

Eight OT decisions greenfield teams defer

And what each one costs after startup.

Every greenfield project runs out of time before it runs out of decisions. The ones that get pushed are rarely the ones that look urgent in month six — several of them stop being reversible long before anyone notices they were deferred. This is the list, in the order the calendar forces it.

01 Standardize platform and products

Every package goes out without a named controller, HMI, and historian platform, on the theory that open vendor choice keeps bids competitive. You inherit a plant with several controller families, several software versions, and documentation in several formats. Spares multiply, technicians need competence in all of them, and every future change is priced against whichever vendor owns that line.

LATEST RESPONSIBLE
MOMENT

Before the first RFP goes out.

02 Ownership of control logic, licenses, and as-built documentation

Whoever holds the source owns your ability to change a line. Renegotiating that after startup happens from a position of no leverage, on a schedule someone else controls.

LATEST RESPONSIBLE MOMENT

RFP stage, confirmed at contract execution.

03 IT/OT network architecture and zone segmentation

Conduit runs, cable tray, and switch closet locations get poured into the building. Adding segmentation to a running plant means taking downtime on the lines that justify the plant's existence, and buying hardware you already bought once.

Reference: IEC 62443 zone and conduit model.

LATEST RESPONSIBLE MOMENT

Before electrical rough-in.

04 How OEMs and integrators get remote access

Twenty vendors arrive at commissioning with twenty methods. The tunnels opened that week become permanent, because by the time anyone audits them a line depends on each one and nobody can produce a complete list.

Reference: IEC 62443 remote access requirements.

LATEST RESPONSIBLE MOMENT

Before first OEM mobilization.

05 Tag naming, alarm philosophy, and HMI standards

Each vendor brings their own conventions. Every future change costs more than it should, operator training does not transfer between lines, and startup arrives with an alarm flood no one can triage.

Reference: ISA-18.2 alarm management, ISA-101 HMI design.

LATEST RESPONSIBLE MOMENT

Before the first controls package is released for build.

06 Asset inventory and firmware baseline

You cannot patch, insure, or audit what was never recorded. Reconstructing it means a manual walkdown of the entire facility, performed by people who were not there when it was installed.

LATEST RESPONSIBLE MOMENT

Rolling, at each package acceptance.

07 Historian and data architecture

The ramp is noisy and it is not your best baseline, but it is the only record of it you will ever have. Deferring means reaching the tuning phase with neither the history to compare against nor the tooling to build one.

Reference: ISA-95 functional hierarchy.

LATEST RESPONSIBLE MOMENT

Before commissioning.

08 OT acceptance criteria and the post-go-live support model

FAT and SAT prove the machine runs. Neither proves the environment is supportable. The punch list closes, the integrators demobilize, and whatever was not specified becomes an operating problem with no owner.

LATEST RESPONSIBLE
MOMENT

Before handover protocols are drafted.