The ensemble of experimental data on the 2830 nuclides which have been observed since the beginning of Nuclear Physics are being evaluated, according to their nature, by different methods and by different groups. The two “horizontal” evaluations in which I am involved: the Atomic Mass Evaluation AME and the NUBASE evaluation belong to the class of “static” nuclear data. In this tutorial lecture I will explain and discuss more in details the strategies and procedures used in the evaluation of atomic masses.

* This tutorial lecture is dedicated to A.H. Wapstra on the occasion of his 78th anniversary.