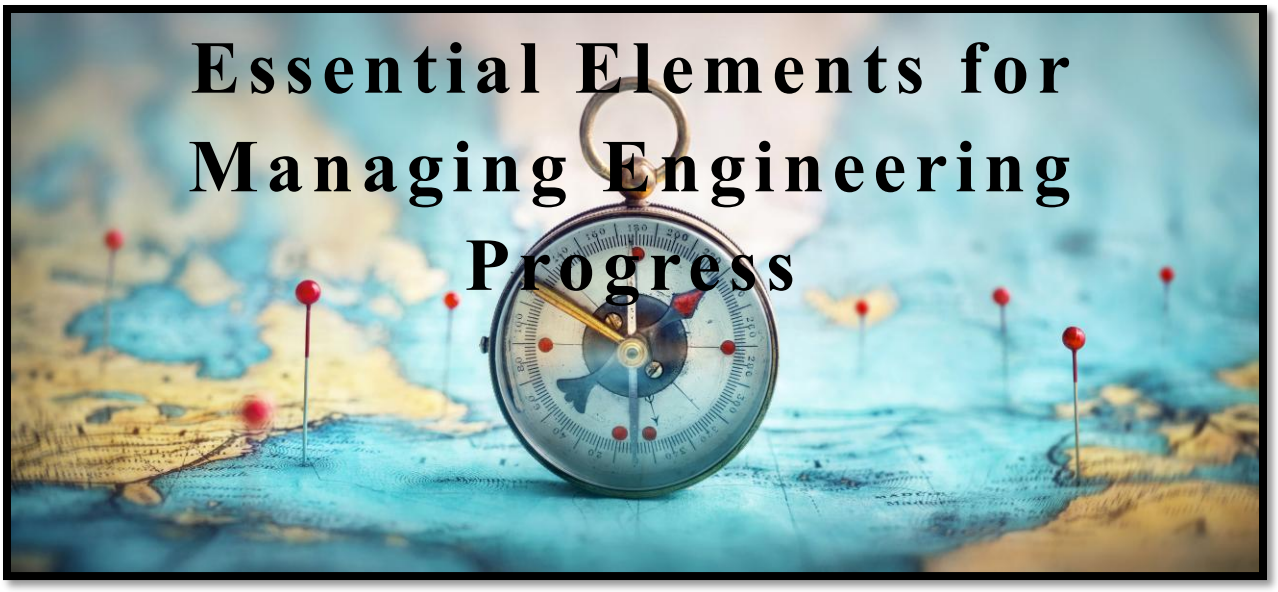
Essential Elements for Managing Engineering Progress



Ensure long-term successful organizational performance.
By Cristian X. Cohen

Mission: Make things interesting, better, safer and easier. Those are engineers and can also be goals for a given project.

What do engineers need to accomplish their mission?

Employers resort to traditional ways to motivate and inspire engineers. “You can provide a positive, exciting workplace, with plenty of opportunities to build strong relationships,” says Mindtools.com. “You can use incentives, such as bonuses or other rewards, to keep your team focused. And you can provide great support, and publicly recognize people's hard work” (“Amabile and Kramer’s Progress Theory”). In spite of all these efforts, employers will fall short.

Traditional efforts would not work to keep engineers motivated and inspired. So, what will keep them motivated and inspired?

“Of all the things that can boost emotions, motivation, and perceptions during a workday, the single most important is making progress in meaningful work” (“The Power of Small Wins” by T.M. Amabile & S.J. Kramer, Harvard Business Review [HBR], May 2011).

Meaningful work “contributes value to something or someone important.” Work that is meaningful “can be as simple as making a useful and high-quality product for a customer or providing a genuine service for a community” (Amabile & Kramer, 2011).

Engineers need to sense that there is progress in what they are doing. The combination of meaningful work and daily progress, for them, is equivalent to job satisfaction.

In a work environment, job satisfaction depends on three elements: destination, direction and route. All essential elements are of equal importance.

Destination

“I do not believe for one second that [destination] is more important than the other two [direction and route],” says Simon Sinek. “The problem is [that destination] is usually missing. We don’t usually know it” (“The Golden Circle: The Three Essential Elements of Organizational Success”, Skillsoft Ireland Limited, 2022).

Destination is more than the goal, the outcome or the desired end of a process. It is an explanation of “where the work is heading and why it matters to the team, the organization, and the company’s customers” (“Inner Wok Life” by T.M. Amabile & S.J. Kramer, May 2007 HBR).

Not knowing the destination has significant effects for engineers.

“Absent to destination, we become obsessed with the route,” explains Mr. Sinek.

Destination is what drives the engineer, not the route. “We are more driven by destination than we are by the route. And when the destination is clear, we are flexible to move around obstacles. And we use our ingenuity to figure out how to get there” (Sinek, 2022).

Engineers will pick their own destination in the absence of it and will select the route to get there.

Knowing the destination promotes collaborative work environments and supports creative thinking and innovation.

Direction

Executives and management must force rank organizational priorities. Higher-ups need to provide clear directions for engineers “so they can make good calls” rather than having them “make up their own minds” about what should be priority or more important (“The Power of Clear Direction” by S. Bungay, Skillsoft Ireland Limited, 2022).

Direction defines boundaries and would significantly reduce confusion, if not eliminating it altogether.

Another benefit of higher-ups guiding and directing priorities is that it has a positive impact in meaningful work, which promotes creative thinking and innovation, which can lead to saving time and money for an organization.

Without direction there are major consequences.

Engineers “trying to make sense of why higher-ups would not do more to facilitate progress draw their own conclusions—perhaps that their work is unimportant or that their bosses are either willfully

undermining them or hopelessly incompetent" (Amabile & Kramer, 2007).

Meaningful work depends on higher-ups giving clear directions and on knowing why this or that direction instead of another.

Route

An engineer will select a route and use his or her full mental powers and capabilities to get to the destination once the destination is clear.

Knowledge work jobs are those that "require creative productivity every day" ("The Power of Small Wins" by T.M. Amabile & S.J. Kramer, May 2011 HBR). For the most part, engineering jobs fit into the knowledge work category.

Progress along a route would produce feelings of productivity, which translates to meaningful work for engineers.

Knowledge work, however, does not generate visibly tangible signals like the ones an assembly line would when product gets stuck.

Processes can be divided into steps, phases or pieces of analysis. Engineers could get stuck in one way or another through the process. For example, they might be unable to get something done or need a piece of information to complete a task and don't have it ("Visual Management: A Physical Approach to Knowledge Work" by N. Repenning, Skillsoft Ireland Limited, 2022).

Management needs "to take knowledge work and give it some kind of physical manifestation so that we can see it move and, most importantly, see it when it's not moving" (Repenning, 2022).

Ideas to give a physical manifestation to knowledge work range from "sophisticated digital systems" to "simple ideas" like "Post-its, markers and a whiteboard" (Repenning, 2022).

The goal for knowledge work is progress.

Giving to knowledge work a physical manifestation enables progress along the route. Thus, there would be day-by-day progress in the meaningful work, which will also "affect performance next day" (Amabile & Kramer, 2011).

Planning and tracking daily progress are crucial for an engineer's job satisfaction.

Sensing daily that there is progress, even small wins or minor steps forward, leads engineers to feel productive.

Meaningful work and making sure engineers sense progress every day keeps them in good emotions, motivated for their work issues and with positive perceptions about "the organization, their management, their team, their work, and themselves" (Amabile & Kramer, 2011).

Ideally, all three essential elements would be known: destination, direction and route (Sinek, 2022).

Build a collaborative work environment that supports creative thinking and innovation. Manage through clear

directions. Have a companywide focus on, and commitment for, professional development and advancement. These are the various ways to inspire meaningful work for engineers.

When the three elements “are in balance, the organization functions at a much higher [level], the individual functions at a much higher level” (Sinek, 2022).

Ensure long-term successful organization performance by focusing on the three elements of job satisfaction.

A win-win situation for both the organization and engineers!