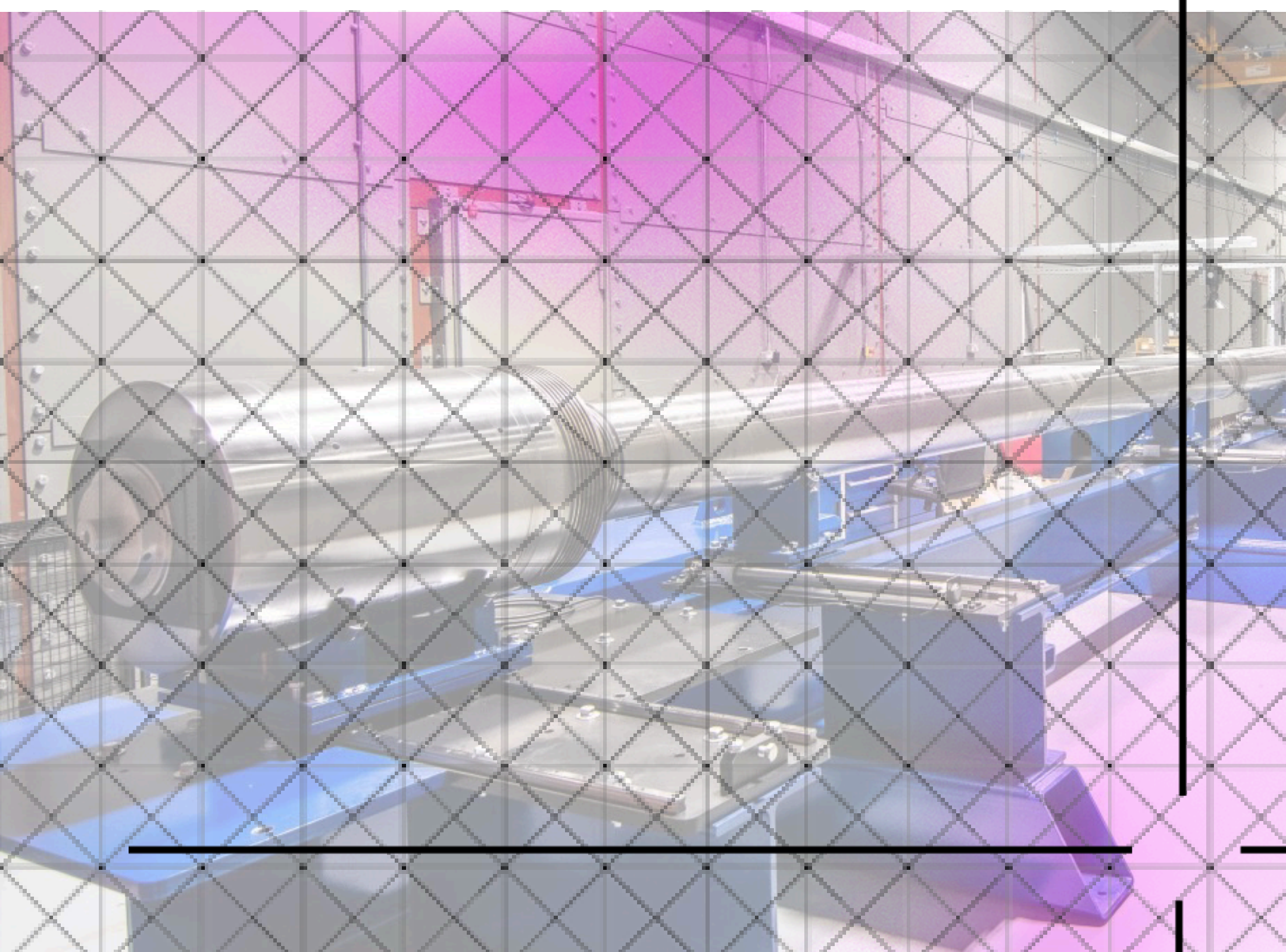
FUSION FOR ... DEFENCE

Fusion might be about peaceful power, but the tech behind it has serious potential in defence and security too.

First Light Fusion's approach involves using high-speed projectiles to trigger fusion — but the same shockwave tech is now being explored for testing armour under battlefield-like conditions, and even simulating what happens when space debris smashes into satellites. And since satellites are now critical to everything from navigation to weather forecasting, that kind of testing matters.

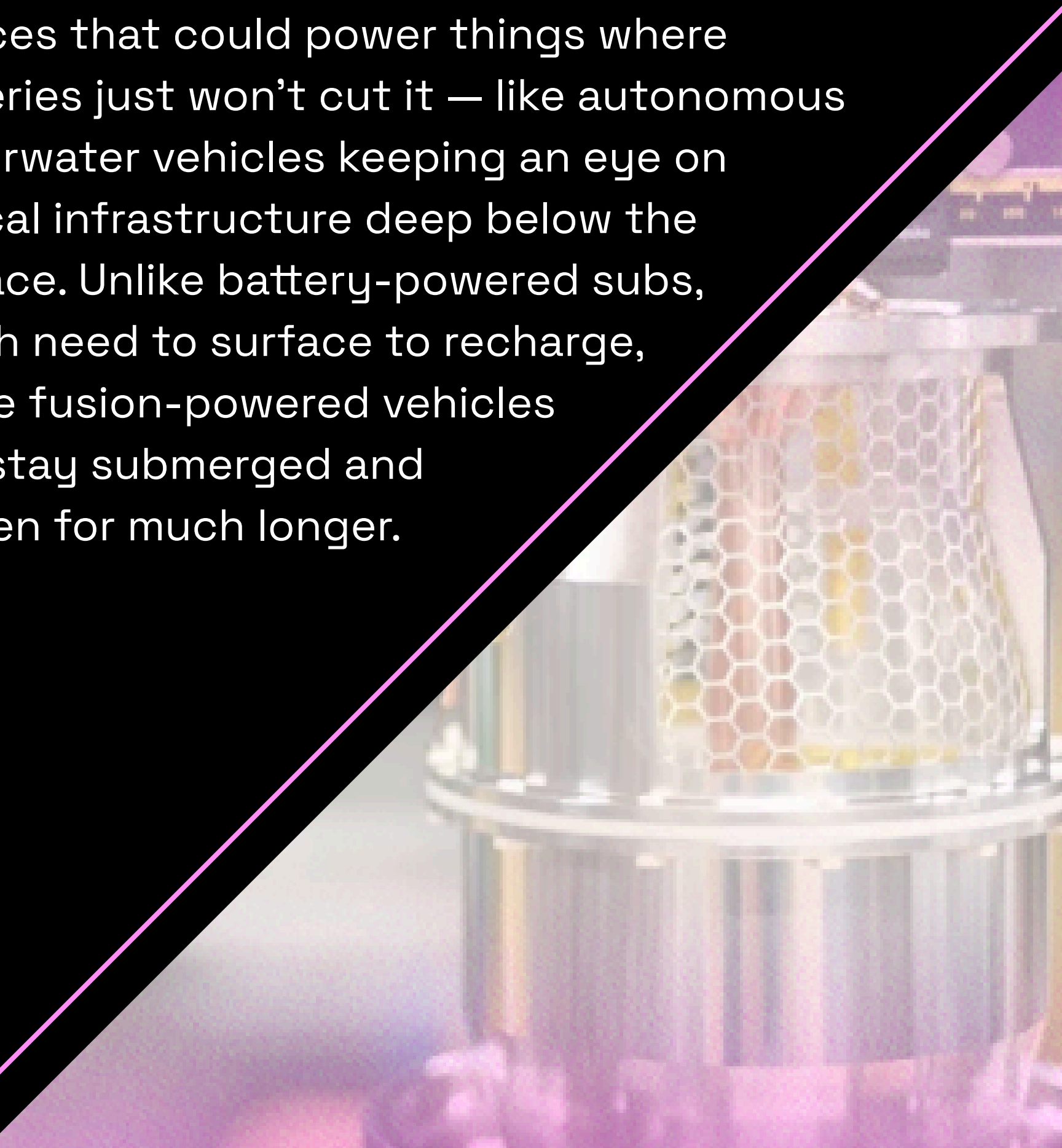


After Hours Intel by The Fusion Cluster

FUSION FOR … DEFENCE

Aerofuse is aiming high — literally. They're exploring fusion-powered aircraft that could fly up to 100 times longer without refuelling. For the military, especially when patrolling huge stretches like the Pacific Ocean, that could mean fewer risky refuelling missions and less reliance on remote airbases.

Avalanche Energy is working on tiny fusion devices that could power things where batteries just won't cut it — like autonomous underwater vehicles keeping an eye on critical infrastructure deep below the surface. Unlike battery-powered subs, which need to surface to recharge, these fusion-powered vehicles can stay submerged and hidden for much longer.



FUSION FOR ... DEFENCE

And at the UK Atomic Energy Authority's RACE centre, robots are getting smart — and tough. UKAEA researchers are developing AI-driven systems to handle the brutal environments inside fusion machines. That same kind of tech could be used for tasks like bomb disposal, where you really want smart robots, not people, going in first.

Fusion-inspired innovations aren't just powering homes — they're helping protect them too.