VENDOR SELECTION MATRIX™
TECHNOLOGY COST AND RESOURCE OPTIMIZATION

ABRIDGED VERSION WITHOUT VENDOR SCORES AND SCORECARDS

THE TOP 10 GLOBAL VENDORS 2020

Research In Action

December 2020

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independent research & consulting

FOREWORD

Every year, Research In Action surveys 10,000+ enterprise IT and business decision makers in order to gain insights on strategy, investments and ongoing challenges of technology innovation in the IT and Marketing Automation realm. These surveys give us access to a wealth of direct and unfiltered feedback from the buyers. It also helps us to understand how buying decisions are made in today's business environment. The Vendor Selection Matrix™ is a primarily survey-based methodology for vendor evaluation where 62.5 % of the evaluation is based on a survey of enterprise IT or business decision makers and 37.5 % on the analyst's opinion. The analyst's input is fed by a combination of intensive interviews with software or services vendors and their clients, plus their informed, independent point-of-view as an analyst. All of this combines to make Research in Action Vendor Selection Matrix™ reports so unique. This approach is one of the key differentiators of Research In Action in market research. For this report we interviewed 1,500 IT managers with budget responsibility in enterprises globally. We selected those vendors which achieved the best evaluations scores from the buyers but disregarded those with fewer than 15 evaluations.

The topic of Technology Cost and Resource Optimization (TCRO) is a discipline which is of interest to many different leaders within an IT enterprise organization and is a business-focused topic with the goal to ensure that technology resources are used to maximize business value. IT cost and resources consumption must be managed with detailed cost and consumption analysis to ensure that IT runs like a business. This requires automation to enable accurate, federated and detailed views into the total cost of IT. It also requires aggregation of relevant details relative to costs regardless of what type of technology, service portfolio, or application. Planning and investment decisions around key technologies such as hybrid cloud, IoT or digital services are essential and TCRO must be on every enterprise's roadmap replacing spreadsheets and other outdated methods. Todays enterprises must have continuous visibility and knowledge into the different technology and resource capacities to plan, operate and run for ongoing and uninterrupted customer and employee experiences. The next normal requires this more than ever.

This report provides you with a useful guide to important TCRO market trends, names the Top 10 vendors as selected by 1,500 users based upon product, company and service quality, and will help you make an informed decision regarding which vendors could best fit your requirements. This information can then be used for a more detailed evaluation.

Always enjoy life to the fullest!

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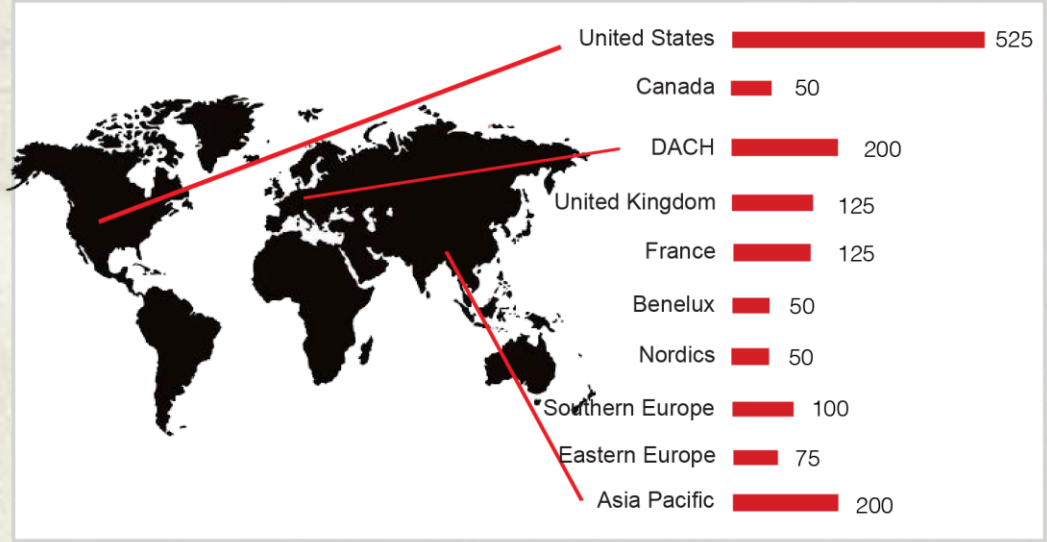
COUNTRY BREAKDOWN



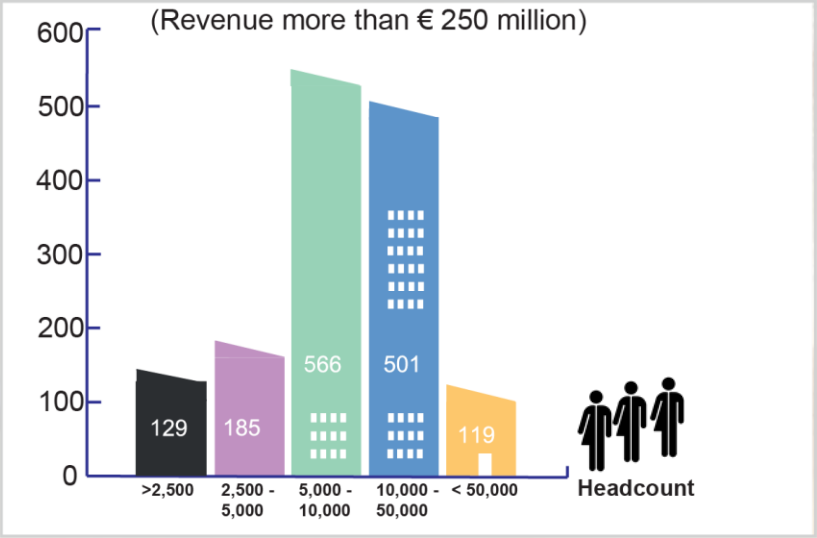
INDUSTRY BREAKDOWN

Energy	98
Financial Services	252
Government & Non Profits	89
Healthcare & Chemicals	202
Manufacturing	342
Media & Telecoms	119
Consumer Packaged Goods & Retail	112
Technology & Professional Services	172
Travel & Transportation	114
Total	**1,500**

100,000+ Data Points

1,500 Enterprise IT Managers

COMPANY SIZE BREAKDOWN



JOB TITLE BREAKDOWN

VP IT	155
CIO	146
IT Operations Manager	137
VP Operations	131
IT Manager	117
IT Service Manager	112
Project Manager	105
VP Infrastructure	98
VP DevOps	89
CFO	84
IT Shared Services Manager	78
Change Manager	73
IT Supply Manager	55
Test Manager	42
General Manager	32
Capacity Manager	21
Manager DevOps	14
Others	11
Total	**1,500**

Leading Vendors

30+ Reports In 2020/21

37.5 % Analyst's Opinion

62.5 % Survey Results

All Research In Action surveys are gender neutral and 100% confidential.

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WHAT TOOLS DO YOU USE TO CREATE THE VENDOR SHORTLIST?

Decision Makers use a mix of traditional and online tools to create the vendor shortlists

N = 3,750 Business and IT Managers with budget responsibilities.

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WHAT IS TECHNOLOGY COST AND RESOURCE OPTIMIZATION?

- Technology Cost And Resource Optimization (TCRO) enables the planning, management, insights into supporting and required business and IT technology resources
- The solutions should support a broad set of stakeholders to plan, visualize, analyze, monitor/manage and predict the usage, current and future demands of technology resources which might include people, processes and technologies capturing financial and/or capacity details
- The solution should include but is not limited to:
  - Optimize the underlying technology capabilities and plan for continuous capacity management
  - Manage and enable different stakeholders with financial details associated with business and technology resources
  - Enable the prioritization of people, process and/or technology resources in a comprehensive way.

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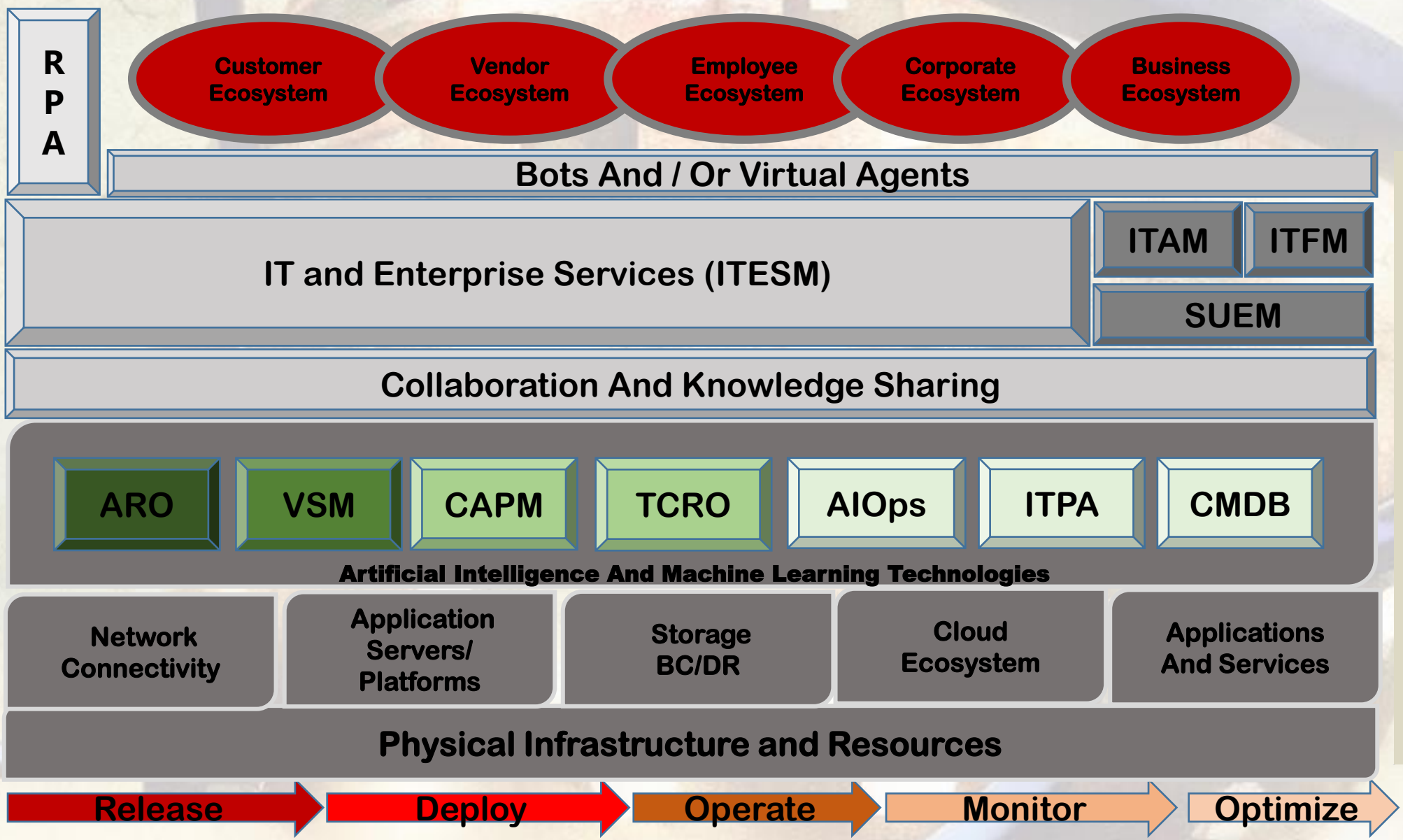
THE IT AUTOMATION MARCHITECTURE



IT Automation is key to IT optimization as it allows to scale fast.

IT Automation is key to Digital transformation as it enables to predict and provide reliable services.

IT Automation will finally shift IT departments from service provider to business partner.

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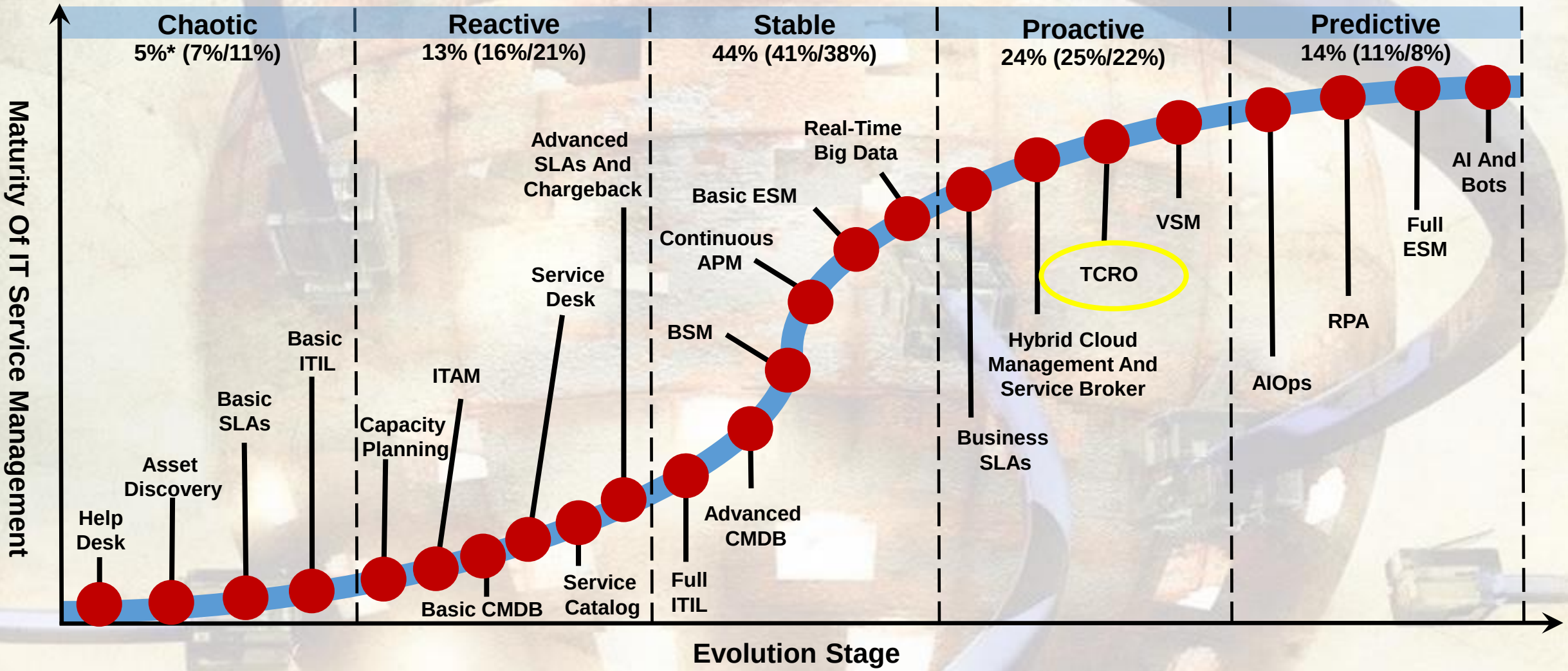
IT AND ENTERPRISE SERVICE MANAGEMENT MATURITY S-CURVE 2020



N = 2,250 IT Managers with budget responsibility.
* Categories show adoption rates, (/) show changes from 2019/2018.

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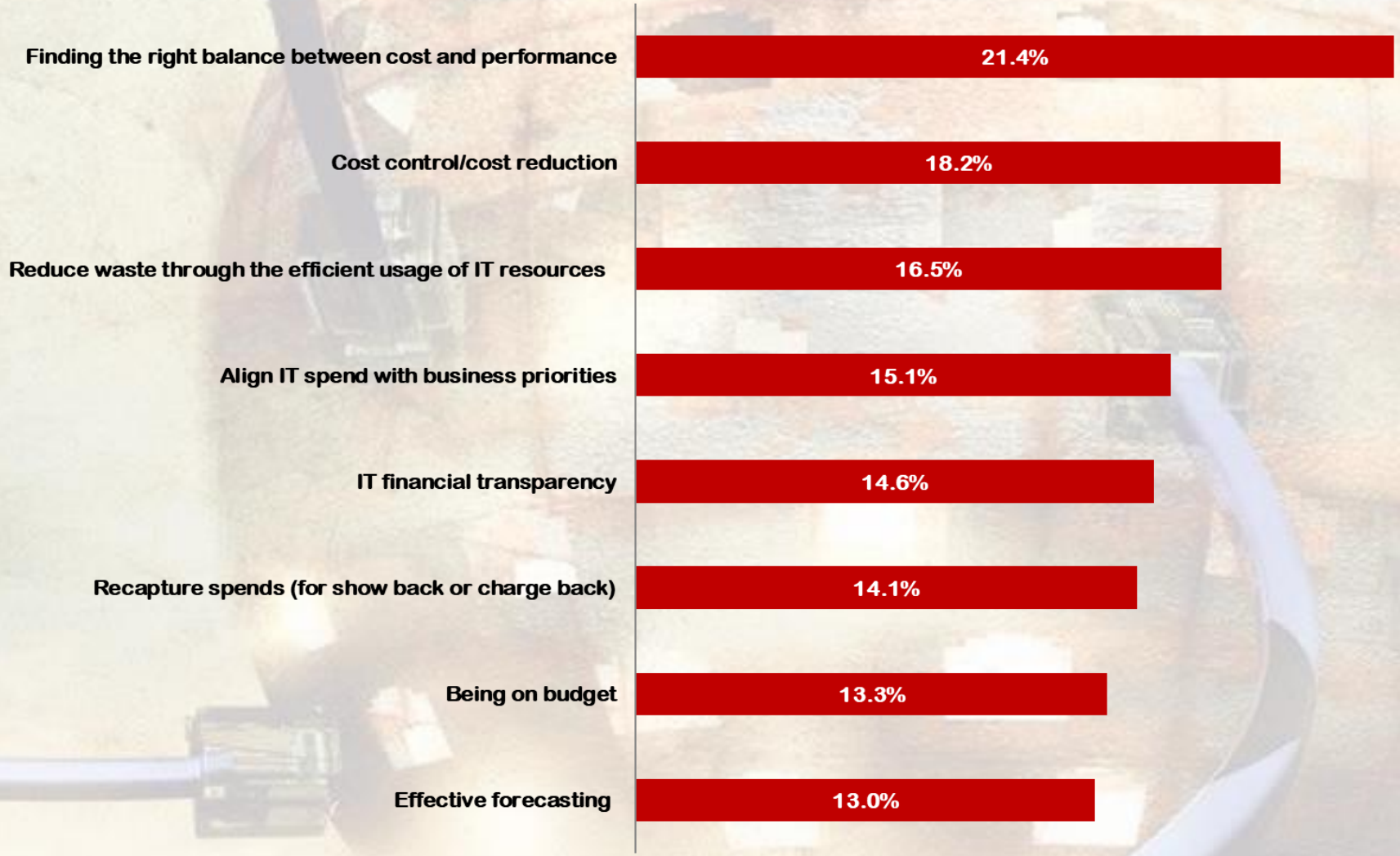
RESEARCH: THE TOP REASONS DECISION MAKERS INVEST IN TECHNOLOGY COST AND RESOURCE OPTIMIZATION



N = 1,500 Enterprise IT Managers with budget responsibilities.

Cost management and control, reduction of waste and the alignment of IT spend with business priorities are the top three key motivators for enterprise IT buyers today to invest in TCRO.

As organizations are shifting towards a digital business, the need to develop strategies to shift the operating model requires constantly checking the balance between current costs and future needs for innovation. This requires real time data and the ability to present todays and future needs to a variety of stakeholders.

Decision makers who are looking to automate TCRO will look for these capabilities within the vendors messaging.

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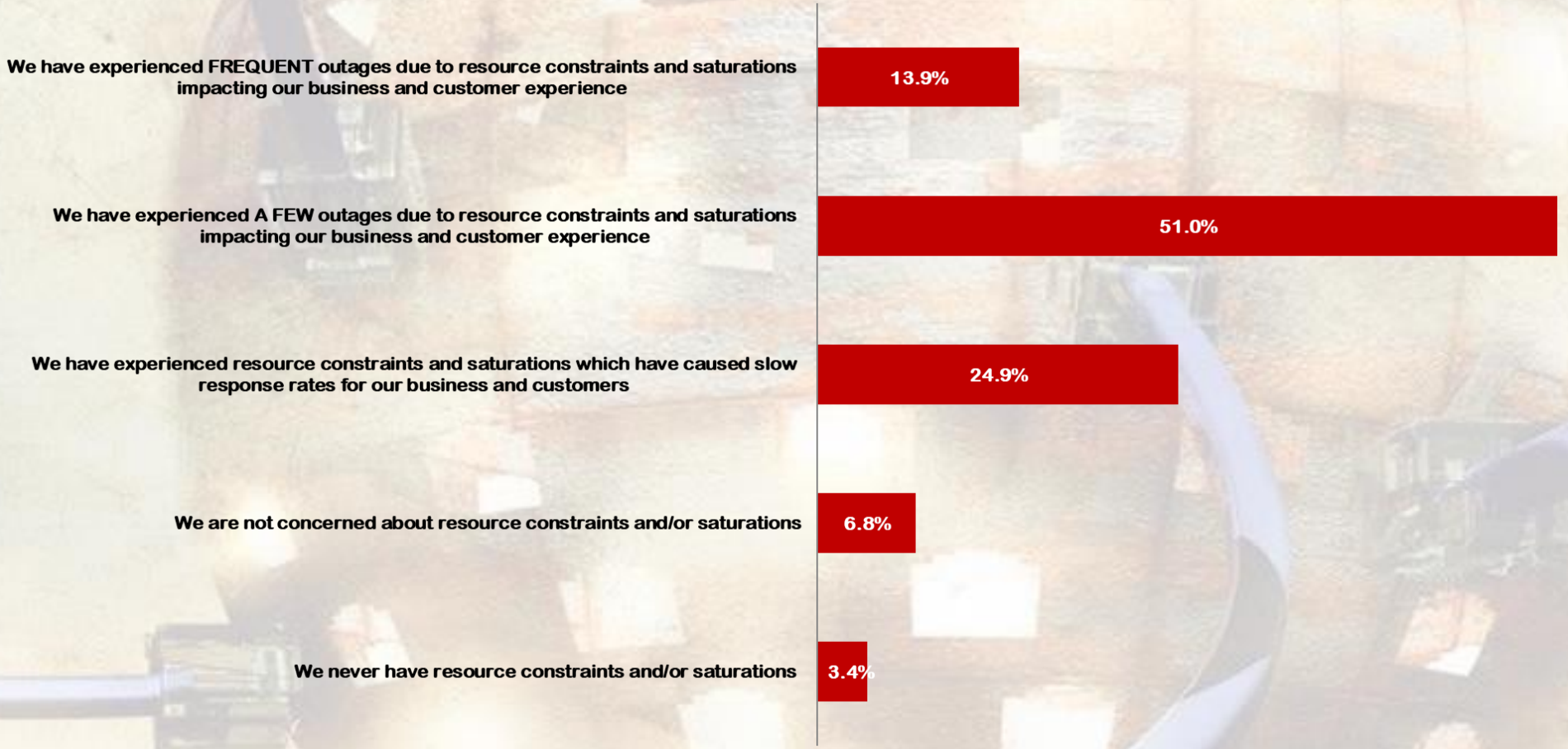
RESEARCH: WHAT HAS YOUR EXPERIENCE BEEN WITH CAPACITY CONSTRAINTS OR SATURATIONS DURING THE LAST 6-9 MONTHS WITHIN YOUR ENVIRONMENT?



N = 1,500 Enterprise IT Managers with budget responsibilities.

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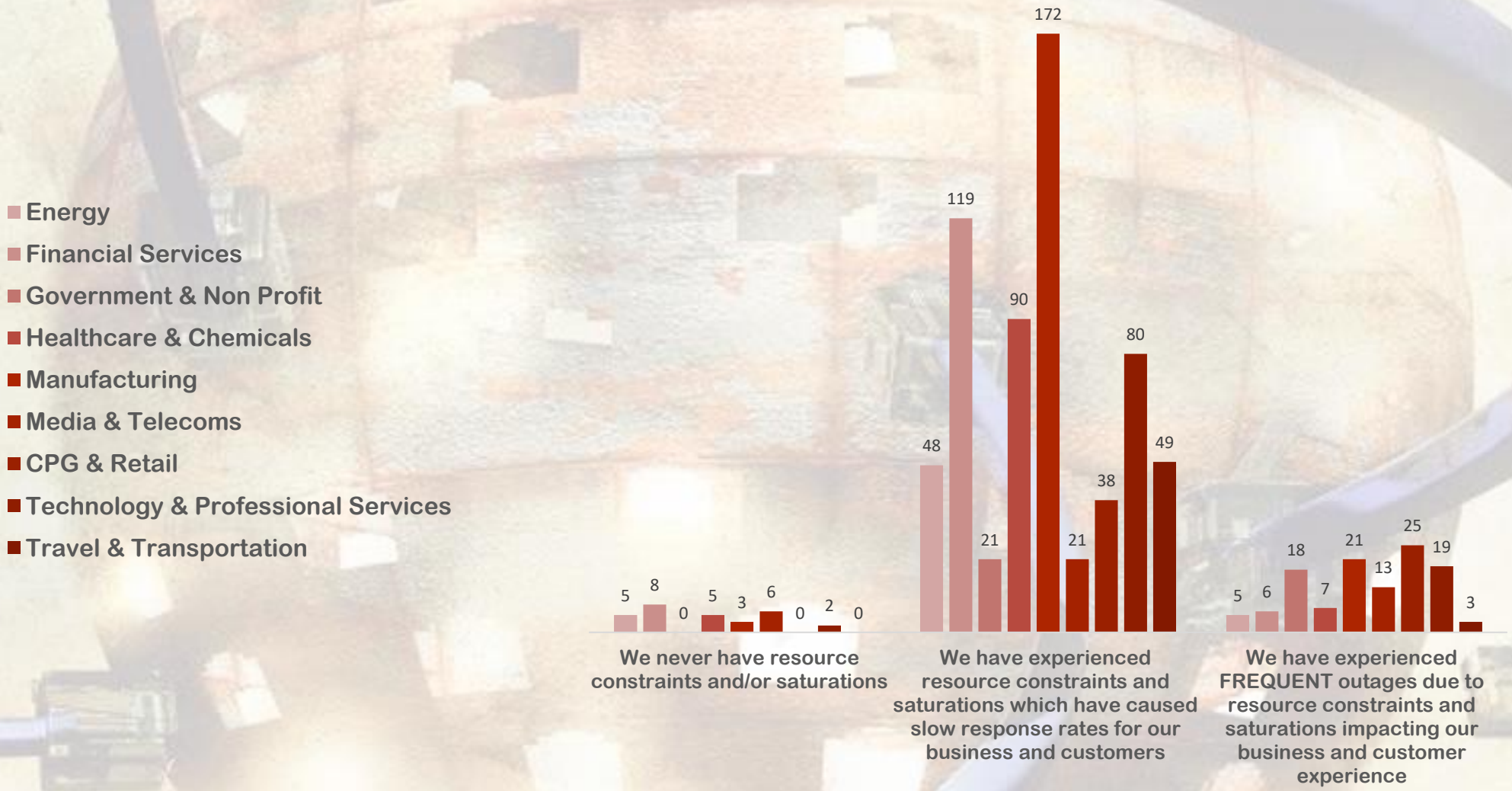
RESEARCH: OUTAGES AND RESOURCE CONSTRAINTS ACROSS DIFFERENT INDUSTRY VERTICALS



N = 1,500 Enterprise IT Managers with budget responsibilities.

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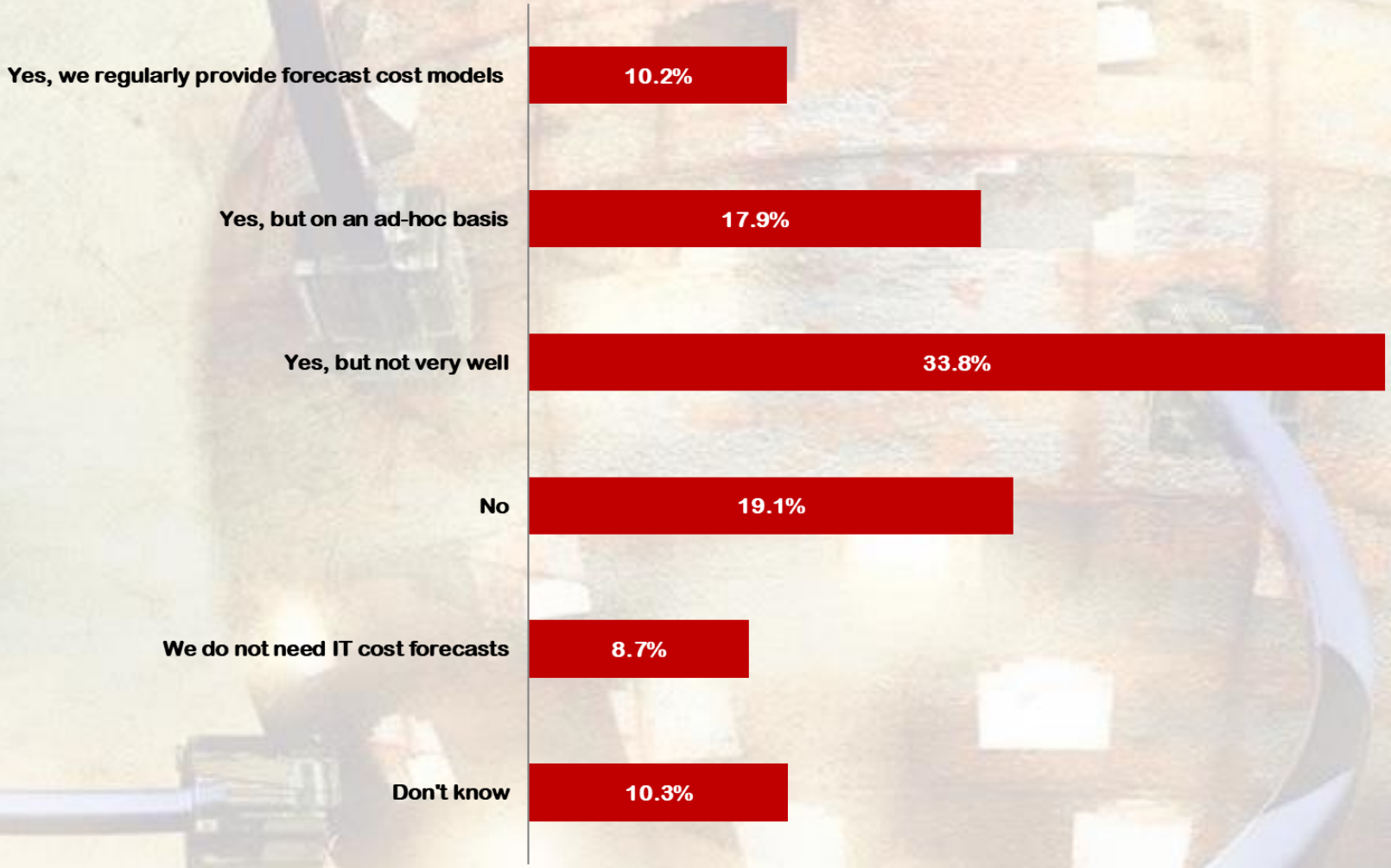
RESEARCH: FORECASTING THE COST OF IT RESOURCES SEEMS DIFFICULT OR A CHALLENGE



N = 1,500 Enterprise IT Managers with budget responsibilities.

Can Your Organization Afford That You Don't Provide Forecasts?

When asked „Are you currently able to forecast the cost of IT resources?“ an alarming small number of survey participants are able to provide regular forcecast models.

The purpose to provide technology cost forecasts is to simply help evaluate the probability and significance of various possible future developments or predict "expected" future capacities needed to support future or ongoing business needs.

Forecasting is essential to identify and assess opportunities and threats and should be leveraged to influence actions.

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INSIGHTS: TOP MARKET TRENDS 2020-2021

- **IT financial management is fundamental but not just for cost-reduction.** Many IT organizations are still only focused on cost-reduction projects or on projects that the business did not perceive as valuable because the projects only focused on IT. This must change as the demand for innovation and business growth fuels spending on IT services and new technologies. Moreover, the creative use of technology — such as social media, big data, mobile applications, or as-a-service offerings — is a catalyst for significant competitive advantage that businesses are actively investing in.
- **What this means:** While cost-reductions are important, the focus on business value, IT services value, operational excellence, and decision-making insight are the core capabilities that should underpin the adoption of IT financial management. A big part of IT financial management is the building of cost models for services. This starts with collecting the costs for each of the service components (service assets) based on their category. Cost drivers are then used to develop the unit cost (e.g. the cost of an email service includes direct and indirect costs such as hardware, software, facilities, labor, and possibly external services). Next, take the total cost of providing email and divide it by the cost driver — in this in this case the number of business consumers to establish the unit cost for email. This will provide cost transparency and set a cornerstone in which you examine services for potential alternative sourcing models.

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INSIGHTS: TOP MARKET TRENDS 2020-2021

- **Inability to balance the demand of IT services and resources with existing resources causes a lack of trust and outages.** The business and its functions place a stream of demands towards IT organizations. Requests, projects, break/fix, releases, incidents, problems, regulatory requirements and audit responses are just a few which are either governed or non-governed demand intakes for a continuous and ongoing value creation of the business for its stakeholders. These demands must be prioritized and matched against the existing supply of resources. Resources such as time, people, services, infrastructure, applications, data and funding (and more) are necessary for the delivery and fulfillment of business demands. The availability and capacity are not endless and must be prioritized, allocated and managed towards the priorities of the business and towards the creation of value.
- **What this means:** Due to the lack of balancing demand with supply, problems of performance issues or outages occur. This causes issues for customers and the company brand but also undermines the trust of the business towards IT. The challenge typically lays in IT´s lack of knowledge around business priorities, visibility into the capacity of the existing resources or delay or inaccurate data which then cause additional challenges during decision making.

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INSIGHTS: TOP MARKET TRENDS 2020-2021

- **Decision making for innovations in the digital age puts high expectations on technical investments.** In almost all organizations, IT has become a critical part of almost every department. As a result, businesses have high expectations in the return of value from their technical investment. This requires a joined decision making and connected planning and the forecasting. Unfortunately, to coordinate and collaborate technical investments and resources requires more than yearly planning cycles or infrequent reports on capacity and budget details.
- **What this means:** Investments in IT such infrastructure, applications and other essential resources must optimize business value to stay ahead of the competition. Aligning the IT and business strategies requires that every aspect of IT and its investments must be understood on how they create business value. This requires the knowledge of business-related metrics and costs or resources. Effective financial management of technology and resources, as well as accurate and reliable real-time data, provide both IT and businesses stakeholders with the insight to make business decisions that drive profit and efficiency.

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INSIGHTS: TOP MARKET TRENDS 2020-2021

- **A collaborative IT and business technology strategy requires mutual leadership and accountability.** Forecasting for speed and effective use of existing resources is both a business and IT responsibility. Business leaders are actively engaged in initiatives which are planned or executed to respond to market conditions. Speed and effectiveness of business initiatives depend on the ability to quickly deploy necessary resources. While IT must be able to provide the necessary resources and increase their accountability for their results, it must also hold business accountable for technology and resource usage.
- **What this means:** Overspending on IT assets to ensure excess capacity which then leads to underutilization is one of the key challenge and creates significant waste. Only through mutual leadership and accountability which is supported through accurate information around technology resources and the associated costs is it possible to achieve whatever strategy the business has been set.

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INSIGHTS: TOP MARKET TRENDS 2020-2021

- **Ensuring correct baseline for technology cost and resource optimization for joint decision making.** Multi-cloud initiatives and software as service (SaaS) has led to uncontrolled costs as business teams and their employees for example leverage and subscribe to rogue cloud-based applications. The desire to leverage SaaS, for example, without the governance and central control of IT unfortunately makes it very difficult to have visibility into costs and with it causes challenges around decision making across key stakeholders.
- **What this means:** Given that budgets for technology have not grown that much, the complicated nature of technology choices, and the importance of purchase decisions which are important to sustain innovation and competitiveness of a organization, the best decision can only be made through collaboration of the people who can provide the key information and perspective for the different stakeholders. However, bringing together the interdependent parts from finance, IT, business teams, sales, marketing and other stakeholders can be a challenge in itself.

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INSIGHTS: TOP TCRO VENDOR TRENDS 2020-2021

- **The acquisition frenzy has stopped.** This last year very few acquisitions have taken place where vendors have extended their existing solutions with the purchase of a market mate. Most key players which focused on the challenges of managing the hybrid cloud costs have been acquired and integrated into existing solutions. Important for buyers is to initiate a thorough evaluation of the functionality by these vendors to find the most suitable vendors for their TCRO project.
- **Continuous evolution within the traditional vendors in service management.** As the technology ecosystem expands into hybrid clouds and IT organizations continue to acquire new technology, vendors continue to add required features and broaden their capabilities. Existing vendors who traditionally have focused on Enterprise and IT Service Management are eager to present their TCRO capabilities so that enterprise who are wanting to experience the management of technology resources can naturally extend their use cases.
- **Differentiation through customer satisfaction and price/value.** TCRO vendors struggle to differentiate themselves in a competitive market. The challenge lies in how to present this topic to the buyers who might just start out with the topic of managing the cost, forecasting and other challenges around TCRO. Vendors which are investing in helping their customers ramp up as part of the solution get rewarded with high customer satisfaction.

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VENDOR SELECTION MATRIX™: TECHNOLOGY COST AND RESOURCE OPTIMIZATION VENDORS 2020

VENDOR NAME	PRODUCT(S)
APPTIO	Apptio One
BMC*	BMC Helix Cloud Cost
CLOUDCHECKR	CloudCheckr CMx™
FLEXERA*	Optima
HELPSYSTEMS	VCM
SERVICENOW*	Financial Management
SERVICEWARE	Serviceware Financial
UPLAND SOFTWARE	ComSci-Cimpl ITFM
USU	USU IT Service Management
VMWARE	CloudHealth by Vmware, Vmware vRealize Suite

This listing is alphabetical and includes the Top 10 vendors which achieved the best evaluation scores from the buyers, having disregarded those with too few evaluations.

Other Vendors mentioned outside of the Top 10 or with too few evaluations:

- Densify
- SAP/Realtech
- Teevity
- Turbonomics
- UMT360

* These vendors did not provide a direct briefing to the Research In Action analysts.

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VENDOR SELECTION MATRIX™: TECHNOLOGY COST AND RESOURCE OPTIMIZATION: VENDORS QUICK FACTS

VENDOR NAME	STAFF	REVENUE	GROWTH	RI*	GOOD TO KNOW
APPTIO	< 5,000	< 300 $ m	< 20% p.a.	95%	Apptio has a decade of leadership in TBM and IT Financial Management.
BMC	N.A.	N.A.	N.A.	95%	BMC presents BMC Helix for optimization purposes encompassing financial management.
CLOUDCHECKR	< 250	< 50 $	N.A.	87%	CloudCheckr provides management, optimization and governance of public cloud from one place.
HELPSYSTEMS	< 5,000	< 25 $ m	< 40% p.a.	89%	HelpSystems addresses TCRO with proactive capacity management to eliminate waste.
FLEXERA	N.A.	N.A.	N.A.	90%	Flexera optimizes costs from software to infrastructure.
SERVICENOW	N.A.	N.A.	N.A.	95%	ServiceNow Financial Management allocates, tracks, and reports on expenses in your organization.
SERVICEWARE	< 500	< 25 $ m	> 40% p.a.	96%	Serviceware offers breadth and depth with an exceptional price/value score.
UPLAND SOFTWARE	< 150	< 25 $ m	20% p.a.	95%	Upland offers both do-it-yourself or managed services advisory options for IT Financial Management.
USU	< 1,000	> 60 $ m	< 20% p.a.	96%	USU accelerates cost control and governance across the entire service lifecycle.
VMWARE	< 5,000	< 100 $ m	> 40% p.a.	94%	CloudHealth by VMware focuses on multi-cloud management for business outcome and intent.

* The Research In Action Recommendation Index (RI) is collected and calculated by asking the survey participants (see page three) "Would you recommend this vendor in this market to your peers - Yes or No?".
NOTE: Revenue numbers are relative to Technology Cost And Resource Optimization and doe not reflect overall company revenues.

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VENDOR SELECTION MATRIX™: EVALUATION CRITERIA

STRATEGY		
Vision And Go-To-Market	30%	Does the company have a coherent vision in line with the most probable future market scenarios? Does the go-to-market and sales strategy fit the target market and customers?
Innovation And Differentiation	30%	How innovative is the company in this market? Does the solution have a unique selling proposition and clear market differentiators?
Viability And Execution Capabilities	15%	How likely is the long-term survival of the company in this market? Does the company have the necessary resources to execute the strategy?
Recommendation Index	25%	Would customers recommend this vendor in this market to their peers?

EXECUTION		
Breadth And Depth Of Solution Offering	30%	Does the solution cover all necessary capabilities expected by customers?
Market Share And Growth	15%	How big is the company's market share and is it growing above the market rate?
Customer Satisfaction	25%	How satisfied are customers with the solution and the vendor?
Price Versus Value Ratio	30%	How do customers rate the relationship between the price and perceived value of the solution?

NOTES:
62.5% of the evaluation is based on the survey results, 37.5% is based on the analysts' assessment.
- 40% of the evaluation is based on the survey results: (1) Recommendation Index, (2) Customer Satisfaction, (3) Price Versus Value.
- 15% of the evaluation is based on the analysts' assessment: (1) Viability And Execution Capabilities, (2) Market Share And Growth.
- 45% of the evaluation is based on a combination of survey results and analysts' assessment: (1) Vision And Go-To-Market (2) Innovation And Differentiation (3) Breadth And Depth Of Solution Offering.

The Research In Action Recommendation Index (RI) is collected and calculated by asking the survey participants (see page three) "Would you recommend this vendor in this market to your peers - Yes or No?".

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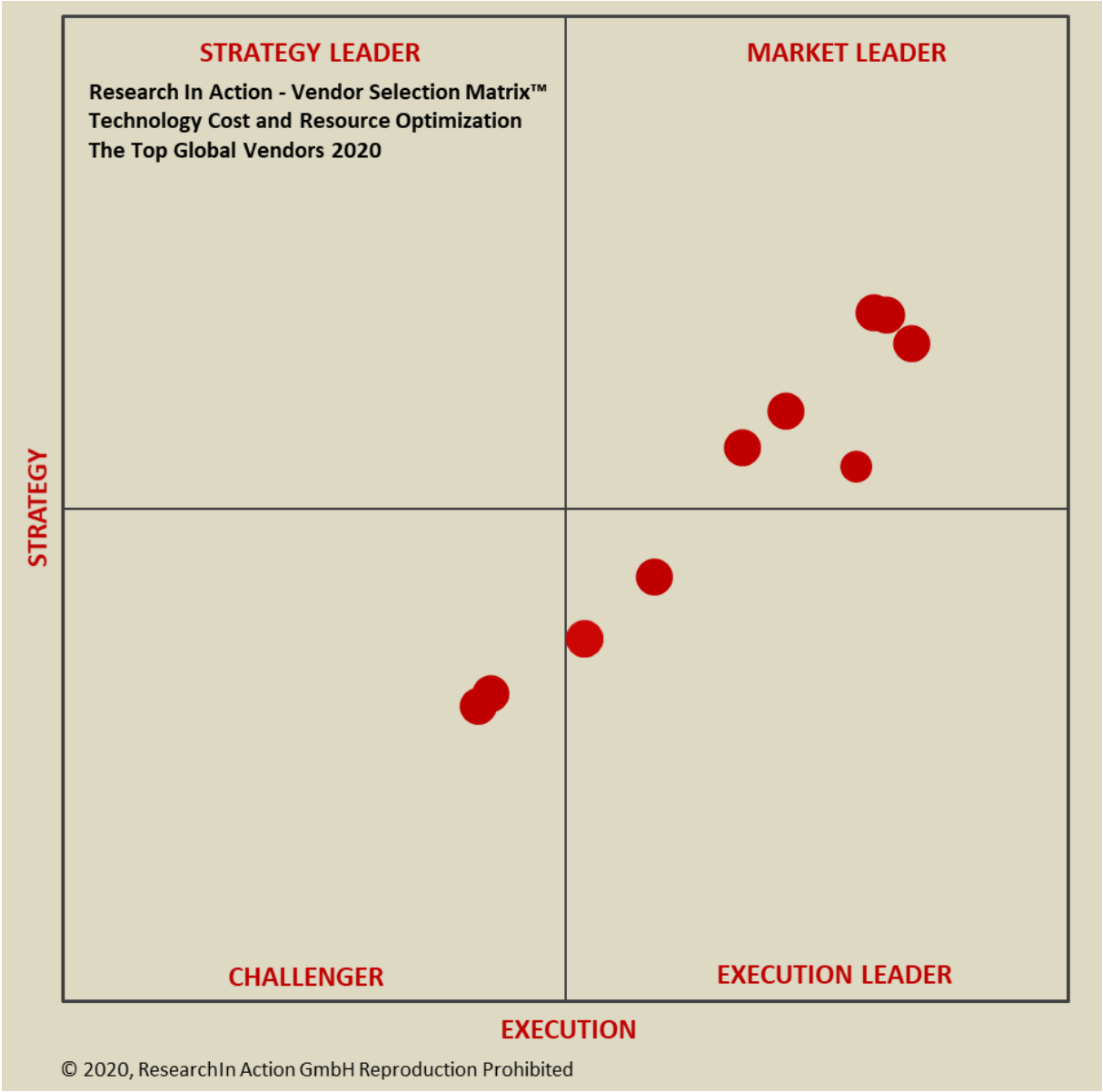
VENDOR SELECTION MATRIX™: TECHNOLOGY COST AND RESOURCE OPTIMIZATION



The Top 5 Vendors in Alphabetical Order:

- APPTIO
- SERVICEWARE
- UPLAND SOFTWARE
- USU
- VMWARE

The Other Vendors in Alphabetical Order:

- BMC
- CLOUDCHECKR
- FLEXERA
- HELPSYSTEMS
- SERVICENOW

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THE RESEARCH IN ACTION GMBH VENDOR SELECTION MATRIX™ METHODOLOGY

Vendor Selection Matrix™ Disclaimer:

The Vendor Selection Matrix™ is a primarily survey-based methodology for comparative vendor evaluation. Research In Action GmbH does not endorse any vendor, product or service depicted in our research publications, and does not advise technology users to select only those vendors with the highest ratings. The information contained in this research has been obtained from both enterprise as well as vendor sources believed to be reliable. Research In Action GmbH's research publications consist of the analysts' opinions and should not be considered as statements of fact. The opinions expressed are subject to change without further notice. Research In Action GmbH disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose. All trademarks are recognized as the property of the respective companies.

About:

Research In Action GmbH is a leading independent information and communications technology research and consulting company. The company provides both forward-looking as well as practical advice to enterprise as well as vendor clients.

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APPENDIX: IT AUTOMATION MARKETEXTURE DEFINITIONS

- **AI Powered Chatbot Platforms** which are used to build applications that answer questions, provide advice and/or recommendations using natural language processing and other dialog related technologies.
- **Artificial Intelligence and Machine Learning (AI/ML)** are both technologies and are leveraged in automation solutions. Artificial intelligence (AI) is the ability of a computer program or machine to think and learn (AI can mimic human cognition). Within IT Automation AI is used to correctly interpret a variety of data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation. Machine learning enables computers with the ability to learn without being programmed (explicit algorithms). It explores the study and construction of algorithms which can learn and make predictions on data. The algorithms follow programmed instructions or can make predictions or decisions based on the data. Machine learning is used when explicit algorithms cannot be done (e.g. computer vision, search engines, optical character recognition).
- **Artificial Intelligence for Operations (AIOps)** solutions equip IT enterprise teams with analysis of volumes and categories of data to improve key processes, tasks and decision making. The adoption of these tools automates the ingestion of fast volumes of data; leverage machine learning to analyze the data, present findings to either predict or alert on issues, and leverage the knowledge for automation or decision making.
- **Application Release Orchestration (ARO)** solutions equip IT enterprise organizations and their teams with the automation of the software deployment cycle across hybrid technology environments.
- **Continuous Application Performance Management (CAPM)** software solutions continuously identify issues around performance and availability of software applications, IT and enterprise services. The solutions strive to proactively detect and diagnose application performance problems and health and enable a situational awareness of application related issues.
- **Enterprise Service Management (ESM)** is a category of business management software - typically a suite of integrated applications that a service organization uses to capture, manage, save and analyze data critical to their service business performance. It automates service offerings across functional areas such as (1) Human resources, (2) Vendor management, (3) Technical services, (4) Field services, (5) Financial management and (6) Shared services organizations.

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APPENDIX: IT AUTOMATION MARKETEXTURE DEFINITIONS

- **IT Asset Management (ITAM)** software manages the full lifecycle of IT assets which typically includes all software, hardware, networking, cloud services, and client devices. In some cases, it may also include non-IT assets such as buildings or information where these have a financial value and are required to deliver an IT service. IT asset management can include operational technology (OT), including devices that are part of the Internet of Things. These are typically devices that were not traditionally thought of as IT assets, but that now include embedded computing capability and network connectivity.
- **IT Financial Management (ITFM)** software enables the accurate and cost-effective management of IT assets and resources with the aim to plan, control, recover (or overall manage) costs which are occurring while providing IT and Enterprise Services to the organization.
- **IT Service Management (ITSM)** refers to the entirety of activities – directed by policies, organized and structured in processes and supporting procedures – that are performed by an organization to plan, design, deliver, operate and control Information Technology (IT) services offered to customers. It is thus concerned with the implementation of IT services that meet customers' needs, and it is performed by the IT service provider through an appropriate mix of people, process and information technology.
- **Robotic Process Automation (RPA)** solutions enable the automation of tasks, processes and procedures which are normally conducted by a human. RPA solutions create software robots that mimic human actions. Typically, these are tasks that a human would do. (Ro)Bots and Virtual Agents are part of RPA solutions.
- **Secure Unified Endpoint Management (SUEM)** software enables the management and securing of mobile applications, content, collaboration and provides for the management of all endpoints like smartphones, tablets, laptops, printers, ruggedized devices, Internet of Things (IoT) and wearables.
- **Technology Cost and Resource Optimization (TCRO)** software enables the planning, management and visibility of the supporting and required business and IT technology resources from a cost and capacity perspective by visualizing, planning, prioritizing and optimizing the usage and demands of technology resources (people, processes and technologies) for the enterprise.
- **Value Stream Management (VSM)** software solutions capture, visualize, and analyze the flow of work across the entire Agile software delivery project. The capabilities include end-to-end visibility, traceability and governance over the entire process and help to plan, track, and steer work at the team, program, portfolio, and enterprise levels. It includes the people working on a project, the systems which are operated and leveraged, and the flow of information and materials between teams. It enables the measurement of speed and quality for digital transformations.

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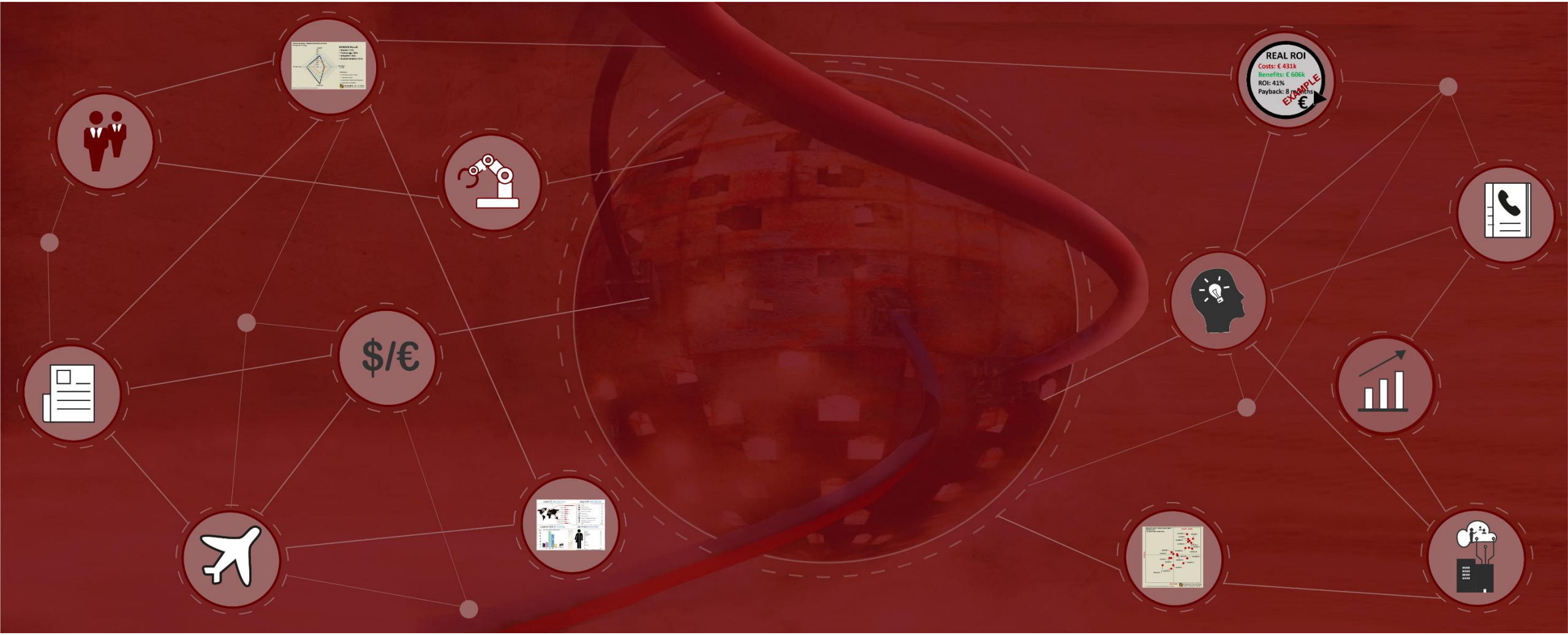

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