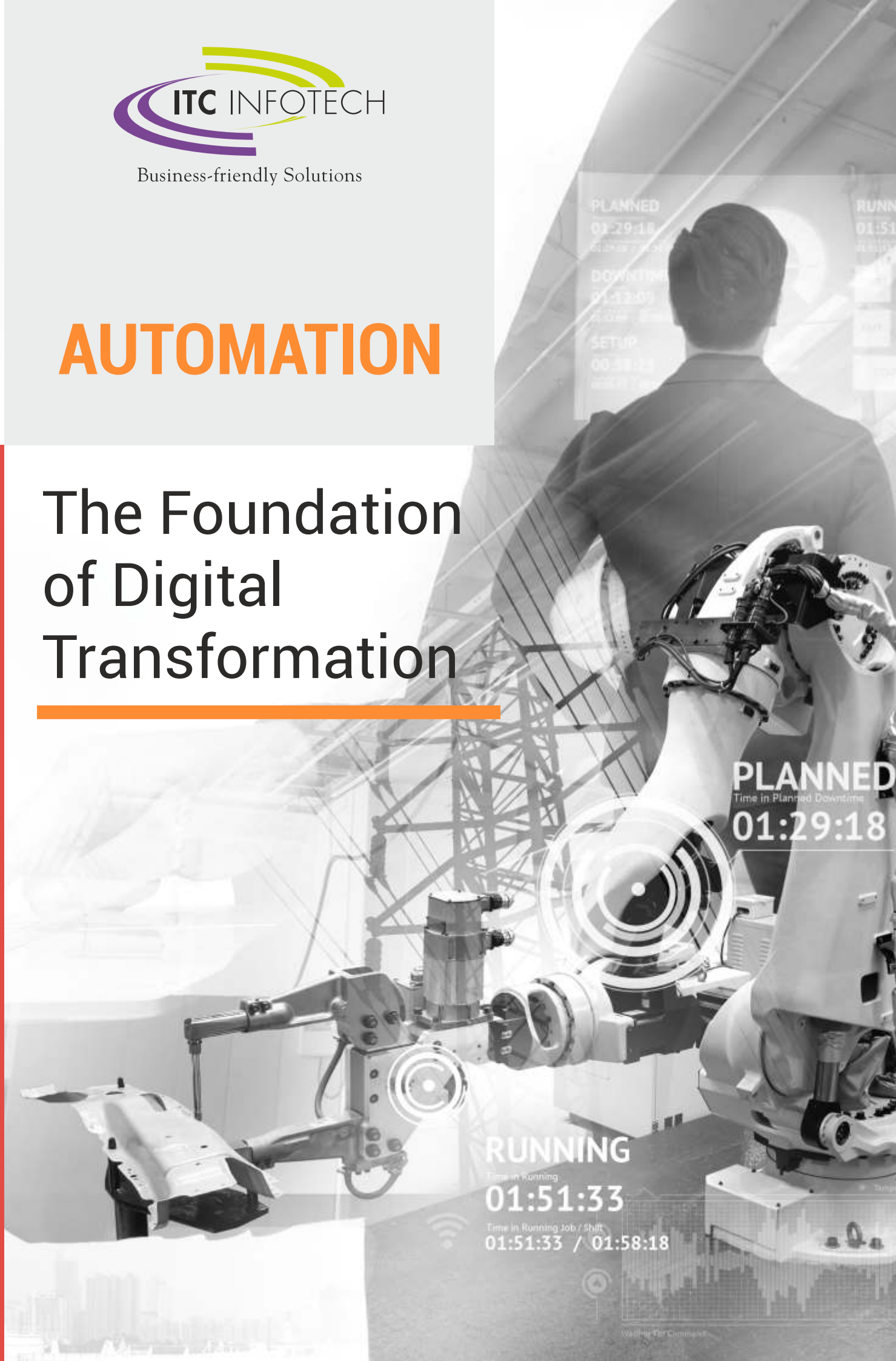
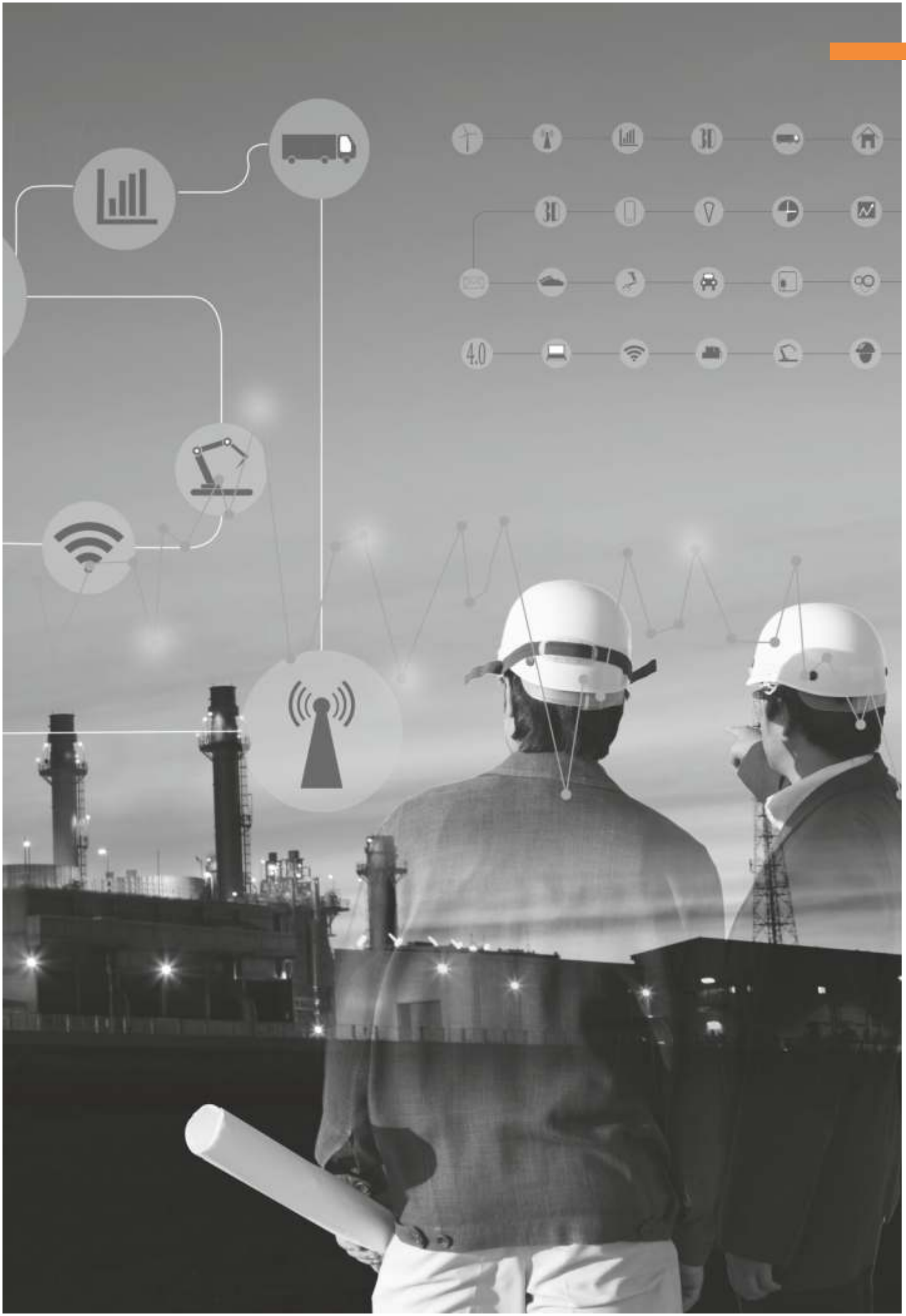
ITC INFOTECH

Business-friendly Solutions

AUTOMATION

The Foundation of Digital Transformation




4.0

Executive Summary

Automation is foundational to the digital transformation strategy of an enterprise.

Traditional automation is expensive, and requires considerable amount of time, manpower, effort and integration at lower levels. RPA, on the other hand, is emerging as a viable and non-invasive alternative, as it is largely configured to mimic the actions of end users sole application development.

ITC Infotech's framework for automation visualizes the automation journey as a pyramid consisting of many stagesem -

- Tasks, Workflows and Business Processes
- Standardization and Optimization
- Automation
- Digitization

We have advocated a systematic process to embark on your automation journey by describing several steps to identify, assess, measure and start working on to realize the benefits of automation. We have also identified several candidate areas fit for automation based on our analysis and engagements across industries.

This whitepaper describes the framework by ITC Infotech to measure the cost/effort/ROI involved. ITC Infotech's automation framework is an Excel-driven worksheet that considers the assets you have, whether they are automation ready or not, and provides measures for hard and soft ROIs.

Real value of automation is realized by extending its applicability to service delivery and technology simplification, thus improving customer experience significantly. Attended automation capability at customer interaction and touch-points has the potential to boost customer satisfaction to much higher levels.

It's never too late to start automating not doing so will leave you behind in the digital dust.

Introduction

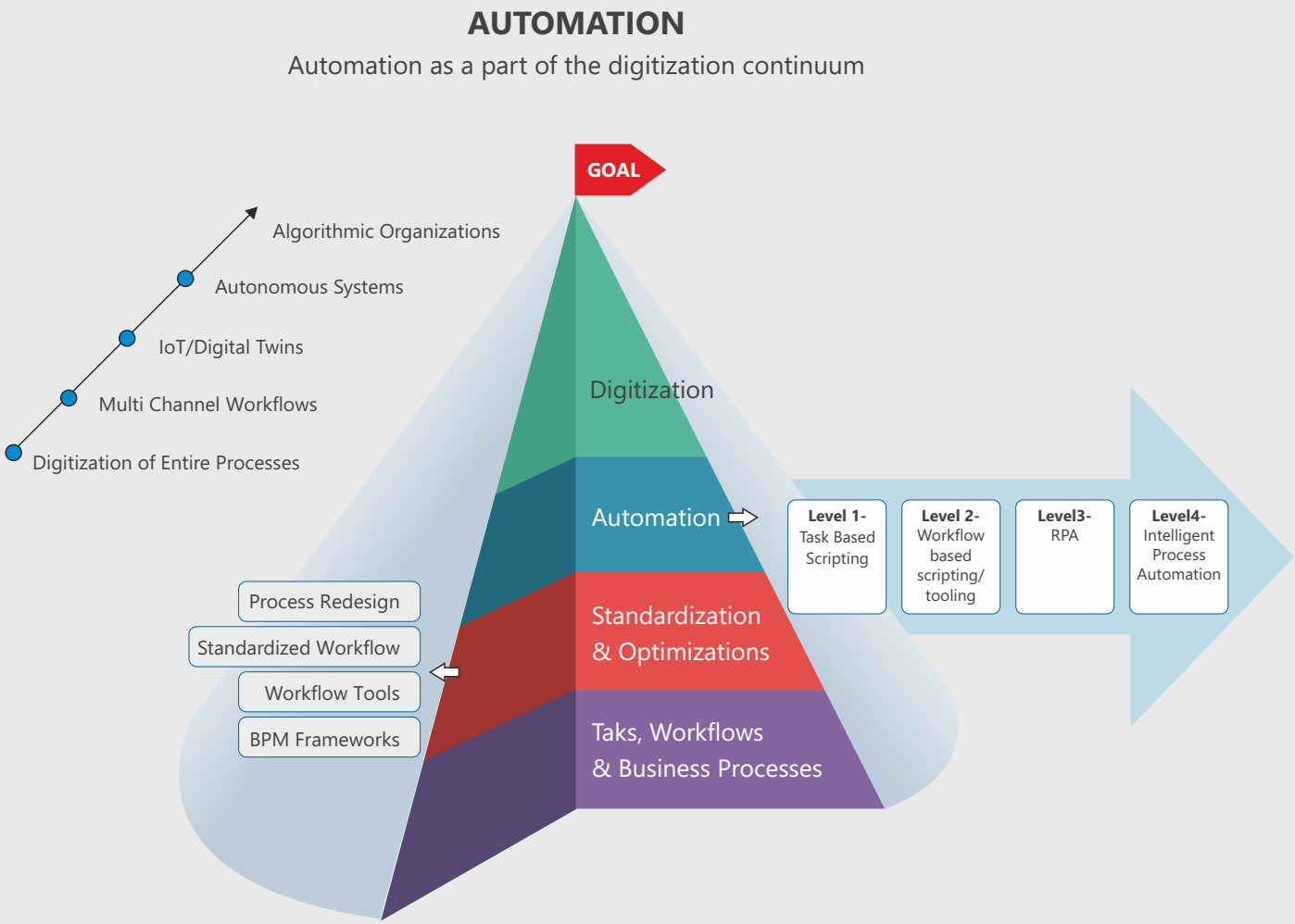
Traditionally, automation has been associated only with back-office processes with considerable system integration efforts. Robotic Process Automation (RPA), on the other hand, is non-invasive and mimics the actions of an end user at the user interface level. RPA is getting more sophisticated nowadays and Cognitive RPA powered by AI, ML & Analytics gives organizations a clear competitive advantage by significantly improving operational efficiency and cost savings. RPA can be leveraged in both core and support functions for better value realization. It is critical for RPA to be a strategic initiative for a successful transformation.

Define Your Automation Objectives

The very first step in your automation journey is to define the objectives of automation in an enterprise.

- Improve operational efficiency and capacity
- Reduce rework and incidence of human errors
- Cost reduction
- Improved customer service SLA
- Enhanced customer experience

Deconstructing Automation



Stepping back a little, we can deconstruct automation by visualizing it as a pyramid consisting of the following stages or steps:

Tasks, Workflows and Business Processes

Identify repetitive or standard tasks that work mostly on structured data and have few exceptions. Analyze the systems that help the human user to perform these tasks, and determine if there is a potential to automate the same.

Standardization and Optimization

It is important to realize that automation does not optimize or improve an inefficient process. However, standardizing and optimizing your business processes will go a long way in helping to automate the same. Your automation rules and program will get simpler, and the outcomes will be more predictable if your underlying processes are optimized.

Automation

Now that you have identified your tasks and processes and hopefully standardized and optimized the same, you are ready to embark on the actual process of automation.

One can initially start with small script-based automation (for instance, a simple macro for performing data entry) and then proceed to automate an entire service. For example, automating an accounts payable process in the F&A department. The various maturity levels of automation in increasing order of sophistication will be described below

Digitization

This is the final state where all or most of your processes are digitized. Digitization can be viewed as a continuum consisting of 5 levels as shown in the pyramid above.

- Digitization of Entire Processes
- Multi-Channel Workflows
- IOT/Digital Twins
- Autonomous Systems

At the final level, algorithmic organizations will not need human intervention at all!

Maturity Levels of Automation

- **Simple Task-Based Scripting** - These are simple ad hoc tasks or macros that are automated without considering the implication of the entire business process.
- **Workflow-Based Scripting** - This builds on the previous stage wherein you consider the entire business process and look at automating it as a whole.
- **RPA, Robotic Process Automation** - By definition, RPA is a software code that runs virtual workforce (robots) for process operation. RPA processes rules-based, structured data through the user interface of the robotic software that supports the process. Examples would include repetitive data entry functions. This technology aims at automating processes without changing, replacing, compromising or adding maintenance overhead onto existing applications. RPA is non-intrusive and non-invasive from a systems/IT/technical perspective.
- **Intelligent Process Automation -** In this stage, we aim to improve automation through AI and ML. This involves self-learning, wherein the automated processes can handle exceptions and move beyond the structured data.

Where Do I Start?

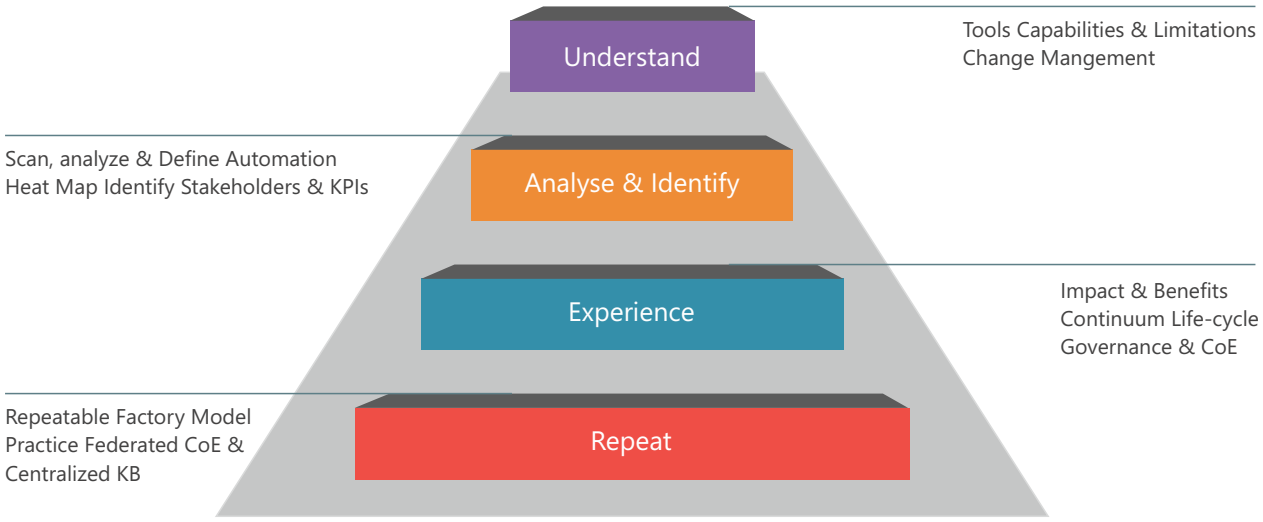
As with any major initiative, it is crucial to have an 'Enterprise Automation Plan' before starting implementation.

Pre-Requisites:

Set up Automation CoE with Following Key Roles:

- **Sponsor –** Business owner driving the initiative
- **Champion –** Evangelizing automation as the core transformation strategy across the organization
- **Change Owner –** Defines new working model with automation as the core of digital transformation
- **Process Expert –** Re-engineer, optimize and standardize processes
- **RPA Strategist –** Responsible for process fitment analysis for automation

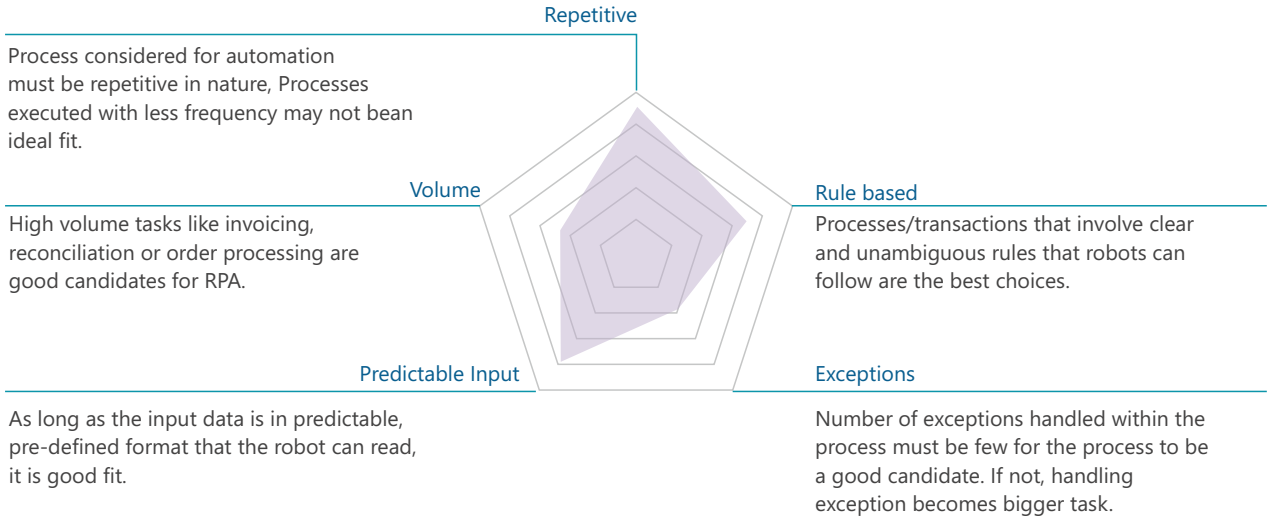
Enterprise Automation Journey:



- Identify your key drivers for needing to automate and define your desired outcomes or goals.
- Scan the associated processes and create a process map
- Automation fitment analysis
- Determine the baseline metrics
- Define and implement required policy changes
- Standardize and optimize your processes
- Measure metrics after automation, monitor and automate continuum to be up-to-date

After identifying your goals for automation, the next important step is to identify the specific processes that can be automated.

Identifying candidate processes for automation are depicted below:



Repetitive, rule-based tasks with structured/predictable data are very good candidates for automation.

Once identified and the automation process has begun, it is very important to measure the outcomes and compare the metrics before and after automation. The entire process must be repeated and monitored. It is naive to consider this as a one-time setup.

Common Use Cases for Automation

INFRASTRUCTURE
- Service desk
- Infra provisioning
- Monitoring
- Network configuration & optimization
- Cloud provisioning & management
- Workload automation
- Patching
- Audits
- Service orchestration

INTERNAL SUPPORT FUNCTIONS
- HR processes/queries
- On boarding/ off-boarding
- Finance processes
- IT support
- Facilities support

TESTING
- Functional/ non-functional
- Simulation
- Test data management
- Cross browser/platform /device

RELEASE AND DEPLOYMENT
- DevOps
- Automated code reviews
- Configuration management
- Provisioning
- Deployment

APPLICATION SUPPORT
- Application monitoring
- Level 2 support
- Objective analysis and diagnosis
- Patching

ITC Infotech's Automation Framework

ITC Infotech's automation framework is an Excel-driven worksheet that will force you to think critically about the assets you have, what their state is with respect to automation and whether those associated processes are repeatable and deal with few exceptions. A sample is shown below.

		Choose from the drop downs
Are you ready for Automation?	Do you deal with routine tasks that are repeated regularly? For example, think of your PMO, business HR's task or other tasks performed repeatedly in your unit.	Yes
	Do the routine tasks deal with mostly structured data? Exception cases are infrequent.	25-50% structured
	Do you have an expert(s) who has a clear understanding of all your business processes? Even if the knowledge is with multiple people, would you be able to collate all the knowledge within your teams?	Yes

		Choose from the drop downs 1 = lowest/least important, 5 = highest/most important)
Assess benefits of Automation - Soft ROI	Knowledge Management: Automation forces you to put down in writing what usually resides only in people's memory.	4
	Reduced training and meeting needs.	3

		Calculate using assumptions
Assess benefits of Automation - Hard ROI	Headcount reduction per year.	
	Time savings per year (for one employee) e.g.) TIME (in hours spent on a task) * FREQUENCY (of performing tasks per month) * 12 Months	3*20*12= 720 hours

Conclusion

The adoption of automation technologies especially RPA will increase significantly in the coming years, across a wide range of industries. The automation software industry is currently witnessing heavy investments in technology. Various vendors are experimenting with AI & ML enabled automation where the tooling is still in a nascent stage and yet to be tried and tested for cognitive automation capabilities.

There are significant opportunities for automation for true value realization and operational efficiency for organizations of any reasonable size. Start with standardized rule based systems that mostly deal with structured data and identify opportunities for automating such processes. It's never too late to start automating ; doing so will leave you behind in the digital dust.

About ITC Infotech

ITC Infotech is a specialized global full service technology solutions provider, led by Business and Technology Consulting. ITC Infotech's Digitaligence@work infuses technology with domain, data, design, and differentiated delivery to significantly enhance experience and efficiency, enabling its clients differentiate and disrupt the business.

The company caters to enterprises in Supply Chain based industries (CPG, Retail, Manufacturing, Hi-Tech) and Services (Banking, Financial Services and Insurance, Airline, Hospitality) through a combination of traditional and newer business models, as a long-term sustainable partner.

ITC Infotech is a fully-owned subsidiary of ITC Ltd, one of India's foremost private sector companies and a diversified conglomerate.

www.itcinfotech.com | Email: contact.us@itcinfotech.com