This session will focus on risk assessment and risk management of ground, fresh and marine water bodies. It intends to bring together scientists from academic research, industry, regulatory authorities and policy makers and to provide a platform for knowledge transfer on recent tools and approaches for monitoring and assessing the chemical and biological status of surface waters. A core question is how newly developed tools can be applied in implementing water quality legislations. Especially welcome are studies demonstrating the application of in vitro bioassays, biomarkers or other bioanalytical tools for determining the risk resulting from the simultaneous presence of multiple chemicals in water bodies, or field studies linking chemical and biological methods. The identification of the relevant chemicals modes of action and the derivation of effect-based trigger values would be of particular interest. Studies on the practical costs of routine implementation would also be welcome. This session further seeks contributions linking exposure of chemicals in water bodies to human health concerns Key words: Water Framework Directive (WFD), Ground Water Directive (GWD), Marine Strategy Framework Directive (MSFD), Drinking Water Directive (DWD), mixtures, risk assessment