



Maximize Your Decision Intelligence by **Analyzing Contextual Data Across the Enterprise**

September 2020

Author
Philip Carnelley
AVP, European Software Research

IDC #EUR146691920

An IDC InfoBrief, sponsored by

quantexa



What will you learn from this InfoBrief?

The missed opportunity of today's analytics investments



- To survive and thrive in today's uncertain world, companies need to be world class at key business processes such as fraud and financial crime detection, customer intelligence, credit scoring, KYC, and customer relationship management. Enterprises are already investing vast sums and resources on these, but often fail to reap the benefit.
- While some companies are tackling these challenges with advanced analytics — and getting measurable business value — most are not. One key reason: organizations have huge volumes of data to help, but don't have the right technology to harness the value of this information. Getting the analytics right is key.

Opening up new routes to value from analytics and AI: context helps with key use cases



- By adopting best practice for these critical use cases, companies can make better, faster, operational decisions and become more agile and competitive.
- The contextual approach is increasingly being seen as a key best practice for these critical use cases: that is, using entity resolution and network generation to understand relationships and behaviors, such as customer interaction patterns, resulting in better, faster operational decisions.
- Integrating the right data, transparently, empowers decision makers: most new and valuable insights come from finding explainable links between fully understood, trusted data in a single view provided by entity resolution.

The key challenges



- A lack of a single view of data across an organization is a serious obstacle to data-driven, decision intelligence. This means decisions can't be automated with confidence, and individual entities such as customers and transactions cannot be properly and fully understood and analyzed.
- But reliable data integration, especially at scale, is difficult, hence data is stuck in multiple silos — inhibiting that single view and holistic, contextual analysis.
- Traditional rules-based approaches to decision support are not sufficiently agile or resilient in today's uncertain and rapidly changing business and geopolitical environment — advanced analytics, ML, and AI are needed to empower users or automate key processes.
- For effective and accurate decisions, data must be trusted and seen in context, offering holistic and intelligent decision support to decision makers.

IDC guidance: next steps to maximize the business benefit of contextual decision intelligence



- Utilize Big Data, AI, and ML to help reduce manual overhead, enabling your staff to focus more effectively and efficiently.
- Take advantage of contextual decisioning approaches and technology addressing the data intelligence domain. A contextual modelling approach can transform the accuracy, speed, and efficiency of your decision making.
- Utilize an open architecture to ensure future proofing in the IT estate, integrating relevant information for example in a trusted, governed, and well-defined data hub to support holistic and contextual decision making.
- Start focused and work outward toward supporting multiple use cases by constructing a well-integrated set of internal and external data onto a single platform, creating a horizontal data fabric layer that can support differing use cases.

Maximize Your Decision Intelligence by Analyzing Contextual Data Across the Enterprise

Analytics and business value



Even before the COVID-19 pandemic, it was clear that for companies to succeed they needed world-class performance in key processes, including customer relations and marketing, fraud and financial crime detection, know your customer, and customer churn analysis.



But to do these effectively requires new and advanced techniques such as AI and ML, graph representation, and entity resolution running against a well-integrated, trusted, and highly performant data set.

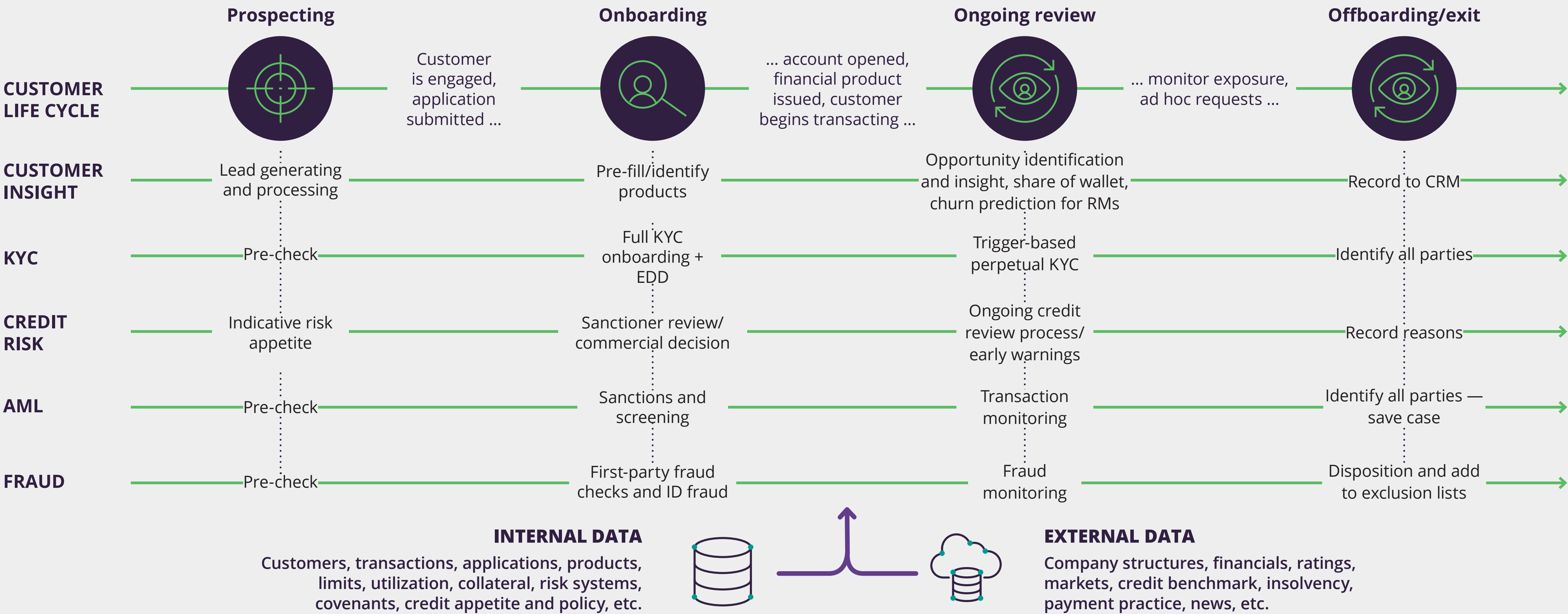


State-of-the-art decision intelligence requires a blend of automatic and human decision support.



At least three-quarters of companies are limiting their use of analytics and fail to capitalize on the operational decision-making opportunity of modern data intelligence.

Understanding critical use cases benefiting from advanced analytics such as contextual analysis and entity resolution in financial services



Companies must invest in key business processes dependent on state-of-the-art analytics



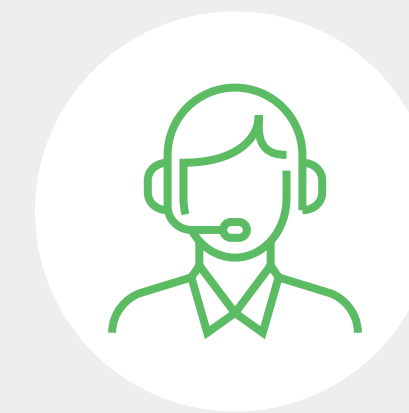
Worldwide investment in analytics — currently over
\$60 billion — will grow at
12.5%
a year — will grow at
a year from 2021 through 2024

Key business use cases that rely on advanced analytics include fraud detection, financial crime management, customer intelligence, credit scoring, and know your customer (KYC)



The amount of enterprise data being created is growing at

26% — will reach
a year and will reach
75 zettabytes
by 2024



\$20 billion = enterprise spend on integrated customer information solutions in 2021



\$33 billion = worldwide banking industry spend on fraud and risk in 2021

Analysis of the data deluge is key to success in many business use cases — hence the vast enterprise spend on solutions. Fundamental to success is an integrated and holistic analysis of the data — looking at context and resolving entities across data sets.

Most companies get poor business value from AI and analytics, impairing their ability to succeed with customer relations and risk reduction



Star performers in analytics boost their core KPIs by **8%** or more, delivering significantly better customer satisfaction and product innovation.



20% of companies get no real benefit from their analytics investments.



5% of companies can be considered star performers — advanced users in both maturity and level of benefits achieved.

Companies need to adjust their analytics strategy if they are to achieve the same success as the frontrunners: better data integration, relationship analysis, and automated decision support can improve business value using Big Data analytics and AI.

New routes to value from analytics and AI



By adopting best practice for critical use cases, across different industries companies can make better, faster, operational decisions and become more agile and competitive.

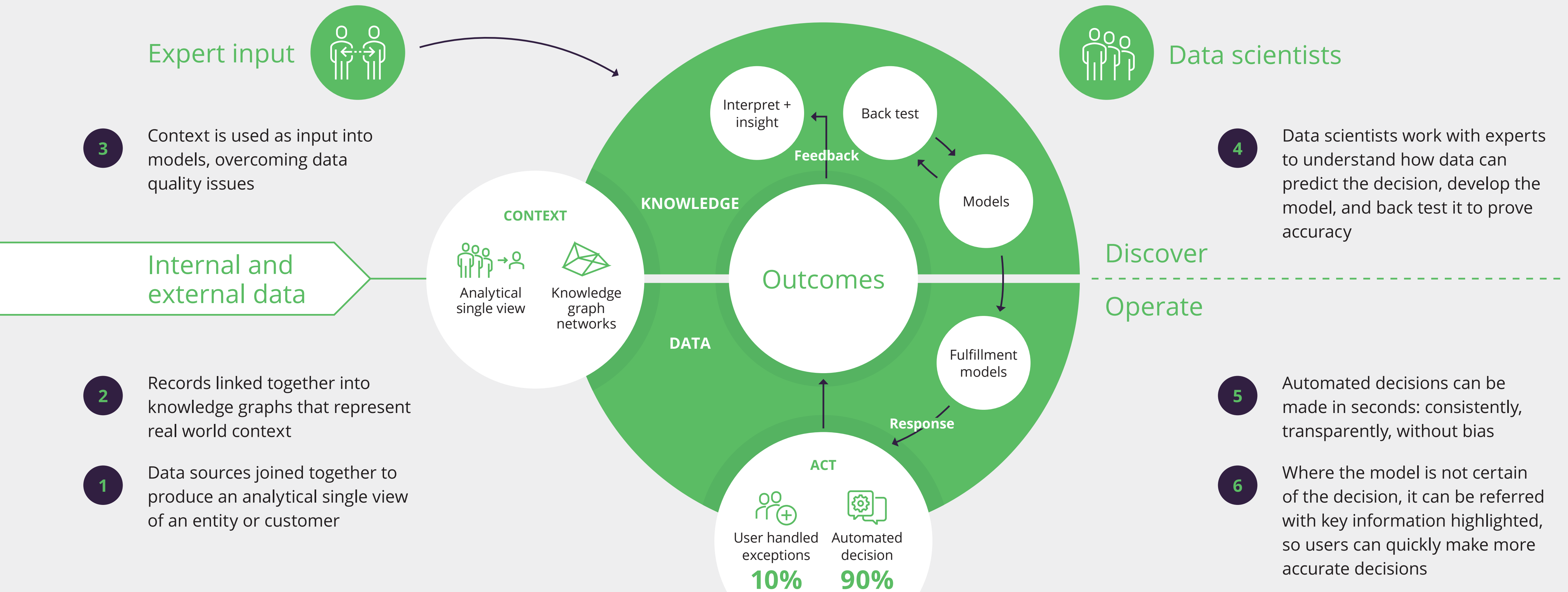


The contextual approach is increasingly being seen as a key best practice for these critical use cases: that is, using **entity resolution** and **network generation** to understand relationships and behaviors, such as customer interaction patterns, resulting in better, faster operational decisions.



Integrating the right data, transparently, empowers decision makers: most new and valuable insights come from finding explainable links between **fully understood, trusted data in a single view** provided by entity resolution.

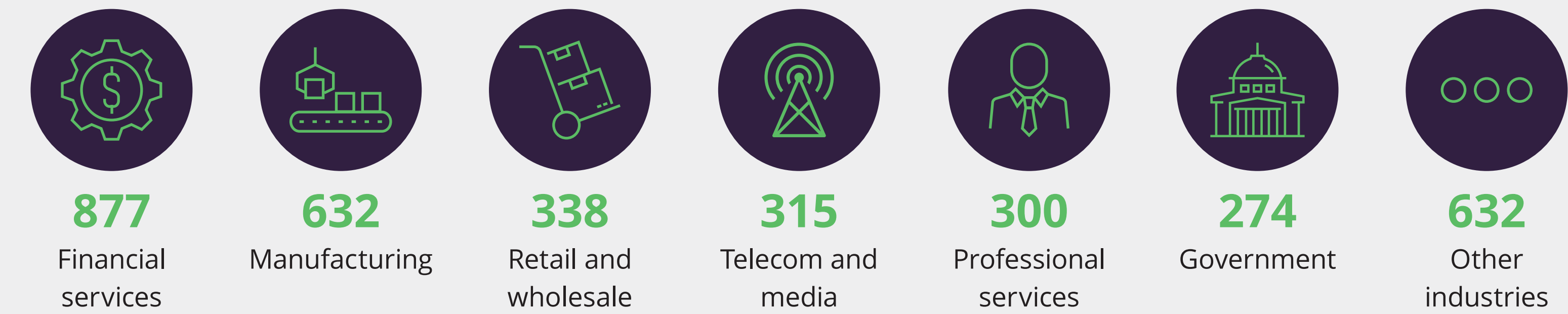
A best practice for decision making: contextual decisioning intelligence model



Integrating data sources is another key strategy in the quest to empower decision makers

All industries are investing in data integration software

Worldwide Analytics Data Integration and Integrity Software Spend (\$M)



IDC's suggested approach:

Leverage entity resolution to integrate and connect internal and external data sources using the most sophisticated integration algorithms to automatically create a single analytical view. This ensures all data is easily available to decision makers across the organization and overcomes data quality challenges.

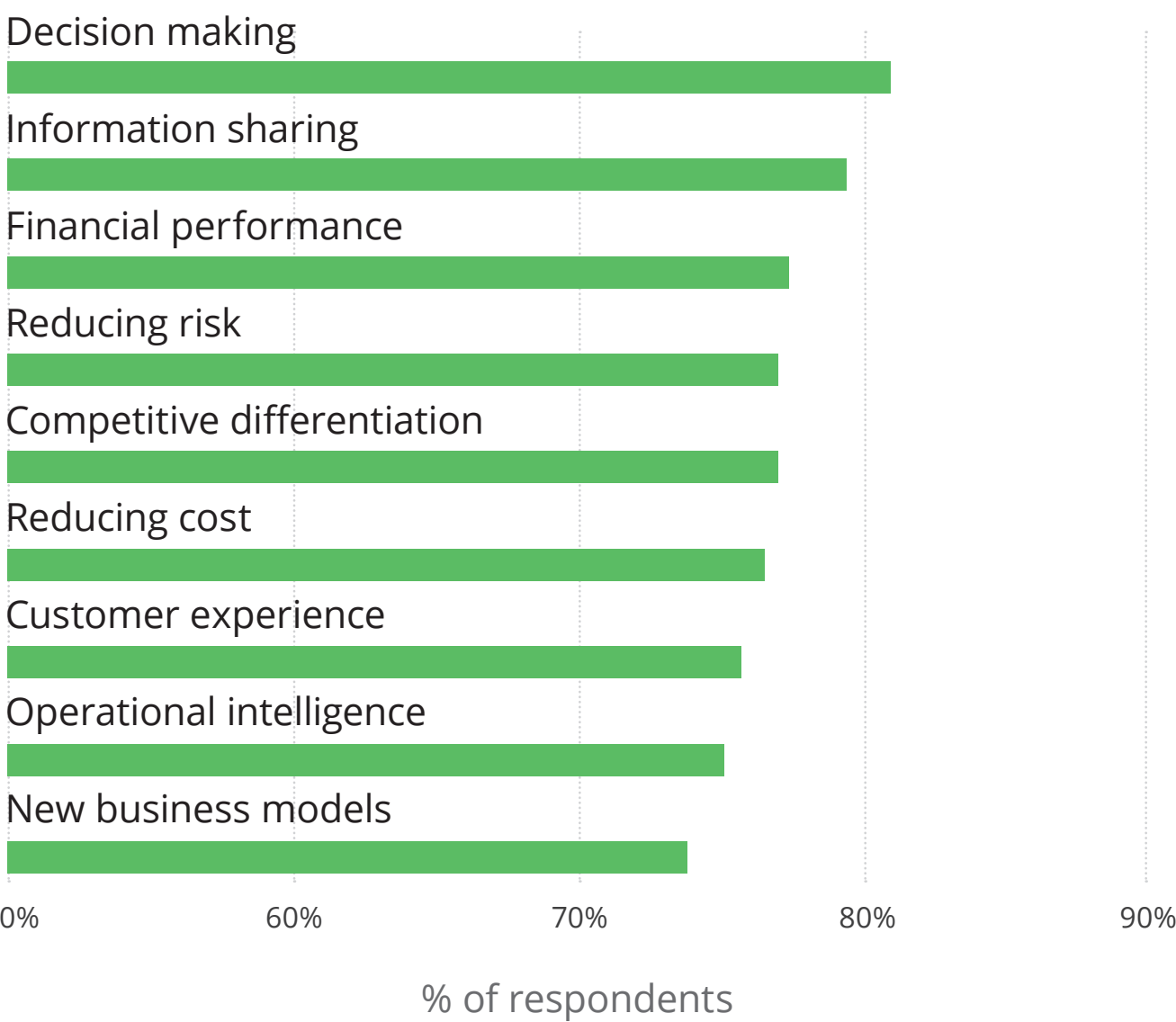
Integrated data must be:

- Reliable, to lead to accurate business decisions
- Trusted, to be widely used in decision making practice

The context of the data must be clear and transparent and enhanced through knowledge graphs and networks.

Advanced adopters agree that data integration and data intelligence are vital to achieving maximum business value

Importance to business process of data intelligence



New valuable insights come from finding links between well-understood, integrated data



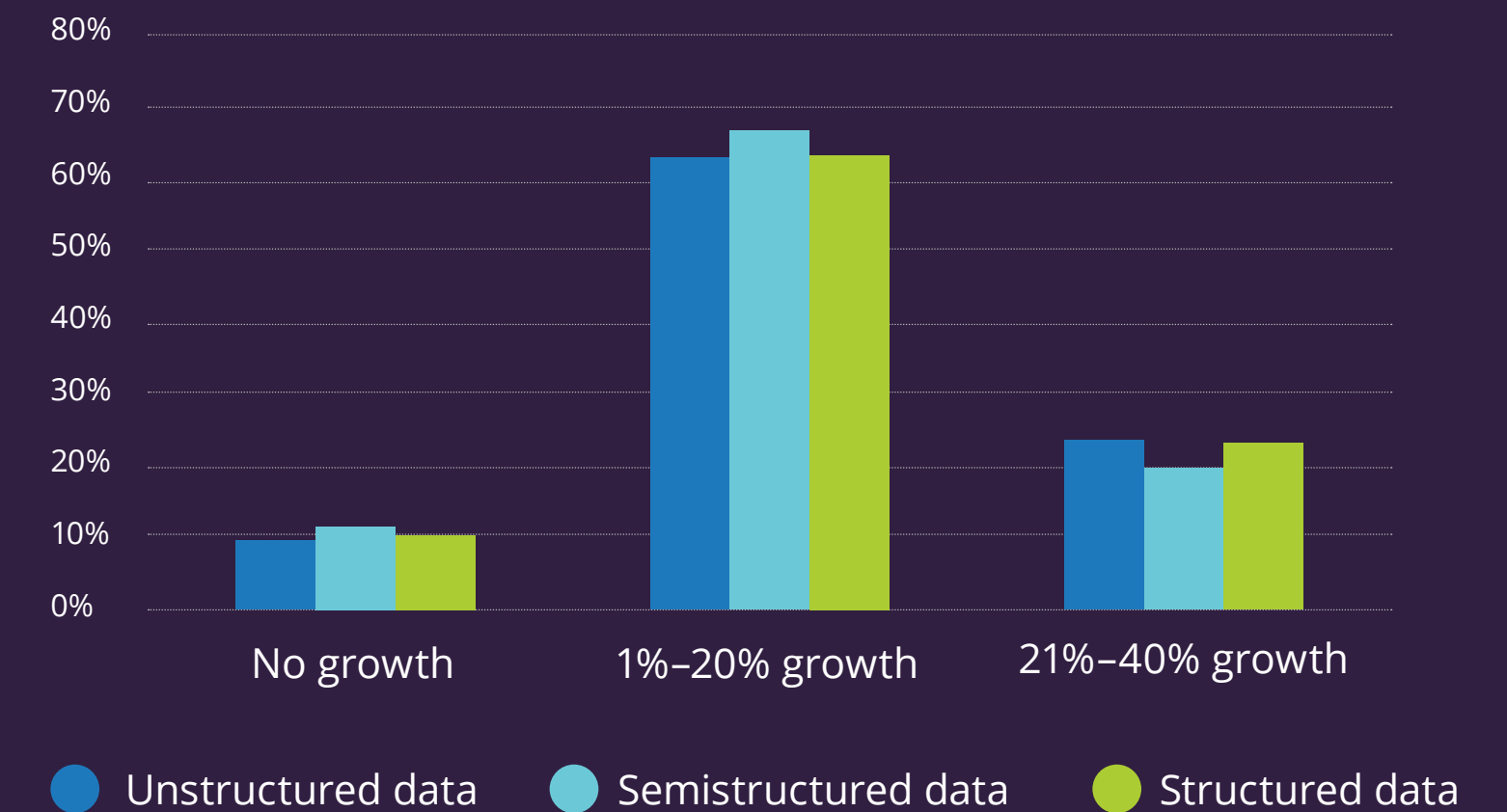
44% of star-performing analytics adopters analyze graphs and linked data, and use time series and geospatial data.

31% use graph technology to derive business insights from links between items.



Only **10%** of data deemed potentially useful by enterprises is actually being analyzed today.

Organizations' data growth by type of data, 2019

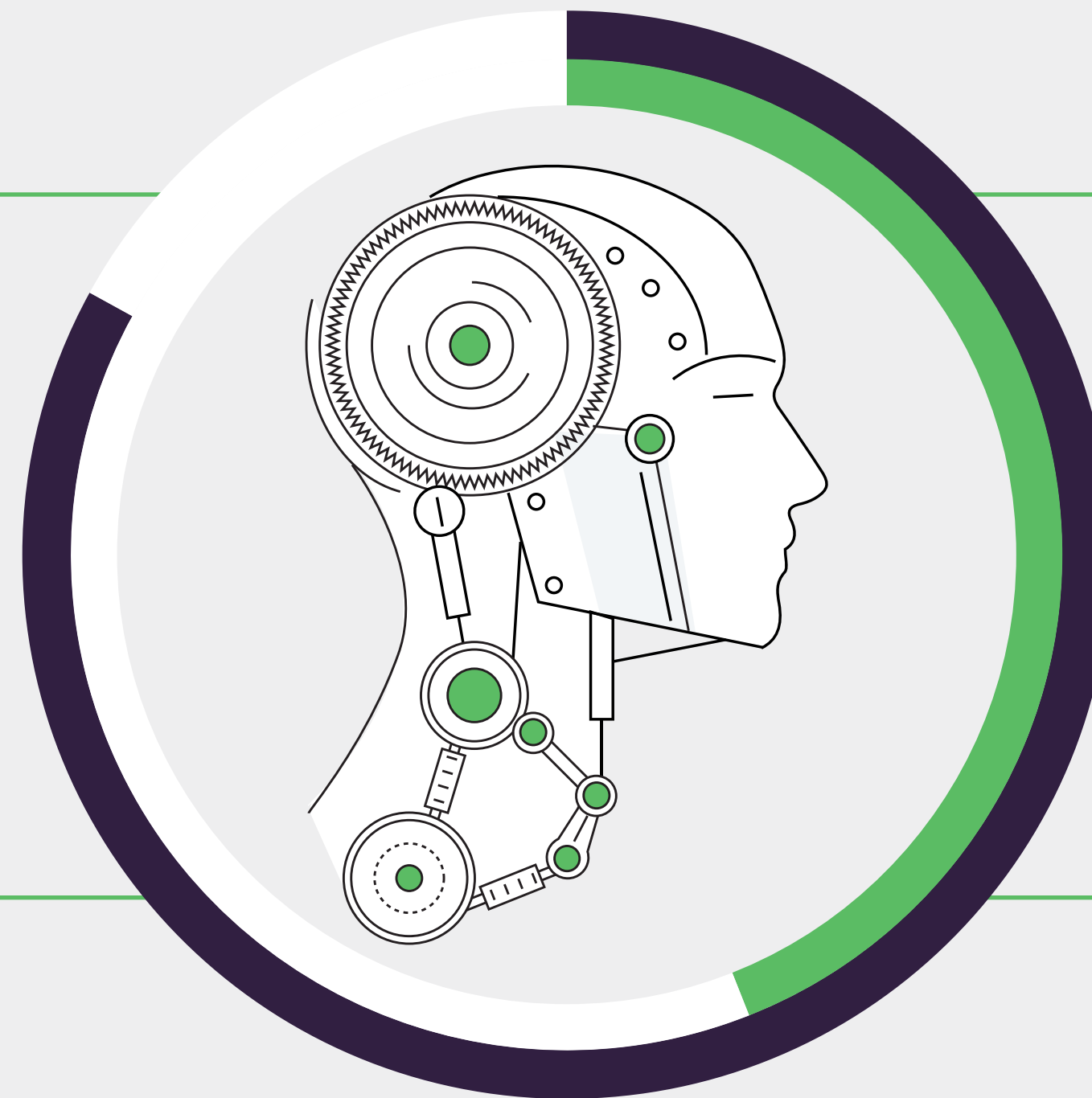


Suggested approach:

- Use graph technology to help identify meaningful network links between integrated data sets such as people, companies, events, and locations, dynamically and in real time, to provide further decision-making insights.
- Analyze the **relationships** between entities, to identify patterns in the links between them, and in space and time, to achieve maximum value.

The value of fully automated decisions made in seconds in an operational environment

83% of high-performing adopters of analytics believe that real-time integration with operational business processes will deliver high business value, but only **44%** have achieved this.



Less than **15% of analytics** adopters have made progress with automated decisions, missing out on this critical capability.

- Data must be trusted and of high quality to support automated decisions: data intelligence is a key gating factor.
- For exceptions where the decision is unclear, the system should automatically ask a human expert — but many tools cannot support this. Technology should provide the context needed for a human investigator to make an accurate decision as quickly as possible.

Key challenges



A lack of a single view of data across an organization is a serious obstacle to data-driven, decision intelligence.



Reliable data integration, especially at scale, is difficult.



Few organizations are able to leverage automated and intelligent, data-driven decision making.



Traditional rules-based approaches to decision support are not sufficiently agile or resilient.



For effective and accurate decisions, data must be trusted and seen in context.

Reliable data integration, especially at scale, is difficult

Data from different sources about the same customers, products, etc. (entities) will often not match exactly. Data integration and the lack of a “single version of the truth” is a real problem for many organizations:

59% see this as a key challenge.



57% of companies find data fragmentation an obstacle, even though

74% of companies are using data quality software to address conflicting data.

- Yet practical technology and approaches exist to help with these issues, including graph technology, networks and entity resolution. Today's products are now able to perform well using modern algorithms.
- But adoption is in its infancy. Most companies are using inadequate tools and architectures and need to modernize traditional rules-based systems.

For effective and accurate decisions, data must be trusted and seen in context



To work with data, decision makers need to know the context of the data they are working with, where it came from, and how it has been integrated to use it effectively.



But **30%** think data stewardship is poorly supported by the tools they are using.



An enterprise data integration architecture or platform can enable all data to be seen in context, but **62%** of organizations lack this capability.

IDC guidance: next steps to maximize the business benefit of contextual decision intelligence



Utilize Big Data, AI, and ML to help reduce manual overhead and improve staff performance.



Take advantage of contextual decisioning approaches and technology to transform the accuracy, speed, and efficiency of your decision making.



Utilize an open architecture to ensure future proofing in the IT estate, in a trusted, governed, and well-defined data hub to support holistic, contextual decision making.



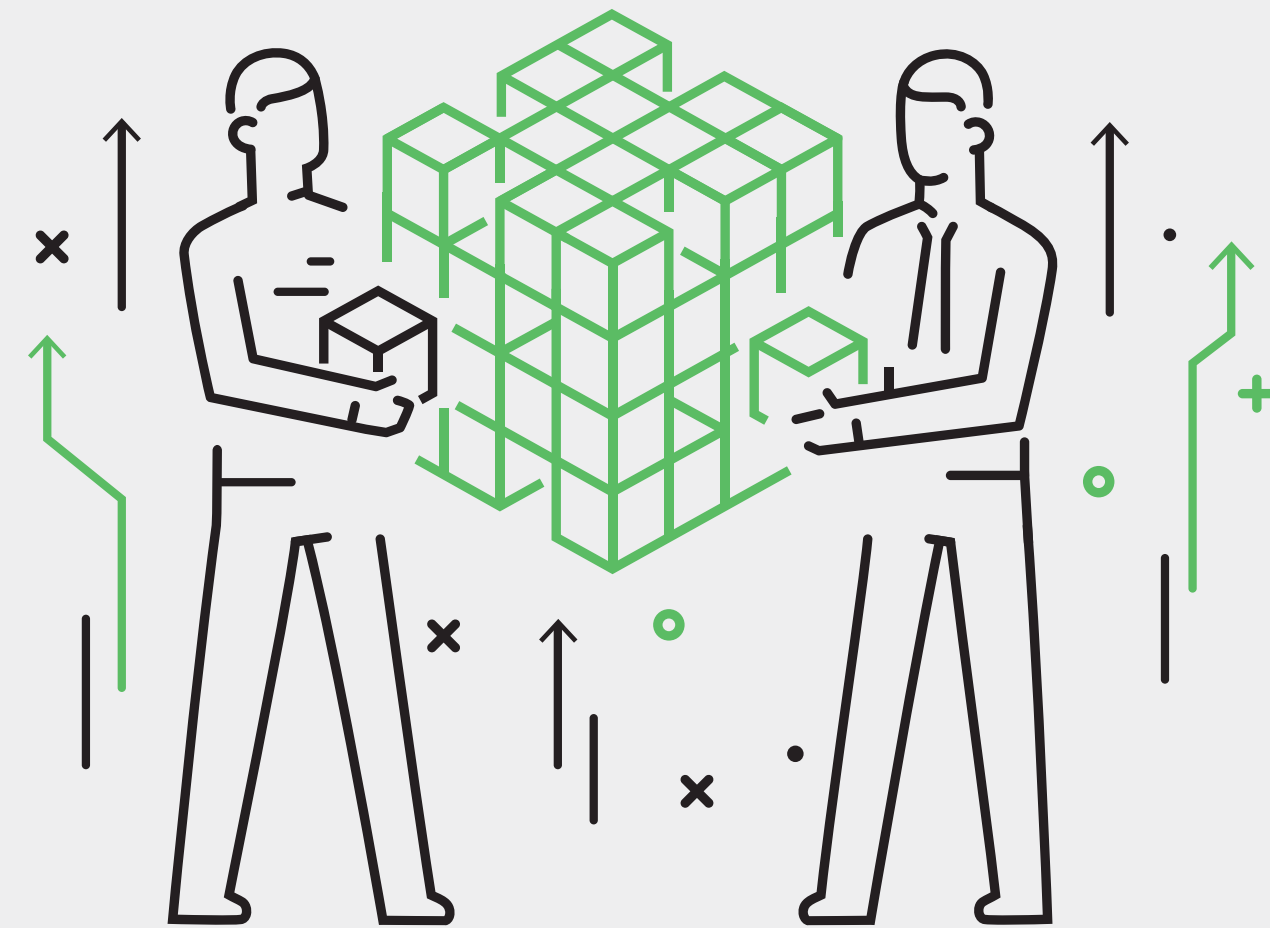
Start focused and work outward toward supporting multiple use cases by constructing a well-integrated set of internal and external data into a single platform.

Take advantage of today's commercial data integration software

In many companies, data integration of internal, and external, sources has been hand-crafted by staff. Yet

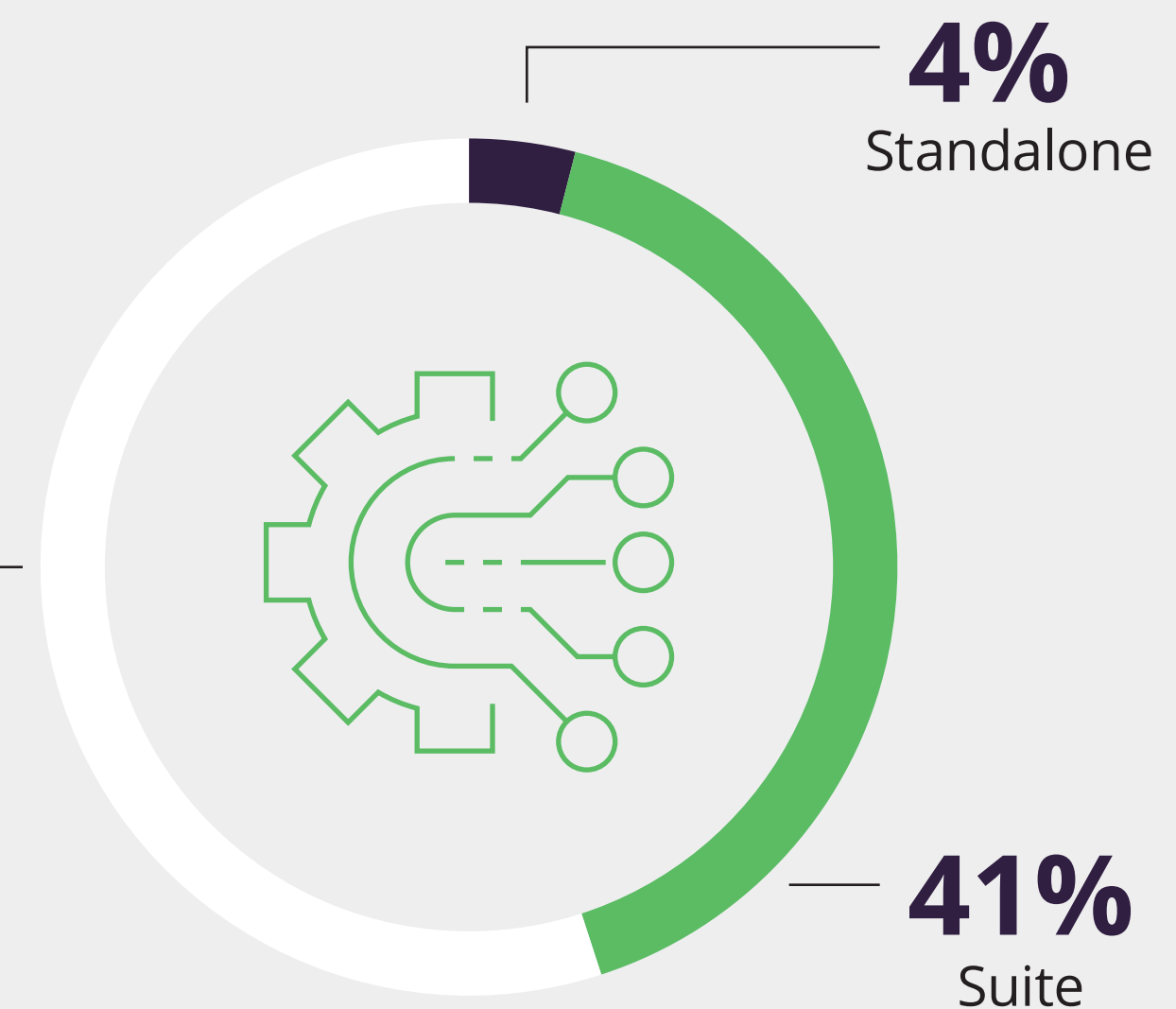
97%

of those companies say they know that this is a poor or suboptimal solution.



Approaches to data integration

55%
Custom code



- Accurate integration requires a range of complex software techniques, using modern commercial tools and platforms.
- Entity resolution can connect internal and external data sources and provide a single analytical view that overcomes data quality issues that plague traditional matching approaches.

Integrate externally sourced data to maximize business value

38%

of leading-edge adopters of analytics and AI integrate a significant amount of external data to maximize business value from their systems.



Valuable data sources include:



Demographics



Address lists



Financial markets



Company information



Weather patterns



Watch lists



Reviews

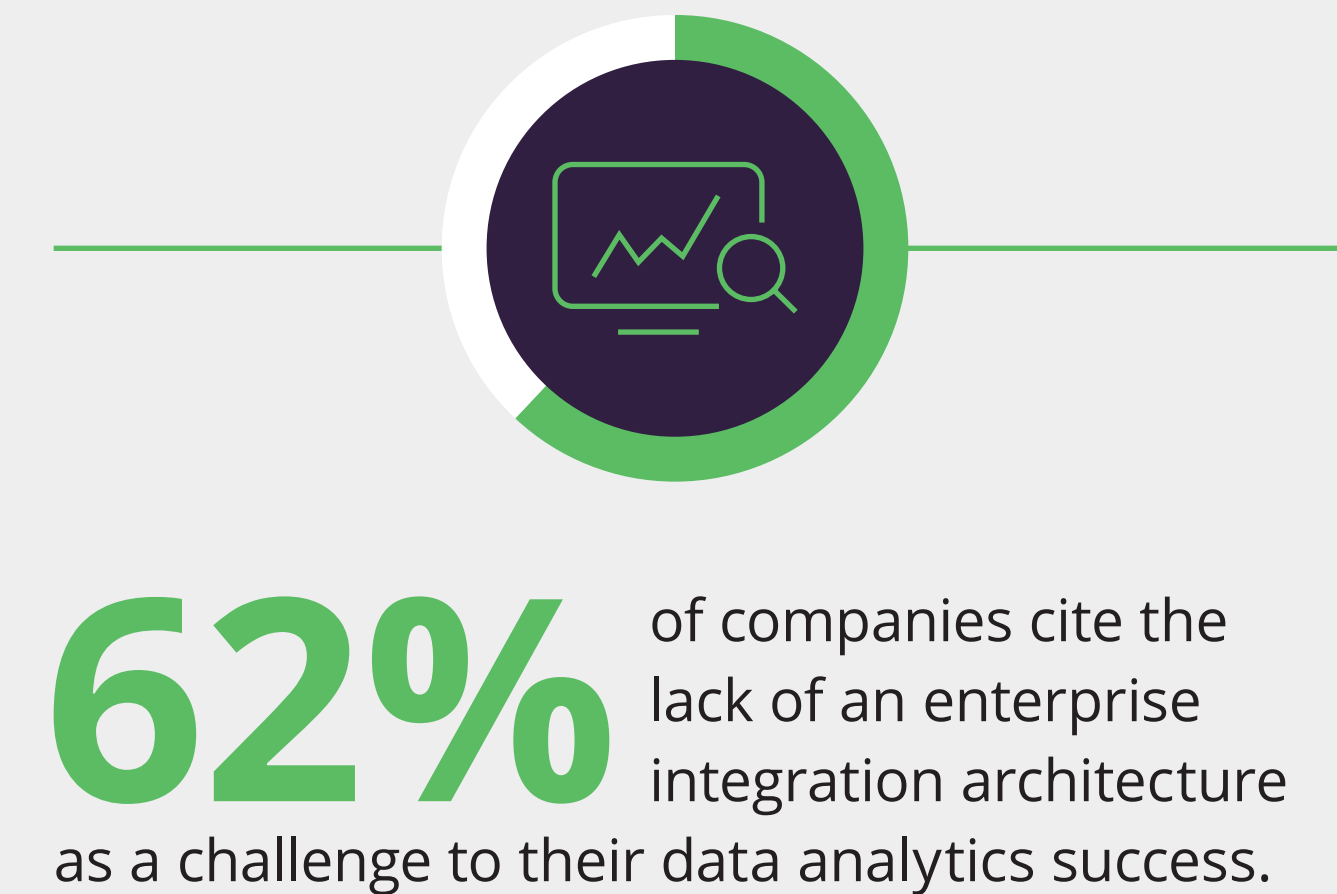
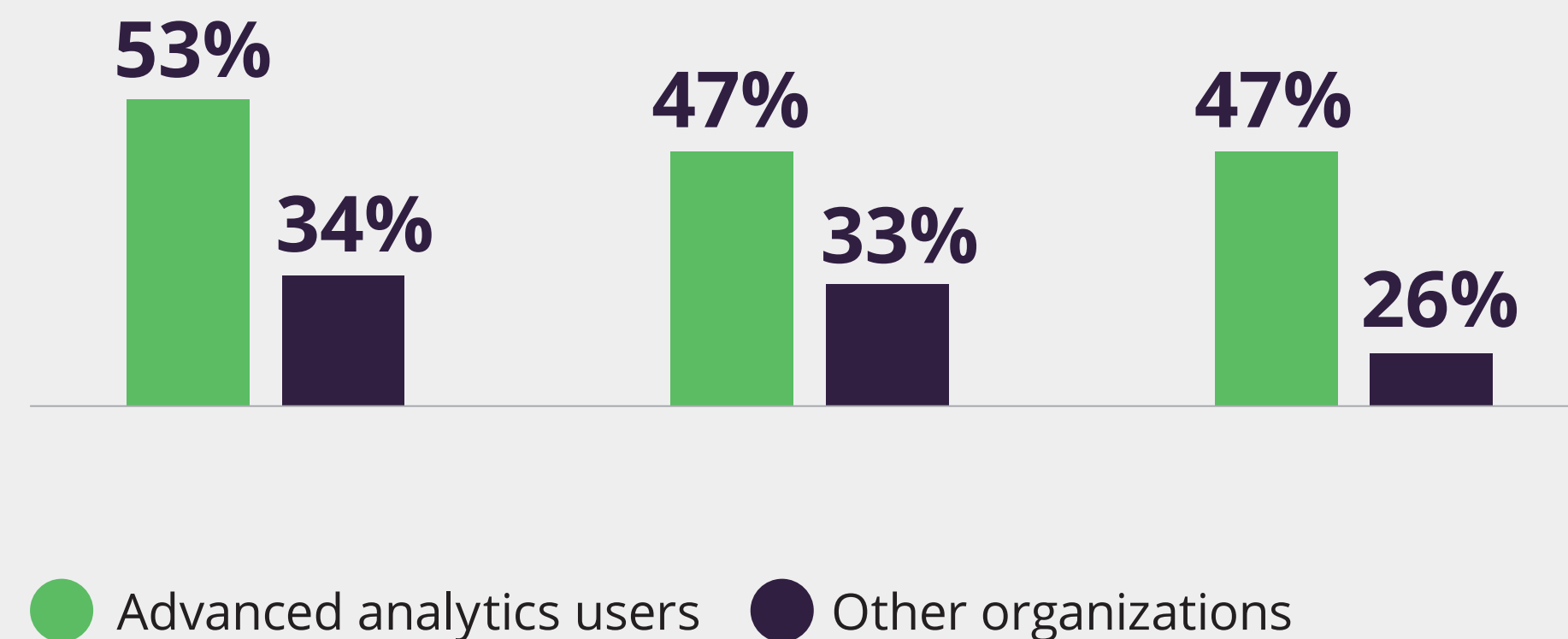


Transactions

- Most companies import external data on a siloed project-at-a-time basis. To maximize value there should be a central integration point to make integrated external and internal data available to all decision makers.
- Network generation is a key tool to link data records and find relevant connections between data, creating knowledge graphs that represent the real-world context for decision making.

Support multiple use cases with a well-integrated set of internal and external data

Sophisticated users apply analytics more consistently across the business to drive higher value



- Avoid creating software and data silos for the first use cases: this will lead to integration and retooling costs when adding more.
- Begin by building on an enterprise data integration platform that will support both initial and subsequent use cases with minimal rework.

Key takeaways



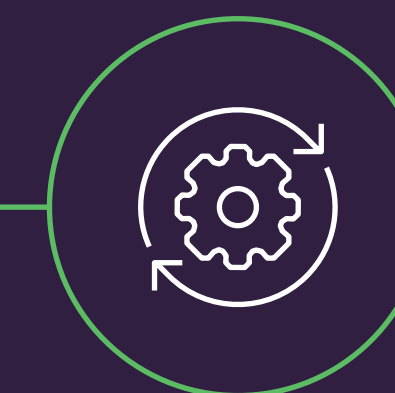
Very few companies are truly world class in their approaches to key processes such as KYC, customer intelligence or fraud and financial crime detection analytics. Adopting a contextual approach can greatly improve the business benefits you will gain from analytics/AI by empowering more effective and efficient decision making.



A foundational strategy for business value in these is integration of all available data sources, analyzed via entity resolution; modern off-the-shelf technology makes this achievable.



Network generation and graph analytics enable companies to analyze links between entities to add significant business value by driving understanding of context, scope, and quality issues.



Deployment of fully automated operational decision making moves analytics from reactive reporting to active, intelligent, and real-time decision making to drive business agility and value.

The ability to easily integrate data, then view and assess that data in context, are vital enablers for companies to gain maximum business value from analytics and AI.

About IDC



International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

IDC UK

5th Floor, Ealing Cross,
85 Uxbridge Road
London
W5 5TH, United Kingdom
44.208.987.7100
Twitter: @IDC
idc-community.com
www.idc.com

Global Headquarters

5 Speen Street Framingham, MA
01701 USA
P.508.872.8200
F.508.935.4015
www.idc.com

Copyright Notice

Any IDC information or reference to IDC that is to be used in advertising, press releases, or promotional materials requires prior written approval from IDC. For permission requests contact the Custom Solutions information line at 508-988-7610 or permissions@idc.com. Translation and/or localization of this document require an additional license from IDC. For more information on IDC visit www.idc.com. For more information on IDC Custom Solutions, visit http://www.idc.com/prodserv/custom_solutions/index.jsp.

Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com.

Copyright 2020 IDC. Reproduction is forbidden unless authorized. All rights reserved.