Every year the Swiss Commission for Flood Protection (KOHS) of the Swiss Association for Water Management (SWV) organizes a symposium where professionals, officers of public administrations, and researchers exchange their experiences on special topics and key projects in river engineering and restoration. In 2014, this symposium was organized as a special session of the seventh International Conference on Fluvial Hydraulics "River Flow 2014" at École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, In addition to the Swiss participants, scientists and professionals from all over the world were informed about the Swiss competences in river engineering and restoration. In this book, invited and selected contributions regarding the latest tendencies and key-projects in Switzerland are presented to an international community of river engineers and researchers, hoping that they can enrich flood protection and river restoration projects all over the world.