



Supporting the textile industry to allow water and resources to be reused

Background

Omiš is a small Croatian town with a thriving tourist industry. **Galeb d.d. are an established textile company who is building a new factory** with its own water treatment plant.

One aim of the new water treatment plant is to allow Galeb d.d. to treat and reuse their own used water. This would reduce the need for fresh input water and allow recovery of dyeing salts for reuse, as well as being more cost-effective and a sustainable use of resources.





Circular Water Economy

Using Project Ô technologies, water use in textile production can apply a circular economy approach. By participating in Project Ô, the potential benefits to this region include:

 Safeguarding the local environment through specialised water treatments and improving resource management helping to maintain the Natura 2000 designation.
Increasing local water reuse and creating huge savings in textile production by maximising resource use without disrupting the local water system.



» Closing the loop, requires new infrastructure and land uses which can lead to an **increase in local jobs in the environmental sector**.

» Increasing health and safety measures through strict regulations, quality standards and management plans to comply with national and EU environmental objectives.

» Using a sustainable approach to water use and reuse **increases resilience** to changes in the climate and economy.

Technology

PHOTO.CAT technology is a modular unit that can treat chemicals used in textile production. The combination with nanofiltration technology allows dye baths to be supplied with reused water that still contains the salts and temperature needed for dyeing.

Combined sources of used water with low pollutants



- » A modular design allowing units to be configured to suit operating needs.
- » Separate used water streams can be treated independently and simultaneously.
- » It can operate continuously, driven by solar power with a low-power LED back-up.
- » It can be used off the grid or in remote locations.
- » The treated water is suitable for cost-effective reuse, while optimising use of resources such as salts and heat energy.

Project Ô has also developed a Circular Economy Platform (CEP) to allow key players

involved in water treatment activities to interact by sharing requests, offers, treatment technologies and logistics.



- A digital marketplace for the supply and demand of water and by-product resources
- Water streams sorted as inputs or outputs, with specific chemical compositions.
- A platform for users to reuse water as part of a circular water economy.
- Space for communities to support local water management.

