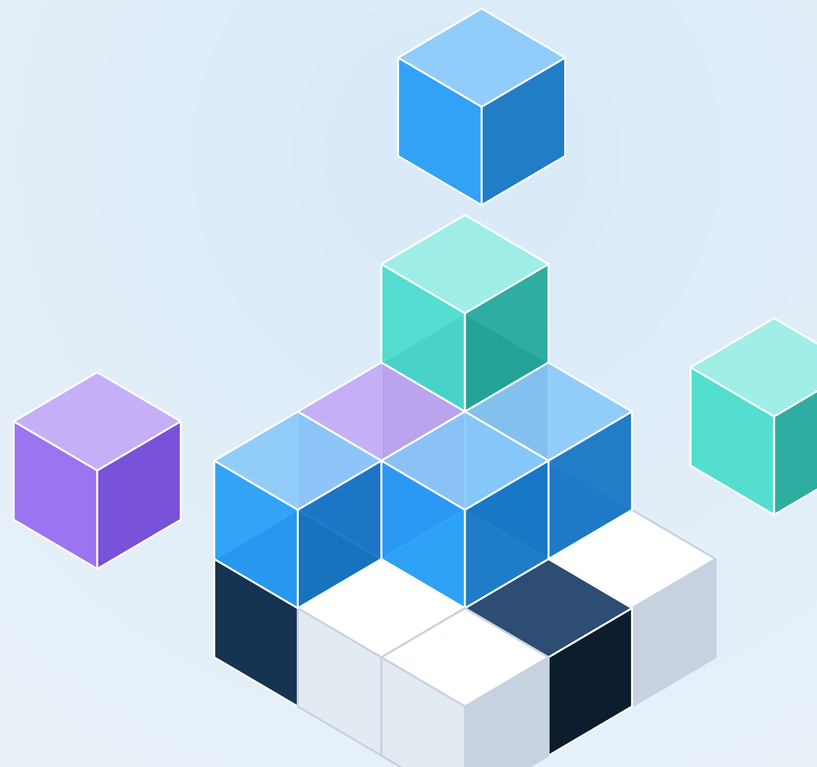
OPERATIONAL EXCELLENCE

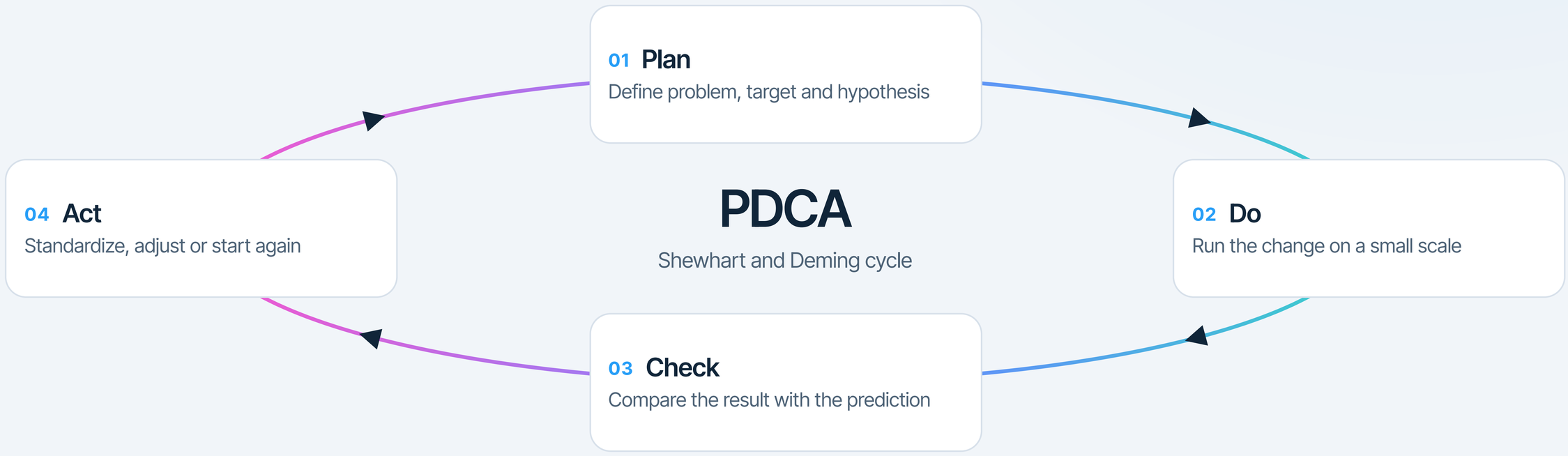
PDCA: The Improvement Engine

PDCA is a four-step learning cycle: plan a change with a clear prediction, do it on a small scale, check the result against the prediction and act on what you learned.



01 THE CORE MODEL

FOUR PHASES · LEARNING BY EVIDENCE



Hypothesis

"If we change X, we expect Y" makes the check meaningful.

Evidence

Data from the trial, compared with the prediction, not with opinion.

Standard

The confirmed method becomes the baseline for the next cycle.

02 REAL VS FAKE PDCA

Most cycles fail at Check: results are never compared with the plan.

DO-DO-DO — FULL CYCLE

SKIPPING STEPS

- Jump from problem straight to solution
- No prediction, so nothing to check
- Successful trials never become standard

COMPLETE CYCLE

+ A clear hypothesis for each trial
+ Check compares result with prediction
+ Act locks in or redirects the learning

03 WORKED EXAMPLE

PAINT LINE · REDUCING ORANGE-PEEL DEFECTS

PLAN — Viscosity window
hypothesis: drift causes defect

→

DO — Two-shift trial
tighter viscosity control

→

CHECK — Defects fell
as predicted

→

ACT — New standard
rolled out to line 2

04 MANAGEMENT TAKEAWAYS

01 — Write the prediction down

Without a stated expectation, Check turns into storytelling.

02 — Run small and fast

Short cycles produce more learning than one big plan.

03 — Make Act explicit

Decide to adopt, adapt or abandon, and update the standard.

05 COMMON MISTAKE

LIMITATION

Using PDCA as a project label

Calling every project PDCA without a hypothesis and a check adds paperwork, not learning.