Several factors influence on the complicated task of achieving stable and sufficient slag foaming in electric stainless steelmaking without any increase in alloying element oxidation. Aspects on the problem are discussed in general and special emphasises is put on means of continuous slag composition control and maximisation of gas generation. Full-scale operational tests are presented and evaluated with respect to the alloy element recovery and degree of slag foaming. The results show that a well balanced addition of Injectsil® and IPI™ (injectable ferrosilicon and pig iron, respectively) during the slag foaming period in the EAF enhances the foaming and decreases the system sensibility to other factors.