ABSTRACT. A functor is constructed from the category of globular CW-complexes to that of flows. It allows the comparison of the S-homotopy equivalences (resp. the T-homotopy equivalences) of globular complexes with the S-homotopy equivalences (resp. the T-homotopy equivalences) of flows. Moreover, it is proved that this functor induces an equivalence of categories from the localization of the category of globular CW-complexes with respect to S-homotopy equivalences to the localization of the category of flows with respect to weak S-homotopy equivalences. As an application, we construct the underlying homotopy type of a flow.