RIBES

RIver flow regulation, fish **BE**haviour and **S**tatus

In 2016 serious concerns on the achievement of the EU **Biodiversity Strategy 2020** targets, due to the continuing **loss of biodiversity and degradation of aquatic habitats**, led to the urgent adoption of a new Resolution for implementing ecosystem restoration measures. Moreover, on December 2018 the EU raised to 32% the binding renewable energy target for 2030, bringing further input to hydropower development. Meeting these targets, sets challenging issues for **mitigating the impacts of man-made structures in rivers that fragment habitats** and prevent movement and migration of aquatic organisms.

The project aims **training 15 Early-Stage Researchers** (ESRs) **in the interdisciplinary field of Ecohydraulics** to find **innovative solutions for freshwater fish protection**.

Specific objectives of the project are:

- **quantify behavioural mechanisms** and stress-related responses to anthropogenic disturbances in rivers and related physiological indicators,
- **advancing existing capabilities of observing** and modelling flow fields around swimming fish and the bio-mechanics of fish locomotion,
- **innovating currently-adopted technologies** related to detection and tracking of fish to gain insights on fish behaviour from field and lab observations,
- **develop fish management tools** and novel design of facilities devoted to fish protection and to improve eco-compatibility of hydropower systems.

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PROJECT DURATION
48 months
01/01/2020 – 31/12/2024

WEBSITE AND SOCIAL MEDIA
www.msca-ribes.eu

PARTNERS

- Politecnico di Torino (Coordinator – **IT**)
- Fiskevardsteknik i Sverige ab (**SE**)
- Karlstads Universitet (**DE**)
- Forschungsverbund Berlin Ev (**DE**)
- Sje Ecohydraulic Engineering Gmbh (**DE**)
- Tallinna Tehnikaulikool (**EE**)
- University of Aberdeen (**UK**)
- Università degli studi di Padova (**IT**)
- Universiteit Gent (**BE**)
- University of Southampton (**UK**)
- Norconsult Ab (**SE**)

FUNDING INSTRUMENT
H2020-MSCA-ITN-2019

BUDGET
Total funding: **4.048.220,16 €**

POLITO and DIATI's role:
Politecnico di Torino – DIATI is the coordinator of the Consortium, under the scientific responsibility of **Prof. Claudio Comoglio**.