A two-minute read for industrial OEM teams

Homologation delays follow a pattern.

Six-month delays on homologation are common in industrial OEM projects — but they are rarely random. Lab failures follow patterns that can be seen at schematic stage, long before the project reaches the lab. Here are the four we see most often.

The four patterns.

Each one is visible at schematic stage. Each one becomes expensive at the lab.

01

ErP standby that fails the test

The regulation is read for full-load mode. Standby and sleep modes are signed off without a careful look — and the lab finds the gap weeks later.

Caught early at: standby power budget, supply rail design, wake logic.

02

EMC margins too tight

The prototype passes pre-test by a small margin. Then it fails in the official lab when temperature, supply variation or production tolerance are added.

Caught early at: layout review, ground strategy, filter sizing, shielding.

03

Components without certification for the target market

A part performs perfectly on the bench but has no UL listing for the US — or no equivalent certification for the destination region. Discovered too late.

Caught early at: BoM review per target market, component qualification.

04

Incomplete UL or regional paperwork

The technical file is valid in Europe but missing data the US lab will request — or vice versa. Technically certified in one place; commercially blocked in another.

Caught early at: documentation plan defined per market from day one.

The common thread.

None of these patterns is rare or unsolvable. Catching them at design is far cheaper than fixing them at the lab — which requires the supplier in the room early enough.