a free software environment for statistical computing and graphics. It is one of the fastest growing programming languages and has become a very powerful tool for the organization, visualization and analysis of data.

R is highly flexible and extensible, supported by libraries and packages that provide state-of-the-art statistical and graphical techniques. For example, R includes packages that allow you writing reports or journal articles directly from the computer code, developing interactive apps or systematically obtaining freely available data from the web.

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### THE SEMINAR

This three-hour seminar will provide a practical introduction to R, using solved examples related with airline transport data. Course participants will learn the basic programming principles of R from the beginning, so no previous experience is necessary. The seminar will demonstrate how to import and export data files, how to manipulate data and make basic calculations, as well as how to make simple graphs, so the participants can harness the power of R to solve their own analytic problems. Also, some attention will be paid to the description of useful packages that provide advanced functionality, for example for working with time data.

To participate in the hands-on exercises, you are strongly encouraged to bring a laptop computer with the most recent version of [R](#) installed. Participants are also encouraged to download and install [RStudio](#) a front-end for R that makes it easier to work with. This software is free and available for Windows, Mac, and Linux platforms.

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### WHO SHOULD ATTEND?

The seminar is intended for students as well as academic and business researchers looking for an accelerated and introduction to a powerful, widely popular and flexible data analysis software. While helpful, no prior experience with statistical software will be assumed.

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