helps deliver the first fusion power plants. In parallel with the SPARC construction, CFS is designing its first fusion power plant, called ARC, aiming for deployment in the early 2030s. The plasma-facing materials and structural materials in ARC will need to operate at higher temperatures and to higher neutron doses than those in SPARC, so materials developments are going to make fusion power plants possible. I will argue that working on materials development for fusion power plants is the most challenging and exciting branch of materials science right now.

Fusion is real, and now is your chance to be a part of the first-generation power plants. If you're currently a student, almost any engineering field can be helpful to study; then, look for internships at fusion companies to gain some firsthand experience. If you're someone currently in the fission industry, a lot of your knowledge is transferable to fusion, so if you're looking for something fresh and exciting, come join us.

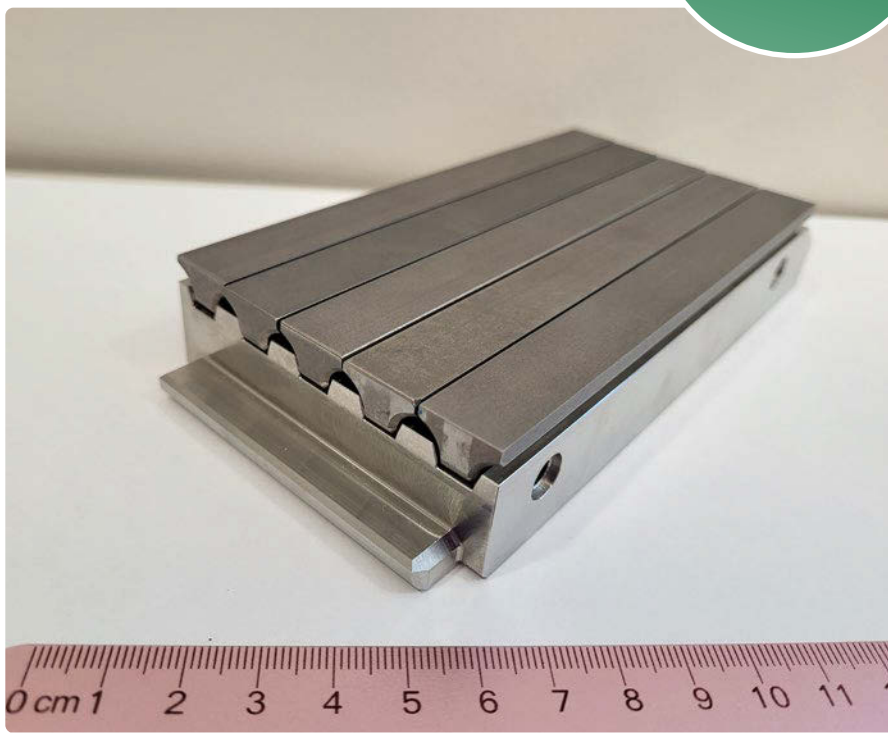

Fig. 3. One SPARC divertor carrier plate with five (of the 17,800 total needed for SPARC) tungsten pieces inserted. (Photo: CFS)