I will describe the stable (in genus) structure of the universal moduli space of flat connections on riemann surfaces. I will also introduce the category of 1-manifolds and 2-cobordisms endowed with flat connections. Using classical techniques of Atiyah-Bott, and more recent techniques introduced by Madsen-Weiss and coauthors, we will give a complete description of the classifying space of this category. This is joint work with R. Cohen and S. Galatius.