LangChain

State of AI Agents

We surveyed 1300+ developers and business leaders in September 2024 on AI agent adoption, use cases, challenges, and more.
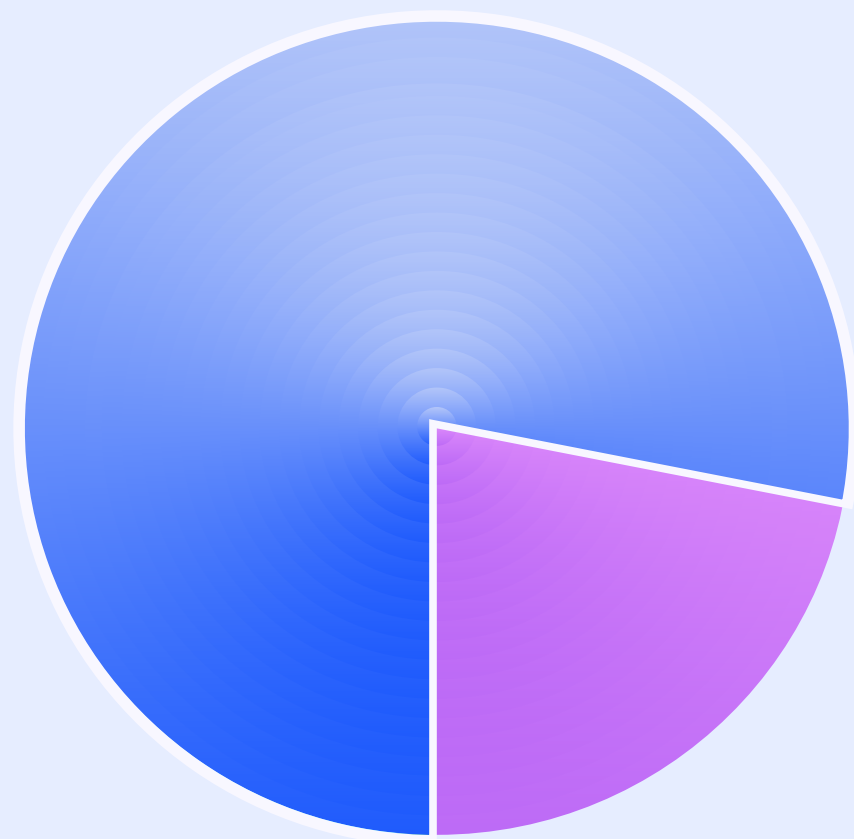
1. Agent adoption is a coin toss - but nearly everyone has plans for it.

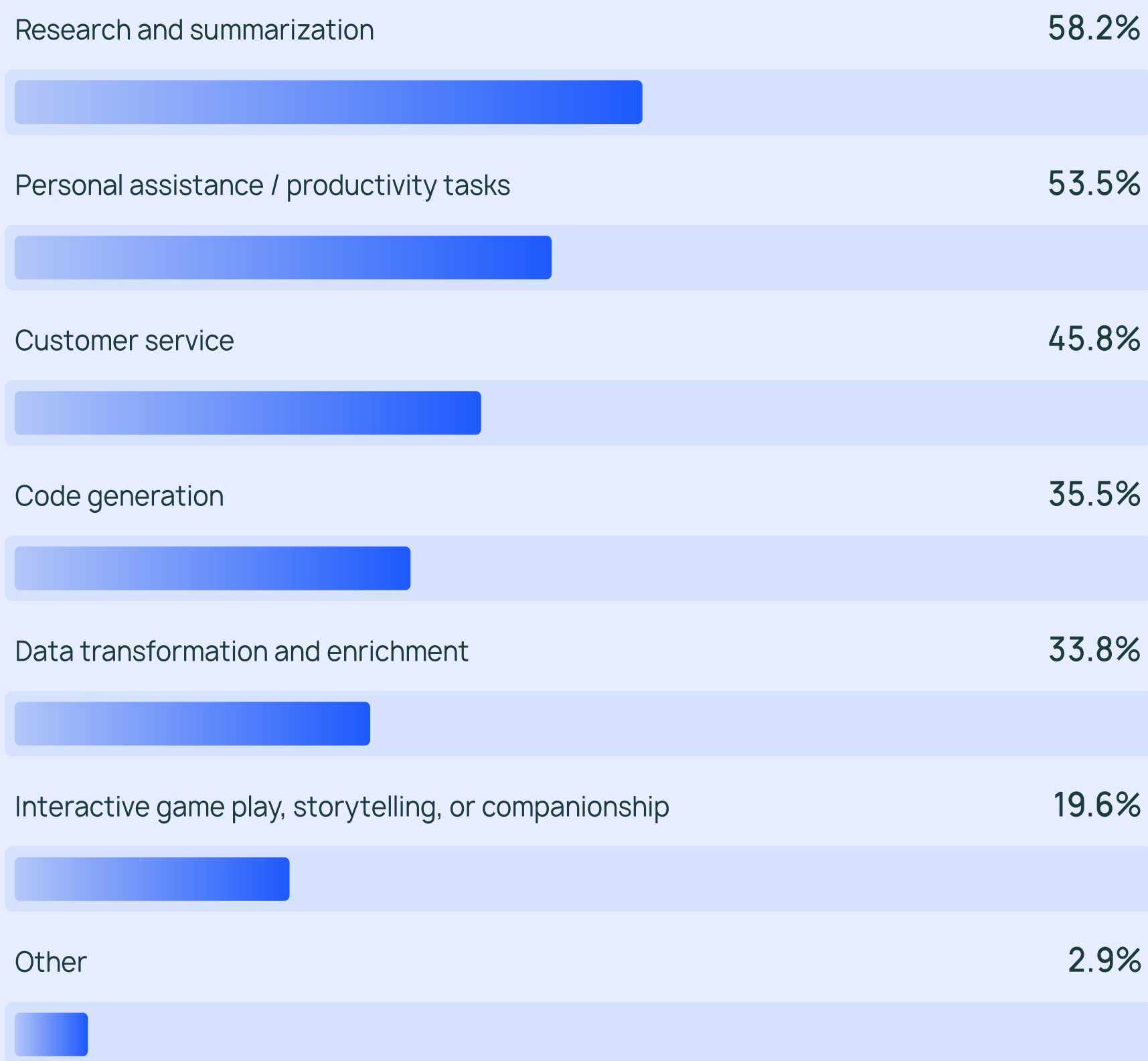**Does your company currently have agents in production?**

Yes - 51.1%   No - 48.9%

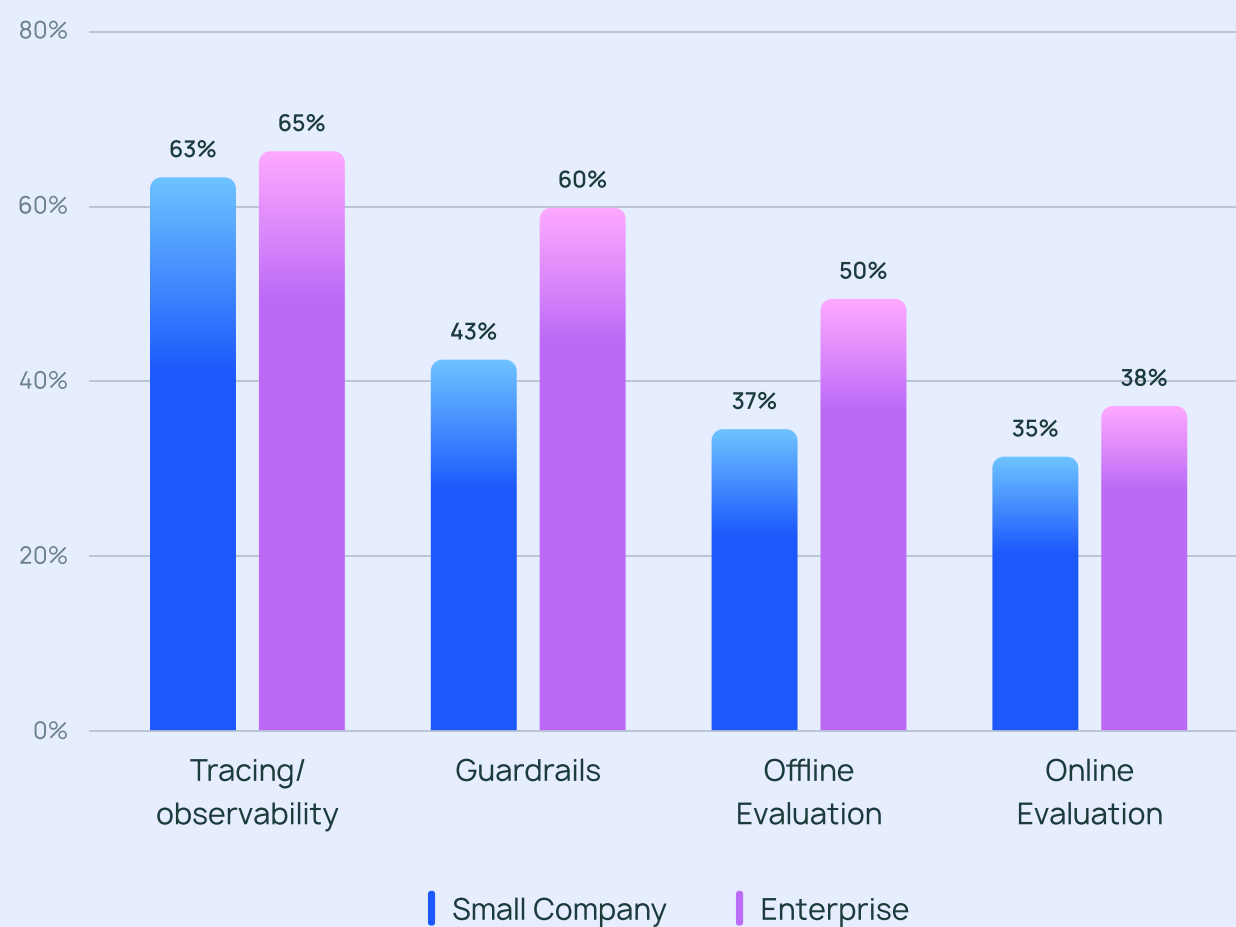**Are you currently developing an agent with plans to put it into production?**

Yes - 78.1%   No - 21.9%

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2. Research and summarization is a top agent use case, followed by personal assistance and customer service.

Research and summarization   58.2%

Personal assistance / productivity tasks   53.5%

Customer service   45.8%

Code generation   35.5%

Data transformation and enrichment   33.8%

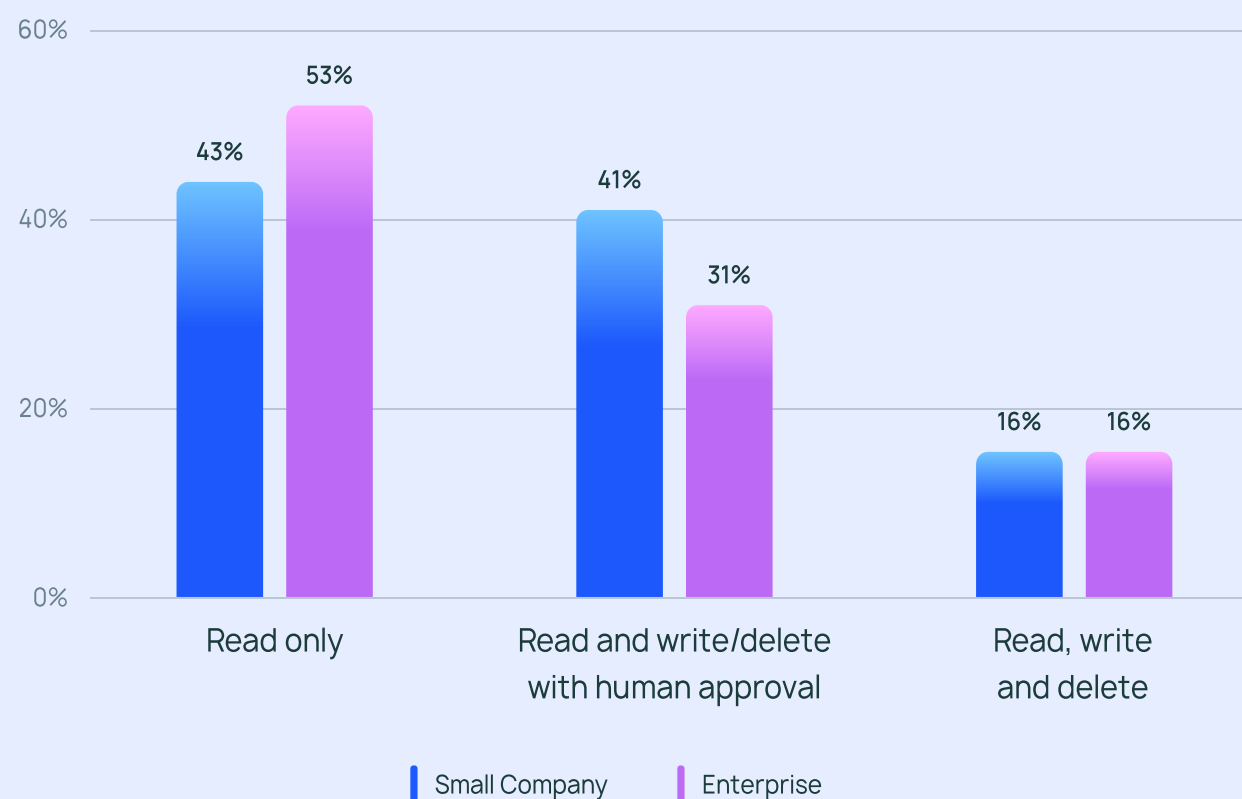Interactive game play, storytelling, or companionship   19.6%

Other   2.9%

3. Better safe than sorry: Tracing and human oversight are needed to keep agents in check.

Agent controls by company size

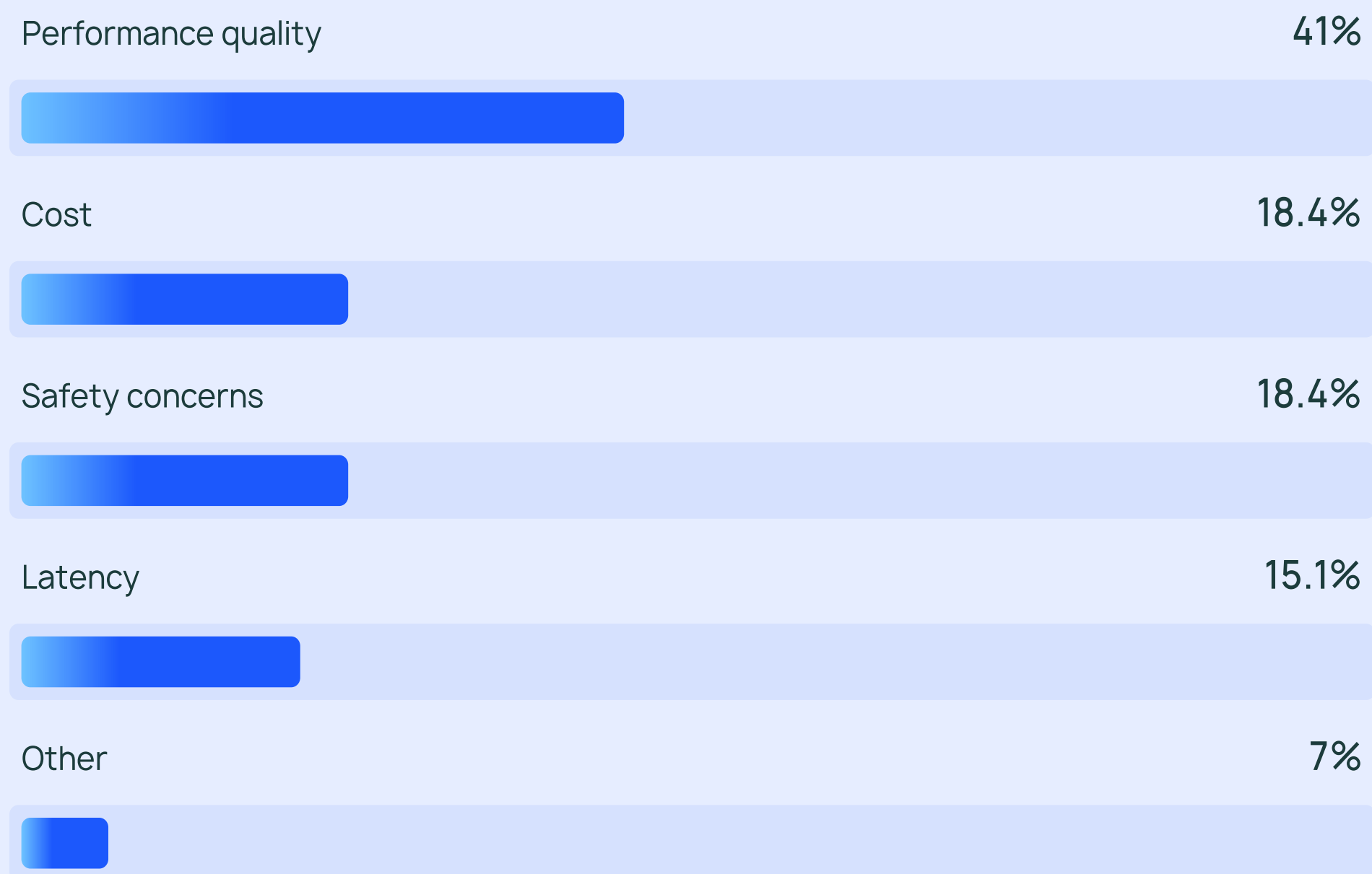Chart: Agent controls by company size

- Tracing/observability: Small Company 63%, Enterprise 65%
- Guardrails: Small Company 43%, Enterprise 60%
- Offline Evaluation: Small Company 37%, Enterprise 50%
- Online Evaluation: Small Company 35%, Enterprise 38%

Legend: Small Company | Enterprise

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Tool permissions by company size

Chart: Tool permissions by company size

- Read only: Small Company 43%, Enterprise 53%
- Read and write/delete with human approval: Small Company 41%, Enterprise 31%
- Read, write and delete: Small Company 16%, Enterprise 16%

Legend: Small Company | Enterprise
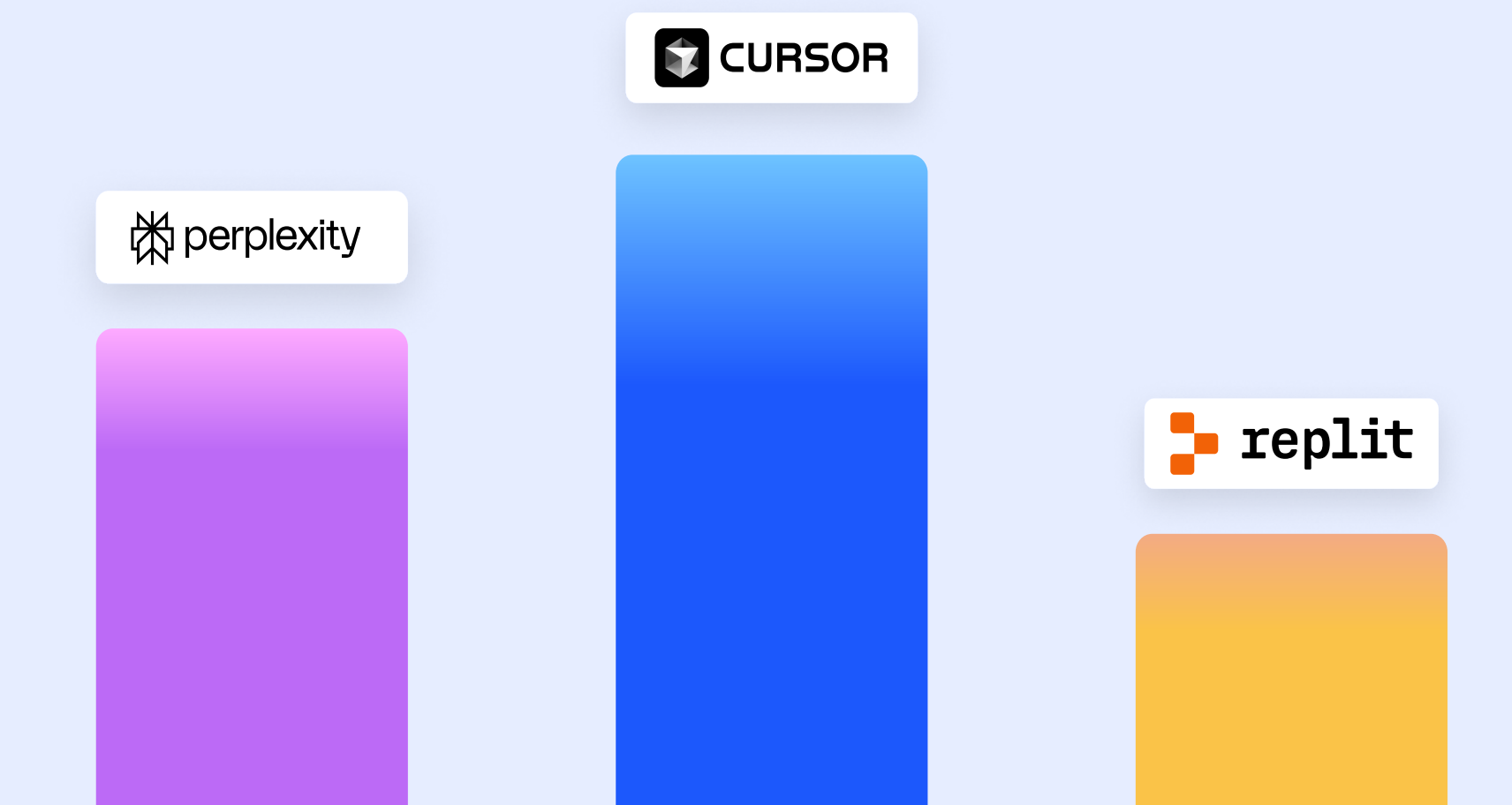
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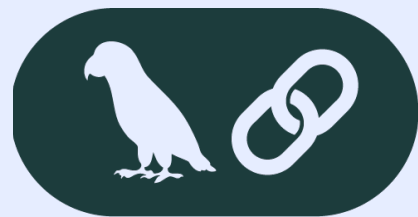
4. Performance quality is the biggest barrier that holds companies back from using AI agents in production.

Performance quality   41%

Cost   18.4%

Safety concerns   18.4%

Latency   15.1%

Other   7%

5. But some AI agents **are** solving real user problems. Just ask Cursor, Perplexity, and Replit — all of which respondents repeatedly named as their favorite agentic apps.

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Want to learn more about AI agent use cases & pain points? Read the full report.

langchain.com/ stateofaiagents