THE FUTURE OF MOBILE | **CONSTRUCTION**

AMTA
Australian Mobile Telecommunications Association

Mobile tech already helps workers stay connected, safe and efficient on site. By 2030, tools like 5G, AI and wearables will take this further, transforming how jobs are planned, monitored and delivered.

SITE SAFETY MONITORING

TODAY Liam wears a smart helmet with motion sensors and GPS tracking. If a safety incident occurs, alerts are sent via mobile to site managers, supporting a prompt safety response.

IN THE FUTURE Liam's gear includes real time biometric monitoring / environmental sensors, connected to a 5G safety platform. Risks like gas exposure or heat trigger instant AI alerts, with drones able to respond immediately.

EQUIPMENT MANAGEMENT

TODAY Liam tracks tools and machinery via a mobile app, scanning QR codes, and checking availability as needed. This helps prevent losses and delays on site for the team.

IN THE FUTURE with IoT [1] connected tools and localised 5G, Liam has live visibility of all tools via his tablet or AR glasses. Predictive alerts and smart scheduling optimise uptime and reduce maintenance disruptions.

1 million

Private 5G networks can support up to 1 million devices per square kilometre, enabling real-time data from tools, sensors, vehicles, and wearables on construction sites.

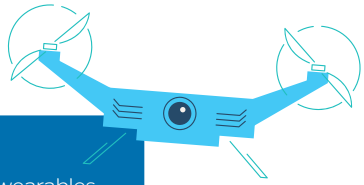
[1] The Internet of Things (IoT) refers to everyday objects - like tools, vehicles, or appliances being connected to the internet. These smart devices can collect and share data, helping people track, monitor, and manage them in real time.

REMOTE COLLABORATION

TODAY Liam uses video calls and messaging apps to share site photos and updates with engineers, helping resolve issues without waiting for in person visits from the team.

IN THE FUTURE Wearing AR glasses, supported by 5G, Liam streams his live view to remote engineers who overlay guidance in real time. Digital twins[2] support instant design checks and faster decision making on site.

SITE PROGRESS & QA



TODAY Liam captures progress using his phone to take photos and videos throughout the day. These are uploaded to the site management platform, helping track quality assurance and completion.

IN THE FUTURE Drones and wearables cameras continuously map the site, feeding data to a real time digital twin[2] of the site. Liam receives instant updates on site progress and any deviations from plan.

[2] A Digital Twin is a virtual version of something real—like a building site or machine—that's kept up to date with live data. It helps people see what's happening, test ideas, and make better decisions without being there in person.