



How much COBOL is really out there?

New Opportunity for Application Modernization

Today's Webinar

Speaker Introductions



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Today's Webinar

Capturing #COBOL: Industry Research Results

The Value of COBOL

The Research Project

Key Highlights and Commentary

The Modernization Journey

Next Steps

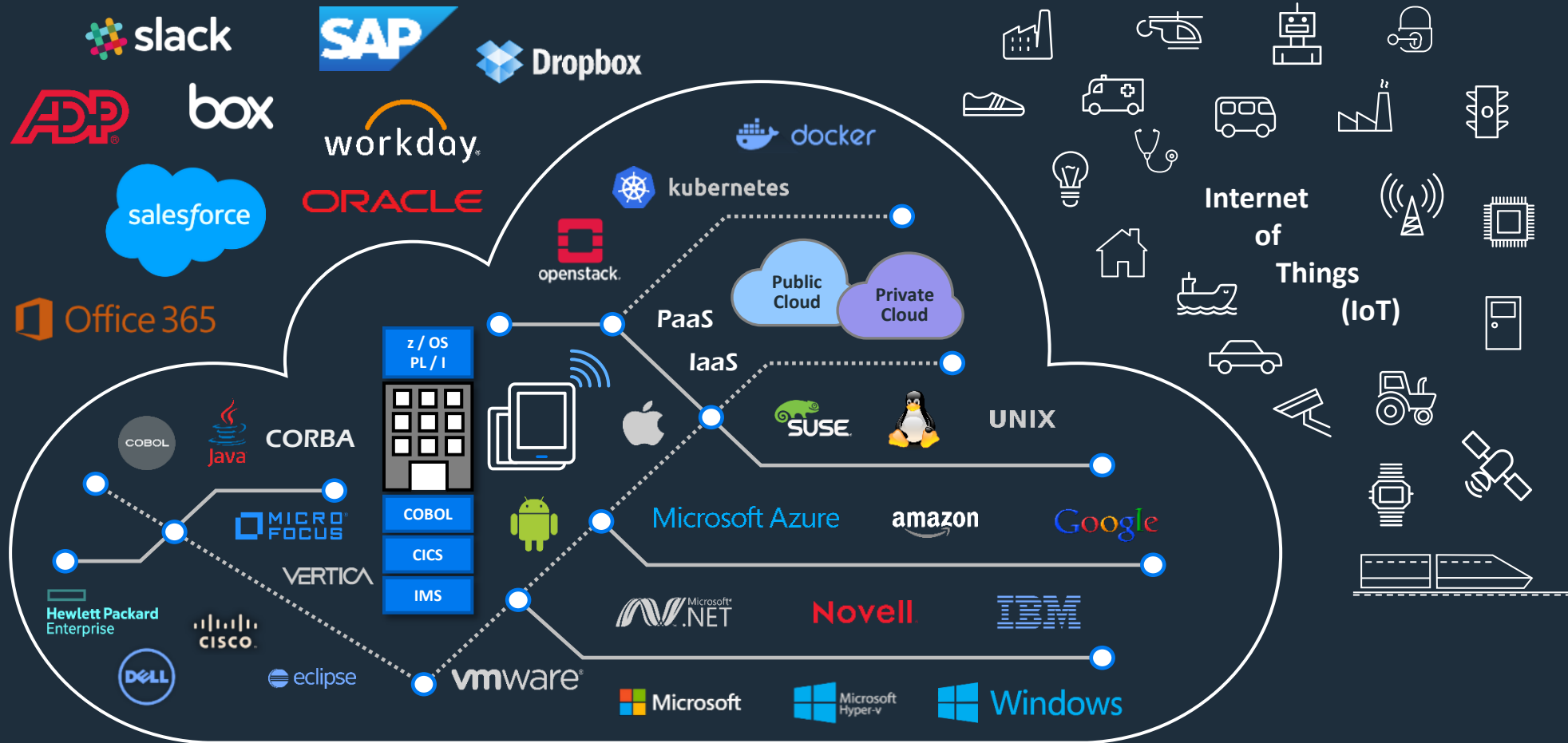


89%
Have a DX strategy

70%
of DX projects fail

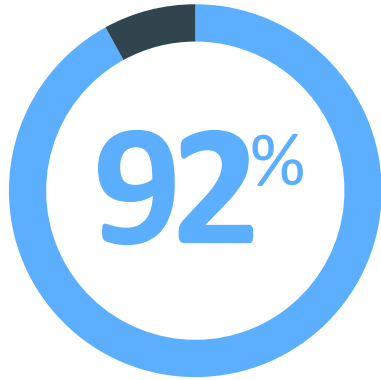
**...The pace of change has accelerated--driven by
new customer expectations.**

An Evolving Enterprise Landscape

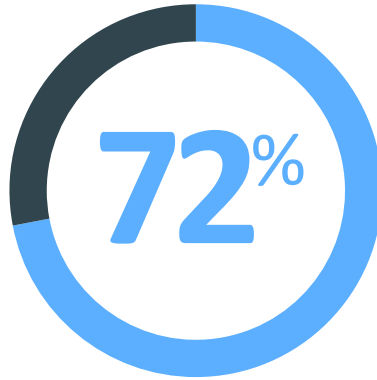


The Value of COBOL Applications

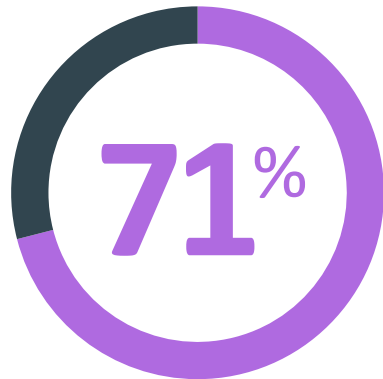
2021 Research Highlights



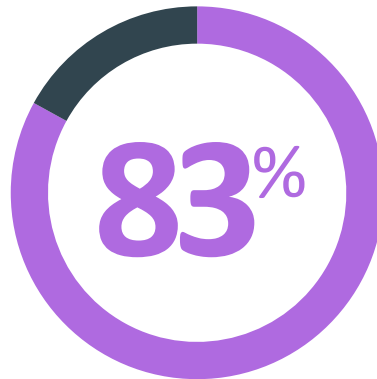
Core apps are strategic



Modernization is a viable strategy



IT project failure rates



COBOL apps here for 10+ years if not longer



How much COBOL is really out there?



Introducing research experts

- Founded 20 years ago
- Independent research agency, specializing in technology B2B research, with a large range of services and deliverables/analysis approaches available
- Work with a range of world famous technology vendors
- Global reach, with UK-based panel of IT specialists



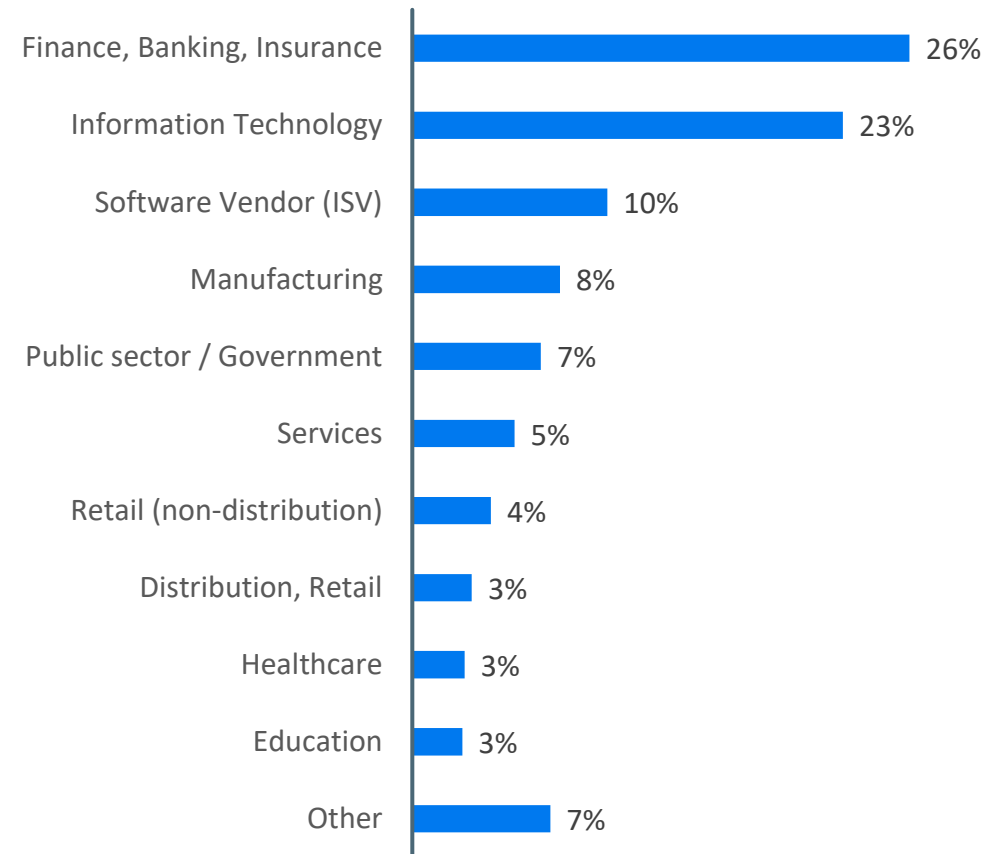
VansonBourne

A closer look at the research process

- 2020 research carried out to explore the state of COBOL in the marketplace – principally how COBOL contributes to modernization
- But that research, while it demonstrated the importance of COBOL, didn't answer one fundamental question
- **Vanson Bourne to design, develop and execute a global #COBOL survey with the purpose of estimating as far as possible how many active lines of COBOL there are**
- Vanson Bourne staff oversaw the survey infrastructure and execution process. Survey was open to the community
- All responses are managed by Vanson Bourne and are anonymous

Demographic summary – responses from 49 countries

- Respondents whose organization have a mainframe are more likely to be...
- Larger, with at least 1,000 if not 5,000 or more employees
- A little over a third (37%) of our responses have come from developers, with most of the remaining responses from architects, consultants, managers, directors and VPs with IT based roles



Survey approach

Respondents were asked several questions in order to better understand how much COBOL their organization currently has:

- Two main platforms
- Consider only code that is in production
- Taking into account duplicate code



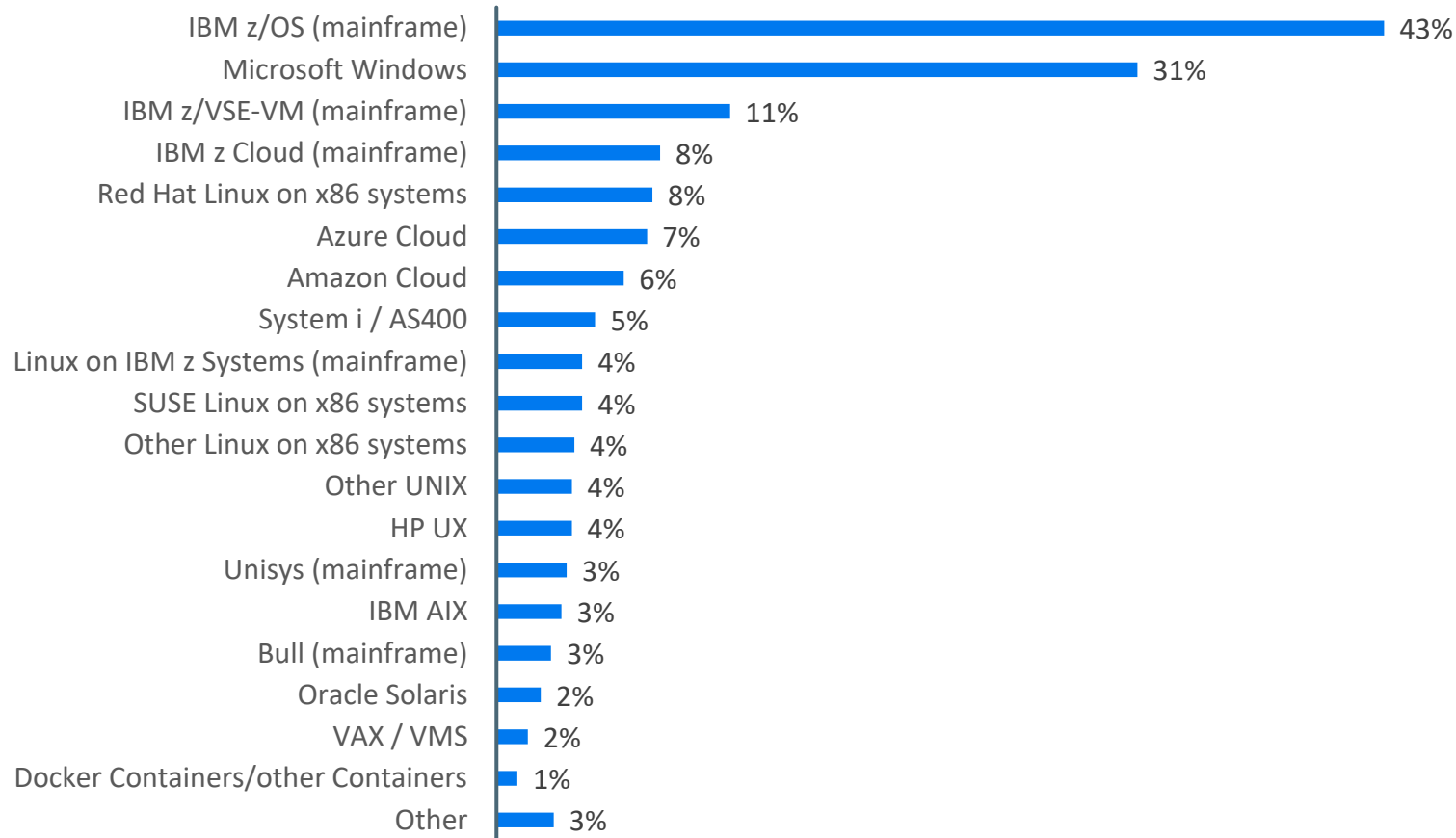
Survey headlines

COBOL applications exist everywhere

**DX is driving faster change and new
innovation for COBOL systems**

**There is massive COBOL modernization
opportunity in the marketplace**

What are the most common platforms for COBOL application deployment?



IBM Z/OS is the most common platform on which to be running COBOL applications

58% of respondents say that their organization runs COBOL on two platforms

Which platform accounts for the greatest volume of COBOL?



IBM z/OS also accounts for by far the majority of COBOL (when removing duplicate code) – around **83%** of the market

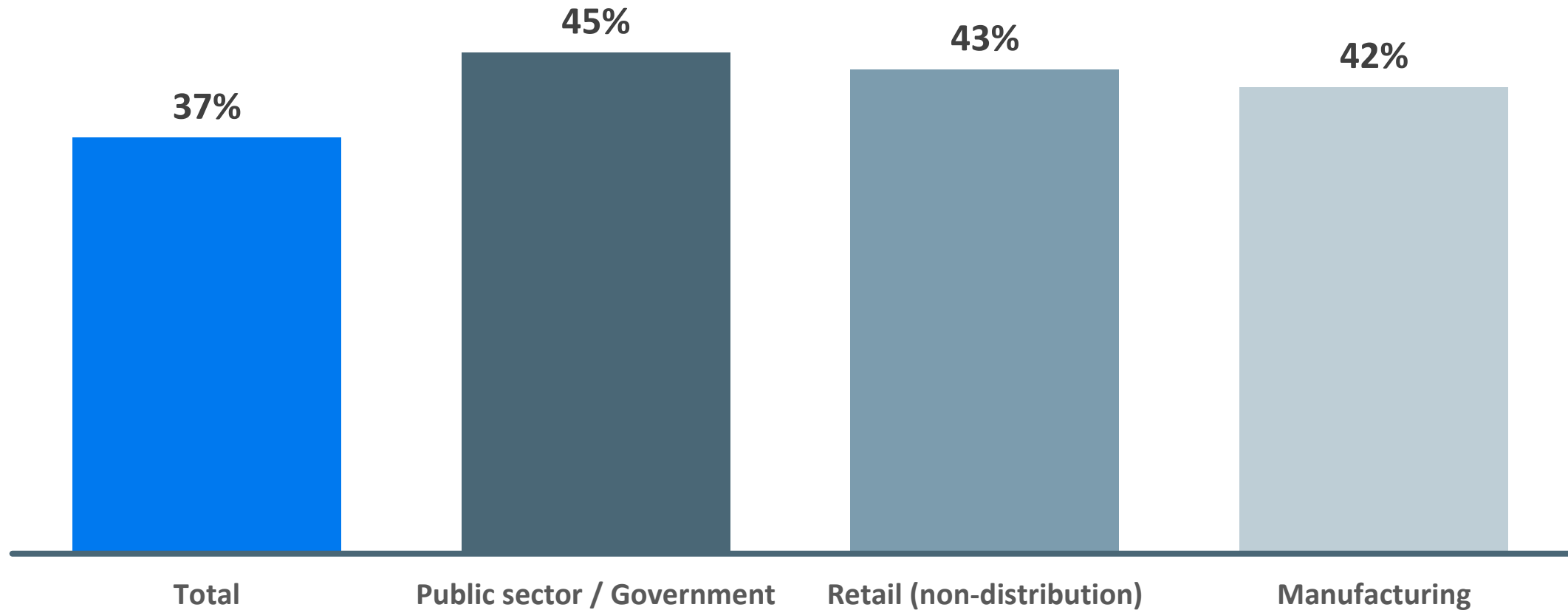


Unix accounts for around **5%**, with Windows accounting for around **2%**



But there is also **significant opportunity** for **Linux** and **Cloud** based workloads.

How much COBOL workload is deployed across two platforms?



Q.7D What proportion of the workload across this entire platform runs on another platform as well? (showing average, split by top 3 sectors)

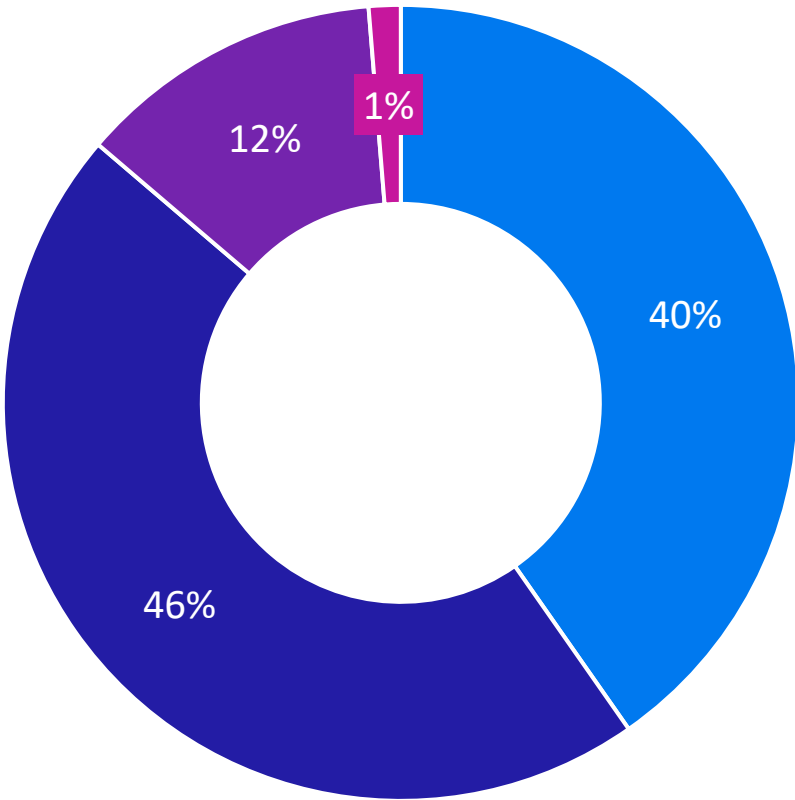
Research approach



Respondents were asked several questions in order to better understand how much COBOL exists within their organization.

- Respondents were asked to first consider only the COBOL that is under their supervision, before being asked more generally about their organization
- Respondents had an opportunity to express doubt over the accuracy of their answer
- Respondents could indicate level of potential variation

How accurate is the respondent's view of COBOL?



■ Very confident ■ Fairly confident
■ Not very confident ■ Not all confident

62%

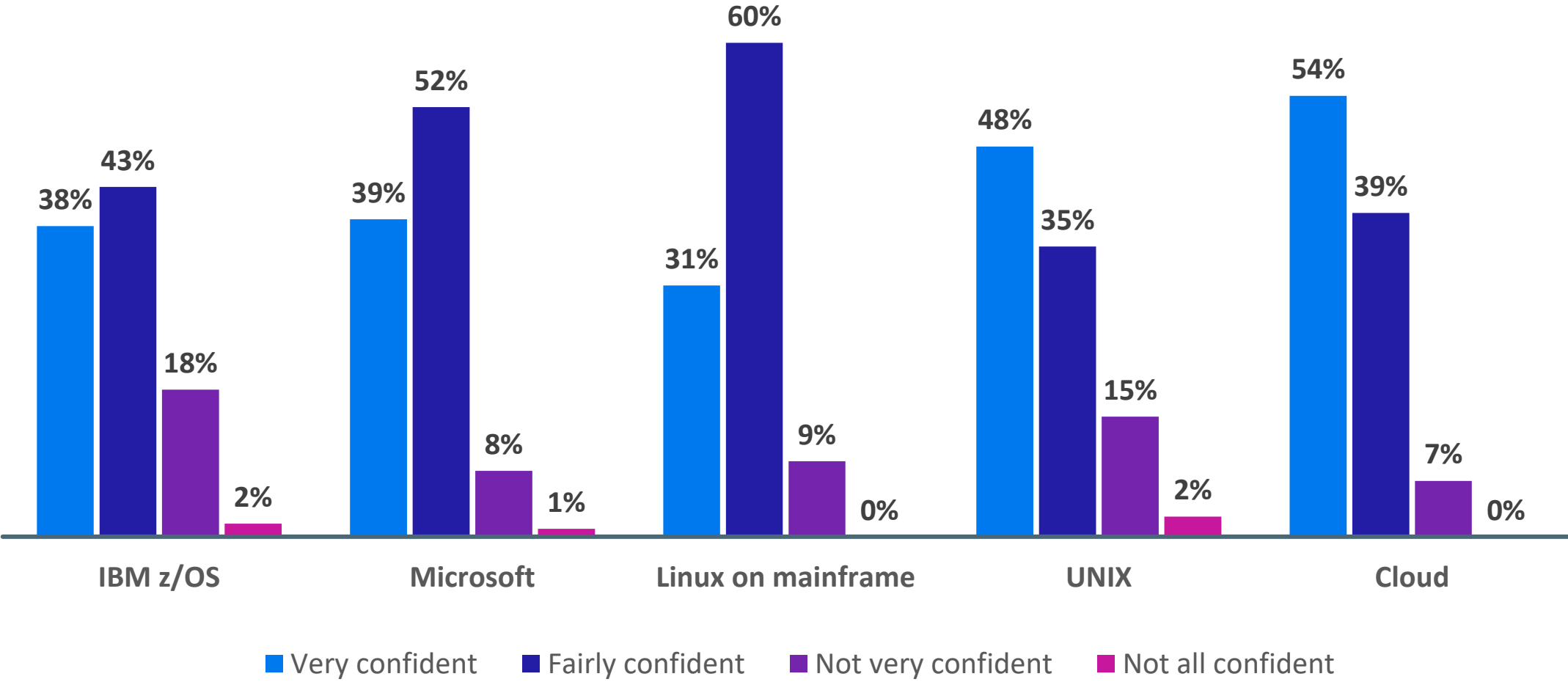
of respondents who are *not* very confident believe that their response is within 10% of the true figure

Q.7B How confident are you that the estimate you just gave is broadly correct?

Q.7C How inaccurate, if at all, do you think the estimate you just gave could be?



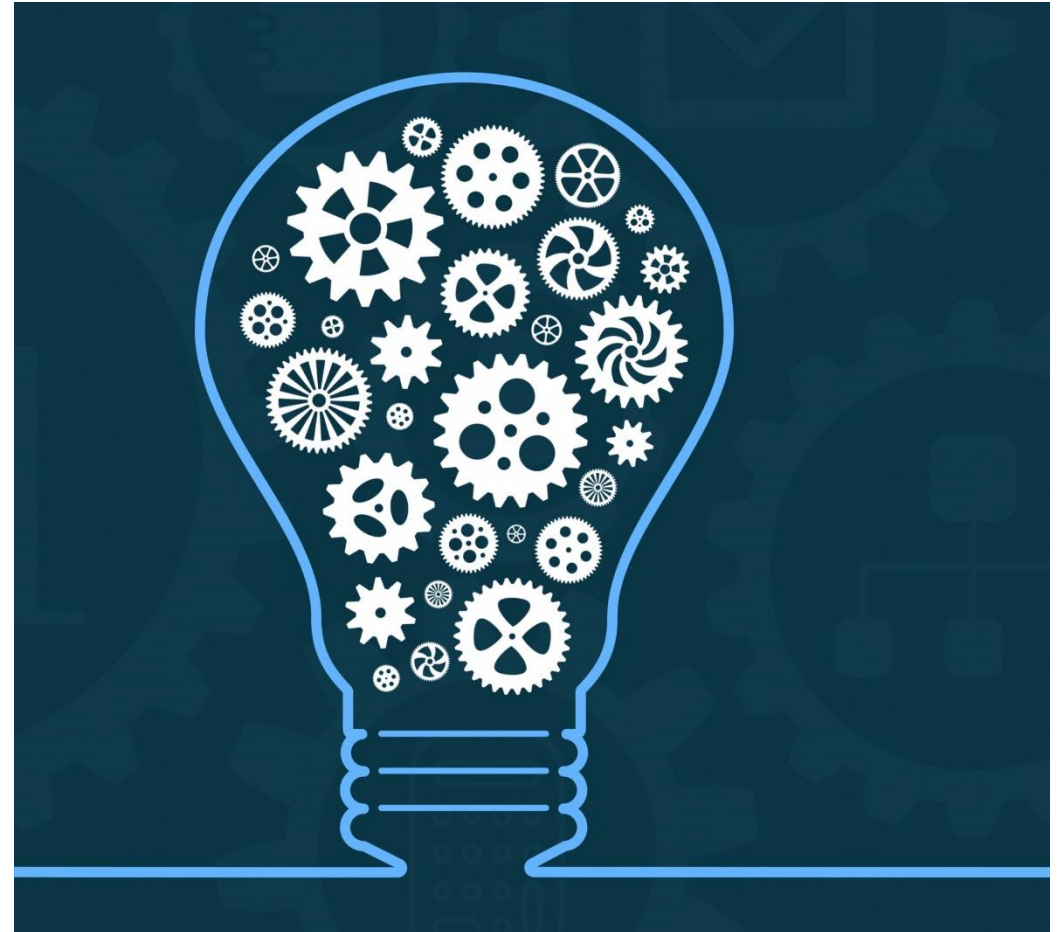
Does respondent confidence vary by platform?



Q.7B How confident are you that the estimate you just gave is broadly correct? (split by key platform types)

A closer look at the calculation approach

- Taking respondents' answers (adjusting/weighting based on level of doubt)
- Using market size estimates, provided by Micro Focus, of the various COBOL platforms (predominantly mainframe, although distributed and cloud platforms are also included), again using this information to weight the data
- Applying these two data sets to provide an estimate



So, how much COBOL is really out there?

Estimated range of

775-850

Billion lines of code



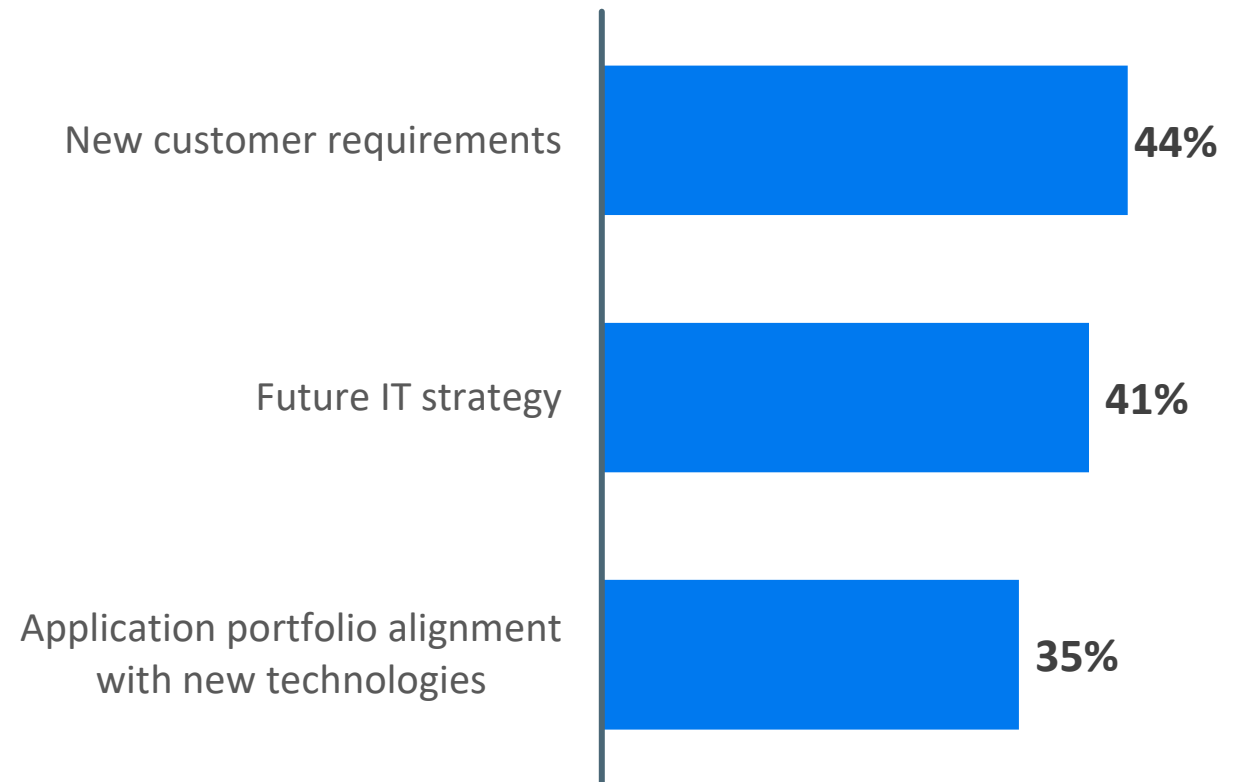
What's driving future changes in the volume of COBOL?

48%

expect the volume of COBOL in their organization to increase in the next 12 months

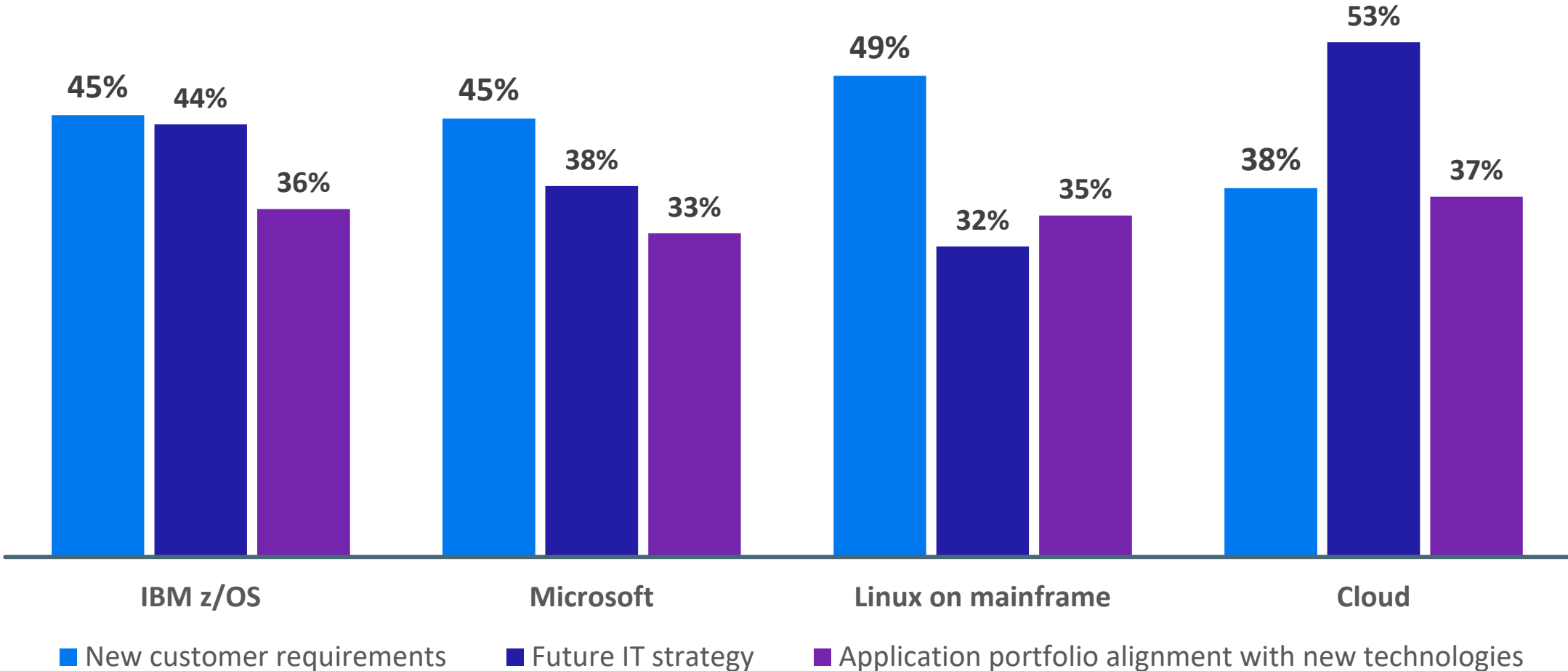
Q.7E Which of the following best describes your expectations of your organization's COBOL application portfolio in the next 12 months

New Opportunity for COBOL Modernization



Q.7F What do you believe is driving this expected change? (showing top 3 only)

Do drivers for change differ across platforms?



Q.7F What do you believe is driving this expected change? (only showing top 3 answers, split by main platforms)

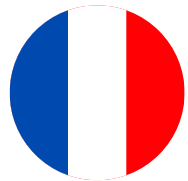
Were there any notable variation across different regions?



Respondents from Brazil are more likely than average to be 'very confident' about their responses (56% report this, compared to 40% overall)



Respondents from Germany are more likely to say that a higher proportion of workload is running on a second platform (45% on average, compared to 37% on average overall)



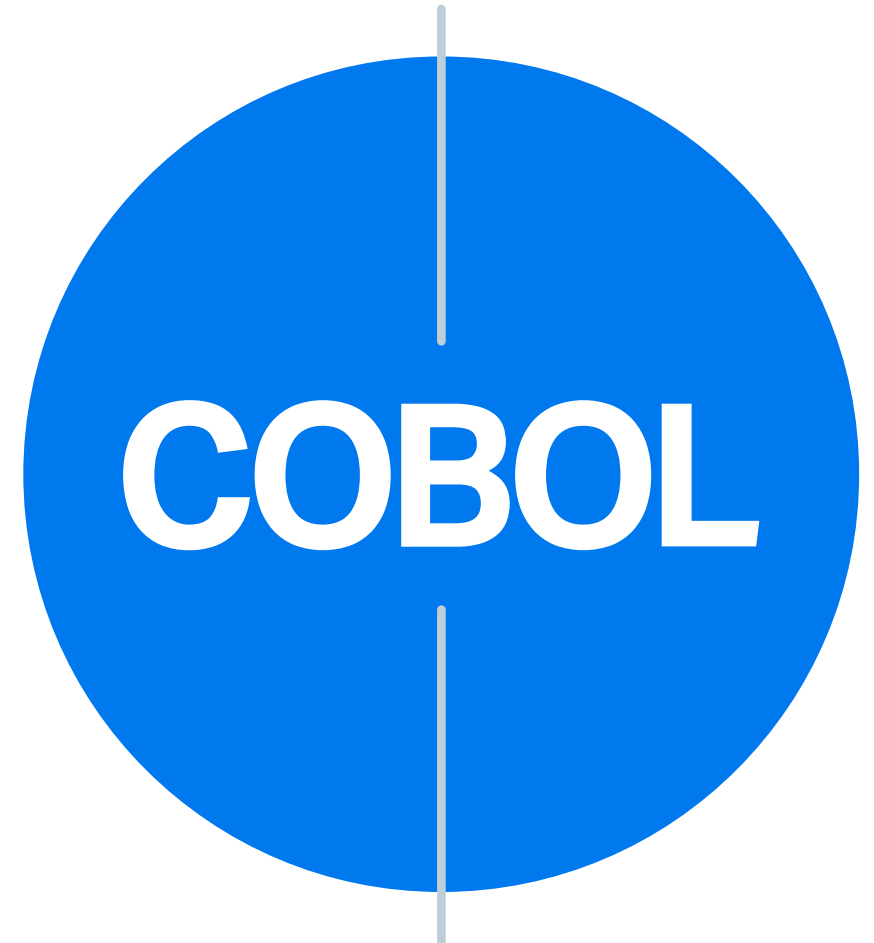
French respondents are more likely to report an expected increase within the size of their organization's COBOL application portfolio over the next 12 months (57%, compared to 48% overall)



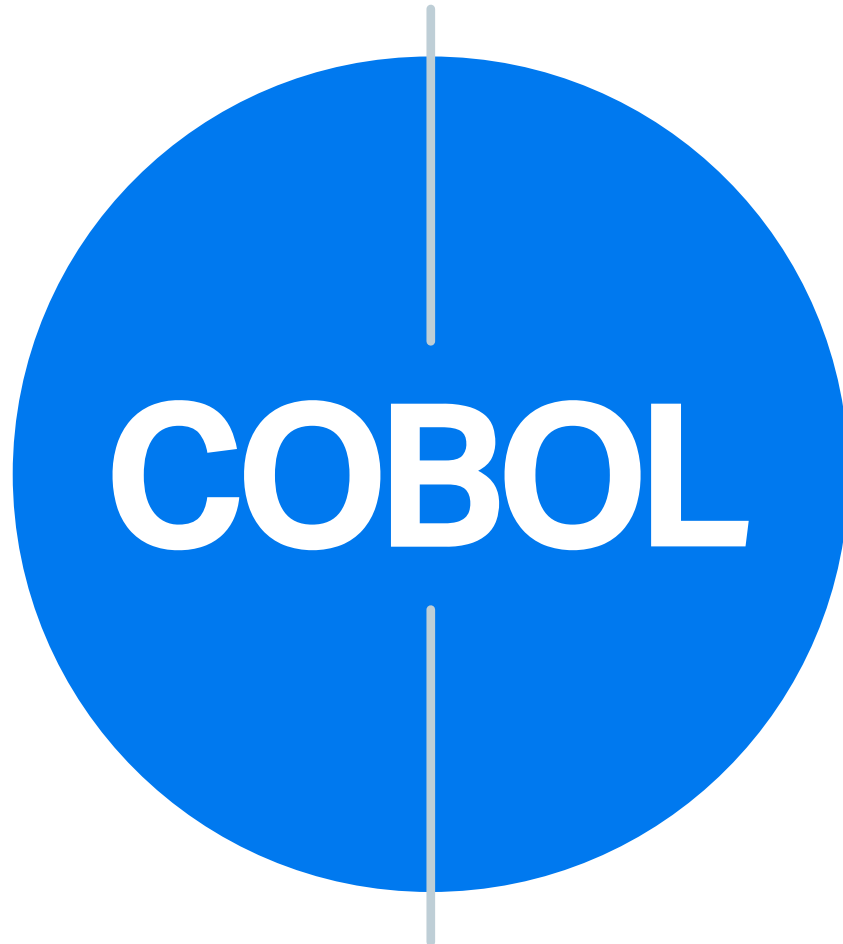
US respondents are more likely to report that COBOL application portfolio changes are driven by new customer requirements (51%, compared to 44% overall)

What are the key takeaways from the COBOL research?

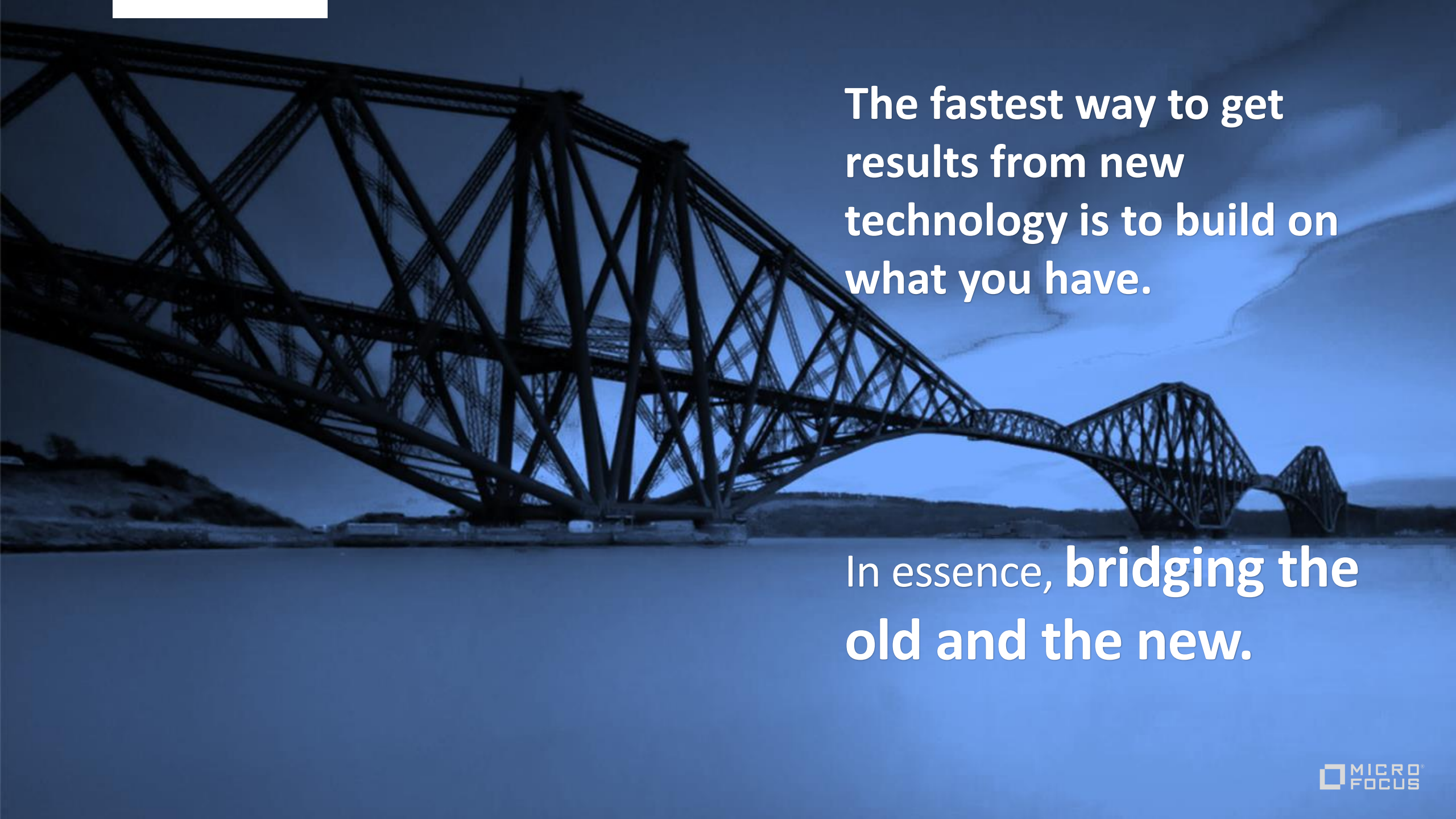
- **After 60+ years of enterprise IT, there is tremendous opportunity for COBOL application modernization.**
In fact, more than 800 billion lines of code in active daily use:
 - More than 6x the amount of Google searches every month!
- **COBOL is here to stay.**
52% of respondents saying that they expect that the COBOL applications in their organization to be here for at least the next decade, if not longer. More than four in five state COBOL to still be in use when they retire.
- **COBOL code is increasing.**
Nearly half (48%) of our respondents expect the amount of COBOL in use in their organization to increase in the next 12 months



What are the key takeaways from the COBOL research? (cont.)



- **COBOL is strategic.**
92% of respondents say that their organization's COBOL applications are strategic. Future IT strategy (41%) and application portfolio alignment with new tech (35%) are key drivers for COBOL modernization.
- **Modernization of COBOL applications is the preferred path forward.**
72% choose modernization as an overall business strategy, and 64% intend to modernize COBOL applications, rather than rip and replace.
- **Cloud is the #1 technology driving application modernization:**
43% say that COBOL applications do/will support cloud by the end of 2021. 41% also stated that new business projects require integration with existing COBOL systems.

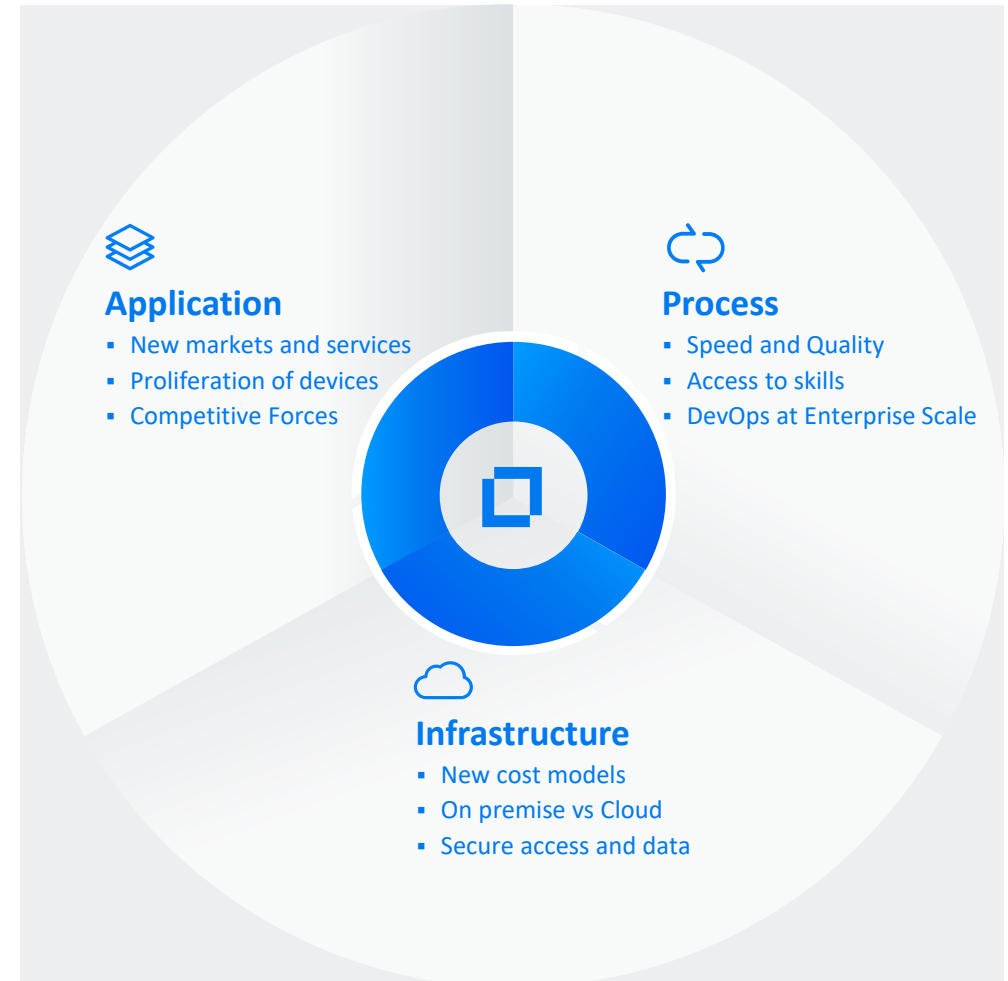


The fastest way to get results from new technology is to build on what you have.

In essence, **bridging the old and the new.**

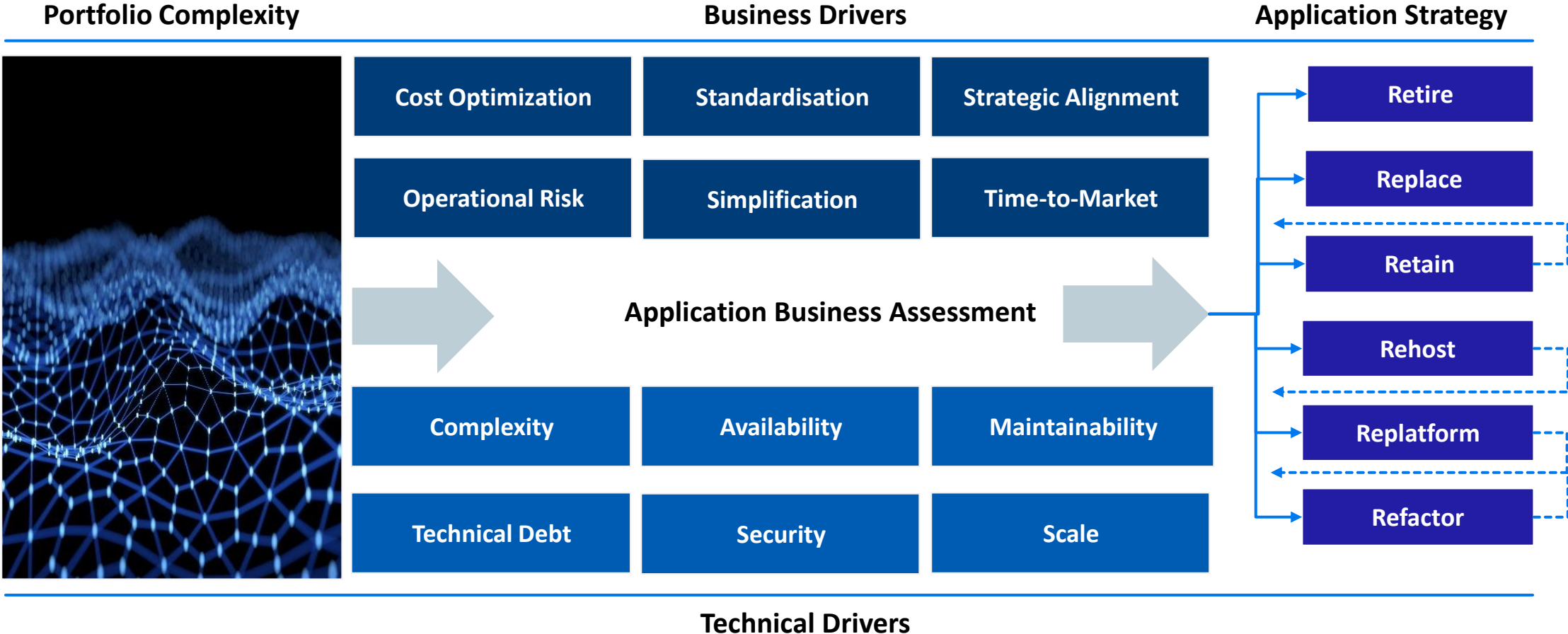
Summary

- ✓ #COBOL applications sit at the center of business change and DX projects
- ✓ Modernization is the preferred path for core business systems
- ✓ COBOL is here for the long term providing tremendous opportunity for application modernization



Modernization – Where do you begin?

Define and execute application portfolio strategies





Brochure
Application Modernization and Connectivity

The Micro Focus Modernization Maturity Model

Micro Focus' framework for planning and executing
core business system modernization programs.

Micro Focus Modernization Maturity Model

A proven framework for modernization planning

- Based on our experience and expertise in application modernization
- Includes key ingredients for successful modernization based on decades of successful projects
- Support Micro Focus modernization solution and our partners' approach to modernization planning
- A highly consultative and collaborative approach to meaningful modernization planning with tangible results

Thank You.



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Catch up on all the latest COBOL research

microfocus.com/modernization

Watch This Space!

Build on Strength

Modernization: Reimagining COBOL Systems for the Digital Age

Vanson Bourne and Micro Focus: One ebook. A Tale of Two Surveys.

Micro Focus October 2020



Onward and Upward

How COBOL enables mainframe transformation

Three Hot Takes: Shaping the Future of Core Business Applications

While the COBOL@60 celebrations pointed to a bright future for COBOL systems, we wanted to learn more. So Micro Focus asked global research analysts Vanson Bourne to poll a representative sample of the Micro Focus COBOL community. Here's what they found out.

Hot Take #1
Don't gamble on future success—plan for it.

- 70% consider modernization the best option for business change.
- 62% plan to modernize their key COBOL applications in 2020!

Modernization is being strongly championed as the clear preference above replace and build. The benefits to build on strength and get new value from current IT investments through modernization, with 57% of all respondents, another 38% invest in infrastructure and/or software and both require COBOL system integration.

Hot Take #2
IT and business synergy remains strong for COBOL.

- 61% of 176 CIOs and COOs see strong modernization strategies.
- 42% say from 2016, new use cases are the top priority.

This includes core non-IT use cases, too, proving that IT supports the move of new business use cases, greater efficiency and the strategic alignment of COBOL systems with modern-day technology. Check out our full report on key COBOL applications or a journey into the future.

Hot Take #3
COBOL remains a foundational element of IT and business change.

- 50% say they use their COBOL applications as strategic.
- 52% plan to modernize their system applications.

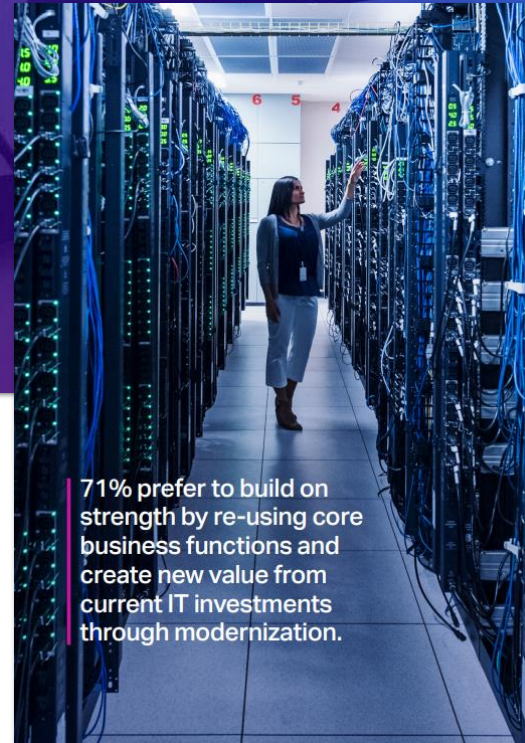
Meanwhile, the average code base is up to 58M from 4.6M lines of code, signifying continued investment, reuse and expansion in core systems. Tech factors show COBOL is a continued priority.

- As the business and technical case for modernization grows, COBOL's "yet to be resolved" issues are expected to affect principal engineering and product management, finance and other.

COBOL modernization changes in values it needs to be delivered, how it being delivered, and ultimately to increase usage and footprint.

The proof is out there. COBOL remains a strong digital technology enabler serving COBOL applications and core systems can look forward to many more years of innovation. Check out the full report download for a deeper dive into the survey findings.

[Check out the ebook!](#)



71% prefer to build on strength by re-using core business functions and create new value from current IT investments through modernization.

Key Theme 1

Modernization: the preferred path for digital transformation.

Alongside the 63 percent who planned to modernize key COBOL applications¹, 37 percent plan to update their processes, and 38 percent will invest in infrastructure through COBOL system integration.

Some enterprises have the mainframe as the cornerstone, others have shifted specific workloads to alternative platforms, but everything must enable new users to deliver more capabilities.

They must transform the hybrid IT landscape behind previous success with innovative technologies that integrate, collaborate, and co-operate with an ever-growing list of devices and platforms.

Innovation cannot be at the expense of security. Enterprises must secure host applications with next-gen practices and technology, such as multi-factor authentication, access control, data masking, and encryption.

¹ 46% say aligning applications to business needs to deliver competitive advantage is one of the top three most important things when modernizing/upgrading COBOL, and 38% say this for aligning the business to a reinvigorating digital strategy.

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