

FROM FIREFIGHTING TO FORESIGHT: EVOLVING ALONG THE I-P-F CURVE

With respect to the I-P-F curve, how does an organization's focus shift as its reliability mindset matures?

Answer: In reactive mode, the focus is on point F—just staying ahead of failure. But as organizations tire of constant firefighting, they begin targeting P, then eventually shift their focus all the way back to I.

The I-P-F curve illustrates the journey of failure: from its **Initiation (I)**, to when it becomes **Potentially detectable (P)**, and ultimately to **Failure (F)**. In immature reliability cultures, all attention is on F. Teams scramble to fix what's already broken, using up resources and dealing with unplanned downtime.

Eventually, frustration leads to change. Organizations begin to shift toward **predictive strategies**, aiming to catch problems closer to P—when there's still time to plan and respond efficiently. They start using condition monitoring, oil analysis, and vibration checks to stay ahead.

But the real transformation happens when they realize problems can often be **prevented entirely**. By making small, proactive improvements—design reviews, operating discipline, better lubrication practices—they move their focus to I. This is the realm of **proactive reliability**.

Mature organizations no longer chase failure. They build reliability from the ground up.