Vryne

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The Knowledge That Leaves

Why Germany's Mittelstand will lose more experience in the next ten years than ever before — and what remains.

Three numbers every business should know

13.4 m

people in the labour force reach the statutory retirement age by 2039, almost a third of the total.

Federal Statistical Office, 2025 [1]

57 %

of Mittelstand owners are 55 or older. Twenty years ago: 20%.

KfW Research, 2026 [7]

20 %

of companies have no strategy for securing the experience of employees who are leaving.

Atradius, 2026 [10]

Every organisation has documents that nobody knows completely by heart. And every organisation has heads whose contents appear in no document. This paper is about the second kind of knowledge.

And about what happens to it when the largest birth cohorts in German history retire.

That happens between now and 2036. The 1964 cohort, the largest Germany has ever had, reaches the statutory retirement age in 2031. The cohorts before and after it are hardly smaller.

What these people know, they have gathered over forty working years: which machine has which quirk, which customer was promised what, why a quote is calculated this way and not another.

Most of it is written down nowhere. This paper shows how big the wave is, what leaves with it, what searching costs, what it means for succession, and what a business can do in ninety days.

Every figure carries a source reference. What could not be verified is not in here. The example scenes are invented and marked as such.

> The knowledge is still in the business. It leaves within a narrow window of time — and usually without a handover.

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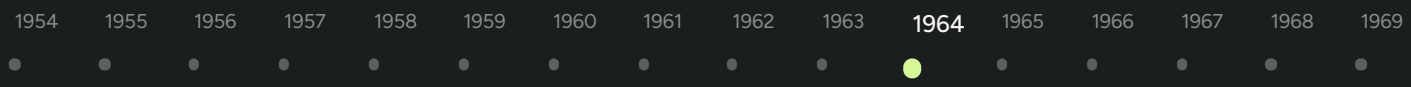
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1964

1,357,304 births, Germany's largest cohort ever.
It reaches the statutory retirement age in 2031.

The baby boomer cohorts, 1954 to 1969, each with more than 1.1 million births [2] [4]



The Wave

Between 2026 and 2036, the largest birth cohorts in the history of the Federal Republic reach retirement age.

That is not a forecast. It is arithmetic.

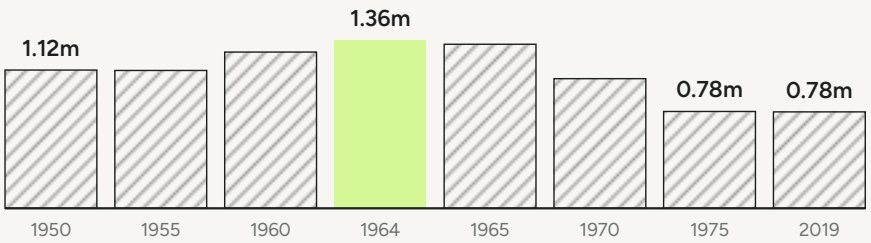
Who leaves in the next ten years

The cohorts born between 1954 and 1969 are almost 20 million people.

Every one of these cohorts is larger than anything coming after.

Live births in Germany, selected years

in millions



Source: Federal Statistical Office, compiled by the Federal Agency for Civic Education (2)

Every business knows the number that counts: the birth year of the people who keep the place running. For Germany as a whole, that number is 1964. That year, 1,357,304 children were born, more than ever before or since.[2]

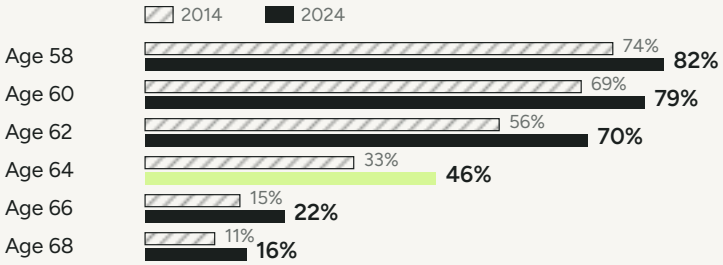
The 2019 cohort, at 778,129 births, is not even sixty percent of that.

The German Economic Institute (IW) counts the cohorts of 1954 to 1969 as the baby boomers: around 19.5 million people in total, each cohort with more than 1.1 million births.[4] By 2036, arithmetically, all of them have reached the statutory retirement age.

Whoever is 58 today is gone in nine years. The only question is whether what they know goes with them.

Who is still working at 60, 2014 and 2024

Employment rate by age, as a percentage of the population of that age



Source: Federal Statistical Office, Microcensus (1)

Older people work longer today than ten years ago: a third of 64-year-olds were employed in 2014, almost half in 2024.[1] So the knowledge is still there. It just leaves later, and then all at once.

31%

of the labour force in Germany, 13.4 million people, pass the retirement age of 67 by 2039.

Federal Statistical Office, Microcensus 2024 (1)

Example *fictional*

A plumbing and heating business in Lower Saxony, 14 employees. Three fitters are over 60. One of them knows every system the company has installed since 1998. The plans are in the basement. The particulars are in his head: which boiler needs adjusting in winter, which customer's basement floods.

In May 2028 he leaves. The plans stay.

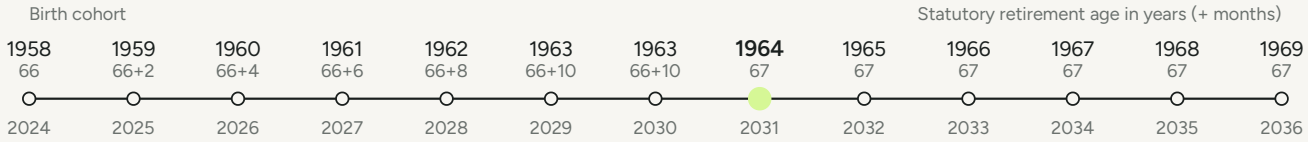
The eye of the wave: 2029 to 2033

The statutory retirement age rises in two-month steps.

That is why it is possible to say fairly precisely which cohort arrives in which year.

When each cohort reaches the statutory retirement age

Birth year and age at the statutory retirement age; from the 1964 cohort onwards it is 67



Sources: Section 235 SGB VI; IW Köln, Kurzbericht 52/2025 (3) (4)

Labour force by age group, 2024

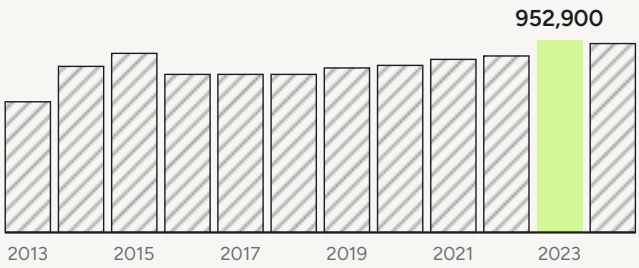
in millions; the 55 to 64 group is the largest



Source: Federal Statistical Office, Microcensus 2024 (1)

New old-age pensions per year

number of people; 2014/15 distorted by the "Mütterrente" reform



Source: Deutsche Rentenversicherung Bund, Rentenversicherung in Zeitreihen (8)

Ten million people in the labour force were between 55 and 64 in 2024, more than in any other ten-year group below them.[1] Among employees subject to social insurance, the share of 55 to 64-year-olds has risen from just under 17 to 23 percent within ten years.[6] The Federal Employment Agency calls this record employment among older workers.

You can read it another way: the experienced people are still here. In ten years they will not be.

The German Economic Institute expects around 1.3 million people to retire each year until 2036. Only around 800,000 young people enter working age in the same time.[5] The bottom line: by 2036, around 4.3 million workers are missing.

Whoever leaves is often not replaced at all.

4.3 m

workers are missing by 2036: 1.3 million retirements against 0.8 million newcomers, every year.

IW Köln, June 2026 (5)

What Leaves With Them

Socrates wrote nothing down. Everything we know about him, we know because Plato took notes.

Most businesses do not have a Plato.



Jacques-Louis David, *The Death of Socrates* (1787), public domain. The teacher is still speaking. One of his students will write it down later.

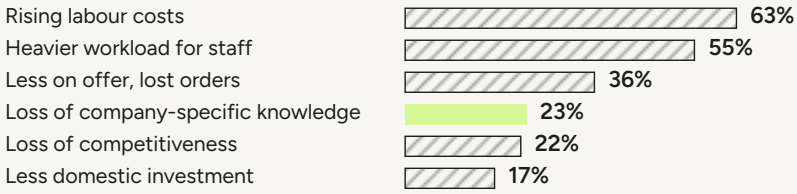
Four tenths of the knowledge depends on one person

Businesses expect the skills shortage to bring higher costs, above all.

That knowledge leaves with the people is expected by barely one in four.

What companies expect from the skills shortage

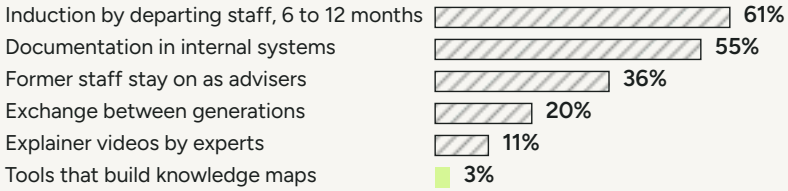
Share of companies, multiple answers; around 21,000 responses, autumn 2025



Source: DIHK Skilled Labour Report 2025/2026 (9); in industry, 35% expect to lose company-specific knowledge

What companies do against knowledge loss

Share of companies, multiple answers; over 330 companies in Germany, May/June 2026



Source: Atradius, "Boomer Exodus", 2026 (10); 20% have no strategy at all

There are two kinds of knowledge in a business. One is in binders, contracts, manuals and minutes. The other is written down nowhere: it sits in the fitter's grip, in the bookkeeper's eye, in the works manager's memory of a complaint from 2011. Research calls it tacit knowledge. On the shop floor it is called experience.

How big this second part is, nobody knows exactly. An often-quoted figure claims that eighty percent of company knowledge is undocumented. It comes from no verifiable study, so it is not in here.

More interesting than the problem is what companies do about it. The majority have successors trained by departing staff for six to twelve months, and more than half document in internal systems.[10]

Only three percent use tools that make what was collected findable. Documented is not the same as found.

42%

of the knowledge in an organisation is held by a single person and shared with no one.

Panopto/YouGov, 1,001 employees, USA, 2018 (11)

38%

of office workers in Germany and Austria say: if I left without a handover, much or all of my information would be lost.

Statista for Kyocera, around 1,600 respondents, 2018 (12)

8%

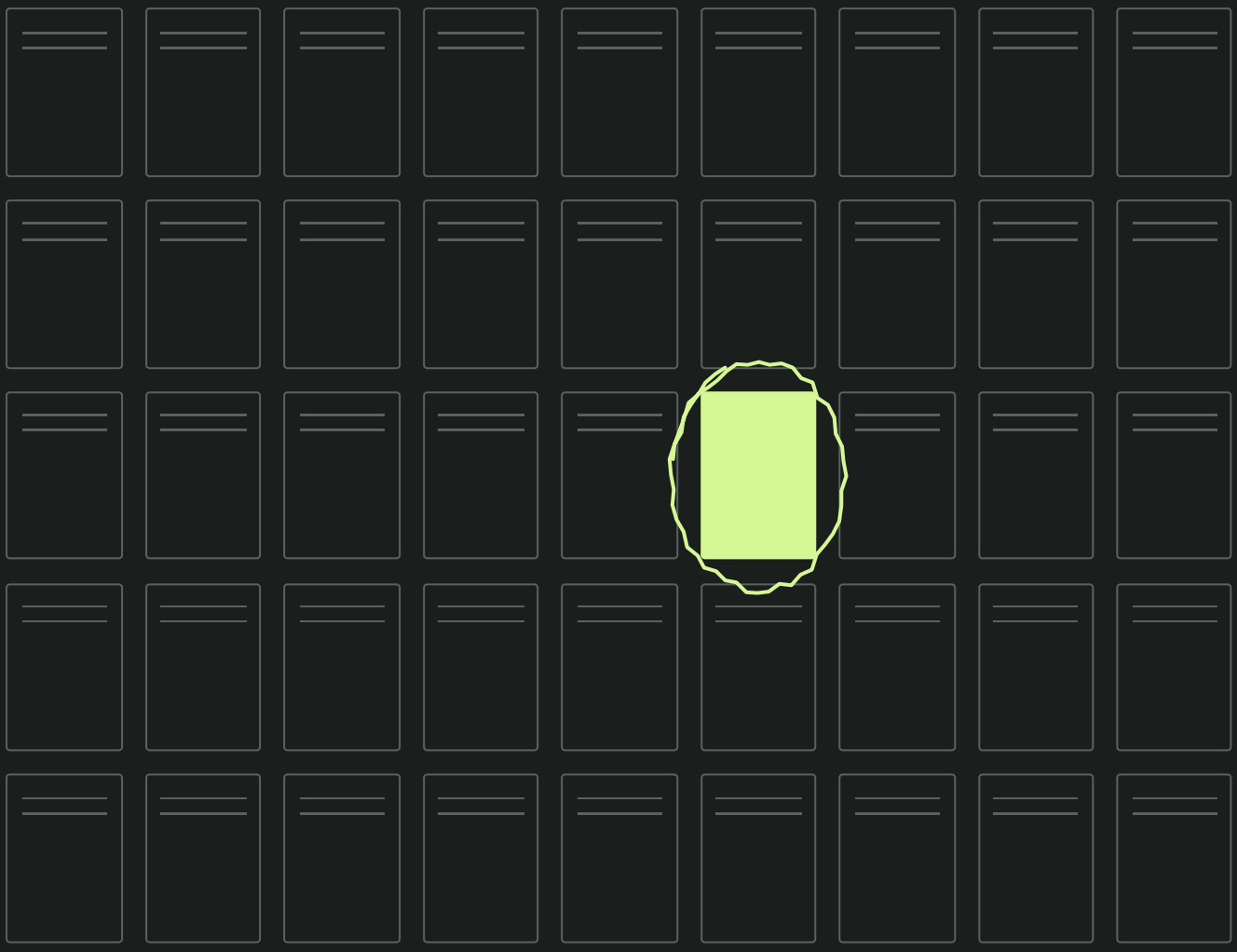
of organisations consistently capture the knowledge of staff about to retire. 16% do not try at all.

APQC, around 1,000 organisations worldwide, 2025 (13)

Example *fictional*

A metalworking business, 38 employees. The works manager, born in 1962, leaves in 2028. He knows which regular customer got which custom solution, which weld on which railing caused trouble, and why the quote for the school in 2019 was calculated the way it was.

His successor gets six months of induction. She becomes good. But for every third long-standing customer, she calls him. For two years.



45 binders. One of them holds the answer. Which one, only the person who filed it knows.

Searching Is Work That No One Bills

A business pays for every hour someone spends looking for a price list, asking a colleague or rewriting a manual that already exists.

That hour appears on no invoice.

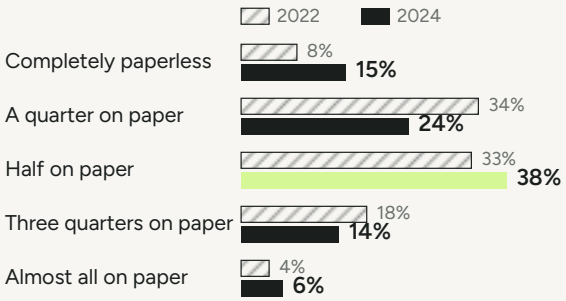
More than one office in three still runs half on paper

A binder on a shelf is documented knowledge. You cannot ask it a question.

And the binders stand exactly where the most important knowledge is: in the management office.

Share of office processes on paper

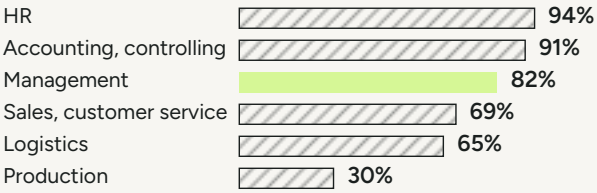
Share of companies with 20 or more employees; 1,103 respondents (2024)



Source: Bitkom, Digital Office Index 2024 [14]

Where the binders still stand

Share of companies with binders, by department; 602 respondents (2025)



Source: Bitkom, June 2025 [15]

62%

of employees worldwide say they spend too much working time searching for information.

Microsoft Work Trend Index, 31,000 respondents, 2023 [16]

47%

of digital workers cannot find the information they need to do their jobs.

Gartner, 4,861 respondents, 2023 [17]

42%

of office workers in Germany and Austria spend more than half an hour a day looking for relevant information.

Statista for Kyocera, 2018 [12]

Germany's offices are going paperless, but slowly and unevenly. Between 2022 and 2024 the share of completely paperless companies almost doubled, from 8 to 15 percent. At the same time, the share still handling about half of their processes on paper rose from 33 to 38 percent.[14]

In the skilled trades, businesses give their own digitalisation a school grade of 3.0, a C; 72 percent say they simply have too much to do, and 58 percent do not know which technologies even exist.[19]

How much time searching costs depends on whom you ask. McKinsey estimated back in 2012 that knowledge workers spend almost a fifth of their week looking for internal information.[26] Atlassian put it at a quarter in 2025.[18] Both figures come from large companies.

For a business with twelve people there is no study, only the experience that a new colleague spends most of her first year asking. According to Gallup, reaching full performance takes around a year.[20]

Example *fictional*

A roofing supplies wholesaler, 22 employees. A new office clerk is asked to write a quote for a regular customer. The special terms are in a binder labelled “Framework 2021”. Which supplier can deliver the insulation boards in two days, the warehouse manager knows. He is on holiday until Thursday.

The quote goes out on Friday. The customer asked on Tuesday.

545,000

Mittelstand owners want a successor by the end of 2029.

569,000

plan to close instead. For the first time, that is more.

63 years

Average age of those handing over

39 years

Average age of those taking over

KfW Research, Succession Monitoring 2025 [7] · Nachfolgemonitor 2025 [23]

Who Takes Over?

One in four Mittelstand companies is considering closing down. For the first time, more owners plan to close than to hand over.

And whoever takes over weighs carefully: what is the business worth without its boss?

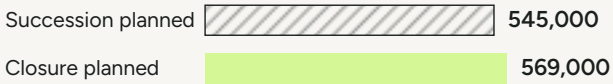
The business depends on its owner, and everyone knows it

More than half of Mittelstand owners call dependency on the owner a high risk.

Only one in six sees a high risk in the lack of risk management.

Succession or closure?

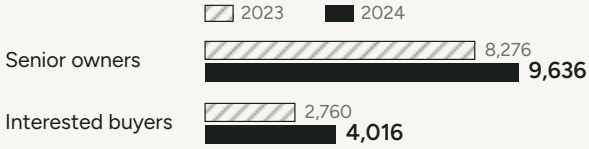
Mittelstand companies with plans by the end of 2029, out of 3.87 million



Source: KfW Research, Succession Monitoring Mittelstand 2025 [7]

Sellers and buyers in chamber of commence advice

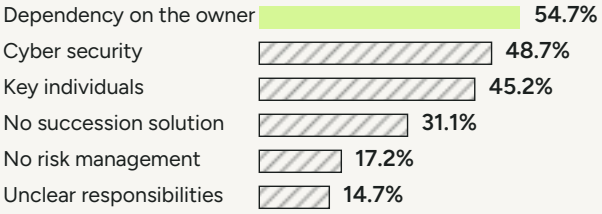
Advisory cases per year; 2.4 companies for every interested buyer



Source: DIHK Report on Business Succession 2024 and 2025 [21]

Which internal risks owners rate as high

Share rating “high” or “very high”; 1,071 business owners, January to April 2026



Source: DMB Risk Report Mittelstand 2026, with HWR Berlin [22]

63 to 39

years: the average age of those handing over versus those taking over. In between lies a quarter of a century of experience that has to change hands.

Nachfolgemonitor 2025, 3,442 handovers [23]

KfW counts around 545,000 succession wishes in the Mittelstand by the end of 2029, and 569,000 closure plans.[7] The biggest hurdle has been the same for years: 69 percent cannot find anyone to take over. In the skilled trades, the average owner is 55, and almost one in four is over 60.[24]

The chambers of commerce advise starting concrete planning at least three years before the handover; the Braunschweig chamber names five to ten years.[25] Three quarters of senior owners seek advice only two years or less beforehand.[21]

Whoever starts that late has no time left to turn the knowledge in their head into a form that can be handed over. Yet that is exactly the question every buyer asks.

The Nachfolgemonitor reports that buyers prefer businesses with “as little owner dependency as possible”.[23] A business that works without its founder's memory is easier to sell. No study puts a percentage on the discount. That it is paid, advisers report.

Example *fictional*

An electrical contractor, 19 employees. The owner is 64 and wants to sell to an outsider. The prospective buyer asks about maintenance contracts, the complaints history and the arrangements with the three biggest customers. “I know all of that,” says the owner. The buyer nods and recalculates the price.

On the second attempt the owner brings a binder. It is 140 pages. The buyer stays.

Have courage to use your own understanding!

Immanuel Kant, *Answering the Question: What Is Enlightenment?* Berlinische Monatsschrift, December 1784. In the original: “Habe Muth dich deines eigenen Verstandes zu bedienen!” We can still read it because someone wrote it down.

Writing It Down Is Enlightenment

Kant called it the exit from self-imposed immaturity: using your own understanding without someone else's guidance.

For a business, that means finding answers without having to ask the one colleague who knows, every single time.

Five steps for ninety days

Not a knowledge management project.

A list, a calendar, a scanner and a rule.

1 The list: who leaves when?

All employees born up to 1969, with the year they reach the statutory retirement age. Next to it, one column: what does this person know that nobody else knows? Three lines are enough. That is the knowledge map. According to Atradius, three percent of companies so far use tools that build such a map automatically.[10]

2 The twenty questions

Which twenty questions are put to a colleague most often? Where is the framework contract with the supplier, how is the system set for winter, which customer pays in 60 days. These twenty answers are written down first, with date and name. Everything else comes later.

3 The calendar: six to twelve months in tandem

61 percent of companies have successors trained by departing staff for six to twelve months.[10] Whoever has the list from step 1 can plan the start of every tandem to the day. The exit interview then becomes a record rather than a farewell.

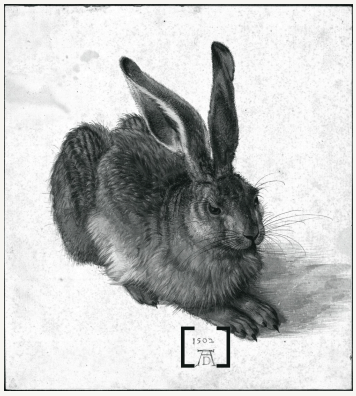
4 The scanner: binders become text

In 82 percent of companies, binders stand in the management office.[15] Scan with text recognition, keep the page numbers. A document that exists as text can be searched. A binder cannot. Start with the binders that belong to the twenty questions.

5 The rule: askable, not filed

A document is only finished when you can ask it a question in a full sentence and the answer has a reference: document, page, wording. Whoever gets an answer checks the reference. Whoever gets none writes it down. That way the knowledge base grows where questions are asked, rather than where things are filed.

Ninety days later: a list, twenty answers, a calendar, a stack of scanned binders and the first question the business has answered for itself.



Albrecht Dürer, *Young Hare* (1502), public domain. Signed and dated, bottom left. Every reference begins with someone putting their name to it.

3

years before the handover, at the latest, is when concrete planning should start, the chambers advise. Three quarters of owners come later.

DIHK 2025; KfW 2026 [21] [7]

What remains

The wave is not coming. It is here.

Three things can be said with certainty from the figures in this paper.

1 The window is narrow and known.

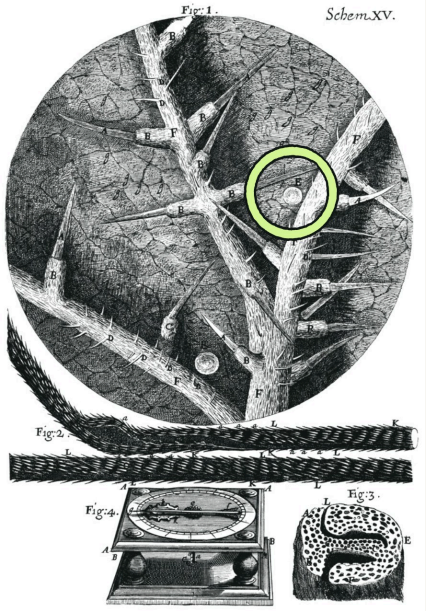
13.4 million people in the labour force reach retirement age by 2039; the eye of the wave lies between 2029 and 2033.[1] Every business can work out today, to the month, when it will be hit.

2 Documented is not the same as found.

More than half of companies document, only three percent make what they document findable.[10] 62 percent of employees spend too long searching.[16] The bottleneck is not collecting but finding again.

3 Knowledge that can be shown has a price. Knowledge in a head has a discount.

More than half of owners call dependency on themselves a high risk.[22] Buyers prefer businesses that work without the founder's memory.[23] What is written down, findable and verifiable does not retire.



Robert Hooke, *Micrographia* (1665), public domain. Hooke drew what he saw under the microscope, precisely enough for others to check.

Method

All figures come from publications by the named publishers, as of October 2026. Where the original publication was not freely accessible, the trade press that cited it is given. Vendor studies are named as such; figures from the USA or from large companies are marked as such and not transferred to the German Mittelstand. Conversions are our own calculations. The example scenes are invented and marked. Figures whose origin could not be verified were not printed: among them the much-quoted claim that 80 percent of company knowledge is undocumented, and the figure that knowledge workers search for 2.5 hours a day.

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Every figure in this paper carries a number. This is where it comes from.

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