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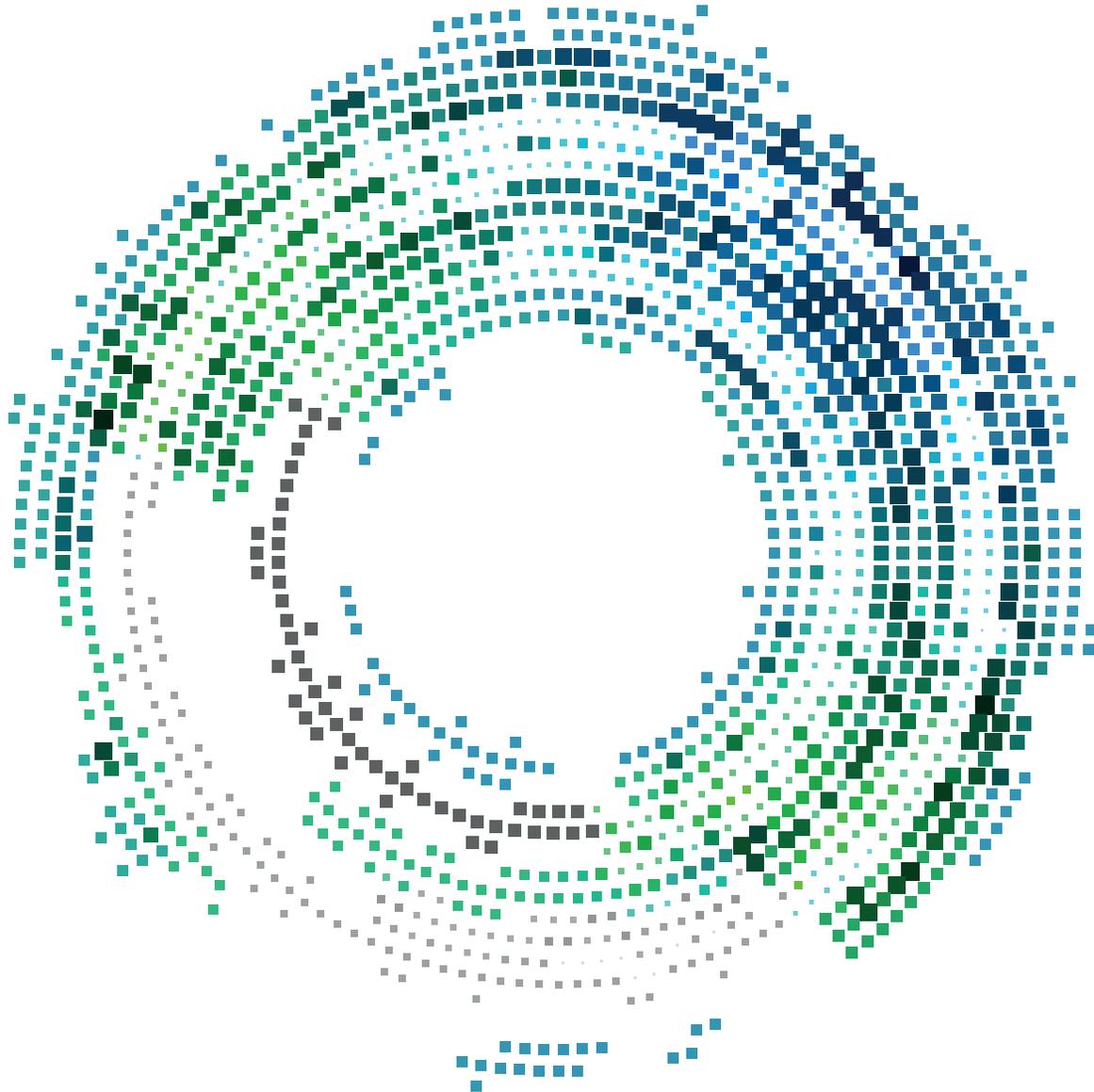
Reimagining business process reengineering in the age of automation

Process robotics and cognitive automation are accelerating the return on investment of business process reengineering (BPR) efforts

In today's complex and evolving business environment, federal agencies are increasingly being asked to do more with less. Agencies are expected to improve their performance in achieving their mission in an often resource-constrained environment. To achieve their goals, agencies need to increase their focus on restructuring their organizational environment and re-examine how they are deploying their core capabilities, activities and resources. A key component of this re-examination implies implementation of operational efficiencies. On April 12, 2017, the Office of Management and Budget (OMB) issued a memo titled, "Comprehensive Plan for Reforming the Federal Government", instructing federal organizations to rethink how they do business. Specifically, OMB directs agencies to better leverage technology and improve underlying business processes to increase efficiency and budgetary savings.

While it is highly uncommon for an organization to increase output, enhance quality, and reduce costs simultaneously, recent transformations in automation and cognitive technologies make this goal more attainable. Automation presents agencies with new choices about how to get work done, with some work becoming fully-automated, some work divided among people and machines, and some work performed by people but enhanced by machines.

In the public sector alone, automation solutions can provide savings of 1.2 billion hours per year. When automation is implemented correctly, these recovered hours can have an immense impact on the productivity and achievement of the organization.

Process robotics and cognitive technologies are already having a profound impact on

government work, with more dramatic effects to come. Artificial intelligence-based applications could potentially reduce backlogs, cut costs, overcome resource constraints, and free workers from mundane tasks. Cognitive technologies have the capacity and intelligence to handle many tasks humans cannot easily do on our own, such as predicting fraudulent transactions, identifying criminal suspects via facial recognition, and sifting millions of documents in real time for the most relevant content.

Deloitte Process Robotics

Deloitte brings process robotics to its clients in a new offering known as Deloitte Process Robotics (DPR). DPR is an innovative solution that effectively automates rules-based, repetitive processes by using software 'bots' that are deployed at the user interface layer, on physical machines, virtual machines, or through the cloud. DPR uses Robotic Process Automation (RPA) software to record actions that a human takes to complete a computer-based task, and then replicates those actions at the same security setting as the user. Bots follow prescribed protocols and procedures with precision, enabling increased compliance and minimized re-work. Furthermore, cognitive capabilities can be integrated as needed in-

between automated steps.

The role of DPR in reengineering is simple: when evaluating a process as a candidate for BPR, it is imperative to consider automation as part of the potential effort. Injecting

Typical benefits of Deloitte process robotics

- **80%** improvement in processing time
- **3-5x** improvement in throughput times
- **300%** increase in capacity
- **99.9%** increase in accuracy
- **24/7** run time
- **60-85%** reduced transactional costs by:
  - Improved compliance and control
  - Increased employee morale
  - Enhanced service levels making for happier customers

process robotics into a BPR process yields significant benefits, often immediately realized in efficiency, accuracy, and capacity. Deloitte works closely with key stakeholders to identify the processes suitable for DPR and ensure successful implementation of new processes and automated solutions as well as ensure long-term sustainment of the solution.

Robotics evaluation criteria

Processes are evaluated on 8 criteria to determine candidacy for robotics

1. Number of systems used	5. Rules based exception handling
2. Transaction volume	6. Manual work involved
3. Prone to error or rework	7. System upgrade timing
4. Process predictability	8. Controls importance

A Re-Imagined Business Process Reengineering Approach

To unlock the full potential of automation for organizations, Deloitte combines the analytical approach of BPR with a focus on where automation can have the greatest impact.

BPR is designed to fundamentally change how organizations balance their key resources (People, Process and Technology) against their most pressing business challenges, transforming the core business operations for organizations through a comprehensive, bottom-up approach.
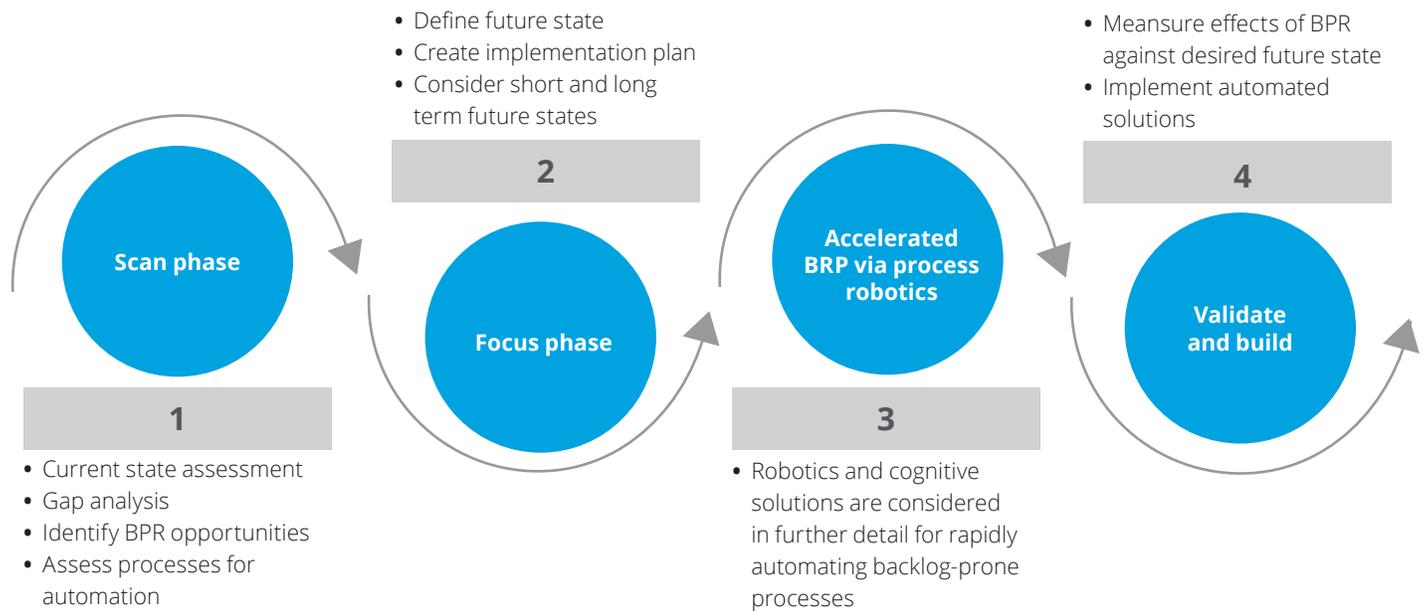
Deloitte process robotics success in government

- Deloitte is the only consultancy that has implemented robotic process automation in the federal government
- In one process robotics implementation at a large Federal Financial Services Agency, **the results were significant:**
- **4.4x** increase in daily throughput
- **30%** faster processing time
- **99.9%** accuracy
- **$9.8M** in net savings anticipated over the next 5 years
- **205% return on investment**
- **80%** of FTEs available for reallocation

Deloitte's BPR framework has been used successfully with many of our public and private sector clients. To respond to the evolving automation landscape, this framework has been "reimagined" to incorporate an additional consideration for automated solutions.

The reimagined BPR roadmap

Reimagined BPR = BPR + Process robotics + Cognitive virtual agents

- Define future state
- Create implementation plan
- Consider short and long term future states

2

- Meansure effects of BPR against desired future state
- Implement automated solutions

4

Scan phase

Focus phase

Accelerated BRP via process robotics

Validate and build

1

- Current state assessment
- Gap analysis
- Identify BPR opportunities
- Assess processes for automation

3

- Robotics and cognitive solutions are considered in further detail for rapidly automating backlog-prone processes

The Reimagined BPR process has 4 phases:

1. Scan Phase

BPR begins with the Scan Phase, whose purpose is to understand the drivers behind the BPR effort. This phase includes current state assessments, gap analysis, and identification of improvement opportunities. Opportunities for automation are considered in this step.

2. Focus Phase

Next is the Focus Phase, which defines future state processes and includes the development of the implementation plan. Several short-term and long-term future states are considered. After the Focus Phase is complete, the processes are evaluated and scored for suitability for automation.

3. Accelerated BPR via Process Robotics

This phase, Accelerated BPR via Process Robotics, provides insight into how much potential exists for the organization to utilize process robotics and cognitive automation to modernize their core business operations.

4. Validate and Build Phase

Lastly, the Validate and Build Phase examines how well BPR efforts achieve the desired benefit and encourages the search for further improvement.

BPR is not a new concept – the government and businesses alike have been using BPR for decades. The pivotal challenge with the reengineering aspect of BPR has been on the implementation side, requiring a significant change management commitment to implement. However, the exponential advancements in automation have made unlocking new ways for enabling rapid, large-scale organizational change. Automation, combined with BPR, offers the unique ability to significantly accelerate the reengineering timeline to rapidly realize the return on investment from BPR efforts.

Key success factors

Critical to the implementation of DPR is the ability to overcome the fear of robotics. The term "robotics" often conjures images of malevolent machines bent on humanity's destruction. Others may interpret robotics as a tool to embark on a race to the bottom

for labor costs, with the human employees left out of the equation. It is important for an organization's management and staff to cast aside their preconceived notions of what robotics is, and consider the awe-inspiring potential that this transformative technology brings. Process robotics offers a tool for employees to focus on what really matters for their agency, not the routine admin work asked of them. Process robotics can allow management to achieve the lofty goals of their agency within the budget allotted to them.

When implementing process robotics, organizations must remain cognizant of the goals and objectives of the BPR + process robotics initiative. To stay focused on the benefits of automation, a strong change management plan must be devised and convincingly implemented. Any change within an organization will require transparency and open lines of communication, and robotics implementations rely heavily on effective change management agents to be successful.

In Summary

Deloitte Process Robotics is a game changer in the federal government, allowing agencies to close the delta between access to resources and the lofty expectations placed on customer service from the citizens and internal employees. When process robotics and cognitive automation capabilities are combined with BPR, immense value can be unleashed, scaling human expertise while ensuring cost reductions and enhancing customer experience. Robotics and automation significantly accelerate the implementation of the improvements identified through BPR, which amplifies and expedites an organization's return on investment.

Deloitte has brought process robotics to many public and private sector clients with great success. The Deloitte team is eager to support you and your organization as you consider your next big shift. Please feel free to contact the individuals named in this paper to learn more about process robotics and how it can support your business.

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