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## Open Source - Transatomic

5-6 minutes

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### Open-sourcing our reactor design, and the future of Transatomic

When Mark Massie and I started Transatomic in April 2011, the future of nuclear power was uncertain. In the wake of Fukushima, all bets for a nuclear renaissance were off, and starting a venture-funded advanced nuclear technology startup seemed like an unusual path, to say the very least. At the time, there were only three advanced reactor design companies worldwide, and the industry's prospects—from regulatory hurdles to technical unknowns, funding constraints to public perception—seemed to be up against incredible odds.

However, we also knew two things to be true:

- (1) Climate change is real, and unless massive action to de-carbonize the grid is taken soon, it will threaten much of humanity's way of life.
- (2) Novel nuclear technologies present the best way to address the issue, by rapidly expanding carbon-free energy at scale and making fossil fuels a thing of the past.

With these principles in mind, we decided to press forward, building out a reactor concept and raising capital to fund experimental work critical to our technology's success.

Now, in 2018, it looks like we were on to something. Today the advanced nuclear technology sector is thriving, with [over 70 advanced reactor projects](#) in progress, [financing actively flowing](#) to new technologies, [promising engagement](#) with the NRC, [multiple films](#) and [TV documentaries](#) covering innovations, and even [bipartisan political support](#). We are honored to have been in this movement's vanguard, and to have done our part to spur not only technical innovation, but also the broad-based cultural changes necessary to bring these technologies to fruition.

That being said, Transatomic has faced challenges. In 2016, we realized that there were mistakes in our original analyses, and the design would not be able to consume nuclear waste. This was a hard moment both for the company and for me personally—I started Transatomic specifically because I wanted to address the nuclear waste problem. Despite this setback, we [continued working](#), and our [updated reactor design](#) still provides substantial and wide-ranging benefits: it produces less than half the waste of conventional nuclear reactors, has no risk of meltdown, and has the potential to make nuclear more economically viable than fossil fuels.

We still strongly believe in our technology, and in advanced reactor technology as a whole. However, despite our best efforts, we haven't been able to scale up the company rapidly enough to build our reactor in a reasonable timeframe. It is therefore with a heavy heart that I must announce that Transatomic will suspend operations.

This is not a decision we take lightly. We're extremely proud of the great scientific and engineering work we've done over the past seven years, and want to make sure that it can continue to further the development of the next generation of nuclear reactors.

***We will therefore be open-sourcing our intellectual property, making it available for any researchers – private, public, or non-profit – who want to continue the work we've started.***

We are currently in discussions with the DOE GAIN (Gateway for Accelerated Innovation in Nuclear) initiative regarding collaborating with them to ensure that our work remains accessible to the public and valuable to the efforts of the advanced reactor community as a whole. It will take all of us working together on this problem to build a robust advanced nuclear sector and make better sources of carbon-free electricity. We'd especially like to encourage the [new generation of nuclear engineers](#) to take and build on this work: we hope that it will help you make great things.

I want to express my sincere appreciation to our investors for giving us a chance to pursue this technology; the DOE GAIN program for supporting us and our fellow advanced reactor companies; our exceptional collaborators at Oak Ridge, Argonne, and other U.S. National Laboratories and universities; our chairman, Ray Rothrock, without whom we would have never even gotten started; the stellar people on our team, who have devoted countless hours of work towards Transatomic's vision of cleaner, safer nuclear power; and all of you for your unwavering support over the past seven years. We're so grateful to you all, and we look forward to seeing the wonderful and vitally important things that the advanced nuclear sector will accomplish in the coming years.

Finally, as both an engineer and an environmentalist, I urge you all to keep fighting for clean energy, keep striving for innovation, and, above all, keep believing in the power of technology to improve lives, unlock creativity, and protect our planet.

With immense gratitude and best wishes,

Leslie Dewan