

# Enterprise Data Sharing and Data Monetization:

*The Future of Master Data Management*



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In the recent documentary *The Third Industrial Revolution: A Radical New Sharing Economy*, economist Jeremy Rifkin foretells of a not-too-distant future where traditional capitalism is increasingly undermined by the rising growth of markets in which participants are driven not by profit but by altruism and a sense of doing what's best for society and for our planet.<sup>1</sup>

**If what Rifkin suggests is true, this revolution, and the sharing economy that fuels it, will introduce massive changes for both consumers and creators of the goods and services that keep the wheels of our industrial economy turning.**

## The Sharing Economy

Originating in 2008, the term “sharing economy” is certainly not new,<sup>2</sup> nor are the various economic models that help describe what is generally known as collaborative consumption.<sup>3</sup> This describes a market where a participating entity is both a *producer* and a *consumer* of goods and services and where ownership of the goods or services is not a requirement for using them. The growth of the internet and peer-to-peer technologies (and businesses built on top of both) has accelerated the growth and consumer adoption of these markets and has put the sharing economy phrase into the popular lexicon.

Much of the current academic research around collaborative consumption explores the reasons for why individual consumers participate in markets where the rewards for doing so challenge traditional assumptions of human behavior – especially the belief that we're generally motivated to maximize financial gain. Research shows that perceived economic benefits of participating in a collaborative exchange are indeed a part of the motivation to share, but so are things like sustainability, community, and other “societal aspects” that are not yet clearly understood.<sup>4</sup>

While insights on understanding consumer behaviors and their impacts on the growth of the sharing economy are on the rise, there is relatively little empirical data to show what, if any, impacts the sharing economy will have on B2B transactions. Will the financial incentives exist for corporations to adopt more modes of collaborative consumption? Will companies be willing to share their assets – including their proprietary data assets? If data is truly the “new oil,” how will the forces

driving the growth of the sharing economy potentially impact companies that rely on selling solutions to deliver, govern, or manage enterprise data? Will markets emerge that allow companies to openly share the data they accumulate about their customers, their businesses, and their internal operations? Will companies be comfortable with sharing this data or running part of their operations on data they may not own? If companies do start sharing their enterprise data with other companies, what compensation will they expect in return?

Based on market trends, industry insights, and direct interactions I've had with senior leaders and data practitioners across numerous Fortune 1000 companies in the last five years, I believe the same forces that have helped create the sharing economy will slowly begin to manifest in the B2B market. This article explores some of the potential causes and effects of this shift toward the collaborative consumption of enterprise data between corporate entities, and it divides the coming evolution into three specific phases over the next 10–15 years. I postulate that markets for the monetization of enterprise data will begin to evolve from sharing-based data consortiums and other sharing platforms, where certain corporate data assets will be exchanged by companies for access to value-added services provided by cloud-based data platform vendors. The three phases of this evolution, and the impacts they will have on businesses, are explored in more detail below.

**Will the financial incentives exist for corporations to adopt more modes of collaborative consumption? Will companies be willing to share their assets...**

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<sup>1</sup> Jeremy Rifkin, *The Third Industrial Revolution: How Lateral Power Is Transforming Energy, the Economy, and the World* (New York: Palgrave Macmillan, 2011). See also: [https://impact.vice.com/en\\_us/article/bj5zaq/watch-vice-new-documentary-the-third-industrial-revolution-a-radical-new-sharing-economy](https://impact.vice.com/en_us/article/bj5zaq/watch-vice-new-documentary-the-third-industrial-revolution-a-radical-new-sharing-economy) (Posted Feb. 9, 2018).

<sup>2</sup> Lawrence Lessig, *Remix: Making Art and Commerce Thrive In the Hybrid Economy* (New York: Penguin, 2008).

<sup>3</sup> Rachel Botsman and Roo Rogers, *What's Mine Is Yours: The Rise of Collaborative Consumption* (New York: Harper Business, 2010).

<sup>4</sup> Juho Hamari, Mimmi Sjöklint, and Antti Ukkonen, “The Sharing Economy: Why People Participate in Collaborative Consumption,” *Journal of the Association for Information Science and Technology* 67, no. 9 (September 2016): 2047–2059, <https://doi.org/10.1002/asi.23552>. See also: I. P. Tussyadiah, “An Exploratory Study on Drivers and Deterrents of Collaborative Consumption in Travel,” in *Information and Communication Technologies in Tourism*, ed. I. P. Tussyadiah and A. Inversini, 817–830 (Cham: Springer International, 2015).

## Forces of Change in B2B Markets

Many analysts have warned that within a sharing economy, companies will risk becoming disintermediated by customers that collaborate with each other.<sup>5</sup> Generally the data a company generates during its business is viewed as a strategic, owned asset and, increasingly, a competitive advantage. Even if enterprise data is not necessarily captured on corporate balance sheets as financial assets, there is a growing awareness that companies with a “data first” approach will outperform their peers.<sup>6</sup>

It would be logical to conclude that if data can be leveraged to create competitive advantages, then significant economic incentives exist for companies to not share their data. A key assertion of this article, however, is that these incentives will not always persist. This is because the same macro forces that are enabling the growth of collaborative consumption in the consumer world, such as greater social responsibility and sustainability, are equally impacting the B2B world – they’re just lagging B2C markets as they typically do. These forces, when combined with other changes to the social, economic, and technological landscapes will combine to create even more incentives for corporations to explore more collaborative applications of their data assets. Together, these forces include:

1. A desire by corporations to be viewed by the public as socially progressive and responsible
2. Increasing views that all data should be “open” and often considered part of a public trust
3. Financial benefits from taking a “data first” approach and an increasing desire to monetize excess capacity or other latent assets
4. Increasing use of cloud-based technologies to provide cost-effective means to scale – especially from the perspective of data storage and data processing
5. Increased adoption and effectiveness of machine-based data stewardship and governance technologies
6. Increasing consolidation among the major providers of enterprise-class software platforms, particularly within the Digital Marketing, CRM, and ERP segments

Many of these forces are already having drastic impacts on how some companies are managing their data. Increasing pressure on IT leaders to drive down data storage and processing costs while simultaneously delivering ever-flexible and scalable solutions to manage their data is forcing rapid shifts in IT infrastructure from on-prem solutions to cloud-based solutions. While IT organizations spend increasing amounts of money to build scalable data architectures, the ability to deliver on many of the core customer needs around data governance and stewardship (most especially data quality) and data analytics often remains unresolved. As companies begin to recognize that their massive investments in big data, cloud-based infrastructures and other next-gen hardware and analytics platforms are not solving for many basic data requirements, I believe they will begin evaluating more collaborative models to solve for these core data challenges. Over time, the benefits companies will realize in these areas by leveraging collaborative models will increasingly outweigh the perceived costs of surrendering control over enterprise data and will signal the broader movement toward a future outlined in greater detail below.



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<sup>5</sup> Jeremiah Owyang, The Collaborative Economy: Products, Services, and Market Relationships Have Changed as Sharing Startups Impact Business Models. To Avoid Disruption, Companies Must Adopt the Collaborative Economy Value Chain, Altimeter Market Definition Report, June 2013, <http://www.collaboriamo.org/media/2014/04/collabecon-draft16-130531132802-phpapp02-2.pdf>.

<sup>6</sup> <https://blogs.microsoft.com/firehose/2016/09/21/study-data-leaders-consistently-outperform-peers-in-corebusiness-metrics/> - accessed April 2019

## Next Three to Five Years: Data Sharing Growth Through Consortiums, Increasing Adoption of Open Data

In the context of enterprise data, companies that group together with other companies for the purpose of allowing access to proprietary data in exchange for insights enabled through large-scale collaboration are known as consortiums.

Like the consortiums that have existing for decades to support credit decisioning and business risk analysis, new industry consortiums designed to accelerate (and protect) commerce will evolve, particularly in response to the benefits that sharing data can provide in helping companies mitigate risks around corporate and network security, compliance risk, fraud and identity management, and supply chain risk – including blockchain. Companies will increasingly rely on data and insights to fuel these business processes that can only be generated by acting as a collaborative group, and fewer companies will attempt to manage the curation of these insights on their own. As a result, an increasing number of next-generation business leaders will view the idea of sharing their data as a competitive imperative.

This growth of new consortiums built with the goal of facilitating commerce in the next industrial revolution has already begun – and in many cases has been underway for several years. Some examples include:

- a. **Global Data Consortium**, providing identity verification and data quality solutions based on a pool of approximately 90 contributing companies ([www.globaldataconsortium.com](http://www.globaldataconsortium.com))
- b. **ID Analytics**, providing insights on identity verification, credit risk, and fraud (<https://www.idanalytics.com/>)
- c. Multiple consortia supporting the creation of standards in the evolving cryptocurrency and blockchain markets (<https://bitcoinmagazine.com/industry/consortiums/>)

- d. **Corporate Data League (CDL)**, providing data quality and master data solutions; the CDL includes BASF, Siemens, Merck, Nestlé, and Bayer as just some of its participating members (<https://www.corporate-data-league.ch/>)
- e. **Small Business Financial Exchange (SBFE)**, a member-driven and managed organization that facilitates the exchange of its members' business account data with credit reporting agencies (<https://www.sbfe.org/about-us>)

New industry standards and data platforms supporting processes, such as compliance screening, supplier/partner onboarding, corporate identity verification, and the measurement of supplier risk, will begin to develop through these consortia as the marginal costs to developing these standards decrease in proportion to the number of companies participating. The increasing growth of blockchain-based transactions and smart contracts will further accelerate the growth of consortiums by creating the need for companies to voluntarily participate to ensure they are accepted as a trusted/verified actor within a given chain. The more value companies get by participating in these consortia, the more likely they will expand the level of data they are willing to share.

Significant opportunities will exist in the short run for data companies like Dun & Bradstreet, Bureau Van Dyke (BVD), or other legacy providers of industry-standard reference data or capabilities (such as address verification or geo-location) to play a role in the orchestration, integration, and verification of data being shared across consortium participants. One example would be for a company like Dun & Bradstreet to begin sharing portions of its data, including the Dun & Bradstreet D-U-N-S® Number and its entity resolution capabilities, on a more “open” basis, where the consortiums could use the D-U-N-S Number and Dun & Bradstreet to expand their reach and provide benefits of scale. If legacy data providers don't participate in these consortia, an opportunity will exist for larger enterprises with global scale and reach to create their own consortiums – as many already have (see list above).



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Another opportunity for third-party data providers in a world of increased participation in consortiums would be to create and manage consortiums themselves using more open access to portions of their proprietary data. An example would be for a company such as Dun & Bradstreet to create platforms allowing groups of companies to access functionality for new customer or new supplier onboarding, where information about the suitability, financial stability, and past performance of a given customer/supplier would be anonymously aggregated by the data provider and then shared across the members of the consortium. These consortiums could provide access to shared data and shared platforms in order to support customer/supplier/partner onboarding processes.

These consortia will focus primarily on creating shared data standards and referential datasets, where the operationalization of that data within a given enterprise will require an integration between the consortium data hubs and some consuming software platform (like a CRM or an ERP). This will create opportunities in the short term for technology and IT service providers that offer solutions for data integration and orchestration between existing technology platforms and consortium source systems.

### Next Five to Ten Years: Enterprise Software Companies Evolve to Become Data Platforms, Data Sharing Evolves Into Data Monetization

Existing forces that are driving increasing adoption of multi-tenant cloud-based solutions, coupled together with the growth of data consortiums, will create new incentives for enterprise software companies to evolve their legacy license models and create opportunities for the sharing of data – particularly customer and prospect/sales lead data – across their respective client software instances. More specifically, software vendors like Oracle, Salesforce.com, SAP, and others will indirectly enter the market for third-party master or reference data solutions by offering license rebates or similar incentives to clients that are willing to share subsets of their customer and prospect data with other clients – thereby creating virtual consortiums that allow the vendors’ clients to get out of the business of managing increasingly commoditized enterprise data and instead “outsource” the ongoing management and governance of that data to their enterprise software vendors.

What consortia enable through actual collaborative consumption of data, I believe software companies will provide by supporting widespread B2B data monetization. Data previously viewed as proprietary will certainly be shared between one company and another, but it will be done so at a price (or through added value) that offsets the cost of creating and managing the platforms needed to enable widespread data monetization, at scale. Both proprietary and open-source providers of enterprise software solutions will create data sharing platforms, where the enterprise data and their associated insights are inherently self-generated, self-substantiating (via increasingly flexible AI and ML algorithms), and natively integrated via pre-wired connections into the IT stacks of the established IT vendors.



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## Creating the Hub of Hubs

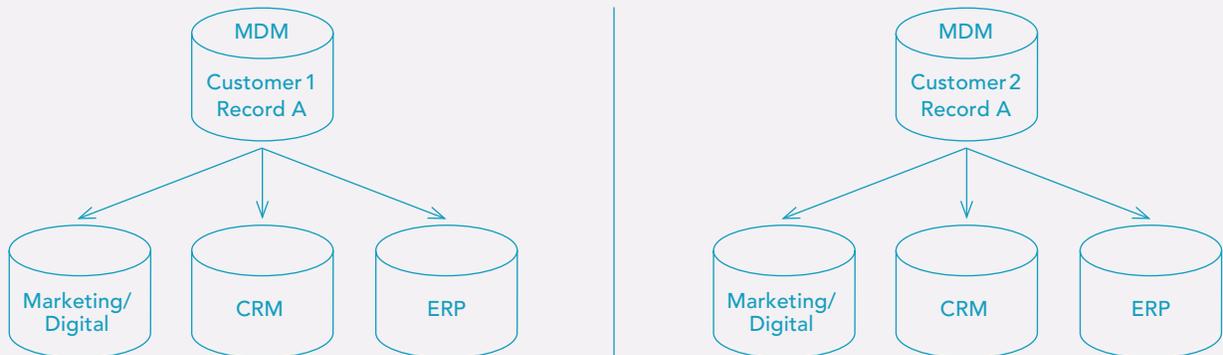
The easiest point of entry for the bigger enterprise software vendors into this data platform market will be through cloud-based master data management (MDM) platforms – where existing “copies” of customer and prospect records will already reside, at scale, across thousands of instances of their software. However, similar sharing models could easily be applied within specific point solutions like Salesforce.com or any other multi-tenant software platform – where a given software vendor would enable sharing its client’s customer or prospect data “horizontally” across respective software instances. This capability largely already exists for any provider of a multi-tenant, cloud-based software platform – the only thing stopping its application are license agreements that prohibit commercial uses of their customers’ data.

From an IT infrastructure perspective, in the next four to seven years the idea of a given company storing physical copies of all its enterprise data assets in their respective software instances will become increasingly foreign, because data that’s been exposed for sharing (or monetization) will be stored by enterprise software providers in a single location, hosted by the software vendor, and “streamed” on demand into the

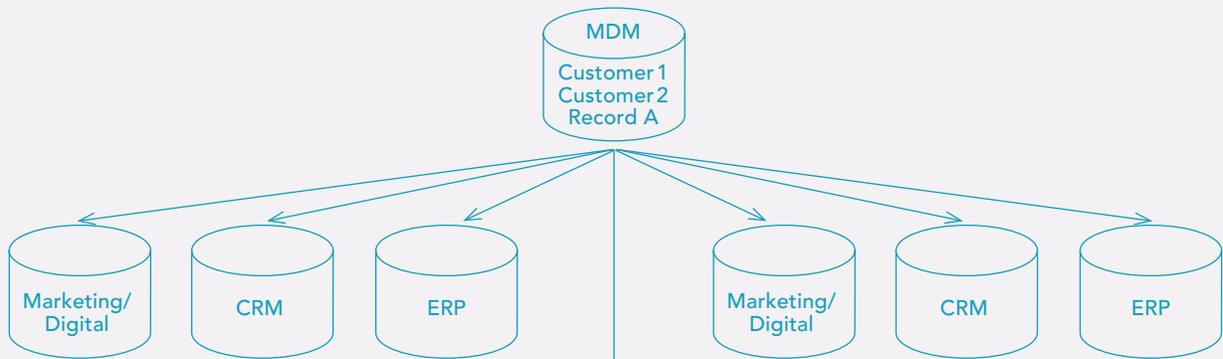
software instance used by that client. The financial incentives for software vendors to move toward this data streaming model will be strong: Having to host millions of the same records within their clouds (when only a single record is required) has both significant cost and scale implications. In time, enterprise software providers will become the “hub of hubs” and will become an operational MDM for all of their clients. The vendor will maintain the hub, and the vendor’s clients will leverage the hub instead of having to manage the data on their own.

The scope of data exposed for sharing will initially be limited and likely focused only on publicly available customer or prospect data (such as company names, addresses, websites, etc.) and will initially exclude any transactional or contractual details that exist between specific corporate entities. Over time, however, the scope of shared data will likely expand to include information about the nature of the relationship between corporate entities (such as partner, supplier, vendor, reseller, and the like). The incentive to expose previously proprietary details between entities will be created by the value software providers generate as they begin to offer additional services to their clients in the form enhanced and predictive analytics (see below).

### TYPICAL MDM DEPLOYMENT – TODAY



### MULTI-TENANT MDM DEPLOYMENT WITH SHARED CUSTOMER DATA



## Shared Data in Exchange for Services

One specific example of a value-added service that software vendors could provide in exchange for widespread access to insights on business relationships is tracking corporate and operational hierarchies – which today most companies struggle to manage on their own. For example, with access to thousands of anonymized transactions across several large healthcare providers, a software company could provide valuable insights into the relationships that exist across the many business entities in a rather complex commercial ecosystem (hospitals, insurance companies, medical care providers, health service companies, etc., etc., etc.). Companies would not necessarily need to share the details of their relationships – only that such relationships exist. Sharing this information would likely “cost” the companies far less than the benefits they’d get from the software provider in the form of detailed operational hierarchies that could be used for revenue generation (cross-sell, upsell) or increased operational efficiencies (supply chain optimization, risk mitigation, etc.). The distributed insights from many participating companies flowing into the data pool would be far greater than any one company could have ever generated on its own.

Beyond the one example above, once cloud-based software vendors can monetize their customers’ data (via changes to license agreements), they will begin offering entirely new suites of value-added solutions that were previously provided primarily by third-party vendors or other data providers. This includes services related to:

1. **Master Data Management**, including outsourced data governance, stewardship, and identity resolution
2. **Reference and Meta Data Management**, including services for data validation/verification and data quality solutions
3. **Enhanced and Predictive Analytics**, to allow for buyer propensity models, customer lookalike models, buying behavior models, lead scoring models, credit and risk models, etc., etc., etc.
4. **Business Risk Prevention and Mitigation services**, including things like credit and fraud protection, compliance and regulatory support services, and data security
5. **Automated Customer/Supplier/Partner Onboarding services**, for leveraging the information provided by the consortium created by the vendor in order to derive detailed insight into the suitability of a potential business partner or customer

For example, all companies today rely on other companies to supply the goods and services that are used as materials in the creation of their products. Today, all larger companies have supplier onboarding processes to determine if a given entity is a suitable participant in their supply chain. While there are certainly many unique characteristics and requirements for supplier onboarding across all companies – many of the core processes used in supplier onboarding are remarkably consistent regardless of company location, size, or industry. They include such things as basic company validation / verification, compliance / regulatory screening, or other potential operational or financial risks associated to a given potential supplier. Instead of 10 companies having to bear the cost of onboarding the same supplier 10 distinct times, if that same supplier could be verified once (where the cost of doing so would be shared by the 10 businesses participating in that virtual consortium), would this serve as enough of an incentive to act in a more collaborative manner? I believe it will be, and the journey towards this type of collaborative data platform is already underway.

The more data is shared, and the greater the transactional details provided with that data, the more valuable these services provided by software vendors will become. As more and more of these services are offered, less value is realized through the software itself – to a point where the value of the software will eventually approach zero and increasing proportions of the revenue of software vendors will be through services.



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## What is Old is New Again

The idea of multi-tenant software providers venturing into the data sharing space is not new. Salesforce.com briefly considered enabling a feature to allow for widespread data sharing across customer instances as far back as its Winter 2008 release.<sup>7</sup> The ability to allow customers to monetize their data within the Salesforce.com ecosystem (by selling to other customers or getting a rebate from SFDC itself) was eventually shelved, but the core capability, known as ‘salesforce to salesforce’ was launched and still exists today as a feature to enable data sharing within/across trusted partner networks.

The current software vendor supporting the idea of sharing data across its cloud-based instance is Reltio, an MDM software provider that is subtly promoting the capability for its customers to monetize their data via sharing with other Reltio customers.<sup>8</sup> The key difference between Reltio – a relative newcomer in the MDM software market – and most of the more established vendors (such as Informatica, Oracle, and IBM) is that Reltio runs on a multi-tenant platform that is 100% hosted on the cloud. The infrastructure Reltio uses to host its technology is what enables it to support cross-customer data monetization, although there’s very little detail published on its website about how this would be implemented – likely because Reltio hasn’t taken all the steps necessary for an active role in the facilitation of data sharing. Still, it’s very clear that Reltio is trying to establish the concepts of data sharing and data monetization (presumably because they see their longer-term development of these capabilities as a competitive differentiator). From Reltio’s website:

*“You can turn your own data into an asset and even begin profiting from it. You do this by transforming into the very same third-party Data as a Service provider that you leveraged to support your internal operations. The caveat of course [is] that any technology you use, [sic] must provide full audit and lineage as to where the data originated from so that licensing rights are clear.”*

Reltio rightfully suggests that the only thing stopping it from becoming the enabler of a data sharing marketplace (or a broker of data itself) is a change in the license agreements around the use of data being provided by its customers.

If the trends highlighted in this article are true, then many more software providers beyond Reltio and Salesforce.com will begin testing the idea of enabling customer data monetization and services built on top of customer data sharing platforms.



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<sup>7</sup> <https://www.itworld.com/article/2815530/salesforce-com-eyes-data-sharing-service.html> (accessed May 30, 2019); <https://www.networkworld.com/article/2286584/salesforce-com-readies-data-sharing-service.html> (accessed May 30, 2019).

<sup>8</sup> <https://www.reltio.com/solutions/data-monetization/> (accessed May 30, 2019).

## Next 10 to 15 Years: Widespread Data Monetization, Software Vendors Evolve Toward Becoming Commercial Marketplaces via Commercial Facilitation/Enablement

Over time, as more and more companies grow comfortable with the idea of sharing and monetizing their data in exchange for access to value-added insights and services, software vendors will be increasingly pressured to find new ways to drive revenues beyond the services they are providing in the form of master and reference data management, analytics, business onboarding, and risk mitigation. I believe that in the next decade, because of increased data sharing and monetization, software companies will begin making major shifts in their business models – where the cost of operating their data platforms will be increasingly offset by revenues generated from enabling and facilitating commercial transactions. Supported by blockchain, cryptocurrencies, and other new forms of value exchange; by quote-to-cash; and by supply chain management, there will be significant opportunities for software companies to facilitate commercial transactions between their clients through the creation of virtual markets within their platforms. Not unlike the financial marketplaces of today (NASDAQ, NYSE, etc.), the next generation of B2B commercial marketplaces will be hosted on the data platforms of companies like Oracle and Salesforce.com, where the gamut of quote-to-cash operational processes that underlie commercial transactions (for supply relationships or direct customer relationships) will be increasingly transparent and increasingly automated.

If, as this article suggests, certain subsets of enterprise data, through increased sharing (and arguably commoditization), does indeed become less of a driver of competitive differentiation over the next 10 years, then over the 10 to 20 that follow, many core business processes will also undergo a similar transition. The idea that business processes such as supply chain management or logistics might no longer deliver a competitive edge could be difficult to envision given our current commercial ecosystems. But if both the data and infrastructure used to support those processes is increasingly shared via collaborative consumption, then fewer and fewer drivers beyond pure product innovation will exist for companies to distinguish themselves.

We are still many, many years away from a future where the development of exceptional approaches to data and process management are less relevant to competitive success. There are most certainly changes on the horizon, however, that will soon disrupt several industries that today rely on providing (via actual data products) or supporting (through software or services) solutions which assume enterprise data would never be shared or even exposed across competing business entities. I am confident that enterprise data will be widely shared, and the companies impacted by this shift need to adapt accordingly.



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### ABOUT DUN & BRADSTREET

Dun & Bradstreet, the global leader in commercial data and analytics, enables companies around the world to improve their business performance. Dun & Bradstreet's Data Cloud fuels solutions and delivers insights that empower customers to accelerate revenue, lower cost, mitigate risk, and transform their businesses. Since 1841, companies of every size have relied on Dun & Bradstreet to help them manage risk and reveal opportunity.