



 **DAM  
REMOVAL  
EUROPE**





# Boñar dam

## Porma River, Spain





# Why Dam Removal?

- Improve the ecological status of rivers
- Many dams are old and obsolete
- Renew licence or major maintenance coming up
- Hazard (loss of life and significant economic loss downstream if they fail; recent flooding)
- Create new economic opportunities
- To enjoy rivers because they are great



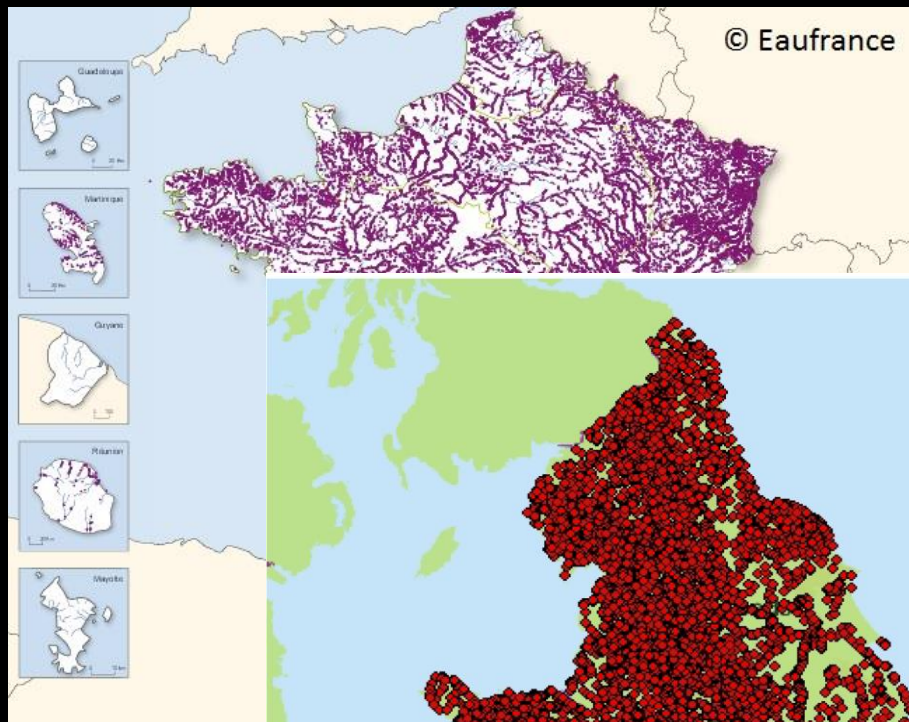




# Upcoming Science

## Dam Removal in the news

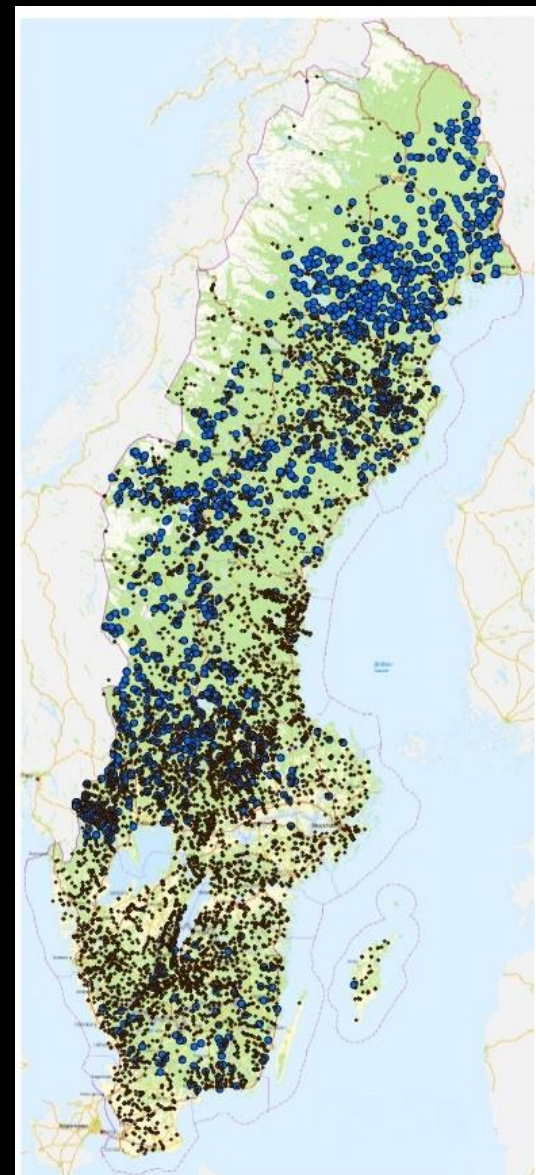
- *... No other action can bring ecological integrity back to rivers as effectively as dam removals.... (Yale, 2015)*
- *...Rivers recover faster than expected after dam removal ... (U.S. Geological Survey, 2017)*
- *... If you are looking at the most economical way to gain watershed restoration, dam removal on its own jumps ahead of many things on the list... (Ohio Environmental Protection Agency, 2017)*



**France:**

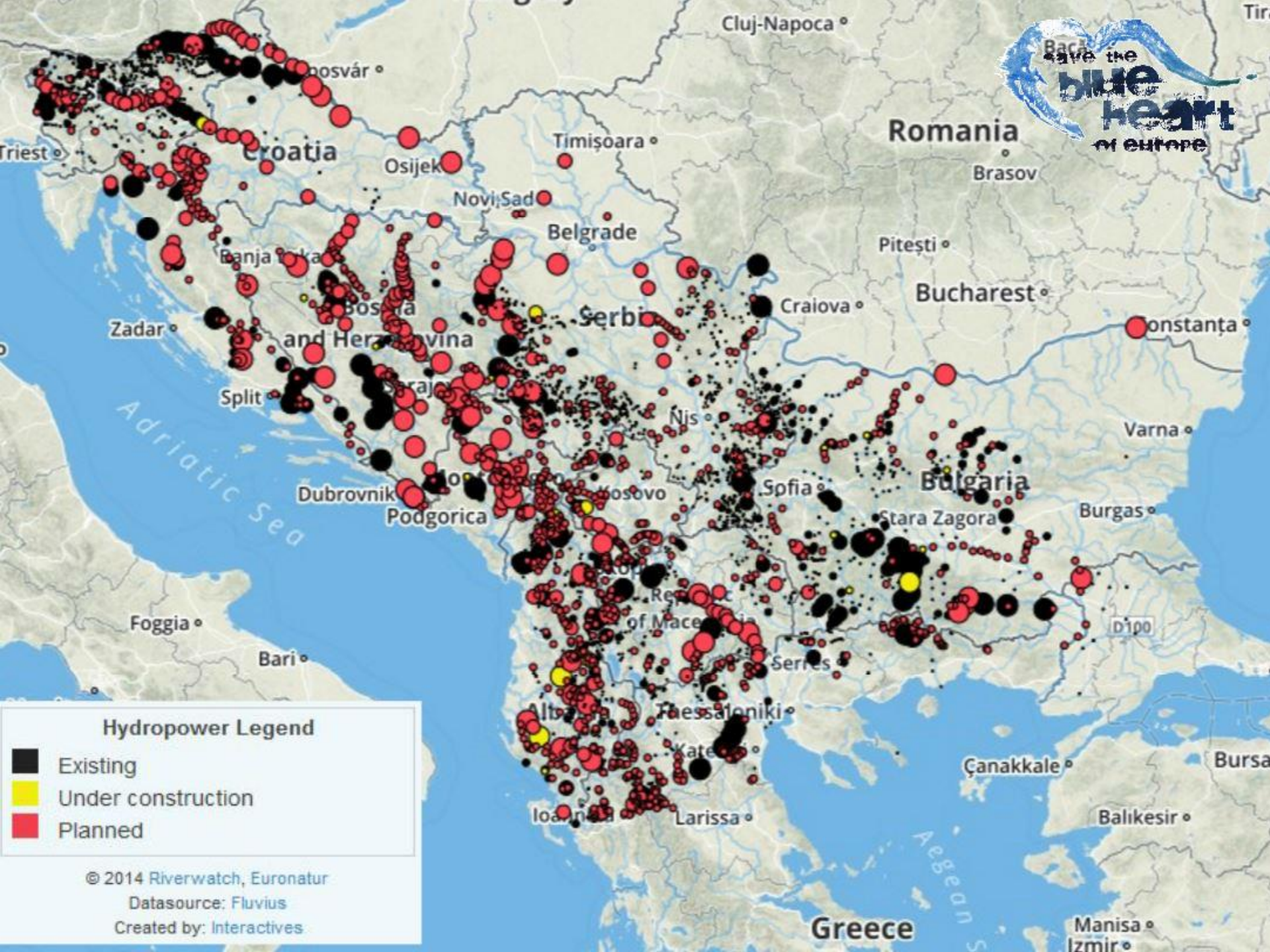


**UK: 22,000 man-made obstacles**



**SWEDEN: 9,298 barriers**





© 2014 Riverwatch, Euronatur

Datasource: Fluvius

Created by: Interactives



# Dams removed in USA



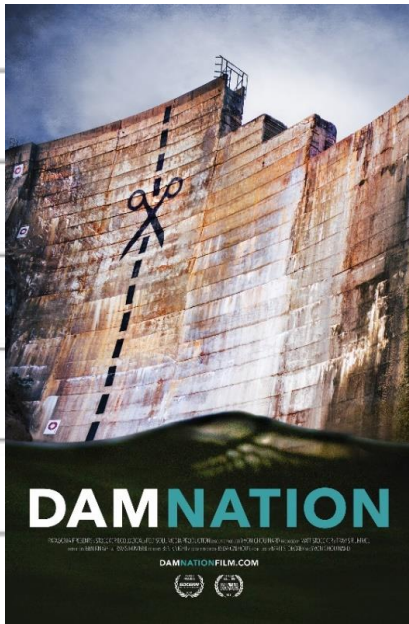
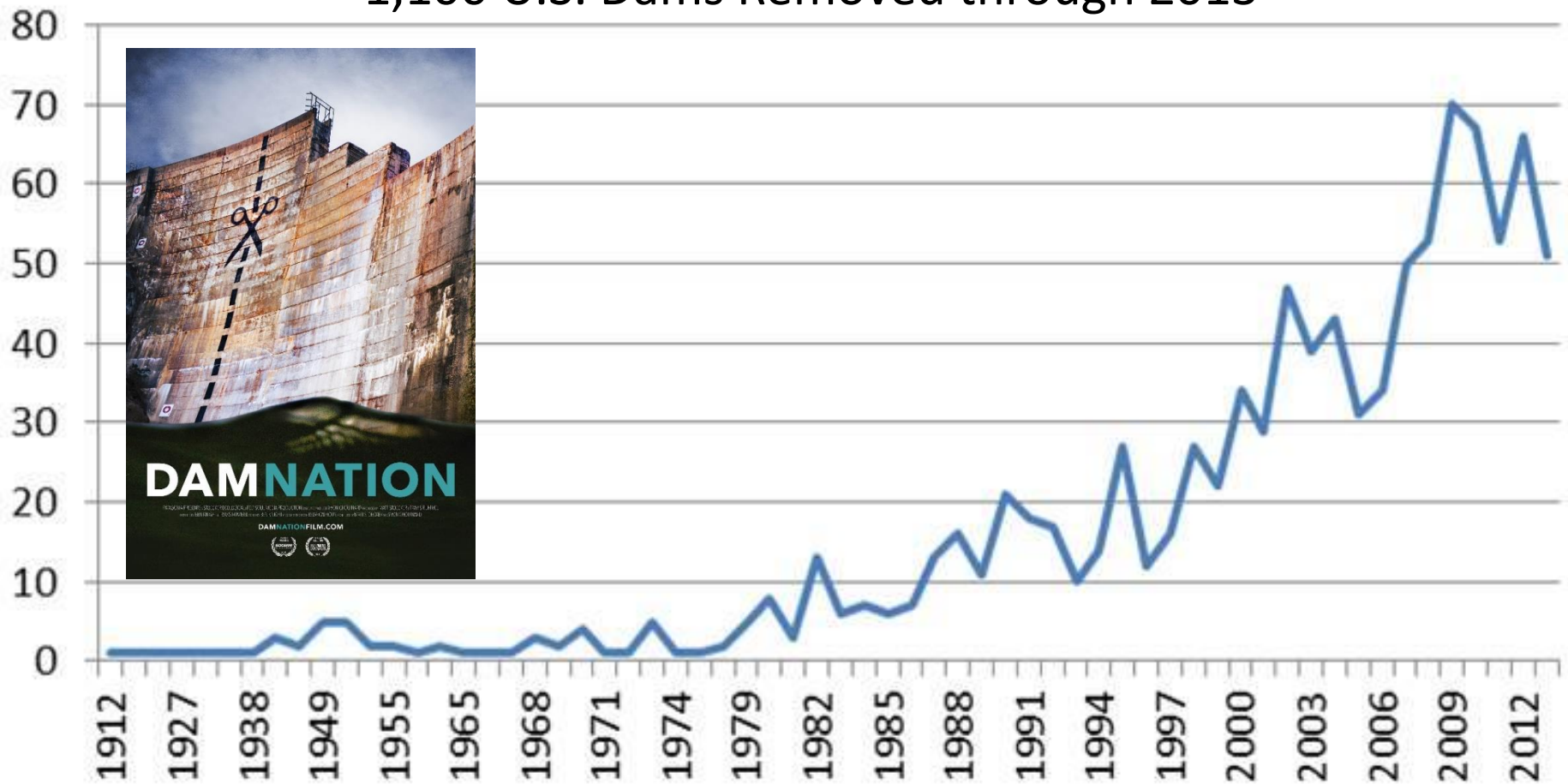
Elwha Dam Removal on the Elwha River in WA, USA  
Photo Source: US National Park Service





# # of Dams Removed

1,100 U.S. Dams Removed through 2013

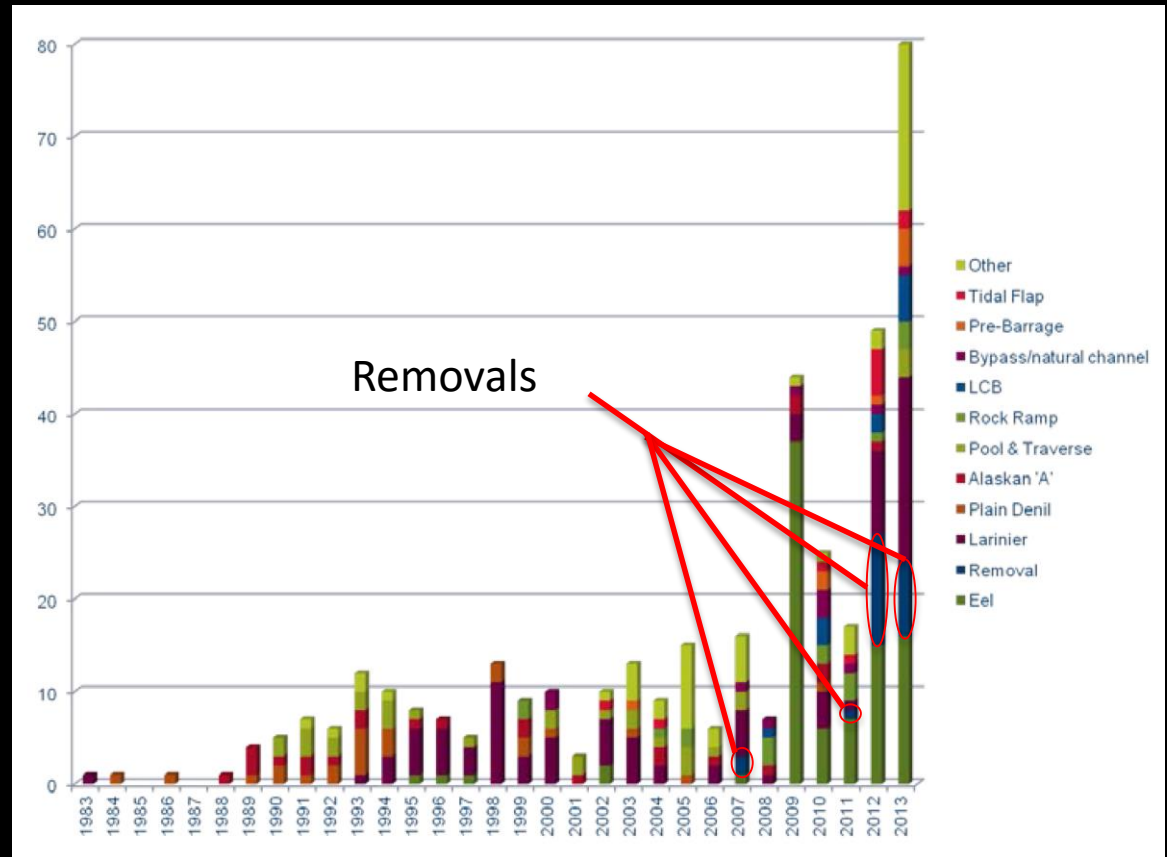






# And what about Europe?

- **FRANCE:** 2,300
- **SWEDEN:** 1,600
- **SPAIN:** 200
- **UK:** tbd
- **FINLAND:** 450
- **NETHERLANDS** 50
- **BELGIUM:** tbd
- **GERMANY:** tbd
- **SWITZERLAND:** tbd



Fish passage improvement schemes across England & Wales 1983-2013, Environmental Agency, England



# Inspiring examples (Spain)

Before

After



Aravalle Dam, Avila Spain

Photo before: Confederación Hidrográfica del Duero. Photo after: C.H. Duero



# Inspiring examples (Spain)



**Removing Retuerta Dam in Aravalle River (Ávila, Spain)**



# Inspiring examples (Wales)

**Before**



**After**



Kentchurch Weir, Wales  
Photo before: P. Gough  
Photo after: P.Gough



# Planned removal (France)



# Planned removals (Spain)



Dam River Agadon, Spain. 2 \* 30 metres





# Become involved

## Dam removals to learn from

- We know of more and more DR planned
- Will catalogue and present on website story board
- Very important experiences we can learn from (including USA)
- Monitor before and after
- Communicate about success and challenges
- We might support them by providing knowledge and experience



# Dam Removal Europe

## A joint initiative

Share, engage and inspire ~ European movement

1. Share knowledge and experiences
  2. Create an active DRE network
  3. Awareness and engagement
  4. Actual dam removals
  5. Fundraising and financial innovation
- While understand dam removal is a first step in river restoration





# Dam Removal Europe

[Home](#)[About](#)[Dam Removal Map](#)[Case studies](#)[Downloads](#)[Contact](#)[in](#)[v](#)[i](#)

## DAM REMOVAL EUROPE

Many dams in European Rivers are old, abandoned and out of use. Together we can locate and remove them.

Let's open the rivers for wildlife and people.

[Read more](#)

Dropbox 14.4.19

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