# Course level I

# Seasonal adjustment of economic data

#### **Duration**

7 – 11 October 2019 (5 days)

# Deadline for application

16 August 2019

#### Venue

Frankfurt

### Objective

The course is designed to enable all participants to understand the basic principles of the X-11 filter-based and ARIMA model-based approaches to seasonal adjustment, to work with the JDemetra+ and X-13ARIMA-SEATS seasonal adjustment software packages, which include both approaches, and to interpret the results in economic terms.

#### Content

The course covers fundamental aspects of X-13ARIMA-SEATS and JDemetra+, a new open-source time series software co-developed by the National Bank of Belgium (main developer) and the Bundesbank. It is recommended for use in official statistics by Eurostat and the European Central Bank and complies with the European Statistical System Guidelines on Seasonal Adjustment. Various exercises illustrate the capabilities of the two programs, using examples provided by the lecturers. In this regard, participants will be invited to apply the two programs to their own time series and to discuss their findings with the lecturers and the group.

## Target group

The course is aimed at economists and statisticians who are interested in seasonal adjustment and, in particular, in the application of JDemetra+ and X-13ARIMA-SEATS. Prior knowledge and/or experience of time series analysis in general and seasonal adjustment in particular are welcome but are not a prerequisite for participation.