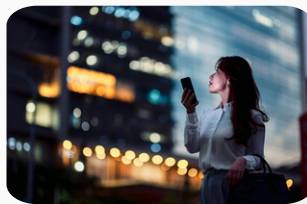
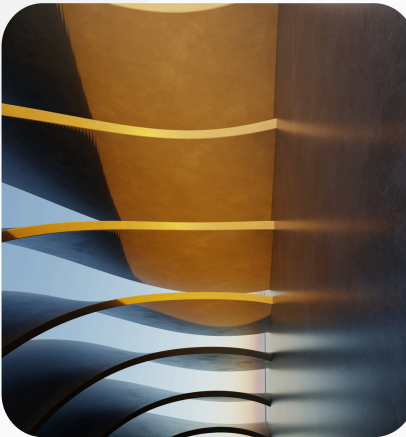


The leadership mindset gap

Why the biggest barrier to AI transformation isn't technology.



POSITION PAPER

BY CARL SANDERS-EDWARDS AND LETTIE DALTON

Much of the C-suite conversation frames AI transformation as a technology race — where the company with the cleanest data, most powerful models and latest skills wins.

Yet history shows that the biggest gains from transformative technologies come not from doing the same things faster, but from rethinking what the technology makes possible.

Our research and experience indicates that success in the AI age relies less on technology and skills, and more on the psychological agility of our leaders. The mindsets that have served us well in the past were built for a different landscape, leaving organizations unable, right now, to realize the full benefits of the technology.

This shift stretches beyond executive teams. It's impacting every person, no matter their title. Navigating it well comes down to building mindset range — the ability to flex how we think and see the world, balancing the discipline needed for performance with the curiosity needed to redesign how value is created.

Fortunately, this mindset shift is both possible, and highly effective. Through our work with forward-thinking organizations, we have found two key moves make the difference: first, building mindset awareness through assessments and workshops; second, driving deliberate development where — in a happy coincidence — the work of AI transformation becomes the practical arena for developing the mindsets required.

We have an opportunity to evolve how we think, in order to build organizations where human ingenuity and artificial intelligence sharpen one another to unlock meaningful value.

Part 1

The leadership mindset gap

Steam brains in an electric world

In the summer of 1880, walking into a textile mill in Manchester, UK meant stepping into a masterpiece of mechanical engineering. It was a jungle of leather belts, whirling shafts, and iron pulleys screeched in a constant, deafening roar.

At the center of it all was a single, massive steam engine.

This was the ‘heart model’ of the Industrial Revolution. The logic was simple: power was expensive and difficult to move, so you huddled everything as close to the source as possible. Factories were built tall and cramped, packed tight around that hissing central shaft. For a hundred years, this was what work looked like.

Then came electricity.

On paper, electricity was a miracle. Flexible, clean, and literally, lightning in a bottle. Yet when electricity first arrived in the factories of the late 19th century, despite the promise, productivity didn’t soar. Profits did not jump. For nearly forty years, the great electric revolution was a dud.

Why? Because the people running the factories had ‘steam brain’, mindsets developed and honed by a world no longer relevant. These mindsets drove leadership approaches that couldn’t harness the potential of the shift that had occurred.

The productivity paradox

We are seeing this same pattern today with artificial intelligence. We recognize the revolutionary potential in AI, yet many organizations find themselves in what economists call the ‘productivity paradox’¹. They spend millions on software and skills development, yet adoption remains uneven and systemic value doesn’t materialize.

The reason is not that the AI code is broken, or people do not know how to do their jobs. It’s the same dynamic as the electric revolution: attempting to run electric technology with a steam mindset.

When factory owners first got electric motors, they did the most intuitive, logical, and ultimately wrong thing possible: they ripped out the steam engine and plopped a giant electric motor in its place. They kept the overhead belts. They kept the cramped, vertical buildings. They treated electricity as a technical fix — a better way to do the same thing.

It was not until 40 years later when a new generation of leaders arrived — people who had not grown up with the smell of coal smoke in their hair — that the real breakthrough happened.

They realized that electricity was not a simple substitute for steam. The challenge was not to simply build on what worked in the past (an inviting proposition for a busy leader), but to rethink the entire system. They threw away the belts. They put a tiny motor on every individual machine. They laid factories out horizontally, following the flow of the work rather than the reach of the engine.

AI transformation is a human challenge

Today there is similar excitement. Just as electricity allowed factory owners to reimagine physical production, AI gives us the opportunity to reimagine how knowledge work flows.

However this isn't the first instinct we have — our mindsets have been deeply patterned by what has worked exceptionally well for the last generation.

We are already seeing that using AI to simply automate the same things faster, within the same structure provides very little tangible benefit². Moving beyond this requires more than technology and skills, it requires a shift in how we think.

We see evidence of this in our work with leadership teams spanning diverse industries — Technology, Retail and even Primary Produce. A consistent pattern emerges when we discuss AI:

- Adoption remains uneven, often gaining traction in isolated pockets while stalling in others
- Expected value creation is lagging, moving slower than anticipated
- Teams experience friction when trying to move from task automation to systemic value creation
- People are burning out navigating the tension between delivering results and transforming for work happens³

AI transformation rarely fails because the technology does not work. It fails because organizations try to implement new systems with leadership mindsets built for a different era of work.

The title of Marshall Goldsmith's book⁴, "What got you here, won't get you there", has never been truer.

An adaptive challenge

The rise of AI is frequently framed as a technological shift, but in practice, it requires an organizational and system transformation. Organizations rarely struggle with new technical tools themselves; they struggle to evolve the ways they think and work alongside those tools.

Leadership expert Ron Heifetz highlights this through the distinction between technical problems and adaptive challenges⁵. Heifetz also established that one of the key failures of leadership stems from applying technical solutions to adaptive challenges⁶.

Technical problems are those we already know how to manage and solve. They have clear definitions, established processes, and known solutions. If you can write a manual for it, it's likely a technical problem.

Adaptive challenges, by contrast, invite people to rethink assumptions, roles and ways of working. They require experimentation, innovation and continuous learning. They challenge assumptions about how work gets done and this can create an identity threat to the people doing that work. There are no existing solutions — if someone claims to have a plug-and-play template for an adaptive challenge, they are likely part of the problem.

AI transformation sits firmly in the adaptive category. Software installation and adoption are technical components. Reimagining leadership behavior, organizational design, and decision-making to get the most out of the technology is an adaptive challenge.

We see AI transformation as a global ‘meta adaptive challenge’. Everyone wants the AI playbook (a technical solution) but it doesn’t exist yet. Worse, we see many organisations stalled with AI Transformation because they are falling into the failure Heifetz observed, attempting to meet this meta adaptive challenge with technical fixes.

Unlocked by mindset awareness

The factory owners of the 1880s were smart, capable leaders, yet they also applied a technical solution to an adaptive challenge. By swapping from steam to electric engines without changing the factory layout, they revealed how deeply their thinking was shaped by past success. They were operating from the only perspective they had ever known.

We see the world not as it is, but as we are — Anonymous

Common leadership mindsets



Mindsets are reinforced by past success⁷. Each experience imprints a mental template for how to solve a problem based on what has worked before. While these cognitive shortcuts can be valuable, they can obscure new possibilities when the nature of work shifts — as it did with electricity, as it is with AI transformation.

While adult development theory traditionally maps thinking into sequential stages of growth, our experience in practice shows something more dynamic. We have found that leaders aren't locked into a single stage — they hold the capacity to operate across a whole range of mindsets depending on the moment⁸. Looking at AI transformation through this lens of mindset range is eye-opening. Different leaders can look at the exact same AI context and think:

Expert mindset

“How do we ensure the AI models give accurate results?”

(Focused on technical mastery and getting the work right)

Achiever mindset

“How do we align AI efforts with our strategic goals?”

(Focused on goals, execution and process efficiency)

Redefining mindset

“Why are we doing this work, and what is the real constraint to solve?”

(Focused on purpose, constraints and questioning assumptions)

Transforming mindsets

“How could we restructure our broader ecosystem to create entirely new value?”

(Focused on systemic dynamic connections and reimagining value).

We see clear examples of this in our own research datasets. Tech companies in Silicon Valley have experienced decades of unprecedented success. As a result of that success, leaders in these organizations consistently characterize their overarching organizational cultures as being heavily driven by an Achiever mindset⁹.

This culture has clearly delivered results — these are among the most valuable organizations in the world, but it is no longer sufficient on its own. The Achiever culture naturally views AI as a way to execute existing tasks faster. To unlock AI's full potential, goals, incentives and work itself must be challenged, experimented with and reshaped. That way of seeing the world stems from Redefining and Transforming mindsets — perspectives that traditional execution-focused cultures haven't always valued or needed to cultivate.

This is similar to the leaders of the 1800s who kept machines crammed into vertical buildings while making incremental ‘expert’ and ‘achiever’ tweaks. The breakthrough happened when the entire factory system ‘redefined’ or ‘transformed’ to be laid out horizontally.

A closer look suggests that these systemic changes weren't made until factory owners and managers — whose mindsets were grooved by a century of steam-era practice and assumptions — moved out of the workforce. It took a generation of new leaders to outgrow the old mindset and with it, the old layout.



Let's not wait forty years again.

The good news from our research is that mindsets — and the leadership behaviors they drive — are surprisingly malleable. We do not need to wait for a generational shift. Our work in leadership development has shown two core levers:

- Simply helping leaders see their default mindset as a choice — and recognizing that others exist — can help them operate in new ways. We call this exercising mindset range.
- Deliberate experimentation gives leaders practical scaffolding to flex their thinking and try on new mindsets. In a happy paradox, the very work required to progress the adaptive challenges of AI is what drives the mindset growth we all need.



Futures thinking.

Agentic architecture and the autonomic core

In this section we explore potential scenarios that AI could enable within organizations through the lens of leadership. While these examples are based on emerging trends we can't know with certainty how they will unfold. However, they provide a representation of the leadership capabilities required today and in the near future.

The emerging agentic enterprise

A deep shift is underway in how we think about the structure of work. We are entering the era of agentic AI — where technology can make decisions and achieve outcomes on our behalf.

Earlier digital tools required us to map out every step of a process in a linear way using 'if this, then that' logic. Agentic systems, by contrast, understand an intended outcome and manage the steps and learning to get there independently. In many ways, they behave less like software and more like a capable coordinator who understands the broader goal rather than just the immediate task.

Because these systems can adapt, they are designed to:

- Adapt to changing inputs in real time
- Manage multiple complex processes simultaneously
- Learn based on the feedback they receive
- Escalate complex decisions to human counterparts when nuance is required

This capability requires a fundamentally different organizational architecture.

It moves us away from viewing AI as a standalone tool we occasionally open, toward an ecosystem where intelligence is a natural and ingrained part of every team's operation.

It also challenges the traditional notion of boundaries both within and between organizations. Value is increasingly created across entire systems rather than individual teams or single companies. This introduces a new level of codependence: an organization's ability to innovate with AI is tied to the systemic maturity of the organizations they interface with. As boundaries blur, cross organizational collaboration becomes a primary leadership responsibility.

The concept of the autonomic core.

An emerging concept described by the Salesforce Futures team¹⁰, is the autonomic core. To understand this, we can look to biological systems, rather than mechanical ones. Just as the human body manages essential functions automatically — such as breathing, digestion, and circulation — organizations can increasingly run routine operational work through AI agents.



In this model, the foundational parts of the business operate continuously in the background. Instead of people spending their energy on manual synchronization and administrative drag, the system manages the heavy lifting. For example:

- Collecting and summarizing data from fragmented systems to cross functional teams so they can make decisions and implement without needing to be first captured, shared and escalated through hierarchy.
- Autonomously deploying the right people to the right place, such as sending field teams or support staff where they are needed based on urgency, skill availability, or even weather conditions.
- Sensing trends or bottlenecks before they happen by scanning data and alerting teams so they can prepare for a surge in demand or system friction.
- Solving complex problems from start to finish by managing multi-step customer issues and only escalating to a human partner when nuanced judgment or empathy is required.

Allowing routine coordination to live within the autonomic core unlocks speed, but its true value lies in the space it creates for the people within the system.

Building the agentic ecosystem.

This organizational architecture suggests a three-tier model for how work is organized — moving away from ‘command and control’ pyramids towards collaborative intelligence.

The leadership layer

This is the space for strategic judgment, cultural direction, and high-level intent. While this has historically been the domain of executives, in the agentic era, this layer exists for every individual as they define the goals and ethics that guide their AI partners.

Human and AI collaboration

This is where diagnosis, experimentation and complex problem-solving happen. Humans use AI to synthesize diverse perspectives and test hypotheses. By modeling scenarios and simulating outcomes, teams can navigate the friction of change and focus on high-level innovation.

The autonomic core

This is the foundation where AI agents manage routine operations, ensuring the business remains stable and responsive without requiring constant human intervention.



From managing activity to designing systems.

This structure offers us a fresh starting point for leadership. If the routine work is being managed by the autonomic core, leadership shifts from managing activity to designing and stewarding systems.

In the past, a leader's value was often measured by oversight of tasks. In an agentic enterprise, a leader's value is found in the ability to define what the real customer needs and constraints are to solve¹¹. They then need the courage to reorganize work and structures around this and finally manage the parameters, the ethics, and the strategic goals that guide the supporting AI agents. As W. Brian Arthur noted in his research on the 'second economy', this transition requires leaders to move from overseeing daily tasks to designing the systems that run them — a shift from the 'manager as supervisor' mindset toward the 'leader as architect.'

This is where the adaptive challenge becomes most visible. Designing a system requires a different mindset than managing a process. It takes systems thinking, curiosity about where value resides, and the ability to weave human capability with machine intelligence.

If mindset is the bottleneck to AI transformation, the question becomes: how do we deliberately expand the range of mindsets leaders can access — and create the conditions for those new mindsets to take root?

Part 2

Leadership development for mindsets

Earlier we explored how leadership mindsets formed before an era of agentic AI can become a bottleneck to realizing the AI transformation. We also touched on two practical shifts that can quickly help leaders navigate this landscape:

1. Building awareness of mindsets and practicing using mindset range
2. Engaging in deliberate, experimental mindset development

This section unpacks how organizations can align their leadership development efforts to support these shifts. Just like AI transformation, leadership development is an adaptive challenge — there is no off-the-shelf blueprint. Here we share what we have been experimenting with and learning so that we can collectively evolve how leadership capability is built.

Building mindset awareness and range

Developing mindset range creates the capacity to operate across a spectrum of thinking. This enables leaders to flex from the operational discipline required to manage AI-enabled systems to the systemic perspective required to redesign the organization around them.

Range begins with awareness: the ability to see our mindsets as tools, rather than identities. It comes from recognizing that the mental models that brought us success in the past are simply one part of a much larger toolkit.

Building on Kahneman's research into mental shortcuts formed through past experience, we know that cognitive models built for stable environments can limit our perspective when the context around us changes as dramatically as it is today.

However, we have found that most leaders have the latent capacity to operate from different mindsets, not just those that have worked for them in the past. Often a simple, thoughtful question is all it takes to help a leader consciously choose the most helpful mindset for the moment, rather than defaulting to habit¹².

To spark this awareness, tools such as our AI-scored Leadership Mindset Indicator (LMI) provide a fast and engaging entry point. Other vertical leadership development tools — ranging from simple reflection cards to comprehensive development assessments and interviews — also provide valuable mirrors. These tools achieve their greatest impact when paired with debriefs or group workshops that make mindsets immediately relevant and applicable to live leadership challenges.

For example, we have had remarkable success running a simple and engaging exercise with leadership teams. We take a current adaptive challenge the group is navigating and invite them to explore solutions through four different lenses:

EXPERT

What is the core work being done and how do we ensure it is done with excellence?

ACHIEVER

How should the work be structured and how do we align our efforts to reach our goals?

REDEFINING

Why are we doing this work in this way? What is the true constraint we need to solve now?

TRANSFORMING

What is possible across the broader ecosystem? What does the system value and how might we reimagine our structures to create new value?

Leaders quickly build novel options of how to approach their challenge. More often than not, they craft a practical strategy that blends insights from across all four mindsets — one richer than their default approach. In post-action reflection sessions, they consistently report on the success and impact of actions that exercise a range of mindsets.

The transition is not always easy

Awareness of our mindsets creates immediate value as it allows us to see the possibilities in different approaches to our challenges. Approaches we have not yet considered or tried. We see leaders come up with new ideas and start to push the boundaries of how they have approached challenges in the past.

‘Seeing’ that there is another way and taking action is energizing and starts to create momentum. However, sustaining this long term involves us stepping out of our current ways of thinking and operating, going against what we previously knew to be successful ways of tackling difficulties. A leader's past success might have been built from work in clear functional silos that optimize for expertise and focusing effort to hit targets resulting in an ‘achiever mindset’.

Agentic systems often require a more adaptive system organized, for example, around customer objectives. Systems that require experimentation and learning. Failure and poor results are now a feature of the leader's experience and it's natural for this to create a sense of loss and even fear. It's hard to let go of what brought you success.

This individual sense of loss is compounded further as leadership mindsets become features of an organization's culture. We regularly hear that *“while everyone talks about experimentation, failure is not an option here”*.

We start to see that the challenge isn't just stretching the leaders' own mindset, it's also shifting the culture, processes and rituals of the organization. Just as in the “steam to electric transformation”, these have been shaped by mindsets shaped in an environment that no longer exists.

To overcome this, organizations need to create a leadership ecosystem that gives leaders the safety, context, and courage to take the leadership required. This brings us to the next step, mindset development.

Mindset development through generative friction

Mindset development happens when we create and protect space for leaders to experience a moment of what MIT researcher Renée Richardson Gosline terms, generative friction¹³ — a speed bump which generates a result you would not achieve without the friction.

This can be a pause (for example a workshop) where a leader can see that the environment they are leading in has fundamentally shifted, explore new options and plan a new way forward. While friction like structured project pauses, or development workshops can feel surface-level unproductive, they are essential when transitioning into an agentic age. This needs to be a repetitive process of iterative experiments that, through action and the resulting experiences, help a leader notice the shortcuts in their existing mental models and build evidence to create new ones.

When done across multiple leadership layers simultaneously, this practice shifts the broader culture. Practical action-based experiments become the new baseline for ‘how we do things here’.

This is not about discarding what worked in the past. It is a creative process of building on past insights and wisdom while expanding our thinking. A quote we love to use that is well supported by neuroscience, captures the sentiment:

*“It’s easier to act your way into a new way
of thinking than to think your way into a
new way of acting”*

Recently, we have had success doing this by integrating future foresight exercises into leadership development. This involves:

- Exploring a range of plausible AI future scenarios leaders might face to stretch their imagination beyond current workflows.
- Overtly mapping the From – To shift of current and required leadership mindsets to take advantage of these potential futures. It is fascinating to notice that regardless of the future scenario explored, the future leadership required is often the same, and very different, from the current state leadership
- Planning leadership experiments to close the leadership From – To gap and reflecting on and sharing the impact of them.

For those familiar with our work this is an adaption of the Adeptation Be Conscious, Be Curious, Be Better (B3) methodology, where the Be Conscious stage now stretches leaders to think beyond the current state towards a plausible future state.
[Read more about B3 here](#)

For those familiar with positive psychology and adult development, these experiences create what is often termed ‘constructive instability’¹⁴ — the realization that the old map no longer fits the new terrain. The role of leadership development is not to eliminate this instability, but to give leaders enough scaffolding to act on it and begin creating a new reality.

The great news is that the adaptive environment that agentic technologies are creating may be one of the most fertile environments we have seen to develop the type of leadership we require. We simply need to move away from treating leadership development as a technical skills based problem to solve and embrace it as the adaptive challenge it has always been.

Leadership development for an AI-enabled enterprise

Summing it up we see three critical shifts in how we develop both people and organizational systems:

From skills To mindsets

Leadership development needs to go beyond teaching ‘how to use’ a tool and toward developing a leader’s ability to question inherited assumptions about how work is organized. It needs to focus on building mindset range through the experiences that help leaders see the organization as both a system and a structure.

From individual capability To system capability

Success no longer rests on a few individuals; leadership is now everyone’s job. Development must shift to building collective learning across the entire ecosystem of people and AI agents. The goal is to ensure the ‘humanity’ of the organization is amplified, rather than diluted, by the intelligence of these agents.

From static learning To continuous learning

We need to move away from periodic training events, toward the creation of constant feedback loops. In an agentic enterprise, leadership insight and experience need to be captured and shared across the organization in real time, ensuring that both the people and the system learns as fast as possible.

As a positive nod to traditional leadership development, core practices like helping leaders clarify their personal and organizational purpose become more important than ever in an AI era. There are two primary drivers of this. First, as AI helps collapse the cost of execution, knowing why and what you are executing is critical to avoid wasteful flip-flopping between divergent experiments. Second, dealing with adaptive challenges almost always involves identity loss and failure — having a strong purpose-centered ground to stand on is vital for resilience and motivation¹⁵.

In conclusion – the leadership capability race

AI transformation is often framed as a technology race. In reality, we believe it is a leadership capability race. AI transformation is today's meta adaptive challenge. The organizations that succeed in the coming decade will not be those with the most sophisticated AI agents, but those who learn the fastest.

That requires leaders capable of:

- Recognizing adaptive challenges and treating them appropriately
- Cultivating the mindset range required for systemic change
- Consciously and continuously developing themselves and the organization through live work challenges

Leadership itself is a key part of the system — the foundational layer upon which value is built. For leaders, the opportunity is to move from the sidelines of the AI transformation to the very center of it — developing in themselves and others the mindsets that will define the future of the enterprise.

We started this paper in 1880 at the dawn of the electric age. The bottleneck of transformative value creation was not technology; it was the leaders' ability to change how they thought, lead and organized around it. Today we face a similar inflection point. We do not have (or want) forty years to wait to realize the benefits, or mitigate the systemic risks of agentic AI.

“Are you and your organization leading the world as it was, or the world as it is becoming?”

References

- ¹ Arthur, W. B. (2011). The second economy. *McKinsey Quarterly*, (4), 90—99.
- David, P. A. (1990). The Dynamo and the Computer: An Historical Perspective on the Modern Productivity Paradox. *The American Economic Review*, 80(2), 355—361.
- ² McElheran, K., Brynjolfsson, E., & Zolas, N. (2025). The productivity paradox of AI adoption in manufacturing and service firms. *MIT Sloan Management Review*.
- ³ Adepton. (2026). Insights into the challenge of change from our tech sector clients [Unpublished internal report]. Adepton Platform Data.
- ⁴ Goldsmith, M. (2007). What got you here won't get you there: How successful people become even more successful! Hyperion.
- ⁵ Heifetz, R. A. (1994). *Leadership without easy answers*. Harvard University Press.
- ⁶ Heifetz, R. A., Linsky, M., & Grashow, A. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world*. Harvard Business Press.
- Adepton Research. (2026). Adaptive—technical challenge framing [Internal insights summary report, N=1,532]. Adepton Platform Data.
- ⁷ Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- ⁸ Petrie, N., Rybeck, J., & Sanders—Edwards, C. (2026). Leadership mindset development at scale: Key learnings from six years with the Leadership Mindset Indicator [Research report]. Adepton.
- ⁹ Adepton Research. (2026). Insights into the challenge of change from our tech sector clients [Unpublished internal report]. Adepton Platform Data.
- ¹⁰ Salesforce Futures. (2025). The agentic wave: Making sense of the agentic enterprise. Salesforce.
- ¹¹ Choudary, S. P. (2025). *Reshuffle: Who wins when AI restacks the knowledge economy*. Independently published.
- ¹² Adepton. (2026). B3 Live Lab impact results [Unpublished internal report]. Adepton Platform Data.
- ¹³ Gosline, R. R. (2022). Why AI customer journeys need more friction. *Harvard Business Review*, 100(3), 22—26.
- ¹⁴ Garvey Berger, J. (2012). *Changing on the job: Developing leaders for a complex world*. Stanford University Press.
- ¹⁵ Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227—268.
- Adepton Research. (2025). Understanding leader values and their influence on motivation [Adepton Insights Series Report]. Adepton Platform Data.

The insights in this paper represent a synthesis of practice and research. Thinking is grounded in adult development theory and mindset development — exploring how leaders expand their cognitive capacity to meet increasing complexity. This foundation is informed by our experience supporting more than 100,000 leaders over 15 years. By observing how mindsets shift in real-time, we have integrated these practical observations with emerging research into agentic systems and systemic design.

ADEPTION™

As work becomes more complex, organizations need leaders who can navigate that complexity — and more individuals at every level thinking and acting with a leadership mindset.

Adeption delivers scalable development experiences that combine an action-focused methodology, support by coaches and peers with an AI-powered platform to scale impact. Our approach empowers people with the tools and support to grow their agility through self-driven practice and reflection.

Whether your organization is navigating AI-driven change, cross-functional complexity, or rapid growth, the next step isn't another program. It is a development experience that happens in real work.

Let's discuss how we can support your leadership mindset growth.

hello@adeption.io | adeption.io