The envelopes of functions play essential role in pluripotential theory. In particular, they are used in Perron-Bremermann method to solve the Dirichlet problem: find a homogeneous solution of the Monge-Ampere operator with continuous boundary data. So it is important to classify those domains where the solution is also continuous. To characterize domains where continuous functions have continuous envelopes we use the notion of Jensen measures. These measures recently attracted the attention of quite a number of mathematicians. It should be noted that different classes of plurisubharmonic functions generate different Jensen measures. We treat these classes of Jensen measures as multifunctions. As it happens the continuity of envelopes is a consequence of such geometric properties of these multifunctions as upper and lower semicontinuity. This work will be of interest for people who work on complex analysis of several variables, especially on pluripotential theory.