POWERED BY GPM

Berlin 2025 | IPMA 34th World Congress

SHAPING THE FUTURE WITH PROJECT MANAGEMENT

60 YEARS | IPMA international project management association

WELCOME

to the 34th IPMA World Congress

worldcongress-ipma.com

‘Shaping the Future, Not Just Managing It’

Discover how trends are transforming project management and what new responses are needed from SME teams

Jochen Mai | IPMA World Congress | Berlin 2025

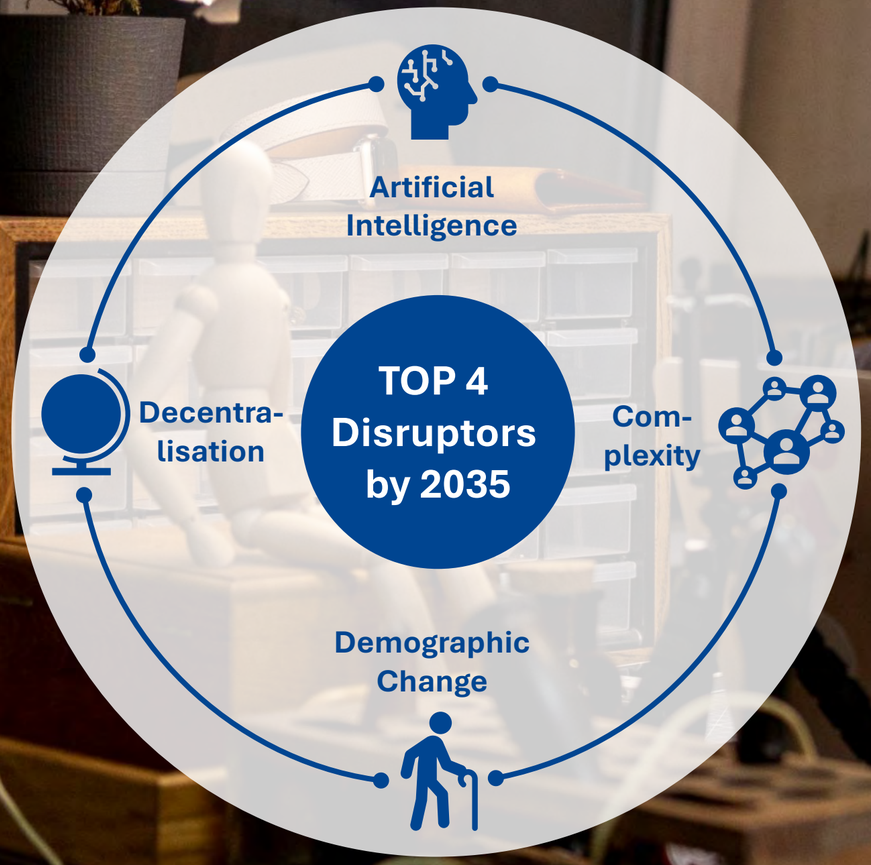
Jochen Mai

- **Head of Project Management** at Carl Zeiss AG
- **>15 years** of experience leading **industrial** & **transformation projects**
- **IPMA® Level B** – Certified Senior Project Manager
- **Doctor of Business Administration** at Heriot-Watt University Edinburgh

LinkedIn:


Imagine it’s 2035...
AI is your co-worker. Roles are fluid.
Stakeholders expect ethical, systemic decisions in real time
1225 695. 015
2535 4512 6598 1200 654 nvmb 15.00
HUMAN RESOURCES
2553. 1510. by name 15.215
Recruitment has many different steps. First, the company needs to advertise that it has a job available. People then send an application. This usually includes a curriculum vitae, which is a summary of what a person has done until now in their life. The best applicants are selected and they come for an interview. This might also include some further tests or exercises to do. The person chosen is then given an offer of a job. Finally, they can choose to take it or not.
022 548 26.0255 by 0153.12name1.1
Recruitment has many different steps. First, the company needs to advertise that it has a job available. People then send an application. This usually includes a curriculum vitae, which is a summary of what a person has done until now in their life. The best applicants are selected and they come for an interview. This might also include some further tests or exercises to do. The person chosen is then given an offer of a job. Finally, they can choose to take it or not. There are many ways of doing recruitment. Some companies go to consultants, who know where and how to find the best people. Universities and schools often have a group of people that tells the students about getting a job. At other times, a company might really want a person that is very good at a job but works for another company. They can then ask directly to this person, maybe offering more money. Facebook, Twitter and LinkedIn are also sometimes used by people looking for a job.
725 651
A type of payment a person gets for work done for a job
230 256
1450 2556 8250 4527
425 025
An employee is a term for workers and managers working for a company, organization or community.
789 524 658 321
0.1
Demographics, which is things like the age and sex of the people. It is important that there are both new young people starting and old people with lots of knowledge around a business.
0.2
Geographical spread: how far is the job from the individual? The distance to travel to work should be in line with remuneration, and the transportation and infrastructure of the area also influence who applies for a position.
0.3
Skills and qualifications: it is important that only people with the right skills do a job. Otherwise, it will be a loss of time and money.
Income
is the money that someone gets for business activities. For individuals income usually means their wages or salary before any tax and other deductions have been made by their employer.. >>>
09
MONTH
11
MONTH
852 258
Salary
A salary is a form of periodic payment from an employer to an employee, which may be specified in an employment contract. It is contrasted with piece wages, where each job, hour or other unit is paid separately, rather than on a periodic basis. From the point of view of running a business, salary can also be viewed as the cost of acquiring and retaining human resources for running operations, and is then termed personnel expense or salary expense. In accounting, salaries are recorded in payroll accounts..>>>
computer_name
01:23 AM
=10583.36

Why 2035 Matters for SMEs?



- ***99.5%*** *of German companies are* ***Small to Medium Sized Enterprises*** *(SMEs)*
- *Facing disruption:* ***AI,*** *increasing* ***complexity, demographic change, decentralisation***
- ***Adaptability*** *is* ***survival***

The Core Question

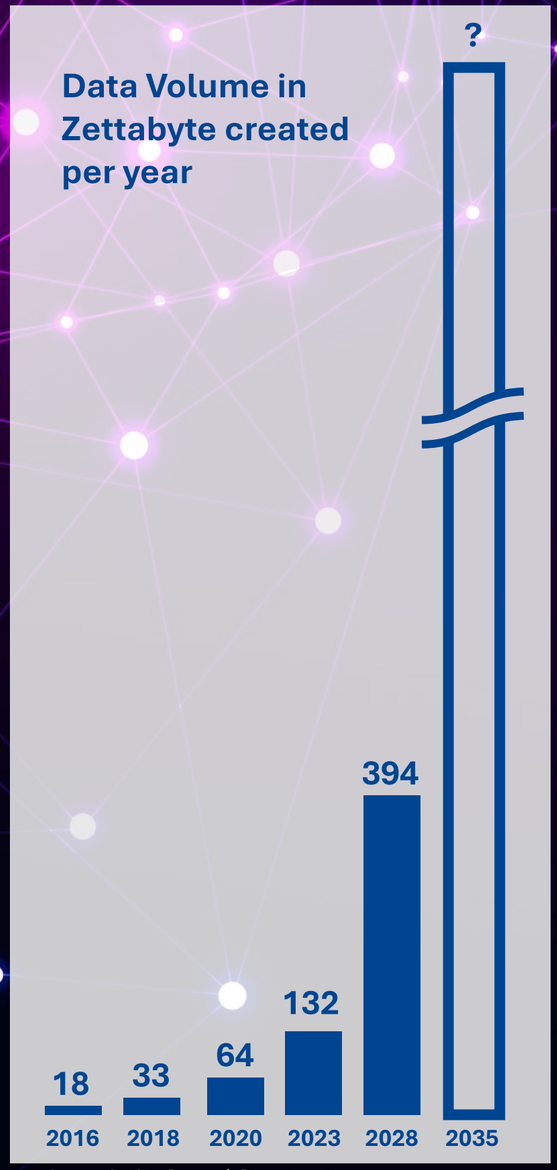
‘How can SMEs prepare today for the realities of 2035?’

Why Complexity Matters?

Complexity Shift driven by Digitalization & Globalization

Progress Controlling → **Complexity Management**

- Projects = **Complex Adaptive Systems**
- Exponential **Data Increase**
- Globalization Driving **Decentralized & Intercultural Complexity**
- Success emerges, **not controlled**
- PM role: **from Controller → Navigator**



Source: Statista Research Department

How We Explored the Future?

- Delphi study: **41 experts, 3 rounds**
- **❶ Trends evaluated → ❷ Impact on PM analysed → ❸ turned into scenarios**
- Aim: **practical insights, not just consensus**

Scenario Overview – ‘Stories from the Future’

#1 **STORIES FROM THE FUTURE**
Dynamic Skills Development

‘Evolving Together: Mastering the Skills of Tomorrow’

#2 **STORIES FROM THE FUTURE**
Breakthroughs in AI and Robotics

‘Harmonizing Minds & Machines: A New Era of Collaboration’

#3 **STORIES FROM THE FUTURE**
Converging Digital and Traditional Lifestyles

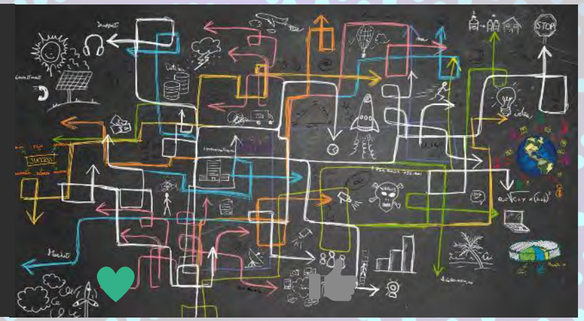
‘Bridging Worlds: Harmonizing Digital and Traditional Lifestyles in the Workplace’

#4 **STORIES FROM THE FUTURE**
Decentralized Organizations

‘Empowered Everywhere: Harnessing the Strengths of Decentralized Teams Across Borders’

#5 **STORIES FROM THE FUTURE**
Managing Complexity

‘Navigating the Maze: A Day in the Life of a Complexity Manager’



#6 **STORIES FROM THE FUTURE**
Unbound Availability of Data

‘Data Without Limits: Transforming Vision into Reality’

‘Evolving Together: Mastering the Skills of Tomorrow’

- ***AI Assistant as Co-Pilot*** → *real-time insights & risk alerts*
- ***Continuous Learning Culture*** → *skills built into daily work*
- ***VR/AR Training Rooms*** → *immersive, personalised learning*
- ***Human–AI Hybrid Teams*** → *co-performance beyond roles*
- ***Learning Feedback Loops*** → *team shares tools & trends*
- ***Future Skills Workshops*** → *resilience, ethics & tech readiness*

#1 **STORIES FROM THE FUTURE**
Dynamic Skills Development

‘Evolving Together: Mastering the Skills of Tomorrow’

It is 8:00 AM, and Mia, an experienced project manager at a mid-sized technology company, begins her day in her smart office. The room is bathed in natural light, filtered through automated windows that adjust based on the weather and time of day. As Mia sits at her desk, her personal AI assistant, Ava, greets her with an update on the latest project developments.

"Good morning, Mia. The team has made significant progress on Project Neptune. The task completion rate is at 85%, and the AI has identified some potential risks related to supplier delays," Ava informs her. Mia smiles, grateful for Ava's timely insights. She reviews the project status, but what stands out today is the upcoming meeting on the **"Dynamic Competency Development"** module – a part of the company's continuous learning culture that ensures employees have the skills needed to remain competitive in an ever-changing market. In Mia's company, learning is not a single event but a seamlessly integrated part of daily work, allowing employees to continuously refine and expand their expertise.

At **9:00 AM**, Mia puts on her lightweight **VR headset** and enters the immersive **virtual learning environment**. Within seconds, she finds herself in a **state-of-the-art digital training room**, where her team members—both onsite and remote—are already assembled as **realistic, AI-powered avatars**.

Instead of a traditional video call, the team can now **move through interactive holograms and a three-dimensional space to work on concepts together**. Mia greets her team, and the AI dynamically adjusts the environment, displaying **relevant presentations, real-time dashboards, and analytical tools**.

Unlike conventional training sessions, this one is **personalized** and supported by **customized training programs that use AI to tailor content** based on each team member's individual learning progress, career goals, and current skill assessments. Mia herself **recently completed a module on advanced AI project management tools**, allowing her to now guide her team through a more complex aspect of their current project—the management of a **hybrid team composed of both human and AI resources**. The AI system suggests **targeted learning paths** to ensure that each team member develops **cross-functional skills** that go beyond their immediate expertise.

During the meeting, the team collaborates in **real-time**, discusses **current skills**, and identifies gaps. Mia encourages her team to participate in a **"learning feedback loop"**, where they share **new resources, courses, and emerging trends** that could expand their collective knowledge. Today, a team member introduces a **predictive analytics tool** that forecasts **team performance based on historical data**. Mia immediately recognizes the potential of the tool and integrates it into the **project plan**, demonstrating how **new technologies seamlessly integrate into their learning process**.

By midday, Mia takes a break and **accesses the company's virtual wellness platform**, which offers **mindfulness sessions and personalized learning recommendations** based on her **stress levels and cognitive state**. Today, the platform suggests a **short course on "Resilient Leadership in High-Stress Environments"**—another testament to the company's **commitment to adapting continuous competency development to individual needs**.

In the afternoon, Mia participates in a **cross-departmental workshop** titled **"Future Skills for Project Leaders"**—a company-wide initiative aimed at equipping leadership teams with **essential competencies for the coming decade**. The session **seamlessly integrates soft skills like emotional intelligence and adaptability with technical knowledge**, including **blockchain applications in project management and AI-powered risk assessment**.

The **interactive format** includes **real-time scenario simulations**, where Mia and her colleagues must apply their **cross-functional expertise** to navigate potential project challenges. In one **particularly complex scenario**, Mia uses **VR-based decision models** to quickly test different solutions. The **AI provides instant visual analyses** of how each decision could impact the project's success.

As the day comes to an end, Mia reflects on her achievements—not just in terms of **project milestones** but also in **her own professional growth and the collective development of her team**. The company's **continuous learning culture**, supported by **AI-driven, VR-enhanced training**, ensures that **competency building is a natural part of the work process** rather than a separate activity.

Before leaving the office, Mia **accesses one final VR session** to prepare for her next learning module—a **deep dive into ethical AI**, a field she considers **crucial for managing future projects that involve advanced AI-driven decision-making**.

In **2035**, Mia's daily routine **exemplifies the transformation of project management through dynamic competency development**. Learning is no longer an **isolated process** but a **continuous, AI-driven experience fully embedded into daily work**. By proactively adapting to **technological advancements and future challenges**, Mia and her team **stay ahead of the competition**, ensuring both **project success and career growth in an unpredictable world**.

‘Harmonizing Minds & Machines: A New Era of Collaboration’

- ***AI Dashboards*** → *risks flagged before they arise*
- ***Robots in Routine*** → *automation frees human focus*
- ***Virtual Avatars*** → *AI-enhanced collaboration spaces*
- ***Predictive Maintenance*** → *downtime avoided proactively*
- ***Ethical Oversight*** → *bias checks & accountability*
- ***Human Judgment*** → *balance efficiency with values*

#2 **STORIES FROM THE FUTURE**
Breakthroughs in AI and Robotics

‘Harmonizing Minds & Machines: A New Era of Collaboration’

It’s 7:30 AM on a brisk autumn morning in 2035, and Alex, a project manager at a mid-sized engineering firm, starts his day. As the first to arrive at the office, he walks through the door and is immediately greeted by the soft hum of the office’s **robotic assistants**, which are already busy preparing the workspaces for the day’s activities. In his role, Alex manages projects that involve cutting-edge **AI and robotic technologies**, and today, he’s overseeing the launch of a new **smart manufacturing system** for a client.

Alex quickly checks his smartwatch, which syncs with the project’s **AI-driven dashboard**. The dashboard provides him with a real-time overview of the project’s current status—task completion rates, upcoming deadlines, resource allocations, and any potential risks. What stands out today is a notification from the **AI system**, which has already flagged a potential scheduling conflict between two key milestones. This system, powered by **predictive analytics**, uses historical data from similar projects to anticipate issues before they arise. Thanks to this, Alex can adjust the timeline before it becomes a problem.

As the day progresses, the role of **human-AI collaboration** becomes increasingly apparent. At 9:00 AM, Alex hosts a project update meeting with key stakeholders: Joen, the client representative; Carlos, the head of **robotics integration**; and Layla, the lead **AI specialist**. The meeting is conducted in a **virtual collaboration space** that includes avatars of the team members, each one powered by **AI** to interpret their body language and adjust their digital presence for maximum engagement. This seamless blend of **human expertise and AI assistance** ensures that the discussion remains focused and productive.

Joen begins the meeting, asking for an update on the **robotics system’s integration**. “How are we progressing with the **machine learning algorithms** for **predictive maintenance**?” she inquires. Carlos, using a tablet interface, shows a live demo of the **robotic assembly line** in action, highlighting how the **robots, powered by AI**, have autonomously identified and corrected minor errors in real time. By **automating routine tasks**, the system not only reduces the workload on human engineers but also enables them to focus on strategic improvements and innovation.

Layla adds, “The **AI algorithms** we’ve integrated have also improved our **decision-making speed**. The system now **autonomously adjusts resource allocation** and workload distribution based on real-time data, reducing downtime significantly.” Layla’s work reflects the importance of **upskilling for AI management**, as she leverages her expertise in **AI systems** to refine their performance and ensure they align with the project’s goals.

The **ethical implications of AI** also come into focus during their discussions. While the team celebrates the efficiency gains from **autonomous systems**, they remain mindful of ensuring that the **algorithms operate transparently** and without unintended biases. Carlos emphasizes the need for **continuous monitoring and human oversight** to ensure that ethical standards are upheld as the technology evolves.

In the afternoon, Alex sits down with the **AI project assistant**, an advanced tool designed to handle **complex project management tasks**. The assistant analyzes **project metrics, tasks, and timelines**, providing Alex with a detailed report on potential bottlenecks. It also suggests **resource adjustments based on team member availability**, skill levels, and project priorities. By streamlining these processes, the **AI assistant accelerates the project timeline** and boosts overall efficiency, enabling Alex to focus on higher-level planning and strategic decisions.

At 2:00 PM, Alex meets with the client’s senior management team via a **virtual reality (VR) conference**. The team explores the progress through an **immersive VR tour** of the **robotic production floor**. Thanks to the **robotics integration**, the production process has become more **flexible and responsive** to demand changes, something unimaginable a decade ago. The **VR system uses AI** to provide **real-time data overlays**, allowing the client’s team to see exactly how each **robot is performing** and how the **system adapts autonomously**.

As Alex reflects on his workday, he is struck by how much **AI and robotics** have transformed the workflow. The balance between **automation and human creativity** is at the heart of this revolution. **AI doesn’t just automate processes—it augments human decision-making**, accelerates project timelines, and **empowers teams to achieve unprecedented levels of productivity**. However, the transformation comes with challenges, including the need for **ongoing training** to **manage and collaborate with advanced AI systems** and the responsibility to address **ethical concerns** in their deployment.

By the end of the day, it is clear that the **integration of AI and robotics** has not only streamlined operations but also **redefined the roles** of every stakeholder. From Alex’s **enhanced project management capabilities** to Layla’s **expertise in optimizing AI systems**, the **collaboration between humans and machines** has created a **new era of innovation and efficiency**, where challenges are met with **solutions powered by both human ingenuity and technological advancement**.

‘Bridging Worlds: Harmonizing Digital and Traditional Lifestyles in the Workplace’

- ***Hybrid Workflows*** → *office, VR & mobile combined*
- ***Cross-Generational Teams*** → *mentoring & reverse learning*
- ***Inclusive Culture*** → *digital natives + experienced pros*
- ***Balanced Pace*** → *speed with reflection & foresight*
- ***Digital Well-being*** → *boundaries prevent overload*
- ***Human Connection*** → *tech strengthens relationships*

#3 **STORIES FROM THE FUTURE**
Converging Digital and Traditional Lifestyles

‘Bridging Worlds: Harmonizing Digital and Traditional Lifestyles in the Workplace’

It’s 9:00 AM on a typical Wednesday in 2035, and the bustling open office space of a **medium-sized project management firm** reflects a harmonious blend of **modern technology and traditional work ethics**. The project team is meeting **virtually and in person** for an update on their latest project, a **cross-generational collaboration** to launch an **innovative hybrid product for smart homes**. The team is diverse, not only in terms of **expertise and backgrounds**, but also in **how they approach work**, thanks to their distinct **lifestyles shaped by their generational perspectives on technology and work**.

Sarah’s Day: The Traditionalist
Sarah, a **52-year-old senior project manager**, starts her day early, as she always has. A cup of black coffee in hand, she walks into the office, her routine as steady as the **traditionalist mindset** she holds dear. She prefers **face-to-face meetings, long phone calls over quick chats, and handwritten notes** that she keeps in her **leather-bound planner**. For Sarah, **technology is a tool, not a way of life**. She uses her smartphone, but mainly for **emails and essential tasks**. Her day is **structured**, with **clear boundaries between work and personal life**, and she values **relationships built on trust and open, personal communication**.
Despite being more accustomed to **traditional ways of working**, Sarah is highly respected for her **experience**. She has seen the industry **evolve** over the years and understands the importance of **integrating technology when necessary**. However, she still values **deep, interpersonal connections** with her **team members**. During the **morning meeting**, Sarah presents her **updates**, discussing the **progress of the project** with **calm authority** and using **visual presentations on a projector**. She notices the team’s **focus**, but she also longs for the **face-to-face feedback and interaction** she’s used to in earlier years.

David’s Day: The Digital Native
David, on the other hand, is in his **late 20s**, an enthusiastic and fast-paced **project team member**. He’s part of the **younger generation** that’s grown up with **digital tools, cloud collaboration platforms, and smart technologies** at every turn. His day begins with a **series of notifications on his smartwatch**, showing his **to-do list for the day, his project management app, and real-time updates from his team**. David thrives in this **digital environment**, where everything is **streamlined**, and his work is often done in **bursts of intense focus**, facilitated by **AI-driven productivity tools**.

David’s **approach to work** is different from Sarah’s. While she prefers a **handwritten report**, David submits his work on the **cloud-based platform**, leaving **comments and collaborative suggestions in real time**. He uses **AI-based scheduling assistants and virtual reality (VR)** to coordinate **remote meetings with clients**, sometimes even using a **fully immersive VR environment** to simulate a **physical presence in the room**. For David, work is not confined to a **9-5 window**; he often checks in **during his commute, or while jogging, or while at home in the evening**—his **smartphone and wearables keeping him in constant touch** with the project’s **pulse**. When the team convenes for the **virtual update**, David shares **real-time progress through a shared dashboard**, offering **instant feedback and analytics** to help guide the **discussion**. He emphasizes the potential of using **augmented reality (AR) during product prototyping**, offering ideas on how to make the **project’s design phase** more **interactive and immersive** for **remote clients**.

The Convergence: A Synergy of Strengths
Though Sarah and David’s **lifestyles** seem **worlds apart**, they have learned to **bridge the gap** over the course of the project. In their **weekly catch-up calls**, they have come to realize that their **differences offer complementary strengths** to the team. Sarah’s **methodical approach to project planning**, honed over **decades of experience**, offers a **stabilizing force** when **navigating complex decisions**. Meanwhile, David’s **ability to quickly adapt to new digital tools and find creative solutions** brings a **fresh, forward-thinking dynamic** to the project.

One afternoon, Sarah is **struggling with a complex decision** regarding **project milestones**. David, sensing the hesitation, offers his assistance, pulling up **real-time data from the project dashboard** on his **tablet**. He presents an **AI-driven forecast of potential risks** and offers a **digital collaboration session** to review the **data together**. Sarah, though not fully comfortable with the **digital tools**, appreciates the **data-driven insights** and the opportunity for a **real-time conversation** with David, who patiently walks her through the process.

Sarah’s initial reluctance to fully embrace **technology** fades as she sees its **potential to improve decision-making and forecasting accuracy**. In turn, David learns from Sarah the **importance of slowing down**, reflecting on the **bigger picture**, and considering the **long-term implications of decisions**. He adopts her practice of **writing down key takeaways from meetings**, finding that **physical notes allow him to process information** in a more **thoughtful and intentional way**. Together, they come up with a **hybrid approach for managing the project**—a **balance of digital innovation and traditional processes** that **caters to the needs of both their working styles**.

A New Era of Work: Bridging Generational Gaps
By the end of the **project**, Sarah and David have found a **balanced rhythm**. Their combined **strengths** have not only shaped the **successful completion** of the project but have also **facilitated a deeper understanding** between the **digital natives and the traditionalists** in the company. The **synergy** between Sarah’s **strategic foresight** and David’s **digital fluency** has created a **new work culture**—one that appreciates the **value of both human connection and technological innovation**.

As they close out the **project**, the **team** celebrates the **success of the launch**, with Sarah sharing a few **words of wisdom on the importance of collaboration**, and David contributing an **idea for a new digital workflow tool** for **future projects**. Together, they have shown that the **convergence of digital and traditional lifestyles** is not just **possible**—it’s the **key to a harmonious, productive, and innovative future**.

‘Empowered Everywhere: Harnessing the Strengths of Decentralized Teams Across Borders’

- ***Expertise Leadership*** → *authority based on skills*
- ***Global Autonomy*** → *teams act across time zones*
- ***AI Translation*** → *bridges cultures & languages*
- ***Agile 24/7*** → *continuous workflows worldwide*
- ***Local Decisions*** → *tailored to community needs*
- ***Transparency & Security*** → *trust as foundation*

#4 STORIES FROM THE FUTURE
Decentralized Organizations

‘Empowered Everywhere: Harnessing the Strengths of Decentralized Teams Across Borders’

Morning in Barcelona: Geographical and Cultural Diversity
It's a Monday morning in 2035, and Elena, a project manager—or perhaps more accurately, a **coordinator in a leaderless network**—starts her day in her home office in Barcelona, Spain. The role of a traditional project manager has evolved significantly; instead of a single person making centralized decisions, leadership is now distributed across **a diverse, global team**. Elena's team spans multiple continents, cultures, and time zones, reflecting the increasing **geographical and cultural diversity** of modern projects. Her inbox is filled with updates from teams working overnight—developers in Singapore, UX designers in Canada, and local market analysts in Kenya. One of the key strengths of this model is that decisions are no longer tied to a single authority figure. Instead, expertise, not hierarchy, dictates who takes the lead on different aspects of the project. She notices a message from Aiden, her lead developer based in Dublin. His team has successfully completed a major code update for the product's dashboard. Elena quickly reviews the update through a cloud-based platform and leaves comments before approving the changes. Thanks to **technological infrastructure** like AI-assisted translation and real-time transcription, she is able to seamlessly interact with team members across different languages.
One of the biggest challenges in a **multilingual project world** is ensuring clear communication. While English is often used as a common language, AI-powered tools have made it easier than ever to remove barriers. Speech-to-text software, automatic translations, and culturally adaptive UI elements help bridge communication gaps, ensuring that every team member can work in their native language while still collaborating efficiently.

Afternoon in Nairobi: Distributed Leadership & Decision-making in Decentralized Contexts
Meanwhile, in Nairobi, Kenya, Ibrahim, the team's operations lead, is preparing for a meeting with local community leaders. In the past, he would have had to wait for approval from headquarters before moving forward with adjustments to the product. But in a **decentralized decision-making context**, Ibrahim doesn't need to ask for permission—he makes the call himself.
This **distributed leadership** model allows teams like his to act **autonomously**, without bottlenecks from rigid hierarchies. Instead of a single project manager overseeing all decisions, leadership is **fluid and situational**, with different individuals stepping up based on their expertise and regional knowledge. Today, Ibrahim is working with urban planners and local businesses to ensure that the eco-tech product aligns with the realities of developing cities in Africa. Because he **understands the needs of his local market better than anyone else**, he has the authority to shape the product accordingly. His direct involvement ensures that the technology isn't just innovative on paper, but practical and usable in real-world applications. By aligning stakeholders early in the process, Ibrahim helps create a product that truly resonates with the people it is designed for. This localized autonomy **not only speeds up decision-making but also increases adoption rates**, as communities feel ownership over solutions tailored specifically for them.

Evening in Bangalore: Technological Infrastructure & Agile Workflows Across Time Zones
Over in Bangalore, India, Priya, the technical coordinator for the project, is working late into the evening. Her role is to manage the integration of the product's hardware with local infrastructure systems. Unlike in the past, where hardware and software teams worked in silos, today's decentralized organizations leverage **technological infrastructure** to maintain continuous progress. Priya benefits from **agile project management** methodologies that allow teams to work asynchronously across different time zones. Agile frameworks ensure that tasks are **modular and iterative**, meaning that no one has to wait for another team's working hours to advance the project. Instead of waiting for morning in North America or evening in Europe, Priya works within her regional team, updating digital kanban boards and automated task lists that sync in real-time.
Thanks to **AI-driven documentation and real-time project dashboards**, her work seamlessly integrates with the broader project, even while other team members sleep. The ability to push updates and review changes asynchronously ensures that the project never stalls due to time zone misalignment. As Priya finalizes her updates, she checks the **AI-powered meeting summarization tool** that transcribes and translates discussions held earlier by her European colleagues. This **removes the need for redundant meetings**, allowing her to catch up on critical decisions without losing productivity.

Global Synergy: The Power of Decentralization & System Thinking
As the day comes to a close, Elena reflects on how far project management has come. In a world where **distributed leadership** has replaced single-point decision-making, where **geographical and cultural diversity** fuels innovation, and where **technological infrastructure** removes barriers, the traditional role of the project manager has fundamentally changed.
Instead of acting as a **centralized authority**, Elena sees herself as a **facilitator**, ensuring that different parts of the system communicate effectively. **Decisions are no longer made at the top and handed down—everyone has a say, and expertise determines leadership.** The once-rigid structures of organizations have dissolved into fluid networks of collaboration, making room for more adaptive, inclusive, and resilient project environments.
With **agile project management practices**, her team no longer relies on synchronous meetings to make progress. Instead, they operate in cycles of continuous delivery, leveraging digital tools to track decisions and align progress across continents. Every task, every update, and every decision is **recorded, documented, and made accessible in real time**, ensuring **full transparency** across teams.

‘Navigating the Maze: A Day in the Life of a Complexity Manager’

- ***AI Integration*** → *supply, climate & community data*
- ***Holistic Decisions*** → *beyond cost & deadlines*
- ***VR Alignment*** → *stakeholders see shared models*
- ***Data Simplification*** → *filters prevent overload*
- ***Systems Thinking*** → *mapping interdependencies*
- ***Fluid Leadership*** → *roles shift with context*

#5 **STORIES FROM THE FUTURE**
Management of Complexity

‘Navigating the Maze: A Day in the Life of a Complexity Manager’

It’s 6:30 AM on a crisp spring morning in 2035. Noah Takahashi, a senior project stakeholder at SolBright Renewables, a multinational company specializing in renewable energy projects, wakes to the soft glow of his AI-assisted smart alarm. The system, aware of his day’s agenda, has already prepared a summary of overnight updates on the solar farm project he’s overseeing in the Atacama Desert, Chile. With his morning coffee in hand, Noah sits down at his kitchen table and reviews his **personalized project dashboard**.

The dashboard is no ordinary tool. Powered by **advanced AI**, it aggregates data from dozens of sources—supply chains, regulatory updates, weather patterns, team progress, and even local community sentiment analyzed from social media. Today’s summary highlights a critical issue: a predicted delay in the shipment of rare minerals required for solar panel construction due to geopolitical tensions in a supplier country. Rather than reacting impulsively, Noah engages in **holistic decision-making**, considering not only cost and timelines but also sustainability factors, **alternative sourcing strategies**, and long-term **resilience** for future projects. This ensures that decisions are made with a **comprehensive understanding of interconnected factors** rather than addressing isolated issues in a vacuum.

By 8:00 AM, Noah is fully immersed in his first task of the day: a **holographic team meeting**. The virtual room is alive with energy, populated by engineers in Singapore, sustainability consultants in Germany, procurement specialists in the United States, and local representatives from Chile. The holograms are so lifelike that it feels as if everyone is sitting around the same table.
The **AI assistant** moderating the meeting begins by summarizing the key points. Noah facilitates the discussion, ensuring all voices are heard. As the team addresses the **mineral supply issue**, the AI assistant presents three potential suppliers, each accompanied by **projected costs, environmental impact assessments, and delivery timelines**. Here, **simplification strategies** play a crucial role. Despite the overwhelming volume of data available, the AI system **filters and prioritizes the most relevant information**, enabling the team to reach a clear decision without getting lost in complexity. After a short deliberation, the group aligns on a backup plan, minimizing delays by **rerouting** a portion of materials from a stockpile in Australia.

At 11:00 AM, Noah pivots to another aspect of the project—**stakeholder alignment**. He connects with a group of local community leaders who have raised concerns about the project’s impact on traditional land use. Rather than relying solely on reports, Noah uses an **immersive virtual reality tool** to transport the leaders into a **digital simulation** of the solar farm’s future. The simulation showcases the **long-term environmental benefits**, such as reduced carbon emissions and the potential for **community energy-sharing programs**. By addressing their concerns visually and interactively, Noah not only alleviates their doubts but also earns their enthusiastic support. His ability to **align diverse stakeholders**—from corporate executives to local leaders—ensures that the project advances smoothly while maintaining strong community relations.

Lunch is a brief affair, but even during his break, Noah monitors **notifications** from the team. An **automated alert** informs him that a **critical compliance document** needs his review. With a quick **digital signature** and a note to the **legal team**, the task is complete in minutes, sparing hours of back-and-forth emails.

The afternoon brings a deep dive into **system thinking**. Noah spends two hours analyzing a **risk matrix** generated by the **AI system**. The matrix includes a staggering number of **variables**—ranging from **climate shifts** that could affect construction timelines to **currency fluctuations** impacting material costs. Rather than tackling these risks in isolation, Noah applies a **systems approach**, recognizing that **changes in one area** of the project may **trigger cascading effects** elsewhere. For example, an **alternative supplier** might solve the immediate mineral shortage but could introduce **new logistical risks**. By **mapping out interdependencies**, Noah and his team craft **mitigation strategies** that address not just surface-level risks but the broader **systemic impacts**.

As the day winds down, Noah hosts a brief **reflection session** with his core team. Each member, from diverse **cultural and geographical backgrounds**, shares **insights and lessons** from the day. In SolBright’s **decentralized organizational structure**, **leadership is fluid**. While Noah leads this **project phase**, the **next phase** will see a **Chilean project manager** take the reins, ensuring **local expertise** guides the execution. This **dynamic leadership model**, coupled with a **holistic decision-making framework**, fosters **adaptability** and **empowers teams** to make well-informed choices.

By 7:00 PM, Noah shuts down his work systems and steps outside to enjoy the sunset. He reflects on the day’s **challenges and triumphs**. The **complexity of his role** is undeniable—**managing global teams**, **adapting to constant change**, and **balancing technology with human needs**. Yet, he feels invigorated, knowing that he’s helping **create a sustainable future** by **navigating the maze of modern project management**.

Noah’s story demonstrates that **managing complexity** is not about **eliminating it** but **embracing it** as an opportunity for **innovation**. By leveraging **simplification strategies**, **aligning stakeholders**, applying **system thinking**, and making **holistic decisions**, project stakeholders like Noah turn **challenges into pathways for progress** in a **highly interconnected world**.

‘Data Without Limits: Transforming Vision into Reality’

- ***3D DataSphere*** → *real-time supply chain view*
- ***Predictive Analytics*** → *optimized sourcing & logistics*
- ***Data Security*** → *privacy as core principle*
- ***AI Filters*** → *highlight what matters most*
- ***Custom Alerts*** → *keep focus on priorities*
- ***Data Transparency*** → *foundation for trust & sustainability*

#6 **STORIES FROM THE FUTURE**
Unbound Availability of Data

‘Data Without Limits: Transforming Vision into Reality’

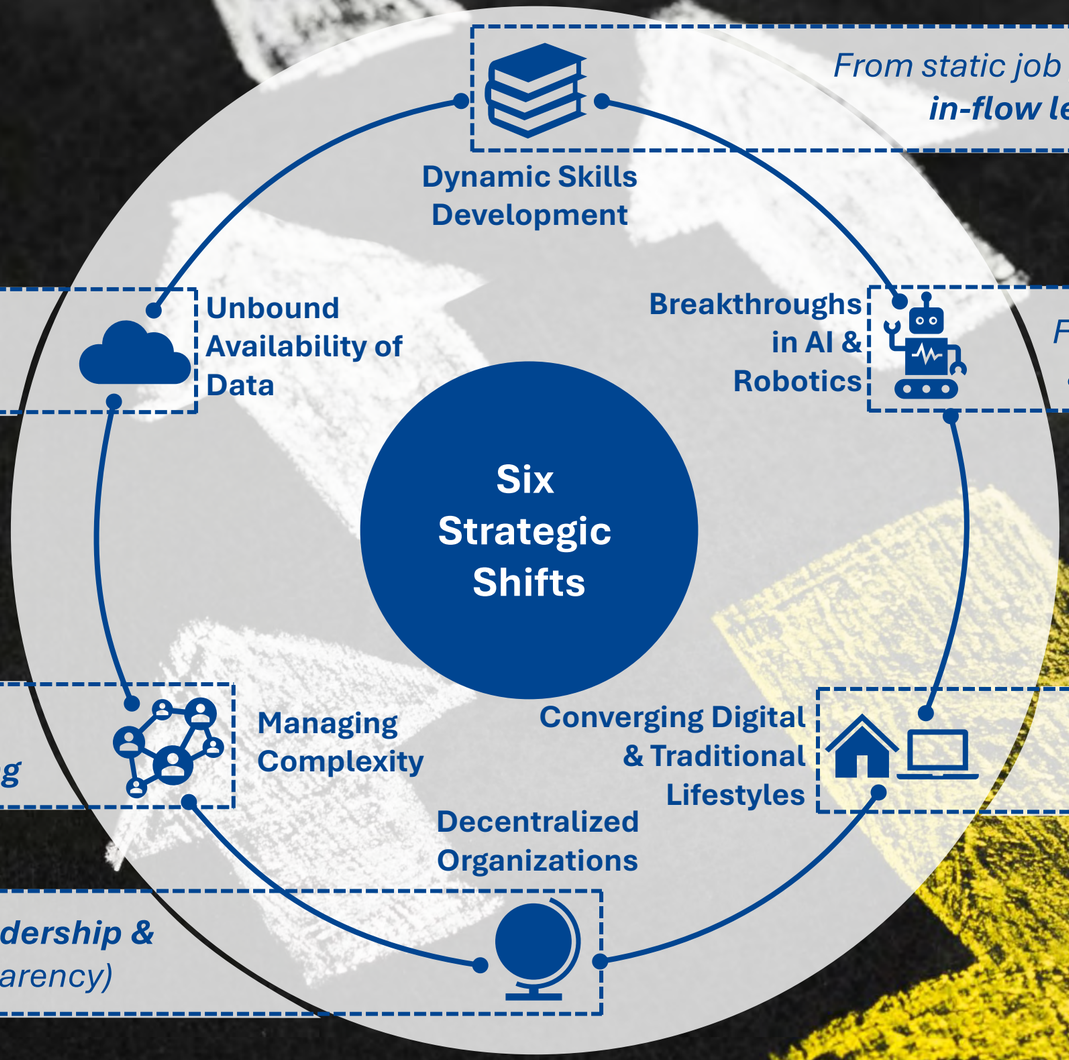
It’s 7:00 AM on a Monday in 2035. The sun streams into the headquarters of **VitalEarth**, a global leader in sustainable consumer goods. The project team for the company’s latest initiative, **“Circular Future,”** gathers in a sleek, light-filled meeting room. Their mission is ambitious: to create a fully circular supply chain for a new line of biodegradable packaging.
At the center of the room, the **DataSphere** springs to life, projecting a vivid, three-dimensional representation of the company’s global operations. Every element of the supply chain—raw materials sourcing, production, logistics, and post-consumer recycling—is visualized in real time, fed by an unending stream of data from **IoT-enabled devices, AI analytics, and open-access global databases**. Instead of relying on **assumptions or past trends**, the team uses **data-driven decision-making** to evaluate scenarios dynamically. Every choice is backed by **real-time insights**, ensuring they optimize for sustainability, cost, and feasibility simultaneously.

“Let’s focus on sourcing,” says Alex, the project lead. A simple gesture narrows the view to a forest in **Scandinavia**, where sustainable wood pulp is harvested for packaging material. The **DataSphere overlays live data** on forest growth rates, local regulations, and environmental impact projections. A heatmap highlights areas where harvesting can occur with minimal ecological disruption. At the same time, Naomi, the team’s materials scientist, **pulls up comparative data** on alternative materials. “We’ve been tracking algae-based biopolymers,” she says, zooming in on a coastal region where **algae farming thrives**. “The production cost has dropped **15% this quarter, and it’s carbon negative.**” The system’s AI **calculates trade-offs** between the two materials, presenting **visual comparisons** in cost, environmental impact, and scalability.
As they continue working, **privacy and data security** remain at the forefront of their strategy. The team understands that with such vast amounts of data flowing through **global supply chains**, protecting sensitive business information is critical. Before analyzing proprietary supplier contracts and logistics routes, **the system automatically encrypts all sensitive data**, ensuring **only authorized team members** have access. AI-driven compliance tools continuously scan for **potential regulatory conflicts**, guaranteeing adherence to **GDPR, digital ethics policies, and cross-border data-sharing agreements**. “We have to be extra careful with consumer data,” Olivia, the **customer insights specialist**, reminds the group. **“With so much scrutiny on green claims, we must ensure our sustainability metrics are verifiable but also secure from competitors and misuse.”** The system applies **multi-layered encryption and anonymization techniques**, balancing **transparency with security** to protect intellectual property while **maintaining public trust**.

By mid-morning, the team shifts focus to **logistics**. Gabriel, the supply chain manager, overlays **shipping routes** on the DataSphere. “We’ve identified a bottleneck at this distribution hub in **Southeast Asia**,” he says, highlighting **delays caused by outdated infrastructure**. Within seconds, the system **proposes alternative routes** based on current port congestion, weather patterns, and fuel efficiency projections. It suggests **rerouting shipments through a recently upgraded AI-driven hub**, ensuring that deliveries remain on schedule while reducing carbon emissions. Later in the day, a new **challenge arises—a sudden spike in energy costs** at one of their **manufacturing sites**. Before panic sets in, the AI system **scans regional energy grids** and locates **a renewable energy supplier nearby** with immediate availability. The contract is adjusted **in real time**, preventing production delays and keeping sustainability targets intact. Instead of relying on **weekly or monthly reports**, the team operates **with live data**, allowing them to **respond instantly** to disruptions and optimize operations **without waiting for traditional decision-making cycles**.

Despite the benefits of **real-time insights**, the flood of incoming data poses its own challenge: **information overload**. The team recognizes that **too much data** can be just as problematic as **too little**, leading to **analysis paralysis**. To manage this, the DataSphere **prioritizes key insights**, filtering out non-essential data while highlighting **high-impact metrics**. Each team member receives **customized alerts and summaries**, tailored to their specific roles and objectives. “We don’t need to see everything,” Alex points out. **“The system helps us focus on what truly matters—impact, efficiency, and risk mitigation.”**
The AI assistant automatically generates **digestible reports**, ensuring the team stays informed **without cognitive overload**.
By late afternoon, the team has successfully **finalized the material sourcing plan, optimized logistics, and developed a transparent consumer communication strategy**. **Instead of feeling overwhelmed by complexity, they are empowered by clarity.** As they wrap up, Alex looks around the room and smiles. **“We haven’t just designed packaging; we’ve built an ecosystem that works seamlessly across materials, supply chains, and consumer expectations.”**
This story demonstrates the power of **data-driven decision-making, real-time insights, privacy-focused data security, and intelligent overload management**. By harnessing **advanced AI, predictive analytics, and secure digital frameworks**, businesses like **VitalEarth** can **not only optimize operations but also drive meaningful sustainability innovation in a complex, interconnected world**.

Six Strategic Shifts



From static job profiles ***to continuous, in-flow learning & skill liquidity***

From gut-feel/siloed reports ***to secure, real-time data analytics***

From 'tools' ***to human–AI teaming*** *&* ***automation-first*** *(clear accountability)*

From linear plans ***to sensemaking, feedback loops & option-based planning***

From one-size-fits-all ***to inclusive hybrid rhythms & digital well-being***

From central authority ***to distributed leadership & local decision*** *rights (guardrails + transparency)*

Reflection

Which of these shifts will be hardest for your organisation?

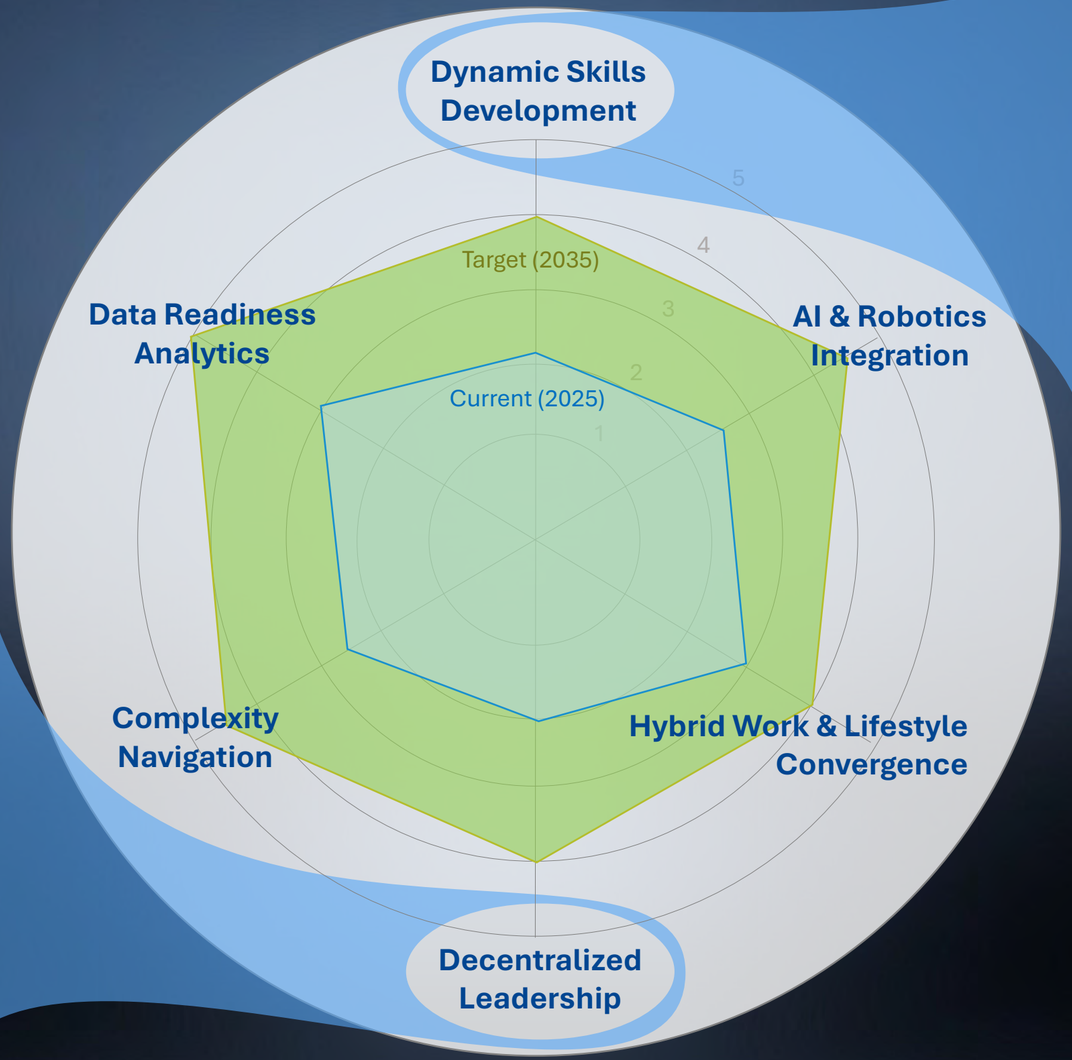
What if SMEs fail to adapt?

- ***Loss** of **Competitiveness***
- ***Talent drain** to more innovative firms*
- *Increased **vulnerability to crises***
- ***Risk of irrelevance** or shutdown*

Practical Actions for SMEs

1	Build alliances & lobby	***Join forces with other SMEs*** *to push for* ***funding*** *and* ***innovation-friendly policies***
2	Cooperate with universities & hubs	***Access pilot projects***, ***training***, *and applied* ***research***
3	Invest in continuous skills	***Use micro-learning***, ***VR/AR***, *and* ***AI-based training***
4	Adopt hybrid, intergenerational teams	***Mix digital natives*** *and* ***experienced professionals***
5	Leverage AI & data	***Apply predictive analytics*** *and* ***real-time dashboards***
6	Boost cybersecurity	***Train staff*** *and set clear* ***digital policies***

Strategic Readiness Radar for SMEs



1. Centralised, **top-down decisions only**
2. Occasional delegation, but **decisions remain mostly centralised**
3. **Defined decision guidelines**, some **empowerment** of teams
4. **Widespread distributed decision-making** with transparency and **OKRs**
5. **Fully decentralised leadership** with **rotating roles**, **empowered local teams**, and **guardrails** ensuring alignment

1. **Ad-hoc training only**, no structured learning
2. **Traditional classroom** or seminar-based formats
3. **E-learning modules** and short video content
4. **Regular VR/AR simulations** and **micro-learning** digests
5. **AI-driven personalised learning paths** and full skill liquidity across projects

Complexity Canvas

Key Stakeholders

Who are the most important actors that influence or are influenced by the project or organisation?

Examples: customers, employees, suppliers, regulators, communities, investors.

👉 Goal: Map the network of voices that matter.

Uncertainties

Which uncertainties could shape the future environment?

Examples: market shifts, political changes, new technologies, demographic trends.

👉 Goal: Accept that not everything is predictable, but still identify the critical unknowns.

Feedback Loops

Where do actions create reinforcing or balancing effects?

Examples: customer feedback shaping product features, delays causing cost escalation.

👉 Goal: Recognise how small changes can amplify or stabilise outcomes.

Interdependencies

Which systems or factors are interconnected and cannot be managed in isolation?

Examples: supply chain ↔ energy costs ↔ sustainability regulations; HR policies ↔ innovation capacity.

👉 Goal: See the bigger picture and avoid siloed decisions.

Emerging Signals

Which weak signals or trends might become important?

Examples: early signs of new tech adoption, social value shifts, new competitors, start-up experiments.

👉 Goal: Train the organisation to spot early hints of change.

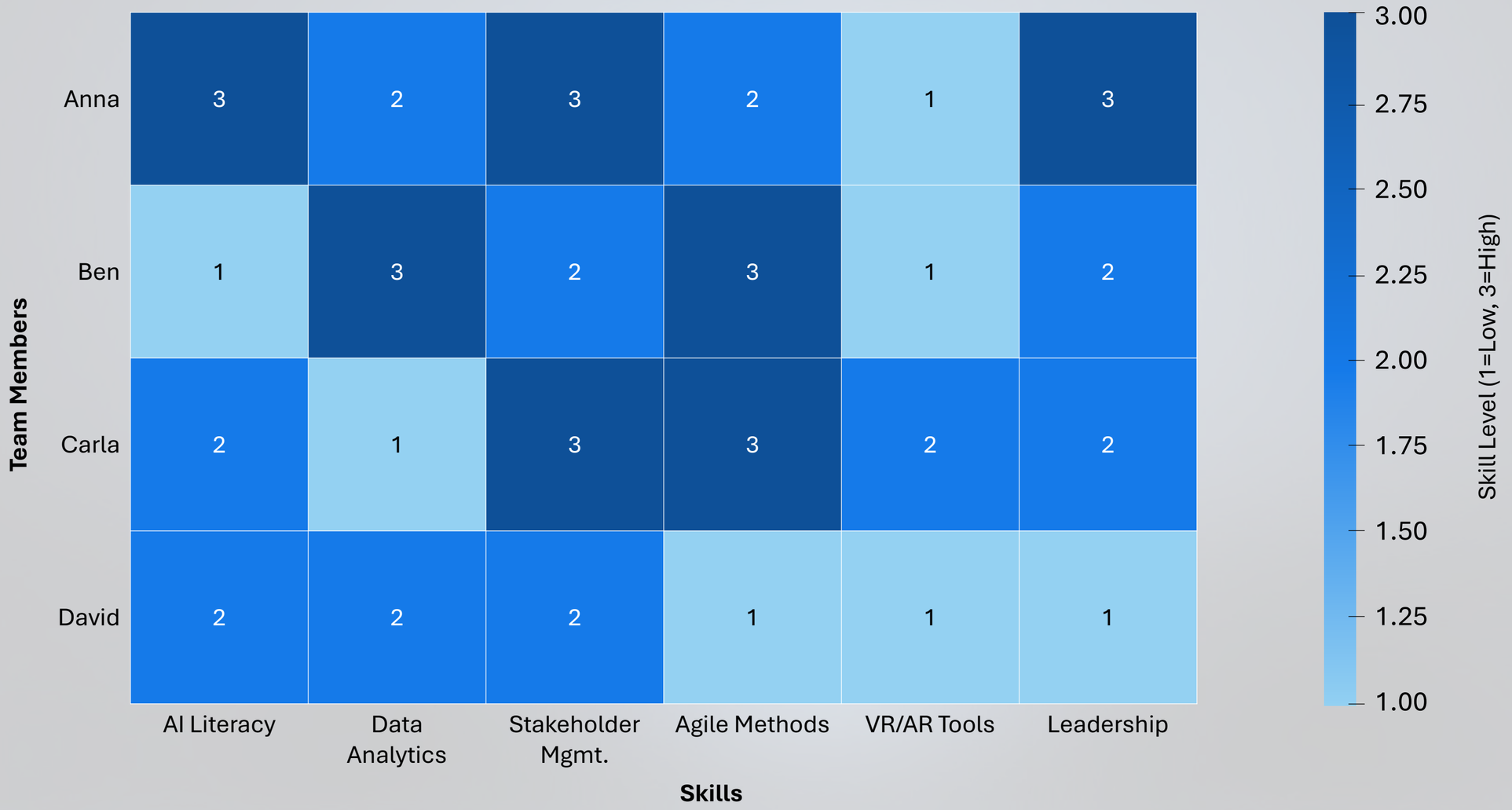
Adaptive Options

What flexible actions could we take to stay resilient?

Examples: modular strategies, partnerships, pilot projects, scenario rehearsals.

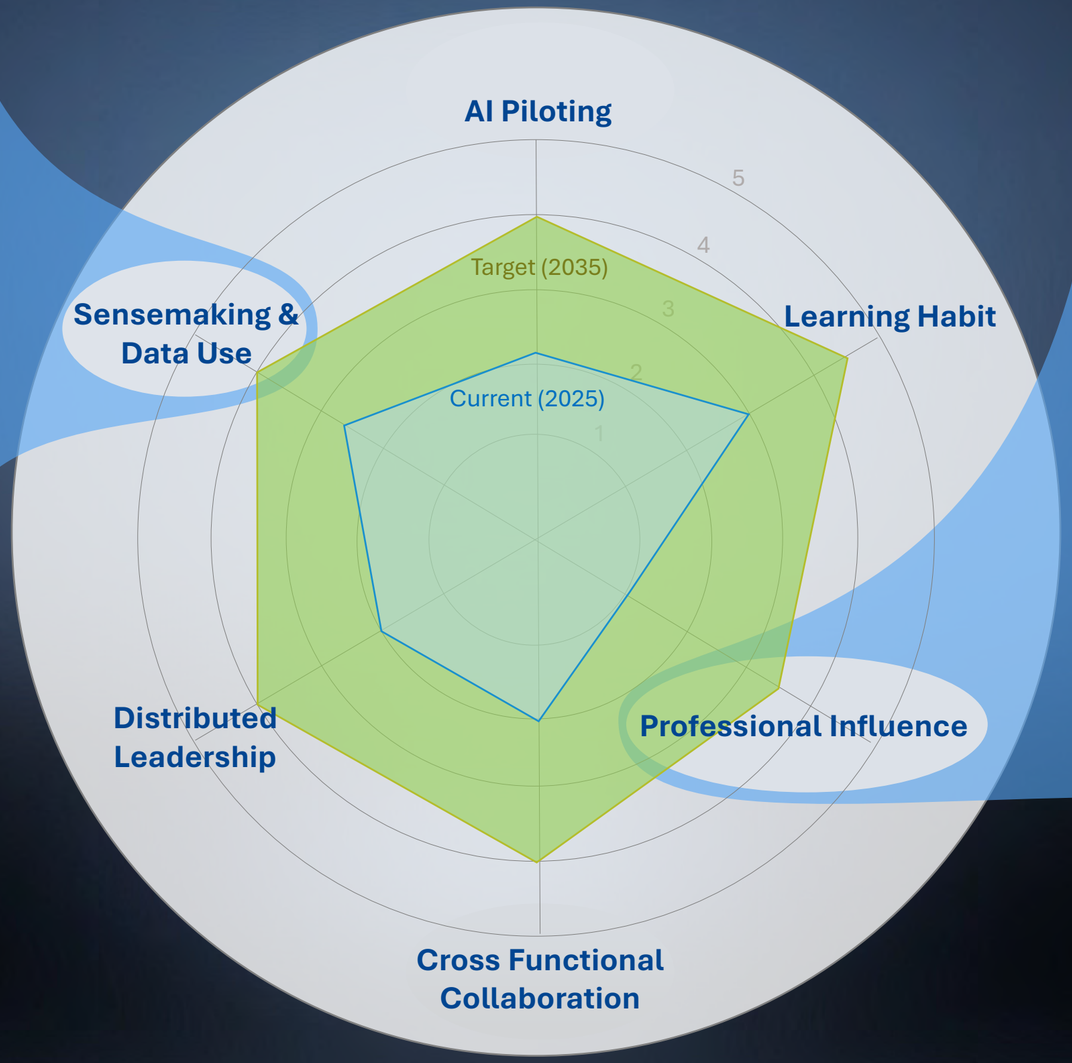
👉 Goal: Build a portfolio of options instead of one fixed plan.

Skill Heatmap – SME Project Team



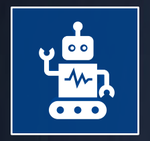
Strategic Readiness Radar for Project Managers

1. **Purely linear planning**, no reflection
2. **Basic risk lists**, occasional data checks
3. Ad-hoc retrospectives, limited use of dashboards
4. Regular **feedback loops**, **scenario discussions**, **KPI** dashboards in use
5. Integrated **probe–sense–respond practices**, systemic sensemaking and **real-time analytics** in all



1. **Focus only on own project**, no external engagement
2. **Occasional event participation**, passive membership in associations
3. **Active contribution** in **local professional groups**, occasional lobbying input
4. **Regular involvement** in working groups, **shaping standards**, visible thought **leadership**
5. **Strategic influence** at **national/international level**, strong **lobbying** and **agenda-setting** for SMEs and the profession

Practical Exercises for PMs

 **Pilot AI Tools**	👉 ***Exercise: Test one AI tool*** *(e.g. scheduling or risk logging) in your next project* 🔑 ***Goal****: **First-hand experience**, not perfection.*
 **Learning Habit**	👉 ***Exercise****: Block **2h per week for micro-learning** (e.g. data literacy, podcast)* 🔑 ***Goal****: Make **learning a routine***
 **Professional Influence**	👉 ***Exercise****: **Join** or speak up **in an association** working group* 🔑 ***Goal****: **Extend influence** beyond your project*
 **Cross-Functional Collaboration**	👉 ***Exercise****: Do a **“Skill Swap Lunch”** with a colleague from another discipline* 🔑 ***Goal****: Build **bridges across silos***
 **Distribute Leadership**	👉 ***Exercise****: **Delegate one decision** with clear guardrails to your team* 🔑 ***Goal****: **Foster trust** and **shared ownership***
 **Sensemaking & Data Use**	👉 ***Exercise****: **15min sensemaking session** in next review with a simple **KPI** dashboard* 🔑 ***Goal****: **Spot patterns**, not just track plans*

Future Readiness – At a Glance

6 Strategic Shifts (Stories):

1. ***Dynamic Skills***
   → *Continuous, in-flow learning*
2. ***AI & Robotics***
   → *Human–AI teaming, automation-first*
3. ***Hybrid Lifestyles***
   → *Inclusive, flexible work rhythms*
4. ***Decentralized Leadership***
   → *Distributed, transparent decision-making*
5. ***Complexity Navigation***
   → *Sensemaking, feedback loops, options*
6. ***Data Readiness***
   → *Real-time, secure, explainable analytics*

Practical Actions for SMEs:

- *Form **alliances** & **lobby** for support*
- *Partner with **universities & hubs***
- *Invest in **VR/micro-learning** & **AI pilots***
- ***Build hybrid,** intergenerational **teams***

Practical Actions for Project Managers:

- ***Pilot AI tools** in projects*
- *Create a **weekly learning habit***
- ***Join associations** & influence policy*
- ***Practice distributed leadership** & sensemaking*

Key Takeaway

*‘The **future of project management** will **not be predicted**.*
*It will be **co-created – by all of us.**’*

More Information