

Demonstrating integrated innovative technologies for an optimal and safe closed water cycle in Mediterranean tourist facilities [www.demeaumed.eu](http://www.demeaumed.eu)



## UVOX REDOX

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### Triple water treatment

The UVOX Redox technology combines the oxidizing effect of ozone with the disinfecting effect of UV-light, and initiates thereby a highly effective advanced oxidation process (AOP) in one single system with one single UVOX lamp.

### Applications

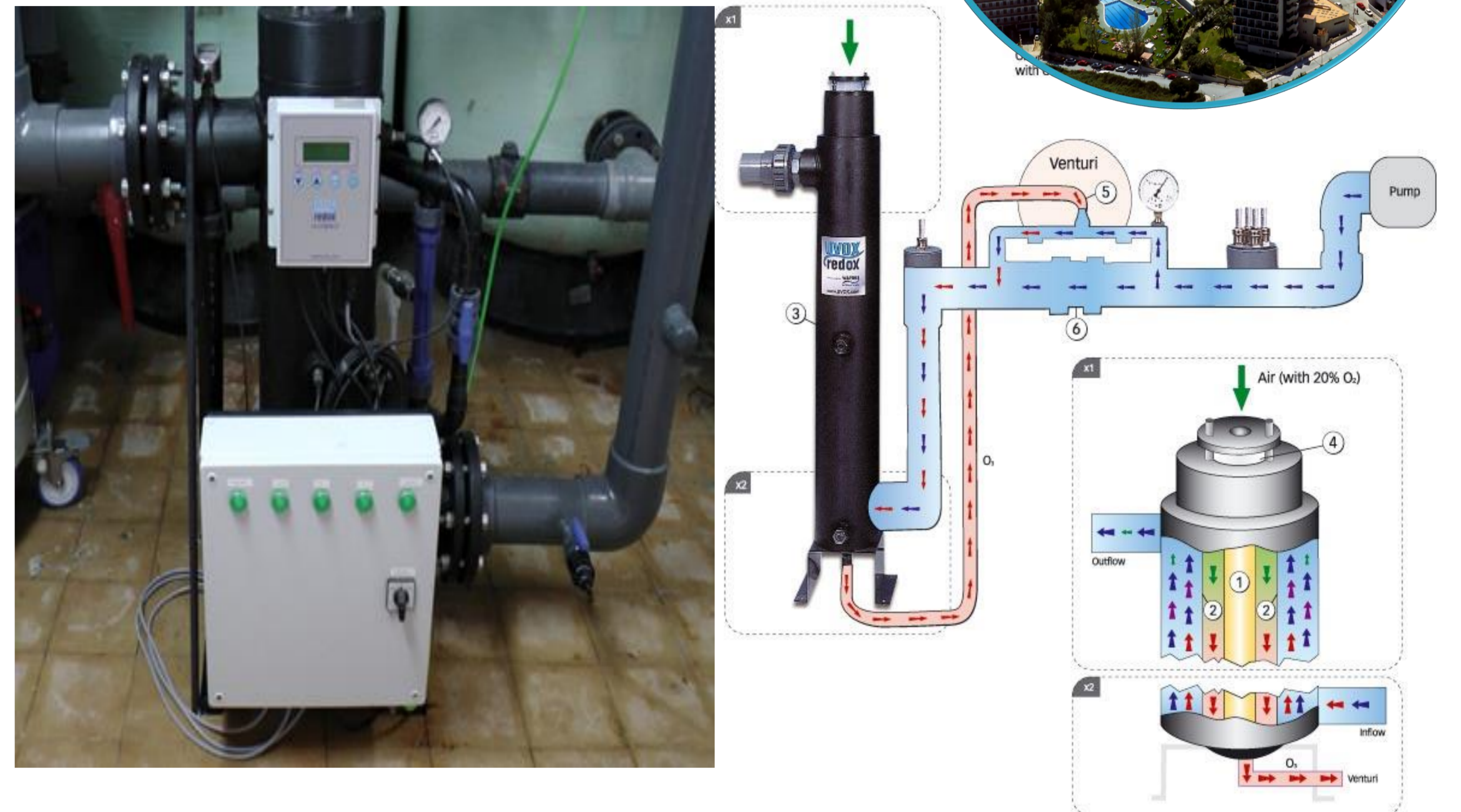
- Public swimming pools
- Natural pools and swimming ponds
- Zoos & Aquariums
- Drinking water
- Process and waste water

### Advantages

- ❖ Chemical free way of water purification
- ❖ No dangerous by-products
- ❖ Triple water treatment:
  - ✓ Ozone
  - ✓ UV-Disinfection
  - ✓ Advanced oxidation process (AOP)

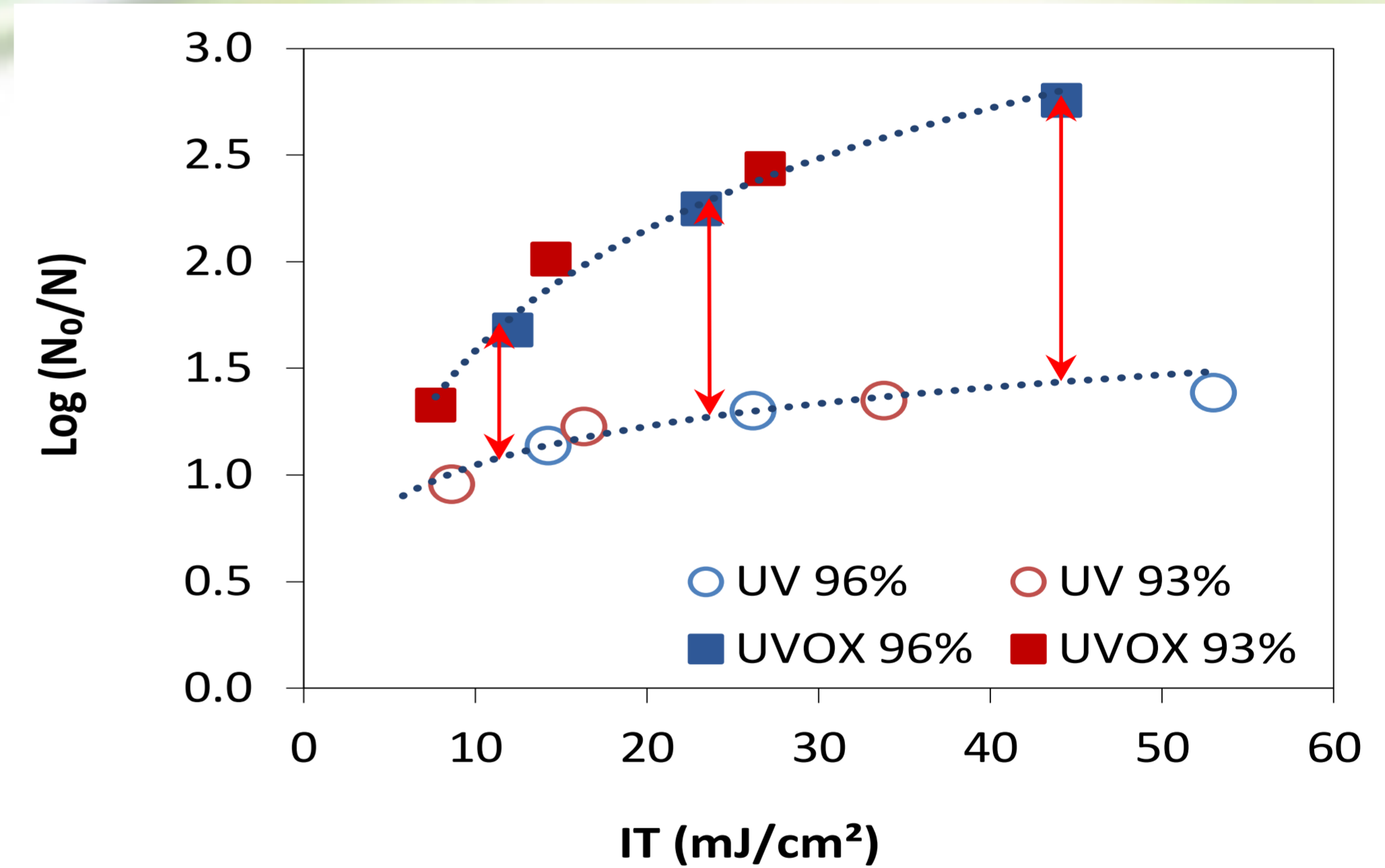
### Costs & savings

- ❖ 59 m<sup>3</sup>/h water flow with only 2.22 kW/h energy consumption
- ❖ Additional savings on water, chemicals and energy
- ❖ Early R.O.I. in approximately 2.8 years

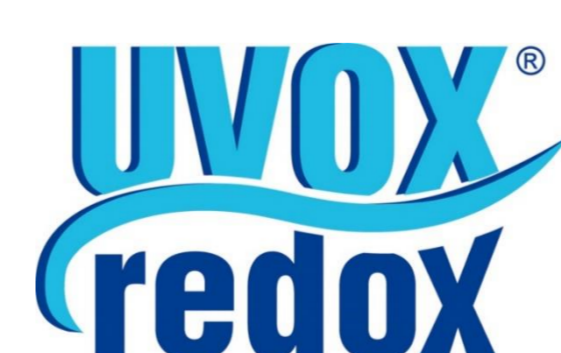


### Test results for UVOX in the demEAUmed demonstration:

- A highly effective inactivation of all microorganisms as result of the AOP
  - ✓ 1.6 log removal of the *B. subtilis* spores already at 12.5 mJ/cm<sup>2</sup> UV dose



- Rapid reduction of Combined Chlorine
- No DBPs (THMs, HAAs, HANs and bromate) are formed by the UVOX
- Chloroform and DCAA are reduced
- In case the Body Fluid Analog (micro pollutants) are treated by UVOX before chlorination. The formation DBPs can be reduced significantly



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