

## Cochlear Global HQ

### Project Overview

Smart Structures was the design engineer of the global headquarters of bionic ear manufacturer Cochlear. Designed in partnership with architects Toland Williams, the 6-storey building (including two basement car parks with warehouse substation) houses 1,100 staff as well as the company's main manufacturing and research facility. It features two interconnected buildings that includes large span post-tensioned floor slabs designed for vibration control, an anechoic chamber and clinical grade 'clean' rooms.

A unique requirement was the need to 'tune' the building to accommodate the microscopic vibration tolerances needed in producing Cochlear's bionic ear implants. Smart Structures had to predict the vibrations of the floor structures down to a person's footsteps; an analytical ability that few engineering firms have. This allowed our design team to adjust the building by thickening specific post tensioned slabs and adding vibration control features to meet the client's specifications.

### Fast Facts

- **Client:** Cochlear Ltd
- **Location:** Sydney, NSW
- **Project value:** \$70 million (approximately)
- **Key responsibilities:** Design engineer.

