Engineering for safety

How Alliance SI delivered a tailored electrical solution to support Allnex's laboratory upgrade – ensuring safety, compliance and uninterrupted operations

The Partnership

Unispace engaged Alliance SI to deliver the electrical and communications works as part of a broader building project at Allnex's Wacol facility in Queensland. Working alongside Unispace and key project stakeholders, we supported a laboratory environment that underpins Allnex's product innovation and safety testing.

In this setting, compliant and reliable infrastructure is essential to protecting people, enabling precision work and ensuring research can continue without disruption. Our role was to deliver disciplined, standards-aligned electrical and communications solutions that strengthened the facility's performance and supported long-term operational confidence.

The Challenge

Laboratories bring unique risks and responsibilities. In this environment, where chemicals are handled and precision equipment is relied upon daily, even minor electrical failures can create major consequences from safety hazards, to compromised experiments, to costly downtime.

Key challenges included:

- **Safety and compliance**
  Electrical infrastructure needed to meet stringent laboratory safety standards while integrating seamlessly with chemical-handling processes.
- **Switchboard design**
  A bespoke switchboard was required to power sensitive laboratory equipment alongside general services without compromise.
- **Continuity of operations**
  The upgrade had to be delivered with minimal disruption to existing research and operational activity.

For Allnex, getting this right meant safeguarding people, protecting research outcomes, and ensuring the laboratory could continue to deliver for customers worldwide.

INDUSTRIAL

The Solution

Alliance SI worked hand-in-hand with Unispace and Allnex to deliver a tailored, compliant, and future-ready electrical solution.

- **Collaborative design and budgeting**
  Partnered with stakeholders to align project design with laboratory-specific requirements and establish transparent, accurate budgets.
- **Custom switchboard engineering**
  Designed and built a laboratory-grade switchboard capable of supporting high-reliability equipment and general services simultaneously.
- **Robust power distribution**
  Installed a 160A submain to ensure reliable, scalable supply for both current and future demands.
- **End-to-end delivery**
  Installed all electrical infrastructure, including general power, task-specific outlets, and complete lighting systems that are fully tested, certified, and commissioned within the project timeframe.

The Outcome

The project was delivered on time and on budget, with outcomes that extended far beyond installation:

- **Safety assurance**
  A compliant and reliable system designed specifically for a chemical laboratory environment.
- **Future-proofed infrastructure**
  A resilient electrical distribution network designed to support both current operations and long-term growth.
- **Operational continuity**
  Research and operations proceeded without disruption during the upgrade.
- **Trusted partnership**
  Unispace and Allnex achieved their upgrade goals with confidence, reinforcing Alliance SI's reputation as a trusted partner for complex, high-stakes environments.

Planned precisely for high-risk environemnt

Collaborated closely with design partners

Applied know-how to engineer compliance

Delivered safe, uninterrupted upgrade