first light

World-leading inertial fusion company

Solving the problem of fusion power with the simplest machine possible

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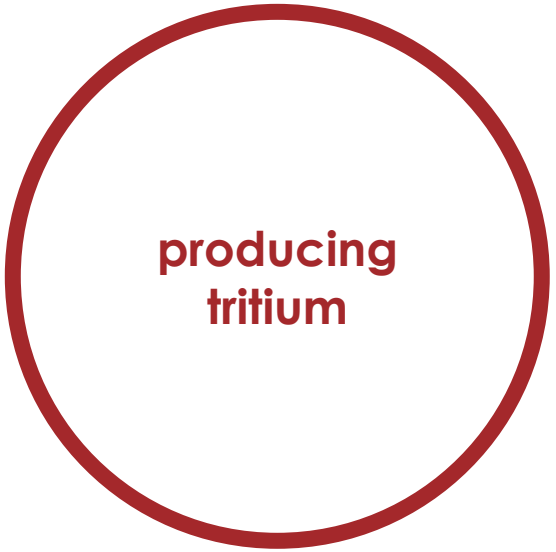
NIF works – why don't we have fusion power yet?

- There are three major engineering challenges, and cost…

the neutrons damage structural materials, leading to limited lifetime of key components

the extreme plasma temperature puts large heat load on the "first wall"

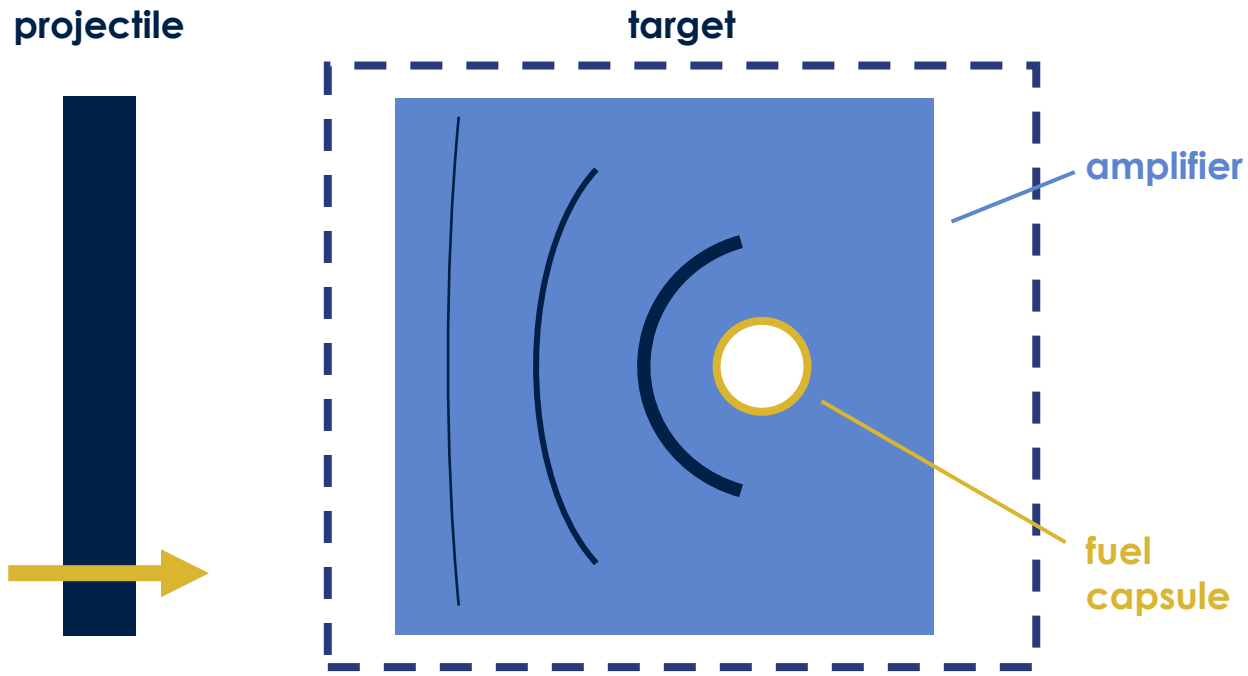


the plant must produce it's own tritium to close the fuel cycle

NIF cost $4bn

Our proprietary amplifiers are the key to making one-sided inertial fusion work

- We use a high-velocity projectile instead of the laser
- One projectile, from one side
- The amplifiers boost the pressure and creates spherical shaping
- The final implosion is identical, our designs are taken from literature, and they are more robust designs than NIF

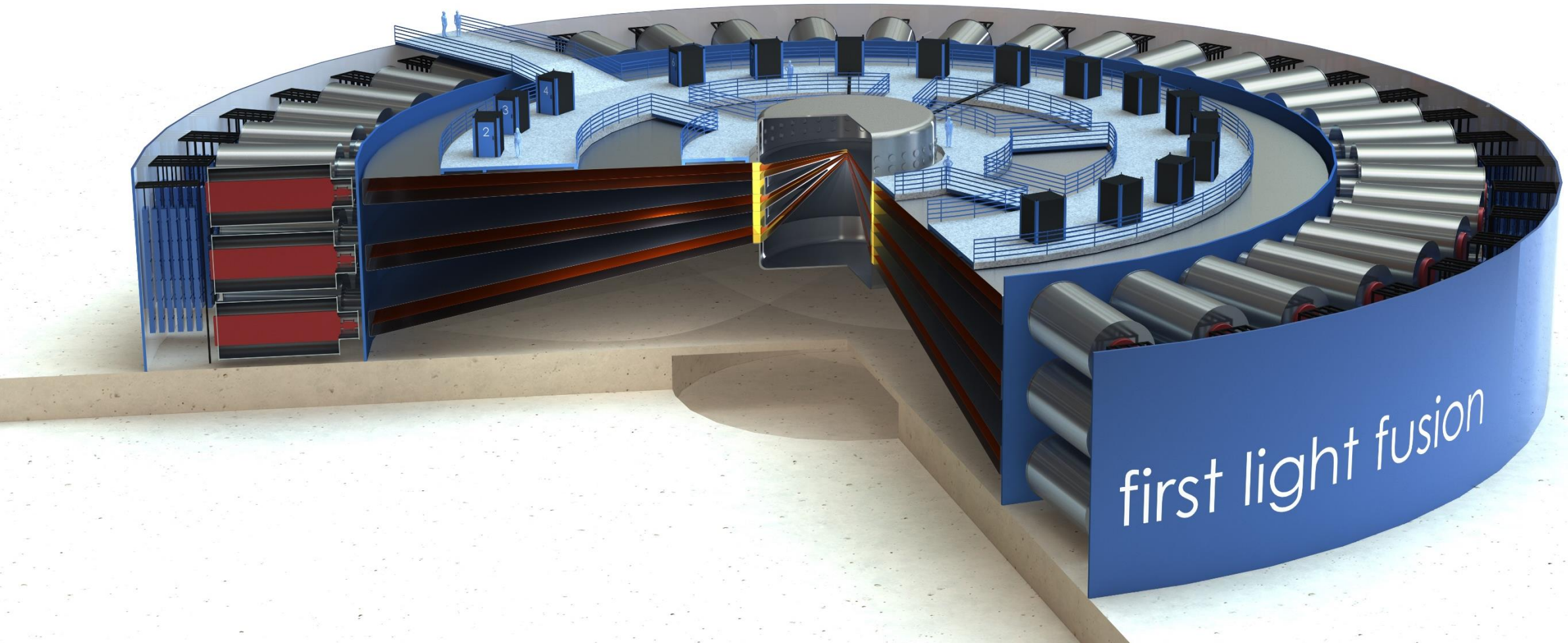


We have proven this works, showing fusion for the first time, validated by UK Atomic Energy Authority

Liquid design simply sidesteps the three major engineering challenges

- Liquid first wall design avoids known fusion engineering challenges
- Reuses existing engineering from nuclear reactors, specifically fast breeders
- Balance of plant built with existing TRL9 technology
- There is substantial momentum behind the development of liquid first wall systems for fusion; we are not developing this alone

Our next phase is an ignition demonstrator – a new, globally leading facility with broad-ranging applications

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Thank you! Please get in touch
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