

[New survey of fusion energy companies throws spotlight on important growing industry](#)

There is growing excitement about fusion energy as an option to contribute to the world's low-carbon energy supply. Increasing numbers of private companies are aiming to deliver commercial fusion and producing significant breakthroughs in the science and technology that will lead to a commercial power plant.

Now, a new survey from the [Fusion Industry Association \(FIA\)](#) and the UK Atomic Energy Authority provides a snapshot of the state of the growing fusion industry.

The [Global Fusion Industry in 2021 survey](#), the first by FIA and UKAEA, aims to build a directory of fusion energy businesses and provide a periodic update on the sector. It compiles information provided by 23 private companies developing commercial fusion power, including the world's most advanced players.

There are now at least 35 global fusion companies (12 are either early stage or in stealth mode so declined to participate in the survey) and progress is accelerating. Of the 23 companies featured, 15 (65%) were founded since 2010.

18 of the 23 companies have declared private funding of almost \$1.8bn to date, plus an additional \$85 million in grants and other funding from governments taking the total to \$1.87bn. Four companies – Commonwealth Fusion Systems, General Fusion, TAE Technologies and Tokamak Energy – currently account for 85% of this funding. There is still enormous scope for investment and innovation in this emerging industry.

Companies are taking a variety of technical approaches to solving the challenges of fusion power, working on a range of scales.

The vast majority of fusion innovation is focussed on electricity generation, named as a core target market for all but one of the companies questioned (96%), but, interestingly, almost half see the possibility of also applying their technology to space propulsion.

The survey found that 71% of companies believe a 2030s target is achievable for the clean energy technology, while 20% believe that it won't be ready until the 2040s or 50s.

"Fusion has the potential to revolutionise the low-carbon energy supply and provide the non-variable power that will be required to meet the world's ambitious goals. This survey shows how, largely outside the headlines, the private fusion industry is accelerating towards commercial power," said Melanie Windridge, Communications Director at the Fusion Industry

Association. “The ambitious timescales highlighted in our first Fusion Companies Survey demonstrate the drive and commitment that exists within this growing industry.”

“The global need for schedulable and abundant low-carbon energy now presents itself to us with a stark clarity, and so the imperative for fusion energy has never been never greater,” commented Tim Bestwick, Chief Technology Officer at the UK Atomic Energy Authority. “We are very pleased to have partnered with FIA to produce this survey, which we hope will be a useful and important reference for all of us involved in this exciting new industry.”