



→ Image: Uncovered potash waste dump with drainage water collecting system in Germany

#### Coordinated by

**BETA Technological Center**

Universitat de Vic-  
Universitat Central de Catalunya  
+34 93 881 61 68 | info.beta@uvic.cat



**UVIC** UNIVERSITAT DE VIC  
UNIVERSITAT CENTRAL DE CATALUNYA

Membre de:



#### Partners



[www.lifedemine.com](http://www.lifedemine.com)



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LIFE DEMINE



Life DEMINE



Decreasing the Impact  
of Abandoned Mines

# LIFE DEMINE



This project has received funding from the European Union's LIFE programme under the grant Life 16 ENV/ES/000218.

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## Environmental problem targeted

- **Mining activities** cause serious environmental damage to their surroundings, with considerable **impacts** on **freshwater ecosystems**.
- These impacts occur mainly through the unregulated discharge of **polluted effluents**, which may contain high concentrations of **heavy metals** or **salts**, depending on the type of mine.
- This environmental problem is especially critical for **abandoned mines**, because there is no company in charge of treating these mining effluents.
- The unregulated loading of metals and salts hinders the achievement of **good ecological status** in surrounding water bodies, in accordance with the Water Framework Directive [2000/60/EC].
- Currently, **no real solution exists** for this environmental problem.

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## Main project objective

The LIFE DEMINE project aims to **demonstrate** and **disseminate** the **technical and economic feasibility of decreasing the overall environmental impact caused by mining effluents** from abandoned mines in water bodies. This will be done by adopting an **innovative and versatile treatment process** that will combine existing and widely known technologies based on **membrane processes** (nano-filtration) and **electrocoagulation**.

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## The LIFE DEMINE project will

- **Obtain a non-polluting final effluent** to be discharged in water bodies with the minimal environmental impact, in accordance with the European Water Framework Directive [2000/60/EC]
- **Develop and test the proposed treatment process**, first at bench scale and then in two pilot plants installed in different demonstration sites.
- **Characterize** the composition of several **mining effluents**.
- **Review the current legislation** applicable to mining wastewater at European, German, British and Spanish level.
- **Review** the current state of knowledge regarding the **ecological impact** of abandoned mines **on freshwaters**.
- **Assess the efficiency of the new technology** in reducing the ecological impact in waterbodies
- **Increase awareness** of this environmental problem.



→ Image: Frongoch abandoned mine in Wales [UK]