Programme du workshop

10h00  Accueil et café

10h15  Introduction sur l’idée de SEDMIX  A. Schleiss (PL-LCH, EPFL)

10h30  Aperçu des WPs et questions pratiques  A. Amini (PL-LCH, EPFL)

10h45  WP1: Conception, simulation numérique
d’opération et logistique du démonstrateur  C. Münch (HES-SO, Valais)

11h00  WP2: Monitoring du bassin versant et des apports
en sédiment fin (courant de turbidité)  P. Molnar (IFU, ETHZ)

11h15  WP3: Optimisation de la performance de SEDMIX
en tenant compte de la dynamique des réservoirs  P. Manso (PL-LCH, EPFL)

11h30  WP4: Monitoring des turbines et transport des
sédiments fins dans la galerie d’amenée  R. Boes (VAW, ETHZ)

11h45  WP5: Dynamique des sédiments fins et suivi
écologique à l’aval des réservoirs  M. Doering (ZHAW)

12h00  Pause de midi

14h00  Discussions: implications financières pour les
partenaires industriels potentiels et prochaines étapes

15h30  Clôture de la journée, verre de l’amitié

Inscription

La participation à cet atelier est gratuite. Toutefois, à des fins d’organisation, merci de
vous inscrire par email à azin.amini@epfl.ch jusqu’au 26 octobre 2018. Les
présentations seront en français ou allemand.

Workshop

SEDMIX

Evacuation de sédiments fins d’un
réservoir à travers la prise d’eau à l’aide
d’un mixeur

20 novembre 2018, 10h00 à 15h30
Stadttheater, Olten
Once the demonstrator is tested and its operation is optimized in some reservoirs, the SEDMIX device can be used principally in other reservoirs with fine particles sedimentation problems often triggered by turbidity currents.

The interdisciplinary project team is looking for dam operators as industrial partners willing to test the SEDMIX prototype under controlled and unharmful conditions in their reservoir near the power intake. The in-kind contribution of the industrial partners can be doubled at least or even tripled in the framework of an Innosuisse (former KTI) research project together with the support of SFOE, which will allow to make a comprehensive performance test of the SEDMIX demonstrator in 2019. The main and foremost contribution of dam owners will be their acceptance of implementation of the SDEMUX demonstrator and its operation in one of their reservoirs during a period of three to four months starting this summer. The SEDMIX demonstrator consists of easily transportable pieces designed to be assembled at the dam site and be installed in the reservoir with the help of a floating platform fixed by cable trucks. The water for jets will be operated and supplied by a submerged pump. The in-kind support for each industrial partner for a testing period of 3 to 4 months is expected to reach 150 kCHF comprising electricity cost for operation, manpower for assembling, installation and monitoring support as well as a limited cash contribution. The direct benefit for the dam owner arises from the controlled and safe release of significant fine sediment volumes in front of the intakes during the SEDMIX operation period. It has been carefully estimated that the suspended sediment concentration will be tripled by the SEDMIX device compared to the natural concentration in the reservoir.

The device may stay for one or two late summer periods (each time for 3 to 4 months as already mentioned) in a reservoir before being disassembled and moved to another reservoir. The applied demonstration research project is due to start in 2019 with testing periods in reservoirs from 2020 to 2023.