Small-firm AI use

RESEARCH DECK

AI use is rising but still shallow in small firms, and reported gains are larger when firms integrate it into their workflows

Purpose: one sourced picture of how small firms use AI, why headline numbers disagree, and which firms report gains, for owners and for the people who write about small firms.

Main finding: official surveys put small-firm use at 17% to 29% and rising; 1% to 4% of all firms have built AI into how the business runs; firms that use AI more widely report gains more often.



Illustration: a small front office in Tampa at dusk; the manager reads a job folder while people and cars outside pass as light streaks.

MAIN MESSAGE

Small-firm AI use is rising fast, most of it is a chat tool on one task, and firms that go further report gains more often

Official surveys in Europe, North America and Asia show AI use in small firms rising to between 17% and 29% in the latest readings. Most of that use is a chat or writing tool on one task. Where surveys split reported gains by how widely a firm uses AI, the firms that go further report gains more often, by their own account.

RISING

9.1% to 28.7%

UK firms with 0 to 9 employees using AI, September 2023 to September 2026. [1]

SHALLOW

1% to 4%

Share of all firms, in four countries, that have built AI into how the business runs. [2] [3] [4] [5]

REPORTED GAINS

23% vs 2%

Japanese small firms reporting a transformational effect: AI across the whole firm, against AI on isolated tasks. Self-reported, one survey. [6]

Sources: [7] abstract and sections 3 to 5; [1] ONS; [2] [3] [4] [5] depth measures; [6] OECD D4SME survey, Japanese sample, 887 firms.

TERMS

Small firm, AI use and depth mean different things in different surveys, so this deck holds each word to one meaning

Small firm

A firm in a survey's smallest size band, named on every slide: 10 to 49 people in the EU, 0 to 9 employees in the UK, 1 to 4 in Canada and the US. SME means small and medium-sized enterprise.

Official survey

Run by a national statistics office or government agency on a sample of firms, with answers weighted so the results stand for all firms of each size.

Owner survey

Run or paid for by a bank, software company or business group, and answered by owners drawn from online panels, customer lists or a programme's graduates.

AI and generative AI

Artificial intelligence (AI) is software that does tasks that usually need human judgment. Generative AI writes text or makes images from a typed request, usually in a chat tool such as ChatGPT.

Workflow

The sequence of steps a recurring job takes, such as quoting, booking or invoicing a customer.

Integrate AI into a workflow

Build AI into the steps a recurring job already takes, inside the software that job already runs in.

Depth of use

How far a firm has gone from one person using one tool on one task toward AI built into its workflows across the business.

Percentage points and ratio

Two ways to state a gap. 55% against 17% is 38 points apart, or a ratio of 3.2. The two can move in opposite directions.

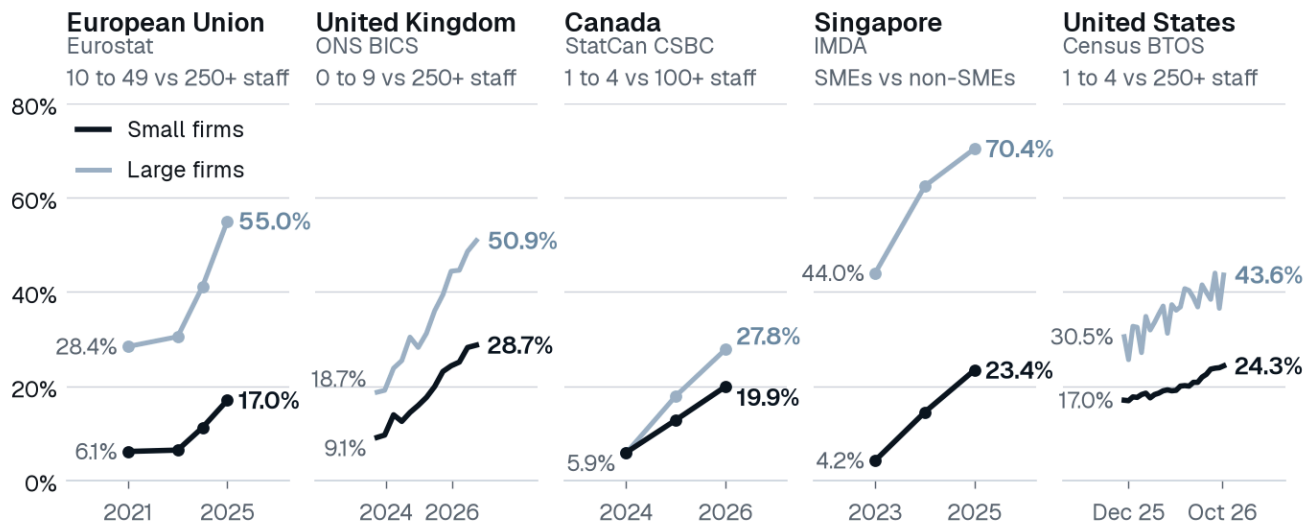
Association

Two things that go together in the data, without showing that one causes the other. Growing firms may be the ones that adopt AI, which economists call selection.

Sources: [7] sections 1 and 2; [8] EU shares used in the ratio example (2025, 250+ against 10 to 49 people).

RISING

Small-firm AI use rose in every official survey with repeated readings, to between 17% and 29% of small firms



Share of firms using AI. Compare each survey with itself over time, not levels across countries. US: current question only, 17 Nov 2025 to 18 Oct 2026.

Figure 1 in the paper, laid out wide for this slide.

European Union. Firms with 10 to 49 people went from 6.4% using AI in 2023 to 17.0% in 2025, in figures from Eurostat, the EU's statistics office. Part of the last step may come from a technology list that grew in 2025. [8]

United Kingdom. Firms with 0 to 9 employees went from 9.1% in September 2023 to 28.7% in September 2026, in the Office for National Statistics (ONS) business survey. [1]

United States. In the Census Bureau's Business Trends and Outlook Survey (BTOS), firms with 1 to 4 employees went from 17.7% to 23.3%, averaged over the first and the latest six fortnights of its current question. [9]

Compare each survey with itself. Size bands, questions and periods differ, so levels across countries are not comparable.

Sources: [8] Eurostat; [1] ONS; [10] [11] Statistics Canada; [12] IMDA Singapore; [9] US Census Bureau BTOS; [7] section 3.

WHY NUMBERS DISAGREE

Owner surveys report 2.4 to 3.5 times the official rate because they ask different people a wider question

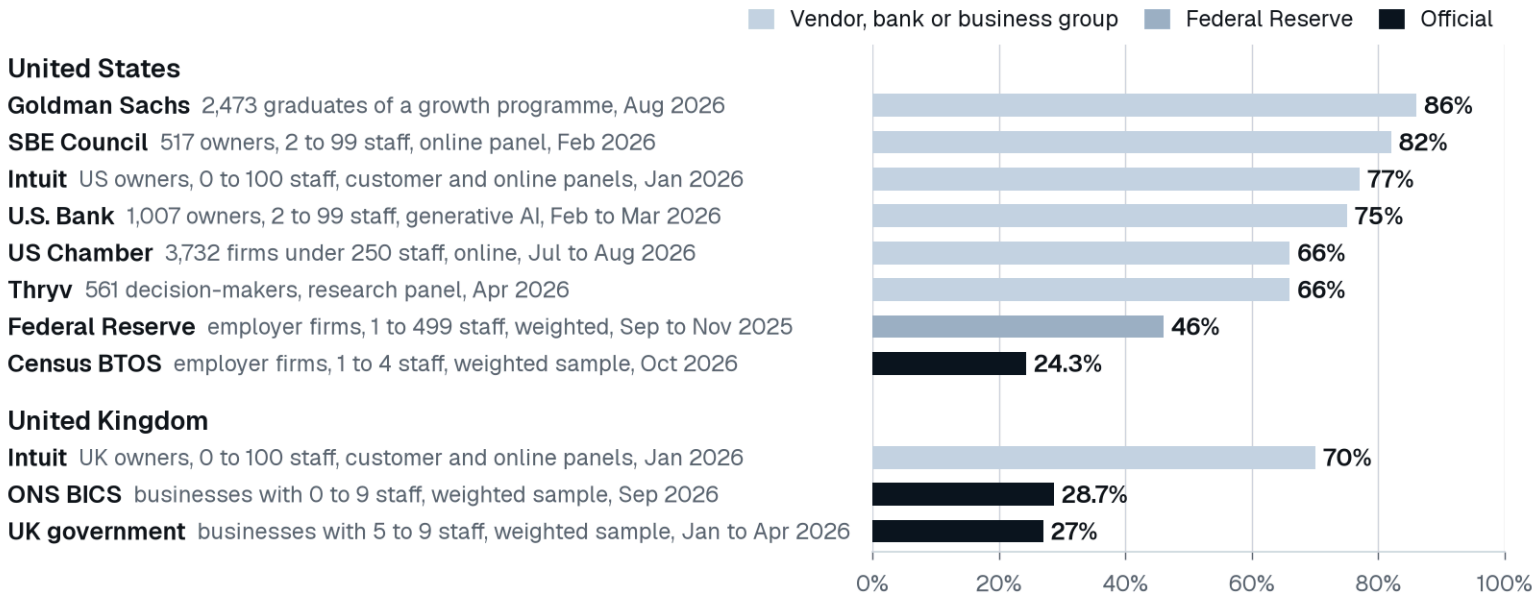


Figure 2 in the paper, laid out wide for this slide.

Who answers. Owner surveys ask a person whether they use AI at work; official surveys ask whether the business used it. [2]

What counts. Intuit counts “any AI-enabled tool”; Thryv includes “software you have been using that now uses AI”. [13] [14]

One survey, both readings. In the Federal Reserve Banks’ Small Business Credit Survey, 46% of employer firms said the business or its staff used AI; 7% of those users had fully integrated it. [15]

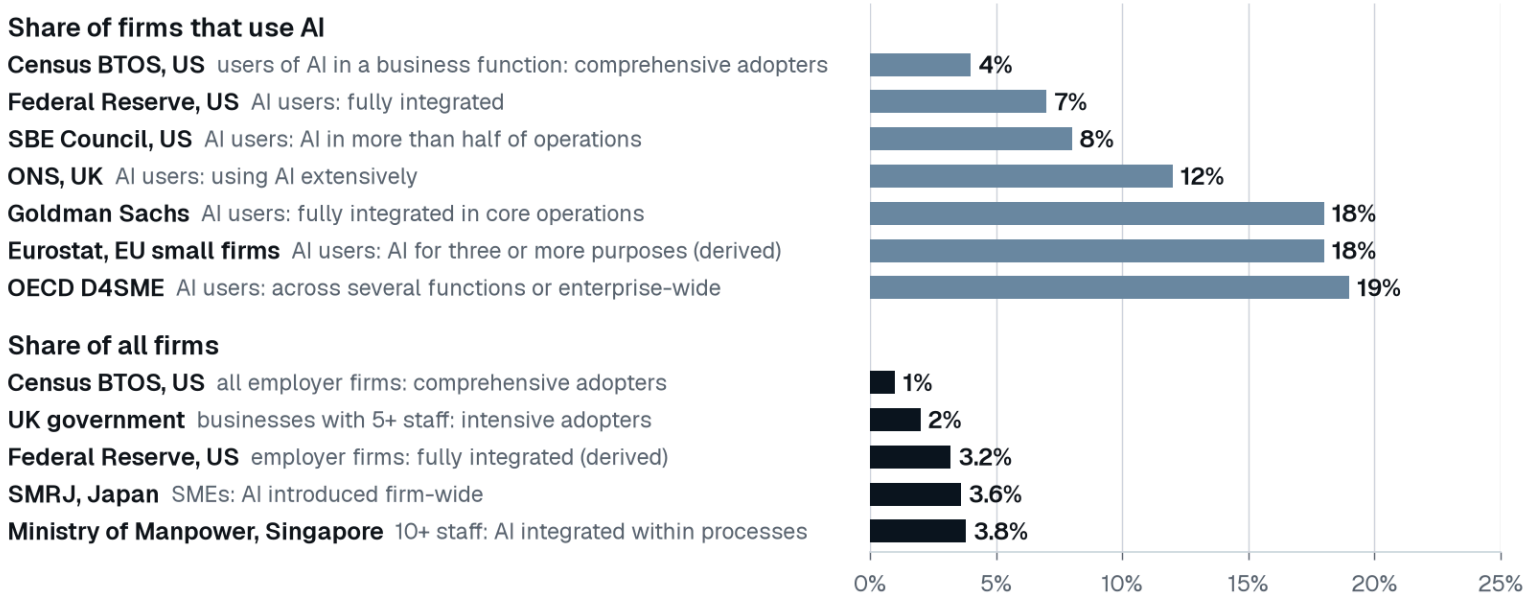
US question change. A wider BTOS question from 17 November 2025 roughly doubled measured use, so the old and new series are not joined. [16] [17]

Sources: [18] [19] [13] [20] [21] [14] owner surveys; [15] Federal Reserve; [9] [1] [3] official and government; [2] [16] [17]; [7] section 2.

DEPTH OF USE

Most small-firm use is a chat or writing tool on one task, and 1% to 4% of all firms have built AI into how they run

Fewer than one AI user in five, and 1% to 4% of all firms, report AI built into how the business runs



Top group divides by AI users, bottom group by all firms. Federal Reserve all-firm share: 46% using AI times 7% fully integrated.

Figure 3 in the paper, laid out wide for this slide.

Mostly writing. Among US firms whose workers use generative AI, 85% use it for writing and editing. Of US firms that use AI in a business function, 57% use it in three or fewer of 15 functions. [2]

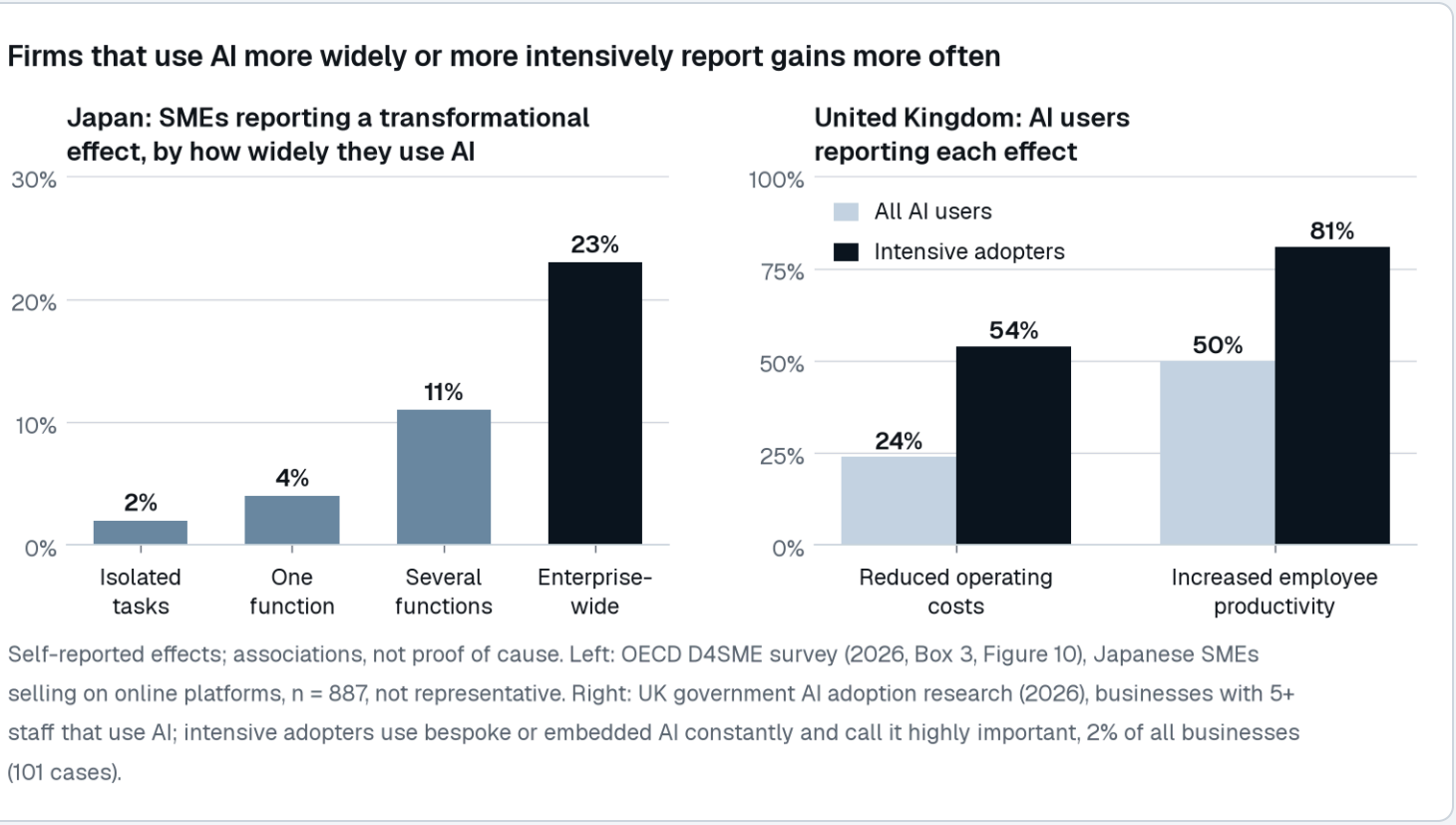
No change to how they work. Of US AI users with 1 to 4 employees, 65.5% made no changes at all to use it; 3.1% paid vendors or consultants to integrate it. [22]

One measure points the other way. An ONS article finds 17% of AI-using firms with 0 to 9 employees use AI extensively, against 9% at 250 or more; its bases are not fully clear. [23]

Sources: [2] [22] US Census Bureau; [15] Federal Reserve; [24] [23] ONS; [3] UK government; [4] SMRJ Japan; [5] Singapore; [18] [19] [8] [6] in the chart; [7] section 4.

REPORTED GAINS

Firms that use AI more widely or more intensively report gains more often, by their own account



Self-reported effects; associations, not proof of cause. Left: OECD D4SME survey (2026, Box 3, Figure 10), Japanese SMEs selling on online platforms, n = 887, not representative. Right: UK government AI adoption research (2026), businesses with 5+ staff that use AI; intensive adopters use bespoke or embedded AI constantly and call it highly important, 2% of all businesses (101 cases).

Figure 4 in the paper, laid out wide for this slide.

Japan. The survey is by the OECD, an intergovernmental body of mostly high-income economies, and covers 887 Japanese SMEs that sell on online platforms. [6]

United States. Census Bureau economists find the number of business functions using AI "correlates most strongly with performance and revenue-related metrics", read as description, not cause. [2]

Shallow use still saves time. In controlled experiments, a chat tool cut writing time by 40%, and an AI assistant raised support issues resolved per hour by 15%. [25] [26]

Association, not cause. Growing firms may be the ones that go further with AI. Small firms with AI integrated were no more likely to expect hiring growth. [27]

Sources: [6] OECD D4SME, Japanese sample, not representative; [3] UK government; [2] US Census Bureau; [25] [26] experiments; [27] Federal Reserve Bank of New York; [7] section 5.

SMALL AND LARGE FIRMS

Large firms added more percentage points, while small firms grew as fast in proportion

SURVEY AND SIZE BANDS	GAP IN PERCENTAGE POINTS	RATIO, LARGE TO SMALL
European Union: 250+ against 10 to 49 people [8]	**Wider.** 22.3 points in 2021 to 38.0 in 2025; wider in 25 of 27 member states from 2023 to 2025	**Smaller.** 4.6 to 3.2
United Kingdom: 250+ against 0 to 9 employees [1]	**Wider.** 9.6 points in September 2023 to 22.2 in September 2026	**Smaller.** 2.05 to 1.77
South Korea: 300+ against under 100 workers [28]	**Wider.** 2.8 points in 2017 to 11.8 in 2024	**Smaller.** 4.8 to 2.9, from a small-firm share near zero
United States: 250+ against 1 to 4 employees [9]	**Wider.** 12.9 to 17.3 points, six-fortnight averages, November 2025 to October 2026	**Steady** at about 1.7
Canada: 100+ against 1 to 4 employees [10] [11]	**Wider.** No gap in 2024; 7.9 points in 2026	Both groups started near 6% in 2024
Singapore and Japan, latest year [12] [29]	**Narrower.** Singapore 48.0 to 47.0 points, 2024 to 2025; Japan, firms with 100+ staff only, 46.0 to 40.5	Both gaps had widened the year before

Why both numbers matter. EU small firms started from a low base and their share nearly tripled, so the ratio fell while the point gap grew. The OECD expects the size gap to persist: “AI adoption will likely remain skewed towards large firms without increased support for adoption”. [30]

Sources: [8] Eurostat; [1] ONS; [28] KRIVET, Korea; [9] US Census Bureau; [10] [11] Statistics Canada; [12] IMDA; [29] Japan MIC; [30] OECD; [7] section 6. Gaps and ratios are the paper’s arithmetic on published shares.

WHY USE STAYS SHALLOW

Swedish public reports find that support for small firms often ends before use goes deep

FINDING	REPORT WORDING, WITH OUR TRANSLATION
Use stops shallow	*“AI-adoptionen i många fall slutar på ytlig nivå”* (AI adoption in many cases stops at a shallow level). Report 0508, p. 43 [31]
Support comes in short pieces	*“punktinsatser i form av enstaka föreläsningar eller korta kurser”* (one-off efforts in the form of single lectures or short courses). 0508, p. 52
Help runs out early	*“konsultstöd och resurser tagit slut innan de sett positiva effekter”* (consultant support and resources ran out before they saw positive effects). 0508, p. 43
Buyers lack a starting point	*“SMF inte vet vad de behöver, vad de köpa eller hur”* (SMEs do not know what they need, what to buy or how). Report 0583, p. 14 [32]
Benefit comes from integration	*“stora effekter när befintliga verktyg och tjänster används mer systematiskt, integreras bättre”* (large effects arise when existing tools and services are used more systematically, integrated better). 0583, p. 17

Evidence base. Sweden’s Agency for Economic and Regional Growth, Tillväxtverket, commissioned the reports from interviews and a handful of chosen cases. Swedish firms with 10 to 49 people went from 22.1% using AI in 2024 to 30.7% in 2025. [8]



Illustration: a small hardware shop at night; the owner stands still at the counter beside an open order book while customers pass as light streaks.

Sources: [31] Tillväxtverket report 0508; [32] Tillväxtverket report 0583; [8] Eurostat; [7] section 7. Translations from Swedish are ours.

WHAT A SMALL FIRM CAN DO

A small firm can test deeper use on one recurring job and keep it only if its own numbers improve

The evidence does not prove that integrating AI causes larger gains, and it cannot say what any one firm will get. Each step follows from a finding in the paper.

1. Pick one recurring job that already costs hours or money
Quote requests, scheduling or chasing invoices. Reported gains rise with how many functions and workflows use AI.

2. Measure the job before changing it
Count hours, response time, errors or money lost over a few normal weeks. 64% of UK AI users saw no effect on costs. [3]

3. Build the AI step into the software the job already runs in
Most small-firm use sits in a chat window beside the work. In the controlled studies, gains came on the task the tool was placed inside.

4. Measure again for a set period, then keep or stop on the number
A firm's own before-and-after count is better evidence for that firm than self-reported survey gains.

5. Budget for someone to keep it running after setup
Several Swedish firms lost support before they saw results; one report advises building basic skills in-house. [31] [32]

Our team at In Motion Automation builds this kind of work for small firms.



Illustration: a contractor's van yard in Tampa at dusk; one worker stands still at an open van with a clipboard while other vans leave as light streaks.

Sources: [7] section 8; [3] UK government; [31] [32] Tillväxtverket.

LIMITS

The evidence shows direction and association, and it cannot yet say whether deeper use causes gains at small firms

LIMIT	WHAT IT MEANS FOR A READER
Surveys differ	Size bands, questions, reference periods and sectors differ, so each series is compared only with itself.
Coverage has holes	Eurostat leaves out firms under 10 people and added a technology to its 2025 list. Japan's official series covers firms with 100 or more employees, Korea's firms with 50 or more workers.
The US series is short	The current BTOS question covers one year; the change of question in November 2025 broke the earlier series.
Depth is measured differently	From "fully integrated" to "extensively" to groups identified statistically; the one ONS breakdown by size runs against the rest.
Gains are self-reported	Nearly all evidence on gains is self-reported, from one point in time, and associational. The OECD's Japanese sample is drawn from platform sellers and is not representative; the Swedish findings rest on interviews.
How to settle it	Official surveys that ask about depth could publish it by size band and link it to recorded sales and costs. A small firm can run the same test on one job with a before-and-after count.

Sources: [7] sections 9 and 10; [8] Eurostat; [29] Japan MIC; [28] KRIVET; [16] US Census Bureau; [23] ONS; [6] OECD.

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