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InfoBrief
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Powering Up:
Human Skills for the AI Era

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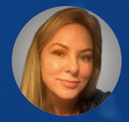

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In this InfoBrief

Tech training alone won't get organizations up to speed on AI.

IDC research shows a widening gap between investment in AI tools and readiness for AI-driven work, with many leaders citing insufficient human skills to support new AI ways of working.

Although 58% of organizations invest in AI-enabled learning tools, just 44% claim to offer training in critical *human* capabilities such as leadership, cognitive, collaborative, ethical, and business skills. Without those capabilities, organizations will struggle to translate AI investment into sustained performance, innovation, and trust.

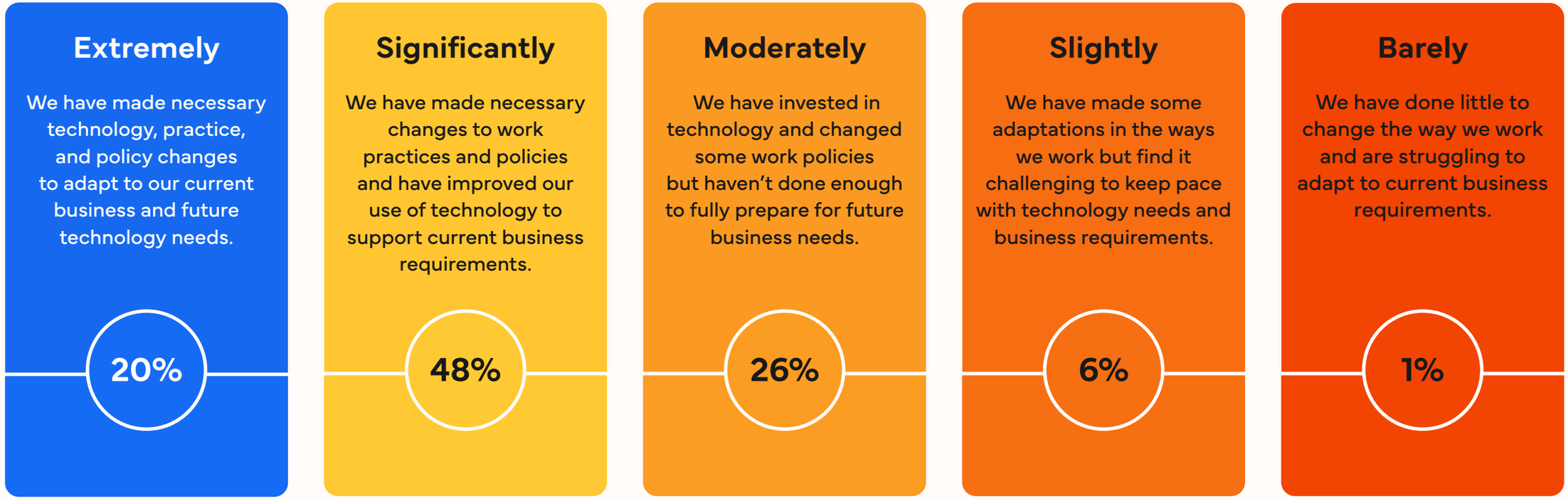
Drawing on IDC data, this InfoBrief highlights the need for robust human skills frameworks and a rethinking of human roles.

It also underscores the importance of balanced investment in both technical and human domains to close the human capability gap.

n = 1,350; Source: IDC's *Worldwide Future of Work 2025 Survey,* August 2025. n = 1,015; IDC's *2025 Global IT Skills Survey,* January 2025

Many leaders believe they are prepared to meet AI-enabled work requirements

How prepared is your organization compared with similar organizations in the market?



n = 1,350; Source: IDC's *Worldwide Future of Work 2025 Survey,* August 2025.

Despite their reported confidence, organizations struggle to progress

IDC's *AI-Fueled Organization MaturityScape* depicts five progressive stages of organizational AI maturity. Each level represents increasing integration of AI into strategy, governance, workforce enablement, data, and technology platforms, culminating in organizations where AI is embedded across all business processes for sustained competitive advantage.

1. **AD HOC → AI scramble:** Uncoordinated AI initiatives with no centralized leadership or enterprise strategy; AI and ML used mainly for automation and analytics, with GenAI applied sporadically
2. **OPPORTUNISTIC → AI pivot:** Formation of an AI oversight function, structured AI, and ML POCs, with AI leader focused on developing an AI road map and deploying repeatable practices
3. **REPEATABLE → AI alignment:** AI strategy and road map that center on driving productivity and revenue through AI-driven functions, GenAI use cases, and AI agents, enabled by a COE
4. **MANAGED → AI transformation:** A redesigned operating model for agentic-enabled processes that reshapes existing functions; AI incorporated/underpinned by a unified data governance model
5. **OPTIMIZED → AI-fueled organization:** AI continuously extending to drive business model innovation, focusing on profitable growth, with autonomous agents orchestrated across the organization

Source: IDC's *MaturityScape: AI-Fueled Organization 1.0*, February 2025

Despite their reported confidence, organizations struggle to progress (continued)

Where are organizations in people development stages?

51% of leaders are still at the Opportunistic stage of workforce enablement.

35% have moved to the Repeatable stage of people development.

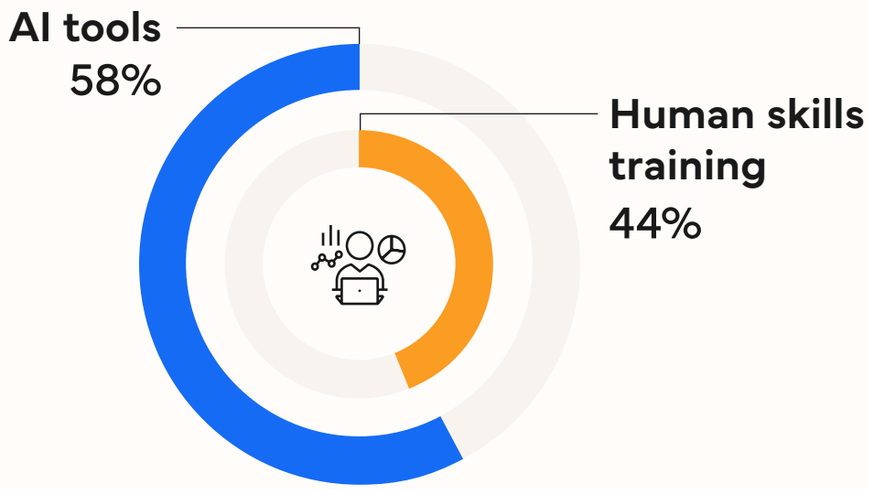
Fewer than 1% have reached the Optimized stage.

n = 1,534; Source: IDC's *MaturityScape Benchmark: AI-Fueled Organization Worldwide*, 2025

Human skills development lags behind investment in AI tools

As AI deployment accelerates, organizations discover that technical training alone is insufficient — the human capability gap threatens competitive advantage. Organizations investing in AI learning tools must balance technical training with human skills development.

Investment in AI tools versus human skills training



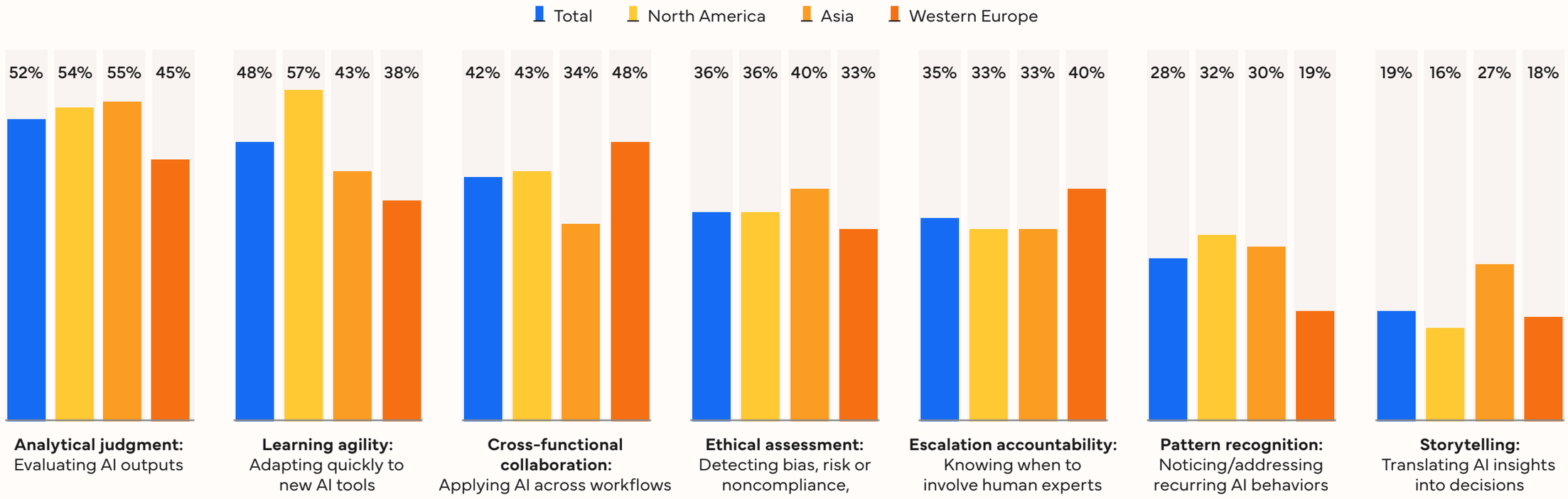
Estimated spending for enterprise budgets 2026–2027

n = 1,350; Source: IDC's *Worldwide Future of Work 2025 Survey,* August 2025. | Source: IDC's *Survey Spotlight: What Are the Strategic Implications of Surging Enterprise AI Budgets and the Share Allocated to Agentic AI?,* January 2026. IDC's *Worldwide IT Education and Training Services Forecast, 2025–2029,* June 2025.

Global organizations get the connection between human skills and agentic AI

Which of the following human skills is most essential to your employees' day-to-day work with AI agents?

See the figure data in an accessible table format.



n = 388 (North America = 160, Asia = 129, Western Europe = 99); Source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 1*, March 2026

Without human skills, AI-enabled ways of working are at risk

Organizations cannot effectively translate technical capabilities into business value without human judgment. The following five categories of human skills are essential for fast and fluid AI adoption.

Cognitive

- Metacognition
- Comprehension and contextual interpretation
- Learning agility
- Pattern recognition beyond AI
- Analytical judgment
- Sense-making
- Creative problem formulation

Collaborative

- Team-based problem-solving
- Conflict resolution
- Emotional intelligence
- Active listening
- Peer coaching and knowledge sharing
- Cross-cultural awareness

Leadership

- Empathy and human oversight
- Strategic AI implementation
- Change leadership
- Cross-functional coordination
- Building psychological safety

Ethical

- Transparency and accountability
- Ethical leadership
- Cross-cultural ethical awareness
- Bias detection and mitigation
- Gray area moral judgment
- Informed consent and data stewardship

Business

- Strategic value creation
- Vision-casting for AI integration
- Data-driven decision-making
- Storytelling
- AI-enhanced problem-solving
- Adaptability and scenario planning

Note: Skills listed in the above categories are representative and not meant to be an exhaustive list.

Human skills for AI adoption: A six-month training road map

MONTHS 1–2: Orient and de-risk

- **Change management and AI literacy:** Building trust, reducing fear, establishing accountability
- **Critical thinking and ethics:** Bias awareness, decision ownership, escalation paths
- **Outcome framing:** Tying AI to business KPIs, setting adoption behavior metrics

MONTHS 1–4: Practice and embed

- **Hands-on scenario labs:** Real work artifacts, critiquing outputs, refining judgment
- **Role-based upskilling:** Job-specific paths (prompt strategy, orchestration, ethical oversight)
- **Continuous learning:** Microlearning, nudges, job aids, peer communities in workflow

MONTHS 3–6+: Prove and scale

- **Outcome measurement:** Linking behaviors to business KPIs, tracking trust and confidence
- **Reinforcement levers:** Recognition, storytelling, performance expectations aligned to AI use
- **Continuous improvement:** Feedback loops, replicating high-performing patterns

Practical examples of human skills training

Orient and de-risk	**AI judgment simulations** Leaders review AI recommendations (quality flags, staffing, clinical risks), practice accepting or overriding decisions, and discuss accountability frameworks.
Practice and embed	**Avatar-based management training** Managers rehearse difficult conversations using life-like avatars informed by AI summaries, deciding when to follow or adapt AI suggestions while preserving empathy and fairness.
Prove and scale	**Continuous learning loops** Real-time AI decision support, combined with regular case reviews in which clinicians examine override patterns, captures lessons into updated protocols and automated feedback mechanisms.

How to measure success

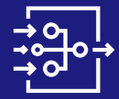
Organizations increasingly adopt a multidimensional approach to measuring the success of leadership and human skills that drive organizational progress.

As AI reshapes work, organizations need richer **human-centric metrics** — for leadership, ethics, cognitive agility, collaboration, and business acumen — alongside productivity scores.

Experience measures such as experience level agreements (XLAs), change adoption, innovation activity, and cross-functional collaboration, combined with classic key performance indicators (revenue, retention), show how human skills drive outcomes.

New human skills measures

Human-centric decision quality:
The rate at which human-reviewed AI recommendations outperform those accepted without human review



Escalation intervention rate:
How often employees appropriately override AI decisions

Skills-to-outcome score:
Links skills assessment scores directly to business KPIs, such as cost savings or error reduction

Reasoning score:
AI scoring of decision rationale logs to measure depth of critical thinking over time

Next steps for cultivating human skills

Organizations that systematically design and launch comprehensive skills programs will gain a competitive advantage in the age of AI.

1

Assess

Conduct skills gap analysis across leadership, cognitive, collaborative, ethical, and business skills.

2

Design

Create role-specific curricula that balance human and technical skills across career stages.

3

Launch

Ensure leadership support, clear metrics, and psychological safety.

Appendix A:

Developing the five categories of human skills

Cognitive skills

SKILL	HOW TO LEARN
Analytical judgment Evaluating information and arguments logically, questioning assumptions, and applying structured reasoning to reach sound judgments	Case analyses, debate sessions, decision labs using real AI outputs
Metacognition Thinking about one's own thinking and biases	Reflective journals, after-action reviews, coaching on reasoning processes
Comprehension and contextual interpretation Understanding content in context, not just at face value	Reading labs with domain cases, context-rich scenarios, Socratic questioning
Learning agility Willingness and ability to quickly learn, applying lessons from prior experiences to unfamiliar, complex or rapidly changing AI-driven situations	Stretch assignments in new domains, frequent role/task rotations on AI projects, rapid after-action reviews, feedback-rich experiments, and hands-on projects with emerging AI tools and workflows
Pattern recognition beyond AI Spotting trends and anomalies AI may miss or misread	Data interpretation exercises, anomaly-detection drills, industry trend projects
Creative problem formulation Generating original, practical solutions by reframing problems, challenging assumptions and combining human insight with AI capabilities to explore unconventional options	Designing sprints and hackathons using real AI use cases, facilitated ideation ("what if" scenarios, SCAMPER, analogies), and project-based labs where teams must prototype and test multiple solution paths
Sense-making Interpreting complex, ambiguous information and AI outputs to form coherent narratives, connect patterns, and decide what truly matters for action in context	Scenario-based workshops using messy, real data and AI summaries; facilitated debriefs to build shared interpretations; mapping exercises (journeys, systems maps, causal loops) that turn fragmented signals into collective insight and decisions

Collaboration skills

SKILL	HOW TO LEARN
Team-based problem-solving Working together to solve complex challenges	Cross-functional project teams, collaborative case competitions, structured problem-solving workshops
Peer coaching Continuously improving together by sharing insights, experimenting, and adapting practices with input from colleagues and AI tools	Learning cohorts, reflection exercises, growth mindset training, personal development plans with AI tools
Conflict resolution Navigating disagreements constructively	Mediation training, role-play conflict scenarios, difficult conversations workshops, facilitation skills development
Emotional intelligence Understanding and managing emotions in self and others	EQ assessments with coaching, empathy-building exercises, active listening labs, peer feedback sessions
Active listening Fully focusing on what humans and agents say, asking clarifying questions, and reflecting back key points to ensure understanding and make people feel heard	Role-play conversations with feedback, listening labs using recorded calls or meetings, mindfulness drills to reduce distractions, and "listening triad" exercises in teams
Knowledge sharing Teaching and learning from colleagues	Train-the-trainer programs, peer mentoring circles, knowledge-sharing platforms, communities of practice
Cross-cultural awareness Working effectively across cultural boundaries	Cultural intelligence training, global team projects, diversity workshops, international exchange programs

Leadership skills

SKILL	HOW TO LEARN
Empathy and human oversight Understanding human impact and maintaining appropriate oversight of AI systems	Scenario-based simulations, case studies on AI failures, shadowing programs, ethics workshops
Strategic AI implementation Planning and executing AI initiatives aligned with business goals	Action learning projects, executive coaching, cross-functional strategy workshops, pilot program leadership
Critical analysis Evaluating AI outputs, identifying limitations, and questioning assumptions	Case method training, red-team exercises, decision-making simulations, peer review sessions
Change leadership Guiding teams through AI-driven transformation and adoption	Change management certification, role-playing exercises, coaching on resistance management, transformation case studies
Building psychological safety Creating environments where teams can experiment and learn with AI	Leadership development programs, feedback training, facilitation skills workshops, team dynamics simulations
Cross-functional coordination Aligning AI initiatives across departments and stakeholder groups	Cross-functional project rotations, stakeholder management training, collaborative problem-solving exercises, matrix leadership development

Ethical skills

SKILL	HOW TO LEARN
Transparency and accountability Making AI decisions traceable and owning outcomes	Governance workshops, RACI exercises for AI workflows, transparency report drills
Gray area moral judgment Navigating ambiguous ethical situations where AI outputs, data use, or automated decisions lack clear right-or-wrong answers, applying reasoned judgment and organizational values	Ethical dilemma simulations using real AI scenarios, structured debate exercises, case-based learning with facilitated debrief, and decision-journaling to build reflective moral reasoning over time
Ethical leadership Modeling and enforcing responsible AI behavior	Executive ethics programs, values-based decision simulations, ethics councils
Cross-cultural ethical awareness Recognizing how ethics differ across cultures and contexts	Global ethics dialogues, regional case comparisons, diverse panel discussions
Bias detection and mitigation Identifying and reducing unfair bias in data and models	Bias audits on sample models, fairness metric workshops, red-teaming AI systems
Informed consent and data stewardship Ensuring users understand and agree to data/AI use	Training on consent design, reviewing consent flows, stewardship charters, and role-play approvals

Business skills

SKILL	HOW TO LEARN
Strategic value creation Using AI to create new revenue, efficiency, or differentiation	Strategy labs, business-model design sprints, AI use-case portfolio workshops
AI project management Scoping, delivering, and scaling AI initiatives	Agile/PM training with AI case work, pilot-to-scale playbooks, risk and dependency mapping
Data-driven decision-making Basing business choices on data and evidence, not intuition alone	Analytics bootcamps, KPI design sessions, dashboard-interpretation labs
Storytelling Communicating AI insights and change narratives clearly	Narrative-building workshops, presentation coaching, before/after case storytelling
AI-enhanced problem-solving Combining human judgment with AI tools to solve business problems	Human-in-the-loop simulations, cross-functional hackathons, guided "AI copilot" problem labs

Appendix B: Accessible data table

This appendix provides an accessible version of the data for any complex figures in this document. Click "Return to figure" to get back to the data figure.

Page 8 figure

Which of the following human skills is most essential to your employees' day-to-day work with AI agents?

Benefits	Total	North America	Asia	Western Europe
Analytical judgment: Evaluating AI outputs	52%	54%	55%	45%
Learning agility: Adapting quickly to new AI tools	48%	57%	43%	38%
Cross-functional collaboration: Applying AI across workflows	42%	43%	34%	48%
Ethical assessment: Detecting bias, risk, or noncompliance	36%	36%	40%	33%
Escalation accountability: Knowing when to involve human experts	35%	33%	33%	40%
Pattern recognition: Noticing/addressing recurring AI behaviors	28%	32%	30%	19%
Storytelling: Translating AI insights into decisions	19%	16%	27%	18%

n = 388 (North America = 160, Asia = 129, Western Europe = 99); Source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 1,* March 2026

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About the IDC analysts

Amy Loomis, Ph.D.

Group Vice President, Workplace Solutions, IDC

Amy Loomis is group vice president for IDC's worldwide Workplace Solutions. Loomis leads a team of analysts focused on the evolving nature of human resources, skills development, collaboration, and leadership across the employee life cycle. Her research into the future of work explores the influence of hardware and software technologies such as artificial intelligence, data analytics, augmented and virtual reality, and automation on the changing nature of work. Her research also explores how technology and business strategy influence workers' skills and behaviors, organizational culture, and how the workplace itself is enabling the future enterprise.

More about Amy Loomis →

Gina Smith, Ph.D.

Research Director, IT Skills for Digital Business, IDC

As a Research Director at IDC, Gina Smith is responsible for producing research in the IT skills and training sector. Her responsibilities include primary research, analysis and report writing, and the production of market insights worldwide. Smith has more than 25 years of experience in technology, journalism, publishing, and tech start-up management.

More about Gina Smith →

Message from the sponsor

Microsoft

Unlocking human ambition in the AI era

Human ambition has always driven progress—but too often, it's constrained by time, complexity, and access to the right skills. As AI becomes a core part of how work gets done, organizations are discovering that technology alone isn't enough. Real impact comes when AI is paired with strong human capabilities — judgment, collaboration, ethics, leadership, and the ability to turn insight into action.

At Microsoft, we believe building the right mix of human and AI skills is one of the most powerful levers organizations have to realize value from their AI investments. That's why we focus on helping organizations of all sizes — and individuals around the world — understand their skills needs, plan with intention, and build capabilities that evolve as AI changes work.

Explore AI Skills Navigator to begin your skilling journey.

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