

Paris, 12 February 2020

PRESS RELEASE

MEDICAL WASTE MANAGEMENT

China chooses the Sterilwave solution developed by Bertin Technologies with assistance from CNIM Industrial Systems China for on-site treatment of waste contaminated by the coronavirus in hospitals in Wuhan region.

In February 2020, the Chinese Minister of Health confirmed the acquisition of 16 [Sterilwave](#) treatment stations for the main hospitals in the Wuhan region. These ultra-compact, innovative systems with proven efficiency in terms of viral inactivation make it possible to treat biomedical waste that has potentially been contaminated by the coronavirus (2019-nCoV) directly on site and consequently eliminate all risk of contamination outside the hospital. Thanks to [Sterilwave](#) solutions, the dangerous waste generated by hospitals is no longer taken by truck from the hospital to distant treatment sites, which significantly limits the risk of contagion.



Sterilwave waste treatment solution in hospitals



Presentation of the STERILWAVE equipment to the Minister of Health for China's Guangxi region

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In order to help **combat the spread** of the new coronavirus (2019-nCoV) in the Wuhan region of China, Bertin Technologies (CNIM Group) offered China its experience and expertise in treating **biomedical waste** directly in hospitals **through the sale of 16 Sterilwave SW440 machines** (treatment capacity: up to 80 kg/hour).

These machines make it possible to **grind down and sterilize all types of hospital waste** that may potentially have been contaminated by the coronavirus **using microwave treatment**, and therefore remove the need to take this waste outside the hospital, which poses a significant risk of external contamination.



Saturday 8 February: First delivery of 5 machines headed for the WUHAN region main hospitals with the help of CNIM Industrial Systems China

The Sterilwave *in-situ* process is very simple and fully automated: **the waste is ground down and heated in the same container to over 100°C** for twenty minutes. When the waste exits the machine, it is dry, inert and completely unrecognizable, with a volume reduction of 85% and a weight reduction of 25%. After the Sterilwave process, all the treated waste can be managed as a regular municipal waste without biological risk and hazard for the Public Health.

The biological inactivation results obtained on bacteria (including sporulated forms*) and viruses **have been validated** by the Ministries of Health and the Environment in both France and China. The Sterilwave process reaches **all international norms and standards** known worldwide for the management of bio-hazardous waste. Studies have shown that the coronavirus is quickly destroyed at temperatures above 80°C, meaning it can be efficiently eliminated by the Sterilwave manufacture by Bertin Technologies.



According to a study published on 29 January in The New England Journal of Medicine, **the contagiousness of the coronavirus 2019-nCoV is approximately of 2.2 person by contaminated patient**. The hospital waste generated by the contaminated patient is one of the main source of the spread. The viruses/spores/germs can not only survive, but also thrive on this waste over periods ranging from several days to several weeks. The Sterilwave solution therefore allows hospitals to treat this waste directly on site with no risk of external contamination, which means that hospitals are helping to fight against the spread of the disease.

“Our primary intention is to be a reliable partner for Health Services so that we can face the Public health challenges together,” says Boguslaw Lorecki, Director of Bertin Medical Waste.

>> [Video] Sterilwave, the alternative solution for on-site medical waste treatment

*The sporulated form of a bacterium is a dehydrated state that gives it extremely high resistance to environmental conditions, in particular temperature resistance. This is why this form is particularly useful in checking inactivation efficacy: if a process is effective on sporulated bacteria, it will be even more effective against vegetative bacteria.



ABOUT BERTIN TECHNOLOGIES

BERTIN TECHNOLOGIES, subsidiary of **CNIM** Group, relies on its long history of innovation to develop, produce and market innovative systems and equipment worldwide. Among its 620 employees, two-thirds are engineers and high-level managers. Turnover was over €100 million in 2018. The company is active at a global level. Its range of systems and tools offer innovative measurement and sampling solutions for markets with high added value:

- Lab equipment (biological sample preparation, biological air samplers, digital microscopes).
- Nuclear instrumentation (professional radon monitoring, environmental radiation monitoring, radiation portal monitors, radiation protection).
- Defence, security and safety/oil and gas site protection (CBRN, gas detection, optronics) with the acquisition of Exensor in 2017.

www.bertin-technologies.com

Its **solutions for the treatment and radiological monitoring of biomedical waste** are represented by the brand **Bertin Medical Waste**. Equipment in the Sterilwave range and its associated accessories and benefits allow effective and safe treatment of biomedical waste, in particular. This can be carried out in the immediate vicinity of where it is produced, as recommended by the WHO. Bertin Medical Waste also offers radioactivity detection instruments for monitoring and testing waste, thanks to the expertise provided by Saphymo, a leader in the detection of ionizing rays.

www.bertin-medical-waste.com



About CNIM

Founded in 1856, **CNIM** is a French international turnkey supplier and industrial equipment maker. The Group provides services in the areas of the Environment, Energy, Defense and High Technology sectors for large public and private companies, local authorities and states. Technological innovation is at the core of the equipment and services designed and created by the Group. They contribute to producing cleaner, more competitive energy, reducing the environmental impact of industrial activities, guaranteeing the security of sensitive installations and infrastructure and protecting people and states.

The Group is listed on the Euronext Paris stock exchange and has a stable shareholder base with majority family ownership that is committed to its future development. CNIM employs 2,613 staff and had revenues of €689.8 million in 2018, 62.1 % of which was from exports.

<https://cnim.com/en>

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