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ROBOTIZE SOURCING TASKS

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The advent of robotics and artificial intelligence presents major opportunities to process both complex and repetitive transactional tasks in a more efficient and cost-effective manner. The media is filled with examples of the dawn of these disruptive technologies, and a growing share of jobs will soon be affected by robotization.
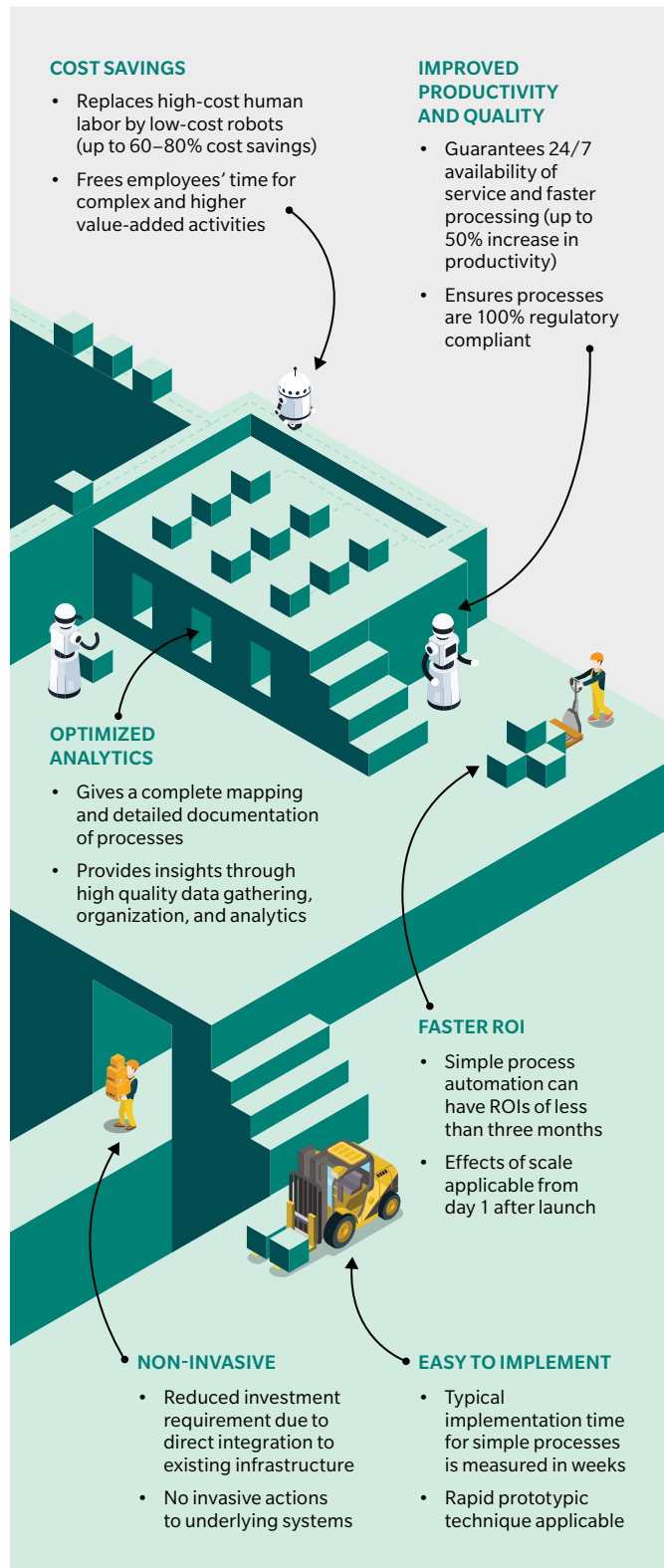
In a recent survey, 100 shared services managers predicted their firms would adopt RPA (robotics process automation) as early as 2018. Only 27 percent of the managers interviewed currently make use of these technologies, though 67 percent reported plans for implementation within 12 months, while 35 percent were actively looking into it and 38 percent were interested. Finally, and most importantly, 45 percent of managers whose firms have already employed RPA reported reduced costs.

The next generation of robots, expected to arrive in the next three to five years, will take process automation to the next level. The transformation to "cognitive automation", as it is known, is being catalyzed by developments in artificial intelligence combined with available big data.

Concerning purchasing function activities, RPA will enable the following:

- INDUSTRIALIZED DATA ANALYSIS: Understanding consumption prescription patterns; producing analyses; classifying expenditures and benchmarks; and preparing vendor negotiations.

- SUPPORTED DECISION MAKING: Proposing alternatives to expressed user needs; managing inventory and supplies; performing supplier evaluations; tracking and measuring purchasing risks; and identifying new markets.

- AUTOMATED REPETITIVE TASKS REQUIRING COGNITION: Preparing contracts; tracking and collecting rebate information using invoice analysis; and conducting RFI/RFPs.

EXHIBIT 13: BENEFITS OF RPA

COST SAVINGS
- Replaces high-cost human labor by low-cost robots (up to 60–80% cost savings)
- Frees employees' time for complex and higher value-added activities

IMPROVED PRODUCTIVITY AND QUALITY
- Guarantees 24/7 availability of service and faster processing (up to 50% increase in productivity)
- Ensures processes are 100% regulatory compliant

OPTIMIZED ANALYTICS
- Gives a complete mapping and detailed documentation of processes
- Provides insights through high quality data gathering, organization, and analytics

FASTER ROI
- Simple process automation can have ROIs of less than three months
- Effects of scale applicable from day 1 after launch

NON-INVASIVE
- Reduced investment requirement due to direct integration to existing infrastructure
- No invasive actions to underlying systems

EASY TO IMPLEMENT
- Typical implementation time for simple processes is measured in weeks
- Rapid prototypic technique applicable

Source: Redwood Software, Spendmatters.com. 2016

EXHIBIT 14: ROBOTICS PROCESS AUTOMATION TYPES AND APPLICATIONS

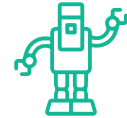Simple, repetitive tasks   Complex, multi-system

	Task Bots	Meta Bots	IQ Bots	Artificial Intelligence (AI)
Description	• Replicate complex process actions • Perform actions taken by humans at presentation layer of any desktop-based application • Capable of executing multi-step processes	• Leverage API-level integrations to create system-to-system automations • Share automations with Task bots • When combined with Task bots, Meta bots are ideal for multi-skill processes	• Learn and adapt over time • Become independent but with fewer errors • Leverage unstructured data • Capable of making decisions based on accumulated learning and experience	• Combines smart data and smart algorithms • Decision making based on machine learning and synthesis of large datasets
Best for	• Repetitive, rules-based tasks relying on structured data	• Complex, scalable processes	• Managing through fuzzy rules and processing unstructured data	• Language interaction, processing and dealing with high amounts of unstructured data
Examples	• New supplier registration • Change of points of contacts • Inventory • Structured storage of documentation	• Contracts execution follow-up • Flaws detections • Basic reporting generation	• PO generation • Payments screening • Customer charge-backs • Demand forecast generation • Auctions	• Fraud investigations • Customer complaints • Advanced financial risk management of ongoing contracts

Source: Oliver Wyman

What are the benefits and challenges for procurement organizations?

In the short term, RPA could be useful as a retrofit solution for legacy processes or processes that have been inadequately digitized. It could easily and cost-effectively automate tasks previously performed by human labor through screen scraping, web scraping, and report mining.

Surprisingly, to generate savings on a meaningful scale, companies will want to robotize their small-scale processes.

Processes consuming substantial resources have already been automated to a great degree, and the savings impact of further automation would be only marginal.

Therein lies the challenge. Taskbots used to retrofit legacy processes would require substantial configuration, adaptation, and maintenance, given that they operate on the front-end. They are extremely sensitive to changes in front-end layouts and in interactions with other applications. This is particularly true in the context of the wide number of small processes that might be equipped with RPA.

77%
None

16%
Piloting

7%
Partially rolled out

0%
Fully adopted
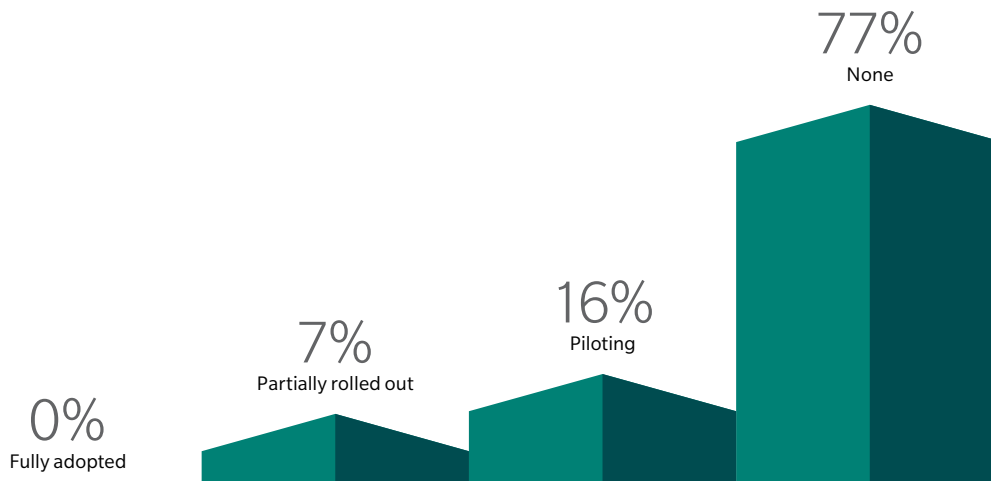
Source: Hackett, 2016

Savings generated should therefore be progressively reinvested in structural digitization and process automation, with the long view in sight. The end goal here ought to be developing fully digital processes.

In addition, the experiences of companies that have made use of RPA featured challenges specifically related to organizational change: resistance from employees; concerns about compliance and security; overly complex technology rollouts; mismatches with vendors, even with the technology itself; managing squeamish stakeholders; and a general lack of vision and strategy.

In the medium term, understanding technologies, solutions suppliers, and economic models is critical. What are the relevant technologies? Should companies develop proprietary solutions or acquire them off-the-shelf? Who are the best potential partners? What is the best business model: on-demand robotics with payment per transaction, per project, or per managed euro? How can data sensitivity be respected? How can companies limit their dependency on the publishers of technologies and solutions?

Work will move, both in terms of roles and geographical location. Purchasing professionals regularly spend a major share of their time on repetitive low value-added tasks. The use of robots could free up considerable time that can be reallocated to more value-added tasks. Here the relevant questions are: Will companies' available capabilities support this reallocation of professionals towards more complex and higher-value work? What will be the resulting impact on labor relations?

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In the medium term (five years out), when artificial-intelligence technologies and machine-learning algorithms reach greater maturity, the talent management and organizational implications will be more significant

Geographically, the opportunities presented by role relocation are immense. Moving from a labor cost-based model (full-time employees) to a CAPEX cost-based model (robots) profoundly redefines all current on-shoring and offshoring practices. A considerable proportion of global business service organizations, which have used resource location as a savings lever, will have to reconsider their settlement patterns.

Supplier relations will be turned upside down. Who, for instance, would negotiate with a robot buyer? Likewise, would there be robot-sellers? The same concerns hold inside companies, where the reactions of prescribers and users to robot buyers may be mixed.

Novel capabilities will be needed. To implement and maintain robot-buyers, purchasing organizations will have to combine the best talent in the digital fields (such as data scientists, designers, and developers), process optimization, and category management, in order to manage technical teams.

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AMAZON HAS INCREASED ITS BOTFORCE BY FOURFOLD OVER THE PAST TWO YEARS

1 out of every 7
employees is now a robot

What has been concretely accomplished at this stage? What should procurement leaders do?

Despite the great media hype and the attractive business opportunities it presents, robot deployment remains highly experimental at this stage.

In the short term, the benefits will be productivity gains from automating processes that are repetitive but still require a great number of manual tasks. This will allow resources to be reallocated to higher-value activities.

Thus, sourcing robotization must be aligned with the trajectory already charted by purchasing organizations, focusing resources and capabilities to place purchasing in an advisory position to business lines.

In the medium term (five years out), when artificial-intelligence technologies and machine-learning algorithms reach greater maturity, the talent management and organizational implications will be more significant, and pose serious questions concerning the expertise needed to capitalize fully on human-robot collaborations.

Procurement leaders must work along the following lines to define an approach that ensures timely, smooth, and effective deployment of RPA technologies:

- GOALS: What can be achieved through robotics?

- POLICIES AND STANDARDS: What should robots be allowed to do, and not do?

- PROCESSES: What processes are appropriate for robotization? What processes are better candidates for outsourcing (via APIs) or end-to-end digitization.

- ROLES AND RESPONSIBILITIES: Who will be accountable for outcomes achieved through robotization? How will assessing accountability be different from the current business process owner role?

- DATA AND TECHNOLOGY: How can deployment mode, data, and technology be reconfigured to accommodate robotization on a large scale?

- RISK AND QUALITY CONTROL: What controls/security are needed to monitor and provide oversight over robots and robotic processes, and how will failures be handled?

- GOVERNANCE: What governance mechanisms are necessary to monitor investments in robotics?

CASE STUDY

THE VODAFONE PROCUREMENT COMPANY

The Vodafone Procurement Company centrally manages around €20 billion of spend every year for Vodafone businesses and partners in more than 26 countries. Its 300–plus category managers will soon be using cognitive computing to support virtually every aspect of the procurement and supply chain management process. The aim is to create the "category managers of the future," to turbo-charge decision making and to open up new business opportunities through the practice of "self-disruption."

The experimental deployment of two robots, for example, has helped Vodafone speed up the request-for-quote process. Vodafone's CPO says: "You would send in quotations to us, then we [would] seek a formal quotation; it's quite a manual process with people typing in things and converting free text orders. So we worked with software robotics guys to build a robot that could process these. That task used to take 20-plus minutes to do, and of course a team member's time. It now takes just six minutes and it's always correct."

The company used technologies from SirionLabs and Docusign to automate, smooth, and accelerate every stage of the procurement workflow. These tools do not just make processes faster, easier, and more visible, they also free up staff to focus on building relationships and delivering strategic goals, rather than chasing paperwork.

To support its journey, Vodafone created a new dedicated team tasked with driving the transformation towards a digitally driven procurement organization called Cognitive Procurement & Digital Sourcing.

KEY TAKEAWAYS

- Robotics Process Automation is a promising emergent technology, but use cases in procurement are still extremely limited, and still in the experimental stage.

- In the short term, RPA can provide cost benefits and efficiencies as retrofitted solutions on legacy processes and inadequately digitized processes, and be reinvested in proper process redesign, automation, and digitization.

- In the long term, this will enable a large reshuffling of human resources.

- Procurement organizations should adopt a clear framework when looking into RPA opportunities.