

FUTURE OF WORK RESEARCH REPORT

The High Cost of
Inaccessible Knowledge



Contents

Executive Summary	03
Introduction: The Problems You Can and Can't Solve	04
The Failure and Cost of Poor Knowledge Management	06
The Search for Information	07
Better Tools Needed	08
Expanding Knowledge Silos and Undocumented Knowledge	10
Experience and Knowledge Sharing Pays Off	11
Knowledge at Work: Three Business Solutions	11
Research and Development: Reinventing the Wheel	12
Sales Teams: Missing Targets Through Missing Information	13
Helpdesk and Shared Services: The Answers are Already out There	14
Modern Knowledge Management with Starmind	16
Appendix: Demographics and Methodology	18

Executive summary

This report details the hidden costs and impacts created by poor knowledge sharing and knowledge management at large companies—those with more than 10,000 employees—in the US, the UK, Germany and Switzerland.

The average employee at these companies spends 102 minutes searching for the information they need to perform their jobs on a daily basis. These minutes quickly stack up to **millions of hours lost** in large companies over the course of a year. The existence of knowledge silos in companies is recognised as creating a serious impact on productivity and agility, and that impact has been exacerbated by remote and hybrid work, according to survey respondents.

The financial impacts of time spent searching for missing information can be calculated in terms of the hourly wage cost for wasted time, and they add up to significant sums.

The majority of respondents identify personal and team mistakes as a result of missing information. This has a domino effect of **delayed projects, fewer sales, unhappy customers, and multiple decisions based on gut-feel**, as opposed to data.

All of these problems prove to be more acute among the most senior staff among the employees surveyed, magnifying the scale of these problems still further and showing the ways in which missing knowledge creates **business-critical outcomes**.

This report includes a deeper dive into the particular dynamics facing helpdesk employees, research and development personnel, and salespeople. For these teams, fast access to reliable and up-to-date information is particularly key to work success—and the adverse effects created by **lack of access to information and expertise are thus potentially catastrophic for business growth, agility and competitiveness**.



Introduction

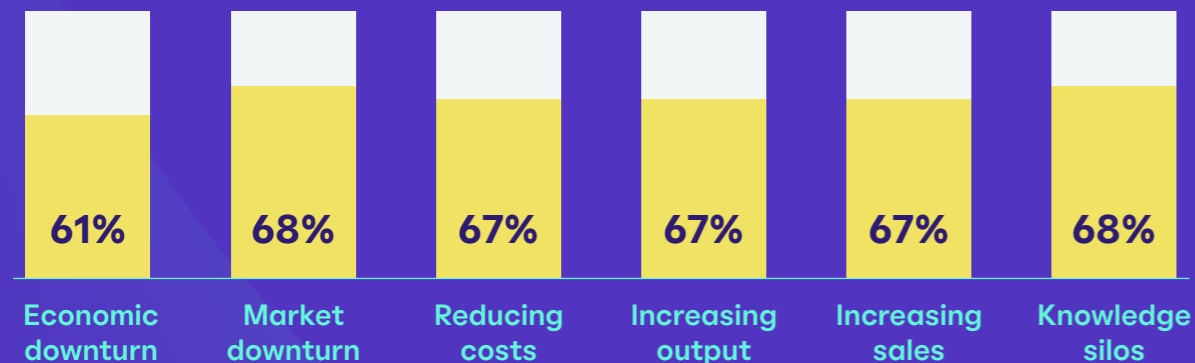
The Problems You Can and Can't Solve

The world's largest businesses face the struggle of their lives. Multiple economic, societal and organizational macro trends are slowing them down and making it harder to do business, according to our survey of knowledge workers at large companies in the US, the UK, Germany and Switzerland.

Many of these problems are out of the control of organizations themselves. C-level executives say that downturns in the economy (61%) and in their specific markets (68%) are already creating serious challenges for their businesses.

These adverse conditions are likely to get worse before they get better. In June 2022, the World Bank [warned](#) of the likelihood of a global recession. The International Monetary Fund agrees. The subtitle of its July 2022 economic outlook [report](#) is 'Gloomy and More Uncertain', as the Ukraine war, slowdowns in China and Russia, inflation and resurgences of COVID-19 create negative impacts for stock markets and individuals alike.

Key issues for C-level employees:



Broad economic problems quickly affect individual businesses, translating them into harder targets and more pressure. Among C-level executives, two thirds (67%) say the need to reduce costs is creating a serious impact, and similar numbers say increasing or maintaining output (68%), the requirement to increase sales (67%) and issues around the speed to market for their companies' products and solutions (67%) are creating serious problems for their organizations.

A majority employees (41%) believe hybrid working is creating a negative effect on their business, while (presumably failed) digital transformation projects are creating a serious impact on around half (48%) of the businesses surveyed.

Many of these broader issues are beyond the control of individual companies and nothing they do will significantly change some of the conditions under which they operate. However, hard times should draw sharp attention to areas where businesses are entirely in control that can create a huge positive impact.

This report focuses on one particular area where companies can do much better and eliminate a problem which does not need to exist. Alongside the macro-issues above, we asked about the extent to which knowledge silos across companies were creating problems, and 68% of C-level executives said the impact of such silos was a serious problem, making it an equal or worse problem than any other issue.



Knowledge silos mean that significant portions of the company's resources are under-utilized

—that work is being duplicated and that significant time is being wasted trying to find information that may or may not exist in these silos.

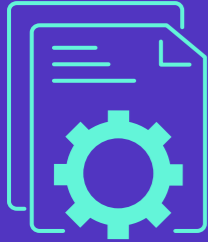
Maximizing the chances of withstanding the many issues facing organizations today will require a connected organization that surfaces tacit knowledge, celebrates knowledge sharing and allows employees to focus on what they do best by enabling them to get easy access to the knowledge they need.

This report digs deep into the extent of these knowledge management and sharing issues, and their causes. The impacts are enormous, as we shall see, in terms of wasted time, loss of agility, lost opportunities, the failure to realize sales or complete projects and more. This does not need to be the case and we will show how a better approach can drive enormous efficiencies, productivity and agility in the workplace.

Starmind commissioned research agency Sapio to conduct an online survey, following email invitations, of 1,404 full-time knowledge workers at companies with more than 10,000 employees in the US, the UK, Germany and Switzerland in July 2022.



The Failure and Cost of Poor Knowledge Management



Knowledge management is the process by which organizations gather, organize, curate and share information.

In traditional knowledge management, this information often takes the form of documents, such as manuals, guides, frequently asked questions, customer or client records, technical resources and documented processes.



Modern knowledge management offers an evolved approach to the problem, recognizing that information grows faster than formal documents are likely to be able to cover it and that human knowledge ought to be surfaced and people connected as part of the process. It will, therefore, also cover less formally documented sources, such as individual experience and expertise, team and client conversations, and best practices acquired through expertise or experience. In an ideal world, if these systems worked well, any reasonable work question could be answered in moments.

Companies have used a wide range of sometimes overlapping tools to perform knowledge management. These include formal knowledge management applications, knowledge bases, wikis, shared file repositories, manuals, CRM systems, ticketing and helpdesk systems, and more modern, searchable chat apps.

This list helps to understand part of the problem. **There are many different types of questions that employees might need to find the answer to over the course of their working week. But very few established applications are well-suited to containing more than one type of answer,** so the applications and locations proliferate and, before long, there might be a dozen different places where answers might exist.

And unfortunately, none of these systems or applications work nearly well enough.

The Search for Information

Our survey reveals enormous amounts of time lost to searching for answers. For the average knowledge worker, one hour 42 minutes each day is spent searching for information they need to complete a task. One third of workers spend more than two hours of their day just trying to find the information they need.

One hour 42 minutes might not sound too serious. But when you extrapolate that figure over a year, its impact becomes much more clear.

In the US, there are 250 working days in 2022, once weekends and public holidays are removed from the calendar. So that's 425 hours (102 minutes multiplied by 250) every year lost to searching—or more than **10 work weeks** a year for every employee. Then, our survey cohorts all work at companies with at least 10,000 employees, so that figure becomes more than 4.25 million lost hours each year at each of these companies.



102 minutes out of every 480-minute (8-hour) working day is spent looking for answers.

We might begin to understand the **financial impact of these lost hours through the wages paid to people for not getting their jobs done because they're searching for information.** To fuel a fairly minimalistic calculation of this figure, company review site Glassdoor [estimates](#) the average US knowledge worker is paid \$33,453 per annum, across 2,000 working hours, giving an average hourly wage of \$16.73 (excluding paid leave, which would make these figures even worse). Multiplied by the 4.25 million hours lost to searching for information, that's an annual bill of \$71,102,500, per company, for not having the right answers at hand to get on with work.

The wage equivalent of these lost hours is only part of the picture. They also create huge extra costs in the form of project delays, frustrated customers, lost sales, and more.

One further slant on these figures. **C-level executives spend more time searching for information than individual contributors.** For them, the average time lost per day is closer to two hours (117 minutes). This reflects the nature of the problems and decisions these people need to deal with. They're tackling issues that affect the whole organization, with more inputs, unknowns, stakeholders and novel elements than the average employee.

The cost of not having the right answers to get on with work

an annual bill of
\$71,102,500
per company

Better Tools Needed

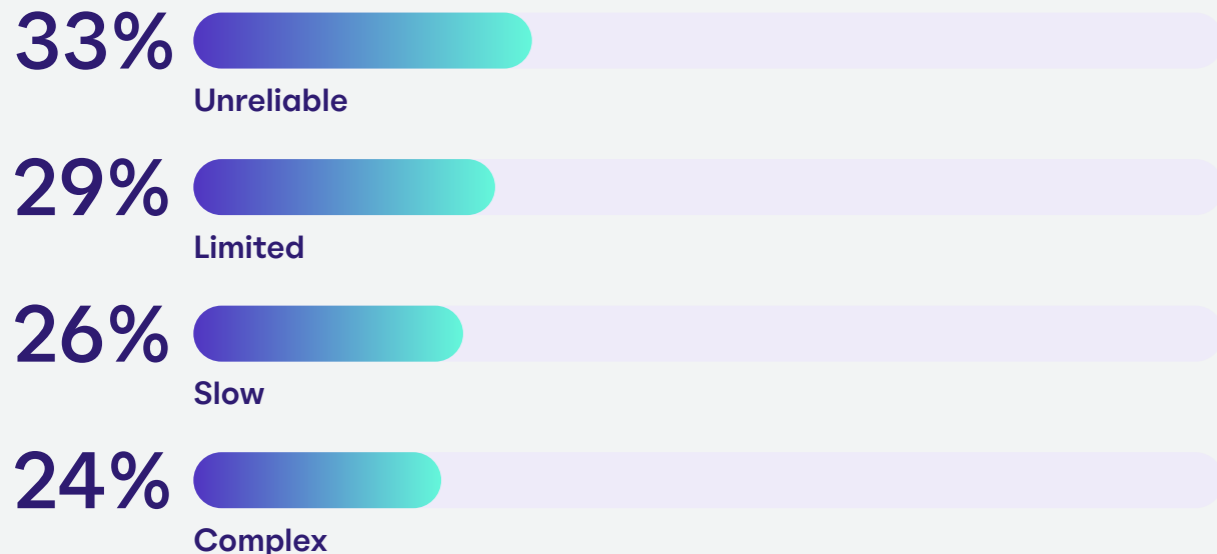
Traditional knowledge base or wiki tools (such as Google Docs, Helpjuice, Guru, Sharepoint or Confluence) are widely used in larger companies: 94% of our respondents use these tools or an equivalent to manage, organize and ostensibly provide access to information.

However, they are neither trusted nor liked by employees. **Only 8% of respondents say they are very satisfied with the tools in use at their company.** Just 3% say they are able to use these tools without any challenges.

One third (33%) of respondents say that the information they find using these tools is not always reliable, that it's hard to validate whether it's true and that the information they receive may be out-of-date. One quarter (26%) say that it takes them too long to obtain the results they require and a similar proportion (24%) find the process of getting to the information required too complex.

This sense of over-complexity is more severe at senior levels. Among C-level employees, more than a third (35%) said the process was too complicated, compared to 22% of more junior employees (24% is the average across all employees, regardless of seniority).

Wiki/knowledge base tools are:

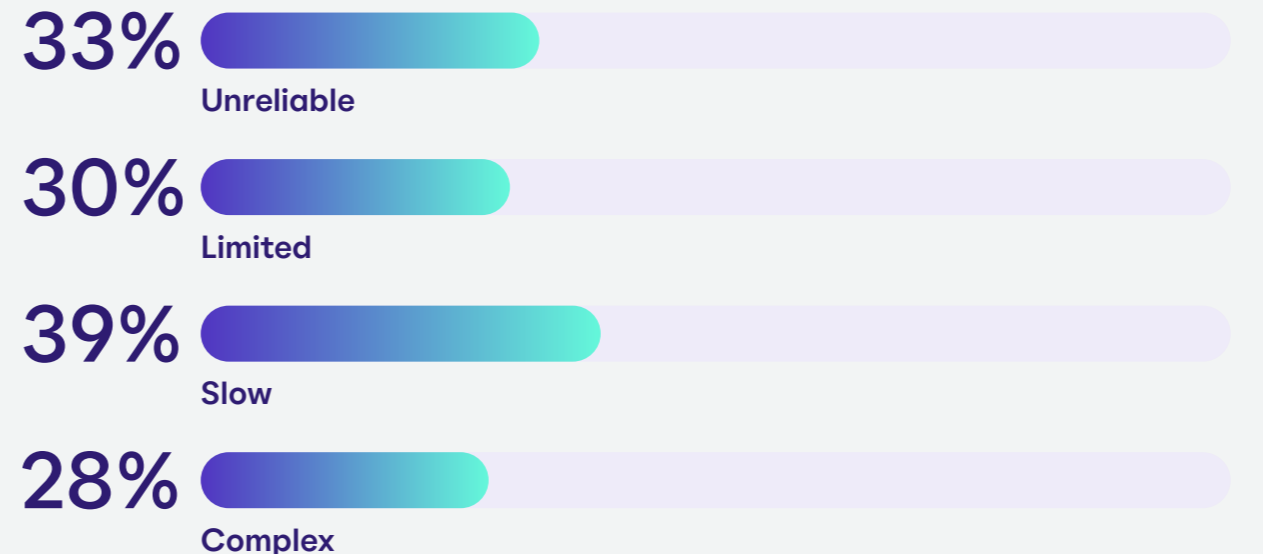


Ticketing and helpdesk systems get similar or worse reviews from the end-users relying on them for help and information: Again, only 8% of respondents said they were very satisfied with their company's chosen tool.

The time consumed by these systems is the chief complaint, with 39% saying that it takes too long to get an answer when they submit a ticket. One third (33%) aren't satisfied with the results, which, like knowledge bases, it seems, aren't always reliable, and the information supplied is hard to validate. Similar proportions of those surveyed find that the systems are too limited, or otherwise don't yield the information they need (30 and 31% respectively).

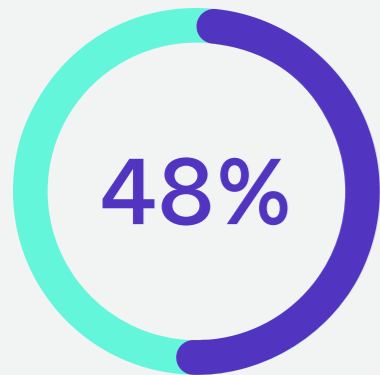
Frustrations with these systems once again increase at more senior levels. C-level employees are much more likely to find the information received unreliable (43%, versus 32% of more junior employees) and the systems themselves over-complex (39% versus 26% of less senior employees)

Ticketing/helpdesk tools are:



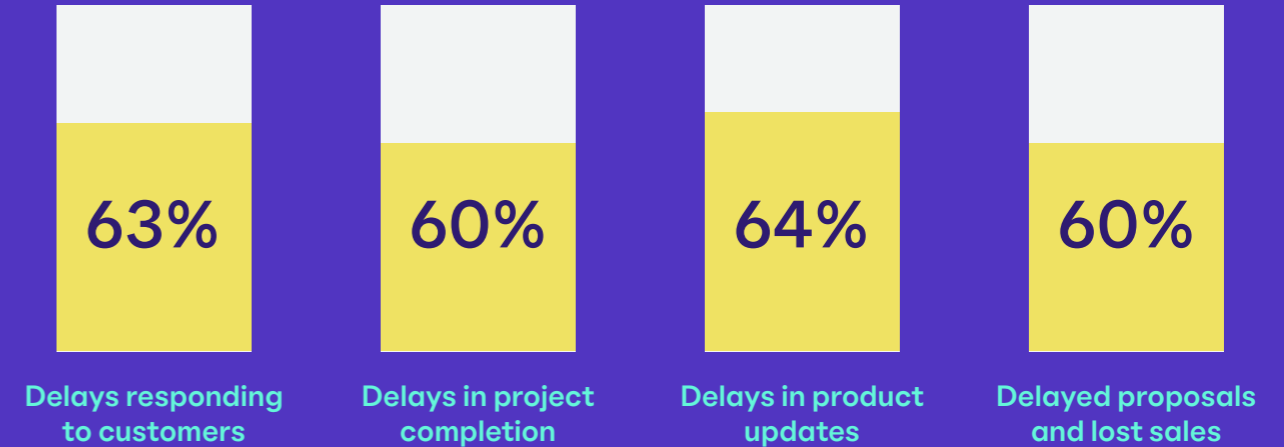
The impacts of time spent searching or waiting for information creates a series of adverse impacts for knowledge workers. **Two thirds of respondents say that the amount of time they spend searching for information reduces the time they're able to commit to deep work.** This figure rises to 75% among C-level employees. Half of employees (48%) say they can't access the knowledge they need quickly and easily to do their jobs effectively.

This isn't just about thinking-time. **Missing information impacts multiple revenue-generating aspects of people's jobs.** These include unwanted delays in responding to customers, which affects 43% of respondents. Two fifths (40%) say not having answers available to business questions has had a serious impact on project completion or new solution launches. A similar number (39%) say that such problems have created delays to product updates and launches. Over a third (35%) have experienced lost sales or delays in submitting an RFP owing to missing information. Each of these impacts is felt more keenly by C-level executives as the chart shows.



Half of employees say they can't access the knowledge they need quickly and easily to do their jobs effectively.

C-level employees affected by missing information



Finally, when people don't have access to the necessary information they can revert to guesswork to inform business critical decisions. Within a business context, this can be an enormously costly route. Every decision has a budget attached to it, and uninformed decisions can result in costly wastage and the adoption of solutions that don't work for the company.



On average, educated guesses are used to make a decision six times a month by employees.

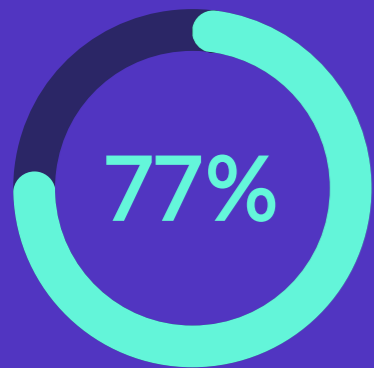
For C-level executives, who are making bigger decisions than most, the number *rises to seven times a month.*

Expanding Knowledge Silos and Undocumented Knowledge

The existence of knowledge silos—where portions of company information and expertise are restricted to a particular office or department—is an inevitable result when larger organizations have imperfect knowledge management.

As experiences and expertise remains undocumented, such silos will grow, and the result is that it becomes harder and harder to gain the benefits of institutional knowledge and past experiences.

It's a widespread problem: 56% of employees feel that they have missed out on an opportunity they would have seized if they had access to the right information at the right time. Meanwhile, **69% admit that they could have avoided a mistake if they had access to the right people or information.** And it's a problem that the majority of respondents feel has been exacerbated by virtual and hybrid working environments. The vast majority (77%) of C-level employees, in particular, feel that the ability to collaborate, communicate and gain access to information has worsened with the advent of hybrid working practices.



77% of C-level executives think access to information has worsened through hybrid working

How much knowledge goes undocumented? Our survey revealed the average employee reported that 57% of their professional knowledge and experience is captured in documentation or trained to others in their current role. But 13% put that figure at below a third of their knowledge.

Another perspective came from asking **how much of a typical leaver's knowledge is documented.**

41%

said that less than half of that person's knowledge was likely to be documented and available to the rest of the company after their departure

Knowledge silos are often exacerbated between different departments and between different offices, especially if they are in another country. The majority (58%) say they find it difficult to establish connections with employees outside their own network, the people they regularly work and interact with. More than a third (37%) rate their ability to work with people in different departments between 'average' and 'terrible'. With colleagues located in different countries that figure rises to 51%. Seeking information from more senior staff is also problematic at many companies, with 44% ranking their ability to share or ask information of company leaders between average and terrible.

Experience and Knowledge Sharing Pays Off

Many of the statistics shared from our survey demonstrate poor practice, bad habits and business self-inflicted inefficiencies. Knowledge sharing and knowledge management is extremely poor at many organizations and this creates considerable delays, waste and lost opportunities. But the findings showed that **people have a strong, natural desire to share what they know with others.**

More than three quarters of our respondents (**82%, one of the most unanimous results in the survey**) said they feel happier at work when they're sharing their knowledge and helping others. And a similarly high proportion (77%) thought that if their company made more use of their knowledge and experience, the organization would benefit.

People crave a personal element to knowledge management.



When we asked about knowledge base tools and then helpdesk systems:

Around a third (32% and 37% respectively) said they wished there was a way they could reach out to a qualified colleague, rather than going through an austere, complicated database or ticketing system.

The challenge with existing systems is that it becomes difficult to validate the accuracy of information received or to know whether it is out-of-date. This is less of a problem when answers are received in person from someone with relevant experience and/or expertise.

Knowledge at Work:

Three Business Solutions

As well as surveying knowledge workers in general, we drilled deep into three use cases where better access to answers and better knowledge sharing mechanisms are likely to have a particularly strong effect on the pace of work and business outcomes.

These are:

1. Research and Development
2. Sales Teams
3. Helpdesk and Shared Services

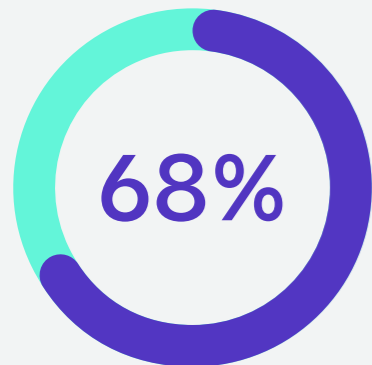


Research and Development: Reinventing the Wheel

The agility to react to or anticipate the market is a key ingredient in business success. **Being able to swiftly add new features, or create new versions of existing products and services, ahead of the competition can be the difference between growth and decline.** Clearly those charged with research and development, product development and product management need to be able to move at speed and get access to the existing intellectual property to ensure the company's fortunes. Time to market is a crucial metric for R&D, not only in terms of being first, but also in ensuring their company is able to obtain intellectual property rights over a particular product or service, which can make the difference between success and failure for years to come.

This is not happening at many companies. Instead, missing information and the inability to collaborate stymies progress and costs businesses their competitive advantage.

This is true at the majority of companies. At more than two thirds (68%), projects have been delayed due to missing information. This has cost dearly: 62% say that delays in project delivery have cost them their first-to-market advantage. Quite possibly, the only reason some of these companies have survived is that their direct competitors are equally impaired when it comes to knowledge management.



More than two thirds say projects have been delayed due to missing information.

The consequences of not having access or insight into company information also mean that teams are reinventing the wheel. We found that 59% of those in research and development or product management functions sometimes find after the fact that the required expertise to meet specific R&D challenges in a project they'd completed was already available in the company. The lack of collaboration between different R&D offices or departments is very striking. More than half R&D employees (57%) don't know what other R&D teams are working on, increasing their chances of duplicated efforts. More than a third say there's little to no knowledge exchange between R&D and key stakeholder team members.

The costs to research and development time is difficult to measure when parallel projects might be bearing on exactly the same challenges.



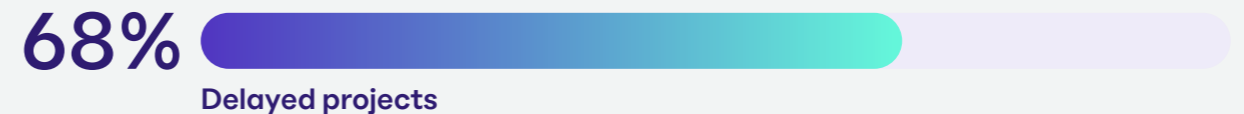
5 hours a week

By their own account, such staff say:

They would save five hours a week if they had ready access to company information and expert knowledge.

But because of the potential for the duplication of projects, the real total could be considerably higher.

R&D personnel report...



Delayed projects



Lost market advantage



Don't know what other R&D teams are doing



Expertise discovered after research

Sales Teams: Missing Targets Through Missing Information

In many areas of business, the link between time wasted and lost revenue can be difficult to calculate. When it comes to sales, however, the link is very transparent. People know if they haven't responded in a timely manner, their leads are taking longer to convert, or if they weren't able to satisfy a query or missed a deadline for an RFP. Our survey reveals exactly how often these issues occur, although the exact financial impact of these delays will vary enormously depending on the nature of each individual company, its sales cycle, volume and typical value.



More than half (52%) sales, and business development professionals say they would sell more if they had better access to company information.

The unavailability of information means that 52% have missed deadlines and missed opportunities in framing proposals for customers or clients.

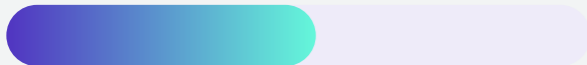
As well as the resource required for creating proposals or submitting offers, two thirds of sales, and business development professionals (66%) say they often receive enquiries from customers or prospective customers that require information from other areas of the business.

The time required for both types of information—gathering swiftly adds up. **Sales, and business development professionals at companies with up to 20,000 employees would save 12 hours a week if they had ready access to information and expertise to accomplish work tasks.** The number rises steeply among the most senior leaders, with C-level executives in these departments saying they would save 21 hours a week—more than half their working hours—if they had better access to best practices or to the right person to advise them.

The business impacts created by these issues are considerable. **With limited access to information and not knowing who to engage, as well as with the gap in access to best practices, salespeople and consultants risk lost sales and extended sales cycles.** Precious time is squandered on gathering information, rather than making the most of their opportunities, using tools that conveniently provide access to the best intelligence on the specific business context around each potential deal.

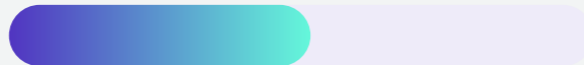
Sales professionals agree, or strongly agree, poor access to information means:

53%



We make fewer sales

52%



We missed deadlines for proposals

52%



The sales cycle takes much longer

61%



We're often unable to answer queries

Helpdesk and Shared Services: The Answers are Already out There

Nearly all (96%) of the companies surveyed use helpdesk and ticketing systems as part of their knowledge management toolkit. As we have already seen, **many end-users of these systems find them slow, complicated, incomplete and unreliable, or feel there's a combination of these flaws.** But delving into the experience of the administrators of these systems, the helpdesk and customer service front-line, reveals further complications.

On average, employees at 10,000+ person companies raise 2.2 tickets a week, generating at least 22,000 tickets between them every week. Most large organizations have outsourced their ticketing solution, with the average cost-per-ticket estimated at around \$15. Thus the 'weekly bill' for these unpopular services is \$330,000, or \$16.5M over a year at a 10,000-person company. C-level employees are considerably more demanding than the average employee, raising an average of 3.3 tickets weekly.



At nearly a quarter of helpdesks (23%), all of the tickets received each week concern issues that have already been resolved for other employees.

A typical ticket takes 1 hour, 49 minutes to resolve, according to all employees; and 1 hour 38 minutes according to helpdesk employees themselves. The eleven-minute disparity here might either reflect helpdesk workers having a better impression of their own efficiency than their users, or bottlenecks between tickets being submitted and them being assigned to an agent.

Regardless, weekly tickets create upwards of 36,000 hours of work each week at a company with 10,000 employees. Where outstanding tickets are preventing progress in work tasks, or answers for customers, then the business impact here is very severe.

These thousands of hours, nearly two million at a 10,000-person company over the course of a year, are often wasted time for everyone involved. At nearly a quarter of helpdesks (23%), all of the tickets received each week have already been resolved for previous users. A further **29% say that the majority of tickets have already received answers. Half (50%) say that documented answers already exist and are available to users in some form for either the majority or all of the tickets received.**

\$16.5M

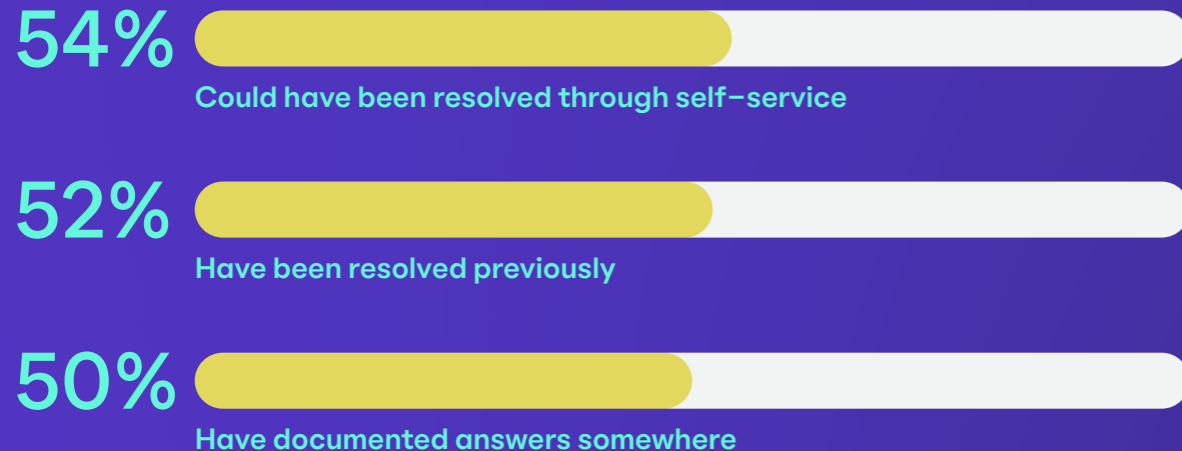
over a year

at a 10,000-person
company

Cost of Upkeep

One final note on wasted time. Knowledge base and ticketing tools carry a further, somewhat hidden cost. They don't typically update themselves or curate new information automatically: It's somebody's job. The average helpdesk or customer service employee spends 4.3 hours every week keeping information resources updated. Again, what might initially seem like an acceptable amount of time scales up alarmingly across 50 working weeks in a year and every individual employed in that function.

The majority or all tickets...



92%

Given an appropriate tool, I would prefer to self-resolve my questions

Employees would enormously benefit from better self-service tools. While documented answers might exist in the case of half those 36,000 weekly tickets, according to helpdesk staff, it's self-evident that finding those answers is too difficult for most employees, or the tickets wouldn't exist. As we've seen when discussing knowledge base solutions, the tools in place are unsatisfactory for most users, being too slow, too complex and too unreliable, or a combination thereof.

Better self-service options for discovering answers to problems are in heavy demand. More than half helpdesk employees (55%) say that the majority of the tickets they receive could be resolved through self-service if better tools were available.

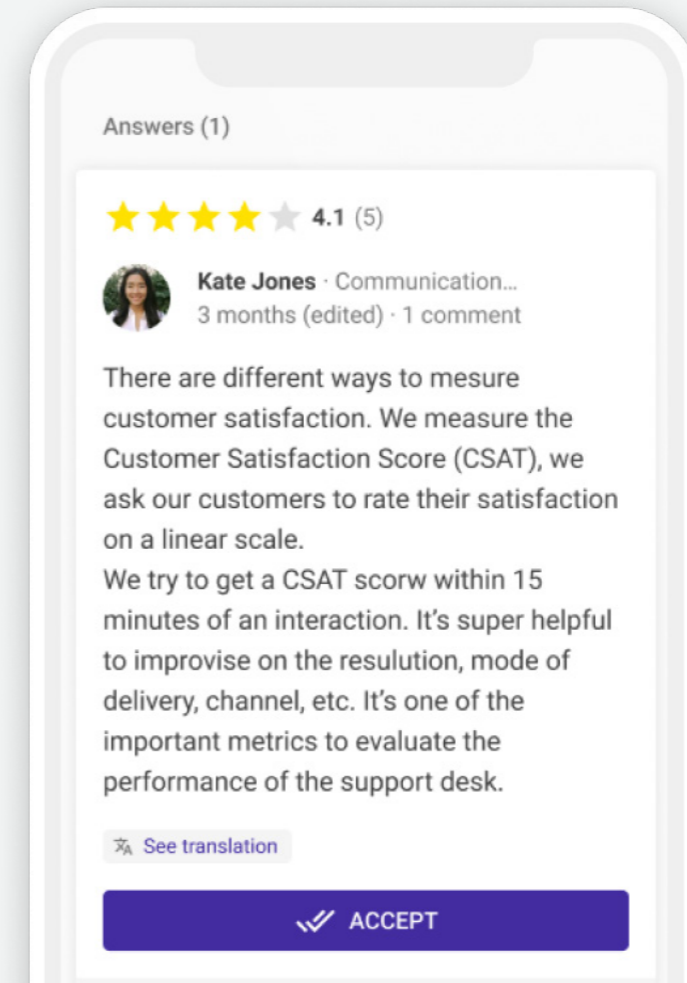
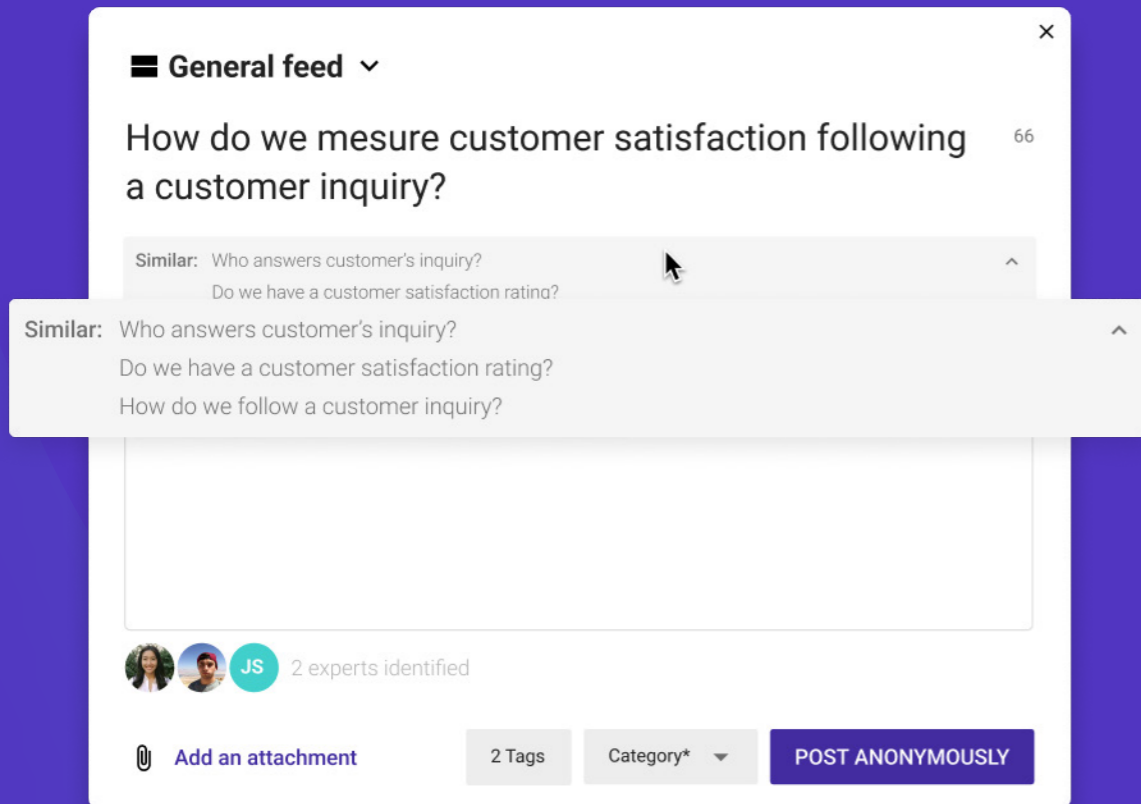
This call is warmly supported by the employees using these services. The overwhelming majority (92%) would prefer to self-resolve questions by being able to access existing answers or the right person to advise them.

Modern Knowledge Management with Starmind

Starmind exists to connect people with business questions with the answers and the expertise they need within their company. It aims to be the primary source of knowledge and access to expertise in large organizations and to transform the way the world works by freeing expert knowledge for everyone.

The platform allows any member of the organization to post their question anonymously. If questions have been answered previously it will find those answers—and others related to the question. Starmind allows organizations to retain up-to-date knowledge automatically and enables the self-resolution of queries.

Starmind also learns who has answered questions around particular topics at that point in time and thus the subject matter experts across the company who are most likely to be able to help with the particular query. It can connect to publicly shared internal information in tools like Slack, Teams and Outlook to help build its AI-powered knowledge map, find answers and establish experts. **And it is also integrated into the existing employee workplace stack, rather than creating another application to learn and monitor.** Starmind also reduces the workload for experts, because they are frequently asked the same questions on multiple occasions, but now, their answers are retained and re-presented automatically.





For R&D

Starmind helps create a knowledge-centric ecosystem and enables tacit and collective knowledge transfer across silos. It also identifies subject matter experts across the company who might hold vital information to aid tackling challenges. This accelerates R&D cycles and speed to market, improving competitive advantage and reducing costs.



For Sales

Starmind enables salespeople to get access to internal collective knowledge and answer customers queries faster, as well as enabling best practices and successful behaviors to be shared with the broader team. It increases conversion rates, speeds up the sales cycle and boosts customer satisfaction.



For Helpdesk and Shared Services

Starmind drives operational efficiency through the avoidance of unnecessary ticket creation and the scalable retention of that knowledge, and thus the helpdesk's costs and workload. It simultaneously increases self-resolution and employee satisfaction, as they find answers faster.



Appendix

Demographics and Methodology

The 'Cost of Missing Knowledge' survey was conducted among 1,404 full-time knowledge workers from the UK (353), the US (601), Germany (350) and Switzerland (100), from companies with 10,000+ employees. The research was commissioned by Starmind and interviews were conducted online by Sapio Research in July 2022 using an email invitation and an online survey.

At an overall level, results are accurate to $\pm 2.6\%$ at 95% confidence limits assuming a result of 50%. This statistical statement means, in plainer terms, we can be 95% confident that if a 50% result was revealed by this survey, the equivalent answer produced by surveying thousands more eligible people would still lie within 2.6% of that result.



Age

18-24

7%

25-34

34%

35-44

34%

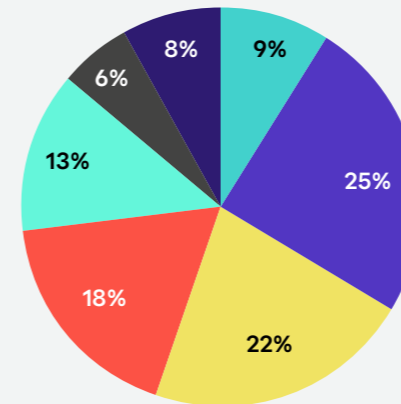
45-54

16%

55+

9%

Job role



- Entry level – individual contributor
- Mid level – individual contributor
- Senior level – individual contributor
- Manager – team lead
- Manager – VP/Director
- C-level (non-CEO)
- CEO/Managing Director/Business Owner

Number of employees

10,000 – 14,999

19%

15,000 – 19,999

23%

20,000 – 39,999

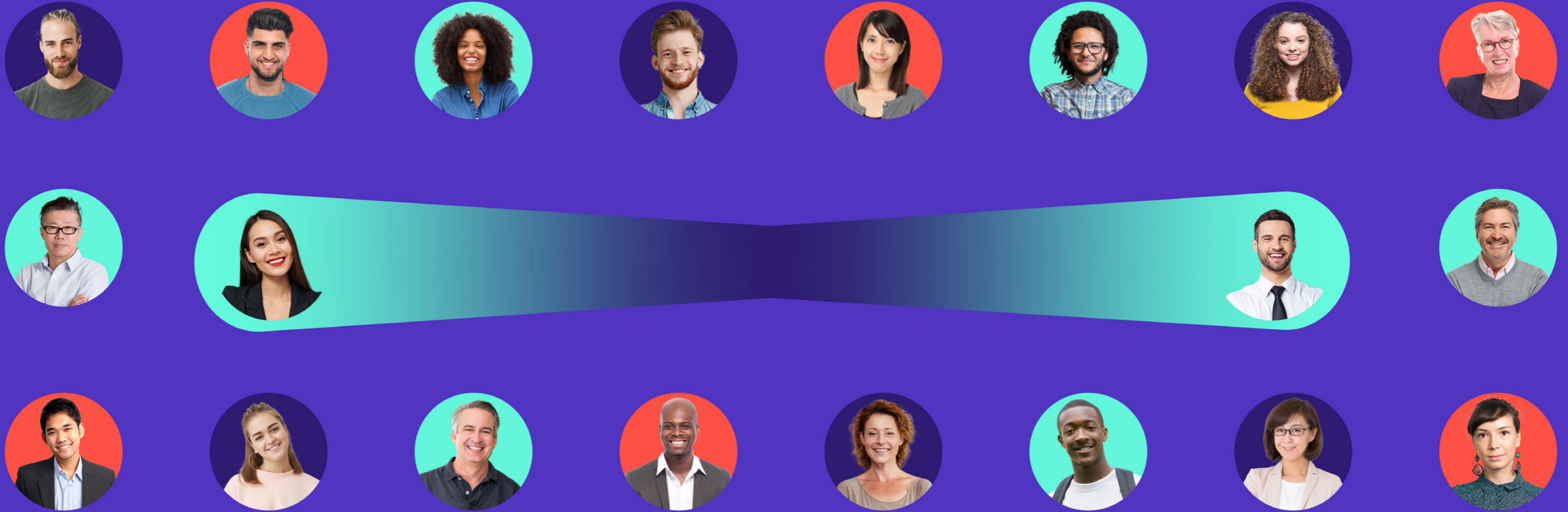
16%

40,000 – 79,999

16%

80,000+

26%



 Starmind

Find out more: www.starmind.ai