



Supplier **Data**

The path to digital Procurement

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As procurement teams face increasing pressure to digitalise, strong supplier data forms the foundations for transformation. This report outlines how to breathe new life into supplier data to drive growth.

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Supplier data comes of age

More efficient procurement is just one benefit to getting serious about supplier data.

Who are my suppliers? It's a simple question, but one that many businesses struggle to answer precisely.

Look into a supplier database and you might find "FedEx" and "Federal Express" listed as two separate entries. The French unit, meanwhile, may have its own record for "FedEx France". Are there really three suppliers? Or is there one supplier, with two – or maybe three – operating units? Who knows?

In an era when businesses ask so much more of their suppliers – a topic we will explore later – it seems strange that many tolerate such confusion over who their suppliers actually are.

This report delves into the many benefits of maintaining accurate supplier data. Giles Breault, of The Beyond Group, writes later in this report that it is "the very foundation of providing the path to better insight".

Bryan Nella, an executive at multinational enterprise software organisation Infor, talks about some of the practical advantages that can be enjoyed in the world of digital procurement once supplier data is accurate.

"Remove paper and manual processes – automating supplier processes opens the door to greater opportunities," he enthuses. "Where there's Excel spreadsheets, emails or phone calls, there is room for errors and discrepancy.

Automating the invoice creation process by auto-populating from the purchase order removes the likelihood of discrepancies. This opens the door to auto-approval of invoices, as long as no exceptions exist."

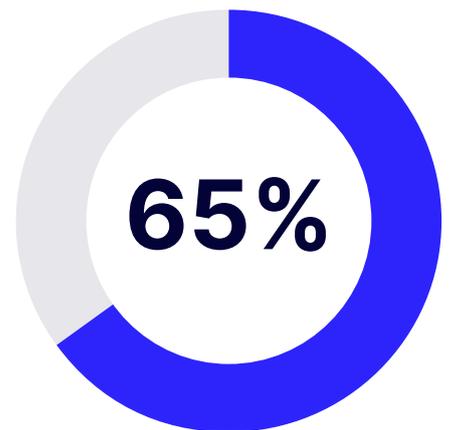
Such an approach also offers opportunities for programmes like invoice discounting, which can boost the health of the supply chain. A supplier working with multiple units of an organisation can be thoroughly risk-checked just once, rather than suffering multiple checks of possibly variable quality.

Forms of internal fraud can be prevented at source: for example, through implementing stricter control over changes to supplier banking details.

As the links between businesses and their suppliers grow increasingly tight, there's all the more reason for understanding the supply base. This process arguably started with the rise of just-in-time manufacturing, but has intensified to the point that companies are being held guilty for the sins of their suppliers, in the court of law or in the court of public opinion.

For example, the UK's Modern Slavery Act demands that all organisations with revenues in excess of £36 million look deep into their supply chain and report on what they are doing to prevent the use of slave or trafficked labour. In the US, a single source of truth on suppliers facilitates compliance with Office of Foreign Assets Control sanctions.

It is a big mistake to "think of your supplier as a separate entity", says Mr Nella. "That supplier is a direct extension of your business and brand."



of procurement leaders have limited or no visibility beyond tier 1 suppliers

Deloitte, 2018

"The links between a business and its suppliers are becoming increasingly tight."

There are also many financial reasons to shift to supplier information management systems. Boards of directors may demand increasingly complex reports so they can analyse and prune back spending; procurement teams must ready themselves to produce such reports, particularly if 2019 brings a global economic slowdown, as some economists predict. If such reports label FedEx and Federal Express as different entities, they could lead to bad decisions.

But it's important to remember that plenty of human insight will still be needed. When it comes to supplier data, "nail the right question," says Rich Pugh, co-founder and chief data scientist of Mango Solutions, a Wiltshire-based consultancy. Rachel Sellers, principal supply chain consultant at the Society of Motor Manufacturers & Traders' Industry Forum says:

"You can find nuggets of gold in your data, but unless you find the right question to answer, you'll surface insight rather than wisdom that will add value."

Achieving a firmer grip on supplier data, then, is a key step towards building a digital procurement function, where low-level tasks are automated through artificial intelligence (or perhaps its low-IQ cousin, robotic process automation), freeing up staff for higher-level thinking.

"Better insight drives better understanding of our markets, suppliers and risks, thus allowing us to make more intelligent decisions and thereby fulfilling the role of a true business advisor," Mr Breault writes.

If that sounds easy, think again. Supply chain analytics is still evolving, notes Mr Pugh.

"The marketing hype around analytic tooling would suggest that data science is mostly about throwing algorithms at data and seeing what happens. This is not true, and supply chain analytics is one area where this sort of approach can lead to difficulties," he states.

"Also, we often find we can't over-rely on what has happened before as supply chain dynamics can change over time. Applying algorithms to historical data may fail to enable an understanding of future behaviours."

And so while supplier information systems address some very important problems, others must be tackled through human ingenuity.

Still, this represents a vital step forward when compared with the alternatives, such as relying on a patchwork of legacy systems that solve none of these problems at all.

The three ages of supplier data management

Legacy systems

Concept: every system or business unit keeps the data it needs

Reality: Seems cheap and convenient but the complex patchwork can only hang together by custom integration

ERP approach

Concept: put all supplier data on a company-wide enterprise resource planning system

Reality: procurement's needs may not be top priority when choosing a supplier so management of supplier data may be basic

Supplier information management

Concept: one platform manages all supplier data and then connects to the rest of the business's systems

Reality: requires company-wide discipline - but the system creates the workflow that makes discipline easier

Reviving supplier data for corporate growth

Too many companies have parked their data in a dead end; getting back in the driving seat could change everything.

Data has for too long been perceived as a back office, administrative function, overlooked when it comes to purchasing technology; when the same old issues arise with the new system, many organisations look for another technical solution, investing more rather than smarter.

As a result, organisations end up with a technological mash-up. A recent report from management consultants AT Kearney criticised most procurement technology as “rigid [and] complicated”, adding that “after nearly 20 years of technology deployment, most organisations still struggle to get a comprehensive view of their spend”.

Organisations have been led to believe that doing everything from a single ‘system’ will give you perfectly connected and integrated data. The reality is that there is no one ‘system’ but one ‘provider’ with many systems. This has led a lot of organisations into dependency on a single provider, still marred with the same integration challenges.

Instead of looking for yet another IT solution, it’s time to revisit your supplier data management strategy.

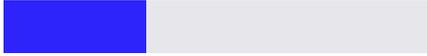
To maximise value from any system, your supplier data must be of the highest quality and consistent across all systems that use it.

But the constant change to which all data is subject means many companies end up in a never-ending sequence: data cleansing followed by a period of data erosion and degradation as records are duplicated, go out of date or become inconsistent. That leads to the need for another data cleanse – an exhausting and time-consuming cycle.

This is in addition to the challenge of keeping data consistent across many different types of system, something the majority of organisations neglect due to fear of faulty and costly system integrations.

Breaking this cycle requires a change of mindset. Instead of a periodic cleanse, which is seen as a piece of daunting but unsexy housekeeping, companies need a single source of truth; a consistently accurate home of information across all different functions and needs. But more than this, Supplier Master Data (SMD) needs a programme of governance that involves everyone in the supplier data chain. The next mindset shift is moving away from the notion that a single system means better and more integrated data.

33%



of procurement leaders believe their digital procurement strategy will enable them to deliver on their organisational objectives and values

Deloitte, 2018

Establishing SMD requires organisations to take a few steps back. Understand the objective in terms of the business outcome – often the data creator is not the data user, a disconnect that can lead to all kinds of errors. Connecting the two so they speak the same data ‘language’ can make a substantial difference to the error rate.

Another step is to grasp the different types of data needed. Master data refers to core information, but obviously other types of information are needed, such as transactional data or metadata.

Some of this may be fluid, or rely on different sources; some of it may vary across corporate locations, so require flexibility in how it is handled.

So a company needs a strategy to identify and address inconsistencies.

The goal of any SMD governance programme is establishing a process that ensures everyone is using the same information; that makes for an agile organisation, no longer locked into one system or vendor.

It allows for a level of flexibility that can tie legacy systems together into one structure.

The building blocks of an SMD governance programme include a clear line of ownership for specific areas of data, with individuals empowered to make decisions and become experts in their data field. This process must be embedded in the business.

There needs to be understanding of when an issue needs to be escalated, with data maintenance an executive function. SMD is too important to be put in the administrative box; it plays a strategic and central role, and data should be viewed as an asset, of equal if not greater value to the IT system in which it lives.

Establishing an SMD governance process is not a one-off project carried out by the IT department. It involves all data users, may be a process that develops and evolves as the company grows and changes, and will certainly be a uniquely different exercise at different companies. But the key is that the data user should be part of the data creation.

When SMD becomes part of the collective responsibility, it simplifies and streamlines the function so that data is no longer a daunting behemoth, but a number of small daily interactions that cross every employee's desk.

By establishing a commonly governed approach to data you can feed master data to any tool, enabling you to leverage best of breed tools, an improved user experience, without sacrificing data quality and visibility.

It is time for companies to realise that good data takes a company to new places. In terms of supplier data, do you want to make that journey in a second hand Fiat Panda with engine problems? Or a new Mercedes S-Class?

The quality of the data decides the quality of the ride - and maybe even whether you get there at all.

“It is time for companies to understand that data is not only sexy but the means of transporting an organisation to new places.”

First, fix the basics

The digital foundations must be solid before the high level benefits can be unlocked.

Many procurement teams today are under tremendous pressure to jump on the digital bandwagon and initiate projects that are glamorous and contribute to the company's digital strategy, but which may not connect to procurement's own needs.

This push to "do something digital" has left procurement teams searching for a straightforward (but not necessarily easy) golden path towards digital nirvana. Presumably, this is an endpoint where the entire procurement process is automated, augmented with AI and operating, as much as possible, without human intervention. In this blessed state, procurement moves from using descriptive data in a reactionary way towards using predictive data in proactive ways, all underpinned by full automation.

While reaching towards this state should be fully endorsed, we probably first need to step back and appreciate how complex procurement's role has become over the last several years.

In the time it has been considered a true profession, procurement has never been asked to do more. In addition to the traditional role of managing inbound costs, teams are now being held accountable for managing increasingly complex supply chains that often reach into highly risky geographies, ensuring corporate sustainability and citizenship objectives, evaluating complex business choices, and building risk-assessed investment cases - all while vastly improving the user experience and building a path towards becoming trusted business advisors.

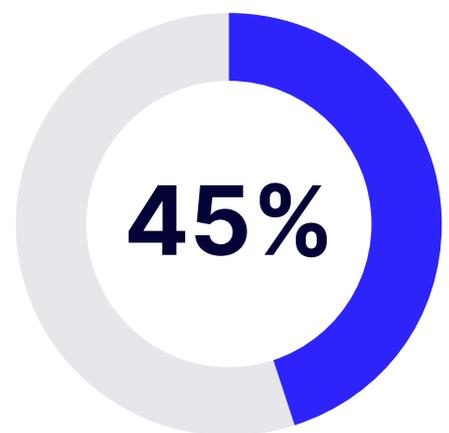
With all that at stake, it is no wonder they are seeking a straightforward path through the maze of digital technology options.

However, the cart is somewhat in front of the horse. While the ultimate goal is pursuing the high-level benefits that can be derived from well-crafted digitalisation these benefits cannot be gained on the back of multiple system instances, uneven processes, poor data standards or a myriad of other basic issues surrounding how we operate the most basic of our systems.

Regrettably, the path to digital nirvana may be far less glamorous than had been previously thought. In fact, the first steps on this journey are improving basic processes and implementing data management, both of which have been at the root of the automation journey for the last twenty years. As the poet T.S. Eliot put it, we "arrive where we started and know the place for the first time." We have come full circle in recognising that improving basic systems and the underlying data management process are not just the solutions for improving process efficiency, speed and user experience, but also are at the very foundation of providing the path to better insight.

It is not an exaggeration to say that data management and basic procurement processes unlock the door to providing value beyond simple savings. Better insight drives a better understanding of our markets, suppliers and risks, thus allowing us to make more intelligent decisions and thereby fulfilling the role of a true business advisor.

Companies should build and lead digitalisation efforts with less random experimentation. Instead, they should emphasise aligning procurement needs with specific technologies that will yield real benefits in a minimal timeframe.



of chief procurement officers are using or piloting AI

Deloitte, 2018



To make this happen, senior procurement teams should continue to be a key part of the decision bodies that select operational procurement and data management platforms, with veto power if necessary. If they step away from transactional activities they risk decisions being made by financial or operational teams that do not recognise that transactional systems are the foundation for collecting useable information and insight.

The rest of the story is untold. The next question that we must deal with is “what happens next?”

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Assuming that we can finally finish the job building out and automating our basic process with digital technology, we must then redefine what procurement does as a function. No longer can we claim that procurement teams are the masters of the purchasing process.

Even our higher functions like category management are easily automated in a digitally enabled world. When this happens, we finally get the opportunity to start thinking more deeply about what is procurement’s role within the firm.

Getting the nuts and bolts **done** **properly**

Cultural change and a technology upgrade has helped BAE Systems engineer a supplier data revolution.

When BAE Systems decided to streamline and improve its supplier onboarding and master data management processes, it needed a radical change. Along the way it learned a lot about the data it gathers, how it gathers it and its purpose.

BAE Systems provides some of the world's most advanced technology-led defence, aerospace and security solutions and employs a skilled workforce of 83,500 people in over 40 countries.

Keeping on top of all supplier data and ensuring everything runs smoothly was always going to be a challenge for such a large and complex company. But BAE Systems was determined to find a solution that worked.

The objective was to have one central, global environment that also allowed local capability, and local workflow, where required. The key requirements for a new system were that it should be SaaS, but easily available to BAE Systems itself. It also had to be flexible enough to handle global and local requirements at the same time.

It seemed that the company's existing systems weren't up to the job. The system was complicated – BAE Systems has multiple ERPs, with different processes in place for each. These were not always compliant and ongoing compliance checks needed improvement.

Added to this, each of BAE Systems' global regions had different requirements, meaning a harmonisation of the entire process was neither possible nor practical.

The third and final key challenge was that each BAE Systems business sector wanted autonomy over their own suppliers. Any new system had to work equally well for individual sectors as it did for the whole company.

Taking all these factors into account, BAE Systems selected HICX to be the single source of truth for all of its supplier related information, and the starting point for onboarding all new suppliers.

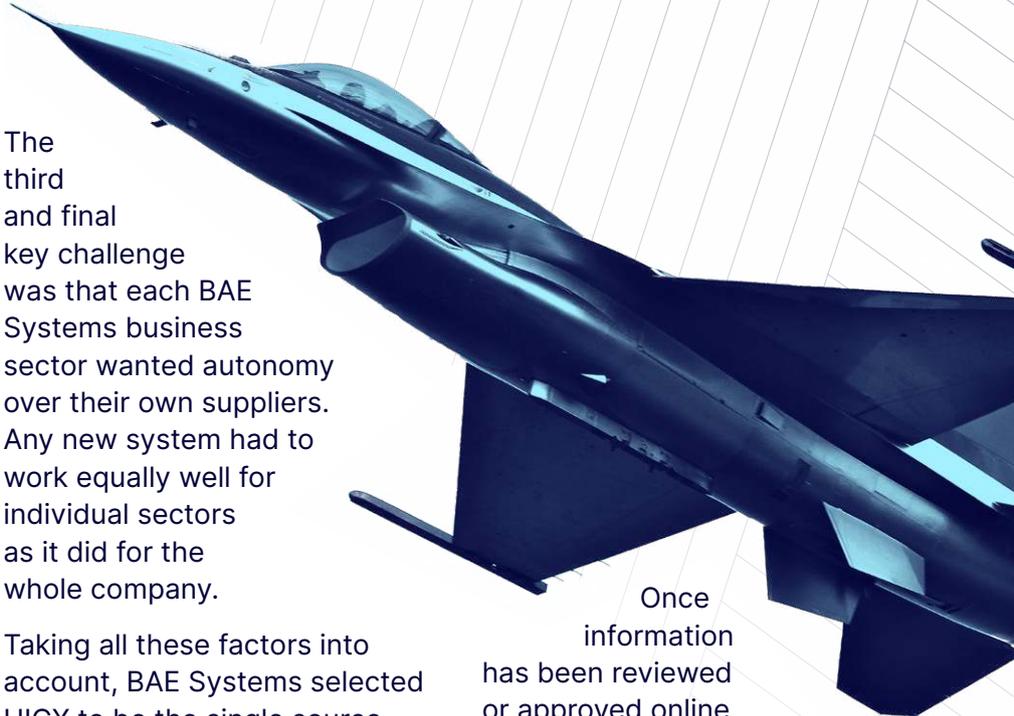
Suppliers register through the HICX supplier portal online. After their initial registration, the portal allows suppliers to maintain their information for any future changes.

The information collected through the system is directed to different groups within BAE Systems to review and validate the data. Any data which is considered global is managed and approved through a central group. Individual sectors retain control of their own suppliers.

Once information has been reviewed or approved online, supplier records are automatically updated in the appropriate ERP systems.

This includes information on both new suppliers and updates to existing supplier records, giving BAE Systems one golden thread of supplier data throughout the business.

A key issue for BAE Systems was Supplier Master Data Management (MDM), and the fact it wasn't actually doing it. But it was able to establish the data structure and create rules to onboard good data, as well as rules to maintain good data long term.



To ensure things ran smoothly, BAE Systems needed to define central and local processes, workflows, roles, responsibilities, authorisation, change control and more. Without a sophisticated MDM team, it was not possible to manually complete all processes. System automation transformed the way the project team was able to digitalise their processes.

Throughout the project, BAE Systems learned that it is behaviour and discipline that determine success. And if you want success, you need cultural behaviour change both inside and outside of technology. Bringing in change from the top made a big difference both in the implementation of the software and the results that followed.

After introducing the new system, BAE Systems realise it was asking too many questions of its suppliers. So the company rationalised information requests from across the business to establish what it really needed and asked four key questions: do we need this data to search; meet policy needs; meet legislature; or make a decision?

If the answer to those questions was no, there was no point in gathering the data.

The final learning was around data quality. BAE Systems realised that for success you must have resources to support ongoing data changes.

It realised that by putting in the work initially it could avoid having to make expensive changes and corrections later.

Crucially, BAE Systems now has one central repository where it can find accurate and reliable data for its suppliers. With new technology on the horizon in the form of AI, robotics and digital currencies, BAE Systems is in an excellent position to take advantage of any future opportunities that may arise.



83.5k

BAE Systems
workforce
across

40

countries

run its business as efficiently as possible. With this solid foundation at the core of its business, BAE Systems is well placed to get ahead of the competition and stay ahead.

BAE Systems has realised that having confidence in your data either drives or undermines the adoption of a system. By investing time and money in getting its data right, it now has the data it needs to

Using HICX has helped BAE Systems to:

- Apply a consistent process for onboarding new suppliers, ensuring timely collection of documents and information from suppliers;
- Streamline its workflows for reviewing and approving new suppliers and the relevant documentation;
- Automatically track and alert BAE Systems, and suppliers, of required document and information updates; Provide a central repository of all potential and current suppliers, and all of their related documents and information;
- Provide a platform for communicating and collaborating with suppliers on a variety of custom processes, such as ad-hoc surveys;
- Put itself in a position to be ready for new technologies.

“If you want success, you need cultural behaviour change both inside and outside of technology.”

Five steps to achieving data nirvana

Organisations can overhaul their supplier data management and reap the benefits – and it's straightforward, if you know the right path to take.

Define



First, build data standards to support process design, ownership and measurement. “Most people think of data standards as agreements that make it easier for people to manage, improve, share and use data,” says Simon Bullmore, founder and chief executive of Mission Drive, a data literacy and digital marketing organisation. “They’re particularly helpful in improving interoperability: allowing data to be used in different ways by different systems.

“When framing a standard, it’s important to understand the ecosystem the standard will operate in. For example, will it include just your business, or will it extend to your suppliers and partners? Understanding the ecosystem should include checking what standards are already being used. It may be worth adopting or extending an existing standard.

“You might also want to consider how the standard will be managed and updated – who’s responsible for that? What happens if something needs to change after the standard is implemented?”

Consolidate



Next, cleanse the data – including correcting, consolidating, de-duplication and enrichment. Bryan Nella of Infor, a multinational enterprise software organisation, explains: “In the supply chain, data signals can be confusing.

Electronic data interchange (EDI) events can depict multiple destinations for the same order. Data must be clean, sequenced and reliable to deliver value. “The goal of every supply chain today is to see into the future and know the next steps to take before it happens. Achieving this requires data analytics. But if the data is low quality then it doesn’t matter what type of analytics you use; it’s garbage in, garbage out.”

Rachel Sellers, principal analyst at the Society of Motor Manufacturers and Traders (SMMT) Industry Forum, agrees. “Cleansing data is a must. Yet the challenge faced by so many businesses today is that they are drowning in data.

“Constructive, collaborative environments whereby team members involved in presenting, analysing and auctioning the data are included in decision is the best way to ensure high-quality data consolidation.”

Govern



Step three involves embedding and operationalising supplier data governance business processes throughout the organisation. Mr Bullmore, formerly of the Open Data Institute, says: “To make best use of data, it is key to establish clear roles and responsibilities for individuals within a business.

“This normally encompasses an executive ownership role: someone who sets strategy, policy and allocates resources. And a data owner role: a person responsible for ensuring data meet goals set by the executive, implements strategy, oversees change and projects.

You also have data manager roles: those responsible for day-to-day management processes, security, and so on. Then you have subject matter expert roles: people who understand the data itself – its structure, sources, etc. Lastly, you have data users – analysts, experts and developers.”

Pauline Bernat , technical strategist at blockchain specialists Atlas City, counters: “Distributed Ledger Technology (DLT) enables governance to be taken out of the hands of a trusted central party and replaced with a decentralised mechanism whereby the truth is determined by the agreed mathematics.

“Some parts of the supply chain can be incrementally automated as the common standards are accepted; providing certainty, through business rules, that all mandatory data is complete and reliable. The data embedded as input to smart contracts enable a smooth operation of the supply chain.”

Enterprise



“This is concerned with incrementally enabling additional connected business processes and integrating transactional data. Suppliers should be empowered to self-onboard and maintain,” suggests Mr Nella. “You have to make it as easy as possible using tools like bots or machine learning to automate human steps.”

Ms Sellers says: “While it’s true that you can’t run before you can walk, we do see instances where companies have begun data sharing without any means of using the shared information. This generates frustration, disinterest and ultimately costs significantly more in terms of time and effort in undoing what’s wrong and re-engaging users.

“We recommend starting by integrating your own internal systems and processes as fully as you can before moving towards integrating external data sources. The lessons learned during your internal data integration phase will be invaluable as you transition towards collaborative data sharing.”

Digitalise



Lastly, by leveraging machine learning, more human processes – support, data approvals, data cleansing – can be automated, and data nirvana achieved. Nick Jewell, director at American software company Alteryx, urges organisations to “build a complete 360-degree view of their supply chain by blending in finance, customer, client and ad-hoc data sources”.

He continues: “Enabling enhanced analytics allows retailers to derive insights from customers, inventory, shipment, transactional, and location data so demand fulfilment can be maximised.

“Profitability depends on how well organisations can manage the right product provided in the right quantity, at the right time, in the right place. One miss and you may not only lose the sale, but the customer. From start to finish this is a logistics and, therefore, a data problem.” Mohammed Hajibashi, managing director and supply chain and operations global consulting lead at Accenture, adds: “Having an intelligent supply chain that is smart, connected, innovative and agile from end to end, will enable companies to be able to sense, shape and respond to changing consumer and market demands.

Moreover, it will help to deliver seamless consumer experiences that will ultimately help to differentiate and grow the business.”

HICX is the Low Code Platform for Supplier Management.

We enable business to find, maintain, and re-use trusted Supplier Data and Information across their Enterprise, across any spreadsheet, app or system. Our solutions enable your businesses to be more reliable, flexible, and scalable. Building from a rock solid platform of good quality data, we help businesses become digital in supplier management, third party management, compliance and risk, master data and finance management.

