



Description of quantum water filtration technology "QTI" and its potential in the short and medium term.

This note details the 4 different elements that make up this disruptive filtration technology.

WEBSITE see <a href="http://www.leautustechnologyinside.net">www.leautustechnologyinside.net</a>

## 1) The mechanical structure of »QTI«

- The structure is composed of 6 parts.
- the water awaiting filtration (stored in the internal tank) is maintained at a high level by means of a tube.
- Under pressure, the air pushes the water through a membrane and a membrane support. The water passes through the membrane, down vertically to be collected in an external tank.
- 3 levels of water are then moving in a reduced-size apparatus (a 0.75 L bottle). Stable level in the tube, lowering the water level in the internal tank, raising the level of filtered water in the external tank.
- See the video below : you have 4 videos to see on website.



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# 2) Membrane "Open pore"

2nd element of the "QTI" technology, the "open pore" membrane is made of a specific material, developed in partnership with a world leader (close to ceramics).

• the exclusive points: high porosity, specific pore size, internal horizontal membrane, total absence of arsenic.

• These exclusive points allow easy integration of the carbon charging system shown below.

See website :<u>https://www.leautustechnologyinside.net/#unit</u> index : Unit

## 3) Carbon charging system



3 th important element of "QTI" technology: carbon refills.

- Pollutant reduction performance is achieved through an exclusive carbon charging system in the open pore membrane (pictured left) and in the membrane holder.
- The change of these 2 refills monthly allows a reasonable economic cost to keep important parts (membrane and support) for 12 MONTHS.
- Exclusive and patented system in different countries

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## 4) Filtration components

Inside the carbon refills, we use different components developed and tested for 4 years.

- their compositions and names are kept confidential.
- the addition of the various components allows reductions of all forms of pollution. Or very easily by adding new equipment if a pollutant was not treated to date.
- We can indicate that ion exchange resins, carbon in different forms are notamentally used.
- We make 2 years testing in Intertek lab in Shanghai watch movie
- go https://www.leautustechnologyinside.net/
- index : R&D and see 4 movie : 1) Water flow : How does it works ? 2)
  2 years testing explain by Intertek manager. 3) Research and development made by Pierre Marconi on different component 4) component research and testing

#### Technical summary:

(1) Mechanical structure and (3) the recharging system are specific elements of QTI which are the subject of patents belonging to the inventor. The miniaturized size of the filtration group allows its implementation in different autonomous filtration system (without electricity) or portable as well as in appliances such as refrigerators, coffee makers. office fountain. Tc. These performances allow QTI to be present in all segments of water consumption.

(2) The "Open pore" membrane and (4) the components are developed in partnership with leading manufacturers.

The development of the 4 elements by the same creator (Pierre Marconi) explains the exceptional performances of the technology and the protection by different patent.

NB: Wiracocha chose these different components, which can be easily changed according to the preferences or choice of the licensee

### New threats to access to water around the world:

In the next few years, access to drinking water is threatened by:

- An increase in pollution: pesticides, heavy metals.
- The degradation of network quality (failed states no longer have the means to maintain and repair the network).

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- Climate disruption (monsoon abundant, strong drought, flood) with jeopardizing the filtration and bottling stations.
- Rising temperatures, melting glaciers and rising sea levels, mixed with fresh water, can not be filtered by the stations.

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 The fragility of large water filtration facilities that are not immune from fire, flood or terrorist risks. Example 3 July 2019, a spectacular fire is triggered on the site classified "Seveso high threshold"<sup>1</sup>, that is to say, subject to special monitoring due to the toxicity of the products it houses, within the "Seine Aval" (SAV) plant of the Interdepartmental Syndicate for the Sanitation of the Paris Metropolitan Area (SIAAP).

# Why QTI is a disruptive technology that responds to these threats?

Disruption as "a dynamic methodology focused on creation [...] that functions as a tool that accelerates the questioning of the conventions that constrain the creativity of companies [...] and makes it possible to bring out the new visions that are at the origin of the great innovations »

So instead of filtering the water and making it travel for thousands of km, we take the water at the outlet of the tap, it is filtered in a sealed container, protected from contamination and drunk in the best deadlines.

## <u>Why is a point of use (POU) system more efficient today</u> <u>for filtering water?</u>

• Our Leautus device, which uses QTI technology, is a point-of-use (POU) system, ie the filtration of the water takes place at its destination, after it has been removed from the tap, the filtration is done in a closed container under pressure just before consumption by the user. No new contamination is possible.

• the carbon refill system that allows a change of part of the device every month, this is very important to be economically viable, to be changed by the consumer regularly at an acceptable cost. This is also unique compared to the conventional reverse osmosis filtration system of the competition or the entire filter cartridge must be changed.

• Another unique point: the return and analysis of refill has a laboratory (or waste) for a controlled analysis or destruction. It's circular economy where the waste is neutralized.

• Another unique point: the design of the filter and the refill which can be implanted in a dozen machine and different device, facilitating manufacture for the industrialist who has only a model to manufacture to cover all the market segments of the water .

<sup>&</sup>lt;sup>1</sup> https://blog.mondediplo.net/omerta-sur-une-catastrophe-industrielle-majeure **Wiracocha Global Limited** 



These 4 features are unique compared to other POU devices in the world. I will talk later about other related services that technology allows and that are also unique. (water analysis, network mapping, nutrients).

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A benchmark was conducted in China, where the main competitors in the world are present. China is the world's largest market for POUs.

Could you go to the site ?

https://www.leautustechnologyinside.net/#comparison

• see the index 'Comparison'

• Also see the 'Infographic' index to understand the important competitive advantage of QTI compared to the Reverse / osmosis technology that is the technology in use today in the world.

https://www.leautustechnologyinside.net/#infographic

## Why QTI is a unique technology in the world?

The technology allows to develop several associated services:

• Circular economy and reprocessing of refills: the return of refills to a treatment center avoids new pollution

• see video: "Carbon refill and circular economy"

https://www.youtube.com/watch?v=q-GY2t3oZ84&t=365s

• BtoC test: Once returned to the treatment center, a tap water quality test can be done.

• see video: »Leautus -Home tap water testing https://www.youtube.com/watch?v=fkwTodtOeKw

• The mapping of the results will make it possible to have an idea about the quality of the network and to intervene at the right place and at the least cost by a blockchain.

Pierre Marconi. Hong Kong , 2019-09-08

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