

## INSTRUCTIONS FOR THE USE OF THE LONG-TERM EVALUATION APPLICATION

The long-term evaluation application is a tool for assessing the long-term analytical laboratory performance based on results of the ECAT external quality assessment programme. Below you will find the instructions for use.

### Instructions for use

- Download the Excel application from the option “Long-term” in the member section of the ECAT website.
- You can save the Excel file on your own computer for future use.

- In the left upper corner of the worksheet fill in the name of the parameter, lab code and participant details.

ANALYTE
Labcode:
Name
Hospital
Department
City
Country

- Complete the table with exercise results.  
Under **exercise** you fill in the exercise code for which you are using data for the evaluation. Under **X (consensus value)** you fill in the consensus value of the corresponding exercise. Depending on which level you would like to evaluate your results you can use the consensus value for the total group of participants or those of the corresponding assay type or method.  
Under **Y (lab result)** you fill in your laboratory result for the corresponding exercises.

Note 1: You can include a maximum of 12 results in the evaluation. A minimum of 8 results is necessary for an appropriate evaluation.

Note 2: Outliers may influence the long-term evaluation significantly. Outliers are those results that show in an exercise a Z-score of  $< -3$  or  $> 3$ . If an outlier occurs occasionally it is advisable to exclude this result from the evaluation. If outliers occur frequently it is advisable to evaluate the analytical process for possible causes.

- When the exercise results are entered, the Long-term analytical coefficient of variation (LCVa) and the long-term bias are automatically calculated. The bias is also subdivided in the systematic and proportional bias.
- If you enter also the data for the within-subject biological variation (CVb within) and the between-subject biological variation (CVb between), the results for the long-term imprecision and bias are compared to the desirable performance specifications based on the biological variation.
- The total allowable error is automatically calculated. This data is used for the calculated of the Sigma-value of the test.