Strategic Objectives

We have five objectives, designed to build an inclusive, cross-disciplinary culture, drive our science, and create innovation and broader community benefits:

1. **To do ground-breaking cross-disciplinary science, creating the first quantum technologies to solve multiscale grand challenges in biotechnology.**

   We will develop quantum microscopes for neural and cell imaging, quantum nanotechnologies to observe and control the dynamics of individual proteins, and quantum simulations to predict molecular dynamics. We will apply these quantum tools to better understand the underpinnings of biotechnology across sub-molecular, cell, and whole brain scales.

2. **To define the new field of quantum biotechnology, nurturing the next generation in a new school of thought founded on multidisciplinary science and the transformational potential of quantum technologies.**

   We will establish where quantum technologies will have most impact within biotechnology. We will drive change by demonstrating their capabilities and educating the multidisciplinary community needed to realise their widespread adoption

3. **To champion an equitable, inclusive and diverse STEM culture, lowering barriers, engaging early, and addressing all career stages**.

   We will build an inclusive, diverse, equitable and collegial STEM culture both within our Centre and through Australia, addressing gender, socioeconomic and geographic barriers, and supporting the whole pipeline from primary school, to communities, early career scientists and senior scientists

4. **To drive quantum biotechnology innovation, partnering with national and global industries to grow Australia's knowledge economy and generate socioeconomic impact.**

   Together with our industry and government partners we will grow the innovation ecosystem, catalyse industry-led translation, and train Australia's future quantum workforce.

5. **To back responsible quantum innovation, ensuring that rapidly evolving quantum technologies are applied in a sustainable and ethical manner.**

   We will lead efforts to address actual and perceived risks in partnership with the Commonwealth Scientific and Industrial Research Organisation (CSIRO).