FEAD Structured survey of end recipients
Guidance note

Annex I Calculation of the sample size for unknown population

Where the population is unknown, the sample size can be derived by computing the minimum sample size required for accuracy in estimating proportions by considering the standard normal deviation set at specific confidence level, percentage picking a choice or response and the confidence interval (margin of error).

The following formula can be used for the sample size calculation:

$$n = \frac{Z^2 \times P \times (1 - P)}{s^2}$$

where :

n = sample size;

Z values represent standard normal deviation set at specific confidence level (e.g. 1.96 for 95% confidence level);

P is percentage picking a choice. If P is unknown (for example, before research is done) the maximal possible value of (P × (1-P)) should be used in the formula = 0.5 × 0.5 = 0.25;

s = margin of error (it is the positive and negative deviation you allow on your survey results for the sample).

For the FEAD structured survey, we are proposing to apply the following parameters: a confidence level of 95% and a confidence interval of 3% and percentage picking a choice 0.25.

When using these parameters, the sample size is 1.068 units.