



## Project partners

### Austria

- Bundesministerium für Land und Forstwirtschaft, Umwelt und Wasserwirtschaft (Contact - Lead partner)
- Amt der Tiroler Landesregierung
- Amt der Kärntner Landesregierung
- Universität für Bodenkultur Wien

### France

- Centre National de la Recherche Scientifique
- Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture (Irstea)

### Germany

- Bayerisches Landesamt für Umwelt

### Italy

- Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto
- Consiglio Nazionale delle Ricerche - IRPI
- Provincia Autonoma di Bolzano/Autonome Provinz Bozen
- Regione Piemonte
- Università di Padova

### Slovenia

- Inštitut za vodo Republike Slovenije
- Univerza v Ljubljani

## Project observers

- Agence de l'Eau Rhône-Méditerranée-Corse
- Agenzia Regionale per la Protezione dell'Ambiente della Valle d'Aosta
- Austrian Hydro Power
- Autorità di bacino del fiume Po
- Autorità di bacino del fiume Adige
- Bundesamt für Umwelt
- Enel Produzione SpA
- Enel Produzione SpA - UBI Hydro Piemonte
- Enel Green Power SpA
- Eidgenössische Forschungsanstalt für Wald, Schnee und Landschaft
- Illwerke AG
- Istituto Superiore per la Protezione e la Ricerca Ambientale
- Maira SpA
- Municipality of Kamnik
- Regione Autonoma Friuli Venezia Giulia
- Regione Lombardia
- Ricerca sul Sistema Energetico
- SEL AG/SpA
- Stand Montafon
- Verbund - Austria Hydro Power
- Vorarlberger Ilwerke AG

[www.sedalp.eu](http://www.sedalp.eu)

**SedAlp - Sediment management in Alpine basins:**  
integrating sediment continuum, risk mitigation and hydropower

European Territorial Cooperation Alpine Space 2007-2013  
Priority 3 - Environment and Risk Prevention  
Timeframe 2012-2015



[www.sedalp.eu](http://www.sedalp.eu)

***Sediment management in Alpine basins***





## Problem overview

Due to surface erosion in basins and bank erosion along river channels, all rivers carry sediment. Our understanding of the changing equilibrium between the sediment supply from upstream and a river's sediment transport capability is important for the success of overall integrated water resource management.

In Alpine river basins, intensive sediment transport processes and sediment continuity have a notable impact on several water management issues in alpine river basins, posing multiple use conflicts related to small hydropowers, ecology, fishing, flood control, river morphology, tourism, etc.

A conflicting ecological role of river sediment can be observed through different river management tasks. For example, in flood risk mitigation (Floods Directive) sediment transport, often in conjunction with large woody debris, may strongly amplify flood hazards.

In the case of hydropower production (RES Directive) that requires dam installations and water level manipulation in reservoirs, technical, economic and ecological problems are often a consequence of a disrupted natural sediment continuum.

The geological and climatic variability across the Alps generates complex patterns of sediment formation and transfer, whereas management problems and conflicts are similar. Therefore, decision makers involved in the river basin management in the Alps are facing the urgency to test policies able to reconcile these conflicting requirements.

## SedAlp project description

SedAlp focuses on the integrated management of sediment transport in Alpine basins. It is directed towards an effective reduction of sediment-related risk while promoting the enhancement of riverine ecosystems and reducing the impacts of hydropower plants.

The SedAlp project includes piloting actions in various representative Alpine river basins of all involved countries and contributes to sediment and wood transfer monitoring in a large set of Alpine catchments, in order to understand spatial and temporal variability of processes.

Based on process understanding, planning, warning and predictive tools will be provided together with sediment and wood management recommendations for hazard mitigation and protection of people.

SedAlp aims at developing strategy policy and actions for the improvement of sediment continuity in Alpine river basins.



## SedAlp main objectives are:

- Developing and testing strategic policies and tools for an integrated management of sediment transport in Alpine basins
- Developing and promoting integrated approaches to planning and management of river sediment as a natural resource
- Enhancing efficient sediment extraction and use
- Improving mitigation and management of sediment related natural hazards (floods and debris flows)
- Promoting cooperation in environmental protection issues related to environmental aspects of sediment and riparian forests in national parks and protected areas