

Wayne Byrne

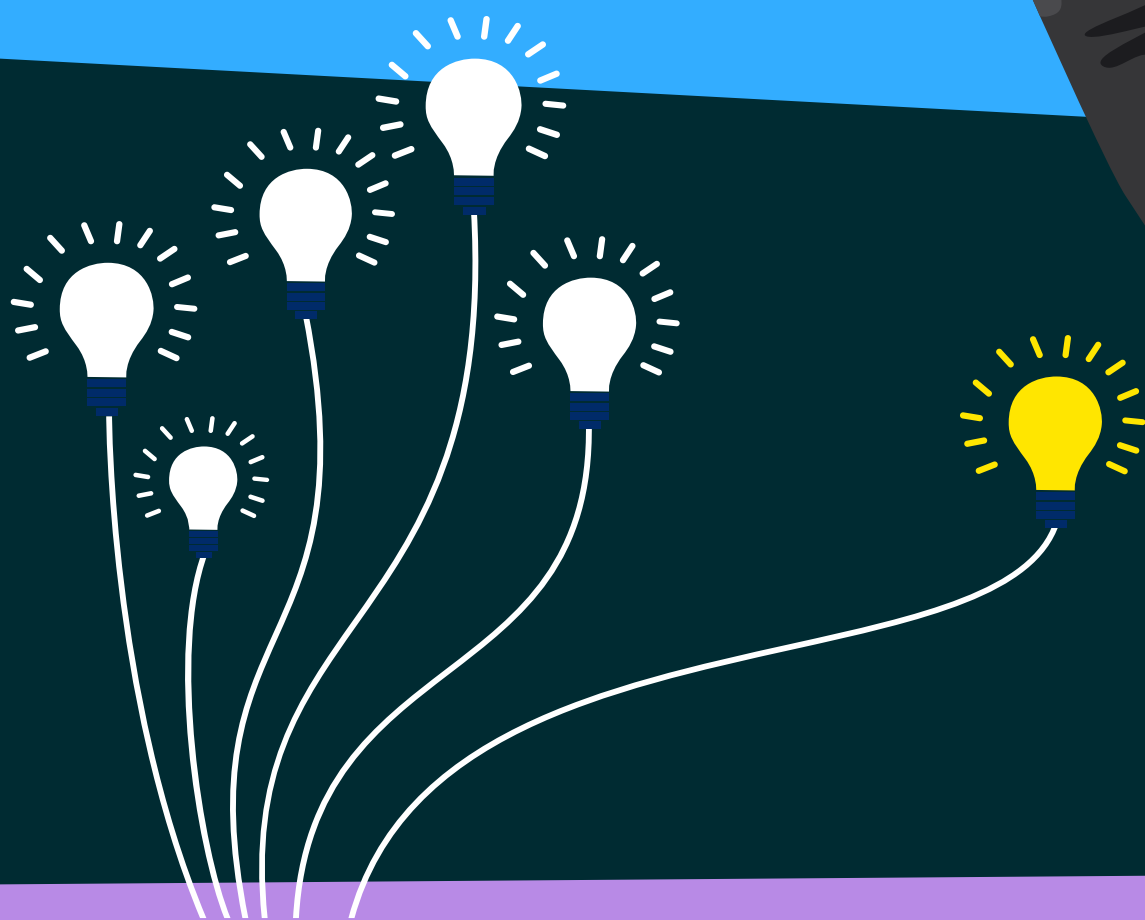
is the CEO of

Typhon Treatment Systems

(DON'T!)

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WATER**

Have you ever heard of Hertz's Law? It states that every decade, the amount of light generated per LED package increases by a factor of 20, and the cost per lumen falls by a factor of 10.

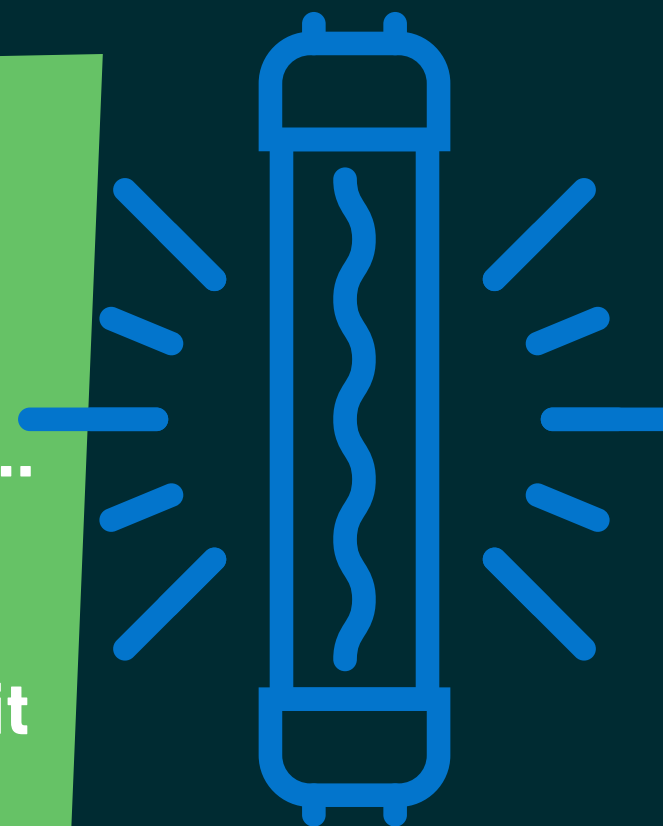


Considering that UV Disinfection is an important contributor to clean water production, this sounds like a massive opportunity.

I don't think anyone would argue against the fact that one day, the market will be dominated by UVC LEDs!



But today, almost all UV water disinfection technologies leverage mercury-vapor lamps... even if the Minamata Convention and the RoHS Directive forbid it since 2011.



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At the moment, Water benefits from an exemption as long as alternative solutions are not available.

But the tipping point might be close, and not only because of the Hartz law.

Indeed, "Analog" UV Solutions come with their in-built challenges:

1.

Lamps heat-up, causing biofouling on their surface

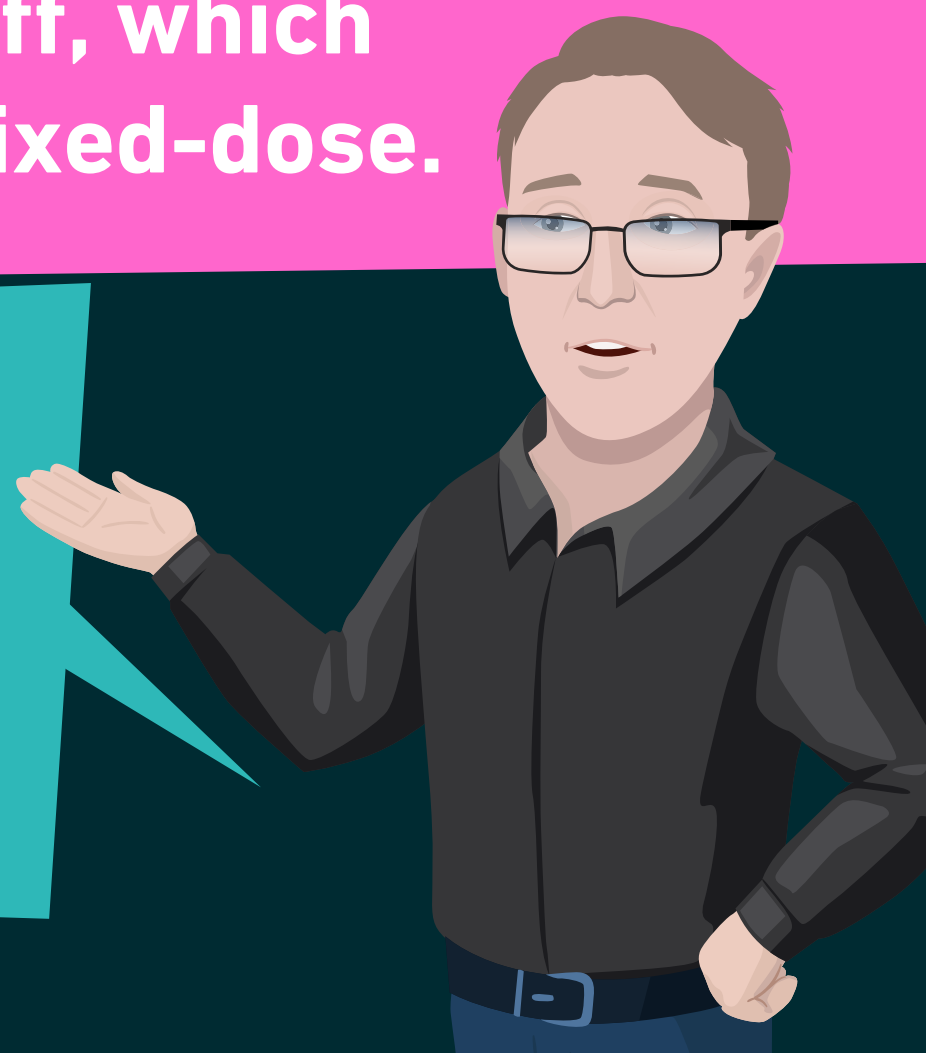
2.

They lose on efficiency while aging

3.

They offer limited flexibility besides on-off, which results in a fixed-dose.

The use of LED opens up new possibilities because it's a digital solution. With the appropriate up and downstream monitoring, you can apply the proper dose in real-time, which reduces consumption.



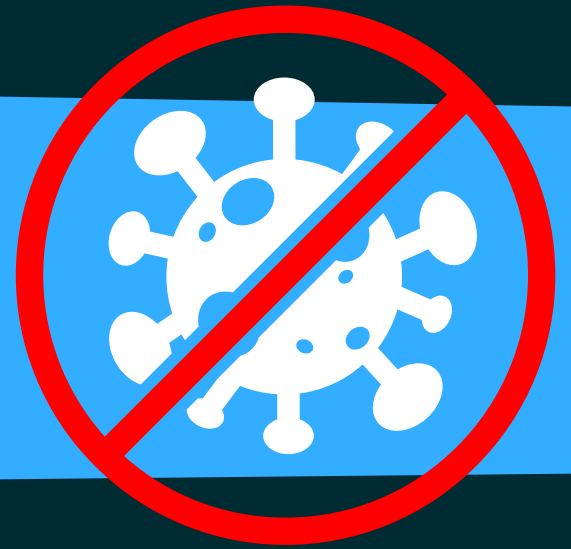
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Typhon actually adds to these general prospects an additional tryptic of proprietary benefits:

1.

Using UV 265 instead of 254 provides a higher germicidal action



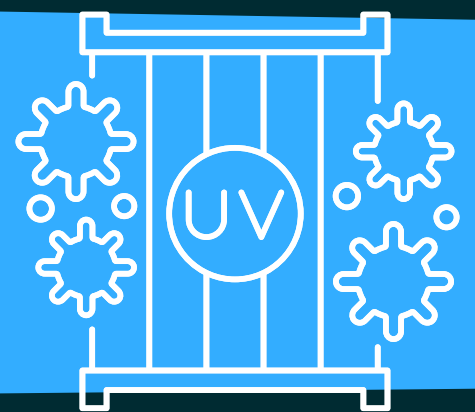
2.



Their reflector design reinforces photon targetting

3.

Their reactor optimizes the medium / UVC interaction



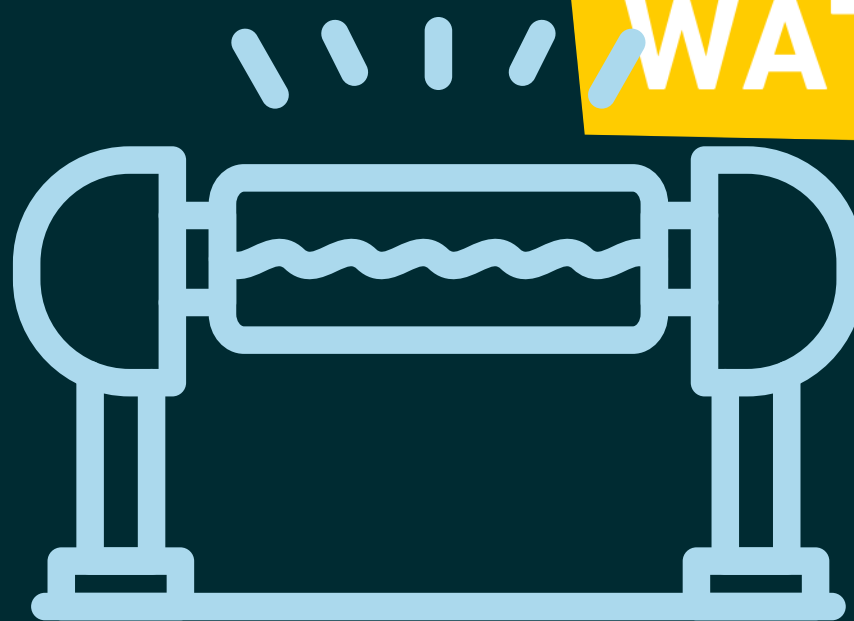
We're creating a disrupted swirl across the reactor's flow path to interact with 100% of the flow coming through the system

Thanks to this, even though the best UVC LED still only deliver a 3-6% wall-plug efficiency (against 35-40% for vapor-mercury lamps), Typhon starts to compete with analog UV on an unexpected field: large municipal plants.

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We have one large customer in the North West of the UK, which operates the largest UVC LED plant globally, with a capacity of 29,000 cubic meters per day.



xylem

And that may well step on the toes of the three biggest players on the UV Disinfection market: Trojan, Xylem, and SUEZ. How will they react? The future will tell.

But did I mention that Wayne successfully exited from 4 previous entrepreneurial ventures? 😏

We also covered:

- How UVC LED usually applies to Point of Use and small scale applications and why Typhon took a different approach
- How the fastest way to grow is to aim for moonshots and take risks
- How UV LED also open a path for new business models like Disinfection as a Service
- How Typhon aims to be a knife in a street fight (and what that means)
- How the company's development may well see its next steps in middle east - and how having Saudi Aramco on their investor boards helps to that extent
- How Wayne created, developed, and exited OxyMem by selling it to Dupont, at 3x the expected market pace
- Method Capital Limited, Solar Impulse, Agility as a Special Sauce, Starting with the End in Mind, Visualizing how success looks like... and much more!

Don't miss a single bite:
head over to dww.show!

