

## Sensor integration plan template

This table provides guidance and consideration as part of your sensor integration planning.

Section	Purpose	Notes	Example
Project overview	Set the context for the project.	Define the project name, location, responsible team, and objective.	Smart Lecture Theatre Pilot  Location: Building A, Room 101  Lead: Jane Smith, Estates  Goal: Monitor CO <sub>2</sub> and occupancy in real time
Existing infrastructure	Check what systems or sensors already exist.	Note current sensors, platforms, and network/power availability.	Legacy BMS present.  Wi-Fi available.  No dedicated environmental sensors.
Sensor selection	Choose appropriate sensors based on your goals.	List sensor type, purpose, location, protocol, and power source.	Type: CO <sub>2</sub> sensor  Purpose: Monitor air quality Location: Room 101  Protocol: MQTT  Power source: Battery
Deployment plan	Plan installation steps and responsibilities.	Break down tasks, assign owners, and include deadlines.	Prep Wi-Fi – IT – 01/06  Install sensors – Estates – 05/06  Integrate with iTwin – Digital Twin Lead – 07/06

Data & connectivity	Ensure the data flow is reliable and accessible.	Define update frequency, protocol, platform, and dashboard visibility.	Every 10 minutes MQTT via Wi-Fi Platform: Bentley iTwin Dashboard: Power BI (Estates + H&S)
Privacy & security	Ensure compliance with data policies, and protect transmissions.	Note if data is personal, use of encryption, and policy checks.	Environmental only (no personal data) TLS 1.2 encryption GDPR reviewed
Maintenance plan	Ensure sensors stay functional and accurate.	Include tasks, frequency, and responsible team.	Battery check – Every 6 months – Estates Firmware updates – As needed – IT
Review & lessons learned	Reflect on the process and recommend improvements.	Document what went well, challenges faced, and lessons for next time.	Set-up was smooth. Wi-Fi config caused initial lag. Test network beforehand next time.