

# Dam Removal

## Restoring the biodiversity of European rivers by removing dams



Herman Wanningen & Pao Fernandez,  
World Fish Migration Foundation

February 2021



WORLD FISH MIGRATION  
FOUNDATION

# SAVE MIGRATORY FISH IN RIVERS

© Jeremy Shelton



# CONNECTING FISH, RIVERS & PEOPLE



 **WORLD FISH  
MIGRATION DAY**

# CELEBRATE SUCCESS STORIES & CHALLENGES TOGETHER



**OPENING UP RIVERS AROUND THE WORLD**  
**MAKING PEOPLE PROUD**





# HEAD BANGING ALL OVER THE GLOBE

© Petteri Hautamaa



The background image shows a close-up of a dam's trash rack. On the left, a large, calm pool of water reflects the sky. On the right, a turbulent flow of water passes through a series of vertical metal bars. The water is dark and murky, and the flow is characterized by white foam and bubbles. Several fish are visible swimming in the water on the left side of the frame.

# GETTING STUCK ON TRASH RACKS

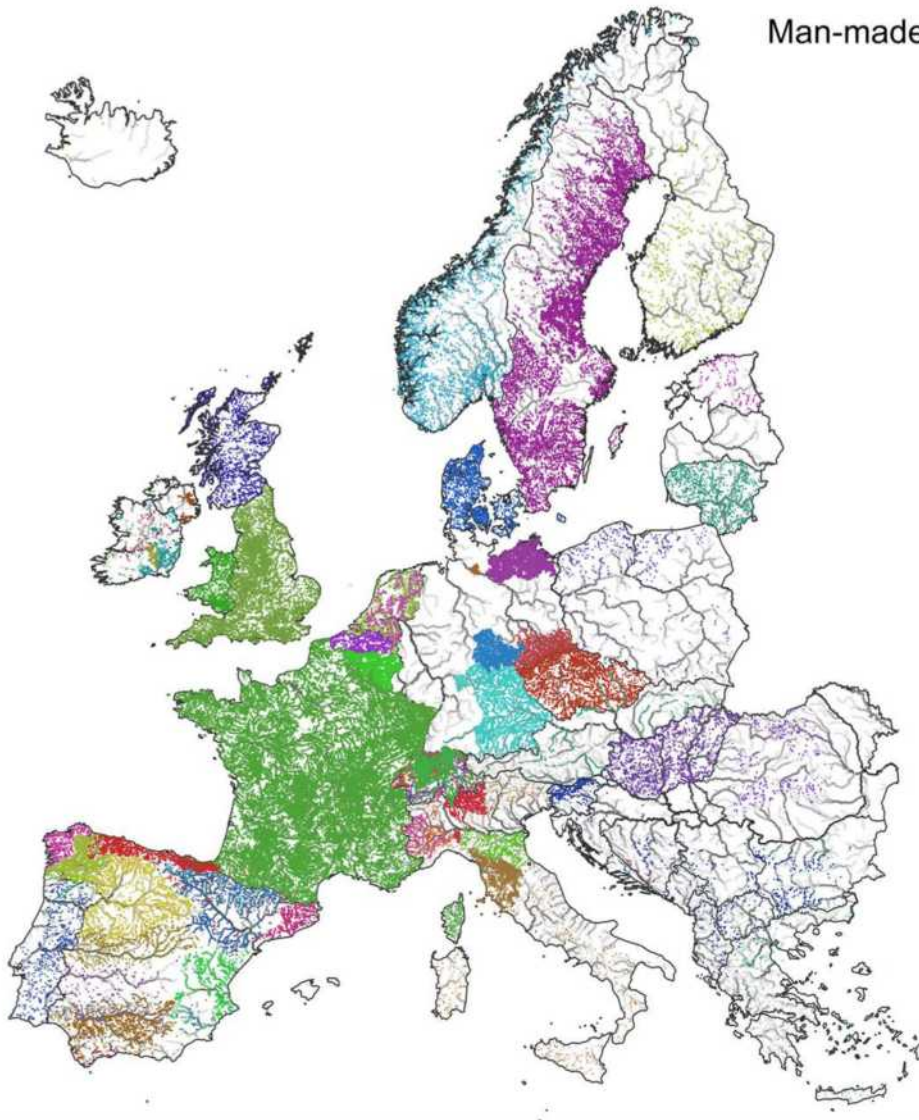


# DROWNING RIVERS

Man-made river barriers included in the AMBER Atlas  
(November 2018)



**>1 MLN**  
**ESTIMATED**  
**BARRIERS**



0 205 410 820 km

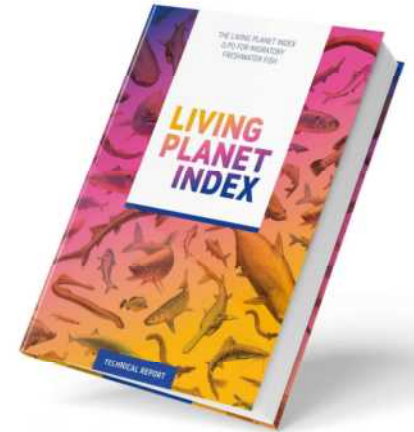




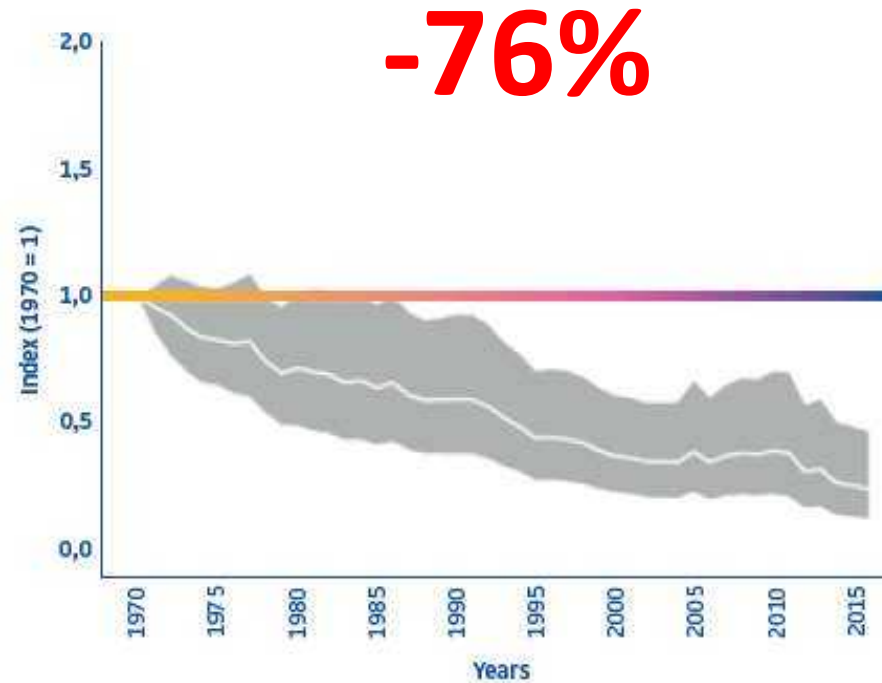


**ZSL**  
INSTITUTE OF  
ZOOLOGY

# LIVING PLANET INDEX MIGRATORY FISH

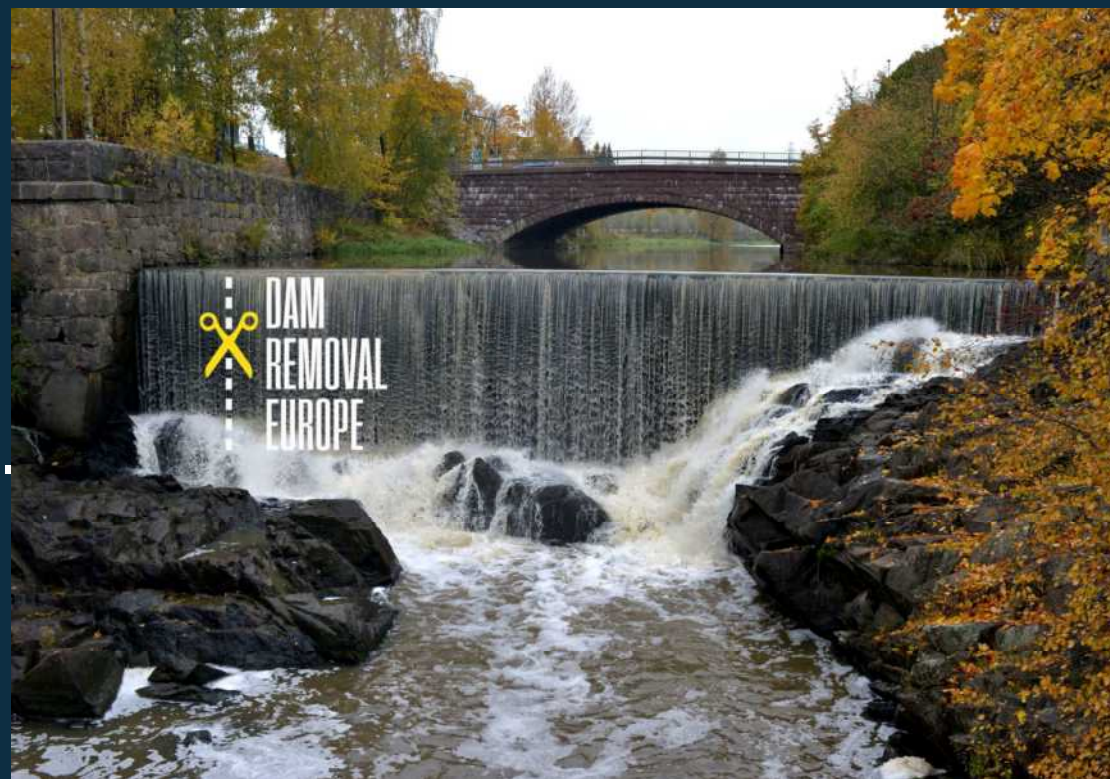


Cambridge  
Conservation  
Initiative





**2013: ELWHA RIVER (USA)**



**HELSINGINKOSKI (FI)**





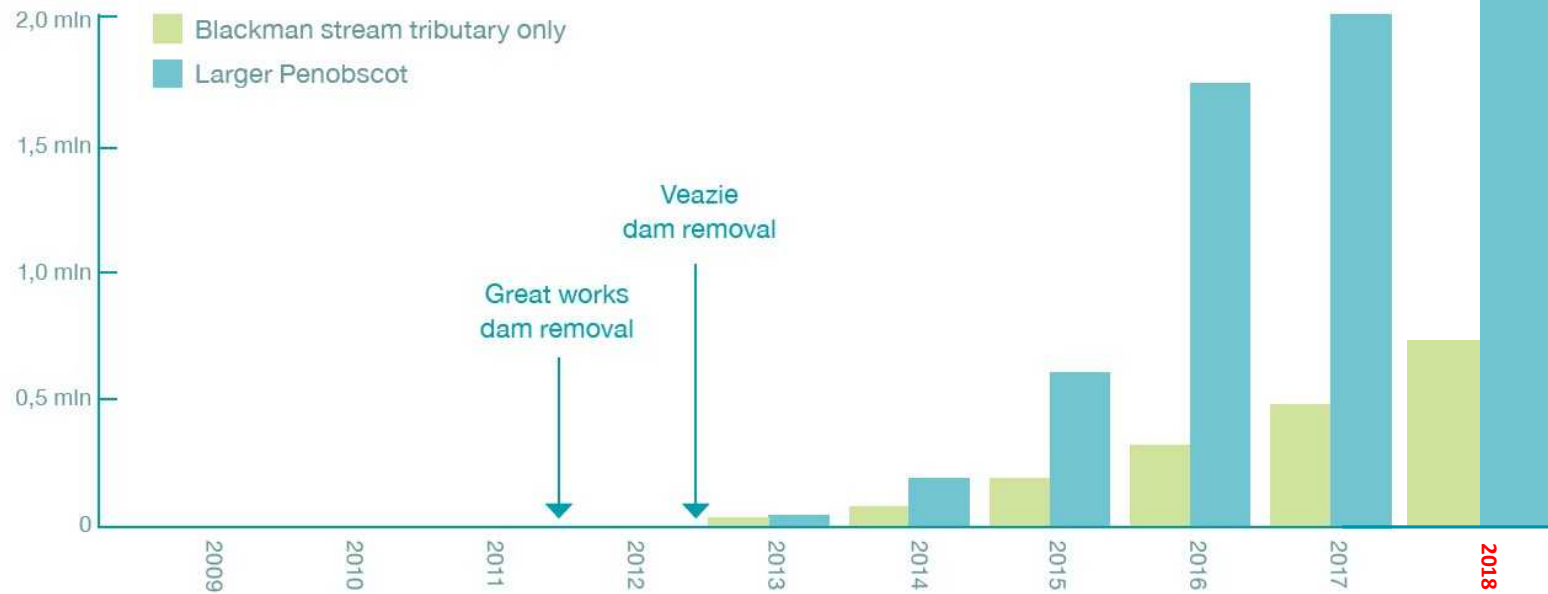


# Assessing Ecological Impacts

3220 km river  
opened up

2,818,033

*Recovery of river herring runs Blackman stream portion and total measured Penobscot river.*







2016

# MOVEMENT TO SUPPORT PRACTITIONERS





**MISSION**

**SAVE FREE FLOWING RIVERS IN EUROPE**





PROVIDE TOOLS  
AWARENESS  
CONNECT, SHARE & INSPIRE  
LOBBY  
CATALYSE FUNDING





# INCEPTION LEON (SPAIN) 2016

EXCITEMENT





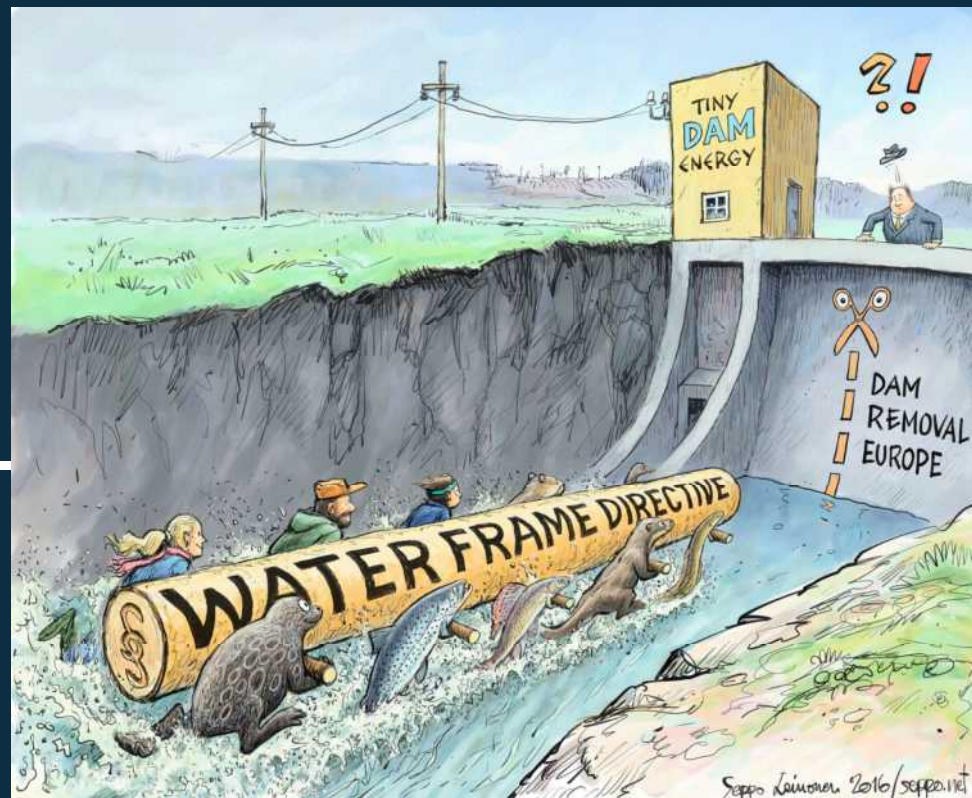


**SHARE EXPERIENCES  
USA-EUROPE**

**DAM REMOVAL  
TOOL KIT  
(TNC)**



# INSPIRE THE MINDS



SEPPO LEIONEN

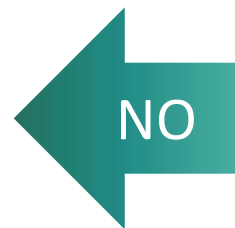




Iron Gate Dam, Danube River, Romania

**We ARE stimulating  
the removal of  
abandoned, obsolete,  
unsafe, in-efficient,  
sediment filled dams**

**YES**



**We are NOT trying  
to remove the  
Iron Gate Dam**  
*(well maintained, iconic,  
multiple purposes)*



Yecla de Yeltes dam, Spain

# OLD & OBSOLETE

## 100.000 sites





# RELICENSE HYDROPOWER

**30.000 sites**

**TO BE OR NOT TO BE REMOVED ?**

## REMOVED BARRIERS



© Duero River Basin Authority

FRANCE:	>2.400
SWEDEN:	>1.600
FINLAND:	>450
SPAIN:	>200
UK:	>130
NETHERLANDS:	>50
ESTONIA:	>5
SWITZERLAND:	1
GERMANY:	tbd



# CASE STUDIES

<https://www.damremoval.eu/case-studies/>





# THE BIGGEST

ESTONIA



FRANCE



© ERN

MARCH 2020: **EU BIODIVERSITY STRATEGY** → 25.000km FFR



# ESTONIA





# FRANCE







**SPAIN**

**DAM REMOVAL LAW**

© Confederación Hidrográfica del Duero (Spain)



A photograph of a stone dam with a bridge over it, surrounded by autumn trees. The dam is made of dark stone and has a wide, flat top. Water is flowing over the dam, creating a white, foamy waterfall. The bridge is made of stone and has a metal railing. The trees on either side of the dam are in autumn, with yellow and orange leaves. The sky is overcast.

# **DAM REMOVAL POLICY FROM 2019 IN FINLAND**



# RE-THINKING HYDROPOWER SWEDEN







# CROWDFUNDING 20 DAM REMOVALS

90.000 euro







# CERTIFICATE Dam Remover



Thank you! The last few years you helped us to remove the Brazuole dam in Lithuania, the dams in the Danube Delta in Ukraine, the Crosthwaite dam and the Chainley Burn weir in the United Kingdom and/or the Lostunets dam in Ukraine. Also, with your help we can release Beluga sturgeons in the Danube. From now on you may officially call yourself a Sturgeon Releaser!

## Update June 2020

Crowdfunding made it possible to release 15.000 sturgeons in the Danube. The release is now planned between 16th and 18th June. Besides, we removed 2 barriers in the United Kingdom and 10 in the Ukrainian part of the Danube Delta. In summer 2020 we will remove 3 more dams. This is only the start of a hopefully very long story.

**Together we let rivers flow again!**



**Oskar de Roos**  
WWF-Netherlands



**Karolina Gujaskaite**  
WWF-Lithuania



**Olga Denyshchuk**  
WWF-Ukraine



**Matthew Carroll**  
South Cumbria  
Rivers Trust



**Jack Bloomer**  
Tyne Rivers Trust



**Mykhailo (Misha)  
Nesterenko**  
Rewilding Europe



**Borislava Margaritova**  
WWF-Bulgaria





**WHAT'S NEXT?**

**CONNECT  
MOVEMENT  
TOOLS  
REMOVE  
CELEBRATE**



**RESTORE**

**>25.000 km  
FREE-FLOWING  
RIVERS**

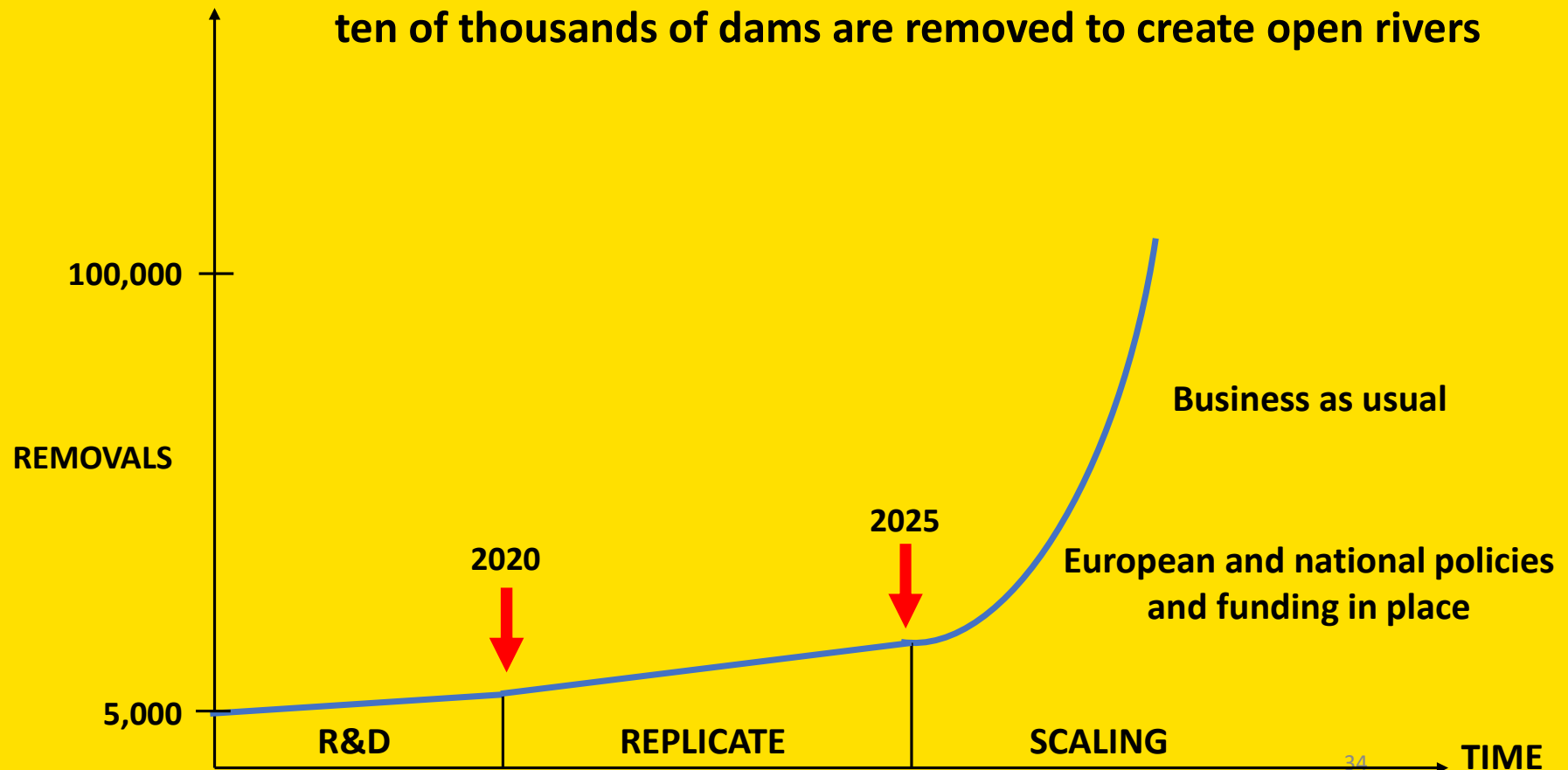
**EU-BIODIVERSITY  
AMBITION**

**[WWW.DAMREMOVAL.EU](http://WWW.DAMREMOVAL.EU)**



## REPLICATE PHASE

Speeding up the policy cycle, providing tools and funding mechanisms so ten of thousands of dams are removed to create open rivers











 **DAM  
REMOVAL  
EUROPE**

**THANK YOU!**

**SLOBODA  
RIJEKAM !**