



$O_3$  RADICAL  
CAVITATION

Are we making  
the best use  
the planet's  
most  
important  
resource ?



Lack of water



Pollution

# Waste water

A daily  
progress that  
can become a  
great resource



What happens in the last step of waste water depuration? Water in the last step is almost transparent, but it has a lot of dangerous bacteria for the human, like fecal bacteria and streptococcus. For eliminate this bacteria it is used hypochlorite. This process is too expensive e polloutant.



Process of waste water

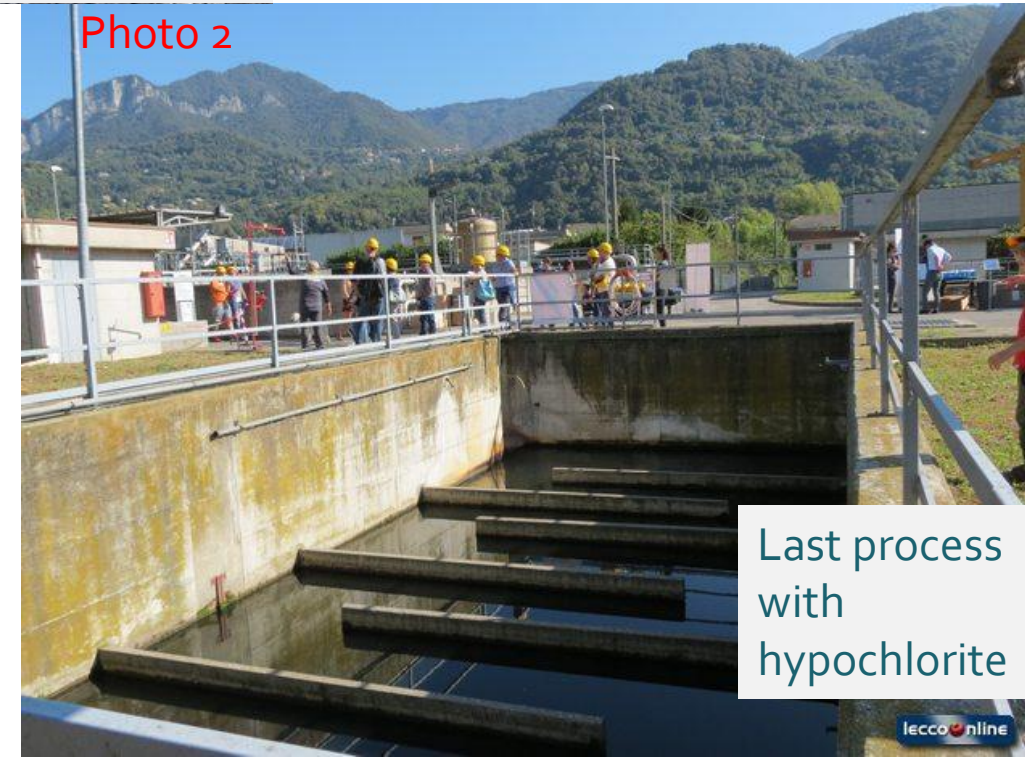


Photo 2

Last process with hypochlorite

# Consequences by water's hypochlorite treatment



**Water cannot be use  
in any of this sectors**

Irrigation of land for  
agricultural purposes

For the human  
consumption (like  
drink and primary  
service)

The elimination  
process of chlorine is  
too expensive

Huge amount of  
water throw away  
in the seas, ocens,  
rivers , and  
polluting them .



# O<sub>3</sub> Radical Cavitation Molecular



**What it is ?** It's a depurations process which allows a thorough water disinfection without the use of chlorite

# O<sub>3</sub> Radical Cavitation Molecular

## Why it is different?

It's nonpareil process because doesn't use chemicals , but there is a transformation of air in a mix of gas that are heavily disinfected , so it uses low pressure cavitation follow on a controlling of nano bubbles depressurized.

Tests conducted and certified by the Italian University Institute have shown that, in addition to inactivating and destroying all forms of bacteria and viruses, it also reduces hydrocarbons, oils, medications, ionic, cationic, and non-ionic surfactants by more than 95%, MTBE (75% reduction), and ammoniacal nitrogen by more than 90% (no by-products or hazardous materials to dispose of).

These products are therefore no longer present in the water because they are not filtered and then disposed of, but are destroyed at the molecular level by permanently breaking the carbon bonds.

# The benefit Of O<sub>3</sub> Radical Cavitation Molecular

Recycling of  
water

Environmental  
protection

Economic  
savings



## Agriculture

Water has a lot of organic matter that can be used as a excellent fertilizer



## Potabilization

Through of osmosis's reverse process, water can be used by human necessity



Water can be used  
in productions of  
**Hydrogen**

### \*Possible applications:

Purification of livestock wastewater

Purification of water for hydroponics and greenhouse irrigation

Possibility of using the water to dilute the concentrate in the reverse osmosis process

Possibility of reusing the water for any industrial and civil process.

# Why should you choose innovation ?

- $O_3$  radical cavitation molecular , gives many solutions for world needs, like :
- Global water shortage
- Rivers and seas pollutions
- With this process we can ensure a total waste water disinfection , we don't use chlorine so we can use this resource , which today is often forgotten, for many purposes . On average, the waste water purification process produces around 300 litres of waste water for 10000 inhabitants, which is treated with chlorine before being discharged into the sea or river. This means that : 25,920 m<sup>3</sup> for day, which, as previously mentioned, represents a problem. However, thanks to  $O_3$  Radical Cavitation Molecular, this wastewater will become a great resource for the benefit of the community.
- Furthermore, since the treated water contains organic matter, but is deactivated with an active bacterial load equal to zero, this allows the water to be reused for already known processes such as reverse osmosis and nanofiltration, allowing the availability of very large quantities of water ready for human consumption, being drinkable and microbiologically and chemically pure. Another enormous advantage is the use of this water for agricultural and livestock use in total safety, as it is free of any active bacterial or viral strains
- . This modular system adapts to any need , managing small quantities of water up to thousands of m<sup>3</sup>/h. For example, in a room of approximately 20m<sup>2</sup> with a height of at least three meters, it is possible to install a machine with a nominal power of 40/50 thousand m<sup>3</sup>/h.

# Technology for a green world

O<sub>3</sub> Radical Molecular Cavitation

