accenture

Data as the foundation for Central Finance

How intelligent data automation
unlocks value in a journey to
SAP S/4HANA® for Central Finance

The success of Central Finance?
It all depends on the data quality

SAP S/4HANA® for Central Finance can be a critical accelerator in building a modern finance environment. By creating a completely new digital core based on SAP S/4HANA and then mapping data from underlying finance systems in real time, Central Finance gives CFOs what they want perhaps more than anything else—a single version of the financial truth—much faster than a complete organization-wide Enterprise Resource Planning (ERP) overhaul could deliver.

That matters because having accurate and comprehensive financial insights at your fingertips, for both statutory reporting and financial management, is more important to CFOs than ever. As the complexity of running a large global business has grown—whether from market disruption, rapidly advancing technology, new digital business models, or anything else—so

have the demands placed on CFOs. The uncertainty created by the COVID-19 pandemic has only reinforced and accelerated these challenges.

Put simply, today's finance functions need to move faster than their predecessors, with the flexibility and agility to adapt quickly to changing business circumstances. They need accurate forecasts and real-time visibility into finance data across the whole organization. Central Finance enables CFOs to acquire those capabilities much faster.

What is SAP S/4HANA for Central Finance?

Based on an SAP S/4HANA implementation, Central Finance provides a new digital finance "core" for the CFO that maps to multiple transactional systems in real time:

- Reposts line-item financial detail from legacy ERPs into a single ledger for financial, legal, tax, and management reporting.

- Accelerates value for CFOs by standardizing data definitions and hierarchies to create a single version of the financial truth.

- Enables a new "financial language" across the enterprise combining financial, customer and product-related elements.

- Supports a smarter change management approach, minimizing disruption to existing systems in the immediate term.

- Provides flexibility and agility to help the CFO manage future changes to the organization (such as M&A) as well as evolving business circumstances.

- Establishes an SAP S/4HANA foundation for the organization—which can be gradually expanded over time.

- Gives the finance function a transparent and auditable transactional system, with controls in the SAP software to meet compliance requirements.

Data is the foundation on which SAP Central Finance is built

However, what an organization gets out of Central Finance entirely depends on what it puts in. In other words, it all comes back to the data.

If the underlying data being mapped to the new system is duplicated, incomplete, or inaccurate the value that Central Finance provides will be compromised. That will ultimately impact the confidence the CFO—and the rest of the organization—can have in the financial insights their systems are reporting.

So good master and transaction data is absolutely foundational, not only for a Central Finance implementation, but for the ability of the finance function and the whole organization to make decisions backed by solid data.

The catch? Profiling data, cleansing it, and then mapping it to Central Finance can be a time-consuming, laborious, and expensive task. For large organizations, it can take teams of people several months of painstaking work to complete. What's more, existing tools to support this process are either very costly, provide a poor user experience, or deliver suboptimal results.

Yet data cleansing remains an essential activity. So anything which simplifies and streamlines that process can transform not only the speed of the Central Finance implementation itself, but also the pace at which the finance function can get the insights it needs.

Enter intelligent automation

This is where intelligent automation comes into play. Using technologies like artificial intelligence, machine learning, and data mining, an organization can accelerate data profiling, cleansing and mapping for Central Finance.

Indeed, from automation-assisted transformation to advanced machine learning, a strategic intelligence-led approach to data quality is becoming more and more of a competitive differentiator across the organization (see Figure 1).

There are three areas where intelligent automation can be particularly valuable: data quality, data deduplication, and data mapping. Accenture has developed a suite of intelligent automation tools which demonstrate the value this approach can provide across these three areas.

The evolution of data

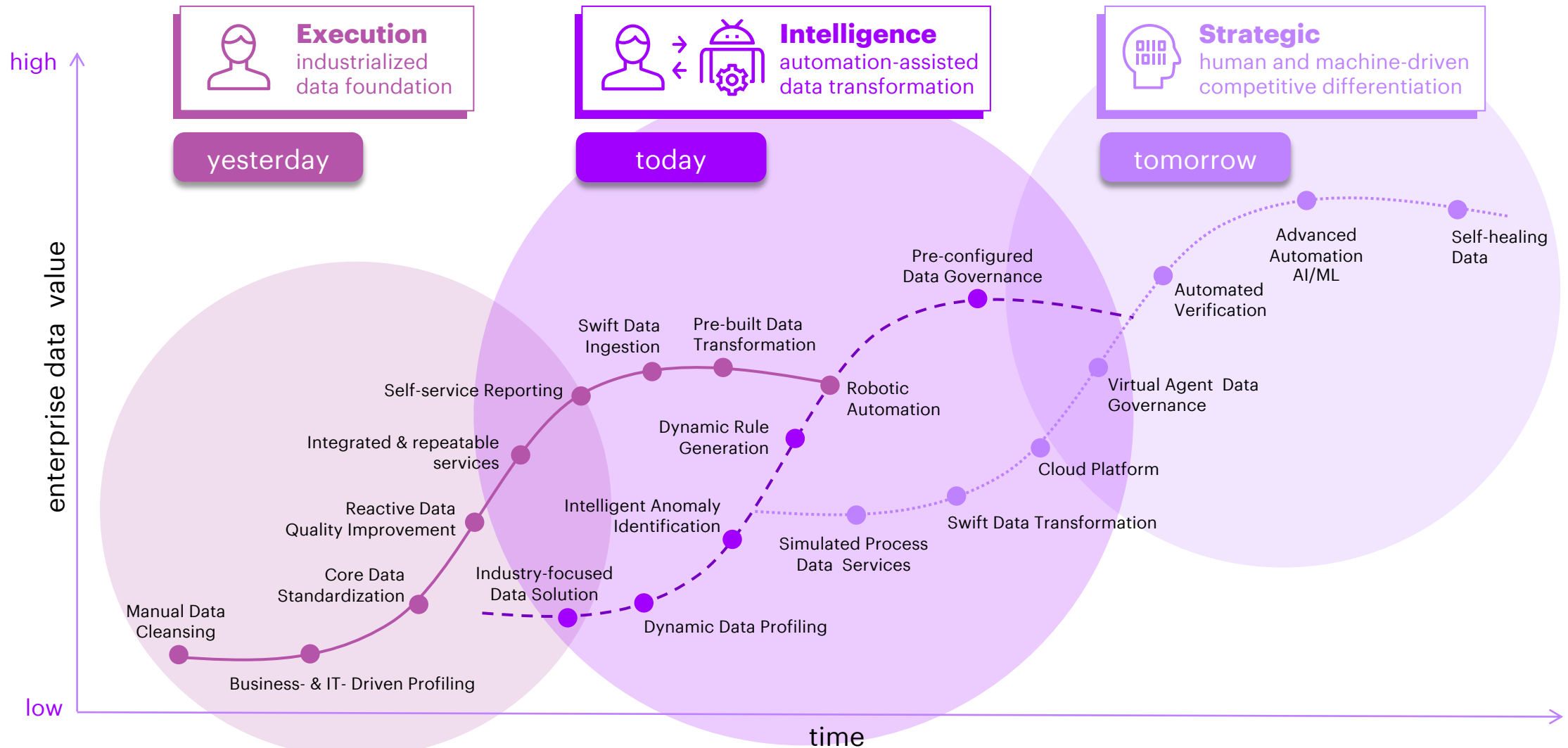Data is becoming increasingly strategic and differentiating

Figure 1: An organization's approach to its data is now a key competitive differentiator

Intelligent data quality

One of the most time-consuming parts of a data profiling and cleansing exercise is defining the business rules that should be applied. For example, agreeing with the business that a particular product brand should fall within a particular product category, or a particular product type should have a particular unit of measurement, and so on. Traditionally, this involves a lot of back and forth between the data management team and the business as these rules are identified and agreed.

However, by profiling the source data you'll need for Central Finance using artificial intelligence, it's possible to suggest and create these rules based on how frequently different data patterns occur. So, rather than waiting for the business to provide the rules (which might take time) the data or the business team can generate thousands of suggestions in a matter of minutes, if not seconds, depending on the data size.

Once approved, these rules can then be automatically applied to cleanse the data. This is how Accenture's Intelligent Data Quality (IDQ) tool works (see Figures 2 and 3). Overall, our experience shows that a business can expect to cut out around 60 percent of the manual effort otherwise required to gather, build, test and deploy these rules.

That in turn can help boost productivity. Developers and business users are freed from a laborious task and can use the time gained to address the root causes of identified issues and so increase efficiency. On top of this, with fewer opportunities for human error to creep in, an intelligent automation approach can improve overall data quality.

# Artificial intelligence and machine learning can boost data activities such as profiling and cleansing

By profiling the source data using machine learning and artificial intelligence, business insights based on data patterns and frequency of occurrence are suggested to the business, and approved rules are used to cleanse the data set.

Intelligent data profiling

	Completeness
	Consistency
	Conformity
	Uniqueness
	Integrity
	Relevancy
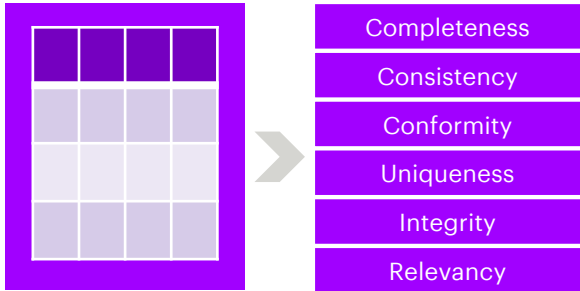
Suggest business rules from master data sets

If Product Brand is **"ACME Candy"**, then Business Segment is **"Confectionery"**

If Product Type is **"Finished Good"**, then Unit of Measure is **"Case"**

Accuracy	✓ ✗
Conformity	✓ ✗
Integrity	✓ ✗
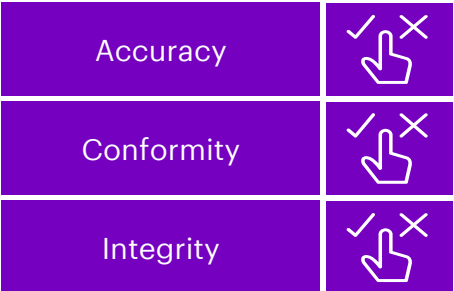
Use approved rules to cleanse the source data

Intelligent cleansing bot

ACME Candy	Case	Confectionery
ACME Candy	Case	
ACME Candy	Unit	Confectionery
ACME Syrup	Gallon	Confectionery

Suggest correct values for identified issues based on data patterns

Product Brand	Unit of Measure	Business Segment
ACME Candy	Case	Confectionery
ACME Candy	Case	Confectionery

Figure 2: Accenture's IDQ tool uses machine learning and artificial intelligence to boost data activities

Accenture's IDQ tool supports intelligent data quality

Prepare data	Profiles with rules	Profile with AI	Cleanse data	View output
• Import data to be profiled from file or through a direct database connection	• Add rules from another profiling project or… • From a vast database of thousands of rules (only available for SAP EEC or S/4HANA)	• Set parameters and execute the profiling with the click of a button • Built in AI algorithms will autogenerate data insights and will give the ability to the user to select business rules	• Based in the approved business rules, the tool will suggest and predict correct values to identified data issues • Level of confidence in the prediction is identified, per value • Ability to mass harmonize attributes	• Ability to compare the precleansed and postcleansed percentage • Great way to showcase the results back to the business

Figure 3: Accenture's IDQ tool supports intelligent data quality from profiling to cleansing

Intelligent data deduplication

Duplicated data values are a particular problem in Central Finance, where the goal is to consolidate data and ensure unambiguous information is available.

This is another area where intelligent automation can make a valuable difference. For example, Accenture's deduplication tool uses fuzzy logic (a more flexible approach based on a matching score) and data mining to identify potential duplicates and determine the survivor (see Figure 3). The best record – or the survivor record – can then be selected, enriched as necessary, and loaded into Central Finance as the master record.
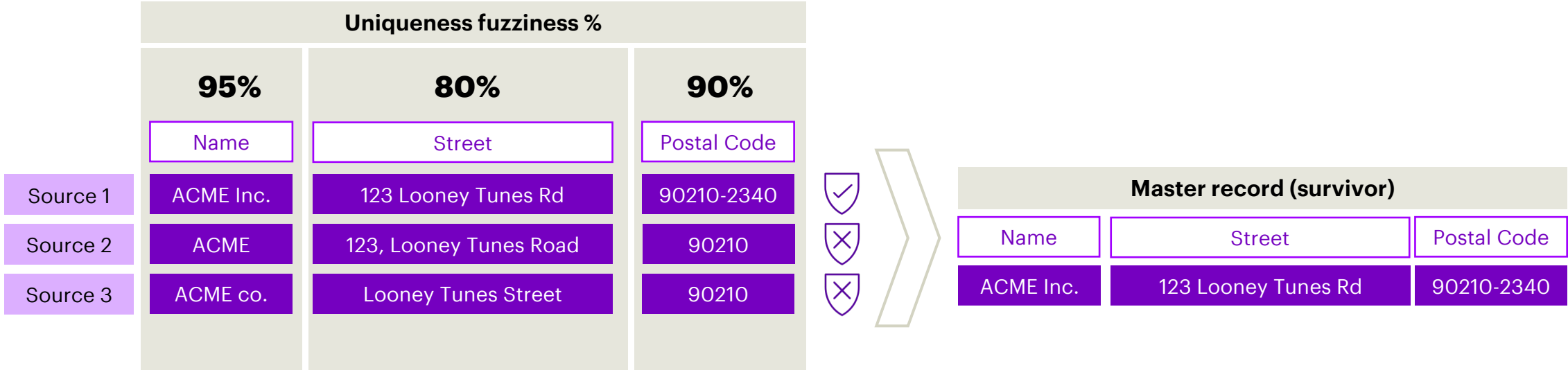
Uniqueness fuzziness %			
	95%	**80%**	**90%**
	Name	Street	Postal Code
Source 1	ACME Inc.	123 Looney Tunes Rd	90210-2340
Source 2	ACME	123, Looney Tunes Road	90210
Source 3	ACME co.	Looney Tunes Street	90210

Master record (survivor)		
Name	Street	Postal Code
ACME Inc.	123 Looney Tunes Rd	90210-2340

Figure 4: Accenture's deduplication tool uses fuzzy logic to identify duplicate data elements

Intelligent data mapping

Accurate data mapping is critical to the success of any Central Finance implementation. Since one of the key advantages of a Central Finance approach is the limited (or zero) disruption to underlying systems, all the value ultimately derives from the mapping of those systems to the new Central Finance core.

However, there's no escaping that data mapping is a tedious and time-consuming task. What's more, existing tools can be unreliable or difficult to use, typically requiring error-prone spreadsheet-based approaches. That's why this is the third key area to consider intelligent automation.

For example, Accenture's Intelligent Data Mapping uses fuzzy logic and data mining to accelerate mapping activities (see figure 5). Because it gives finance teams a dynamic cloud-based user interface, it bypasses the need for complex mapping sheets, helping users to create and maintain mappings quickly and easily.

Intelligent Data Mapping supports the mission critical mapping activity at the heart of any Central Finance program

1

Source   Target

S1	ACME Inc.	ACME Inc.
S2	ACME	
S3	ACME co.	
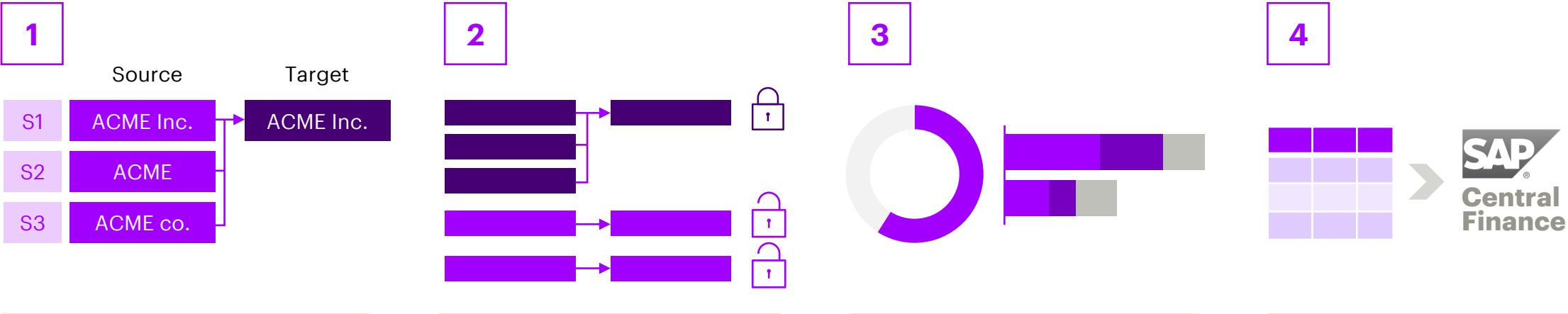
Auto-mapping using fuzzy logic and text mining

The user can import as many attributes as desired to support the mapping between sources and target.

2

Ability to manually lock & unlock mappings

To ensure all sources and target are mapped, color coding is applied when the values have been mapped and locked (validated).

3

Lean dashboard to keep track of the progress

The summary dashboards can help in tracking whether all value mappings have been done or are yet to be done.

4

SAP Central Finance

Generates output file for SAP map manage transaction

Without any additional manipulation, the output value mapping file can be downloaded and uploaded into SAP, for all data objects.

Figure 5: Accenture's Intelligent Data Mapping uses fuzzy logic and data mining to accelerate mapping activities

Time to see SAP finance data in a new light

The intelligent automation of data activities, such as those discussed, are clearly essential in a Central Finance implementation. But the core principles of the approach are applicable much more broadly across an organization.

Intelligent data profiling, cleansing and mapping should now be part of an organization's intelligent data strategy and roadmap. That includes the increasing use of artificial intelligence to support data management, the development of "self-healing" data solutions, the transition to accessible cloud-based services, and the imposition of consistent user-centric design rules.

These are the critical capabilities on which future business growth are founded. Seen in this broader context, it's clear why intelligent automation has such an important role to play. It's a critical element of a journey to Central Finance and beyond, accelerating the path to new value and new financial insights for CFOs and their teams.

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