

Complexity as a Strength: Why Project Management Needs More Than Planning ¹

Sebastian Wieschowski



Image 1: “People remain at the center”: Thomas Pisar speaks about the power of complexity in projects.
Copyright: Markus Kautsch

INTRODUCTION

Complexity is often viewed in project management as a disruptive force. It is seen as the factor that makes planning more difficult, renders forecasts less reliable, and pushes control mechanisms to their limits. In many organizations, the instinctive response is straightforward: more analysis, more planning, and more control. Yet this is precisely

¹ How to cite this paper: Wieschowski, S. (2026). Complexity as a Strength: Why Project Management Needs More Than Planning, report; *PM World Journal*, Vol. XV, Issue VII, July.

where a fundamental misunderstanding lies. Complexity is not simply an intensified form of complication. It follows an entirely different logic. Those who treat complex situations as though they were merely complicated problems do not increase their ability to manage them—they create an illusion of certainty.

Thomas Pisar is a speaker at the PM Forum, Germany's leading professional conference for project management, which will take place in Munich on October 8–9, 2026. His central premise is that complexity should not be feared. Instead, it can be used productively—provided that project leaders recognize when traditional planning is appropriate and when different approaches are required. In doing so, Pisar addresses one of the defining challenges of modern project work. Today's projects are increasingly carried out in environments that are neither stable nor fully predictable. Technological change, organizational interdependencies, regulatory uncertainty, societal expectations, and human behavior all interact with one another. It is precisely at these intersections that complexity emerges.

COMPLICATED IS NOT THE SAME AS COMPLEX

The distinction between complicated and complex is far more than a matter of terminology. Complicated systems may be highly sophisticated, but they remain fundamentally analyzable. A Swiss mechanical watch, a technical installation, or a cost analysis within an IT landscape may require extensive expertise. Even so, each can be broken down, examined, understood, and reassembled. Cause-and-effect relationships are, in principle, traceable. There are established rules, expert knowledge, models, and proven methodologies.

Complex systems differ in a fundamental way. Here, the relationship between cause and effect cannot be clearly determined in advance. Patterns often become visible only in retrospect. A difficult conversation, an organizational transformation, a multi-stakeholder change initiative, or an innovation project cannot be calculated in its entirety. Such situations involve too many degrees of freedom, too many interactions, and too many possible paths of development. Echoing Søren Kierkegaard's famous observation, Pisar summarizes the idea as follows: in situations like these, life can only be understood backward—but it must be lived forward.

THE LIMITS OF TRADITIONAL PLANNING

For project management, this distinction is crucial. Most projects contain both complicated and complex elements. Project plans, milestones, budgets, deliverables, and technical work packages can—and should—often be planned in a structured manner. At the same time, developments may emerge within that very plan that cannot be anticipated or controlled through planning alone: a new regulatory environment, organizational resistance, changing user expectations, unforeseen technical side effects,

or shifting political dynamics. The key question, therefore, is not whether a project as a whole is either complicated or complex. What matters is which specific challenge is being addressed at any given moment and which part of the system is under consideration.

Traditional project management is largely built on the assumption that a project can be decomposed into manageable components through sufficient analysis. Risks are identified, assessed, and mitigated. Dependencies are documented, resources allocated, and milestones established. In complicated environments, this approach is not only appropriate—it is essential. Building a bridge, migrating a data center, or extending a proven system all require careful planning, technical expertise, and rigorous control.

In complex environments, however, this approach alone is no longer sufficient. The danger lies in mistaking uncertainty for risk. Risk assumes that both the likelihood of an event and its potential impact can at least be estimated with reasonable confidence. Complexity, by contrast, creates genuine uncertainty. It is simply not known which developments may occur, how they will interact, or what consequences they may produce. Attempting to force this uncertainty into conventional risk matrices may create an appearance of order on paper, but it does not necessarily generate a better understanding of reality.

This represents one of the central challenges for leadership and project management. Organizations often demand firm commitments even when the situation does not yet justify them. Senior management asks for schedules, budgets, and delivery commitments. Project teams, in turn, expect direction, clarity, and decisions. As a result, middle management finds itself caught between competing expectations: it is expected to communicate certainty while simultaneously recognizing uncertainty. This is precisely where unrealistic commitments, politically motivated project plans, and avoidable pressure later on begin to emerge.

APORIA: THE PRODUCTIVE POWER OF NOT KNOWING

In this context, Pizarro refers to the concept of aporia—the state of not knowing. For organizations, this is an uncomfortable condition. Admitting uncertainty is often perceived as a sign of weakness, indecisiveness, or inadequate leadership. Yet in complex situations, acknowledging that one does not know can represent a highly professional stance. Those who make decisions too early replace genuine insight with premature certainty.

This does not mean postponing decisions indefinitely. Rather, it requires distinguishing between different forms of not knowing. In complicated situations, missing knowledge can often be acquired through experts, analysis, and data. In complex situations, however, knowledge frequently emerges only through action. Organizations must experiment, observe, recognize patterns, and derive the next steps from what they learn.

Leadership, in this context, is less about providing immediate answers than about asking the right questions and creating the conditions for learning.

This perspective also changes how errors should be understood. In complicated environments, an error is often the result of violating a known rule: an established procedure was ignored, a calculation was incorrect, or an interface was not properly reviewed. In complex environments, by contrast, the issue is frequently one of misjudgment. A decision made responsibly under uncertainty may later prove to have been suboptimal. That does not automatically indicate poor performance. It may simply reflect changing circumstances, newly emerging information, or unforeseen developments. A mature learning culture should therefore make a more precise distinction: Was a known rule violated—or was a responsible decision made under uncertainty from which valuable lessons were subsequently learned?

EXPERIMENTS INSTEAD OF AN ILLUSION OF CERTAINTY

One of the most important implications of this distinction is the role of experimentation. In complex situations, the objective is not to eliminate uncertainty through ever more extensive analysis. Rather, the goal is to generate new insights through small-scale, limited, and, whenever possible, parallel experiments. In the language of the Cynefin framework, these are referred to as safe-to-fail experiments—experiments that are allowed to fail without putting the overall system at risk. Their purpose is not to confirm a predetermined solution but to uncover new information.

The Cynefin Framework, developed by Dave Snowden, is a sense-making framework that helps decision-makers classify situations according to their degree of complexity and derive appropriate courses of action. Unlike a linear model based on fixed cause-and-effect relationships, Cynefin serves as an orientation framework for making context-appropriate decisions in simple, complicated, complex, chaotic, and disordered environments.

This fundamentally distinguishes genuine experiments from many proof-of-concept initiatives carried out in organizations, which often serve little more than to validate decisions that have already been made. If a pilot project is conducted with the organization's best team, under ideal conditions, and with a politically preferred outcome already in mind, it is unlikely to produce robust insights. Once such "experiments" are scaled to the realities of everyday organizations—with limited resources, varying levels of expertise, and competing interests—they frequently fail to deliver the expected results. True experiments are designed differently. They begin with a testable hypothesis, deliberately limit potential risks, produce observable outcomes, and allow for multiple possible results. When evaluating new methodologies or IT tools, for example, this may mean moving beyond vendor presentations and formal requirements catalogs to test several realistic use cases in parallel under real-world conditions. The essential question

is no longer, Which solution appears most convincing on paper? Instead, it becomes, What do we learn when real users interact with these different solutions?

AGILITY AS A TEMPORARY REDUCTION OF COMPLEXITY

Viewed from this perspective, agile approaches can also be understood more precisely. Agility is not simply another word for flexibility, nor is it the opposite of planning. Within a Scrum sprint, specific conditions are deliberately fixed for a limited period: a defined timeframe, a clearly scoped body of work, and a focused team objective. In doing so, a manageable portion of an otherwise complex reality is temporarily created. At the end of the sprint, observations are reviewed, lessons are drawn, and adjustments are made.

Agility therefore does not eliminate complexity permanently. Instead, it establishes a rhythm in which action and learning continuously reinforce one another. This is particularly valuable in situations where requirements, user behavior, or technological possibilities cannot be known with certainty from the outset. In hybrid project environments, the real challenge lies in planning those aspects that are genuinely predictable while resisting the temptation to force inherently complex elements into rigid planning logic. Modern project management competence is demonstrated precisely through this ability to distinguish between the two.

RECOGNIZING WEAK SIGNALS

Another essential aspect of working successfully with complexity is the ability to recognize weak signals. In many projects, management attention is focused primarily on formal reports, traffic-light status indicators, and performance metrics. These instruments are by no means obsolete, but they capture only part of the reality of complex systems. In such environments, significant developments often first emerge through stories, subtle observations, recurring irritations, and informal patterns of behavior.

When a software developer casually remarks that "something about the architecture doesn't quite fit," when a particular test repeatedly proves unexpectedly difficult, or when users consistently find themselves taking the same workaround, these observations may provide more meaningful insights than a project status report that remains entirely green. Such signals are not always conclusive. Some are merely noise. Yet the ability to distinguish meaningful patterns from background noise increasingly becomes one of the defining competencies of successful project management.

Developing this capability requires staying close to what is actually happening within the project. Those who manage exclusively through reports often recognize changes in the system only after it is too late. Project managers need to engage directly with people, take micro-narratives seriously, tolerate contradictions, and resist the temptation to dismiss informal observations too quickly. Complexity competence is therefore also a

matter of perceptive leadership—the ability to notice subtle developments before they become obvious.

A CORE MANAGEMENT CAPABILITY FOR THE FUTURE

From Pizar's perspective, the ability to distinguish between complicated and complex situations will become one of the defining management capabilities of the future. It determines whether organizations apply the right tools to the right challenges—or simply fall back on familiar methods out of habit. Planning remains essential. But planning is not always the appropriate response. Some situations require analysis; others call for experimentation. Some demand expert knowledge; others benefit from a diversity of perspectives. Sometimes decisive action is needed; at other times, organizations must deliberately create opportunities for learning.

This also requires courage. Particularly in large organizations, it is often less risky to rely on a familiar methodology—even when it is clearly inappropriate—than to justify a different approach. Those who take complexity seriously must be able to explain why a reliable project plan cannot yet be produced, why experimentation is necessary, and why uncertainty cannot simply be eliminated through confident language. This is not a rejection of accountability. On the contrary, it is a prerequisite for making commitments that are realistic and credible.

For the project management profession, this implies a broader understanding of its own role. Project managers are not merely planners, coordinators, and controllers. They are also facilitators of learning processes, observers of social dynamics, translators between management expectations and project realities, and architects of environments in which successful outcomes can emerge. Their task is not always to solve every problem directly. More often, it is to shape the conditions that allow effective solutions to develop.

COMPLEXITY AS A PRODUCTIVE CHALLENGE

Complexity remains challenging. It resists the desire for complete control. It makes predictions uncertain and forces organizations to deal with the reality of not knowing. Yet this is precisely where its productive potential lies. Many innovations emerge not through linear planning but through deviations, unexpected events, and emergent possibilities. Organizations that eliminate these possibilities too quickly through rigid planning also eliminate valuable opportunities.

This does not mean that complexity should be romanticized. Not every uncertainty is creative. Not every experiment is worthwhile. Not every deviation adds value. However, a mature project culture must learn neither to suppress complexity nor to exaggerate it. Instead, it should ask fundamental questions: Which parts of our initiative can realistically be planned? Where do we need specialized expertise? Where are we entering uncertain

territory? Which experiments can generate meaningful insights? Which weak signals deserve our attention? And at what point is it more professional to say, We don't know yet—and that's exactly why we need to learn?

Viewed this way, complexity is no longer the enemy of project management but a measure of its maturity. A project management discipline that functions only when everything is predictable is no longer sufficient for today's world. A discipline capable of distinguishing between what is complicated and what is complex remains effective—especially when the world refuses to wait for the project plan.

Thomas Pizar's presentation, "Complexity as a Strength – When Planning Creates More Chaos," will take place on October 8, 2026, from 4:30 p.m. to 5:15 p.m. in Room Nymphenburg 1–3 (Ground Floor).

PM World Journal is the official media partner of the PM Forum. To find out more about the event, check out the [official website](#) (in German).

Find out more about Thomas Pizar on his website: <https://thomas-pisar.com/>

About the Author



Sebastian Wieschowski

Nuremberg, Germany



Sebastian Wieschowski is an editor at the German Project Management Association (GPM), the national member association of the International Project Management Association (IPMA) in Germany. He is responsible for developing GPM's media relations and serves on the editorial board of PM Aktuell, a quarterly magazine distributed to more than 6,500 GPM members as well as external stakeholders.

Born in 1985 in northern Germany, Wieschowski developed an early fascination with journalism. His formal education began with active contributions to school and local newspapers. He later completed journalistic training at the Cologne Journalism School for Politics and Economics, earned a Master Level Diploma from the School of

Journalism at Eichstaett University, and undertook professional training at a regional newspaper publisher. He also holds a postgraduate M.Sc. degree in Public Health from Hannover Medical School.

In addition to his freelance journalism for national and international outlets, including major German media such as DIE ZEIT, Wieschowski has held senior communications roles since 2012. He first worked as press officer for a private university specializing in social work, then for a psychiatric hospital, and later for an industrial company. In September 2024, he joined GPM's Marketing and Public Relations department, where he focuses on strengthening the visibility and public relevance of project management through editorial formats such as storytelling.

Alongside his professional career, Sebastian Wieschowski is also active as a freelance author in his lifelong passion, numismatics. He writes for both German- and English-language specialist publications, and his work has been recognized three times by the Numismatic Literary Guild, a writers' association based in the USA.

Sebastian is a reporter at heart and enjoys discovering inspiring stories and meet people from around the world, a goal that is particularly easy to pursue in the field of project management. He can be contacted at s.wieschowski@gpm-ipma.de.