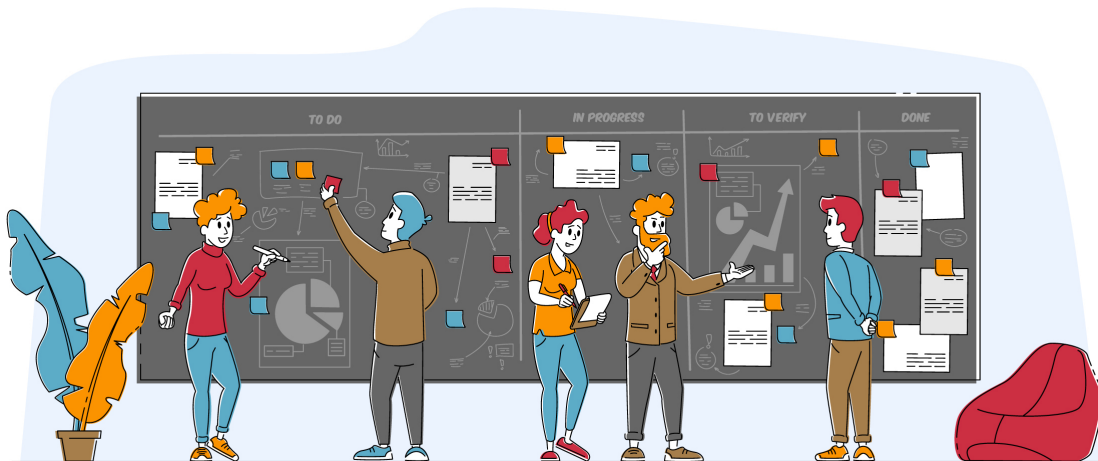


## 3P



### DEFINITION

**Production Preparation Process (3P)**, a cross functional design process for products, processes, and customer experiences.

Developed by Chihiro Nakao, the 3P method looks to meet business and customer requirements by starting with a clean development slate. Working in a collaborative environment 3P collapses product/process development lead times requiring less capital investment and resulting in lower ongoing operation costs and risk.

### PURPOSE / FOCUS

In contrast with kaizen's incremental improvement, 3P provides a systematized way to achieve step-level change by looking at waste that is beyond the reach of a typical kaizen event—waste that's been hard-wired into products and manufacturing or administrative processes.

The focus of 3P is on rapidly designing product and production processes to ensure manufacturability, flow, serviceability, capability, built-in quality, and reliability. This process allows a team to rapidly develop new methods, products, and processes to meet new business case concepts and target costs.

### A (VERY) HIGH-LEVEL SNAPSHOT OF THE PROCESS

- Project Sponsorship & Bold Goals Definition
- Planning Process
- Project Milestone Plan Development
- Team Leader and Team Training
- Discovery
- Narrowing & Validation
- Implementation

3P begins long before the 3P team actually gets to work. Through the first four steps of the process, nothing happens in the workplace except communication. In these early stages, the focus is on securing the needed commitment, defining the project's bold goals, outlining the benefits, setting the ground rules and ensuring upper management is ready to support the radical positive change to come, since that is the likely outcome of the project.

With the ground rules set and the environment ready, the teams take their turn at bat. Each team member is tasked with conceiving seven unique ways to achieve the project goal. Those ideas are then whittled down, kicked around, combined, enhanced etc. At the end of this process a few promising ideas will be taken to the next step of prototyping/simulation and testing.

## THE 3P TEAM

You only get out what you put in, so it's best if the core of the 3P cross functional team are full-time dedicated resources for the life of the project. The most successful 3P teams include employees, both those familiar with product/process design as well as members from support areas who will bring fresh perspectives to the project. Teams also include suppliers, customers, and third-party technical resources...these members can be permanent or flex based on need as the project matures.

3P teams work in what we affectionately call the "Moonshine Shop", an internal private space that acts as meeting location, obeya room, and a workshop where simulations are run and mock-ups and prototypes are created and tested.

## 3P IN ACTION

The 3P concept was originally developed as a means to remove waste and shorten the development lead time by connecting product and process design and development. Today we see the 3P methodology used to redesign existing processes, tackle chronic problems, rethink facility and equipment design, as well as design lean supply chains, and value streams. Here are some examples of 3P in action:

### Process Innovation in Action

<https://www.productivityinc.com/process-innovation-in-action/>

### Kaikaku; moving beyond Kaizen

<https://www.productivityinc.com/white-paper-kaikaku-moving-beyond-kaizen/>

## NOTABLE QUOTE

*"Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives."*

William A. Foster

## NOT TO BE CONFUSED WITH

TeePee—a traditional tent made from animal skins and wooden poles with smoke flaps at the top. I imagine a teepee could substitute for the moonshine shop. The smoke flaps might come in handy to prevent overheating from all of the brain power at work inside!

8D—a traditional team-based problem-solving discipline designed to help teams get to a problem's root cause. 8D is an excellent problem-solving tool but our 3P teams are thinking bigger. Their goal is not to simply solve a problem, but to reimagine the process the caused the problem in the first place.

## ALSO KNOWN AS...

3P is sometimes referred to as **Pre-Production Planning** and is also known as LPPD or Lean Product and Process Development

